Sorry to Burst Your Bubble

By Kerry Pechter *Thu, Feb 14, 2013*

A look at the way bond funds recover from rate hikes and a review of the effect of rate hikes in the 1970s and 1980s on bond funds shows that fears of a bond bubble may be overblown.

Two competing narratives dominate conversations about bonds these days. The first story line is that, for the sake of retirees, insurance companies and others who rely on interest income, bond yields need to go up—soon.

The alternative story is that a rise in prevailing interest rates could pop the bond “bubble” and punish bondholders with a devastating loss of market value that will take years to recover.

The causes and effects of a rise in interest rates vary, of course. The causes might include a change in monetary policy, a sudden drop of faith in or demand for dollar-denominated debt or fear that inflation is apt to rise in the future.

The effects of a rise in yields also vary. It could slow down the economy and hurt equity prices. If you own individual bonds, a rise in rates will depress the prices of the bonds. The longer the bond’s “duration,” which is related to its maturity, the farther it will drop in price.

For the typical U.S. near-retiree who is invested in a diversified bond fund, a rise in rates would do more good than harm. The fund’s NAV will drop in the short run, because the prices of existing bonds have to move lower to equal the yield of new, higher-coupon bonds.

But as the fund manager reinvests interests, principal and new cash in the new bonds, the higher yields immediately start to erase the short-term capital loss. For the plain vanilla investor with money in a total bond market index fund and an investment horizon of more than about five or six years, a return to more normal 10-year Treasury rates would be all to the good.

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Recovery mode

Just as a fever causes discomfort while it helps the body recover from infection, higher interest rates cause temporary pain to a bond fund owner while helping the fund recover its losses and achieve higher yields.

The average duration of a bond fund tells you roughly when the fund will recover the capital losses of an interest rate hike, bond experts say. If the average duration is five years, for instance, that’s about how long it will take for the fund to gain back through interest what it lost in market value.

“It’s a rule of thumb,” Roger Aliaga-Diaz (below left), a researcher at Vanguard and co-author of the 2010 paper, “Deficits, the Fed, and Rising Interest Rates: Implications and Considerations for Bond Investors.” “In general, we say that if you take Barclays Capital U.S. Aggregate Bond Index, which has a four- to five-year average duration, and your investment horizon is more than four or five years, an interest rate rise will hurt you up front but the loss will be more than compensated over your time horizon by higher yields.”

A blogger at www.longtermreturns.com, who unfortunately insists on anonymity, told RIJ that there’s no precise formula for predicting the breakeven point of a bond fund in a rising rate environment, but that average duration is close enough. (Duration indicates the sensitivity of a bond’s price to changes in interest rates. A one-percentage point rise in rates would cause the price of a bond with a five-year duration to fall by 5%.)

“I don’t think [such a formula] can exist, since most bond funds do not hold their bonds to maturity. But again, I think the approximation above is plenty good for practical breakeven calculation and also good enough for expected return calculation,” the blogger said.

There is the opportunity cost of waiting for the bond fund to reach a breakeven point after a rise in rates, but there’s no remedy for that other than trying to time the market and cash out of the fund before rates go up, and buy the fund back at a lower price afterwards.

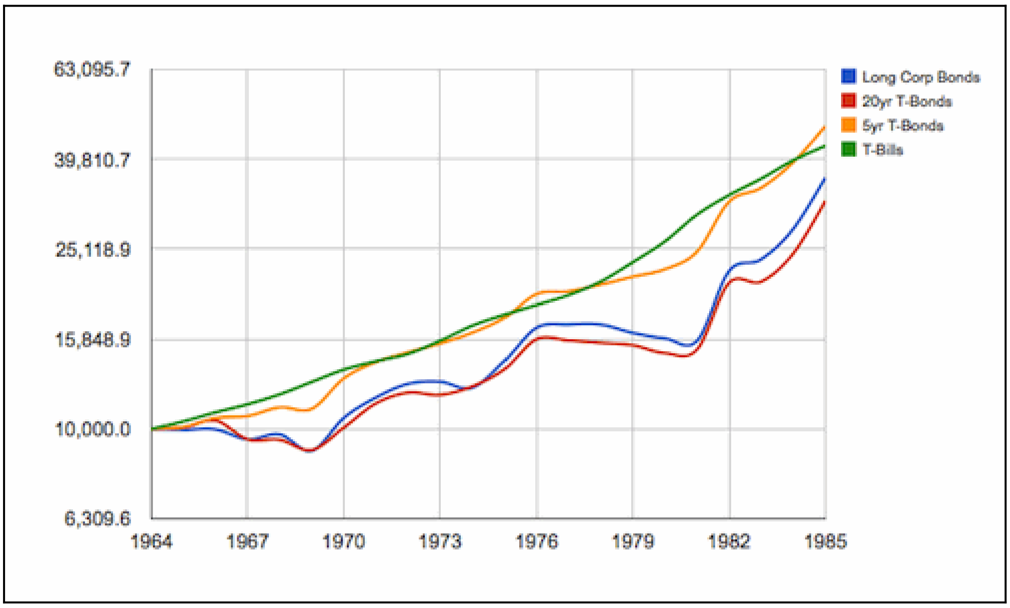
“This is market timing,” said Russell Wild, a financial planner and author of Bonds for Dummies. “There may be no crash, in which case, your cash will lose 2% to 3% a year while you’re waiting to rates to rise.”

History lesson

To gauge what might happen if rates rise in the future, it’s useful to look back and see the effect of rate hikes in the past. From the middle 1960s to the early 1980s, interest rates in the U.S. were raised in response to inflationary pressures. The nominal damage was confined to long-term corporate and Treasury bonds.

Between 1965 and 1980, returns on long-term corporate bonds and 20-year Treasury bonds suffered almost as many down years as up years, and had annualized nominal gains of only 2.9% and 2.5%, respectively. (They were devastated by inflation, however, losing 40% and 45% of their purchasing power, respectively.)

In other words, rising coupon rates and falling prices cancelled each other out, to a degree. Periods of rising rates correspond to flat spots for the red and blue lines on the chart at right. For additional charts of this type, click here.



“Looking at SBBI [Morningstar’s annual Stocks, Bonds, Bills and Inflation report], ~20-year constant maturities Treasuries lost between 7.9% and 14% in price annually from 1977 to 1981, but at the same time they were paying out between 7.9% and 11.5% in income so net total returns were right around zero,” said LTR. “The worst of those five years was negative 4.0% in 1980; 1981 was positive 2%; 1977-1979 were all right around –1% each).”

That’s not good, but it’s not a crash either. As for intermediate-term bonds, they were not hurt by the increases in rates. According to LTR, “Five-year constant maturities had positive nominal total returns every single year from 1970 to 1993, averaging about 3% for 1977-1980 and over 9% in 1981. It only went up from there!”

Bottom line: Boomers with a substantial amount of their savings in diversified bond funds with average durations shorter than their own time horizon for retirement are not sitting on a giant bubble of interest rate risk.