Too many ups and downs in US treasuries

John Wraith of The Royal Bank of Scotland asks if US treasuries are still a valid benchmark for corporate bonds and interest rate swaps.

Historically, US dollar-denominated interest rate products have been assessed by looking at their yields relative to that of US government treasury bonds. This gave a clear picture as to the risk premium of these products, as compared to the risk-free, fully liquid yield on government debt. Both hedges and trading positions could be put in place using treasuries to create a credit/relative risk instrument that was immune from the overall market direction; buying corporate paper and selling a treasury of similar maturity against it exposes traders to the risk premium on that corporate bond. If the bond outperforms treasuries, the spread will narrow (the risk premium will fall as the relative creditworthiness of the corporate improves) and the trade will make a profit.

However, for this scenario to be valid, and for the trader of corporate bonds – or the hedger of interest rate swaps – to be able to rely on the relationship between treasuries and swaps or corporate bonds, there needs to be a reliable level of liquidity in the instruments. In the case of treasuries, if their yields are to accurately reflect the risk-free rate of return, there must be no supply constraints distorting this rate. With the buyback programme announced by the treasury, this is no longer the case; long-end treasury yields are therefore no longer a reliable indicator of government risk. They are hugely and increasingly influenced by the amount of paper institutions are required to hold, which means there simply are not enough bonds around, and as a result they are trading away from economic fundamentals.

To use them as a hedge, therefore, is to be exposed to unpredictable announcements concerning buybacks, and the additional volatility that naturally occurs with illiquid instruments.

> As liquidity dries up in US treasuries, so they will become increasingly volatile, and their yields will no longer reflect the underlying economic fundamentals

The following numbers give an idea of just how dramatic this decrease in supply is likely to be. With the treasury last year buying back around $100bn of notes and bonds, outstanding government debt fell to around $3.5trn. This figure is expected to fall to $2trn by 2005, and below $1trn within 10 years. With much of this compulsorily held by US and other institutions, the illiquidity situation, already strongly affecting longer end yields, is set to become a great deal worse.

John Wraith

The impact of diminishing treasury supply

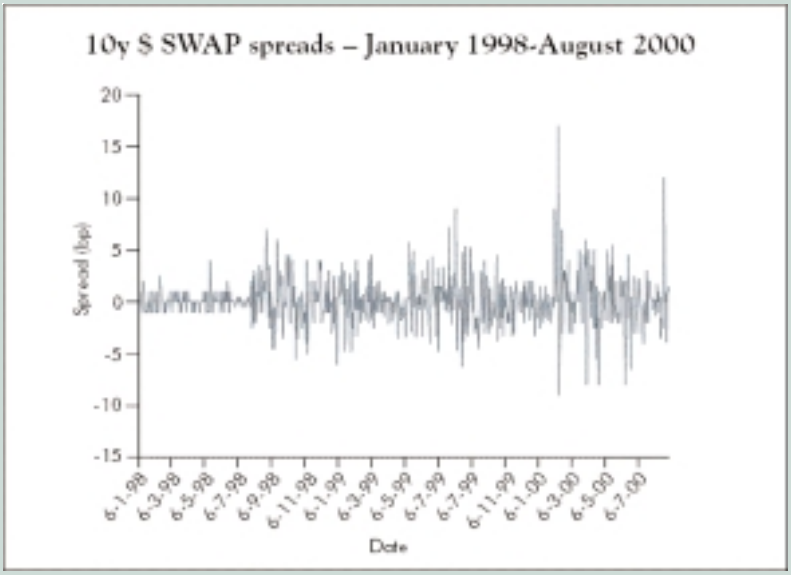
The impact on spreads and volatility can be clearly illustrated by Figure 1. It shows the daily fluctuation in 10-year dollar swap spreads between the beginning of 1998 and June 2000. The chart is clearly split into three separate sections – the first covers the eight months from January to August 1998. During this period, spreads fluctuated by an average of 0.65bp per day, with the biggest daily move being 4bp.

With the advent of the Russian and Latin American financial crises of Autumn 1998, there was a big pick up in volatility, with spreads between August 1998 and January 2000 averaging 1.75bp movement each day, with a maximum of 9bp. This in itself led to questions concerning the suitability of treasuries as a hedging instrument, but with the financial crisis affecting all the world's markets, there was no alternative.

From the beginning of 2000, an even greater problem emerged. Following the treasury's surprisingly large buyback targets announced at the beginning of the year, liquidity problems began to bite, with the daily average move in 10-year spreads increasing to 2.2bp per day, with moves of over 5bp becoming fairly regular, and seeing a 17bp move in a single day.

There must come a point when the lack of correlation in the above relationship leads to the conclusion that treasuries are no longer a safe hedging tool – their yield is affected by factors which do not affect the instruments they are being used to hedge, and therefore by definition the relationship between them becomes unpredictable. One of the

FIGURE 1



necessary factors for an instrument to be used as a reliable benchmark is liquidity – as that liquidity dries up in US treasuries, so they will become increasingly volatile, and their yields will no longer reflect the underlying economic fundamentals.

Alternative hedging tools

If treasuries are considered to be an unreliable hedge, what alternatives are open to holders of corporate debt who do not want to simply run an open position? One possibility is agency debt. As fast as the government is redeeming its debt, so Fannie Mae (FNMA) and Freddie Mac (FMAC) are issuing more. The amount of outstanding debt that they own or guarantee currently stands at around $1.4trn, including $268bn issued last year. Current projections suggest that the agencies will overtake the US government as the largest issuer of debt by the year 2007. This being the case, agency bonds will become more liquid than government debt sooner rather than later.

However, there still remain some questions that may mean that agency debt is not ideal as a new benchmark. There have been recent questions concerning the way 'Fannie Mae' and 'Freddie Mac' use their preferential status to undercut competitors in the mortgage market. With the implicit guarantee of the US government, they are able to borrow much more cheaply than others, and therefore lend more cheaply to mortgage borrowers on the other side. This implicit guarantee has recently been questioned strongly by both representatives and treasury members, and even if the prospect of it being removed remains a distant one, it may affect demand for their paper.

Also, the government guarantee is only an implicit one, and there may well be certain institutions that do not have the credit appetite to use agency paper as a hedge for large volumes of corporate paper. Should there be any shock in the US mortgage market, the implications for FNMA and FMAC may result in a far more severe marking down of their bonds than could ever happen with treasuries, and any institution holding large quantities of agency paper could suffer huge P&L swings.

The second alternative, the one which seems increasingly likely to become the new benchmark, is interest rate swaps themselves. While swaps have historically been tracked as spreads over the underlying government bonds, there is no particular reason why this should be the case. The swap rate for any given period at any given time is simply the rate at which demand meets supply, and due to the derivative nature of interest rate swaps, both demand and supply are relatively infinite. Herein lies the attraction of swaps – they will not suffer the same liquidity problems as treasuries because the market has no finite size.

> Long-end treasury yields are no longer a reliable indicator of government risk

While a liquid government bond curve is undoubtedly the truest reflection of risk-free interest rates, the supply distortion already discussed means this no longer applies in the US; the truest curve may therefore be said to be the swaps curve. There is undoubtedly more risk inherent in the underlying market, but many people already benchmark corporate bonds to this curve (in the form of asset swaps and FRNs). Credit traders and other market participants need to adjust their assessment of corporate debt to compare it to the level of interbank (Libor) rates that comprise swaps curves, and then trade the corporate debt accordingly. Once this adjustment has been made, it will allow for more accurate, liquid position taking than using treasuries, and will avoid the problems that undoubtedly lie ahead as the US government continues to buy back its debt.

Unpredictable trends

The practice of buying fixed rate corporate paper and selling treasuries against it to take a view on the spread over governments is now fraught with danger, and will become increasingly invalid as a credit play as treasuries become ever more illiquid. The exposure that was historically purely a credit factor is now additionally affected by uncontrollable supply and demand factors. This, in time, will make such trades too volatile and unpredictable to manage.

By buying or selling fixed rate corporate debt and asset swapping it, traders and investors will lock in a spread over or under Libor which will reflect far more accurately the creditworthiness of the issue/issuer – albeit it a spread against swaps rather than risk free government debt. The derivative nature of swaps will then ensure liquid demand and supply, allowing any changes in this creditworthiness to be accurately reflected in the Libor spread. This will cut out the illiquidity inherent in treasury bonds and will reduce the risk of factors outside the traders' control adversely affecting positions. ■

John Wraith is Interest Rate Derivative Trader at The Royal Bank of Scotland.