

- Benchmark durations have risen significantly over the years
- Historically low yields trigger strong supply of long-dated bonds
- A flexible and benchmark unconstrained approach is required

Just as global yields set new record lows, durations of fixed income indices are moving up rapidly. This is mainly caused by governments and companies that aim to lock in cheap financing costs by issuing longer dated bonds. If bond yields were to rise at some stage, this could have serious ramifications for index-focused or passive investors. In the current low-yield environment we advocate fixed income solutions with active and flexible duration management.

Fixed income indices are still widely used to benchmark the added value of active managers. A very important characteristic of any fixed income index is the weighted duration. ${ }^{1}$ The duration level of a bond index is driven by the maturity of the bonds that have been issued and by other factors like coupon and yield levels. Over the years the average duration of fixed
${ }^{1}$ Duration is expressed as a number of years. The duration of a bond is equal to the average time an investor has to wait for all the coupons and face value of the bond. For example if there are no coupons the duration is equal to the maturity of the bond. With positive coupons the duration will be somewhat lower than the maturity of the bond. Duration also is an indicator of interest rate risk. As a proxy the bond return is equal to minus the duration times the yield change. For example if yields rise by $1 \%$ and the bond index has a duration of 7 years the bond index return will be approximately $-7 \%(-7 \times 1 \%)$.



Kommer van Trigt, Fund Manager Robeco Global Total Return Bond Fund

Olaf Penninga, Fund Manager Robeco Lux-o-rente
income indices has increased significantly. As shown in Figure 1, this effect recently gathered pace. Over the last 30 years the duration of a widely used global government bonds index almost doubled from 4.3 years to 8.1 years at the end of June 2016 (blue line). During the last 10 years the duration rose from just below 6 years to over 8.1 years; more than half of this increase was realized in just the last two years.

Figure 1 | Duration and maturity of global government bond market


Source: Robeco, J.P. Morgan Government Bond Index Global

Robeco research shows that the bulk of this increase in duration, almost $80 \%$, relates to a change in the issuance pattern by debt agencies. Historically low yield levels have triggered a strong rise in the issuance of long-dated bonds, thereby pushing up the average maturity of the debt outstanding (orange line). Governments are locking in cheap funding, thereby reducing refinancing risks. Early May the Spanish government sold bonds with a maturity as long as 50 years for the first time in the public market. One month earlier Belgium had done the same. Italy and Japan are said to consider their own debut 50 -year deals. Some Treasuries have gone even a step further. Ireland privately placed a 100 -year bond this year.

Figure 2 shows that the increase in duration is visible across a broad set of countries. The UK and Japan are eye-catching; currently, the average duration of their outstanding government bonds has risen to levels close to or above 10-years. In the UK the increase relates to the structural demand for long-dated bonds from investors like pension funds and insurance companies that need to match lengthy liabilities. Also notable is the dramatic increase for countries like Spain and Italy, especially when compared with the late eighties. Joining the euro system has enabled these countries to issue much longer bonds.

Figure $2 \mid$ Average durations of outstanding government bonds in various countries


Source: Robeco, J.P. Morgan

Durations of non-government categories like corporates or government-related bonds are also on the rise. This is shown in Figure 3. This increase is less pronounced though than for government bonds and more related to the yield and coupon declines as opposed to a structural change in issuance pattern. However, especially European companies have turned to longer-dated debt as of late. The ECB's unprecedented monetary stimulus measures, including the corporate bond purchase program that started in June of this year, have pushed down corporate bond yields. Faced with a growing stock of low or negative-yielding corporate debt, also credit investors have been forced into longer-dated bonds that still offer the prospect of positive returns. Corporates are very willing to satisfy that demand.

Figure 3 | Average durations of various bond categories


Source: Robeco, Barclays POINT

From a borrower's perspective this all makes perfect sense. But what about investors? For those fixed income investors that tend to follow or even mimic fixed income indices, a potentially toxic combination is in the making. Just as yield levels are falling to unprecedented low levels, durations of most fixed indices are rising fast (see Figure 4). In other words, just as interest rate risk in index-related fixed income products is moving higher, compensation for that risk is falling rapidly.

Figure 4 | Duration, yield and break even yield rise


[^0]Another way of looking at this, is by focusing on the so called 'breakeven yield rise'. With that we mean the interest rate rise that is still bearable (due to the positive carry) before the overall return dips into negative territory. In formula terms you simply divide the running yield by the duration to come to this metric. Figure 4 highlights that the breakeven yield rise has dropped dramatically (purple line).

This is not a plea for selling all fixed income exposure. In the short run yield movements tend to be more important for the overall fixed returns than the actual yield levels. The first half of 2016 is a good example of this mechanic. Although yield levels were already low at the start of the year, fixed income returns over the first half of the year were good because bond prices moved up (capital gains were made) as yields moved to even lower levels.
Rather, our analysis underpins the need for a flexible and benchmark unconstrained approach to fixed income investing, and specifically to managing the interest rate sensitivity one wants to have in a bond portfolio. An active stance towards duration management can prevent losses further down the road should bond yields start to rise while still leaving open the possibility to benefit from falling yields.

Kommer van Trigt, Fund manager Robeco Global Total Return Bond Fund Olaf Penninga, Fund manager Robeco Lux-o-rente

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[^0]:    Source: Robeco, J.P. Morgan Government Bond Index Global

