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The impact of geopolitical risks on the resilience of banks in the Banking Union

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IN-DEPTH ANALYSIS

Requested by the ECON committee



The Impact of Geopolitical Risks on the Resilience of Banks in the Banking Union

EGOV
BANKING UNION

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The Impact of Geopolitical Risks on the Resilience of Banks in the Banking Union

Abstract

This study quantifies the impact of geopolitical risk on euro area banks using the 2025 EU-wide stress test, the first to include an explicit geopolitical scenario. Comparing outcomes with earlier stress tests, we find that geopolitical shocks measurably erode capital ratios, with smaller and less diversified banks most affected and considerable heterogeneity across countries. The results highlight how stress testing can capture structural vulnerabilities and inform supervisory responses through Pillar 2 requirements and Systemic Risk Buffers within the Banking Union framework.

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LIST OF ABBREVIATIONS

GPR	Geopolitical Risk
LSIs	Less Significant Institutions
SIs	Significant Institutions
SME	Small and Medium-Sized Enterprise
ICAAP	Internal Capital Adequacy Assessment Process
ICT	Information and Communication Technology
CET1	Common Equity Tier 1
SREP	Supervisory Review and Evaluation Process
SSM	Single Supervisory Mechanism
NCA	National Competent Authority
P2G	Pillar 2 Guidance
P2R	Pillar 2 Requirement
ESRB	European Systemic Risk Board
EBA	European Banking Authority
SyRB	Systemic Risk Buffer

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EXECUTIVE SUMMARY

Geopolitical tensions have become an important source of macro-financial instability, with implications extending well beyond trade and commodity markets into the core of the banking system. The 2025 EU-wide stress test marks a turning point in how these risks are assessed: for the first time, geopolitical risk—through trade fragmentation, sanctions, and heightened uncertainty—is explicitly embedded in the adverse scenario. This development offers a unique opportunity to evaluate how such shocks translate into balance sheet stress and capital depletion across banks in the euro area.

Our analysis quantifies the capital impact of geopolitical risk by comparing the 2025 results with those of the 2021 and 2023 EU-wide stress tests, which did not model geopolitical shocks explicitly. We identify the share of capital depletion attributable to credit risk and isolate the component linked to the new geopolitical scenario. This approach allows us to measure the additional erosion of banks' resilience under conditions of geopolitical stress.

Three key findings emerge.

First, geopolitical risk measurably weakens bank capital positions. On average, it accounts for around 50 basis points of CET1 depletion, a material effect relative to other stress-test drivers.

Second, the impact is highly heterogeneous across banks. Smaller and less diversified institutions are most affected, with CET1 drawdowns reaching up to 250 basis points. Larger banks, by contrast, are better insulated, reflecting stronger diversification and more advanced risk management practices.

Third, heterogeneity extends across countries: smaller, export-dependent, and geographically exposed banking systems—such as those in Scandinavia and parts of Central Europe—face the sharpest capital impacts, while larger continental systems show more resilience.

These results have direct supervisory implications. They suggest that prudential policy should address geopolitical risk in a differentiated manner. Pillar 2 requirements provide a flexible tool to capture bank-specific vulnerabilities revealed by stress tests, while the Systemic Risk Buffer can be calibrated nationally to account for structural exposures concentrated in specific jurisdictions. Together, these instruments offer targeted ways to build resilience against geopolitical exposures, but they also raise questions about consistency, national discretion, and the balance between ECB and NCA competencies.

Ultimately, the findings underscore that geopolitical risk has become a significant but heterogeneous dimension of financial stability. Incorporating it systematically into stress testing and supervisory frameworks will be essential to ensure that the euro area banking system remains robust in an increasingly uncertain global environment.

1. MOTIVATION

Geopolitical risks have emerged as a defining feature of the global financial landscape, no longer limited to episodic disruptions but increasingly structural in nature. The euro area, with its high degree of openness in trade, finance, and technology, is especially exposed. Conflicts such as Russia's war in Ukraine, rising U.S.–China tensions, and global trade disputes have shown how political shocks can rapidly translate into macroeconomic stress and financial instability. For banks in the Banking Union, these new risks amplify vulnerabilities by eroding borrower quality, disrupting funding markets, and triggering volatility across asset classes.

The Banking Union and its Single Supervisory Mechanism (SSM) were designed to safeguard financial stability by addressing credit, market, and operational risks within a harmonised framework. Yet geopolitical risks present new challenges. They operate through multiple transmission channels – affecting the real economy via trade, investment, and commodity dependencies, while simultaneously propagating through financial markets via capital flows, asset valuations, and funding conditions. These channels are interlinked and can reinforce one another, amplifying systemic fragility.

To get a sense of the overall magnitude of the vulnerability of euro area banks to geopolitical risks and assess the need for potential supervisory action, this paper proposes a novel, empirical approach based on banks' stress tests.

Unlike earlier EU-wide stress tests, the 2025 EBA stress test explicitly incorporated geopolitical tensions in its adverse scenario. We exploit this innovation to isolate the balance-sheet impact of geopolitical risk on euro area banks. By comparing the 2025 results with earlier stress test vintages where geopolitical drivers were not explicitly modelled, we compute the capital shortfall attributable to geopolitical risk across banks and countries. This allows us to move beyond conceptual discussion and provide a quantitative measure of resilience under geopolitical stress, highlighting heterogeneity across institutions and jurisdictions.

Our analysis shows that geopolitical risks are unevenly distributed, with smaller and hence less diversified banks bearing disproportionately larger losses. This cross-sectional variation poses challenges for prudential supervision in the SSM. We therefore assess the adequacy of the existing supervisory toolkit, with a focus on Pillar 2 capital requirements and the Systemic Risk Buffer (SyRB). These instruments offer targeted ways to build resilience against geopolitical exposures, but they also raise questions about consistency, national discretion, and the balance between ECB and NCA competencies.

Taken together, the three chapters of the paper address three central questions:

- Through which channels do geopolitical risks threaten euro area banks ([Chapter 2](#))?
- How can stress test results be used to quantify and compare these risks across banks and countries ([Chapter 3](#))?
- What supervisory tools are best suited to mitigate these vulnerabilities ([Chapter 4](#))?

By linking empirical evidence from the stress test to supervisory practice, the paper aims to support an informed policy debate on how the Banking Union can adapt its framework to a new era of persistent geopolitical uncertainty.

2. TRANSMISSION CHANNELS OF GEOPOLITICAL RISK TO FINANCIAL STABILITY

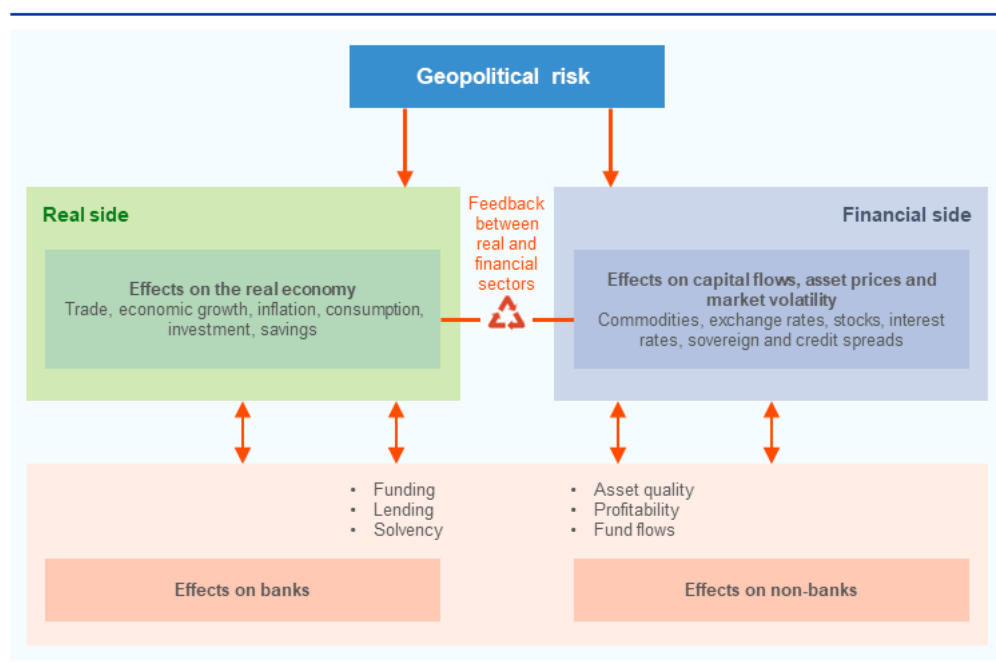
Geopolitical shocks rarely affect banks only through direct exposures. While banks can indeed be hit directly – for example, if they operate in war zones or lend to firms in conflict-affected regions – the more important impact arises indirectly. Banks are embedded in economies and financial systems that themselves are exposed to geopolitical shocks. These indirect channels, linking the real economy and financial markets, are typically where geopolitical risk translates into balance-sheet stress for banks.

As illustrated in **Figure 1** (ECB, 2024), two broad indirect channels can be distinguished:

- Real-economy channels, where shocks affect GDP, trade, investment, and inflation.
- Financial channels, where contagion occurs through capital flows, asset prices, and credit spreads.

These channels are closely connected: disruption in one often amplifies vulnerabilities in the other. The following sections outline the main mechanisms at work and summarise recent evidence for the euro area.

Figure 1: Transmission channels of geopolitical risk to financial stability



Source: ECB (2024), Figure A.1

2.1. Real-economy channels

Trade exposure has long been a defining feature of the euro area economy, but its risk profile has shifted. Geopolitical tensions increasingly manifest in trade restrictions, sanctions, and selective market access. Export-driven economies such as Germany and the Netherlands are especially vulnerable, particularly in concentrated sectors like automotive, chemicals, and machinery. Disruptions

in supply chains — whether caused by conflict, policy-driven decoupling, or targeted export controls — can halt production, raise costs, and reduce profitability. These effects cascade upstream and downstream, ultimately weighing on employment, investment, and the credit quality of both corporates and SMEs.

Commodity dependency is another major vulnerability. The 2022 energy shock revealed how reliance on concentrated import sources can quickly trigger economy-wide cost surges, eroding household purchasing power and corporate margins. While diversification away from Russian gas has reduced one exposure, the euro area remains dependent on imports of energy, rare earths, and agricultural commodities — often from geopolitically sensitive regions. Price spikes or supply disruptions feed directly into inflation, limiting monetary policy space, and indirectly into financial stability through increased financing needs, liquidity pressures, and sovereign funding costs.

Empirical evidence supports these transmission channels. Caldara and Iacoviello (2022) show that higher geopolitical risk, measured by their GPR index of conflict-related events and threats, reduces investment and raises downside risks to GDP. Baker et al. (2024), using a broader index of policy-related uncertainty, find that such uncertainty increases stock price volatility and depresses investment and employment in policy-sensitive sectors.¹ At the macroeconomic level, both forms of uncertainty foreshadow declines in investment, output, and employment. Rising input costs add to these pressures by fuelling inflation and constraining the room for monetary accommodation.

2.2. Financial channels

Geopolitical shocks also propagate through financial markets. Market-based contagion arises when events alter investor risk perceptions, leading to abrupt repricing across asset classes. Even without direct exposures to conflict regions, euro area institutions can face mark-to-market losses, falling collateral values, and shifts in the risk-free curve that affect derivative valuations. These valuation effects spill into the real economy by tightening financing conditions for firms and households, while reducing investor appetite for sovereign and corporate debt.

Corporates, particularly in capital-intensive or export-oriented industries, may face tighter credit terms or higher bond issuance costs. Alfaro et al. (2024) show that financially constrained firms cut investment more sharply after uncertainty shocks. Costello (2020) documents how financing shocks cascade through supply chains via reduced trade credit. Niepmann & Shen (2025) find that banks reduce cross-border lending to geopolitically exposed countries, while De Haas et al. (2025) show that in conflict zones, foreign banks curtail lending overall but expand credit to military and dual-use sectors. These examples illustrate how geopolitical shocks can reshape credit allocation in complex ways.

¹ Both indices are text-based measures of uncertainty derived from newspaper coverage but capture different dimensions: the Caldara-Iacoviello GPR index focuses on security and conflict-related events (wars, threats, sanctions), while the Baker et al. political uncertainty index captures broader uncertainty around government policy domains such as trade, regulation, or fiscal decisions. In practice, they are complementary: GPR reflects the triggering events of geopolitical stress, while policy uncertainty captures the ambiguity of institutional responses. The EBA stress tests we exploit in Chapter 3 combine GPR-like *shocks* (wars, trade fragmentation, sanctions) with policy uncertainty channels (inflation paths, trade policy disruptions, regulatory interventions).

Sanctions regimes further amplify financial risks. The ECB (2025) notes that restrictions on cross-border payments, combined with sudden liquidity shifts, can push up funding costs. Banks with significant foreign exchange (FX) exposures are especially vulnerable to rapid exchange rate movements. Non-financial risks also play a role: geopolitical shocks can trigger cyberattacks, ICT failures, or energy supply disruptions, undermining banks' operational resilience. The concentration of outsourcing to a limited set of foreign service providers magnifies these vulnerabilities.

These factors underscore the importance of proportionate liquidity management frameworks, active monitoring of cross-border payment dependencies, and well-designed contingency and operating plans to maintain functionality under geopolitical strain.

2.3. Recent findings for the euro area from the ECB's Financial Stability Review

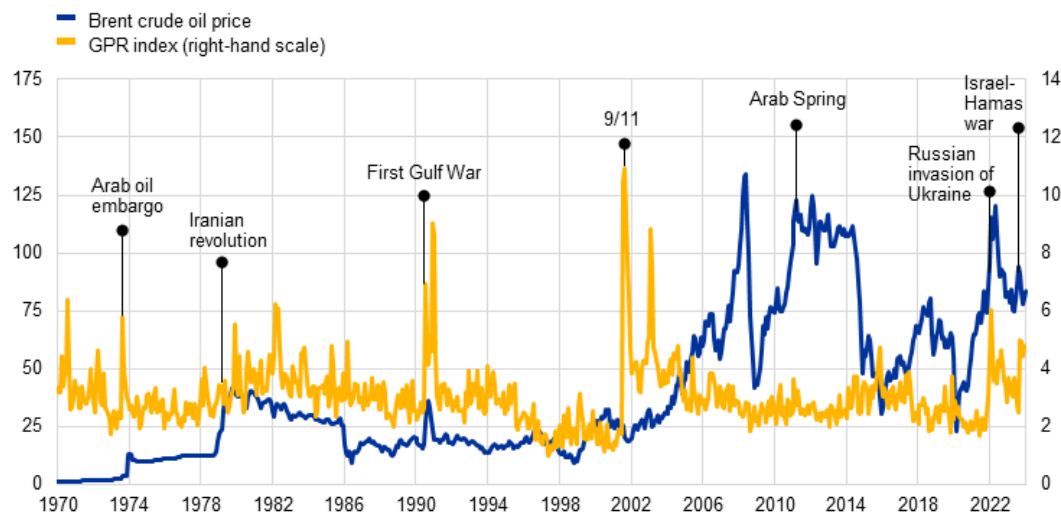
As most of the literature is based on U.S. or international data, we highlight recent findings from the ECB's May 2024 Financial Stability Review (FSR) that focus explicitly on the euro area. Empirical evidence provided by Dieckelmann et al. (2024) confirms that geopolitical risk exerts significant effects on both financial markets and the real economy in the euro area.

A one-standard-deviation increase in global geopolitical risk – measured via the GPR index of Caldara and Iacoviello (2022) (see **Figure 2**) – is estimated to raise inflation by nearly 0.1 percentage points and reduce industrial production by about 0.15 percent within six months. This constellation implies difficult trade-offs for monetary policy, as central banks may be compelled to tighten despite the adverse consequences for financing conditions of firms and governments.

In financial markets, such shocks are associated with a decline of roughly 1 percent in the EURO STOXX 50 index and an increase of about 1.5 index points in the VSTOXX, signalling simultaneous pressures on asset valuations and higher market uncertainty. While market reactions are strongest on impact and tend to fade over time, the persistence and magnitude of disruptions vary with the severity and duration of geopolitical tensions: larger and more protracted events generate more severe and lasting consequences.

Figure 2: Brent crude oil price and GPR Index since 1970

(Jan. 1970-Feb. 2024; left-hand scale: USD/barrel, right-hand scale: percentage share of all articles)



Sources: Bloomberg Finance L.P., Energy Intelligence Group, OPEC, World Bank, and Caldara and Iacoviello*.

*) Caldara, D. and Iacoviello, M., *op. cit.*

Source: Dieckelmann et al. (2024), Chart A.1

As emphasized, geopolitical shocks affect both the real economy and financial markets, transmitting to banks' financial stability by raising risk costs, increasing funding expenses, and constraining profitability. At the bank level, a one-standard-deviation increase in geopolitical risk – again captured by the GPR index – is associated with a 7 basis-point rise in the cost of risk (measured as loan impairments over total loans), signalling weaker asset quality and higher provisioning needs. Simultaneously, return on assets (ROA) declines by about 9 basis points, and the cost of funding increases by 7 percent, particularly among smaller and less well-capitalised institutions. This constellation of rising risk costs, greater funding stress, and diminished profitability illustrates how geopolitical risks directly undermine banking-sector resilience, amplifying transmission risks to credit supply and the broader real economy.

A related strand of analysis focuses on trade policy uncertainty (TPU), a subcategory of geopolitical uncertainty. Caldara et al. (2020) show that TPU reduced U.S. investment by about 1.5 percent in 2018. Building on this, the ECB's FSR (May 2025) – particularly the contribution by Avril et al. (2025) – examines the implications of the 2025 trade uncertainty episode for the euro area. The study finds that escalating trade tensions have injected significant uncertainty into global markets, spiking volatility and weakening confidence, which in turn undermines firm investment, creditworthiness, and income resilience.

Empirical results show that a one-standard-deviation rise in TPU lowers the median real-GDP forecast by 0.15 percentage points after four quarters (with the 10th percentile down by 0.75 pp). Bank stock prices fall 1.9 percent on impact and 10.4 percent after six months, while bank CDS spreads widen by 12 basis points and bank bond spreads by 7 basis points over the same period. On the balance sheet, the cost of risk rises by 8 basis points after six months and 11 basis points after one year. Return on

assets declines by 10 basis points after six months (8 bp after one year), and total lending contracts by 0.6 percent after six months and 1.9 percent after one year.

Taken together, these results show that geopolitical and trade-policy uncertainty are not abstract risks but measurable shocks with tangible macro-financial consequences. They erode profitability, tighten funding, and curtail credit supply – key transmission channels through which geopolitical stress undermines financial stability in the euro area.

2.4. Complexity and Heterogeneity in Geopolitical Exposures: Lessons from the German Case

The German case in Box 1 exemplifies how deeply embedded geopolitical dependencies transmit through both real and financial channels, creating risks that are structural rather than cyclical. Reducing such exposures is a complex and protracted process. As Box 1 highlights, Germany's most acute dependencies—on critical raw materials, green technologies, and advanced manufacturing inputs—are not easily substitutable. As Brinza et al. (2024) emphasize, China's dominance in rare earths, lithium, and battery components is the result of decades of strategic investment. For Germany, unwinding these linkages requires long-term diversification strategies that cannot be realised overnight. Expanding EU alliances for critical raw materials, investing in domestic production capacities, and deepening ties with alternative suppliers are all steps in the right direction, but they entail high costs, coordination challenges, and long lead times. The trade-off is clear: while diversification reduces vulnerability, it can also erode the efficiency and cost advantages that underpin Germany's export-oriented model.

The financial dimension is equally intricate. As the Bundesbank (2024) shows, German banks' indirect exposures—via corporates heavily tied to the Chinese market—far exceed their direct balance-sheet claims on Chinese obligors. Mitigating this risk would therefore require not only financial reallocation but also a reconfiguration of industrial linkages. For many firms, China remains both an irreplaceable supplier and a critical sales market, making such adjustments slow, costly, and politically sensitive.

Box 1: Case Study: Germany's dependencies on China

Germany's economic model is shaped by an unusually high degree of export dependence, reflected in one of the highest trade-to-GDP ratios among industrial countries. The country's industrial base generates a substantial share of its value added through foreign demand, with machinery, automotive, and chemical goods forming the backbone of its external surplus (Bundesbank, 2023). Although Germany's exceptionally high trade-to-GDP ratio (calculated as exports plus imports divided by GDP) is partly driven by intensive intra-EU trade, non-EU trade remains essential and contributes to a complex network of interdependencies that increases the economy's vulnerability to external disruptions. This outward orientation has underpinned prosperity for decades, yet it also means that disturbances to global trade flows – whether triggered by conflict, sanctions, or market fragmentation – carry a disproportionate impact on German growth, as its internationalized production structures transmit external shocks more strongly than in less trade-dependent economies.

Trade and value-chain concentration

Germany's industrial ecosystem is deeply intertwined with China, reflecting both the ubiquity and fragility of modern supply chains. Chinese suppliers provide not only high volumes of intermediate inputs but also components that are critical to production – such as rare earth elements, lithium, and cobalt – whose absence could significantly disrupt output. Survey findings from the Bundesbank's BOP-F panel (April–June 2023) reveal that nearly one-third of domestic firms rely on these critical inputs sourced from China. In manufacturing alone, about half of firms are dependent on such Chinese-sourced inputs, and the vast majority report that finding replacements would be difficult or very difficult. These dependencies extend to firms accounting for a substantial share of the sector's revenue, underscoring the considerable economic risk in the event of a sudden supply shock. While some companies have begun seeking alternative sourcing – from within the EU, other foreign markets, or domestically – a sizable portion have yet to take such measures, leaving the supply chains vulnerable in the absence of feasible short- to medium-term substitutes (Bundesbank 2023).

Trade Becomes Credit: Germany's Financial Exposure to China

Without surprise, the network of interdependencies finds its way into Germany's banks via direct and indirect claims. In the Bundesbank's (2024) analysis, direct claims refer to German banks' exposures that are booked straight onto Chinese counterparties – such as loans to Chinese banks, companies, or public institutions. These represent the immediate, balance-sheet linkages between German financial institutions and entities in China.

By contrast, indirect claims capture the exposures of German banks to domestic firms that themselves are heavily engaged with China, either through trade, investment, or supply chains.

Geopolitical risks, however, extend well beyond this single case. The Russian war in Ukraine has disrupted energy markets, foreign-exchange exposures, and counterparty credit risk, while sanctions have constrained cross-border payments and asset holdings. By contrast, tensions in the Middle East primarily manifest through oil-price volatility and capital-market fluctuations. These examples underline that geopolitical shocks differ widely in their transmission channels, duration, and macro-financial consequences. Their impact on banks therefore varies across countries, sectors, and business models.

This complexity makes it difficult to identify a single causal pathway linking geopolitical events to financial stability. Instead, what ultimately matters is the net balance-sheet effect once all these channels—real, financial, and operational—have interacted. Stress tests provide a valuable way to capture this outcome empirically. By observing how banks' capital ratios respond to an adverse scenario that explicitly includes geopolitical stress, we can assess the aggregate consequences of multiple intertwined mechanisms. Moreover, analysing the results at the bank level allows us to reflect the heterogeneity of exposures that the German case illustrates.

The next chapter applies this approach, using the 2025 EU-wide stress test to quantify how geopolitical risk affects banks' resilience across countries and institutions.

3. EVALUATING EUROWIDE STRESS TEST BASED ON A GEOPOLITICAL RISK SCENARIO

This chapter examines how the 2025 EU-wide stress test captures the impact of geopolitical risk on banks' resilience. Unlike in previous rounds, the 2025 adverse scenario explicitly integrates geopolitical tensions as a material source of macro-financial stress. The analysis has two objectives: first, to outline how such risks are transmitted to banks' balance sheets and to construct a tractable proxy for their measurement; and second, to document the resulting distribution of capital impacts across banks and countries. We focus on the credit-risk channel, where geopolitical tensions most directly affect borrower quality and non-performing exposures, while benchmarking our results against earlier stress-test vintages in which geopolitical tensions were not explicitly modelled.

3.1. Methodology to Assess Geopolitical Risk

The 2025 EU-wide stress test is the first to explicitly designate geopolitical risk as a material threat to banks. The adverse scenario assumes escalating geopolitical tensions that dampen global activity through trade fragmentation, retaliatory measures, and sharp declines in cross-border flows (European Banking Authority & European Systemic Risk Board, 2025).

Macroeconomic trajectories—covering GDP, unemployment, inflation, asset prices, and interest rates—are defined at the country level. Because countries differ in trade exposure, energy dependence, and proximity to conflicts, the scenario generates asymmetric impacts across national banking systems.

Geopolitical risk does not enter bank balance sheets through a single channel. The most relevant transmission operates via credit risk, as weaker borrower cash flows lead to downgrades, impairments, and higher risk-weighted assets. Market- and interest-rate-risk effects also matter, but they largely stem from broad macro-financial conditions rather than uniquely geopolitical mechanisms.

Because these transmission channels interact and reinforce each other, the specific contribution of geopolitical factors cannot be observed directly. We therefore approximate it using indirect measures based on credit-risk impacts. Among the various transmission mechanisms, credit risk offers the clearest and most consistent way to trace how geopolitical stress affects banks' balance sheets, as it directly captures borrower distress, defaults, and provisioning effects observable in the stress-test data. Our analysis therefore focuses on the credit-risk channel—not because it is the only one, but because it is the most tractable and best represented in the available information.

To benchmark the 2025 results, we compare them with earlier EU-wide stress tests (2021 and 2023), which did not explicitly model geopolitical tensions. The difference between the adverse and baseline scenarios in 2025, relative to these earlier vintages, can be interpreted as the share of credit-risk-related capital depletion attributable to geopolitical drivers. Our outcome measure is the CET1 depletion, defined as the erosion of banks' highest-quality capital relative to risk-weighted assets.

A detailed account of data sources and the underlying decomposition of CET1 changes is provided in the Annex. Here we note that our measure should be understood as a conservative lower bound, capturing only one of several channels through which geopolitical risk materialises. Differences across

stress-test vintages may also reflect changes in scenario severity or supervisory methodology. The focus of this analysis is not to isolate individual causal mechanisms but to quantify the balance-sheet impact of geopolitical risk at the level of individual banks as it manifests through the credit-risk channel.

To contextualize our findings, it is important to acknowledge the limitations of our approach. Our identification strategy cannot fully disentangle the influence of scenario *design* from overall *severity*. Although the 2025 exercise is broadly comparable in magnitude to earlier vintages, the composition and propagation of shocks differ and that variations across stress-test exercises are what drives our attribution of incremental CET1 depletion to geopolitical drivers. We argue that the composition of the most recent shock scenario is designed specifically to capture a geopolitical shock, which, on average, propagates primarily through the credit risk channel of banks. It cannot be ruled out that previous scenarios in earlier vintages might propagate through the same channels to some extent. However, we address this instance by averaging over the two most recent vintages to address this concern.

Moreover, our estimates are sensitive to the design choices embedded in each scenario. In addition, bank-specific factors such as portfolio composition and asset quality, accounting and staging practices, hedging strategies, and business model choices can affect measured credit-risk impacts independently of geopolitical stress. We therefore treat these influences as bank-level measurement error in the outcome variable: they introduce noise without systematically favouring any single mechanism. This noise should mainly attenuate estimated effects—supporting our interpretation as a conservative lower bound—though the direction of bias may vary at the individual-bank level.

3.2. Empirical Results

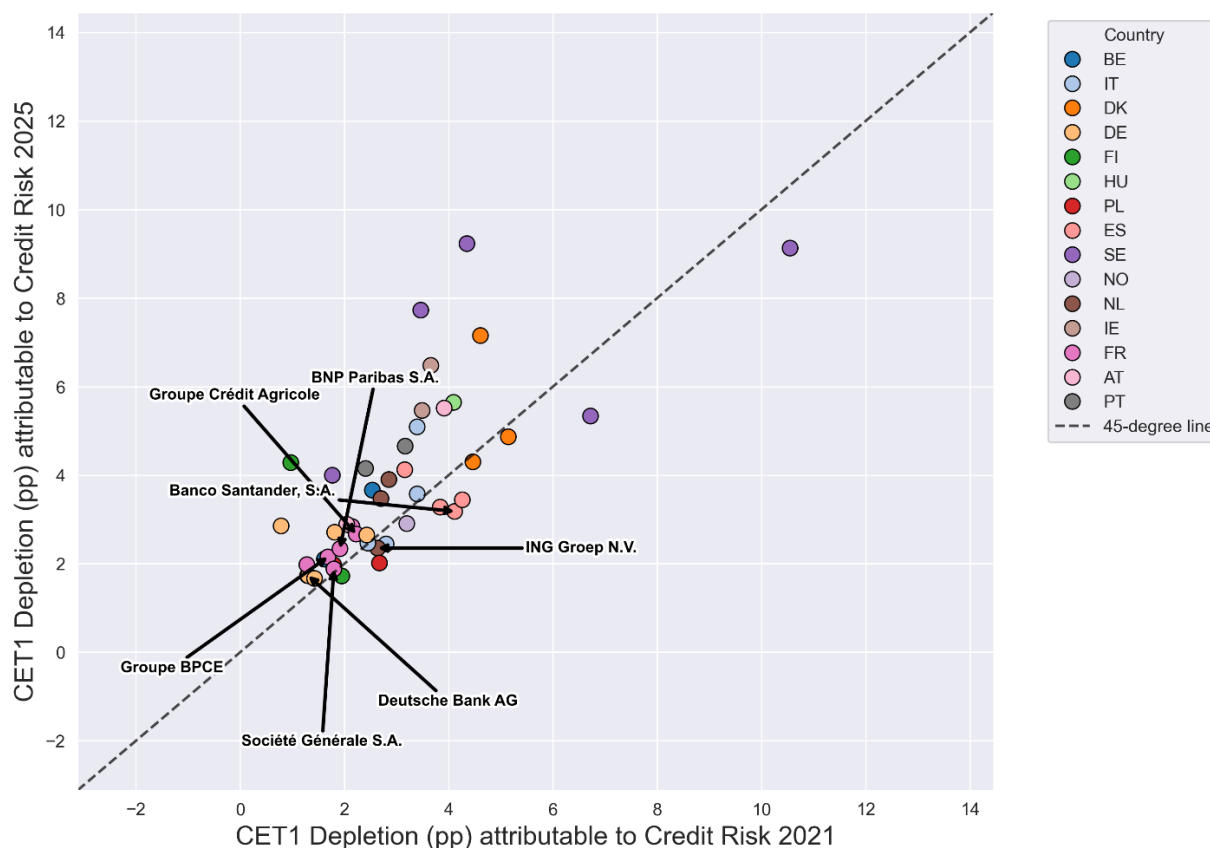
3.2.1. Bank Level Results

We begin by presenting the results at the individual bank level. **Figure 3** compares CET1 depletions attributable to credit risk across the 2021 and 2025 stress tests.² If geopolitical risk had no additional impact, the observations would be close to the 45-degree line, indicating broadly unchanged outcomes between the two vintages. Instead, most banks lie above the line, showing that credit-related losses are systematically more severe in 2025. This suggests that the adverse scenario's geopolitical component translated into measurable balance-sheet stress.

Two patterns stand out. Larger institutions, measured by total assets and labelled in **Figure 3**, appear systematically less affected—reflecting diversification benefits and more advanced risk-management models. At the same time, outcome dispersion has widened markedly: while CET1 depletions in 2021 were tightly distributed, with only a few banks experiencing drawdowns of more than 4 percentage points, the 2025 results span a broader range, with several banks recording drawdowns between 4 and 6 percentage points. This widening distribution potentially highlights how unevenly geopolitical shocks affect banks and sets the stage for the more detailed analyses that follow.

² We start simple by comparing one stress test with another. We will later use the average of 2021 und 2023 to reduce noise.

Figure 3: CET1 Depletion from Credit Risk



Source: EBA Stress Test 2025, 2021 own calculation. Bank level CET1 Depletions attributable to credit risk 2025 vs. 2021. Credit risk CET1 Depletions are calculated over the whole testing period respectively. Names are visible for the largest banks.

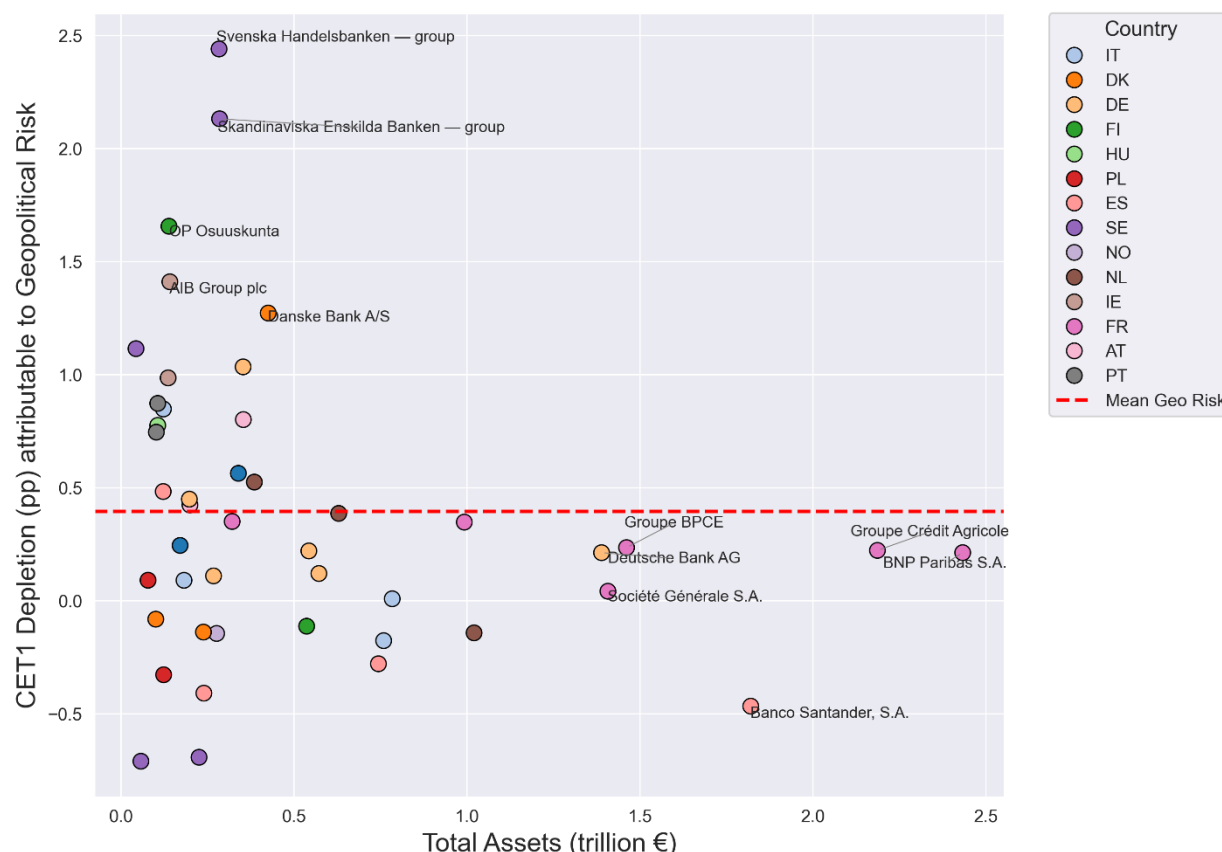
To assess how much of this additional stress reflects geopolitical drivers specifically, we extract the credit-risk component attributable to geopolitical shocks, as described in the Annex. **Figure 4** plots the resulting CET1 depletion attributable to geopolitical risk against banks’ total assets (in EUR trillions). A clear pattern emerges: larger, more diversified institutions are less exposed to geopolitical shocks, while smaller banks show greater dispersion. Some smaller institutions experience very limited or even negative impact, while others face substantial drawdowns—reflecting that for less diversified banks, exposures tend to be concentrated in specific sectors or regions rather than spread across activities.³ On average, across the 45 banks that participated in all three stress-test rounds, geopolitical risk accounts for just under 50 basis points of CET1 depletion (indicated by the dashed red line). Note that the EBA sample is not the SSM sample. While the EBA sample also covers non-SSM banks, 45 medium-sized SSM banks are not part of the EBA sample. If smaller banks are more hit by geopolitical risks, the depletion is likely to be more severe for the SSM sample.

The cross-sectional variation is large. Smaller banks—particularly in Scandinavian countries—stand out as more vulnerable on average, likely reflecting both concentration in trade-exposed industries and the absence of geographic diversification. For the most exposed institutions, geopolitical stress reduces

³ This pattern is consistent with broader evidence that smaller banks tend to be structurally riskier than larger peers (Gropp and Heider, 2010).

CET1 ratios by roughly 150 to 250 basis points. This represents a material erosion of resilience, comparable in scale to major market-risk shocks in the 2025 exercise, where the largest depletions reached about 300 basis points.

Figure 4: CET1 Depletion from Geopolitical Risk



Source: EBA Stress Test 2025, 2023, 2021 own calculation. Bank level CET1 Depletions attributable to Geopolitical Risk.

Clustering banks by asset size confirms the earlier finding that larger institutions are substantially less affected by geopolitical risk. Banks in the bottom two terciles—those with total assets below EUR 500 billion—show average CET1 depletions of around 55 basis points, with little difference between small and medium institutions. By contrast, banks in the top tercile (assets above EUR500 billion) experience virtually no impact, with an average depletion of only 5 basis points.

These results should be interpreted with caution. Larger banks typically determine their regulatory capital under the internal ratings-based (IRB) approach, whereas smaller banks apply the standardised approach. This difference does not imply that smaller banks lack internal rating models; rather, their internally estimated risk parameters are not used directly for regulatory capital purposes. In contrast, IRB banks’ models are formally approved, supervised, and jointly calibrated with the regulator. As a result, the underlying model structures likely differ, which complicates comparability and may contribute to the observed cross-sectional differences in risk measures.

Table 1: CET1 Depletion from Geopolitical Risk by Tercile

<i>Size (Tercile)</i>	<i>Average CET1 Depletion attributable to Geopolitical Risk (in pp)</i>
<i>Small</i>	<i>0.55</i>
<i>Medium</i>	<i>0.58</i>
<i>Large</i>	<i>0.05</i>

Source: EBA Stress Test 2025, 2023, 2021 own calculation. Bank level CET1 depletions attributable to Geopolitical Risk sorted by Terciles.

Taken together, the bank-level analysis shows three consistent patterns:

- (i) CET1 drawdowns from credit risk are higher in 2025 than in 2021, reflecting the incorporation of geopolitical shocks;
- (ii) the dispersion of outcomes has widened, with some institutions facing substantial losses; and
- (iii) larger banks are far less exposed than smaller and medium-sized peers, likely because they anticipated and adjusted more swiftly to geopolitical risks through portfolio diversification, active exposure management, and more sophisticated risk-modelling and hedging tools.

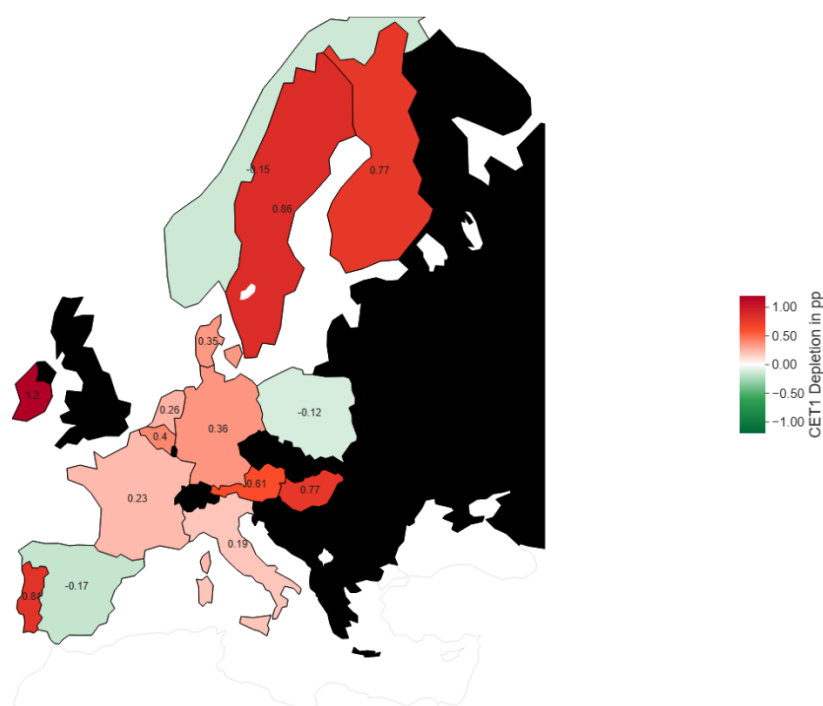
In the next section, we shift from individual institutions to a country-level perspective and examine how structural characteristics and exposure profiles shape the aggregate impact of geopolitical risk.

3.2.2. Country Level Results

We now move from the bank-level to the country-level perspective. The 2025 stress test scenarios explicitly account for structural differences across national banking systems – including trade exposure, energy dependence, and proximity to geopolitical conflicts. As a result, the impact of geopolitical shocks on capital ratios is expected to vary substantially across countries.

Figure 5 maps the average CET1 depletion attributable to geopolitical risk by country. The results reveal a clear geographic pattern. Scandinavian countries, which combine high export dependence with smaller and less diversified banking sectors, show the largest capital impacts. Ireland also stands out, with an average CET1 depletion above one percentage point. In the east, Hungary and Finland record elevated losses, consistent with their geographic and trade-related vulnerabilities. By contrast, large continental banking systems such as in France, Germany, and Italy experience only modest average effects, reflecting the dominance of large, diversified institutions. These statements are based on data from banks participating in the EBA stress test, which does not include smaller institutions such as German cooperative banks and savings banks. In Germany, however, these smaller banks account for a substantial share of total corporate lending, suggesting that their exclusion may limit the representativeness of the analysis.

Figure 5: CET1 Depletion from Geopolitical Risk by Country



Source: EBA Stress Tests 2025, 2023, 2021 own calculation. Country level average of CET1 Depletion attributable to Geopolitical Risk (in pp).

Table 2 provides the underlying country averages. Ireland tops the distribution with 1.20 percentage points of CET1 depletion, followed by Sweden (0.86 pp), Portugal (0.81 pp), and Hungary and Finland (0.77 pp each). At the other end of the spectrum, Poland, Norway, and Spain record slightly negative or near-zero values, suggesting that their stress test outcomes are driven more by general macroeconomic conditions assumptions than by geopolitical risk. Germany and France fall in the middle, with average depletions of 0.36 and 0.23 percentage points, respectively.⁴

Taken together, these results confirm that geopolitical risk is unevenly distributed across Europe. Smaller, export-oriented, and geographically exposed banking systems bear the greatest impact, while larger and more diversified systems appear better shielded. This cross-country heterogeneity mirrors the earlier bank-level findings, reinforcing the conclusion that size and structure are key determinants of resilience to geopolitical shocks.

⁴ While broadly intuitive, some country-level results are nonetheless surprising. For instance, the low exposure of Poland may appear unexpected. However, given the country's longstanding awareness of geopolitical risks, it is plausible that Polish banks have already adapted to conditions that have taken others more by surprise. Exploring the mechanisms through which such adaptation occurs—both within the banking sector and beyond—lies beyond the scope of this paper and is left for future research.

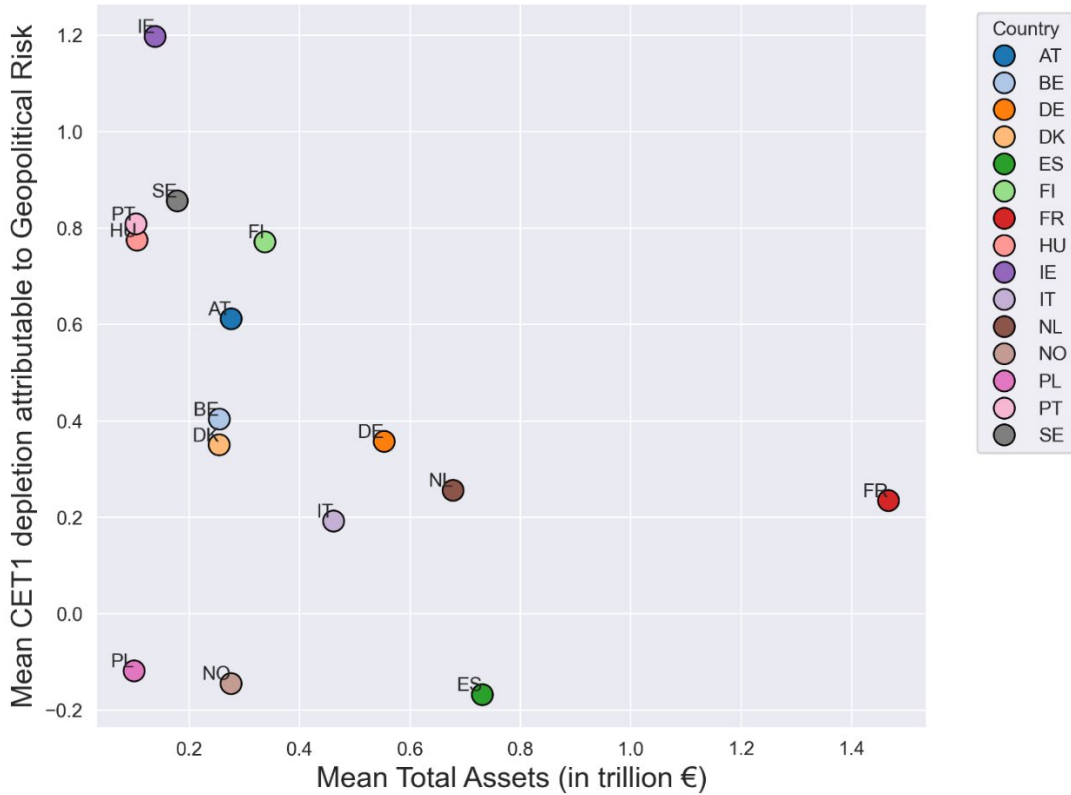
Table 2: Country Level Average CET1 Depletion from Geopolitical Risk

Country	Number of Institutes	<i>Average CET1 Depletion attributable to Geopolitical Risk (in pp)</i>
Ireland (IRL)	2	1.20
Sweden (SWE)	5	0.86
Portugal (PRT)	2	0.81
Hungary (HUN)	1	0.77
Finland (FIN)	2	0.77
Austria (AUT)	2	0.61
Belgium (BEL)	2	0.40
Germany (DEU)	6	0.36
Denmark (DNK)	3	0.35
Netherlands (NLD)	3	0.26
France (FRA)	6	0.23
Italy (ITA)	4	0.19
Poland (POL)	2	-0.12
Norway (NOR)	1	-0.15
Spain (ESP)	4	-0.17

Source: EBA Stress Test 2025, 2023, 2021 own calculation. Bank level CET1 Depletions attributable to Geopolitical Risk, averaged per country.

Figure 6 shows the relationship between average CET1 depletion attributable to geopolitical risk and mean total assets across countries. A clear negative correlation similar to the one at the bank level emerges: countries with smaller average bank size experience higher capital erosion, while those with larger, more diversified institutions are less affected. The figure also highlights that smaller banks are less able to hedge or absorb these risks, leaving some national banking systems more vulnerable to concentrated shocks. For example, Ireland and the Scandinavian countries appear particularly exposed, whereas France, Spain, and the Netherlands record much lower average depletion levels, reflecting their larger and more diversified banks.

Figure 6: Country Mean CET1 Depletion from Geopolitical Risk against Total Assets



Source: EBA Stress Tests 2025, 2023, 2021 own calculation. Country level average of CET1 Depletion attributable to Geopolitical Risk against mean total assets (in pp).

Overall, the country-level analysis confirms that geopolitical risk is highly uneven across the euro area. Structural features of banking systems—especially bank size, business model, and diversification—play a decisive role in determining resilience. Countries dominated by smaller banks and with higher international exposure face the sharpest negative CET1 impacts, while larger systems remain relatively insulated. This asymmetry poses important challenges for prudential supervision, as the SSM must address risks that are concentrated in specific jurisdictions rather than evenly spread across the euro area.

4. PRUDENTIAL TOOLS IN THE SSM TO ADDRESS GEOPOLITICAL RISKS

Prudential supervisors in the Banking Union have several tools to address the geopolitical risks identified in our analysis and to require vulnerable banks to hold additional capital against their exposures. Building on the evidence of heterogeneity presented in Chapter 3, these instruments can help strengthen resilience where risks are concentrated. We highlight both micro-prudential and macro-prudential measures that are particularly suited to mitigate geopolitical risks. In addition, we comment on the division of competences between the ECB and national competent authorities (NCAs) in executing these supervisory functions.

4.1. Pillar 2 Requirements

Given the significant cross-sectional variation in capital impacts observed in our data, Pillar 2 capital requirements are a natural instrument to cushion particularly vulnerable banks against geopolitical risks.

The CRR's Pillar 2 framework establishes a comprehensive supervisory mechanism that goes beyond the minimum capital requirements set out under Pillar 1. Its main purpose is to ensure that banks maintain adequate capital to cover all material risks in their business, including those not fully captured by the standardised Pillar 1 calculations. Banks must therefore conduct their own Internal Capital Adequacy Assessment Process (ICAAP) to identify and quantify all risks they face, while supervisors assess these processes and impose additional capital requirements where necessary.

The Supervisory Review and Evaluation Process (SREP) is the core instrument through which supervisors implement Pillar 2 requirements (P2R). Under SREP, authorities systematically assess each bank's risk profile and determine whether its capital position is sufficient. Based on this evaluation, supervisors may impose legally binding P2R and issue Pillar 2 guidance (P2G) indicating their expectations for additional capital buffers.

The SREP thus serves as the practical tool that translates the conceptual framework of Pillar 2 into concrete supervisory action. In particular, it enables adjustments in a bank's capital position to reflect its specific exposure to geopolitical risks, as revealed by stress test outcomes or ICAAP findings.

4.2. Systemic Risk Buffer

The pronounced cross-country variation documented in Chapter 3 can also be addressed at the national level by calibrating the Systemic Risk Buffer (SyRB) accordingly. While targeted, bank-specific capital requirements are the most direct instrument to address institution-level vulnerabilities—such as concentrated exposures or insufficient diversification—a nationally calibrated SyRB serves a complementary purpose. It captures broader, structural sources of systemic risk that are common across many banks and cannot easily be mitigated through microprudential measures alone. Moreover, the SyRB provides a flexible policy tool that can be implemented more swiftly than institution-specific requirements, making it a useful interim measure when granular, bank-level adjustments are not yet available.

The SyRB is a macroprudential capital buffer under the CRR designed to address long-term, non-cyclical systemic risks that could disrupt the financial system and have severe consequences for the real economy. It targets risks not adequately covered by other capital buffers. Unlike the countercyclical capital buffer, which addresses cyclical fluctuations, the SyRB focuses on persistent structural vulnerabilities.

While traditionally conceived to counteract systemic risks that arise from structural risks in the financial system, too-big-to-fail institutions, interconnectedness, market concentration, or infrastructure dependencies, this list of sources for systemic risk is by no means exhaustive. Designated macroprudential authorities could therefore, in principle, calibrate SyRB requirements for all or a subset of institutions to reflect their geopolitical risk exposures.

The SyRB is set as a percentage of risk-weighted assets, typically between 1 % and 5 %, although higher rates are possible with appropriate justification to the European Systemic Risk Board (ESRB).

4.3. ECB/NCA competencies

Under the Single Supervisory Mechanism, the ECB is responsible for setting P2R for significant institutions (SIs) under its direct supervision, while national competent authorities (NCAs) retain supervisory powers— including SREP responsibilities—vis-à-vis less significant institutions. In our sample, all banks from Banking Union member states with material geopolitical risk exposures are designated as SIs, and thus fall under direct ECB supervision.⁵ This supranational competence ensures a consistent supervisory approach to geopolitical risks within the P2R and P2G framework.

By contrast, the SyRB is set by designated macroprudential authorities in the member states; the ECB cannot set the buffer rate itself. National authorities identify systemic risks through regular assessments and notify the ESRB, EBA, and other relevant bodies of their intention to activate or modify the buffer. Other EU member states must generally recognise and apply SyRB requirements to their banks' exposures in the activating country, thereby ensuring a level playing field and preventing regulatory arbitrage.

This mechanism enables authorities to address country-specific systemic vulnerabilities, but aligning institution-specific capital requirements (P2R/P2G) with a national SyRB is methodologically challenging. Both instruments may target overlapping exposures, and while P2R/P2G address bank-level risks, the SyRB is intended to capture residual, system-wide vulnerabilities. Effective coordination is therefore needed to avoid double counting while preserving the distinct purposes of each tool.

⁵ Denmark and Sweden are not participating in the Banking Union. Therefore, the Danish and Swedish banks that also exhibit significant geopolitical risk exposures in our sample are not supervised within the SSM on a consolidated basis, i.e., the SSM only has solo supervisory competences over their subsidiaries in participating member states.

5. CONCLUSION AND POLICY RECOMMENDATIONS

Geopolitical risk has evolved into a structural feature of the financial environment that significantly affects banks in the Banking Union. Our analysis shows that this risk is no longer confined to isolated events but has become embedded in the macro-financial setting through trade fragmentation, sanctions, and supply-chain disruptions. The 2025 EU-wide stress test represents a turning point in this regard: for the first time, geopolitical tensions are explicitly modelled as a source of systemic stress.

By comparing the 2025 results with earlier stress-test vintages (2023 and 2021), we quantify how much of the observed increase in capital depletion can be attributed to geopolitical risk. The results reveal two robust patterns. First, geopolitical shocks have a measurable and non-trivial impact on banks' capital positions—on average accounting for about half a percentage point of CET1 depletion. Second, the effects are highly heterogeneous. Smaller and less diversified banks are significantly more exposed than larger institutions, both across and within countries. This heterogeneity reflects structural factors such as export dependence, sectoral concentration, and differences in risk-management capacity.

These findings have clear implications for prudential oversight. Because geopolitical shocks affect banks and jurisdictions asymmetrically, the policy response must also be differentiated. At the microprudential level, Pillar 2 requirements provide supervisors with a flexible tool to address institution-specific vulnerabilities, allowing capital buffers to be adjusted in line with individual exposure profiles. At the macroprudential level, national authorities can deploy the Systemic Risk Buffer (SyRB) to mitigate broader, country-level vulnerabilities that arise from common exposures or structural dependencies across multiple banks—risks that cannot be reduced to the simple sum of individual weaknesses. Taken together, these instruments help internalise the financial consequences of structural geopolitical risks within the Banking Union's supervisory framework, provided that coordination between supervisory and macroprudential authorities prevents overlap and ensures proportionality.

Looking ahead, integrating geopolitical risk into supervisory practice will require both conceptual and operational adaptation. Stress testing has proven an effective framework for quantifying such risks, but future exercises could expand to capture second-round effects, feedback loops, and cross-sectoral spillovers. The SSM could also conduct a similar analysis covering the full set of directly supervised institutions and, ideally, make anonymised results publicly available. In principle, the same approach could be extended to the ECB's own stress-test sample, allowing for a more comprehensive assessment of geopolitical vulnerabilities across the Banking Union. For policymakers, the key challenge remains to balance national discretion with European consistency—ensuring that banks across the Union are resilient not only to cyclical shocks but also to the structural shifts reshaping the global financial landscape.

Finally, supervisors should enhance transparency. A clearer articulation and separation of key assumptions would have materially simplified and strengthened our analysis—an issue that will become even more important in forthcoming stress tests as the design evolves beyond the 2021 and 2023 exercises. Moreover, the current EBA stress test covers only about half of the banks under SSM supervision. Since our findings suggest that smaller institutions are more exposed to geopolitical risks,

the SSM should consider publishing EBA-equivalent outputs for the entire supervised population. While stress tests are already conducted for the remaining SSM banks, the ECB currently discloses only high-level aggregates, which are insufficient to replicate our analysis or assess vulnerabilities among the excluded institutions.

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ANNEX: CALCULATION OF CET1 DEPLETION ATTRIBUTABLE TO GEOPOLITICAL SHOCKS

This appendix explains the steps of how we calculate the capital depletion (i.e., changes in Common Equity Tier ratio, CET1) attributable to geopolitical risk using the results of EU-wide stress test. The key idea is to compare the 2025 stress test, where geopolitical risk is explicitly factored in, to earlier stress tests, where this was not the case. Steps A1 and A2 are standard in the literature on stress testing and capital depletion but it is useful to recap the approach here. A3 is entirely new and characterizes our innovation.

A1. Decomposing the change in the CET1 ratio

The CET1 ratio is defined as Tier1 capital $C(s)$ over risk-weighted assets $R(s)$:

$$CET1(s) \equiv \frac{C(s)}{R(s)}$$

A bank's CET1 ratio falls in the adverse scenario s because stress conditions either reduce capital $C(s)$ or increase risk-weighted assets $R(s)$, or both. To understand the contribution of each factor, it is standard to approximate the change in the ratio using a first-order (linear) decomposition.

By the quotient rule, the derivative of the CET1 ratio with respect to the adverse scenario s is:

$$\frac{d\left(\frac{C(s)}{R(s)}\right)}{ds} = \frac{\frac{d(C(s))}{ds}R(s) - C(s)\frac{d(R(s))}{ds}}{R(s)^2} = \frac{\frac{d(C(s))}{ds}}{R(s)} - \frac{C(s)}{R(s)}\frac{d(R(s))}{ds}$$

Replacing derivatives with finite differences, and $C(s)$ and $R(s)$ with initial values C_0 and R_0 gives

$$\Delta CET1 = \frac{\Delta C}{R_0} - CET1_0 \frac{\Delta R}{R_0}$$

This equation expresses the change in the CET1 ratio as the sum of two components: the capital (numerator) effect: $\Delta C / R_0$, and the risk-weight (denominator) effect: $- CET1_0 \times (\Delta R / R_0)$. Each term gives the marginal contribution of changes in capital and risk-weighted assets in the adverse scenario to the overall change in the CET1 ratio.

A2. Identifying the change due to credit risk in stress test data

Our assumption is that the indirect effects of geopolitical risk on banks' balance sheets are primarily captured by credit risk. To identify the effect of credit risk on capital depletion in the adverse scenario, $\Delta CET1^{credit}$, we measure the change in capital due to credit losses (in the adverse scenario relative to the baseline) with the change in impairments, which are reported in the data:

$$\Delta C^{credit} = \Delta Imp * 100,$$

where the multiplication by 100 converts the result into percentage points.

We measure the change in the risk-weighted assets with the change in the risk exposure amounts due to credit risk (in the adverse scenario relative to the baseline), ΔREA^{credit} , which are reported in the data:

$$\Delta R^{credit} = \Delta REA^{credit},$$

We calculate the overall change in the CET1 ratio due to credit risk as:

$$\Delta CET1^{credit} = \frac{\Delta Imp}{R_0} * 100 - CET1_0 \frac{\Delta REA^{credit}}{R_0}.$$

The initial CET1 ratio is directly observable, and so are the initial risk-weighted assets (i.e., the initial risk exposure amount).⁶

A3. Identifying the geopolitical component

The novel step in our approach is to exploit the fact that the 2025 EU-wide stress test is the first to include an explicit geopolitical dimension in its adverse scenario, encompassing trade fragmentation, sanctions, and broader geopolitical tensions. Earlier stress test rounds (2021 and 2023) did not model these factors directly.

We therefore define the geopolitical component for each bank as the additional CET1 depletion attributable to credit risk observed in 2025 relative to earlier vintages:

$$geoRisk = \Delta CET1_{2025}^{credit} - \frac{1}{2} (\Delta CET1_{2023}^{credit} + \Delta CET1_{2021}^{credit})$$

This measure captures the incremental erosion of capital under the 2025 scenario that cannot be explained by the “normal” credit-risk impacts observed in previous stress tests. Using both the 2023 and 2021 exercises to estimate this normal benchmark improves robustness by increasing coverage and reducing noise in the calculation.

⁶ To compute CET1 depletion from market risk, we would use income statement items related to valuation effects, namely: “Gains or losses on financial assets and liabilities held for trading,” and “Gains or losses on non-trading financial assets and liabilities measured at fair value through profit or loss,” including both mandatory and designated fair-value positions. For interest-rate risk, we would rely on changes in net interest income (NII). In both cases, the CET1 impact is calculated analogously to the credit-risk contribution, combining the numerator (capital) and denominator (risk-weighted exposure) effects as defined above.

This study quantifies the impact of geopolitical risk on euro area banks using the 2025 EU-wide stress test, the first to include an explicit geopolitical scenario. Comparing outcomes with earlier stress tests, we find that geopolitical shocks measurably erode capital ratios, with smaller and less diversified banks most affected and considerable heterogeneity across countries. The results highlight how stress testing can capture structural vulnerabilities and inform supervisory responses through Pillar 2 requirements and Systemic Risk Buffers within the Banking Union framework.

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