

Heightened Risks of Bonds for Near Retirees

by Wade Pfau, Ph.D., CFA®

Introduction

The United States has experienced historically low interest rates in recent years, leading to lower returns for fixed income assets. This creates unique challenges for those approaching retirement, as the practical impact of low interest rates is to increase the cost of retirement.

Investors approaching retirement, burdened by this fact, may find themselves holding out hope that interest rates will soon rise. They may or may not be right. Interest rates have remained low for longer than many have expected.

Investing in bonds may not work out as well even if rates do rise. Longer maturity bonds may offer higher yields but, if not held to maturity, will experience capital losses with a rate increase.

Meanwhile, shorter-term bonds may not experience losses with rising rates, but their lower yields may not be as competitive as today's deferred fixed annuity rates, and still may not produce better returns with subsequent reinvestment taking place if rates do rise in the future.

One misconception that surrounds this interest rate dilemma is the notion that it is a bad time to consider annuities when interest rates are low.

The risks of rising interest rates for bonds

A bond is a contractual obligation to make a series of specific payments on specific dates. Typically, this includes interest payments made on a semiannual basis and the return of the bond's face value when the bond matures. Bonds are issued to raise funds by both governments and private corporations, and they are purchased by investors seeking an investment return on their capital. Bonds are generally viewed as a less risky investment than stocks, offering less potential for price appreciation along with less price volatility and downside risk.

Bond interest rates are determined by the interaction of supply and demand for the bonds as they continue to be traded. An increase in demand — such as that triggered for

U.S. Treasuries by a "flight to quality" when investors are panicked by the falling prices of risky assets and seek a safe haven—will push up the price of these bonds. Conversely, a stretched government seeking to raise funds through an increasing supply of new bond issues will reduce the price of bonds.

A bond that sells at par value can be purchased for the same price as its face value. Bonds may also sell at a premium (higher than face value) or discount (lower than face value). Rising interest rate environments will lower prices for existing bonds already issued and available for resale. The price must be reduced so the subsequent return to a new purchaser of the bond can match the higher returns available on new bonds with higher interest rates. An agreeable selling price can only be found if the bond sells at a loss, otherwise the purchaser could have just bought a new bond offering a higher interest rate. By purchasing the bond at a discount, the new purchaser receives a subsequent return on their purchase price that is in line with newly issued bonds. Why would someone sell their bond at a loss? In retirement, it may be necessary in order to fund retirement expenses.

Conversely, lower interest rates will increase the price existing bonds can sell for. If sold at their face value, these older bonds offer higher returns than newly issued bonds, and their owners will want to hold them. The price of a bond on the secondary market will fluctuate in the opposite direction of interest rates. The yield to maturity can differ from a bond's coupon rate as bonds are bought and sold at prices other than their face value, exposing the investor to interest rate risk — the risk that a bond price will fall due to rising interest rates.

A low interest rate environment is risky for investors, especially those approaching retirement. It is important to understand that bond prices will decrease if interest rates rise. Bond funds can be volatile and experience losses, and individual bonds may also experience loss when sold before maturity.

Exhibit 1 quantifies this relationship between interest rate changes and bond prices for bonds with different maturities. It shows the price impact on a 3% coupon bond, initially selling at par value, caused by a movement in interest rates to either 2%, 4%, or 5%. The exhibit shows this relationship for bond maturities ranging from one year to thirty years.

For example, consider a ten-year bond. If interest rates were to fall to 2%, the price of the bond could increase by 9%. However, if interest were to instead rise, the price of the

bond would fall. At a 4% interest rate, the ten-year bond has lost 8.1% of its value, and 15.4% of the value of the bond is lost if interest rates settle at 5%. At the extreme, the thirty-year bond would experience a 17.3% capital loss if interest rates rose by 1%, from 3% to 4%. This loss is an even more substantial 30.7% if rates rise by 2%. Despite their reputation as reliable and predictable, bonds can be risky. Longer-term bonds may be as risky as stocks when interest rates are low.

Exhibit 1 Relationship between bond prices and interest rates

Current bond value: \$1,000 Coupon rate: 3% Current interest rate: 3%

Years to maturity	New interest rate			
	2.0%	3.0%	4.0%	5.0%
1 Year	\$1,009.80	\$1,000.00	\$990.38	\$980.95
5 Years	\$1,047.13	\$1,000.00	\$955.48	\$913.41
10 Years	\$1,089.83	\$1,000.00	\$918.89	\$845.57
20 Years	\$1,163.51	\$1,000.00	\$864.10	\$750.76
30 Years	\$1,223.96	\$1,000.00	\$827.08	\$692.55

Years to maturity	New interest rate			
	2.0%	3.0%	4.0%	5.0%
1 Year	1.0%	0.0%	-1.0%	-1.9%
5 Years	4.7%	0.0%	-4.5%	-8.7%
10 Years	9.0%	0.0%	-8.1%	-15.4%
20 Years	16.4%	0.0%	-13.6%	-24.9%
30 Years	22.4%	0.0%	-17.3%	-30.7%

Source: Author calculations

Why rising interest rates are especially problematic for near retirees

This sensitivity to losses from bonds that accompany rising interest rates is a particularly important matter for near retirees because of something called sequence of returns risk. Individuals who behave in exactly the same way over their careers — saving the same percentage of the same salary for the same number of years — can experience disparate outcomes based solely on the specific sequence of investment returns that accompanies their career and retirement. This sequence of returns risk is generally discussed within the context of the retirement phase. It is the idea that the ordering of market returns matters, not just the average market return over the long term.

To be clear, sequence of returns risk does exist prior to retirement as well if individuals are adding new savings to their investment portfolio over time. Investment losses and gains experienced near the retirement date have the biggest impact on final wealth accumulations because these returns affect larger asset amounts due to a longer history of contributions and savings into the account.

Simply put, later market returns impact more years of contributions and larger asset levels. Though bonds are generally perceived to be less risky assets, they are exposed to interest rate risk, and a near-retiree depending on bond funds to maintain the value of their assets may be vulnerable to having their financial plan steered off course by a rise in interest rates during these key pre-retirement years if they need to sell bonds before maturity to meet expenses. The numbers shown in Exhibit 1 give a perspective about the types of losses one might experience to their accumulated nest-egg in the pivotal pre-retirement years just on the supposedly safe bond-side of their portfolio.

How deferred fixed annuities may potentially help ease the transition to retirement

Deferred fixed annuities provide an additional option for fixed income assets, along with commonly considered options such as bond funds, individual bonds, or money market accounts. A deferred fixed annuity is a long-term contract between an individual(s) and an insurance company that can help provide growth through tax deferral, a guaranteed interest rate, and the potential for future retirement income.

The benefits offered by deferred fixed annuities relative to other fixed income choices include, first, that they protect from interest rate risk and investment volatility. Deferred fixed annuities support growth at a specific interest rate without exposure to price fluctuations and potential losses as interest rates change.

In addition, deferred fixed annuities may be able to earn higher yields than Treasury bonds because insurance company general accounts may invest in higher-yielding corporate issues by better diversifying the credit risks across companies in ways that households may not be able to afford. Insurance companies may also be better positioned to hold longer-term bonds to their maturity dates in order to seek higher yields without triggering losses by needing to sell bonds even if interest rates rise. Corporate bonds and longer-term bonds typically offer higher yields because of their additional risks. With corporate bonds, there is a greater risk of bond default (e.g. due to the changing financial strength of the company issuing the bond), while longer-term bonds are more exposed to the risk of capital losses should interest rates rise.

Furthermore, deferred fixed annuities offer tax deferral. They allow the taxes on investment growth to be deferred until the maturity date of the deferred fixed annuity. Because an annuity is tax-deferred for individuals, interest will compound without current income tax. Assets grow faster because individuals do not pay taxes on the interest earned until they actually withdraw it or until it is distributed to them. Regarding taxes, bonds held in taxable accounts face ongoing taxes on their interest payments at income tax rates that diminish their ability to provide compounding investment returns.

Purchasing a deferred fixed annuity at the present may potentially outperform other fixed income strategies even in a rising rate environment.



About the author

Wade D. Pfau, Ph.D., CFA®, is a Professor of Retirement Income at The American College for Financial Services in Bryn Mawr, PA. He also serves as the Director of Retirement Research for McLean Asset Management and inStream Solutions. He is a past selectee for the *InvestmentNews* "Power 20" in 2013 and "40 Under 40" in 2014, the Investment Advisor 25 list for 2014, and *Financial Planning* magazine's Influencer Awards.

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