Integrating Geopolitical Risk into Risk Management Frameworks

BDO Singapore Financial Services Group

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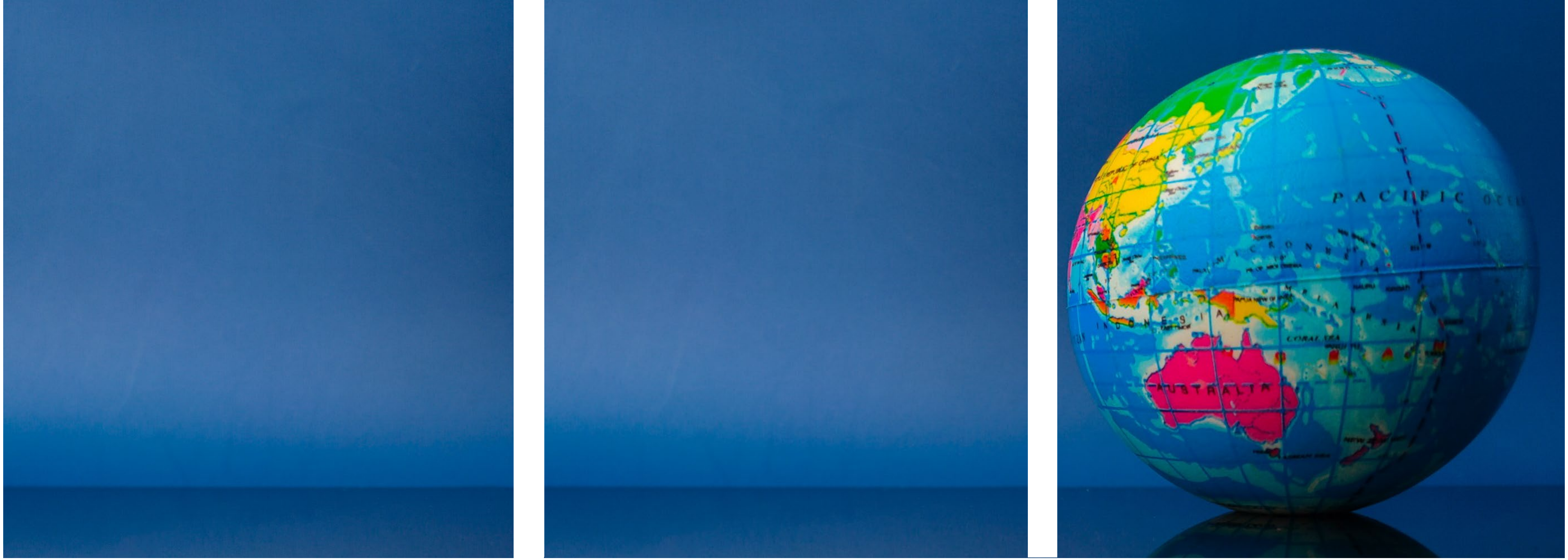

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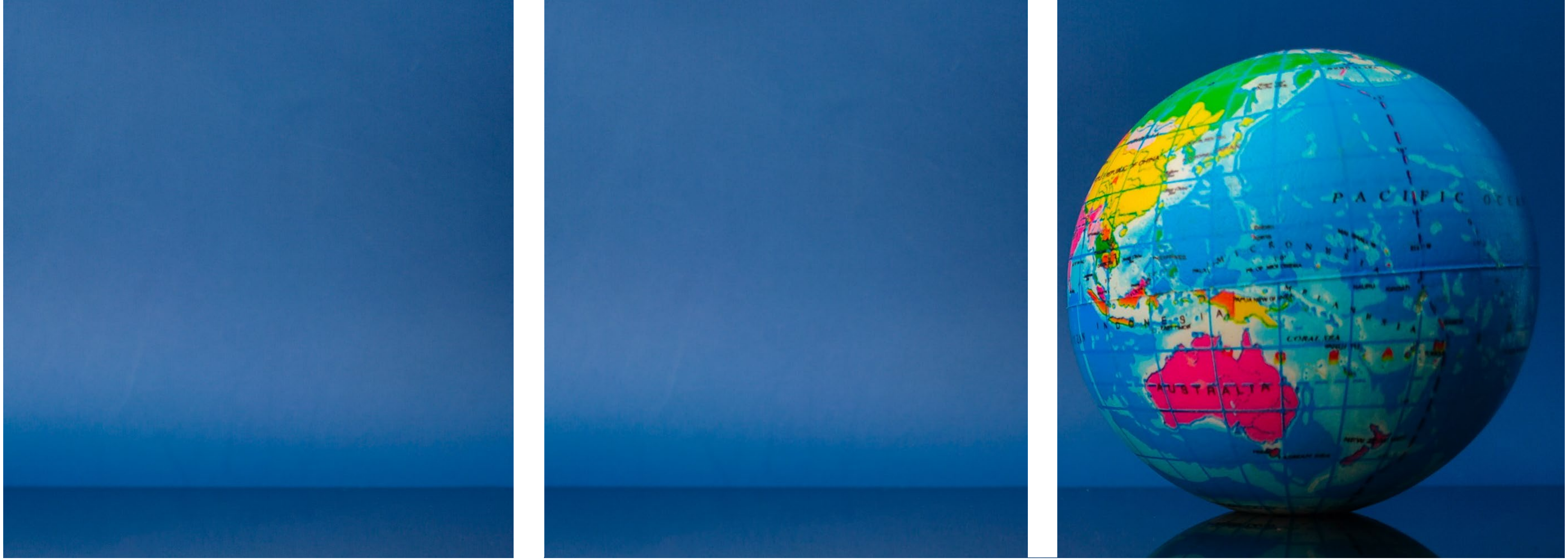


01 Understanding Geopolitical Risks

Geopolitics and Finance and heightened Scrutiny on Geopolitical Risks

Assessing Risk in uncertain Times

Definition of Geopolitical Risk

- Geopolitical risk is the threat, realisation and escalation of adverse events associated with wars, terrorism and tensions among states and political actors that affect the peaceful course of international relations.
- By contrast geopolitical fragmentation is different – it captures the reversal of global economic and financial integration due to geopolitical considerations.

Geopolitics and finance Observations

1. The vulnerability of banks to geopolitical risk varies from institution to institution, depending on their actual exposure to adverse geopolitical developments.
2. Geopolitical risk events have an adverse impact on bank CDS spreads and stock prices. The funding and liquidity positions could also come under pressure, undermining banks' stability.
3. The macroeconomic consequences of geopolitical risk could weaken bank asset quality.
4. Higher funding costs, weaker lending and a deterioration in asset quality arising from geopolitical risk could undermine bank profitability.

Macro-Financial Scenario

Risk Drivers	
Elevated geopolitical tensions	Emergence of several plausible triggers for tail risk scenarios
Inward-looking trade policies	Supply-side inflationary pressures
Fragmentation of the global supply system	Higher energy prices & supply chain disruptions
Materialisation of macro-financial risks	Banks' deleverage with tighter credit conditions

- An escalation of geopolitical tensions may trigger adverse developments, especially in energy and commodity prices.
- Further escalations of geopolitical tensions or fragmenting policies, may lead to a sell-off in riskier asset classes, and this has the potential to affect the real economy via confidence channels.
- Macroeconomic uncertainty in EU remains high fueled by geopolitical risks. Approx. 2.5% of EU/EEA banks' total exposures are directly linked to high-risk countries.
- These exposures create vulnerabilities, with banks facing downside risks from second-round effects through geopolitically sensitive sectors.
- Sovereign vulnerabilities are increasing in light of heightened policy and geopolitical uncertainty, weak fiscal fundamentals and sluggish trend growth.
- Rising policy uncertainty and geopolitical risk, coupled with high sovereign debt and deficit levels, weaken fiscal fundamentals in several euro area countries.

Unveiling Transmission Channels and Bottom-Line Impact

Understanding Geopolitical Risks

Geopolitical Risks and Economic Disruption

- **Global Trade Disruptions:** Geopolitical risks can weaken business confidence, impose trade restrictions, and increase sanctions, leading to reduced international trade, slower economic growth, and fragmented supply chains.
- **Commodity Price Volatility:** Conflicts, such as those in the Middle East can disrupt energy and raw material supplies (e.g., past oil shocks), causing sharp fluctuations in commodity prices and increasing inflationary pressures.
- **Regulatory and Policy Changes:** Heightened geopolitical risks may lead to stricter financial regulations, capital controls, and policy shifts, affecting market access, investment decisions, and operational risks for businesses.
- **Sanctions and Financial Restrictions:** Geopolitical tensions often result in sanctions on key economies, restricting capital flows, limiting cross-border transactions, and increasing funding costs for banks and businesses.

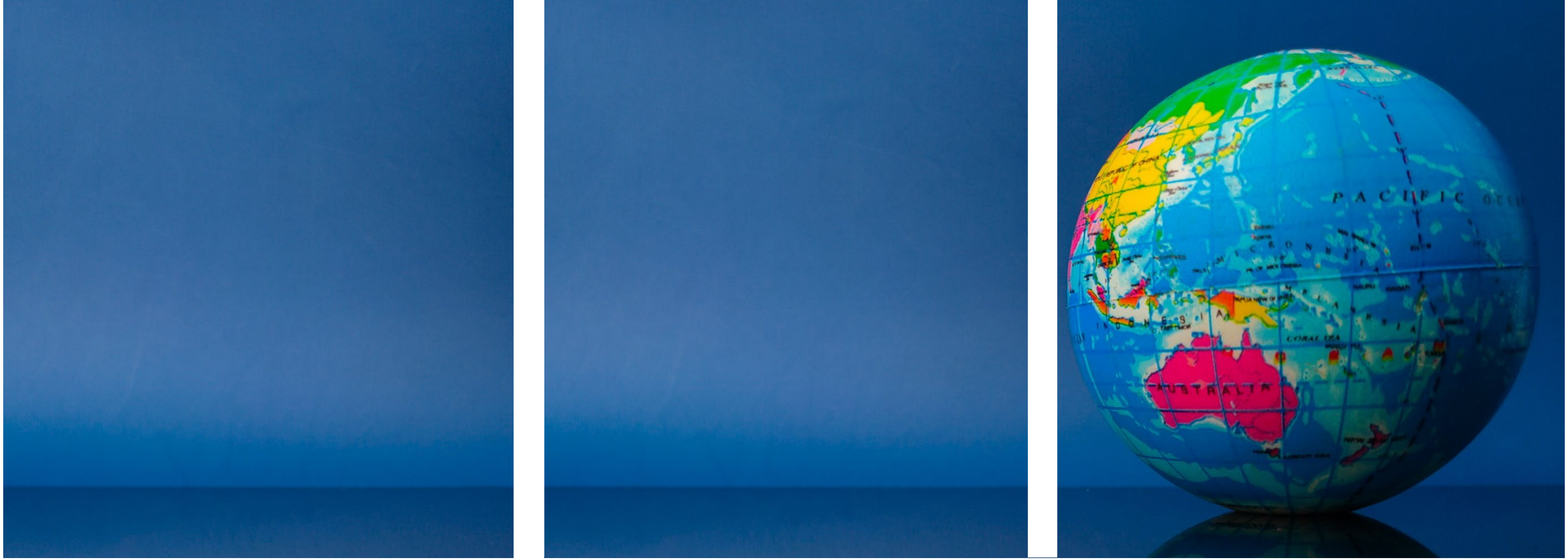
Management of geopolitical risk do not necessitate a "standalone / independent" steering approach. Instead, geopolitical risk should be seen as a risk driver that amplifies other risk categories, such as ESG, credit, operational, and related financial risks. Geopolitical developments can influence regulatory priorities, market stability, and institutional resilience, making it essential to integrate geopolitical considerations into broader risk management frameworks.

1. Geopolitical risks, including U.S. tariffs and conflicts like the Russia-Ukraine war, are disrupting global trade, raising costs, and affecting logistics. These disruptions act as key transmission channels, forcing businesses to adjust strategies.

2. The Ukraine-Russia war is affecting energy commodities like oil and natural gas, as well as agricultural exports. Middle East conflicts are impacting oil prices and disrupting shipping routes, leading to volatility in commodities like gold and metals.

3. In response to rising geopolitical risks, regulators e.g ECB is updating regulatory frameworks, focusing on enhancing risk management processes, governance, and risk culture. This includes a new guide on governance and cyber resilience stress tests, ensuring banks integrate geopolitical uncertainties into their risk strategies for greater resilience.

4. EU sanctions on Russia have frozen billions in private assets and banned billion in exports and imports. Sanctions impact and disrupt supply chains and heighten geopolitical risks for banking and non-banking sectors.



02 Integration of Geopolitical Risks into Enterprise Risk Management

Steering Geopolitical Risk: Navigating the Uncertainty

Integration of Geopolitical Risk Management into ERM

- Integrating geopolitical risks is challenging due to the nonlinear nature of the underlying risk drivers and their unpredictability. A structured approach encompassing ICAAP, ILAAP, and prudent provisioning can support banks in effectively identifying and managing geopolitical shocks, preserving overall risk management integrity, ensuring sound model performance, and meeting regulatory expectations.

	Focus Areas	Description
ICAAP	▸ Stress Testing and Scenario Analysis ▸ Capital Buffers for Geopolitical Shocks ▸ Impact on Risk Appetite and Lending Strategy & New Business Policies	▸ Geopolitical scenarios should be included in ICAAP stress tests to assess capital adequacy under potential geopolitical shocks. ▸ ICAAP models may incorporate specific buffers to absorb losses from sudden geopolitical events or market disruptions. ▸ Geopolitical risks may prompt a reassessment of risk appetite, leading banks to adjust lending strategies and exposure to vulnerable sectors. ▸ Capital planning under ICAAP should consider the impact of higher funding costs and lower capital inflows connected with geopolitical uncertainty.
IFRS 9	▸ Model Overlays on a Component Level ▸ Collateral Valuation Haircuts ▸ Forward-Looking Information → PD & LGD Shifts as well as CCF Changes ▸ Sectoral Impact on Provisions → collective approach	▸ Geopolitical risks impact asset quality based on exposure—import-heavy SMEs and corporates with intercontinental ties face immediate pressure, while locally focused SMEs may also be affected if persistent shocks drive domestic inflation. Provisioning models should account for these risks by adjusting for potential borrower defaults and asset quality deterioration. ▸ Adjust provisions based on sectoral exposure to geopolitical risks (e.g., trade finance, energy) that are more vulnerable to such disruptions.
ILAAP	▸ Enhanced Liquidity Risk Assessment ▸ Funding Strategy Adjustments ▸ Contingency Planning for Geopolitical Shocks ▸ Stress Tests on Liquidity Reserves	▸ Geopolitical risks may increase borrowing costs and limit funding options, requiring adjustments in ILAAP models to reflect these uncertainties. ▸ ILAAP should include geopolitical scenarios in liquidity contingency plans to address potential market disruptions or funding shortages. ▸ ILAAP should stress-test liquidity reserves under extreme geopolitical scenarios to ensure banks can manage funding risks during crises ▸ Concentration risk should be assessed in the context of geopolitical shocks, as reliance on specific counterparties, regions, or funding sources can amplify liquidity stress. ILAAP should incorporate geopolitical drivers – such as trade restrictions, sanctions, or regional instability – that may disrupt access to key funding channels.

Key Geopolitical Risk Drivers Shaping the Landscape for FIs

Integration of Geopolitical Risk Management into ERM

While it is prudent to distinguish between non-geopolitical risks (e.g., COVID-19) and geopolitical risk events, managing the latter requires a holistic perspective. Non-geopolitical risk events can, at times, serve as catalysts for geopolitical risks and should not be overlooked within scenario analysis

Geopolitical Risk Themes

Russia-Ukraine Conflict

- Frozen Russian assets and disrupted energy supplies from loss of access to Russia energy, fueling economic instability with disrupted supply of energy and price volatility.
- Agricultural supply chain shocks : grains and fertilizer export from Ukraine and Russia.

Middle East Crises

- Escalating conflicts in the Middle East with Israel-Palestine conflict remains at the epicenter of regional instability.
- Trump's leadership on Gaza's future, restoring maximum pressure on the Iranian regime while opening the door to diplomacy, shapes American policy in the region. If A more aggressive stance may be taken against Iran, imposing stricter sanctions, exerting military pressure, or strengthening alliances with Iran's regional rivals. If Iran responds, this could further heighten geopolitical risks.

US-China Tension

- The U.S. is focusing on de-risking efforts related to AI, semiconductors, and quantum computing, with export controls and investment restrictions aimed at mitigating military risks tied to critical minerals and dual-use technologies
- In April 2025, the U.S. escalates the trade war with China. Global markets were badly affected. As of April 11, U.S. tariffs on all Chinese goods stand at 145 per cent, while Chinese tariffs on all U.S. goods are 125 per cent, in addition to a 15 per cent tariff on U.S. energy, a 10 per cent tariff on crude oil and agricultural machinery, and a 10-15 percent tariff on U.S. agricultural products.

Implications

- Market Volatility & Trading VaR Fluctuations - Increased fluctuations in Trading Value at Risk (VaR), particularly in commodities, leading to second-round effects on credit risk and capital outflows.
- Sanctions, Compliance & Reputational Risks - Heightened sanctions-related compliance risks, reputational concerns, and potential cyber vulnerabilities.
- Energy & Inflationary Pressures - Rising energy costs and inflation risks affecting financial stability and production expenses.
- Supply Chain Disruptions & Trade Finance Risks - Global supply chain realignment, trade finance disruptions, and liquidity constraints impacting credit risk exposure trends.
- Rising Production Costs - Increased production costs due to restricted access to critical minerals and raw materials.
- China-Related Business Risks - Declining key performance indicators (KPIs) for companies with exposure / concentration to the Chinese market.
- Credit & Asset Quality Deterioration - Rising borrower defaults and weakening asset quality across financial institutions.
- The energy crisis has paradoxically both hindered and accelerated the clean energy transition, as countries simultaneously reopened coal plants while investing more heavily in renewable alternatives

Source: ECB Financial Stability Review, European Council on Russian Sanctions , Blackrock Geopolitical risk dashboard

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Geopolitical Risk Themes

Geoeconomic Fragmentation

- Protectionist trade policies, economic sanctions, and supply chain realignments are causing a shift from globalisation to regional economic blocs.
- The U.S.-China trade war, Brexit, and sanctions on Russia are disrupting global trade flows, increasing inflationary pressures and market volatility.

Technological Competition and Cybersecurity

- The U.S.-China tech rivalry is driving restrictions on AI, semiconductors, and quantum computing, impacting global innovation and supply chains.
- State-sponsored cyberattacks on critical infrastructure and financial systems are escalating, posing risks to businesses and national security.

Political Polarisation and Populism

- The Growing populism and ideological divides are leading to governance instability, impacting global cooperation on trade, climate, and security policies.
- Disinformation and social unrest are weakening democratic institutions, increasing uncertainty for investors and businesses.

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Risk Themes	Market Risk	Credit Risk	Operational Risk	AML & Compliance Risks
Russia-Ukraine Conflict	▸ High volatility in financial markets, especially energy and commodities. ▸ Fluctuations in the US dollar impacting emerging markets. ▸ Disruptions in Russian energy and agricultural exports driving inflationary pressures	▸ Increased defaults in energy-dependent economies. ▸ Rising business costs due to energy-driven inflation. ▸ Supply chain disruptions worsening liquidity and credit risk exposure.	▸ Heightened cyber risks, particularly state-sponsored attacks on financial institutions. ▸ Reputational risks from managing frozen Russian assets or exposure to sanctioned entities.	▸ Increased compliance burden related to sanction enforcement on Russian-linked entities. ▸ Stricter monitoring of cross-border transactions to detect sanction evasion.
Middle East Crises	▸ Oil supply disruptions causing price shocks in global markets. ▸ Increased volatility in Middle Eastern equity, debt, and currency markets.	▸ Rising credit risk in oil-importing economies facing surging energy prices. ▸ Sanctions on Iran impacting global trade and financing.	▸ Higher cyberattack threats on banks and financial infrastructure linked to Middle Eastern conflicts. ▸ Reputational risks from exposure to sanctioned Iranian entities or affected regions.	▸ Stricter AML controls to detect illicit financial flows linked to sanctioned Iranian entities. ▸ Enhanced due diligence requirements for transactions involving the Middle East.
US-China Tension	▸ Uncertainty in semiconductor, US tech companies and AI-related sectors, Higer cost of raw materials e.g steel causing sharp market swings. Shift in supply chains to India and Vietnam ▸ Geopolitical instability in the Asia-Pacific affecting foreign exchange and equity markets.	▸ Credit deterioration in Chinese and Southeast Asian markets exposed to US trade restrictions. ▸ Rising borrowing costs for tech and industrial firms reliant on Chinese supply chains.	▸ Potential cyber threats from China targeting financial institutions. ▸ Reputational risks for banks financing firms caught in US-China trade restrictions.	▸ Compliance challenges related to US restrictions on Chinese tech investments. ▸ Increased scrutiny of trade finance linked to dual-use technologies.

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Risk Themes	Market Risk	Credit Risk	Operational Risk	AML & Compliance Risks
Geoeconomic Fragmentation	▸ Increased market volatility due to trade restrictions and global supply chain realignment. ▸ Currency instability in emerging markets due to capital outflows. ▸ Commodities market fluctuations driven by regional trade shifts.	▸ Rising credit risk in economies affected by trade decoupling and supply chain disruptions. ▸ Increased default risk in sectors reliant on global trade, including manufacturing and export-driven industries.	▸ Disruptions in international banking operations due to regulatory divergence across jurisdictions. ▸ Higher operational costs as banks navigate multiple, sometimes conflicting, regulatory frameworks.	▸ Heightened compliance challenges due to increased sanctions, trade restrictions, and evolving international financial regulations. ▸ Enhanced due diligence requirements for cross-border transactions.
Technological Competition and Cyber Security	▸ Market volatility in technology and AI sectors due to export controls and investment restrictions.- Increased risk of regulatory crackdowns on tech firms, impacting market stability.	▸ Rising credit risk for technology firms facing supply chain disruptions or regulatory hurdles in AI, semiconductors, and quantum computing. ▸ Increased borrower defaults in industries affected by cybersecurity risks.	▸ Growing cyber threats, particularly from state-sponsored actors, targeting banks and financial infrastructure. ▸ Increased risk of data breaches, fraud, and operational disruptions.	▸ Stricter compliance requirements related to data protection, digital finance, and cybersecurity regulations. ▸ Higher scrutiny of investments in dual-use technologies and AI-related industries.
Political Polarisation	▸ Market volatility due to policy uncertainty, protectionist measures, and abrupt regulatory shifts. ▸ Increased risk premium for sovereign bonds in politically unstable regions.	▸ Rising credit risk in sectors vulnerable to populist policies, such as energy, healthcare, and financial services. ▸ Increased default rates for businesses affected by political instability or restrictive government interventions.	▸ Greater operational risks for multinational banks due to inconsistent or unpredictable regulatory environments. ▸ Higher compliance costs as financial institutions adjust to divergent national policies.	▸ Increased AML scrutiny in politically unstable regions, particularly for politically exposed persons (PEPs). ▸ Stricter monitoring of financial flows linked to political donations, lobbying, or influence operations.

Leveraging Diverse Scenarios for Strategic Geopolitical Resilience

Integration of Geopolitical Risk Management into ERM

- Creating a range of plausible scenarios is essential to understand the potential impacts of geopolitical risks on the capital adequacy of a financial institution.
- For each scenario, it's crucial to base assumptions on plausible and expert-validated information to ensure credibility and relevance.
  - Data Sources:
    - Utilise insights from geopolitical intelligence platforms, think tanks, and international organizations to inform scenario development.
    - Incorporate historical data and trends to ground assumption.
- The final outcome of the scenarios is the estimation of the impact of each scenario on macroeconomic and financial variables, which are considered in the stress test of the banks.

Base-Case Scenario	**Assumptions:** This scenario assumes minimal geopolitical disruptions, maintaining current stability. It is based on the continuation of existing geopolitical conditions without significant escalations. **Purpose:** Serves as a baseline to compare against more adverse scenarios, helping to identify the incremental impact of potential geopolitical events.
Worst-Case Scenario	**Assumptions:** Envisions the materialization of significant geopolitical risk events, such as major conflicts, severe sanctions, or abrupt regulatory changes affecting financial markets. **Purpose:** Tests the institution's resilience under extreme conditions, identifying vulnerabilities that could threaten solvency or liquidity.
Best-Case Scenario	**Assumptions:** Considers favorable geopolitical developments, such as the resolution of conflicts, lifting of sanctions, or enhanced international cooperation leading to market opportunities. **Purpose:** Highlights potential upside risks and opportunities, informing strategic decisions to capitalise on positive geopolitical shifts.

1 Expert Consultation

Engage with geopolitical analysts and subject matter experts to validate assumptions and ensure scenarios reflect plausible developments.

2 Regular Updates

Continuous monitoring of geopolitical events and update scenarios to maintain their relevance:

1. Identification of actionable insights
2. Analysing each scenario provides actionable insights that inform risk mitigation strategies and decision-making processes.

3 Impact Assessment & Mitigation

The scenario affects risks and stability, mitigated by diversification, credit adjustments, and buffers:

1. Risk Evaluation: Assess financial impact.
2. Mitigation: Adjust portfolios, credit, and liquidity.
3. Strategy: Inform decisions with scenario analysis.

Striking the Balance: Navigating Quantification techniques while Ensuring Simplicity and Transparency

Integration of Geopolitical Risk Management

To effectively integrate geopolitical risks into the risk management framework, a dual approach combining quantitative and qualitative analyses is recommended:

Quantitative Analysis

Development of a Geopolitical Risk Score

Systematic approach to measure and monitor geopolitical risks that could impact business operations

- Methodology:
  - Econometric Modeling: Application of econometric models to analyze historical data and identify trends.
  - Data Sources: Incorporation of data from established indices such as the Geopolitical Risk Index (GPR), which measures adverse geopolitical events based on newspaper article counts.
  - Indicators: Inclusion of variables such as political instability, conflict frequency, and economic sanctions.
- Implementation Steps:
  - Data Collection: Gathering of data from reputable sources, including international news outlets and governmental reports.
  - Model Development: Develop econometric models to quantify the impact of identified geopolitical risks on key business metrics.
  - Validation: Back-test the model using historical events to assess accuracy.

Qualitative Analysis

Expert Judgment and Scenario Planning

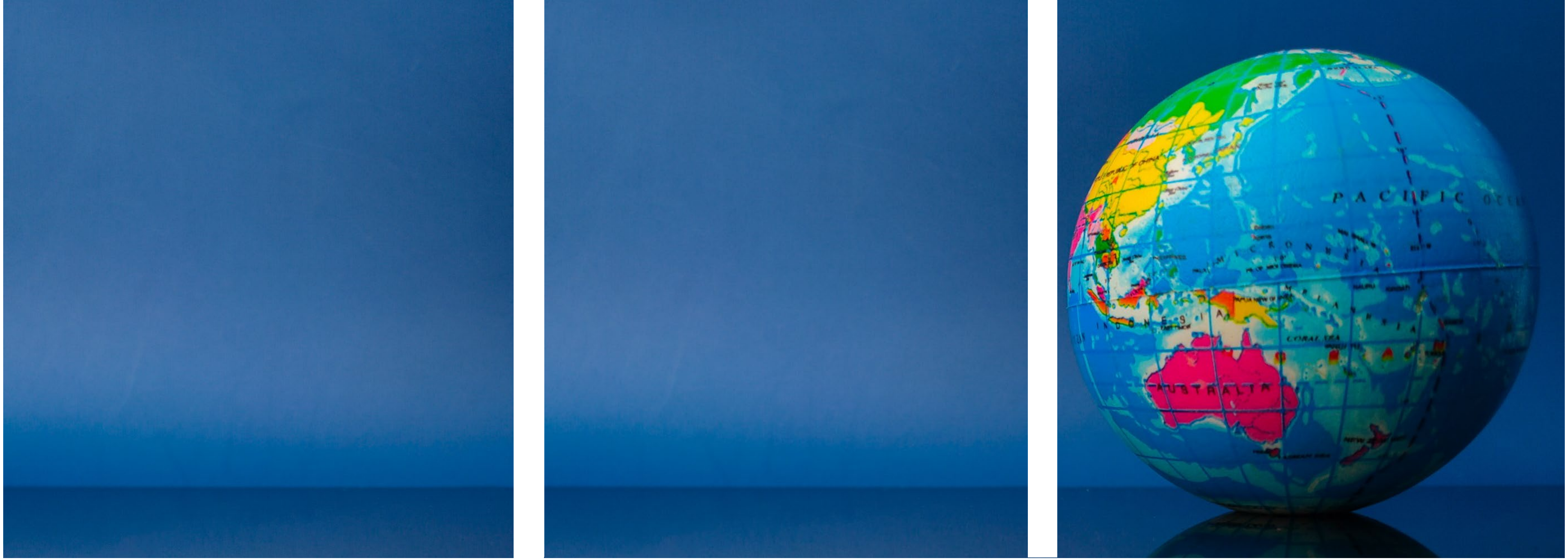
Complementing quantitative findings with insights that capture the nuances of geopolitical dynamics

- Methodology:
  - Expert Consultations: Engagement of geopolitical analysts and regional experts to interpret quantitative data.
  - Scenario Analysis: Development of plausible geopolitical scenarios and assess their potential impacts on the organization.
- Implementation Steps:
  - Workshops: Conduct workshops with subject matter experts to discuss potential geopolitical developments.
  - Scenario Development: Creation of detailed narratives outlining possible future geopolitical events.
  - Impact Assessment: Evaluation of the potential impact of each scenario on various facets of the business.

Key Considerations within Measurement

Geopolitical risk, unlike credit, market, and operational risk, is generally non-idiosyncratic, making it harder to model the underlying risk drivers within traditional frameworks.

Standard models often assume a normal distribution with thin tails, underestimating the frequency of extreme events like financial crises or global pandemics. While this assumption works in controlled or controllable settings, it fails in complex socio-political and financial systems, where risks follow heavy-tailed distributions. As a result, conventional models often miscalculate the likelihood and impact of extreme deviations.



03 Final Takeaways

Final Takeaways

Assessing Banking Risk in Uncertain Times

Key Implications for Financial Institutions

1. **Embedding Geopolitical Risk into Risk Frameworks & Governance**
   Banks must integrate geopolitical risks into risk frameworks, and overall risk management, ensuring clear governance structures and risk appetite thresholds.

2. **Enhancement of Scenario Analysis & Stress Testing**
   Institutions need to develop and apply geopolitical risk scenarios to assess capital and liquidity resilience under adverse conditions. This requires expertise in understanding the nature of geopolitical risks, which is only possible with guidance from seasoned professionals.

3. **Alignment of Capital and Liquidity Planning with Geopolitical Risks**
   Financial institutions must adjust capital buffers and liquidity strategies to account for geopolitical shocks and evolving regulatory expectations.

4. **Improvement of Regulatory Compliance & Reporting**
   Banks must adapt to shifting regulatory guidelines and enhance reporting mechanisms for geopolitical risk assessment.

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