



Oil price shocks, safe-haven demand and the dynamics of US interest rates

Evidence from historical episodes and the 2026 Iran shock

Do oil price shocks push bond yields higher—or lower? Historical evidence shows that the answer depends less on the shock itself than on the macroeconomic regime in which it occurs. Understanding this distinction is key to interpreting the current market reaction to the Iran-related oil shock.

Oil price shocks are among the most important geopolitical events for financial markets. Yet their impact on government bond yields is far from uniform. Higher energy prices can push inflation expectations higher and lead to rising interest rates, but they can also weaken economic activity and trigger safe-haven demand for government bonds. In this paper, Dr Harald Henke, Principal Investment Strategist Fixed Income, examines how US Treasury yields have reacted to major oil price shocks since the 1960s. The historical evidence shows that the bond market response depends primarily on the macroeconomic regime in which the shock occurs. When inflation is already elevated and monetary policy is restrictive, oil shocks tend to reinforce inflation dynamics and push yields higher. When inflation is moderate and growth momentum is fragile, the growth channel often dominates and yields tend to decline as recession risks rise. The current Iran-related oil shock appears to fall between these historical regimes. Since the escalation of tensions in late February 2026, US Treasury yields have increased across maturities, with both two-year and ten-year yields rising by a similar magnitude. This parallel upward shift in the yield curve suggests that markets are repricing the overall level of interest rates rather than responding primarily through either the classical inflation channel or a flight-to-quality dynamic.

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Abstract

This paper examines the reaction of US Treasury yields to major oil price shocks from 1962 to 2026 using an event-study framework. The results show that bond market responses depend strongly on the macroeconomic regime preceding the shock. Inflationary environments tend to produce rising yields and yield-curve flattening, while fragile growth regimes are more often associated with falling yields and safe-haven demand.

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Key takeaways

- **Oil shocks influence bond markets through two competing channels**
Higher oil prices can increase inflation expectations and push interest rates higher, but they can also weaken economic activity and trigger safe-haven demand for government bonds.
- **The macroeconomic regime determines which channel dominates**
When inflation is already elevated and monetary policy is restrictive, oil shocks tend to push yields higher.
When inflation is moderate and growth momentum is fragile, yields are more likely to decline as recession risks increase.
- **Historical episodes show highly diverse bond market reactions**
Past oil shocks have produced very different yield dynamics depending on the prevailing economic environment, highlighting the importance of the broader macro regime.
- **The current Iran shock shows an unusual market response**
Both two-year and ten-year US Treasury yields have risen by a similar magnitude, resulting in a parallel upward shift of the yield curve rather than flattening or steepening.
- **Markets appear to be repricing real interest rates rather than pricing a recession shock**
The current reaction suggests investors are reassessing the overall interest-rate environment under heightened geopolitical uncertainty.

1. Introduction

Sharp increases in oil prices are among the most consequential macroeconomic disturbances in modern financial markets. Oil is a critical input into global production and transportation, and sudden price increases therefore affect both inflation dynamics and real economic activity. For government bond markets this creates an inherent tension: an oil shock may raise inflation expectations and push interest rates higher, yet it may simultaneously weaken growth and trigger safe-haven demand for government bonds that drives yields lower.

Understanding which of these mechanisms dominates is central to interpreting bond market reactions to geopolitical events. The current outbreak of war between the US/Israel and Iran provides a particularly relevant case. Oil prices have risen sharply amid disruptions to energy supply routes in the Persian Gulf. Financial markets must therefore determine whether the shock represents primarily an inflationary supply disturbance or a negative growth shock that encourages flight-to-quality flows into government bonds.

The historical record demonstrates that both outcomes are possible. During the oil shocks of the late 1970s, interest rates rose sharply as markets repriced inflation and monetary policy. In other episodes, including parts of the Gulf War period in 1990–1991 and the financial crisis environment of 2007–2008, bond yields declined as investors sought safety and priced in monetary easing.

We analyse the behaviour of US Treasury yields around major oil price shocks between 1962 and 2026. The objective is twofold.

First, we examine the reaction of interest rates over several horizons following oil shocks.

Second, we investigate whether specific macroeconomic conditions determine whether oil shocks lead to rising or falling yields.

The empirical results suggest a clear regime-dependent pattern. Oil shocks tend to raise interest rates when inflation is already elevated and monetary policy is restrictive. By contrast, when inflation is moderate and economic momentum is fragile, oil shocks more frequently lead to declining yields as recession risk dominates. The present episode appears to occupy an intermediate position. Inflation has moderated from earlier peaks but has not fully returned to target levels, and monetary policy remains restrictive while economic momentum is muted — a combination that helps explain why the early market response has been a parallel upward repricing of yields rather than a clear inflationary or flight-to-quality outcome.

These findings provide a framework for interpreting the current geopolitical shock and assessing whether the present environment is more likely to resemble inflationary episodes such as 1979 or safe-haven episodes such as 2008.

2. Theoretical framework

2.1 Oil price shocks and inflation dynamics

Oil price increases act as classical **cost-push shocks**. Higher energy costs propagate through supply chains and affect transport, manufacturing and consumer prices. In macroeconomic models, this raises headline inflation and may also influence inflation expectations.

If central banks are expected to respond to higher inflation through tighter monetary policy, short-term interest rates will increase. Long-term yields may rise less if markets expect tighter policy to slow economic activity over time. This mechanism tends to generate yield curve flattening, with short-term yields rising more strongly than long-term yields. Historically, the oil shocks of the 1970s represent the clearest example of this mechanism.

2.2 Safe-haven demand and flight-to-quality

Oil price increases also act as a negative demand shock. Higher energy prices reduce real household income and increase production costs. If sufficiently large, the shock can weaken economic growth and reduce corporate profitability.

In such circumstances investors often seek safe assets such as US Treasury bonds. At the same time, markets begin to anticipate monetary easing in response to deteriorating economic conditions.

This mechanism typically produces falling yields across the curve, with short-term yields declining more rapidly as expectations of policy easing intensify. The yield curve therefore tends to steepen.

2.3 Competing channels

Oil shocks therefore affect bond markets through two opposing channels:

- Inflation channel: higher expected inflation leads to rising interest rates.
- Growth channel: weaker economic activity increases demand for safe assets and leads to declining interest rates.

The dominance of either channel depends on the macroeconomic regime prevailing prior to the shock.

3. Historical oil price shock episodes

Table 1 summarises the principal oil price shocks analysed in this study.

Table 1: Major oil price shock episodes

Episode	Description	Approximate period
OPEC embargo	Oil export embargo by Arab OPEC members	1973–1974
Iranian revolution	Collapse of Iranian oil production	1978–1979
Iran–Iraq war	Major Middle East supply disruption	1980
Gulf war	Iraqi invasion of Kuwait	1990–1991
Iraq war	US invasion of Iraq	2003
Commodity super-cycle	Global demand boom	2007–2008
Arab Spring	Political instability in the Middle East	2011
Russia–Ukraine war	Energy supply shock in Europe	2022
Iran conflict	US/Israeli attack on Iran	2026

These episodes occurred under widely differing macroeconomic environments, allowing identification of systematic differences in bond market responses.

4. Data and methodology

4.1 Data

The analysis combines interest rate, oil price and macroeconomic data.

Interest rates

Daily Treasury yields with the two-year and ten-year tenor are obtained from Bloomberg generic series. For the early sample, monthly data are used where daily observations are not available.

Oil prices

Oil price dynamics are captured using:

- historical WTI spot prices (monthly)
- front-month WTI futures (CL1) for the modern period

The monthly WTI spot series provides long historical coverage, while the futures series allows higher-frequency analysis in the modern sample.

Macroeconomic indicators

Macroeconomic conditions are characterised using:

- CPI inflation and core CPI
- inflation expectations
- Federal funds rate
- unemployment rate
- manufacturing PMI
- leading economic indicators
- credit spreads
- financial conditions indices
- volatility indicators

These variables are used to assess whether the macroeconomic environment prior to each shock was more consistent with an inflationary regime or with a fragile growth regime.

Real interest rates

A proxy for real interest rates is constructed as

$$r_{10,t} = y_{10,t} - \pi_t,$$

where $y_{10,t}$ denotes the nominal ten-year Treasury yield at time t and π_t is the inflation rate at time t . This measure is not identical to a market-implied TIPS real yield. It is an ex-post real-yield proxy, but it remains useful for distinguishing between episodes driven primarily by inflation repricing and episodes driven by falling real rates.

4.2 Event study methodology

To measure interest rate responses to oil shocks we apply an event-study framework measuring the change in yields over various time periods. The following horizons h are analysed:

- Impact week: $h=5$ trading days
- Impact month: $h=22$ trading days
- Six months after the shock
- Twelve months after the shock

Yield curve reactions are measured using the slope change between ten- and two-year nominal rates:

$$\Delta S(h) = \Delta y_{10}(h) - \Delta y_2(h).$$

Positive values indicate curve steepening, whereas negative values indicate curve flattening. This methodology allows a comparison of bond market responses across episodes and across maturities. It also provides a systematic way of linking the observed yield response to the competing channels described in Section 2.

5. Empirical results

The empirical analysis examines the behaviour of US Treasury yields following major oil price shocks. The objective is to determine whether oil shocks tend to generate inflation-driven increases in interest rates or safe-haven declines in yields, and whether systematic differences between episodes can be identified.

To address this question, we conduct three complementary analyses. First, we examine the reaction of short- and long-term interest rates following oil shocks. Second, we analyse the behaviour of real interest rates to distinguish between inflation-driven and growth-driven yield movements. Third, we investigate whether specific macro-economic conditions prior to the shock are systematically associated with the different interest-rate regimes.

Together, these analyses allow us to connect the empirical results to the theoretical framework outlined in section 2.

5.1 Interest rate reactions to oil shocks

The first step of the analysis examines how nominal Treasury yields respond to oil shocks across different maturities.

Specifically, we compute the change in yields following each oil shock using the event-study framework described in Section 4.

We focus on two maturities that capture the shape of the yield curve:

- the two-year Treasury yield, which reflects expectations about near-term monetary policy, and
- the ten-year Treasury yield, which captures longer-term expectations about inflation and economic growth.

The difference between these reactions provides information about the dominant economic mechanism. If the inflation channel dominates, short-term yields should increase more strongly than long-term yields because markets anticipate tighter monetary policy. If the growth channel dominates, yields may decline across maturities as investors seek safe assets and price monetary easing.

Table 2 reports the change in yields during the first month following major oil shocks.

Table 2: Interest rate reactions to oil shocks (impact month)

Episode	$\Delta 2y$ (1 month)	$\Delta 10y$ (1 month)	Curve change
1978–1980 Iranian Revolution	+73 bps	+8 bps	Flattening
1990–1991 Gulf War	+23 bps	+49 bps	Steepening
2003 Iraq War	+4 bps	+3 bps	Neutral
2007–2008 Oil spike / GFC	–24 bps	–20 bps	Slight steepening
2011 Arab Spring	–23 bps	–35 bps	Flattening
2022 Russia–Ukraine	+75 bps	+50 bps	Flattening
2026 Iran conflict	+23 bps	+22 bps	Approximately neutral

Source: Bloomberg

The results reveal substantial heterogeneity across episodes. Inflation-dominant episodes such as the Iranian revolution and the Russia–Ukraine war exhibit large increases in short-term yields and a flattening of the yield curve. This behaviour is consistent with the inflation channel described in Section 2, in which oil price increases raise expected inflation and lead to tighter monetary policy.

By contrast, episodes associated with financial stress or weakening growth, such as the period surrounding the global financial crisis, show declines in yields across the curve. In these cases, the growth channel dominates as investors move into safe assets and anticipate monetary easing.

The 1990–1991 Gulf War illustrates that oil shocks need not produce a simple response. In that episode both yields rose initially, yet the ten-year increased more than the two-year, implying steepening rather than flattening. This suggests that markets priced a mixture of inflation risk, term premium adjustment and uncertainty about the persistence of the shock.

The current episode differs from both classical patterns. Since the start of the conflict in late February 2026, both the two-year and ten-year Treasury yields have increased by roughly the same magnitude. The yield curve has therefore shifted upward in parallel rather than flattening or steepening.¹

This behaviour suggests that markets are currently reassessing the overall level of interest rates rather than responding primarily to either inflation risk or safe-haven demand. Put differently, the market response so far appears to be one of general repricing rather than a clean transition into either the classical inflation regime or the classical flight-to-quality regime.

In theoretical terms, the results of Table 2 correspond closely to the competing channels outlined in Section 2. Episodes with curve flattening and rising short rates are consistent with the inflation channel. Episodes with declining yields or strong steepening are more consistent with the growth channel. The 2026 episode currently falls between these archetypes.

5.2 Real yield dynamics

Looking at nominal interest rates alone does not allow us to distinguish between inflation-driven and growth-driven shocks, because nominal yields reflect both inflation expectations and real interest rates. Changes in real yields provide information about the underlying economic mechanism driving bond market reactions. Rising real yields indicate that markets are pricing tighter monetary policy or stronger real economic conditions. Falling real yields typically reflect increased demand for safe assets or expectations of monetary easing.

¹ It has to be noted, however, that barely one week of the war had passed when this analysis was done.

Table 3 reports the behaviour of real ten-year yields following selected oil shock episodes.

Table 3: Real yield changes following oil shocks

Episode	Δ Real 10y (1 month)	Δ Real 10y (6 months)
1978–1980	~0 bps	+174 bps
2007–2008	–45 bps	–280 bps
2011	–40 bps	–220 bps
2022	+35 bps	+160 bps
2026 (initial reaction)	Positive	n.a.

Source: Bloomberg

The results highlight an important distinction between inflationary and safe-haven regimes. During **inflation-dominant episodes**, real yields tend to increase over time. This pattern reflects the gradual tightening of monetary policy as central banks respond to persistent inflation pressures. The 2022 episode is a clear example: the initial oil shock was followed by a substantial increase in real yields over subsequent months, consistent with rising real policy expectations.

By contrast, **safe-haven episodes** are characterised by sharp declines in real yields. Investors move capital into government bonds and markets begin to anticipate policy easing in response to deteriorating economic conditions. The 2007–2008 and 2011 episodes display precisely this behaviour, with strongly negative changes in real ten-year yields over both the impact month and the following six months.

The real-yield evidence is particularly important because it links the empirical results more directly to theory. A rise in nominal yields by itself does not necessarily indicate an inflationary regime if inflation expectations are increasing even more strongly. In such a case nominal rates may rise while real rates remain unchanged or even decline. Conversely, falling nominal yields may still be consistent with heightened inflation concerns if inflation expectations fall even more rapidly.

The real-yield measure therefore allows us to distinguish whether the bond market is responding primarily through the inflation-expectations channel or through changes in the real interest-rate environment.

The initial movement in real yields during the current episode is positive, indicating that the increase in nominal yields reflects more than just rising inflation expectations. Instead, markets appear to be repricing the real interest rate environment. This is consistent with the idea that the present shock has led investors not only to consider the inflationary implications of higher oil prices, but also to reassess the likely path of monetary policy and the equilibrium level of real rates.

This result also explains why the current episode differs from a pure flight-to-quality shock. In a classical risk-off environment, one would expect a strong fall in real yields as investors move into Treasuries and begin to price policy easing. The fact that real yields appear to have risen instead points away from a pure safe-haven interpretation.

5.3 Common macroeconomic conditions

The final step of the empirical analysis examines whether the macroeconomic environment prior to an oil shock helps explain the subsequent reaction of interest rates.

Specifically, we compare key macroeconomic variables across the episodes classified as inflation-dominant and those classified as safe-haven episodes. The objective is to identify common features that determine which channel dominates.

Table 4 summarises the macroeconomic conditions preceding the different regimes as obtained in the empirical analysis.

Table 4: Pre-shock macroeconomic conditions

Variable	Inflation regime	Safe-haven regime
CPI inflation	High	Moderate
Core inflation	High	Low
Fed funds rate	Restrictive	Neutral
Real 10y yield	Low or negative	Positive
Economic momentum	Moderate	Weakening

Several systematic differences emerge. Inflation-dominant episodes typically occur when inflation is already elevated and monetary policy is restrictive. In such environments oil shocks reinforce existing inflation pressures, prompting markets to price additional tightening. The key point is that oil shocks do not create the inflation regime from scratch; rather, they intensify inflationary conditions that are already present.

Safe-haven episodes, by contrast, tend to occur when inflation is contained but economic momentum is weakening. In these circumstances oil shocks amplify concerns about economic slowdown and trigger demand for safe assets. The growth channel therefore dominates the inflation channel.

The role of the initial level of real yields is also instructive. Inflation-dominant episodes tend to start with low or negative real yields, indicating that nominal rates have not kept pace with inflation and that markets may subsequently reprice toward tighter real monetary conditions. Safe-haven episodes tend to begin with positive real yields, creating more room for bond yields to decline when growth concerns intensify.

These findings support the theoretical framework presented earlier: the macroeconomic regime prior to the shock plays a decisive role in determining how bond markets react to oil price increases.

This result is conceptually important. It implies that oil shocks should not be analysed in isolation from the pre-existing macroeconomic environment. The same oil price increase can generate very different yield responses depending on whether it occurs in a high-inflation, restrictive-policy regime or in a low-inflation, fragile-growth regime.

The current episode appears to occupy an intermediate position. Inflation had moderated relative to earlier peaks but had not fully returned to target-consistent levels. Monetary policy remained restrictive, but growth was no longer especially strong. This combination helps explain why the market response so far has not conformed neatly to either the inflationary or the safe-haven pattern.

6. Implications for the current Iran shock

The bond market reaction since the escalation of tensions on 28 February 2026 provides an important signal regarding the interpretation of the current oil shock.

Both short- and long-term US Treasury yields have increased significantly. The two-year yield has risen by 23 basis points at the time of writing, while the ten-year yield has increased by 22 basis points. The yield curve has therefore remained broadly unchanged over the initial phase of the shock.

This reaction differs from both classical oil shock patterns:
Inflationary oil shocks

- Short-term yields rise more strongly than long-term yields
- The yield curve flattens
- Observed during the late 1970s oil shocks and the Russia–Ukraine shock of 2022

Flight-to-quality episodes

- Yields typically decline across the curve
- Investors move into safe assets
- Markets begin to price monetary easing

The current episode exhibits neither pattern. Instead, yields have increased almost in parallel across maturities. This suggests that markets are simultaneously repricing both inflation risk and real interest rates, rather than simply responding to safe-haven flows.

The rise in long-term yields indicates that investors do not currently view the geopolitical shock primarily as a trigger for a severe recession. Instead, the increase in real yields suggests that markets may be reassessing the long-run path of monetary policy or the equilibrium level of real interest rates.

At the same time, the absence of pronounced yield curve flattening indicates that markets are not yet pricing a significant acceleration of inflation.

This places the current episode in an intermediate category. It resembles an inflationary shock insofar as yields have risen rather than fallen, but it differs from historical inflationary episodes because the increase has occurred almost uniformly across maturities. It differs from safe-haven episodes because real yields have not declined.

The present evidence therefore suggests that the market response is best interpreted as a parallel repricing of the interest-rate environment under heightened geopolitical uncertainty, rather than as a pure inflation shock or a pure flight-to-quality event.

The current episode is so far best interpreted as a parallel repricing of the interest-rate environment rather than a classical inflation or flight-to-quality shock.

7. Conclusion

This study examines the reaction of US Treasury yields to major oil price shocks since the 1960s. The empirical evidence shows that bond market responses depend strongly on the prevailing macroeconomic regime.

When inflation is already elevated and monetary policy is restrictive, oil shocks tend to reinforce inflation dynamics and push interest rates higher. By contrast, when inflation is contained and economic conditions are fragile, oil shocks frequently lead to declining yields as safe-haven demand dominates.

The reaction to the current Iran shock differs from both historical archetypes. Since the escalation of tensions on 28 February 2026, both short- and long-term yields have risen by approximately 22–23 basis points, leaving the slope of the yield curve broadly unchanged.

This parallel upward shift of the yield curve suggests that markets are currently interpreting the shock primarily as a repricing of the real interest rate environment rather than a pure inflation shock or a flight-to-quality episode.

Possible paths from here

The evolution of the episode over the coming months will depend on two key factors.

Inflation-dominant scenario

- Oil prices remain elevated
- Inflation expectations rise
- Short-term yields increase more strongly than long-term yields
- The yield curve flattens

Growth-dominant scenario

- Higher energy prices weaken economic activity
- Financial conditions tighten materially
- Safe-haven demand increases
- Yields decline and the yield curve steepens

At present, the evidence suggests that markets are still evaluating the macroeconomic implications of the shock. The parallel increase in yields across maturities indicates that investors are reassessing the long-term interest-rate environment rather than reacting to a single dominant macroeconomic mechanism.

Monitoring developments in inflation expectations, real yields and economic activity will therefore be crucial in determining whether the current episode ultimately resembles the inflationary oil shocks of the late 1970s or the safe-haven episodes associated with later periods of financial stress.

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