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. What Drives Bond-Stock Comovements?
3. Bond-Stock Betas and Risk Premia
4. Implications for Treasury Yields

A Fact You May Have Missed

Are government bonds safe?

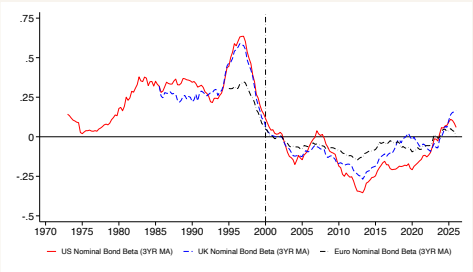
Most investors assume bonds protect against stock-market downturns. But this has *not always been true* — and may not be so in future.

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

- Positive β: bonds and stocks rise/fall together $\Rightarrow$ bonds are risky
- Negative β: bonds rise when stocks fall $\Rightarrow$ bonds are a safe haven

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:

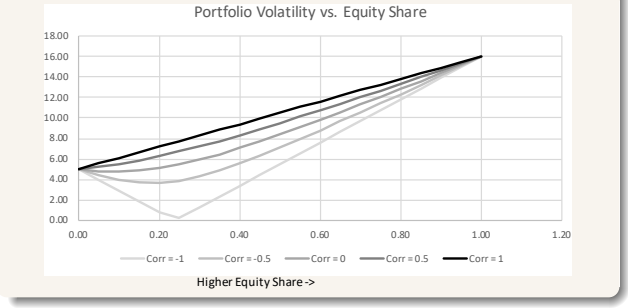
When bond-stock correlation is negative, bond-stock portfolios are less volatile.

- Corr $= -1$: strong diversification benefit
- Corr $= 0$: modest diversification benefit
- Corr $= +1$: no hedging; investor is stuck

Implications for pension fund and endowment portfolio allocation

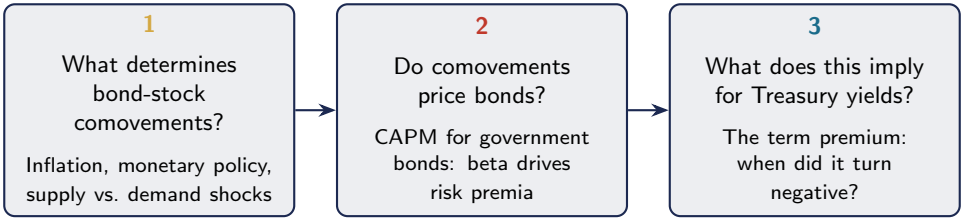
Attractiveness of alternatives (Kaminsky and Sun (2024))

Portfolio Volatility by Bond-Stock Corr.



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

A Research Agenda in Three Questions



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 (…)

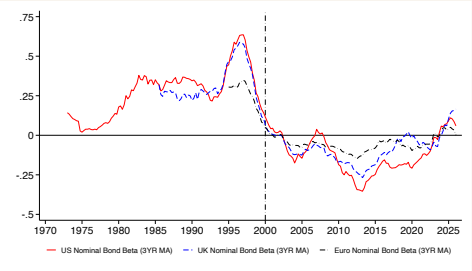
Goldman Sachs | Economics Research

6/12/2025

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

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
- *Too early* to call a permanent shift

Three Forces Shaping Comovements

Inflation Cyclicality

Stagflation ⇒ bonds risky.

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

1970s–80s: supply shocks dominated.
2000s: demand shocks arising from Treasury convenience.

Monetary Policy

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

2022–23 hiking cycle ⇒ return of positive betas.

Supply vs. Demand Shocks

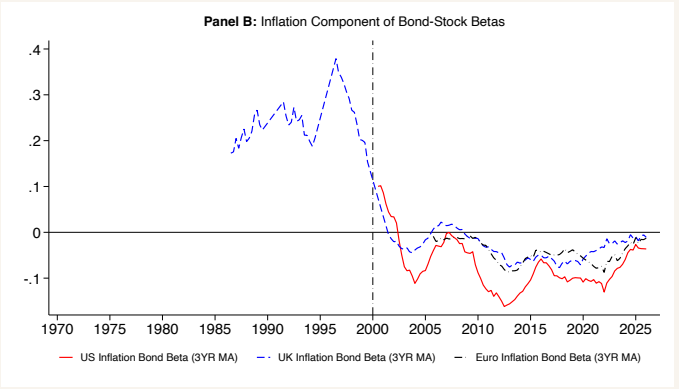
Supply shocks (Ukraine 2022, energy crises): inflationary *and* recessionary ⇒ positive beta.

Demand shocks: lower output *and* inflation ⇒ negative beta.

New Keynesian model intuition: Campbell, Pflueger & Viceira (2020, JPE); Pflueger (2025, JFE); Cieslak, Li, and Pflueger (2025).

Decomposing Bond Risks: The Inflation Component

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



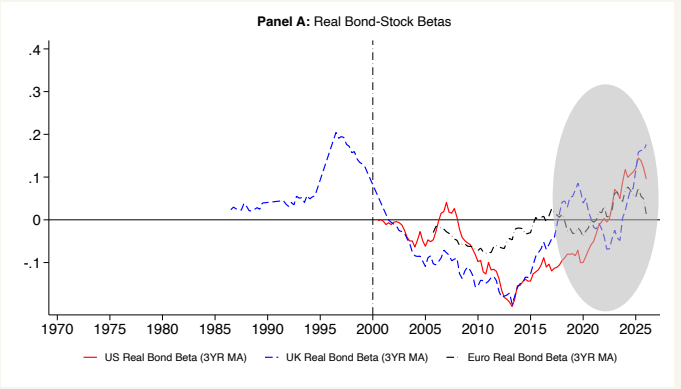
The stagflation link:

- 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
- Inflation component *important driver* of the sign switch

Campbell, Pflueger, and Viceira (2020, JPE)

Decomposing Bond Risks: The Real Component

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



Key insights:

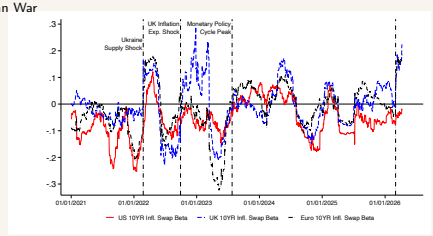
- Real bond beta also turned, but *smaller* than inflation component in the pre-2000 period
- All regions turn negative after 2000 — real rates became pro-cyclical

Different from 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)



Four annotated events:

- **Ukraine invasion, UK mini-budget, Iran war**: supply shock raised betas depending on exposure
- **Fed hiking cycle peak (late 2023)**: made US bonds risky again

Takeaway:
Supply shocks *and* aggressive monetary policy are the triggers for positive bond-stock comovements.

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
  - Convenience yield shocks helped (Cieslak, Li, and Pflueger (2025))
  - Monetary policy with a less single-minded inflation focus than under Volcker

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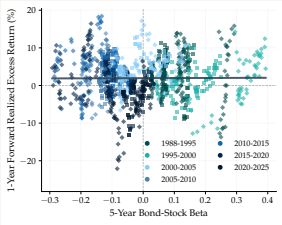
- **Positive bond-stock betas here to stay?** Requires *both*
  (a) supply-type inflation shocks, *and*
  (b) a strongly anti-inflationary monetary policy rule

  Neither element alone is sufficient

Do Betas Price Bonds? The Puzzle

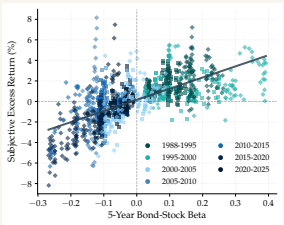
Realized returns vs. beta



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

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

Subj. expected returns vs. beta

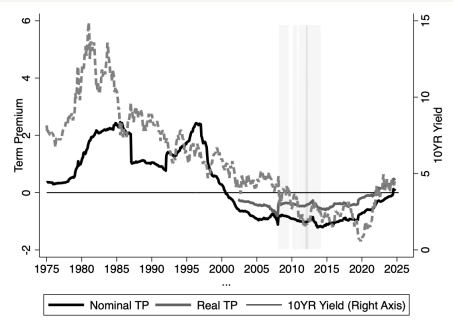


Leombroni, Pflueger, Sunderam (2026), Figure 1B

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
- Implications for monetary policy

Summary

1. **Bond-stock comovements change sign.** Bonds were risky before 2000, safe after, and may be turning risky again. Recent change led by real bond-stock betas, different from change around millennium.
2. **The sign switch matters for investors.** Negative bond-stock correlations lower overall portfolio volatility for bond-stock investors.
3. **The CAPM works for government bonds** — but only using *survey-based* expected returns. Bond-stock betas explain 66% of variation in subjective excess returns with a price of risk comparable to the equity premium.
4. **The implied term premium turned negative around 2001**, earlier than conventional estimates. About half the long decline in Treasury yields reflects falling term premia, not just a lower natural rate. The recent rise in yields is also roughly half term-premium driven.