

## A second look at short duration bond funds: are investors missing the forest for the trees?



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*“A tightening monetary policy doesn’t necessarily correspond to rising long-term rates.”*

### Key takeaways

- The unusually high flows into short duration bond funds over the past few years likely reflects an attempt to tilt portfolios to a more defensive stance—but it’s a move that actually may be counterproductive
- The performance of longer duration bonds has been relatively uncorrelated with changes in monetary policy
- The one instance when short duration bonds have historically outperformed their long duration counterparts is when longer-term yields spike—but that trend has often reversed course soon thereafter
- The more vital consideration for many investors should be how duration affects their portfolio overall—and if history is any guide, long duration bonds have had a significantly better track record when it comes to adding ballast to an equity-oriented portfolio

### Executive summary

At John Hancock Investments, our portfolio consulting team reviews thousands of advisor portfolios every year, and one trend we’ve been witnessing lately is unusually high allocations to short duration products.

One reasonable hypothesis is that investors and advisors have been seeking to derisk their portfolios given the uncertainty surrounding the future trajectory of interest rates and the stability of the global economy. In the following pages, we take a closer look at the performance of short duration bonds—specifically, relative to their long duration counterparts. What our research reveals is that duration may not be as big a risk as investors imagine, particularly in the context of a broadly diversified portfolio.

### Short duration products have been among the hot dots in recent years

For the past three years, investors have been moving money into short and ultra-short duration bond funds at a rapid clip—nearly \$200 billion since the start of 2016.<sup>1</sup> It’s been a trend with understandable reasons behind it: The U.S. Federal Reserve (Fed) has been gradually hiking short-term interest rates since December 2015 as it’s worked to normalize monetary policy while yields on the long end of the curve have been near generational lows. From that perspective, investors have been given little reason to take on the extra duration risk. But does the historical performance data suggest that such a move actually pays off? And is it beneficial at the portfolio level for the typical investor?

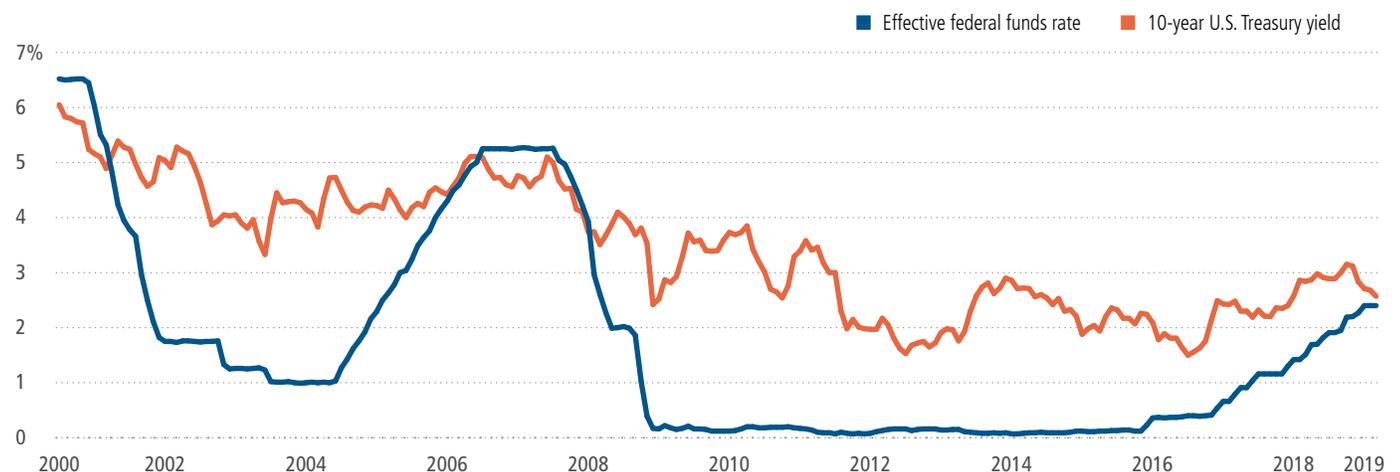
Looking at the last two Fed tightening cycles—2004 to 2006 and 2015 to 2018—short duration bonds, as measured by one- to five-year U.S. Treasuries, actually underperformed long duration bonds (10+ year U.S. Treasuries). In fact, longer duration Treasuries posted over double the returns in both time periods.

A key point to remember is that a tightening monetary policy doesn’t necessarily correspond to rising long-term rates. While the Fed controls the short end of the curve, market participants control the long end based on their expectations for future inflation. And expectations for future inflation remain muted based on a combination of cyclical and secular factors, ranging from fears of an upcoming recession to a growing realization that changing demographics and technology is more likely deflationary.

What about periods when the Fed was easing monetary policy? Looking at the last two examples—from 2001 to 2003 and again from 2007 to 2008—short duration bonds posted gains, but nowhere near the magnitude of those generated by their long duration counterparts. This too makes intuitive sense, but in this case, the data supports the intuition: The Fed is typically cutting rates against the backdrop of an economic slowdown—or, more recently, in the face of a material decline in asset prices—which is exactly when investors tend to flock to the relative safety of Treasuries.

### Short vs. long duration performance in different monetary policy environments

	Fed tightening cycles		Fed easing cycles	
	Jan 2001–Jun 2003	Sep 2007–Dec 2008	Jan 2001–Jun 2003	Sep 2007–Dec 2008
Short duration U.S. Treasuries (1–5 years)	18.88%	12.81%	3.52%	3.09%
Long duration U.S. Treasuries (10+ years)	29.63%	31.41%	10.43%	7.93%



Source: U.S. Federal Reserve Bank of St. Louis, Morningstar, as of 3/31/19. It is not possible to invest directly in an index. Past performance does not guarantee future results.

## Short duration bonds have tended to offer only short-term protection from rising yields

The one environment in which short duration has reliably outperformed is when long-term yields spike. Going back to 2000, we identified seven distinct periods when yields on 10-year U.S. Treasuries rose by 100 basis points or more—and short duration Treasuries outperformed in every one.

But that trend of outperformance hasn't lasted. During the 12 months that followed those 100 basis point jumps in yield, long duration bonds posted better returns in all instances—and often by a wide margin.

What does that reversion suggest? For that rare investor who can confidently predict the peaks and troughs in Treasury yields, manipulating a portfolio's duration profile may offer a measure of temporary downside protection. For the rest of us, this pattern suggests that there's wisdom in taking a longer-term view. The protection offered by short duration bonds—as the data above suggests—tends to be short-lived, and owning longer duration bonds across cycles has been a strategy that's tended to work out just fine.

## The bigger question: what role do investors expect bonds to play in a portfolio?

One of the primary reasons for owning bonds in the first place is to add ballast to a diversified, growth-oriented portfolio. Historically, Treasuries (both long and short duration) have had

low or negative correlations to equities, especially during times of equity volatility.

But correlation only measures the direction of performance, not magnitude—and by that token, long duration bonds have tended to be a better diversifier because of their potential to offset equity market declines. This quality often manifests itself in the form of a higher volatility figure, but that volatility tends to appear exactly when it's needed most.

*“The protection offered by short duration bonds has historically tended to be short-lived.”*

Despite the fact that long duration U.S. Treasuries entailed more volatility than short duration (10% versus roughly 2%), the volatility at the portfolio level was essentially a wash in the 60/40 mix and only moderately higher when allocating to long duration bonds in the 40/60 portfolio. That would appear to be a reasonable trade-off in both portfolios given the significant increase in both overall return and in the portfolios' Sharpe ratio; both long duration portfolios also provided materially lower downside capture ratios. For investors who own stocks, duration, it would seem, serves a vital role in a diversified portfolio.

## Short vs. long duration performance

### Spike in 10-year U.S. Treasury yields (100+ basis point move)

	Nov 2001– Apr 2002	Jun 2003– Jun 2004	Jun 2005– Jun 2007	Dec 2008– Apr 2010	Oct 2010– Feb 2011	Jul 2012– Dec 2013	Jul 2016– Nov 2018
Short duration U.S. Treasuries (1–5 years)	0.39%	0.04%	6.38%	2.50%	-0.63%	0.35%	-0.32%
Long duration U.S. Treasuries (10+ years)	-4.63%	-5.42%	0.79%	-1.34%	-9.11%	-13.19%	-11.09%

### 12 months following spike in 10-year U.S. Treasury yields

	May 2002– Apr 2003	Jul 2004– Jun 2005	Jul 2007– Jun 2008	May 2010– Apr 2011	Mar 2011– Feb 2012	Jan 2014– Dec 2014	Dec 2018– ?
Short duration U.S. Treasuries (1–5 years)	7.26%	2.52%	8.43%	3.06%	3.31%	1.17%	N/A
Long duration U.S. Treasuries (10+ years)	17.19%	16.79%	12.65%	6.31%	28.47%	25.08%	N/A

Source: U.S. Federal Reserve Bank of St. Louis, Morningstar, as of 3/31/19. It is not possible to invest directly in an index. Past performance does not guarantee future results.

## Impact of short and long duration bonds in a diversified portfolio (1/1/00–12/31/18)

	60/40 portfolio (stocks/bonds)		40/60 portfolio (stocks/bonds)	
	Using short duration Treasuries	Using long duration Treasuries	Using short duration Treasuries	Using long duration Treasuries
Average annual total return	4.8%	6.5%	4.4%	6.9%
Risk (standard deviation)	8.2%	8.3%	5.2%	7.2%
Sharpe ratio	0.39	0.59	0.54	0.73
Upside capture	61.4%	59.7%	42.4%	39.9%
Downside capture	52.9%	40.5%	30.1%	11.9%
Max drawdown	-29.3%	-26.5%	-17.0%	-13.8%

Source: Morningstar, as of 12/31/18. See the important disclosures section below for definitions of indexes and risk measures. It is not possible to invest directly in an index. Past performance does not guarantee future results. The data cited above is a hypothetical illustration and does not represent the performance of any John Hancock fund.

### Intermediate-term bond funds can represent an attractive compromise

There is, of course, a middle ground. The largest fixed-income category in the fund industry is intermediate-term bonds, and for good reason. These types of funds entail a moderate level of duration risk, and most active managers have the flexibility—and the incentive—to make changes to their portfolio’s rate sensitivity as market conditions change.

The bottom line is that investors who aren’t in the business of timing the bond market may want to reconsider how useful a short duration strategy is likely to be to their long-term goals. Duration, of course, is a portfolio risk, but it’s one for which investors are compensated for taking in the form of higher coupons. Fixed-income investors with longer time horizons may be leaving returns on the table by looking for safety in short duration bond funds.

Short duration bonds are represented by the Bloomberg Barclays U.S. 1–5 Year Treasury Bond Index, which tracks the performance of the U.S. government bond market and includes public obligations of the U.S. Treasury with a maturity between one and five years. Long duration bonds are represented by the Bloomberg Barclays U.S. Long Treasury Index, which tracks the performance of U.S. Treasury obligations with maturities of 10 years or more. Stocks are represented by the S&P 500 Index, which tracks the performance of 500 of the largest publicly traded companies in the United States. It is not possible to invest directly in an index.

Standard deviation is a statistical measure of the historic volatility of a portfolio. It measures the fluctuation of a fund's periodic returns from the mean or average. The larger the deviation, the larger the standard deviation and the higher the risk. Sharpe ratio is a measure of excess return per unit of risk, as defined by standard deviation. A higher Sharpe ratio suggest better risk-adjusted performance. Upside capture ratio measures a manager's performance in up markets relative to the market itself. Downside capture ratio measures a manager's performance in down markets relative to the market itself. Maximum drawdown is the maximum loss from a peak to a trough of a portfolio before a new peak is attained. It is an indicator of downside risk over a specified time period.

Investing involves risks, including the potential loss of principal. See each fund's prospectus for more details.

Diversification does not guarantee a profit or eliminate the risk of a loss.

**Clients should carefully consider a fund's investment objectives, risks, charges, and expenses before investing. To request a prospectus or summary prospectus with this and other important information, call us at 800-225-6020, or visit us at [jhinvestments.com](http://jhinvestments.com).**