When Bonds Move with Stocks

Risk, Return, and the Term Premium in Treasury Bonds

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Based on Campbell, Pflueger & Viceira (20, 26) · Cieslak, Li & Pflueger (25) · Leombroni, Pflueger & Sunderam (26)

Roadmap

1. Setting the Scene
2. Empirical Facts: Nominal, Real and Inflation
3. Drivers of Bond-Stock Comovements
4. Implications for Treasury Yields

A Fact You May Have Missed

Are government bonds safe?

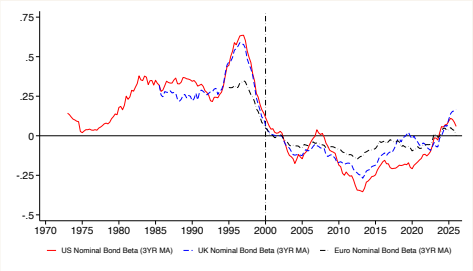
Most investors assume bonds protect against stock-market downturns. But this has *not always been true* — and may not be so in future.

The **bond-stock beta** summarizes how bond and stock returns move together:

- Negative β (2000-2022): bonds rise when stocks fall $\Rightarrow$ bonds are a safe haven
- Positive β (1970s-1990s): bonds and stocks rise/fall together $\Rightarrow$ bonds are risky

Around the year 2000 this beta flipped sign — a fundamental change in a cornerstone of financial markets.

Figure 1 of Campbell, Pflueger & Viceira (2026)



Three-year rolling regressions of daily 10-year government bond returns on local stock returns, smoothed over 12 quarters. US, UK, and Eurozone shown.

Why It Matters: Bonds as Portfolio Insurance

A basic insight from portfolio theory:

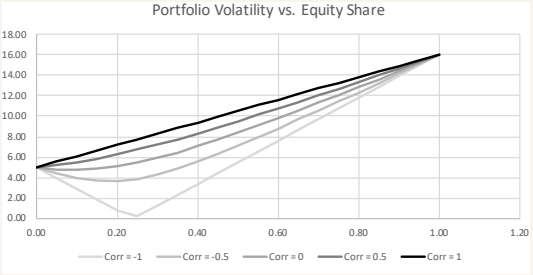
When bond-stock correlation is negative, bond-stock portfolios are less volatile.

- Corr $= -1$: strong diversification benefit
- Corr $= +1$: no hedging; investor is stuck

Implications for pension fund and endowment portfolio allocation

Attractiveness of alternatives (Kaminsky and Sun (2024))

Portfolio Volatility by Bond-Stock Corr.



Based on Norges Bank Investment Management Discussion Note 1893-966X (2016)

Market Voices

DE Shaw &Co (2021)

In short, the safe haven status of Treasury securities was put to a major test, and it passed. (…) As argued in that paper, we believe that the stock-bond correlation depends critically on the type of shocks hitting the economic system.

WSJ

5/22/2022

War, Inflation Knock World Economy Off Balance

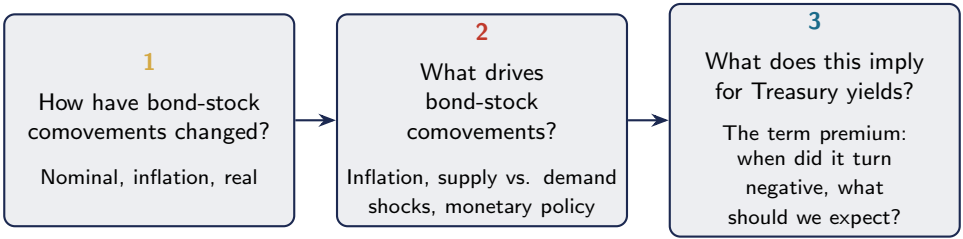
The global economy is sputtering and financial markets are flashing red, (…) The culprits are surging inflation, a robust central-bank response, anxious investors (…)

Goldman Sachs | Economics Research

6/12/2025

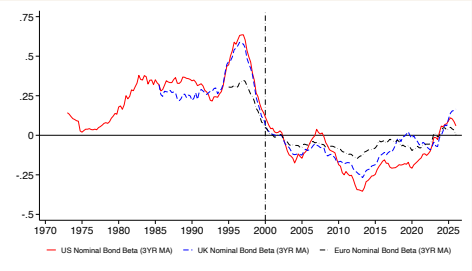
"record-high correlation between stock returns and Treasuries (…) [creates a] need for greater risk premium on bonds to incentivize demand."

A Research Agenda in Three Questions



50 Years of Bond-Stock Comovements

Figure 1 — Campbell, Pflueger & Viceira (2026)

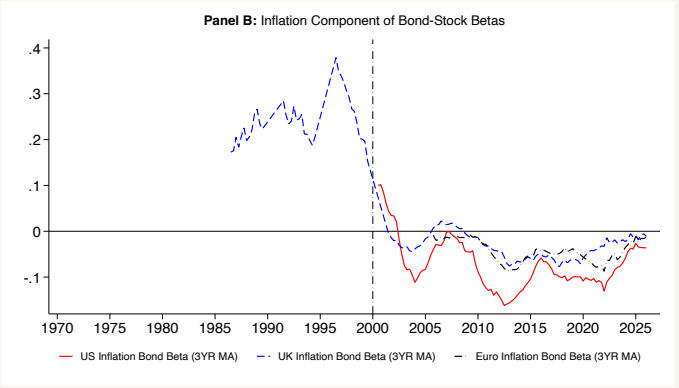


Key observations:

- Positive betas throughout the 1970s–1990s
- Sign switch around 2000
- Deep negative betas 2000–2022
- Reversion towards positive in 2022–2025 (?)
- Pattern similar across US, UK, and Europe

Decomposing Bond Risks: Inflation

Figure 2B — Campbell, Pflueger, and Viceira (2026)



The stagflation link:

- Inflation component = return on nominal Treasury bond minus matched inflation-indexed
- Before 2000: inflation *rose* in recessions ⇒ bonds fell when stocks fell ⇒ positive beta
- After 2000: inflation *fell* in recessions ⇒ bonds rallied when stocks fell ⇒ negative beta

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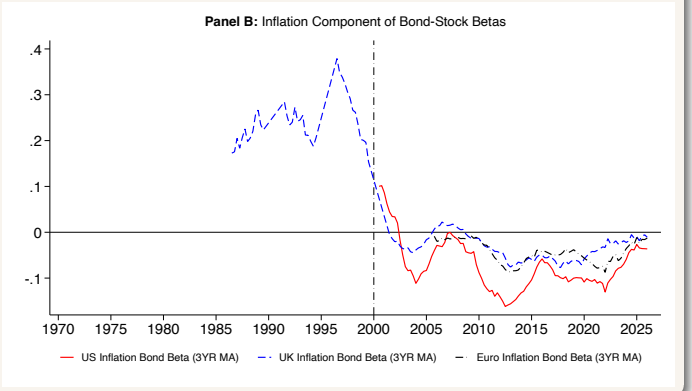

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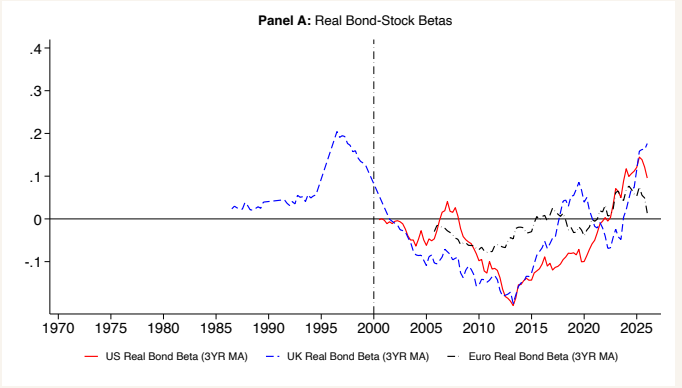
Insights from macro-finance model:

1. Stagflations ⇒ nominal bonds risky
2. Flight-to-safety can be lost when bonds are risky

Decomposing Bond Risks: Real bond yields

Figure 2A — Campbell, Pflueger, and Viceira (2026)



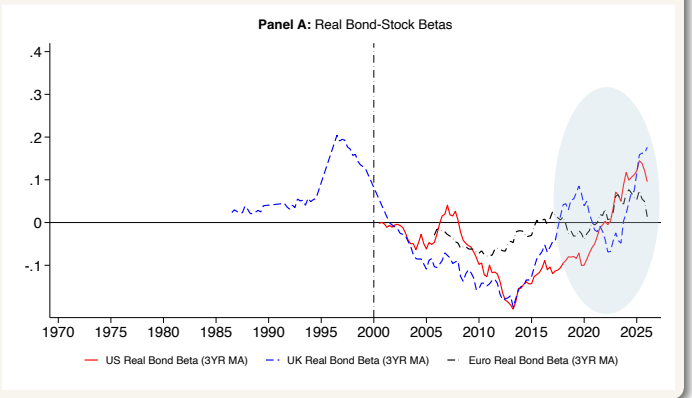
Key insights:

- Inflation-indexed bond returns or nominal minus inflation swap
- Real bond beta positive, but smaller than inflation component pre-2000
- Negative but smaller than inflation component after 2000

Pflueger (2025, JFE)

Decomposing Bond Risks: Real bond yields

Figure 2A — Campbell, Pflueger, and Viceira (2026)



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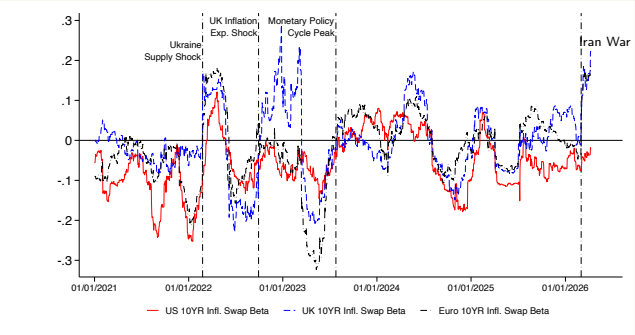
Contrast to 1980s: *Real bond-stock betas lead the way.*

Pflueger (2025, JFE)

Recent Events (2021–2025): High-Frequency Evidence

Figure 3 of Campbell, Pflueger & Viceira (2026)



Bond-stock betas increase with

1. Supply shocks – more so for exposed countries
2. Stronger Fed inflation response

Three Forces Shaping Comovements

Inflation Cyclicality

Stagflation $\Rightarrow$ bonds risky.

When bad macro news raises inflation, bonds fall with stocks.

1970s–90s: High-inflation recessions

2000s: Inflation fell in recessions

Supply vs. Demand Shocks

Supply shocks (Ukraine 2022, energy crises): inflationary *and* recessionary $\Rightarrow$ positive beta.

Demand shocks for Treasury convenience: lower output *and* inflation $\Rightarrow$ negative beta.

Monetary Policy

An aggressive central bank that prioritizes inflation over output amplifies bond risks.

Contrast with 2021: Expectations of 'soft landing'

With stronger Fed response (2022-2023): Return of positive bond-stock betas

Monetary policy models with time-varying risk premia: Campbell, Pflueger & Viceira (2020, JPE); Pflueger (2025, JFE); Cieslak, Li, and Pflueger (2025).

Taking Stock: What Drives Bond Risks?

- **Post-Millennium:** Hedging properties of bonds during the 2000s were the result of both "good luck" and "good policy"
  - Fewer incidences of supply-type inflation shocks
  - Demand shocks emanating from financial markets
  - Monetary policy with a less single-minded inflation focus than under Volcker

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- **Post-Pandemic:** Initially priced "soft landing"
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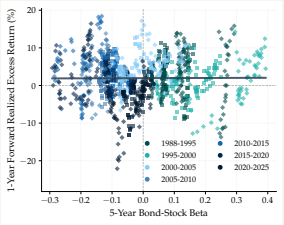
- **Post-Pandemic:** Initially priced "soft landing"
  - Real bond-stock betas led the way
- **Positive bond-stock betas here to stay?** Requires *both*
  (a) supply-type inflation shocks, *and*
  (b) a strongly anti-inflationary monetary policy rule

  Neither element alone is sufficient

Do Investors Require a Risk Premium when Bonds are Risky?

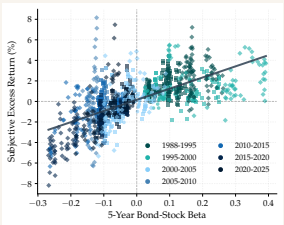
Realized returns vs. beta



Leombroni, Pflueger, Sunderam (2026), Figure 1A

Noise from interest-rate *surprises* swamps any systematic relationship.

Subj. expected returns vs. beta

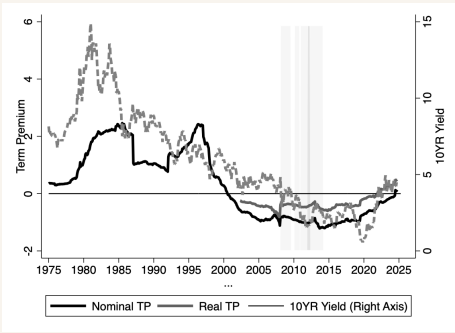


Leombroni, Pflueger, Sunderam (2026), Figure 1B

Using professional survey forecasts strips out yield surprises, revealing the **CAPM relationship.**

The Implied Term Premium

Figure 8 — Leombroni, Pflueger & Sunderam (2026)



Shaded bands: QE episodes (QE1–QE3, COVID QE).

Takeaway:

- $\approx \frac{1}{2}$ of the fall in 10-year yields since the 1980s attributable to bonds' better hedging properties
- Term premium turns *negative in 2001* — earlier than Adrian-Crump-Moench (2011) or Kim-Wright (2015)
- Recent rise since 2022 driven mainly by the *real* component

Takeaway: *Greater bond risks likely to require higher Treasury yields*

Summary

1. **Bond-stock comovements change sign.** Bonds were risky before 2000, safe after, and may be turning risky again. Negative bond-stock comovent lowers volatility of bond-stock portfolio.
2. **Role of inflation:** Stagflations during 1970s through 1990s, low-inflation recessions during 2000s. Flight-to-safety disappears when risk is stagflation.
3. **Return to risky Treasury bonds?** Requires both a) supply-type shocks and b) a strong monetary policy response to inflation. Neither alone is sufficient. Positive bond-stock betas returned after Fed pivot on inflation 2022-2023.
4. **Bond risk premium rises with bond-stock comovements** — but only using *survey-based* expected returns. Greater bond risks tend to require higher Treasury yields.