A powerful strategy to help solve the fixed income quandary.

Executive summary:

Fixed index annuities—an alternative income solution in today's ultra-low rate environment

Fixed income investors today are in a quandary. Yields are historically low. Traditional assets like CDs, Treasuries and corporate bonds are not providing the income many Americans need to fund their essential living expenses in retirement. Bonds have been riding a bull market for approximately 40 years, but with economic uncertainties triggered by the COVID-19 pandemic, future bond returns may be lower and more volatile than in past years.

This paper highlights the challenges facing today's fixed income investments and offers potential solutions to address these challenges. It looks at the relationship between bond prices, interest rates and yields and explains why rising rates may be problematic for many fixed income portfolios.

It also shows how fixed income alternatives like fixed index annuities can protect assets from interest rate risk and market fluctuations, while providing consumers with the opportunity to generate more income for their financial future.

"How safe are bonds if interest rates rise?"

Bond prices may move dramatically with changing rates. In fact, some fixed income investors may remember 1994 as one of the worst down markets in recent memory when rising rates caused estimated bond market losses of $1.5 trillion.[1]

[1]Source of estimated losses: Al Ehrbar, "The Great Bond Market Massacre," Fortune, October 17, 1994.

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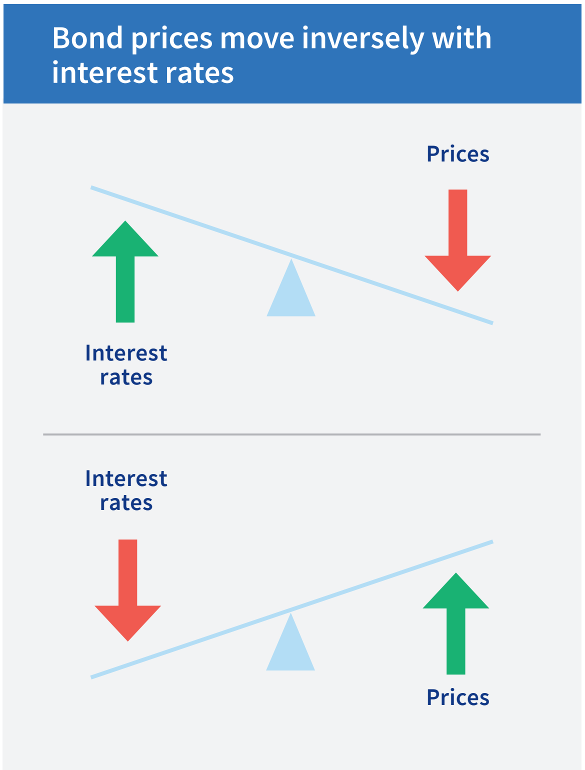
Understanding the relationship between bond prices and interest rates

To appreciate the challenges facing fixed income investments, let's first look at how bonds are affected by interest rate changes. Bonds are debt instruments issued by governments and corporations that pay a fixed rate of interest, also known as a coupon rate, over a specific term. Since coupon rates don't change, bond prices are sensitive to interest rate fluctuations, moving inversely to the direction of interest rates *(see Figure 1)*. If interest rates rise, existing bonds with lower rates become less valuable. On the other hand, if rates decline, the value of these bonds increases.

Figure 1



In contrast, a bond's yield or rate of return moves in the same direction as interest rates. If interest rates go up, bond yields also increase. Although rising yields seem positive for investors looking for more income, they put downward pressure on bond prices, which may force some bondholders to sell and potentially cause further declines in the overall fixed income market.

Preparing for today's fixed income challenges

1. Find attractive yields to help pay for living expenses and retirement lifestyles

The historically low yields from traditional fixed income assets, like CDs, Treasuries and corporate bonds, have hampered the ability of many consumers to generate the income they need in retirement. As of December 31, 2020, 10-year Treasury yields were at 0.93%, and 30-year Treasuries yielded only 1.65% *(see Figure 2)*, not nearly enough to keep pace with the current 2% rate of inflation. Consumers would need to extend their yield search to more volatile fixed income instruments like high-yield bonds to get higher yields. Some consumers seeking yields may even take on more equities, putting themselves further out on the risk spectrum and increasing their potential for losses.

2. Enhance diversification to help safeguard against potential bond losses

While bonds are less risky than stocks, they can still be volatile in changing markets as experienced in March 2020 when many fixed income assets posted sharply negative returns at the onset of the COVID-19 pandemic. During the height of the bond sell-off, investment-grade corporate bonds suffered double-digit losses, and high-yield bonds dropped more than 20% *(see Figure 3)*. While this volatility has subsided, bonds are still facing headwinds due to a sluggish economy and continuing high unemployment.

To help protect against potential future losses, it may make sense to diversify across non-correlated assets (i.e., non-bond assets) that are unlikely to move in the same direction as bonds during times of interest rate and market uncertainty.

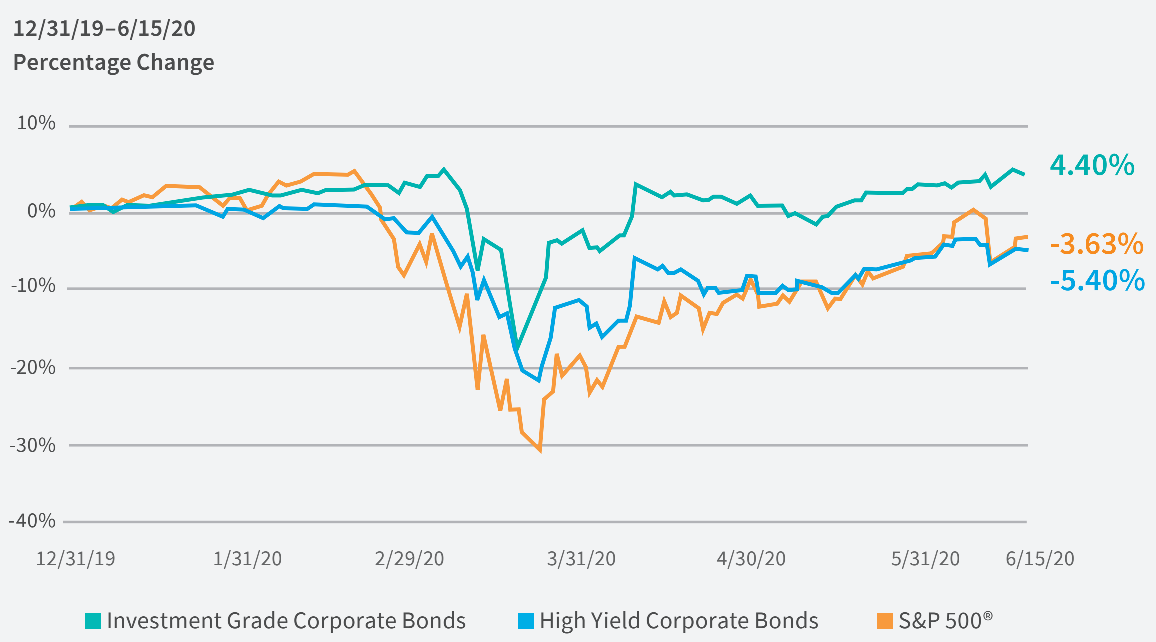
Figure 2

Where has the yield gone?

	2007	2013	2020
Money Market (3-month Treasury Bills) Yield[2]	3.37%	0.07%	0.09%
5-year CD Yield[3]	3.73%	0.74%	0.33%
U.S. 10-year Treasury Yield[2]	4.04%	3.04%	0.93%
U.S. 30-year Treasury Yield[2]	4.45%	3.96%	1.65%
U.S. Corporate Investment Grade Yield[4]	5.80%	3.35%	1.79%

Figure 3

Negative returns of corporate and high-yield bonds in the first half of 2020



Source: Congressional Research Service, "Capital Markets Volatility and COVID-19: Background and Policy Responses," June 19, 2020

[2]Source: US Department of the Treasury, Daily Treasury Bill Rates Data, 2021.
[3]Source: FDIC, National Rates and Rate Caps, 2021.
[4]Source: FRED Economic Data, ICE BofAML US Corporate Master Effective Yield, 2021.

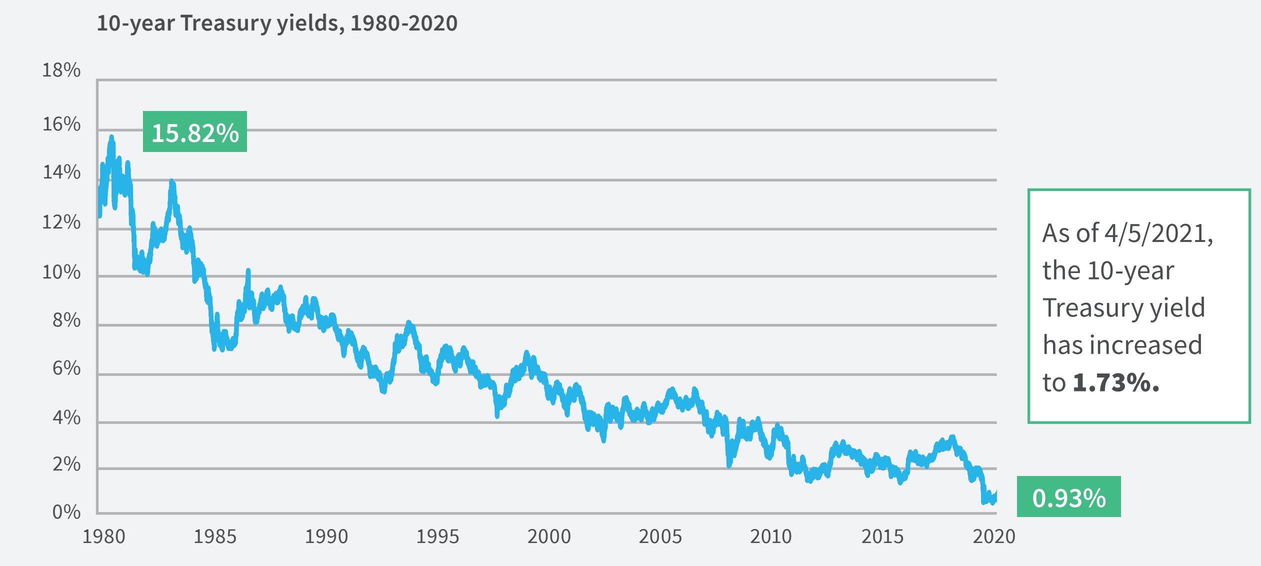
3. Look beyond traditional fixed income assets to help reduce interest rate and credit risks

Over the last 40 years, 10-year Treasury yields have fallen from a high of nearly 16% in 1981 to below 1% in December 2020, fueling the greatest bull market in US bond history *(see Figure 4).* The easing of monetary policy has contributed to the strong bond performance over this time. However, with short-term rates effectively at zero and the Federal Reserve unlikely to consider negative rates, there are now limitations to the use of accommodative monetary policy to help stimulate the economy and support the bond market.

To add to the potential issues facing the bond market, the unprecedented, multi-trillion-dollar stimulus packages that the US government has enacted to help buoy the economy during the COVID-19 crisis may lead to inflationary pressures over the longer term. If rates eventually trend up, they will reduce bond prices and hurt overall bond returns. In fact, with today's historically low yields, a small increase in interest rates can wipe out the entire return of a bond. For example, if interest rates rose just 25 basis points or 0.25% (1 basis points equal 0.01%), it could eliminate the full 1.37% yield of the Bloomberg Barclays Aggregate Bond Index, which is often considered the standard for measuring bond market performance.[5] To put this into context, from 12/31/2020 to 4/5/2021, the 10-year Treasury yield increased from 0.93% to 1.73%, a dramatic surge that has sparked fears of declining bond values and increasing inflation, according to the Federal Reserve Economic Database (FRED).

Figure 4

10-year Treasury yields have declined from a high over 15% to below 1% over the last 40 years



Source: FRED Economic Data, Economic Research, Federal Reserve Bank of St. Louis. This chart uses the monthly 10-year Treasury Constant Maturity Rate data compiled by the Board of Governors of the Federal Reserve System (U.S.). The values range from 12/31/1980 through 12/31/2020 for the line graph and through 4/5/2021 for the call-out.

[5]Based on the SEC yield of the iShares Core U.S. Aggregate Bond Exchange Traded Fund (ETF) as of April 21, 2021, the largest bond ETF that tracks the performance of the Bloomberg Barclays Aggregate Bond Index. Source: Morningstar, 2021.

One of the worst bond markets in US history occurred in 1994, when the Federal Reserve increased short term interest rates 7 times in just 12 months to help combat inflation *(see Figure 5).* As interest rates spiked nearly 50%, bond prices plummeted, triggering estimated losses of approximately $1.5 trillion worldwide, according to Fortune.[1] While the Fed has promised to keep short term rates low for the foreseeable future, there is still the risk that inflation may increase, pushing up interest rates and causing a potential bond downturn.

There are also concerns of escalating credit risk in today's bond market. In particular, the percentage of BBB-rated bonds, which are rated just above junk bonds and vulnerable to downgrades in volatile times, has ballooned from 17% of the global investment-grade corporate bond market in 2001 to over 50% today.[6] If the number of rating downgrades increases in today's uncertain market, it could make bonds riskier, raising the cost of capital to firms and negatively impacting their balance sheets.

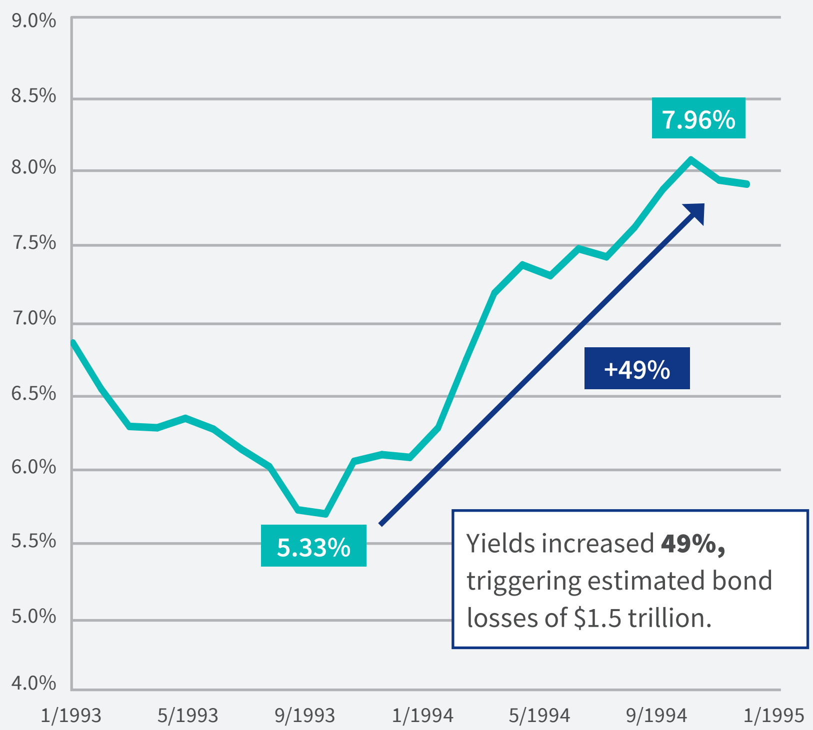
Figure 5

Multiple Fed Funds Rate increases caused bond yields to skyrocket in 1994

Rate increases, 1994-1995

Date	Fed Funds Rate
2/4/1994	3.25%
3/22/1994	3.50%
4/18/1994	3.75%
5/17/1994	4.25%
8/16/1994	4.75%
11/15/1994	5.50%
2/1/1995	6.00%

10-year Treasury yields, 1993 – 1995



Sources: Ellen E. Meade, Yoshio Nozawa, Lubomir Petrasek and Joyce K. Zickler, "The Effects of FOMC Communications before Policy Tightening in 1994 and 2004," FEDS Notes, September 24, 2015; FRED Economic Data, 10-Year Treasury Constant Maturity Rate, 2021; and Al Ehrbar, "The Great Bond Market Massacre," Fortune, October 17, 1994.

[6]Source: Susan Harrison and Tom Parker, "Assessing risks in the BBB-rated corporate bond market," BlackRock, October 14, 2019.

3 reasons to consider a fixed index annuity

Fixed index annuities are long-term insurance products that can help consumers grow their assets, while protecting their principal in changing markets. By allocating a portion of their retirement assets to a fixed index annuity, consumers can reinforce their retirement savings foundation *(see Figure 6)* and help:

1. Generate higher growth and income than many fixed income instruments.
2. Protect against interest rate risk and bond market volatility
3. Guarantee more income for life

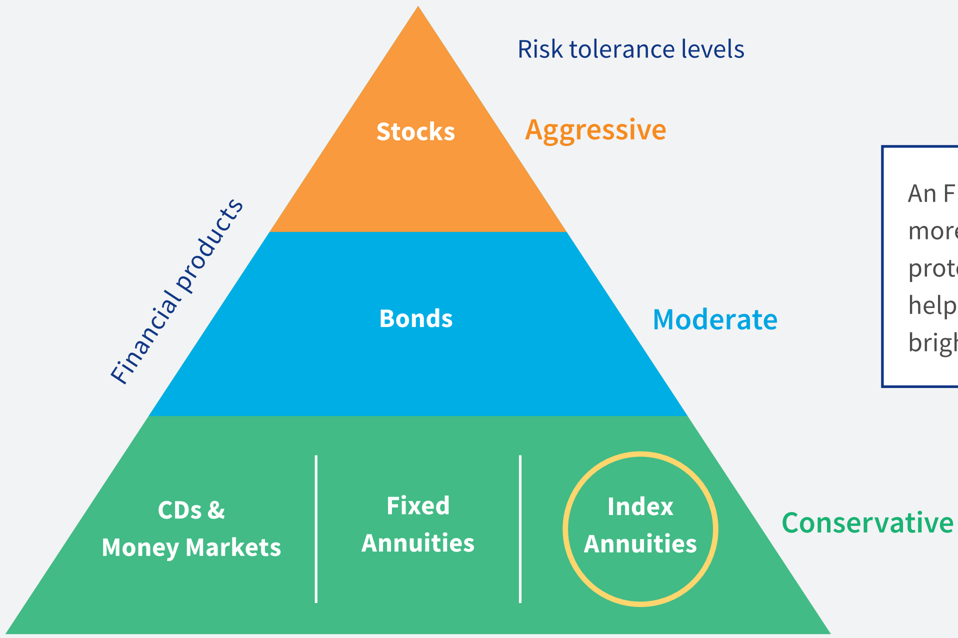
1. Generate higher growth and income than many fixed income instruments

Fixed index annuities offer consumers the opportunity to earn interest based on the performance of equity market indices like the S&P 500®, Russell 2000® or MSCI EAFE. These indices may be total return (including dividends) or price return (excluding dividends, which means that index interest would be lower than if dividends were included). Some annuities even offer custom multi-asset indices that can enhance diversification and risk management. Please check with the fixed index annuity you are considering to see which type of index is offered.

Interest earned is calculated using the returns of an index, subject to an index rate cap (for example, 3% or 4%) or other contract limitations. Even with a cap, a fixed index annuity has the potential to provide higher interest crediting than the 1%-2% yield that

Figure 6

Adding a fixed index annuity can help strengthen a consumer's retirement savings foundation



An FIA may provide more asset, income and protection guarantees to help consumers build a brighter financial future.

many CDs and government bonds are offering today *(see Figure 2).* In addition, many fixed index annuities have no annual fees (unless they include a living benefit), so all assets can be put to work to help consumers accumulate assets for retirement.

2. Protect against interest rate risk and bond market volatility

Unlike most bonds, which are used to provide customers with income or diversification, a fixed index annuity can help shield assets from interest rate changes. Since fixed index annuities are not invested in any bonds, securities, or indices, their values are not directly impacted by market downturns and interest rate risk, and consumers will never lose principal or interest earned due to market volatility. Even if interest rates rose by 50% like they did in 1994, assets in a fixed index annuity would still be protected against market loss.

3. Guarantee more income for life

Fixed index annuities offer guaranteed lifetime income through annuitization for no cost. To supplement guaranteed income from other sources such as Social Security and pension plans, some fixed index annuities also offer lifetime income through features known as guaranteed living benefit (GLB) riders. Generally available for an annual fee, GLB riders offer extra income benefits, such as guaranteed growth of lifetime income over a specific period, and unlike annuitization, these riders provide consumers with access to their contract value, even after lifetime income begins. Guarantees are backed by the claims-ability of the issuing insurance company.

Consider a fixed index annuity to help solve the fixed income quandary and build a better tomorrow

For more information about this white paper or The Power Series of Index Annuities from AIG, please contact your financial professional or agent, or visit aig.com/annuities.

Important information about index annuities, CDs, bonds and stocks

Index annuities are not a direct investment in the stock market. They are long-term insurance products with guarantees backed by the claims-paying ability of the issuing insurance company. They provide the potential for interest to be credited based in part on the performance of the specified index, without the risk of loss of premium due to market downturns or fluctuations. Index annuities may not be appropriate for all individuals. Withdrawals may be subject to federal and/or state income taxes. An additional 10% federal tax may apply if individuals make withdrawals or surrender their annuity before age 59½. This material is general in nature, was developed for educational use only, and is not intended to provide financial, legal, fiduciary, accounting or tax advice, nor is it intended to make any recommendations. Applicable laws and regulations are complex and subject to change. Please consult with your financial professional regarding your situation. For legal, accounting or tax advice consult the appropriate professional.

Different investments such as CDs, bonds and stocks have different objectives, risk tolerance levels and time horizons than index and fixed annuities. Individuals should consult their financial professional or agent regarding their individual situation when comparing these various instruments to annuities.

Certificate of Deposits (or CDs) offer a fixed rate of return and FDIC insurance backed by the full faith and credit of the U.S. government. Some CDs may include an early withdrawal penalty. Earnings from CDs are taxable annually.

Bonds and bond funds are subject to interest rate risks. If held to maturity, bonds can provide a fixed rate of return and a fixed principal value, while bond funds will fluctuate in value and may be worth more or less than the original investment when redeemed. High yield bonds are subject to greater price swings than higher-rated bonds and payment of interest and principal is not assured. U.S. government bonds and Treasury bills are guaranteed by the U.S. government as to the timely payment of principal and interest and, if held to maturity, offer a fixed rate of return and fixed principal value. Interest from Treasury bills and U.S. government bonds is exempt from state and local income taxes but may be subject to federal income tax. Earnings from bonds are taxable annually.

Stocks are subject to market risk, including the possible loss of principal. Stocks with lower market capitalization (i.e., small-cap stocks) generally involve greater risks than stocks with higher market capitalization (i.e., large-cap stocks). An investment in foreign stocks may be subject to different and additional risks associated with, but not limited to: foreign currencies, securities regulation, investment disclosure, commissions, accounting, taxes, political or social instability, war, or expropriation. Earnings from stocks are taxable annually.

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