The crash in global bond yields

16 August 2016

Summary and Actions

- After falling for a number of years, global bond yields have seen yet another big decline.
- With short duration yields already near zero, the yield collapse has been stronger at longer durations, flattening yield curves markedly.
- Longer-term drivers behind lower yields are to do with bond-friendly macroeconomic and regulatory conditions.
- The recent yield collapse reflects a big ramp up in central bank bond buying which is overwhelming bond markets.
- Yields can very easily fall much further, especially in those markets still carrying a semblance of yield at longer durations.
- That said, there is now some prospect of yields showing a ‘snapback’ after this recent crash. Yields may be overdoing economic pessimism, and a large negative duration premium risks a move by governments to use fiscal instead of monetary stimulus.
- The implications for hedging need to keep context. Interest rate risk uncertainty is high. Since hedging is much more about managing risk than return, any underweight to hedging needs to be sized to manage this risk.
- For those with low hedge ratios, this should be seen as presenting a good opportunity to be adding to hedges. For those already fully hedged, there may be a tactical opportunity to reduce hedging, though only at the margin.

The global bond yield crash

Bond yields have sunk everywhere in the past year. The UK’s Brexit decision has caused yields to fall further and faster in the past few weeks, but a quick look at global market moves over the past year shows how much the major sovereign markets have had in common (see chart). Since shorter duration yields were already very low, the big bond yield crash has been mainly felt in longer durations, flattening yield curves (see chart). That ‘upward sloping yield curve’ we have seen since short term interest rates moved to near zero levels has been flattening fast (see chart below).

Taking the long view

Taking the long view on bond yields, these falls are hardly new. Yields have been on the decline for decades, resembling a set of serial crashes, with only the occasional reprieve. There are two sets of drivers, one operating longer-term, and one that reflects more recent developments.

Thinking longer-term, there are two important drivers of lower global bond yields:

- Relatively weak economic conditions have encouraged lower interest rates (typically measured in real after inflation terms). Very noticeable after the financial crisis has been a pronounced weakness in fixed investment. At a high level, long-term interest rates are the price which brings savings into line with investment. With investment having been weak, a pronounced ‘savings glut’ has
The global bond yield crash resulted, which depresses long term interest rates.

- A second factor, which dates from the financial crisis, is regulatory change which has boosted demand for government bonds.

The transmission from these macroeconomic conditions and the impact of regulatory change on to bond yields is discussed in an appendix to this note (see pages 5 and 6).

What’s different this time?
The most recent episode of the collapse in yields, which is about a year old, is, in fact, partly a continuation of these earlier trends. Economic conditions are broadly unchanged, i.e. relatively weak, everywhere. Regulatory demand for bonds even at such low yields is strong among banks, insurance companies and pension funds.

To that, we need to add a key new driver over the past year, the step up in central bank purchases. This has been a huge influence. As always, we should treat the global capital market as well integrated, and it does not matter too much which major central banks is buying. The Federal Reserve dominated in 2011-14, but now the European Central Bank, Bank of Japan, and the Bank of England are the new Federal Reserve. On Morgan Stanley’s numbers (chart below) central bank bond purchases in 2016-17 will approach the bumper QE proportions of 2011-12, running at well over $1 trillion annually, when a similar collapse in government bonds last occurred.

More than central bank buying
Though the US Federal Reserve has not bought bonds recently, its signals have also helped bring yields down in the past year. As well known, it has been serially optimistic on US growth and its ability to normalize interest rates, as the table below on its projections shows. However, this year’s lowering of the so called ‘equilibrium’ or steady state policy rate (where short-term interest rates are expected to get to if the economy evolves as expected) has been a large 0.75% this year. Inevitably, this feeds through to lower bond yields.

### Federal Reserve projections on growth and interest rates

<table>
<thead>
<tr>
<th>Year</th>
<th>US growth (%)</th>
<th>Equilibrium policy rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>1.8</td>
<td>3</td>
</tr>
<tr>
<td>2015</td>
<td>2.1</td>
<td>3.75</td>
</tr>
<tr>
<td>2014</td>
<td>2.3</td>
<td>4</td>
</tr>
<tr>
<td>2012</td>
<td>2.5</td>
<td>4.25</td>
</tr>
</tbody>
</table>

In the UK, bank rate expectations were already at rock bottom levels but the open-ended rates announcement from the Bank of England after the Brexit decision has moved interest rate curves to take the view that rates are stuck at zero for at least another half decade (see chart).

What went wrong with consensus?
As well known, consensus views on bonds have been wrong for a long time and the recent crash in global yields is no different. Each year, claims have been made that interest rates would begin to normalise; unfailingly, those expectations have fallen by the wayside. Just about everybody has been wrong – sell side, buy-side, the global asset allocation team at Aon Hewitt, central banks (very substantially) and yield curves themselves.

The last point is important; though bond market pricing had less by way of yield rises priced in than most forecasts, yields undershot even those modest expectations. The best call on bonds has, in fact, come from simple extrapolation! Too much optimism on economies is one side of the story, but by far the bigger driver is that long-standing tenets of monetary policy (such as the ‘zero lower bound’ to policy rates) and policy limits on central bank control/manipulation of the bond market have been broken in a completely unforeseen way.
Can yields fall much further?

Is now ‘different’ given just how low yields are? Are we at such an extreme that it is not within the realms of reasonable possibility for yields to fall still further? The answer is that yields can indeed fall further, especially in those markets that still carry some positive yield at longer durations like the US. In a play-out of a deterministic economic scenarios that we have run for a few years called ‘secular stagnation’ in which global economic disappointments deepen, long duration US and UK yields would go to 1% or even lower.

Such a scenario becomes far more likely when the short-term policy interest rate goes below zero. Since negative rates have already been sustained in Europe for some time, we cannot simply assume that this cannot happen in the US or the UK. Central banks in both countries have made strongly anti-negative interest rate comments, but it is certainly possible to see them arrive if economic conditions worsened. Equally, central bank bond purchases could continue or even expand. The European Central Bank has periodically hinted at a step up of its already large purchase programme. After all, the Bank of Japan is on course to owning half the Japanese government bond market fairly soon, levels of central bank ownership far higher than those currently seen in other markets.

Some risk of a snapback soon

That said, a challenge could be looming to the path of ever lower yields. There are three reasons why a snapback might be coming over the next 6-12 months.

- First, the very large fall in yields from already low levels to current levels is extraordinary, because the global economy is still growing (even though the rate of growth has been disappointing). The current level of yields and the implied path of short-term interest rates are consistent with a global recession having already arrived. If a recession does come, yields will be validated at these new lows or go lower still. If recession is avoided, then yields have room to snap back. There is still very limited sign of recession conditions arriving in the US, the key bell-weather of the global economy. Growth is weak, but recent indications suggest a pick-up in the current quarter.

- Second, the global bond risk premium, otherwise referred to as the term premium – for which we usually look to the US, has reached an extreme low. At deeply negative levels (see chart) this partly reflects the impact of the large yield differences with Europe and Japan which have driven flows into the US market from overseas. This is a very unusual state of affairs (the bond investor paying to hold duration risk!). Because of the large decline in US yields and some rise in currency hedging costs on account of the large demand for dollars from money market funds under new regulations, the relative attractiveness of US bond yields has fallen. The key point is that bonds are not priced for any of the standard long-term inflation or interest rate risks. US inflation is expected to average a mere 1.4% over the next twenty years for example. Again, there is no doubt that the negative bond risk premium could decline further, but on balance, it looks to be vulnerable now to the idea that inflation or interest rate risk is not always on a downtrend.

- The third reason and a key element of the snapback risk is the possibility that governments may shift from monetary to fiscal stimulus. With rates at zero, quantitative easing and more difficult conditions for banks in such an interest rate environment, the emphasis is starting to move away from monetary policy. The potential impact on bonds comes from the fact that public debt has already risen steeply in many countries and would clearly rise much further if this happened (see chart). At some point, this could start to bother investors.

Worsening public finances does not on its own imply higher direct default risk, but it could suggests an increasing likelihood that
disguised default through inflation or maturity extension becomes a bigger risk (Greece, Japan, Italy etc). As an example of what could happen, Japan's recently announced modest fiscal stimulus led to a 0.5% rise in long duration Japanese bond yields in only two weeks. Of course, there is no certainty that this would be the reaction elsewhere, but it gives an idea of what could happen when yields are already so low (Italian and Spanish 10 year yields are at 1% and 0.9%, respectively). There are more moves coming. In the UK, there is a major fiscal easing coming in the autumn. In the US, an announcement of stepped up infrastructure spending (a promise on both sides of the Presidential election) could be the trigger for some re-pricing. A large negative duration premium in bonds is the key element of sensitivity at this time since it increases the risk of a snapback.

Actions

What should be done?

We should note that the rising risk of a snapback in yields does not make it a certainty. Neither is it necessarily obvious that even a big challenge to rates would necessarily ultimately succeed. We have had challenges to the direction of yields before (in 2013) which have failed.

All of this makes it apparent that even after the recent falls, rate risk continues to be at high levels and still very much two sided so that the case for substantial hedging remains strong.

We should also be clear that hedging is about managing risk rather than return. This typically means a goal of lengthening duration over time. Any tactical view around rates needs to be taken in a way that keeps the strategic hedging objective firmly in focus and sizes the position appropriate to the risk being taken. The possibility of rates rising from current levels should only impact the pace at which hedging is adopted. If a position is taken with an expectation of a snapback in rates, it also needs a process to reverse or close the position.
Appendix: Longer-term drivers of lower interest rates

There are two key drivers behind the longer-term trend towards lower bond yields globally

1) Lower growth, lower investment, higher savings = lower rates

The first argument relates to the level and type of economic growth we are seeing. We see growth rates everywhere lower than in the past, but particularly in comparison to the years leading up to the crisis. This is all the more extraordinary since the recession was one of the worst ever. Nobody has been spared, certainly not emerging economies.

The slowdown in growth is partly coming from a trend slowdown in population growth and less robust growth in productivity than we have been used to. One particular characteristic of this weaker growth has been particularly important. Investment has become a smaller share of economies than it used to be. Investment growth has been particularly disappointing since the great financial crisis (see chart).

Assuming that relative sluggishness of investment continues as we expect, it implies all else being equal, lower interest rates. Why? Without getting into the technicalities, interest rates are assumed to be set at a level at which, globally, investment demand matches the supply of savings. The intuition behind this is that if interest rates were too low, there would not be enough saving, investment demand would be high (and borrowing and debt with it) which would tend to create inflation. It is vice versa if interest rates were too high, which would stifle investment, encourage saving and put downward pressure on the price level.

What we have seen for a prolonged period is lower investment demand. This has tended to drive interest rates lower in order to bring savings and investment into balance. This is shown in the diagram above, which shows what happens when investment weakens (the leftward shift in the investment line above). In fact, investment demand has been so weak in the post-crisis period that even very low interest rates have not really awakened demand for investment. This will probably change a bit over time, but one assumption we are

---

1 Of course, central banks do not set interest rates at a level at which savings and investment match. The argument is that rates over time evolve in such a way to bring balance, otherwise the economy gets out of kilter.
making, also the view of most economic commentators is that though investment will pick up somewhat, it will remain more sluggish than in the past.

Aside from lower economic growth potential (the result of weaker demographic growth and productivity), the other factor behind weak investment is the falling prices of investment goods, reflecting the IT revolution. As a result, the relative size of investment spending against the broader economy is smaller. All this means lower interest rates, taking us from point (1) to (2).

What adds more spice to the mix is more savings coming through alongside lower investment, which also pushes down interest rates – moving us from (2) to (3) on the chart. When people have referred to a ‘savings glut’ in the past decade, what is meant is that there have been more savings coming from emerging economies. This was a very big problem in the years leading up to the crisis. Though surpluses remain fairly large, this is less of a problem as China’s external surpluses have fallen back somewhat lowering emerging economies surpluses (see chart). Over time, most of this excess savings ended up in foreign reserves, held in the form of sovereign bonds of the key markets, especially US treasuries but also UK gilts. China’s foreign exchange reserves rose $3.5 trillion in about a decade, much of which went into sovereign bonds.

To the extent that interest rates will match savings and investment at lower interest rates than in the past, the effect will be to keep interest rates lower than otherwise. This does not mean zero interest rates need to continue, but rather that the level of interest rates relative to a given rate of inflation and economic growth will be lower than it used to be. Interest rates will still rise but at a gentler pace

2) Regulation and the portfolio shift to safer assets

The second change that has made a big difference to interest rates is the rise in investor demand for safe assets. Why has this happened? It is a combination of factors. Regulation, ageing populations and perceptions of higher market volatility through the recent past has all played a part. We know that globally, pension funds' holdings of bonds have increased as a proportion of assets. In the UK and US, pension funds have moved in the past few years towards holding more bonds and fewer equities. Post-crisis regulations of banks and insurance companies have required them to hold more capital, typically increasing their holdings of bonds too. Investor risk appetites have also shifted towards more risk-averse portfolios. Private wealth managers report that equity allocations of high net worth individuals have generally fallen over time, and more broadly at the retail investor level, we see that flows to mutual funds have consistently favored bonds over equities. Finally, as a long-term slowly evolving asset allocation adjustment, we know that ageing populations will typically hold more bonds relative to equities over time.

The upshot of this additional demand for safer assets is that it is having a similar effect to the savings/investment factor earlier – it is dampening interest rates, particularly at the further reaches of the yield curve. For a given level of short-term interest rates, it tends to push down the level of medium and longer duration interest rates. In other words, it means that the yield curve is flatter than it would be.

We cannot see this readily now because short-term rates are so low, which makes the yield curve appear steep (which is signaling that rock bottom short-term interest rates have to rise eventually). However, we had seen this in the UK before short-term rates went to near zero with the yield curve sometimes looking ‘inverted’ (longer duration yields lower than middle or shorter durations) as a result of strong pension fund demand for long-dated hedging assets. In the US, the so called term premium, the excess of long-term interest rates over expected short-term interest rates has been falling for well over a decade. Though it has overshot in moving to negative levels recently, the strong and persistent demand for safe assets makes it unlikely to go back to historic averages. We have allowed for this in the way we build up our expectations of bond yields.

This dampening effect on long-term interest rates will also make itself felt on the front of the curve to some extent, directly impacting central bank policy rates. If long-term rates are held down by the increased demand for safe assets and lowered appetite for investment in a generally subdued economic growth environment it will impact the setting of policy rates directly, tending to hold it down below what it would be otherwise.
Aon Hewitt
Consulting | Investment Consulting Practice
Global Asset Allocation

Disclaimer

This document and any enclosures or attachments are prepared on the understanding that it is solely for the benefit of the addressee(s). Unless we provide express prior written consent, no part of this document should be reproduced, distributed or communicated to anyone else and, in providing this document, we do not accept or assume any responsibility for any other purpose or to anyone other than the addressee(s) of this document.

Notwithstanding the level of skill and care used in conducting due diligence into any organisation that is the subject of a rating in this document, it is not always possible to detect the negligence, fraud, or other misconduct of the organisation being assessed or any weaknesses in that organisation’s systems and controls or operations.

This document and any due diligence conducted is based upon information available to us at the date of this document and takes no account of subsequent developments. In preparing this document we may have relied upon data supplied to us by third parties (including those that are the subject of due diligence) and therefore no warranty or guarantee of accuracy or completeness is provided. We cannot be held accountable for any error, omission or misrepresentation of any data provided to us by third parties (including those that are the subject of due diligence). This document is not intended by us to form a basis of any decision by any third party to do or omit to do anything.

Any opinions or assumptions in this document have been derived by us through a blend of economic theory, historical analysis and/or other sources. Any opinion or assumption may contain elements of subjective judgement and are not intended to imply, nor should be interpreted as conveying, any form of guarantee or assurance by us of any future performance. Views are derived from our research process and it should be noted in particular that we cannot research legal, regulatory, administrative or accounting procedures and accordingly make no warranty and accept no responsibility for consequences arising from relying on this document in this regard.

Calculations may be derived from our proprietary models in use at that time. Models may be based on historical analysis of data and other methodologies and we may have incorporated their subjective judgement to complement such data as is available. It should be noted that models may change over time and they should not be relied upon to capture future uncertainty or events.

Aon Hewitt Investment Consulting, Inc. is a federally registered investment advisor with the U.S. Securities and Exchange Commission. AHIC is also registered with the Commodity Futures Trade Commission as a commodity pool operator and a commodity trading advisor, and is a member of the National Futures Association. The AHIC ADV Form Part 2A disclosure statement is available upon written request to:

Aon Hewitt Investment Consulting, Inc.
200 E. Randolph Street
Suite 1500
Chicago, IL 60601
ATTN: AHIC Compliance Officer

© 2016