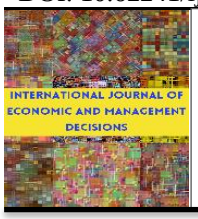
DOI: 10.62241/ijemd.49.6875.2411 Vol. 04, No. 09, year 2026, pp. 68-75



International Journal of Economic and Management Decisions

Journal homepage: www.ijemd.org

# Sovereign credit risk repricing under political and geopolitical uncertainty: maturity-specific information and conditional energy-market transmission

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**Article Info**

***Article history:***

**Received:** 11-12-2025
**Revised:** 07-02-2026
**Accepted:** 19-02-2026

***Keywords:***

CDS term structure
Geopolitical risk
Political uncertainty
Functional vector autoregression
Energy markets

**ABSTRACT**

This study examines the information conveyed by sovereign credit default swap (CDS) term structures during externally identified political and geopolitical disturbances and the subsequent association between sovereign-risk repricing and macro-financial adjustment. A two-frequency empirical design distinguishes the rapid incorporation of event information into traded credit prices from the slower conditional responses of economic and energy-market indicators. Daily observations for the United States, Germany, France, Italy, Spain, and the United Kingdom are matched to fiscal-deadline, geopolitical–energy, and political–fiscal credibility episodes from June 2016 through April 2026. Event-window and lead–lag specifications evaluate the incremental information in maturity-specific CDS movements relative to newspaper-based uncertainty indices and market controls. Monthly models for the United States, Germany, and France summarize the CDS curve with Nelson–Siegel factors and trace the consequences of observed event-specific curve displacements using Functional Vector Autoregressions, supplemented by functional local projections. Unconditional CDS changes offer limited predictive information about newspaper-based uncertainty. During selected events, however, lagged CDS repricing anticipates subsequent uncertainty measures, most consistently for U.S. policy uncertainty in fiscal-deadline and political–fiscal episodes. Monthly responses are generally transitory and differ by event and country. Germany displays relatively persistent reactions to the Ukraine invasion in its broader information system, whereas similarly large French curve displacements do not imply persistent responses in harmonized outcomes. The evidence supports an event-conditional interpretation of sovereign CDS curves as indicators of the timing and maturity composition of priced sovereign risk, without identifying their movements as autonomous causal geopolitical shocks.

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## 1. INTRODUCTION

The market valuation of sovereign credit exposure is shaped by more than the perceived probability that a government will fail to honor its obligations. Political negotiations, fiscal credibility, geopolitical confrontation, energy supply, liquidity conditions, and investors' willingness to bear risk can all affect the price of credit protection. Sovereign credit default swaps are particularly informative in this setting because contracts are traded at several maturities. Rather than condensing risk into a single five-year spread, the cross-maturity profile indicates whether investors are primarily concerned about imminent payment disruption or more durable deterioration in sovereign financing conditions [1]–[4].

A central difficulty is separating information conveyed by sovereign credit prices from uncertainty already reflected in public narratives and other financial markets. Newspaper-derived geopolitical-risk and economic-policy-uncertainty indices quantify the intensity of reported concerns, while equity and oil volatility measures, energy prices, exchange rates, and financial-stress indicators capture different dimensions of contemporaneous repricing [5]–[7]. These series are neither substitutes for one another nor necessarily ordered in a stable sequence. A traded credit instrument may respond before an event becomes prominent in newspaper coverage, but it may also move alongside other assets because all respond to common news. Any claim that CDS prices contain additional information must therefore be conditional on the event being studied and the relevant benchmark information.

The present analysis addresses two connected questions. The first concerns the timing and maturity distribution of sovereign-risk repricing around independently dated political and geopolitical events. The second concerns the extent to which the observed displacement of the CDS curve is followed by changes in energy prices and domestic economic and financial indicators. These questions require distinct observation frequencies: daily data are suitable for identifying short-lived market responses, whereas monthly data are needed to follow industrial activity, inflation, labor-market conditions, and related outcomes.

The daily investigation covers six advanced economies and distinguishes fiscal-deadline confrontations, geopolitical events with energy-market relevance, and disturbances to political or fiscal credibility. Its chronology is determined independently of the observed CDS movements. This restriction matters because selecting events from unusually large spread changes would make the empirical exercise circular. Daily event-window models and lead–lag tests subsequently ask whether maturity-specific CDS changes convey information beyond that available in newspaper-based uncertainty measures and a broad set of market controls.

The monthly investigation concentrates on the United States, Germany, and France. Nelson–Siegel representations compress the observed maturity profile into level, slope, and curvature factors without discarding the distinction between short- and long-horizon repricing [8]. Country-specific Functional Vector Autoregressions propagate observed post-event minus pre-event curve shifts through macroeconomic and energy-market systems. Functional local projections provide a complementary, less parameter-intensive assessment of response horizons [9]. The resulting paths describe conditional propagation rather than the effects of a uniquely identified structural geopolitical innovation.

The evidence is qualified in two important respects. First, predictive relationships are not stable across normal and event periods: unconditional CDS changes provide little systematic anticipation of newspaper-based indices, whereas selected interactions with fiscal and political events remain informative. Second, the scale of the curve displacement is not a sufficient statistic for subsequent economic adjustment. Germany's response to Russia's invasion of Ukraine is more persistent in its expanded domestic system than the corresponding harmonized French responses, even though both countries experienced substantial repricing. These distinctions caution against treating sovereign CDS as a universal uncertainty barometer or a mechanical predictor of energy prices.

The contribution lies in bringing the maturity dimension of traded sovereign risk into an event-conditioned comparison with published uncertainty and energy-market indicators, then relating the same whole-curve signal to medium-run economic dynamics. The analysis emphasizes what can be learned from observed prices while maintaining the separation between predictive content, reduced-form association, and causal identification.

## 2. LITERATURE REVIEW

Research on sovereign credit derivatives establishes that CDS spreads combine expectations of credit losses with risk compensation, liquidity effects, and contract-specific frictions. The maturity structure adds information about the expected timing and persistence of these components. Augustin [1] analyzes the sovereign CDS term structure, while Pan and Singleton [2] and Longstaff and coauthors [3] provide foundations for interpreting sovereign-credit prices and their risk-premium content. This literature makes clear why a five-year quote alone may conceal economically important differences between near-term political disruption and longer-horizon fiscal credibility.

The price-discovery literature offers a related, but narrower, motivation for the temporal tests. Blanco and colleagues [10] document dynamic relationships between bond and CDS markets, and the broader literature on information shares explains how prices in different venues may incorporate common innovations at different

speeds. These findings do not establish that sovereign CDS systematically anticipate media-based geopolitical indices. They instead justify an empirical examination of whether such a lead emerges in short windows around externally established sovereign-risk events.

A second strand develops textual measures of uncertainty. Baker, Bloom, and Davis [5] construct economic policy uncertainty from newspaper coverage, and Caldara and Iacoviello [6] provide a geopolitical-risk measure. Such indices are useful because they summarize the public prominence of uncertainty in a reproducible manner. Their economic meaning, however, differs from a traded CDS premium: a news index measures reporting intensity, whereas a spread reflects the market price of contingent sovereign credit protection. Differences in publication, classification, and trading timing create a possible source of event-dependent lead–lag behavior without implying that one measure is inherently superior.

Volatility and commodity benchmarks further complicate interpretation. Equity volatility, oil-market volatility, fuel prices, and foreign-exchange movements can respond immediately to geopolitical news. Financial-stress measures can also capture common funding pressures. Consequently, a CDS coefficient that appears significant before these variables are included may largely reflect shared market repricing. A meaningful incremental-information claim requires the coefficient to survive comparison with the same rapidly adjusting benchmarks, and even then the result remains predictive rather than automatically causal.

The third relevant literature concerns the real consequences of geopolitical and energy disturbances. Conflict and sanctions can disrupt energy supply, change import prices, weaken purchasing power, alter industrial production, and generate fiscal demands for household or firm support. Transmission depends on energy dependence, trade structure, financial intermediation, and government responses. A rise in oil prices may therefore accompany some sovereign-risk episodes but not others, and a similar credit-market displacement can have different macroeconomic consequences across countries.

The distinction between energy-importing economies and those with different exposure profiles is particularly relevant for the European comparisons. Higher imported-energy costs can deteriorate the terms of trade and raise production costs; public compensation schemes may protect activity in the short run while adding fiscal commitments. These channels operate over several quarters, unlike the immediate reassessment of a near-term debt deadline. It is therefore plausible that geopolitical–energy events produce broader maturity repricing and more persistent economic effects than temporary fiscal-payment disputes, although that proposition must be evaluated rather than imposed on the data.

Recent work using externally dated conflicts, bilateral geopolitical developments, or differences in bank exposure has pursued stronger causal identification of particular channels. By contrast, the design examined here treats event dates as externally established and uses observed CDS curve movements as the market signal associated with those dates. This distinction is substantive. External event timing reduces one form of selection bias, but it does not isolate sovereign-risk repricing from every simultaneous macroeconomic or financial innovation.

The unresolved empirical issue is thus not whether political and geopolitical uncertainty matter for markets, which prior studies have already established, but when sovereign CDS curves add distinct information and how much of their observed event-time repricing is followed by measurable economic adjustment. The present two-frequency framework addresses this issue while allowing information content and transmission to differ across events, maturities, and countries.

## 3. METHODS

The empirical design consists of an externally defined event chronology, daily market-response and prediction exercises, and monthly conditional-propagation models. Events are assigned to three groups before CDS responses are examined. Fiscal-deadline episodes include U.S. debt-ceiling or government-funding disputes. Geopolitical–energy events include military escalation, sanctions, and energy-security disruptions. Political–fiscal credibility episodes include elections, government crises, budget announcements, ratings developments, and institutional changes that could influence expectations about future policy or sovereign financing. The classification follows the nature of the externally documented episode, not the subsequent shape of the CDS curve.

The daily CDS panel includes the United States, Germany, France, Italy, Spain, and the United Kingdom, subject to available quotes. The chronology extends from June 2016 through April 2026. The primary uncertainty outcomes are daily global geopolitical risk and daily U.S. economic policy uncertainty; the latter is paired only with U.S. CDS observations. Global economic policy uncertainty is not used in the daily lead–lag exercise because it is observed monthly. Controls include VIX, OVX, changes in oil and natural-gas prices, exchange-rate changes, and measures of financial stress.

Daily event-window regressions measure abnormal maturity-specific CDS changes around the fixed chronology. The benchmark window runs from the event trading day through the second subsequent trading day, with shorter and longer alternatives examined for sensitivity. Multiple testing is addressed using the Benjamini–

Hochberg false-discovery-rate adjustment [11]. The interpretation concerns the pattern and significance of observed repricing within the selected windows rather than an event class mechanically inferred from a particular maturity shape.

The anticipation tests relate newspaper-based uncertainty to lagged CDS changes, past values of the uncertainty outcome, and, in the augmented specifications, lagged market controls. Interactions between CDS changes and event-class indicators allow the relationship to differ during fiscal-deadline, geopolitical–energy, and political–fiscal episodes. The comparison between the baseline and augmented specifications tests whether predictive terms remain significant after other market signals are considered. This approach does not imply that all CDS innovations are exogenous or that predictive precedence constitutes causal precedence.

At the monthly frequency, CDS curves are represented through the three Nelson–Siegel factors corresponding to level, slope, and curvature [8]. Event-specific shocks are defined as the observed difference between fitted post-event and pre-event curves. The monthly U.S. sample extends from September 2008 through December 2024, the German sample from September 2008 through February 2025, and the French sample from August 2008 through February 2025. These periods refer to the effective transformed samples and are not interchangeable with the longer daily event chronology.

The U.S. system combines the three CDS-factor changes with inflation, five-year inflation expectations, industrial production, natural-gas and oil prices, a two-year bond measure, job openings, and private consumption. The German system includes inflation, a leading indicator, industrial production, gas and Brent oil, a five-year bond yield, unemployment, IFO business climate, and CDS-factor changes. The French system is deliberately smaller, retaining inflation, industrial production, European gas, Brent oil, and the three CDS factors. This harmonized block permits comparison of common outcomes without adding France-specific series solely to expand model size.

One Functional VAR response operator is estimated for each country and then applied to the observed whole-curve displacement associated with each prespecified event pair. The approach preserves the joint maturity profile of the repricing rather than replacing it with a single tenor. Functional local projections are used as a horizon-by-horizon robustness assessment [9]. Lag selection, dynamic stability, and residual diagnostics inform the degree of confidence placed in the resulting response paths. The estimated effects are interpreted as conditional reduced-form responses to observed CDS curve shifts.

Several limitations follow from these choices. Event windows may contain other market-relevant announcements; risk premia and liquidity are not separately identified from expected credit losses; monthly response estimates depend on the country-specific information set; and the limited number of major events constrains generalization. These restrictions motivate emphasis on coefficient survival, interval width, cross-country comparability, and sensitivity to alternative windows rather than on isolated significant estimates.

## 4. RESULTS

The empirical architecture distinguishes the daily event and anticipation exercises from the monthly propagation models. The country coverage and effective transformed observation periods are summarized in Table 1. These different sample endpoints should be preserved when comparing results because later events can enter the daily analysis without providing a sufficiently long realized monthly response path.

Table 1. Scope and frequency of the empirical analysis

| Component | Countries | Observation period | Purpose |
|---|---|---|---|
| Daily event and lead–lag analysis | United States, Germany, France, Italy, Spain, United Kingdom | June 2016–April 2026 | Maturity repricing and anticipation |
| Monthly Functional VAR | United States | Sep. 2008–Dec. 2024 | Conditional propagation |
| Monthly Functional VAR | Germany | Sep. 2008–Feb. 2025 | Conditional propagation |
| Monthly Functional VAR | France | Aug. 2008–Feb. 2025 | Harmonized comparison |

The daily panel is broader geographically and extends further in calendar time than the monthly analysis. The latter focuses on three countries because consistent CDS curves and macroeconomic series are needed to estimate conditional response operators. The French seven-variable specification is deliberately more parsimonious than the eleven-variable U.S. and German systems.

Sensitivity to the choice of event window is substantial. Table 2 reports the number of maturity-specific event coefficients passing the false-discovery-rate threshold under each window definition. Counts should not be interpreted as the number of independent shocks; they refer to coefficients across the tested specifications.

Table 2. Significant daily CDS event coefficients by event-window choice

| Window | Fiscal deadline | Geopolitical–energy | Political–fiscal |
|---|---|---|---|
| Event day | 5 | 4 | 34 |

| | | | |
|---|---|---|---|
| [0,+1] | 5 | 0 | 28 |
| [0,+2] | 7 | 0 | 23 |
| [0,+3] | 0 | 0 | 4 |
| [0,+5] | 0 | 0 | 10 |
| [-1,+1] | 5 | 5 | 13 |
| [-3,+3] | 0 | 0 | 4 |

The political–fiscal class retains the largest number of significant coefficients across most windows, whereas the geopolitical–energy class has none in the benchmark [0,+2] window. Significance is highly sensitive to event-window length: all three classes show fewer surviving coefficients when the window is extended to [0,+3]. This cautions against extrapolating a short event-time association into a persistent effect.

The most direct evidence of incremental information comes from the newspaper-proxy anticipation models. Table 3 reports coefficients that remain significant in both the baseline model and the specification augmented with lagged market controls. The unconditional and event-interacted terms differ sharply in their survival rates.

Table 3. CDS predictive terms surviving both daily anticipation specifications

| Uncertainty proxy | CDS interaction | Tested terms | Survivors |
|---|---|---|---|
| U.S. EPU | Unconditional CDS | 50 | 0 |
| U.S. EPU | Fiscal deadline | 40 | 21 |
| U.S. EPU | Geopolitical–energy | 40 | 4 |
| U.S. EPU | Political–fiscal | 30 | 20 |
| GPR | Unconditional CDS | 230 | 0 |
| GPR | Fiscal deadline | 40 | 12 |
| GPR | Geopolitical–energy | 184 | 11 |
| GPR | Political–fiscal | 119 | 67 |

For U.S. EPU, none of the 50 unconditional CDS terms survive, compared with 21 of 40 fiscal-deadline interactions and 20 of 30 political–fiscal interactions. For GPR, none of the 230 unconditional terms survive both steps, while 67 of 119 political–fiscal interactions do. The latter are not uniformly positive: the source reports 41 positive and 26 negative survivors. Consequently, the finding concerns conditional predictive content rather than a universally signed response.

An independent benchmark exercise evaluates whether the predetermined event chronology coincides with notable movements in widely used uncertainty and market measures. Table 4 gives selected salience shares by event category. These percentages describe the fraction of fixed event windows crossing the benchmark threshold, not a criterion used to choose or classify events.

Table 4. External event salience relative to benchmark variables (percent)

| Event class | N | GPR | U.S. EPU | Oil | VIX |
|---|---|---|---|---|---|
| Fiscal deadline | 3 | 67 | 67 | 0 | 0 |
| Geopolitical–energy | 14 | 93 | 43 | 36 | 14 |
| Political–fiscal | 9 | 22 | 67 | 22 | 22 |

Geopolitical–energy events are particularly salient for GPR, at 93%, while only 14% of these windows are salient for VIX in the reported benchmark. Fiscal-deadline events show 67% salience for both GPR and U.S. EPU, although that category contains only three benchmark windows. These percentages are descriptive and are not reliable estimates of population frequencies for all future events.

The monthly response analysis must be considered alongside its statistical diagnostics. Table 5 reports the country-specific lag choices, companion-root measures, and selected residual-test rejection counts. The stability condition is satisfied in all three systems, although residual departures from idealized assumptions are frequent.

Table 5. Monthly Functional VAR stability and residual diagnostics

| Country | T | Lag p | Largest root | LB / equations | ARCH–LM / equations |
|---|---|---|---|---|---|
| United States | 196 | 1 | 0.521 | 5/11 | 7/11 |
| Germany | 197 | 2 | 0.900 | 5/11 | 6/11 |
| France | 199 | 1 | 0.317 | 5/7 | 5/7 |

The largest companion root is below unity in every country model, but equation-level residual autocorrelation and conditional-heteroskedasticity rejections remain common. The source reports that Germany's broader system produces relatively persistent, though non-monotonic and uncertain, responses to the invasion of

Ukraine. The U.S. fiscal-resolution responses are generally short-lived and imprecise, while French harmonized outcomes show mainly one-month industrial-production movements and, in the Ukraine comparison, oil-price growth. The response differences should not be interpreted as causal contrasts across countries.

## 5. DISCUSSION

The combined findings indicate that the informational contribution of sovereign CDS is highly dependent on the economic character of the event[10-14]. The absence of robust unconditional anticipation contrasts with the substantial number of significant event interactions, especially for U.S. economic policy uncertainty. This pattern is consistent with investors responding quickly to discrete sovereign-credit concerns while newspaper-based measures register the associated public uncertainty with a different timing. It does not imply that CDS markets are systematically superior forecasters of uncertainty in ordinary trading conditions[15-17].

The contrast across event categories is economically interpretable. Fiscal-deadline negotiations can create immediate concerns about payment timing and institutional disruption, giving short-dated protection a particularly direct connection to the underlying news. Political–fiscal credibility events can affect expectations about future policy and financing conditions across a wider range of maturities. Geopolitical–energy episodes, in contrast, affect multiple asset classes simultaneously, so that oil, gas, volatility, and financial-stress controls absorb much of the movement initially associated with sovereign credit prices. The weakening of geopolitical CDS coefficients after controls are introduced is therefore informative rather than a failure of the empirical design[18-20].

The monthly findings place an additional constraint on the interpretation of large credit-market responses. Germany exhibits comparatively persistent responses following the Ukraine invasion in its broader country-specific system, but these paths are not uniformly monotonic and their uncertainty bands can be wide. The French results provide a particularly useful counterexample to a simple magnitude-based transmission argument. Substantial whole-curve repricing in France is followed by limited common-outcome responses in the harmonized model. Credit-market concern and realized macroeconomic adjustment are related but distinct objects.

Several mechanisms may explain why comparable CDS shifts need not produce comparable outcomes. Energy import composition, fiscal stabilization, private hedging, industrial structure, financing channels, and the degree to which news is already anticipated can all mediate adjustment[21-24]. Differences in the information sets and model dimensionality also matter: the larger German specification can reveal responses in leading, confidence, and labor-market indicators that are absent from the deliberately restricted French system. The empirical comparison should therefore be read as evidence of heterogeneous conditional propagation, not as a definitive ranking of national resilience[25].

The analysis also has implications for uncertainty measurement. A maturity-specific traded signal can complement newspaper indices by identifying where along the sovereign-risk horizon investors adjust their exposures. Yet its interpretation is complicated by liquidity, basis effects, global risk aversion, and hedging demand. A CDS curve should not be treated as a direct measure of geopolitical fear or as a clean proxy for expected sovereign default. Its value lies in showing the priced sovereign-credit component of a broader information environment[26-28].

From a methodological standpoint, the strongest feature is the separation of externally dated events from the subsequent measurement of market responses. This reduces the temptation to infer event categories retrospectively from visually striking CDS movements. The two-frequency design likewise avoids treating monthly macroeconomic outcomes as if they were observed at daily trading frequency. Nevertheless, external timing alone does not deliver structural identification, and the event-conditioned Functional VAR remains vulnerable to concurrent innovations and specification choices.

The diagnostic evidence reinforces this restraint. Although all three monthly systems satisfy the reported dynamic stability criterion, residual tests reject idealized assumptions in multiple equations. Pointwise intervals and functional local-projection checks therefore serve as important qualifications, not merely formal robustness appendices. In particular, a short-lived significant response should not be extended into a claim of durable macroeconomic damage without evidence across longer horizons and specifications.

A natural direction for subsequent research would be to combine the maturity-resolved CDS signal with stronger instruments, exposure-based comparisons, or independently measured energy-supply disturbances. Such designs could investigate which component of CDS repricing transmits through bank credit, public financing, or firms' input costs. The present evidence establishes a more limited but useful empirical starting point: sovereign-credit curves register event-specific changes in the price and horizon of risk, while their economic consequences remain conditional on national circumstances and the shock under consideration[29].

## 6. CONCLUSION

Sovereign CDS term structures provide a differentiated view of political and geopolitical uncertainty because their movements reveal not only the scale of sovereign-risk repricing but also the maturities at which it

occurs. The daily evidence from six advanced economies indicates that this information is not consistently predictive of newspaper-based uncertainty outside identified events. During selected fiscal-deadline and political–fiscal credibility episodes, however, lagged CDS changes anticipate subsequent U.S. economic policy uncertainty even after accounting for other market variables. The corresponding geopolitical-risk results are more heterogeneous and are sensitive to controls that capture simultaneous energy and financial-market adjustment.

The monthly analysis further demonstrates that the economic implications of a CDS curve displacement depend on country and event. Most estimated energy and macro-financial responses are brief. Germany displays the most persistent patterns following the Ukraine invasion in its expanded system, whereas the harmonized French evidence shows that similarly substantial repricing need not translate into broad or lasting responses. Energy-price effects also vary rather than following a uniform direction. These findings argue against equating a large sovereign-credit shock with a predictable macroeconomic outcome.

The study's principal contribution is therefore an event-conditional framework for linking the timing and maturity profile of priced sovereign risk to subsequent economic dynamics. Its conclusions should remain bounded by the reduced-form design, the potential overlap of contemporaneous shocks, and residual diagnostic limitations. Sovereign CDS curves are best understood as complementary market-based evidence about the sovereign-credit dimension of uncertainty, rather than stand-alone causal indicators of geopolitical or political disturbances.

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