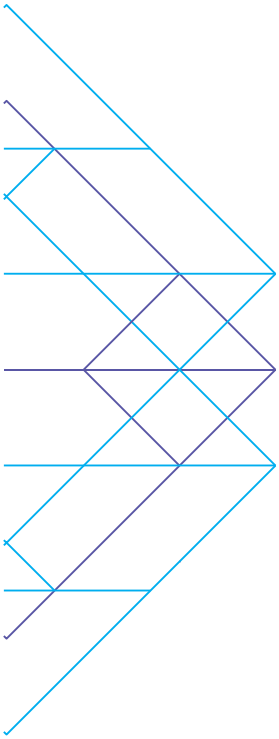
September 2025

Bond Market Focus: Understanding Treasury Yields with Survey Data

Understanding Return Expectations, Part 8



Executive Summary

Survey data helps us decompose the Treasury yield into three parts: inflation expectations, real rate expectations, and required bond risk premia. All three key drivers fell sharply from the early 1980s to the early 2020s. The latter two have since risen from negative to positive levels. Inflation expectations have remained well anchored, but this benign situation faces substantial risks amid today's policy challenges.

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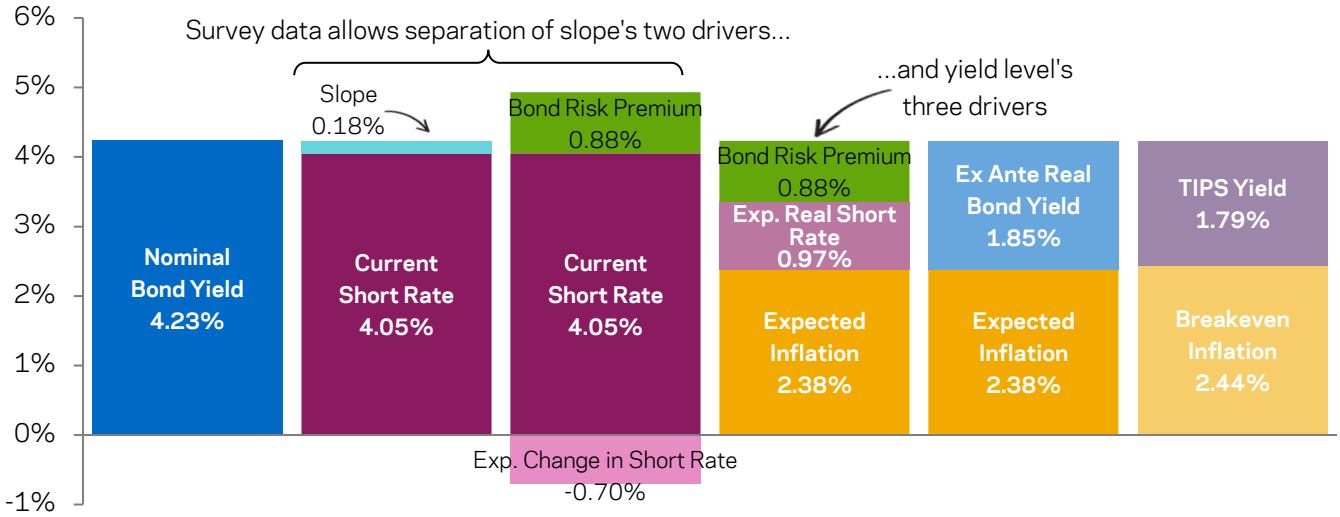
Introduction

While investors' main focus tends to be on equity markets, government bonds are at the heart of monetary policy and the base for pricing riskier assets, given their perceived role as riskless assets. Indeed, the U.S. 10-year Treasury is sometimes called the most important asset in the world. Our series *Understanding Return Expectations* now turns to understanding government bond markets, starting with the key determinants of the 10-year Treasury yield. The most common decomposition is to split the 10-year yield into the short rate and yield curve slope; we will cover the slope in Part 9, including the evidence on its predictive abilities. This paper (Part 8) focuses on the bond yield level.

Government bond yields can be decomposed in many ways. Subtract the short rate and you get the term spread or slope; subtract expected average inflation and you get the real bond yield; subtract the expected average short rate over the life of the bond and you get the required term premium (or bond risk premium, BRP).[1]

Exhibit 1 shows all these decompositions for the U.S. 10-year Treasury yield at the end of August 2025, based on both survey and market data. The slope of near zero is seen to be the result of two offsetting components—expected rate cuts and a positive BRP. For some components there are survey and market estimates; these can diverge for various reasons, but both measures of inflation expectations are currently near 2.4%.[2] Arguably, we gain the best understanding by decomposing the bond yield into three parts: expected average inflation, expected average real short rate, and BRP (4th column). This split will be our focus.

Exhibit 1. Decomposing the 10-Year Treasury Yield Using Survey Data as of Aug 29, 2025



Sources: Bloomberg, Consensus Economics and AQR. All data are for 10-year maturity or averaged over 10-year horizon, except short rate which is 3-month T-Bill. Past performance is not a guarantee of future performance.

[1] The decomposition is approximate since we ignore convexity and credit risk effects, but it captures the key elements of government bond yield behavior. For details, see Best-Byrne-Ilmanen (1998) and Ilmanen (2011, chapter 9).

[2] One criticism toward survey-based rate estimates is that economists may not be representative of the market. Thus, it is comforting that the New York Fed has been running two practitioner surveys since 2013/4, and there are no systematic differences of opinion between economists' and investors' or primary dealers' rate forecasts. These survey-based expectations also move closely with model-based rate expectations (and resulting BRP) run by Fed researchers. The Kim-Wright (2005) and Adrian-Crump-Moench (2013) term structure models' estimates are updated regularly on Fed websites: term premium estimates were 0.47% and 0.80% respectively as of August 2025. These models presume mean-reverting rate expectations, but their estimate of the target mean may include some hindsight.

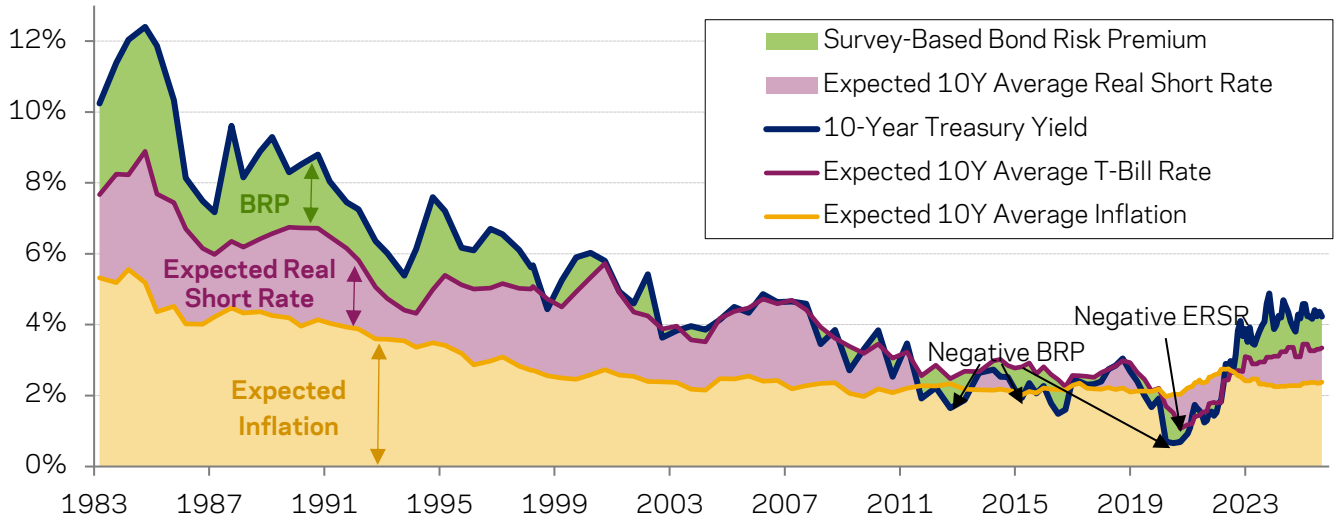
The Yield as a Sum of Parts

Exhibit 2 shows the key three-part decomposition since 1983,[3] stacking the components to give the 10-year yield itself. **Exhibit 3** plots them individually.[4] All three components contributed to the decline in Treasury yields over four decades, but they fell at different times:

- **Inflation** expectations fell mainly in the first two decades, from near 5% in the early 1980s to below 3% in 1998; they've been stable in the 2-3% range since then.
- Expected **real short rate** fell mainly in the last two decades, from 2-3% in the early sample to below 1% in 2010 (after the Global Financial Crisis and the zero-rate policy and quantitative easing in its aftermath) and below 0% in 2020 (in the Covid crisis). This series is a good proxy for so-called R*, the neutral real policy rate.
- The required **bond risk premium** fell most gradually, from near 3% in the early sample to below 1% in late 1990s and to negative levels for much of the 2010s. Ilmanen (2011 and 2022) books suggest that a loosely level-dependent inflation uncertainty premium was the key reason for the BRP fall in the 1990s, whereas the fall to negative levels reflects some mix of bonds' improved safe-have role (negative stock-bond correlation since 2000) and the Fed's bond purchases (quantitative easing).

Exhibit 2. Decomposing the 10-Year Treasury Yield Using Survey Data

Jan 1983 – August 2025



Sources: AQR, FRED database (St. Louis Fed), Blue Chip Economic Indicators, Consensus Economics. As of August 29, 2025. Besides the actual 10-year Treasury yield, the chart includes consensus forecasts of next-decade average 3-month Treasury bill rate and the consumer price inflation rate. Past performance is not a guarantee of future performance.

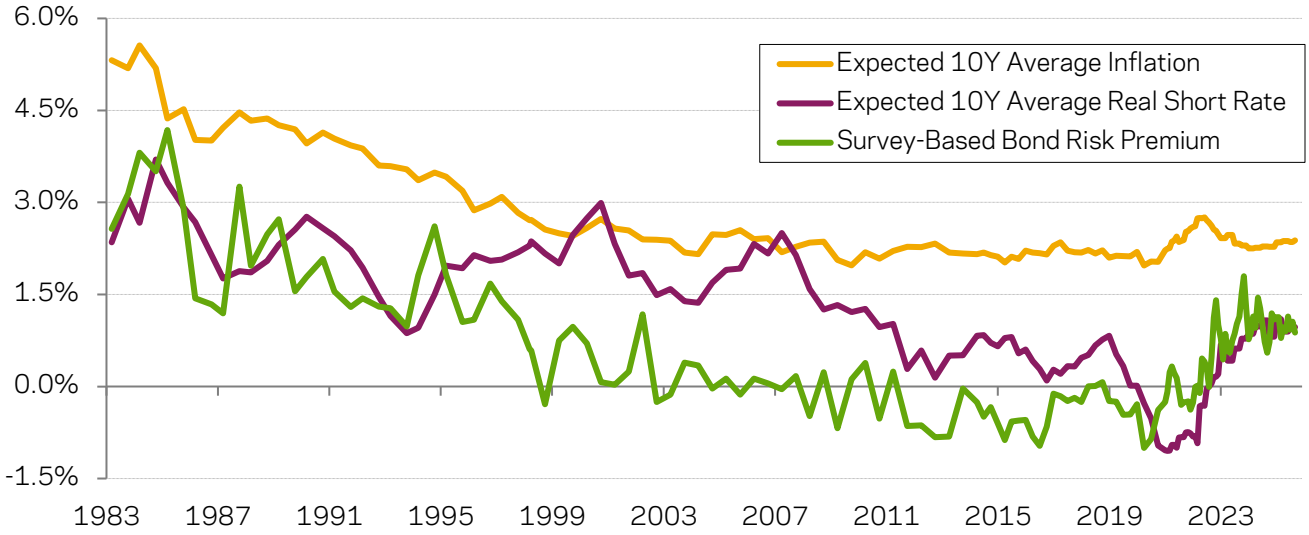
[3] Due to survey data availability, this history only covers the multi-decade yield decline since the early 1980s and misses the preceding rising-yield decades. The decomposition relies on Treasury yields and economist rate surveys published in *Blue Chip Economic Indicators* and *Consensus Forecasts*. Other data suggest that all three-component series display a mountain shape since the 1950s, peaking in the early 1980s (see Ilmanen (2011, 2022)). Longer evidence based on the Livingston survey's short-term forecasts of short-dated T-bill rates goes back to mid-1900s, while decade-ahead inflation and T-bill rate surveys are available since 1978 and 1983, respectively. Market-based decompositions became possible only after inflation-linked TIPS were issued in 1997. Outside the US, comparable survey data sets are shorter, starting in 1990 for inflation expectations and 2016 for short rates.

[4] Readers wanting to see even longer yield histories than four decades, please see Part 3 of this series. Exhibits 5 and 6 display evidence of *centuries* of falling real yields – though we argue that this downtrend may have reached its natural limits.

The 10-year yield and all its three components reached multi-decade record-lows in 2020-21. US inflation then rose to 9% in mid-2022—for reasons that are still debated—before falling back to near 3% a year later. However, long-run inflation expectations remained quite well anchored through this episode, presumably thanks to the Fed's credibility. In 2025, economist surveys and markets ("breakeven inflation" or the difference between nominal and inflation-linked Treasury yields) seem quite complacent to us. Consumers' inflation expectations have risen well above economists' expectations (even more than normally[5]).

While economists' long-run inflation expectations did not move much in recent years, the 10-year Treasury yield rose from its 0.7% trough in 2020 to above 4% in much of 2023-25. This rise reflects both higher real policy rate expectations and required bond risk premia. Both series rose from negative levels in 2021 to positive 1% or higher levels. These increases reflect economist perceptions of a higher R* (given no recession despite tighter monetary policy) and investor requirements of a higher BRP (given the flip of stock-bond correlation from negative to positive as well as widening concerns of lax fiscal policy).

Exhibit 3. The Three Components of the 10-Year Treasury Yield, Jan 1983 – Aug 2025



Sources: AQR, FRED database (St. Louis Fed), Blue Chip Economic Indicators, Consensus Economics. As of August 29, 2025. Past performance is not a guarantee of future performance.

The danger of de-anchored inflation expectations seems (to us) acute in 2025 when the Fed's independence is being challenged (aggressive calls for rate cuts and threats of firing Fed personnel), coinciding with loose fiscal policies and unprecedented tariff policies. The current Administration seems to like playing with fire, as rising inflation expectations could have a triple-whammy impact on long Treasury yields. Besides the direct impact through inflation expectations, the level-dependent inflation uncertainty premium would presumably rise, and our research on stock-bond correlation shows that rising inflation uncertainty would likely push this correlation higher, thereby hurting Treasuries' role as safe-haven assets.[6] These outcomes would

[5] We use economists' long-term inflation expectations throughout this series to convert between nominal and real expectations of prospective asset returns. It is thus useful that these expectations appear broadly rational. (In contrast, the Appendix of Part 7 presents evidence of consumers' less rational expectations, and elsewhere I highlight the possibility of money illusion in equity investors' return expectations.)

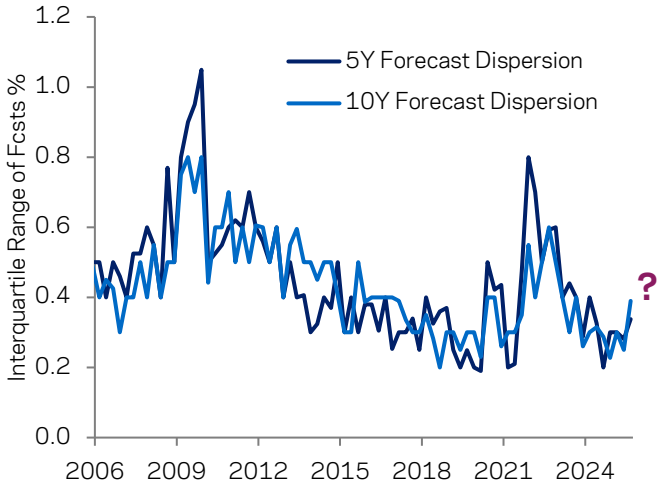
[6] See Brixton et al. (2024).

be harmful to all risky assets: what happens in Treasuries does not stay in Treasuries...

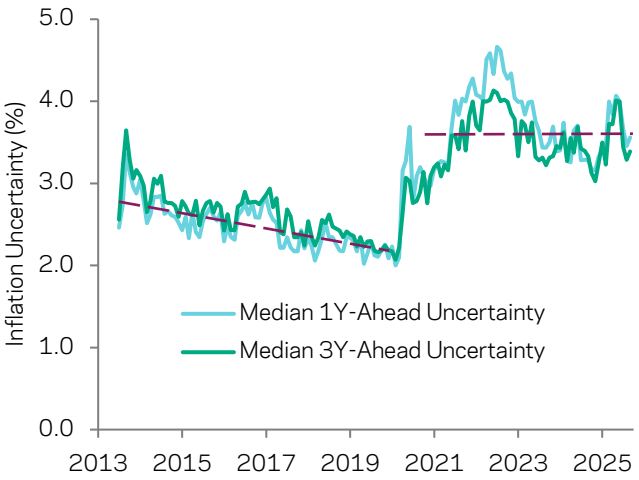
This dangerous predicament is not fully apparent in survey data of inflation uncertainty, as shown in **Exhibit 4**. Economists' forecasts became dispersed in 2022 but returned to close agreement by 2024, seeing only a small up-tick in summer 2025 (Panel A). In contrast, consumer uncertainty has remained elevated in the years following the 2022 inflation shock (Panel B).

Exhibit 4. Tracking Inflation Uncertainty with Survey Data

A. Dispersion in Economists' Forecasts of Long-Term Inflation, Jan 2006 – Aug 2025



B. Consumer Inflation Uncertainty Jun 2013 – Aug 2025

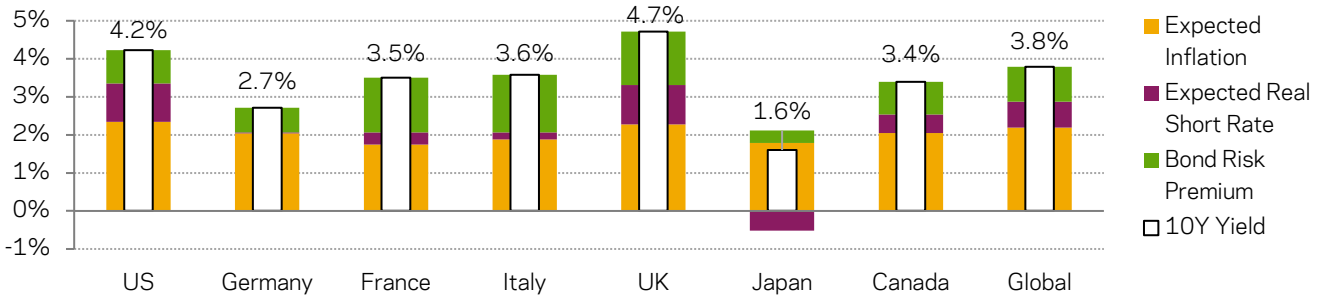


Sources: Federal Reserve Banks of Philadelphia and New York. Left chart shows dispersion among participants in the Survey of Professional Forecasters. Right chart shows an estimated interquartile range based on probabilities assigned by participants to different inflation outcomes, from the Survey of Consumer Expectations.

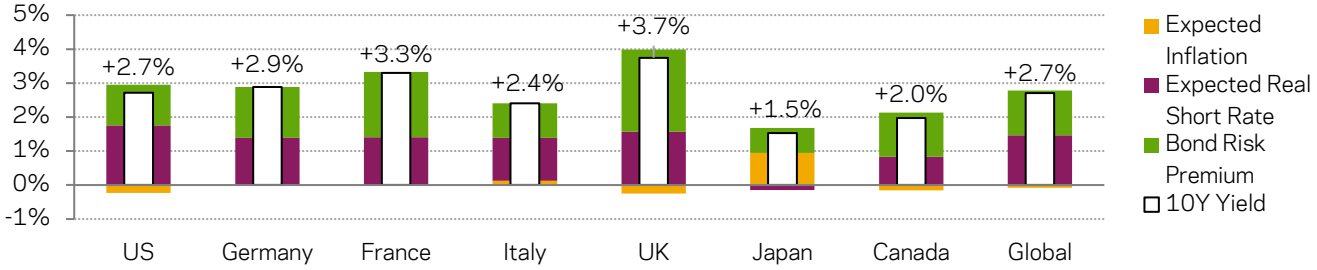
Survey datasets are increasingly available for other major markets. **Exhibit 5** shows the same 3-part decomposition as the earlier exhibits for seven major government bond markets. Survey data make clear that the large yield rises since 2021 have been driven by rising expected real short rates and bond risk premia—and not by higher long-term inflation expectations (except in Japan).

Exhibit 5. Decomposing Global Bond Yields

A. Yields as of August 28, 2025



B. Changes Since December 31, 2021



Sources: Bloomberg, Consensus Economics and AQR. All data are for 10-year maturity or averaged over 10-year horizon. Past performance is not a guarantee of future performance.

Concluding Thoughts

Survey-based decompositions of the 10-year Treasury yield over time help us better understand the sources of bond yield variations, including the multi-decade decline since the 1980s and the sharp rise since 2022. Current inflation expectations seem complacent to us (given the ongoing challenges to Fed independence and credibility), while real Treasury yields seem more fairly priced (but the impact of their rise since 2022 on real long-term assets like public or private equities has been surprisingly muted, as noted in earlier reports).

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investor's actual return.

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