HORIZON KINETICS

What Might Happen if Interest Rates Do Not Rise?

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I would like to pose the following questions: What might happen if, contrary to common expectations, interest rates do not rise? Has that situation ever happened before? The first question will be considered in later paragraphs; the answer to the second question is: yes, it has, as illustrated in the table below.

In the 19th century, the New England states were considered the most credit-worthy issuers. The following table shows the interest rates carried by U.S. government bonds and by New England bonds. In 1800, the average U.S. government bond yield was 6.94%. With some rare exceptions, the yields kept declining through the entire century. In the 1890-1899 decade, the average interest rate on long-term U.S. government bonds was 2.55%.

Table 1: Historical Bond Yields

Year	U.S. Government Bond Yields	New England Bond Yields
1800	6.94%	6.13%
1800-1809 10-yr average	6.23%	5.33%
1810-1819 10-yr average	5.90%	5.17%
1820-1829 10-yr average	4.55%	4.77%
1830-1839 10-yr average	n/a	4.95%
1840-1849 10-yr average	5.16%	5.31%
1850-1859 10-yr average	4.72%	4.81%
1860	5.37%	4.70%
1861	6.45%	5.04%
1862	6.25%	4.91%
1863	6.00%	4.37%
1864	5.10%	4.80%
1865	5.19%	5.31%
1860-1869 10-yr average	5.34%	5.10%
1870-1879 10-yr average	3.96%	4.22%
1880-1889 10-yr average	2.13%	3.45%
1890-1899 10-yr average	2.55%	3.50%

Source: Sidney Homer, *A History of Interest Rates: Third Edition, Revised* (Rutgers University Press, 1996), 286-288.

The mere fact that I present the 100-year record in this table isn't meant to imply that interest rates began to rise in 1900. As a matter of fact, for the one and a half centuries prior to the 1950s, interest rates were low and relatively stable, which is one of the factors that explains the bond bear market of the 1960s and 1970s.

No one believed a bond bear market was possible but, of course, it happened. In the aftermath, all sorts of interesting concepts were created to manage the potential variability of a bond portfolio in the event that interest rates were to rise. These concepts include duration and convexity, which really didn't exist prior to the bond bear market of the 1960s and 1970s, because they really weren't needed.

Few today have thought through the issue of reinvestment rate risk. In the 19th century, there was no concept of convexity, but a great amount of attention was paid to the issue of reinvestment rate risk. People wanted long-term bonds with long periods of call protection, because their experience was that, generally speaking, interest rates went down. As a matter of fact, economic textbooks written before the Keynesian era effectively stated that as a natural precondition for a sound economy, you needed a stable bond market. An unstable bond market was a precondition for calamity; consequently, nations tried to avoid that occurrence.

In today's economy, if bonds were to yield 2%, what would happen to employees' pension funds which assume an 8% rate of return? Clearly it would be a problematic situation. What would happen to foundations and endowments that have 5% legal payout requirements if the bonds they hold were to yield only 2%? If an endowment has a 5% payout requirement, but if it does not earn in excess of 5%, eventually the foundation will disappear.

In terms of the public perception of this issue, the most popular long-term bond exchange-traded fund (ETF) is the iShares Barclays 20+ Year Treasury Bond Fund (TLT), which had net assets of approximately $3.3 billion as of May 15, 2012. In the context of $1.2 trillion of assets invested in ETFs, a $3.3 billion fund is hardly noteworthy. In the corporate credit space, the largest long-term corporate bond ETF is the SPDR Barclays Long-term Corporate Bond ETF (LWC), which had a weighted average maturity of 23.25 years, and had net assets of $75.5 million as of May 15, 2012.

It appears that the public is not interested in buying long-term bonds. This view applies not only to the general public, but also to professional investors.

The iShares Barclays Aggregate Bond Fund (AGG) is designed to reflect the taxable, investment-grade U.S. bond market. In principle, 27.56% of that portfolio matures in more than 25 years. That's said with an emphasis on *in principle* because *in practice* it's not true. The reason it isn't true in practice is that many

of those bonds are mortgage pass-through securities that, with the decline in interest rates, don't really exhibit the 25-year characteristics they're stated to have. Should interest rates rise, they would act very much like long-term bonds, which is one of the problems of buying such a portfolio.

Little by little, prepayments and the standard amortization of principal are shortening the maturity of mortgage-related bonds. As a consequence of these factors, the income distribution per month of AGG is declining. The following table shows the April distributions for the past several years. In April of 2008, AGG paid $0.41 a unit. In April 2012, four years later, it paid $0.24 a unit.

Table 2: AGG April Income Distributions

Month	Distribution per unit
April 2012	$0.24323
April 2011	$0.31333
April 2010	$0.32103
April 2009	$0.35098
April 2008	$0.41507
April 2007	$0.38934
April 2006	$0.38282
April 2005	$0.34350
April 2004	$0.25960

Source: http://us.ishares.com/product_info/fund/distributions/AGG.htm

We need to ask ourselves what would happen if householders had to accommodate themselves to this level of rates for a very long time. One result would be intense pressure on financial services companies, which are basically spread-based businesses. What would be the return on equity of a financial services institution such as a bank that perhaps didn't have a very high cost of funds, but also had very limited reinvestment outlets for its money? The answer is that the return on equity for these firms would not be very high, especially when banks are not allowed to use a great amount of leverage.

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