



# PANORAMIC OUTLOOK

MATTHEW RUSSELL, DEPUTY FUND MANAGER – THE POWER OF DURATION

Market reaction to Federal Reserve Chairman Ben Bernanke's comments about how the bank might start to discuss tapering its quantitative easing programme later this year has rightly led investors to question their asset allocation decisions. For those investors who want or need exposure to fixed income assets, the effect of higher yields is a particular concern. In today's environment it is especially important that fixed income investors fully understand what poses perhaps their biggest risk – duration.

The most frequently used indicator of duration is interest rate duration, which measures the sensitivity of a bond's price to changes in interest rates. A slightly less well-known measure is credit spread duration, which measures a bond's sensitivity to a move in credit spreads rather than interest rates.

This distinction is important, as funds with the same headline duration may behave differently depending on which assets contribute to their duration. A gilt fund with the same duration as an investment grade bond fund will have a very different return profile if, for example, credit spreads and interest rate yields move in opposite directions.

## THE BOND 'MASSACRE' OF 1994

The US experience of 1994 provides both an empirical example of such a situation and a lesson on portfolio positioning in the event of similar conditions. This bond market 'massacre' took place against a backdrop of multi-generational low interest rates, a housing market recovery and an economy showing some signs of getting back on its feet – one that closely resembles the US, and to a lesser extent the UK, today.

In February 1994, the Fed Funds rate had been on hold at an historically low rate of 3% for 17 months (see Figure 1), in order to support the economy through the recession that followed the Savings and Loan Crisis. By this stage, the housing market was recovering, wage inflation was under control and the wider economy was slowly gathering strength.

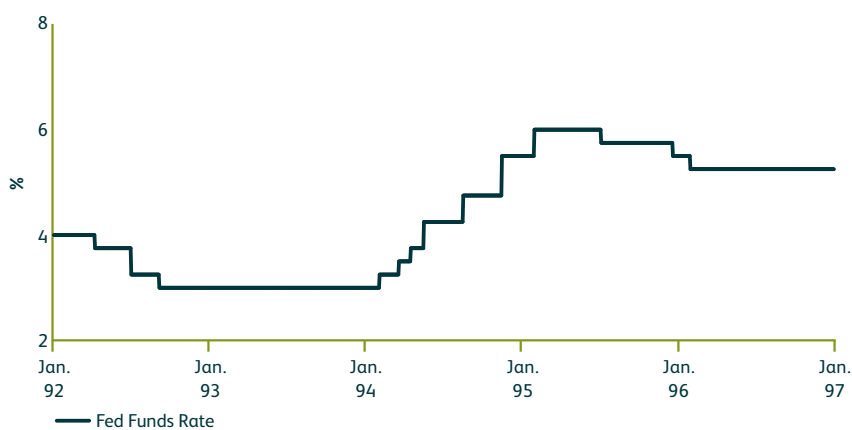
In response to this improving domestic picture and to rising prices in the commodity markets, the Federal Reserve – under Chairman Alan Greenspan – voted to increase the Fed Funds rate by



25 basis points. This was followed with hikes of 25 basis points at the end of March and April, 50-basis-point increases in May and August, and a final 75-basis-point increase in November. At the end of 1994, the Fed Funds rate stood at 5.5% and Fortune magazine was reporting bondholder losses of over \$1 trillion.

The major cause of such sizeable losses was the carry trade. With short-term borrowing rates at around 3% and 30-year Treasuries yielding about 6%, many market participants were borrowing short and lending long to take advantage of the extra spread. But the crucial element that most investors seem to have missed was duration. By investing heavily in long-dated bonds, investors were really placing a massive bet that yields would fall or at best remain the same. With the luxury of hindsight, having such highly leveraged exposure to 30-year Treasuries – and their

Figure 1. The Fed began tightening monetary policy in February 1994



Source: Bloomberg, July 2013.



continued on next page

associated interest rate duration – seems a little short-sighted.

While interest rate duration clearly hurt investors in the first half of 1994, the second half showed the benefits that credit spread duration can bring in an improving economic environment.

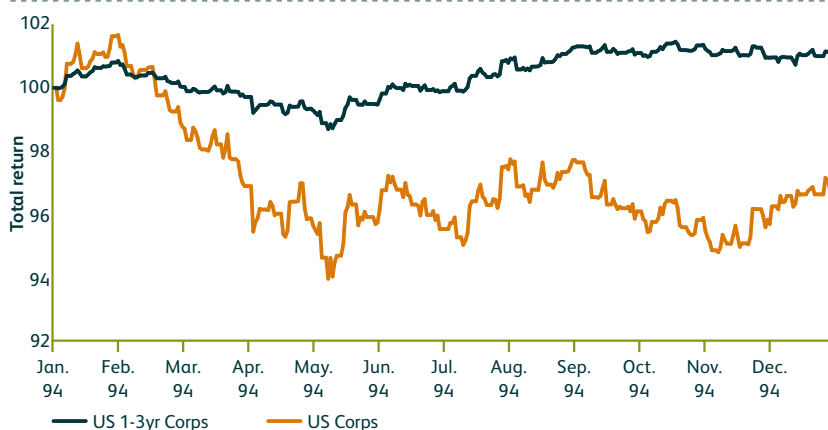
As Figures 1 and 2 both demonstrate, while the Fed's rate hikes were only a third complete by May, the market had already reached its lowest point. But during the rest of the year – in which interest rates rose a further 1.75% – increasing confidence in the economic recovery meant that the rate rises had less of an impact on corporate bond yields. Instead, the associated spread tightening brought about by the economic recovery proved highly positive for credit. While the asset class suffered a few setbacks along the way, by the end of the year, investment grade credit delivered total returns of around 3% from its May lows.

## HISTORY IN ACTION

In reality, the 'Great Bond Massacre' was not that much of a bloodbath. As Figure 2 shows, US investment grade credit lost just 3% over the course of 1994. While this was hardly pleasant, it is perhaps unworthy of its more gruesome reputation.

Extending the observation period by one year either side of 1994 delivers returns that look much brighter. As Figure 3 shows, both 1993 and 1995 were great years for credit, along with US Treasuries and equities. Even for an investor who bought

**Figure 2. Short-dated corporate bonds delivered a positive return in 1994**



Source: Bloomberg, ML indices, July 2013.

US investment grade credit at the start of 1994 – arguably the worst time to invest in the asset class that decade – if they were able to live with the volatility, then by the end of 1995 their portfolio would have delivered a healthy return of over 18%.

One key difference between the experience of 1994 and the situation today is that bonds in the 1990s paid higher coupons than they do now. The BofA Merrill Lynch US Corporate Index, for instance, has an average coupon today of just under 5%, compared to slightly over 8% in February 1994. The higher coupon level would have helped cushion total returns from the capital value losses caused by the impact of higher rates.

Another difference is the amount of leverage in the system. In the 1990s, banks had the strength, ability and desire

to lend to clients on margin. In today's post financial crisis world, banks are weaker and face both higher capital requirements and greater regulatory intrusion – with the result that there is less leverage. The extent to which these two factors may affect both total returns and the scale of a future sell-off remains to be seen.

## DISSECTING DURATION

As the above analysis has shown, in an environment similar to 1994 investors should be nervous of rising yields but more positive on credit, as improving economic conditions will help the corporate sector.

In such circumstances, therefore, it makes sense for active bond fund managers to gain exposure to spread duration while limiting or eliminating interest rate duration. There are a number of ways for them to do so:

- **Short-dated corporate bonds** by their very nature have a low level of interest rate duration whilst providing exposure to credit spreads.
- **Floating rate notes**, whose coupon is adjusted periodically with reference to the prevailing interest rate (usually 3-month LIBOR), consist almost entirely of spread duration. As rates rise, so do coupons. The only interest rate risk that investors run is to the next coupon reset date. (See box for more detail.)

**Figure 3. Selected US asset class returns between 1993-1995**

| Date      | Treasuries | Corporates | Short-dated corporates | High yield | Equities |
|-----------|------------|------------|------------------------|------------|----------|
| 1993      | +10.6%     | +12.4%     | +7.1%                  | +16.7%     | +10.1%   |
| 1994      | -3.4%      | -3.3%      | +1.2%                  | -1.0%      | +1.3%    |
| 1995      | +18.5%     | +21.6%     | +11.7%                 | +20.5%     | +37.6%   |
| 1993-1995 | +25.7%     | +30.6%     | +20.0%                 | +36.1%     | +49.0%   |
| 1994-1995 | +15.1%     | +18.2%     | +12.9%                 | +19.4%     | +38.9%   |

Source: Bloomberg, ML indices, S&P500 Index, July 2013.

continued on next page

- Selling protection on a company through **credit default swaps (CDS)** generates spread duration without rate duration as the value of an investment is determined by movements in credit spreads.
- Investors can also sell **bond futures** to reduce their headline duration, although they need to be wary of yield curve mismatches. Unless changes are consistent along the yield curve, selling a 10-year bond future, for example, will not provide an effective hedge against movements elsewhere on the curve.

Figure 2 demonstrates the power of lower interest rate exposure in an environment of rising yields and an improving economy. In 1994, the short-dated (1-3 years) version of the Merrill Lynch US Corporate Index outperformed its longer dated sister index by 4%. While detailed data on the indices' duration from that time are hard to come by, today's 1-3 year index has a duration of around 2 years, while the corporate bond index has a duration of just under 7 years – probably not too different to those back in the 1990s. As the chart shows, the short duration index managed to generate positive returns even in 1994's rising yield environment.

## LESSONS FOR TODAY

There are undoubtedly many reasons to worry about the strength of the global economy at present. However, this should not distract investors from the improving US outlook and the potential for tighter monetary policy that this brings. If this unfolds, investors' duration exposures will prove key.

While the trigger for the market sell-off in 1994 was the Federal Reserve's initial interest rate hike, the situation today is very different. Part of Ben Bernanke's

## THE ANATOMY OF AN FRN

A floating rate note (FRN) is a bond whose coupon is reset periodically (usually quarterly) at a fixed spread over a reference interest rate, typically 3-month LIBOR. The benefit of owning such an instrument is its lack of any significant interest rate risk – FRNs have a duration of close to zero. In fact, unlike conventional, fixed coupon bonds, they actually benefit from higher interest rates because as LIBOR rises so does the coupon. The only interest rate risk an investor bears is between reset dates.

Here is a simple example:

Company X issues a sterling 5-year FRN with a coupon of sterling 3-month LIBOR + 100 basis points. If, at the time of issue, LIBOR is 50 basis points, the bond will pay a coupon of 1.5% for the first three months of its life.

If LIBOR rises to 1.5% over the three months from issue, the coupon will increase to 2.5% at the first reset date. This process continues every three months over the course of the FRN's five-year life until maturity.

As this demonstrates, the adjustable-rate feature of corporate FRNs allows investors to all but eliminate interest rate risk, whilst exposing them to and paying them for credit risk.

legacy as Federal Reserve chairman will have been to foster greater openness between it and the market. This has led to the market reacting to changes in the tone and language of communications ahead of actual policy decisions. As a result, the market sell-off will begin in advance of any rate rise – as highlighted by June's spike in Treasury yields at the mere mention that the Fed may start to think about reducing the amount of bonds it buys from the market.

So are rates in the US, eurozone or the UK going up soon? It seems unlikely – while growth is recovering in the US, there are still too many people out of work in the developed world for policymakers to remove the supply of liquidity just yet.

Markets will be watching the data and listening to Bernanke and other central bankers very closely. Any change in rhetoric, or signs of strong job creation, and bond yields will end their extraordinary ride down to record lows.

The experience of 1994 provides a salutary lesson on what can happen in an environment of rising bond yields and on the importance of closely managing interest rate duration. Short dated corporate bonds are a useful way to keep interest rate duration low. In the current environment, we will also look for opportunities to add credit spread duration in geographies, industries and companies that we think are likely to benefit from an improving economic picture.

