



# Investing in a Rising Interest Rate Environment

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## Executive Summary

After peaking in 1981, U.S. interest rates have been on a fairly steady 30-year secular decline and now stand near all-time lows, having reached levels not seen since the 1950s. But with the U.S. economy stabilizing and the federal funds rate near 0%, it appears probable that the Federal Reserve (Fed) will have little choice but to begin raising the federal funds rate in the near term. This paper provides an in-depth historical assessment of different interest rate regimes and proposes a road map to assist you, given the current near record low interest rates, in repositioning your portfolio to help protect against a potential future rise in interest rates.

We begin with a historical analysis of interest rate levels and trends, from the 30-year post World War II secular rise to the peak of stagflation in the early 1980s, as well as the subsequent 30-year secular decline from the early 1980s to the present. Subsequently, we'll take a more in-depth look at the past 30-year period, analyzing how fixed income asset classes have performed during five distinct cycles where the Federal Reserve was actively raising the federal funds rate.

Finally, we will provide both a rationale and a means for taking action to address our fundamental assertions that, given the current interest rate environment, you should consider implementing two broad changes to your portfolio in an effort to mitigate the potential adverse effects associated with rising interest rates.

1. Diversify current core fixed income assets across non-core fixed income asset classes. In simple terms, a portfolio whose fixed income allocation is comprised entirely or mostly of core U.S. bonds should also have exposure to Floating Rate Notes, high-yield bonds, Treasury Inflation Protection Securities (TIPS), non-U.S. bonds including an allocation to emerging market debt, and short-term bonds.
2. Diversify up to 33% of a portfolio's fixed income assets to absolute return investment strategies (e.g., hedge funds) that have similar risk profiles to fixed income.

Additionally, in Table 5, we provide a list of absolute return mutual funds that the Cetera Research Team has vetted and subsequently added to the Cetera Research Select List (RSL) (Cetera's proprietary "best ideas" list of mutual funds, equity and fixed income categories), and in Appendix 1, we offer an asset allocation guideline for a typical 60% equities/40% fixed income balanced portfolio, factoring in our current outlook for capital markets and the current level of interest rates.

## Introduction

After peaking in 1981, U.S. interest rates have been on a steady 30-year secular decline and now stand near all-time lows, having reached levels not seen since the 1950s. Two factors have been primarily responsible for driving rates to their current near record low levels: the sea of investors flocking to the relative safety of fixed income investments following the 2008 financial crisis, and the unprecedented monetary and fiscal stimulus measures taken to combat the 2008-2009 "Great Recession." Modest future economic growth and low inflation expectations over the near term have also factored into keeping interest rate levels suppressed.

However, with the U.S. economy stabilizing and the federal funds rate near 0%, the Fed may have little choice but to begin raising the federal funds rate target in the not too distant future. And while inflation does not appear to be a near-term threat, the massive government stimulus programs enacted over the last couple of years, in addition to the recovering U.S. economy, may eventually spark higher inflation—and higher interest rates. With this prospect of higher interest rates on the horizon, investors will be well-served to reposition their portfolios to protect against a rising interest rate environment.

## Interest Rate Cycles: A Historical Perspective

Beginning in the early 1950s, U.S. interest rates began a fairly steady, upwards march for the better part of the next 25 years (Chart 1). This rise in rates began to accelerate during the late 1970s/early 1980s as the U.S. economy entered a stubborn period of stagflation—slow to negative economic growth coupled with simultaneous high rates of inflation. During the height of stagflation, intermediate-term U.S. government bond yields reached their peak, briefly surpassing 16% in 1981. Driving interest rates higher were skyrocketing inflation rates that reached double digit levels for more than two years, and briefly exceeded 14% at its peak in 1980.

**CHART 1 | U.S. INTERMEDIATE GOVERNMENT BOND YIELDS**

Source: Ibbotson/Morningstar

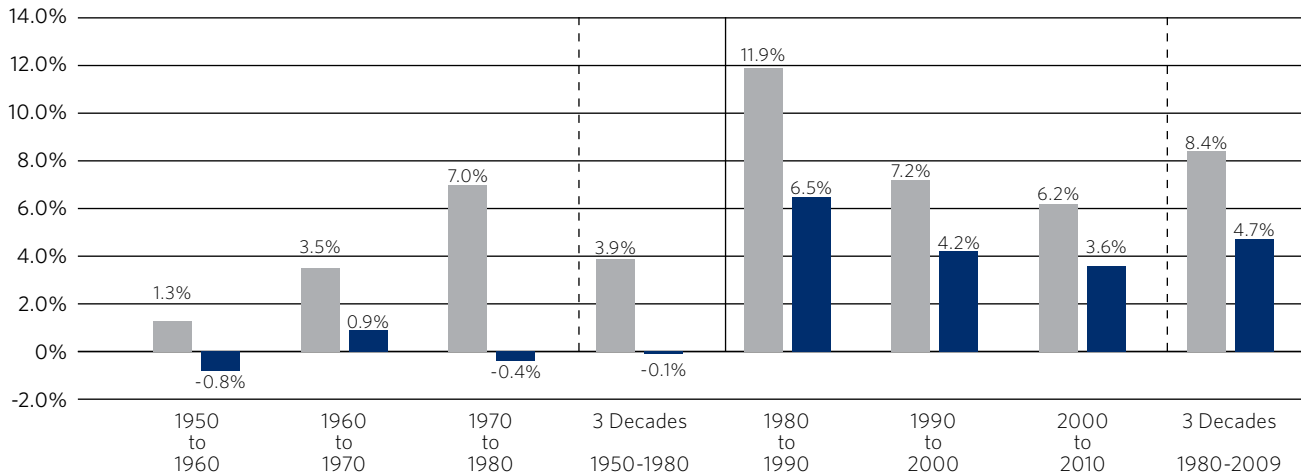


In the 30-year period of steadily declining interest rates from 1980 through 2010, intermediate-term U.S. government bonds posted a robust total return of 8.4% (Chart 2). And even after adjusting for inflation, intermediate bonds generated a 4.7% “real” return (total return minus inflation) during the period. Over the preceding 30-year period of steadily rising interest rates from 1950 to 1980, intermediate-term U.S. government bonds still generated a positive, albeit modest, total return of 2.2%. However, after adjusting for inflation, the real return was essentially flat, coming in at an annualized return of -0.1%.

**CHART 2 | U.S. INTERMEDIATE GOVERNMENT BOND RETURNS**

Source: Ibbotson/Morningstar

■ NOMINAL ■ REAL



## The Federal Reserve and Interest Rates

An important factor in determining the future level and direction of all interest rates is the federal funds rate. By establishing specific targets for the federal funds rate, the Fed, in essence, sets the interest rate level at the short end of the yield curve. However, the Fed also exerts significant influence on longer-term rates. Long-term interest rates are greatly impacted by short-term rates in addition to future inflation expectations. The Fed affects future inflation expectations through its federal funds rate policy actions. If the Fed is thought to be vigilant (hawkish) in containing future inflation, the market will hold inflation expectations low, helping keep long-term interest rates down. However, if the Fed is thought to be relatively lenient (dovish) on containing future inflation, the market will demand higher interest rates for longer-term bonds in order to be compensated for the risk that higher inflation will erode real investment returns. Thus, monetary policy implemented by the Fed can have a profound effect on the shape of the entire yield curve.

## Interest Rate Cycles Post-Stagflation

Chart 3 shows the federal funds rate since interest rates peaked during the height of the stagflation period during the early 1980s. Similar to the U.S. intermediate-term bond rates, the federal funds rate has been on a fairly steady decline over the past three decades, and now stands at a historic low level of 0%–0.25%.

**CHART 3 | FEDERAL FUNDS RATE**

*Source: Ibbotson/Morningstar*



Since interest rates peaked in the early 1980s, there have been five distinct periods where the Fed has actively raised its target for the federal funds rate, as detailed in Table 1.

**TABLE 1 | PERIODS OF FEDERAL RESERVE RAISING FEDERAL FUNDS TARGET RATE**

Source: Morningstar

	Begin Date	End Date	Duration	Begin Rate	End Rate	Rate Increase
1.	Jun-04	Aug-07	38 months	1.00%	5.25%	+4.25%
2.	Jun-99	Dec-00	18 months	4.75%	6.50%	+1.75%
3.	Jan-94	Jun-95	17 months	3.00%	6.00%	+3.00%
4.	Dec-86	May-89	29 months	5.88%	9.75%	+3.88%
5.	May-83	Aug-84	15 months	8.50%	11.75%	+3.25%

The Fed’s monetary tightening policies have typically lasted around 1.5 years, with rate increases ranging on average between 3%-4%. The shortest Fed rate hike period, from May 1983 to August 1984, lasted just 15 months, but other rising rate periods have persisted for as long as 38 months, as seen during the most recent Fed tightening period, which occurred from June 2004 to August 2007. During this period, the Fed was gradually unwinding the loose monetary conditions, which they implemented in response to the 2001 dot-com bust and ensuing recession. The federal funds rate target started at a low of 1.00% in June 2004, the lowest starting point of the five most recent Fed tightening periods. Over the next two years, the rate eventually reached a peak of 5.25% in mid-2006, and remained there through August of the following year. The 4.25% rate hike was also the largest total rate increase of the five most recent Fed tightening periods.

## Rising Interest Rate Cycles and Market Performance

The performance of both fixed income and equity asset classes has been generally positive during periods where the Federal Reserve was actively raising the federal funds rate target, as shown in Table 2. Despite the headwinds fixed income asset classes face during rising interest rate environments, all major investment-grade fixed income asset classes generated positive total returns during all five rising rate periods, with positive income returns more than offsetting the negative price returns experienced as a result of rising interest rates. The returns, however, were generally more modest as compared to periods of flat or declining interest rates.

Performance for high-yield bonds was more mixed during the rising rate environments, due to the credit-sensitive nature and equity-like features that characterize high-yield bonds. And although the total returns for the investment-grade fixed income asset classes were all positive during these periods, there were many short-term time spans (months and quarters) where they experienced negative total returns. This resulted in choppy returns with slightly higher volatility, but on balance, more months of positive rather than negative returns.

**TABLE 2 | ASSET CLASS RETURNS DURING RISING FED FUNDS RATE ENVIRONMENT**

Source: Morningstar

Beginning Target Rate Hike Date	May-83	Dec-86	Jan-94	Jun-99	Jun-04
Ending Target Rate Hike Date	Aug-84	May-89	Jun-95	Dec-00	Aug-07
# of Total Months	15 mos	29 mos	17 mos	18 mos	38 mos
Beginning Rate Target	8.50%	5.88%	3.00%	4.75%	1.00%
Ending Rate Target	11.75%	9.75%	6.00%	6.50%	5.25%

**FIXED INCOME**

**PERFORMANCE**

Barclays U.S. Government/Credit 1-3 Yr.	7.94%	6.84%	4.60%	6.60%	3.50%
# of months < 0%	5	4	5	1	9
# of months > 0%	10	25	12	17	29

Barclays U.S. Aggregate Bond	4.95%	6.89%	4.72%	8.01%	4.44%
# of months < 0%	5	12	8	7	13
# of months > 0%	10	17	9	11	25

Barclays U.S. Long Government/Credit	1.14%	6.60%	4.75%	9.16%	5.99%
# of months < 0%	7	12	8	7	15
# of months > 0%	8	17	9	11	23

Barclays U.S. Corp High Yield	NA	8.72%	6.20%	-3.82%	7.76%
# of months < 0%	NA	6	4	9	9
# of months > 0%	NA	23	13	9	29

**EQUITIES**

S&P 500 Index	-1.73%	16.24%	12.26%	-1.41%	10.45%
# of months < 0%	7	10	9	7	13
# of months > 0%	8	19	8	11	25

Since the U.S. economy may be approaching another period where the Fed begins actively raising the federal funds rate target, it's important to look back to get a historical perspective on asset class performance during previous rising interest rate environments. While other factors clearly influence the level of interest rates and the performance of fixed income (and equity) asset classes, there is little doubt that the Fed's monetary policy has a profound impact. History has shown that, although there are short-term periods (months or quarters) where bonds struggle during rising rate environments, over a full market cycle of rising rates, bonds on average have generated positive returns.

## Portfolio Positioning: Complementing Fixed Income Investments and Incorporating Alternatives

As previously discussed, interest rates across most bond maturities still remain near historic lows. Furthermore, excessively high federal deficits will likely remain into the foreseeable future after the Bush tax cuts were recently extended and the Fed announced a second round of quantitative easing (QE2). There's a reasonable probability that these actions may begin to pressure interest rates upward in 2011, although it's likely that rates will only rise modestly until the U.S. economic recovery picks up steam—conceivably in late 2011 or 2012.

With the prospects of future higher interest rates on the horizon, fixed income should nevertheless remain a core holding due to the strong diversification benefits they provide to a portfolio. However, there are several broad changes that advisors and investors can make in order to mitigate the adverse affects of a rising interest rate environment.

### 1. Diversify with non-core fixed income asset classes

Diversify current core fixed income assets across non-core fixed income asset classes. In simple terms, a portfolio whose fixed income allocation is comprised entirely or mostly of core U.S. bonds should also have exposure to the following fixed income asset classes:

- A. FLOATING RATE NOTES (FRNs) – FRNs are securities with variable interest rates that usually reset every six months, enabling them to keep pace with rising rates. However, investors need to be aware that FRNs contain credit risk and are often non-investment grade (below a BBB credit rating).
- B. TREASURY INFLATION PROTECTION SECURITIES (TIPS) – TIPS deliver an inflation-adjusted rate of return and are the purest hedge against rising inflation. As TIPS are issued by the U.S. Treasury, they have a very high quality credit rating.
- C. NON-U.S. BONDS – Despite the recent debt crisis in Greece, Ireland and other European countries, many non-U.S. fixed income securities offer attractive yields while providing enhanced diversification benefits. Additionally, the credit risks of non-U.S. bonds are typically investment grade (BB credit rating and higher).
- D. EMERGING MARKET DEBT – A modest allocation to emerging market bonds is warranted, as these securities can sometimes be the beneficiaries of relatively healthier economies and government finances as compared to the debt from developed countries. Additionally, local currency debt generally benefits if the value of the U.S. dollar falls. Keep in mind, however, that emerging market bonds are considerably more volatile compared to traditional U.S. bonds and many securities have a credit rating below investment grade.
- E. SHORT-TERM BONDS – Shorter-term fixed income securities typically have very high quality and lower average durations as compared to intermediate or long-term bonds, meaning they will not fall as much if rates rise. However, yields on shorter-term bonds are typically lower than yields earned on longer-term bonds.

### 2. Diversify with absolute return strategies

Diversify up to 33% of a portfolio's fixed income allocation to absolute return strategies (e.g., hedge funds) that have similar risk profiles (volatility) to fixed income strategies.

Absolute return strategies are strategies that, as the name suggests, look to add value in all types of market environments, regardless of whether equity or fixed income markets are rising or falling. The portfolio manager of an absolute return strategy has the ability to invest, long or short, in any security they choose, although they typically focus on a certain strategy where they have a particular expertise. Examples of absolute return strategies include global macro (GTAA), equity long/short market neutral, merger/convertible/fixed income arbitrage, distressed debt and managed futures.

One of the primary benefits of adding absolute return strategies to a portfolio is the improved diversification benefits that result from the low correlations these strategies have to more traditional asset classes. Table 3 illustrates the historical correlations of various traditional asset classes and absolute return strategies relative to a traditional balanced portfolio of 60% U.S. large cap stocks and 40% U.S. bonds.

**TABLE 3**

Source: Morningstar

TRADITIONAL ASSET CLASSES	CORRELATIONS TO A 60/40 BALANCED PORTFOLIO			ABSOLUTE RETURN STRATEGIES
Small Cap Equities	0.92	60/40	0.71	Merger Arbitrage
REITs	0.84	Balanced	0.46	Global Macro (GTAA)
Emerging Market Equities	0.89	Portfolio	-0.05	Equity Market Neutral
Non-U.S. Bonds	0.66		-0.13	Managed Futures

Compared to more traditional asset classes, absolute return strategies show a significantly lower correlation to a U.S. balanced portfolio. As a result, the addition of absolute return strategies to a typical 60/40 portfolio can greatly improve portfolio diversification. Moreover, as absolute return strategies are normally less affected by the general direction of capital markets than traditional equity and fixed income asset classes, they can provide improved downside protection to a portfolio should equities or fixed income decline.

## Absolute Return Mutual Funds: Risk Characteristics

Although absolute return strategies have principally been available in non-registered formats, over the past several years a large number of SEC registered (1940 Act) mutual funds that pursue an absolute return strategy have appeared. These absolute return strategy mutual funds provide a key distinction to investors as compared to their non-registered counterparts in that they must adhere to all the stringent liquidity, transparency, shorting, and leverage rules prescribed to all SEC registered mutual funds (see Table 4). Additionally, due to these stringent SEC requirements, registered absolute return mutual funds typically offer lower, more bond-like risk and return characteristics as compared to their non-registered counterparts, yet still maintaining their compelling low correlation benefits.

**TABLE 4 | REGISTERED VS. UNREGISTERED HEDGE FUNDS DIFFERENCES**

Source: Morningstar

	REGISTERED '40 ACT "HEDGE FUND" MUTUAL FUNDS	UNREGISTERED HEDGE FUNDS
Accredited Investor	No	Yes
Availability	Approx. 100	Thousands
Liquidity	Daily	Varies - Lockups Common
Fees	Typically 1%-2%	Typically 2% + Performance Fee
Transparency	High	Low to None
Regulation	High	Low to None
Minimum Investment	Low	Often High
Leverage	Low	Often High
Tax Form	1099	K1



Table 5 displays a list of absolute return mutual funds that the Cetera Research Team has vetted and subsequently added to the Cetera Research Select List (RSL). The Cetera RSL for absolute return mutual funds listed in Table 5 is divided into two groups: low risk funds and low/moderate risk funds. The table also contains a select list of fixed income indices with varying risk levels along with the three-year historical standard deviations (a common measure of portfolio risk) for the mutual funds and fixed income indices to use for comparison purposes.

**TABLE 5 | CETERA RESEARCH SELECT LIST - ABSOLUTE RETURN MUTUAL FUNDS**

*Source: Morningstar*

<b>LOW RISK ABSOLUTE RETURN FUNDS</b>	<b>RISK (3-YEAR STANDARD DEVIATION)*</b>
AQR Diversified Arbitrage Fund	NA
JP Morgan Research Market Neutral Fund	3.4%
Merger Fund	4.4%
PIMCO Unconstrained Bond Fund	NA
<b>LOW/MODERATE RISK ABSOLUTE RETURN FUNDS</b>	
AQR Managed Futures Strategy Fund	NA
Calamos Market Neutral Income Fund	7.4%
DWS Disciplined Market Neutral Fund	5.6%
Eaton Vance Global Macro Absolute Return Advantage Fund	NA
Managers AMG FQ Global Alternatives Fund	7.9%
<b>FIXED INCOME INDICES</b>	
Barclays U.S. Aggregate Bond Index	3.8%
Barclays U.S. Gov't/Credit Bond Index	4.8%
Barclays U.S. Corp. Investment Grade Bond Index	9.1%
Barclays U.S. Corp. High Yield Bond Index	15.2%

\*as of November 30, 2010

All of the absolute return mutual funds listed in Table 5 generally offer lower, more bond-like risk characteristics as compared to their non-registered counterparts. The funds listed under the “Low Risk Absolute Return Funds” category all have three-year (or since inception if less than three years) historical standard deviations under 5%, and lower than the 4.8% historical three-year standard deviation for the core Barclays U.S. Government/Credit Bond Index. Similarly, the funds listed under the “Low/Moderate Risk Absolute Return Funds” category have only marginally higher risk characteristics, with three-year (or since inception if less than three years) historical standard deviations under 8%, which is lower than the 9.1% three-year standard deviation for the Barclays U.S. Corporate Investment Grade Bond Index, and considerably lower than the 15.2% standard deviation for the Barclays U.S. Corporate High Yield Bond Index.

Due to the distinct investment strategies, unique risk/return characteristics and low correlations of each absolute return fund on the Cetera RSL, it is prudent to use multiple funds (three to five funds) in a diversified portfolio in order to maximize the strategies’ diversification benefits. A mix of multiple funds as a replacement for fixed income (as mentioned, up to 33% of a traditional 60% equity/40% portfolio’s fixed income allocation) should improve overall portfolio diversification while maintaining or reducing the level of risk.

## Conclusion

With interest rates near historic lows and the prospect of higher interest rates looming on the horizon, now is the time for you to begin repositioning your portfolio in an effort to mitigate the potential adverse affects of rising rates and improve overall portfolio diversification, without adding risk.

Appendix 1 displays an asset allocation guideline for a typical 60% equities/40% fixed income balanced portfolio, factoring in Cetera's outlook for capital markets and the current level of interest rates, and incorporating the changes/re-allocations discussed above. The appendix also shows an allocation guideline that excludes equities in order to focus exclusively on the fixed income (and alternatives) portions of the balanced portfolio.

### APPENDIX 1 | 2011 60/40 BALANCED MODEL GUIDELINES

ASSET CLASS	60% EQUITIES/40% FIXED INCOME BALANCED MODEL ALLOCATIONS	BALANCED MODEL ALLOCATIONS (EXCLUDING EQUITY ALLOCATIONS)
<b>Equities</b>	<b>60%</b>	<b>NA</b>
U.S. Large Growth	17%	NA
U.S. Large Value	18%	NA
U.S. Small	5.0%	NA
International Equities	15%	NA
Emerging Market Equities	5.0%	NA
<b>Fixed Income</b>	<b>28%</b>	<b>70%</b>
Short-Term Bonds	2.0%	5.0%
U.S. Core Bonds	8.0%	20%
TIPS	5.0%	12.5%
Floating Rate Notes	5.0%	12.5%
High Yield Bonds	2.0%	5.0%
Non-U.S. Bonds	4.0%	10%
Emerging Market Bonds	2.0%	5.0%
<b>Absolute Return Strategies</b>	<b>12%</b>	<b>30%</b>
Hedge Funds/Absolute Return	12%	30%
<b>Total</b>	<b>100%</b>	<b>100%</b>

## Definitions

TOTAL RETURN – The percentage return, including both dividends and capital appreciation, on money invested in a security.

NOMINAL RETURN – Yield on an investment expressed in current dollars, without factoring in compounding or discounting or the effect of inflation.

STANDARD DEVIATION – Measure of the variability (volatility) of a security, derived from the security's historical returns, and used in determining the range of possible future returns. The higher the standard deviation, the greater the potential for volatility.

## Disclosures

CASH ALTERNATIVES – An investment in fixed income/floating rate notes or cash equivalent mutual funds that are neither insured nor guaranteed by the Federal Deposit Insurance Corporation or any other government agency.

SMALL CAP – Small cap stocks may be subject to a higher degree of market risk than large-cap stocks, or more established companies' securities. Furthermore, the illiquidity of the small cap market may adversely affect the value of an investment so that shares, when redeemed, may be worth more or less than their original cost.

INTERNATIONAL INVESTING – Additional risks are associated with international investing, such as currency fluctuations, political and economic instability, and differences in accounting standards.

INDEX – Investors cannot invest directly in indexes. The performance of any index is not indicative of the performance of any investment and does not take into account the effects of inflation and the fees and expenses associated with investing.

BOND DISCLOSURE – In general, the bond market is volatile, bond prices rise when interest rates fall and vice versa. This effect is usually pronounced for longer-term securities. Any fixed income security sold or redeemed prior to maturity may be subject to substantial gain or loss.

HIGH-YIELD BOND FUNDS – A high-yield fund is high due, in part, to the volatility and risk of the high securities market. High-yield funds are also known as "junk bonds," which carry higher risk of loss of principal and income than higher rated investment grade bonds.

Investing in mutual funds is subject to risk and potential loss of principal. There is no assurance or certainty that any investment or strategy will be successful in meeting its objectives.

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While diversification may help reduce volatility and risk, it does not guarantee future performance.

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