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This volume, titled “**Advancing Financial Regulation and Supervision**” focuses on the ongoing evolution of financial regulation and supervision as authorities respond to geopolitical developments, technological innovation, and the pursuit of more effective and proportionate oversight. The articles are organized to cover key themes such as cross-border supervision and geopolitical risk, the regulation of emerging technologies and payments, and the advancement of smarter, outcomes-based supervisory practice, reflecting the comprehensive approach needed to support well-functioning, resilient, and inclusive financial markets.



3.2
Academic Article

Testing Resilience in Turbulent Times: Prudential Tools for Financial Services Supervision

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Author's Bio



Stavros Pantos is a PhD researcher in banking law and financial regulation from the School of Law, at the University of Reading. His research interests lie in financial regulation and risk management, especially about scenario analysis where he has published prior studies on fintech, climate change, operational risk scenarios, and regulatory stress testing.

He is also a risk management practitioner having worked in risk within the UK financial services and consulting sector for the past decade. He has focused on prudential risk management, leading work on stress testing and the Solvency II Own Risk & Solvency Assessment within general insurance.

Abstract

The risk management tool of stress testing has been widely used by financial services supervisors in the post Global Financial Crisis (GFC) world. Regulatory prescribed stress tests have been developed and deployed for different risks, remaining a key supervisory tool of prudential nature, for systemic financial institutions and financial services from a sectoral perspective. In the UK, the Prudential Regulation Authority (PRA) of the Bank of England has been designing stress tests for banks, insurers, and asset managers, based on its overarching stress testing framework. Despite the focus on emerging risks, such as pandemics in the aftermath of Covid-19, geopolitical risks are yet to have been stress tested in a dedicated scenario by prudential authorities. This paper discusses the characteristics of a stress test to address political tensions, volatility, and instability, as a resilience tool. It describes how to develop a severe but plausible scenario capturing geopolitical risks for financial services, as well as highlighting its associated challenges, using the UK bank stress testing framework from the Bank of England and the PRA as the regime in context. Recognising the amplified uncertainty in an interconnected financial system, practical insights for banks, insurers, and asset managers are included in examining this scenario, embedded in prudential risk requirements, towards advances to stress testing approaches.

Testing Resilience in Turbulent Times: Prudential Tools for Financial Services Supervision

Introduction

Scenario analysis has been widely used as an analytical tool in strategic risk management.¹ Scenarios and scenario planning are a useful exercise to understand future pathways, navigate through uncertain times, and prepare for challenging conditions, with the goal becoming resilient.² Developing severe but plausible scenarios is an essential component of stress testing and a core risk management activity of financial services, starting from banks and systemic institutions.³ Recognising the importance of stress testing, different requirements for its application are embedded into regulatory regimes (i.e., Basel III, Solvency II) for financial institutions. Financial services regulators have intensified the utilisation of stress and scenario tests in the post 2008/09 GFC, as a key tool of prudential supervision.⁴ Stress and scenario tests are developed by financial institutions for different uses and purposes, as explained in their stress testing framework, and are aligned to supervisory objectives.⁵

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- 1 Torben Andersen and Peter Schrøder *Strategic risk management practice: How to deal effectively with major corporate exposures* (Cambridge University Press 2012) ch 7 146, 161-6.
 - 2 Panayiota Georgiou and Stavros Pantos 'A critical analysis on the use of scenario planning as a policy making tool for resilience' (2022) *Sentio* 4, 80.
 - 3 John Hull *Risk Management and Financial Institutions* (6th ed.) (Wiley 2023) ch 16 387-404.
 - 4 Stavros Pantos "'Feeling Stressed?'" A Critical Analysis of the Regulatory Prescribed Stress Tests for Financial Services in the UK' (2025) *J. Risk Financial Manag.* 18(5), 246.
 - 5 Ibid Fig. 1.

A special category of stress tests are the ones developed and prescribed by regulators of macroprudential nature and usually for systemic institutions, covering the entire market or a large proportion of it.⁶ For instance, the Bank Capital Stress Test of the Bank of England at UK level, with the financial and macroeconomic regulatory stress tests targeting financial resilience.⁷ Stress testing has evolved in terms of supervisory objective and scope, looking at other types of resilience of the financial system, such as cyber.⁸ In the post Covid-19 world where operational risks have been exacerbated, regulatory scenarios examine operational and digital resilience, as well as new and emerging risks.⁹ There have been pandemic-related scenarios linked to the recent Covid-19 outbreak¹⁰ and of course there is a plethora of climate scenarios, like the CBES¹¹ from the NGFS¹² which have been well established, with climate scenario analysis an integral requirement for banks and insurers in managing their climate-related risks and exposures.¹³ However, there is yet to be a geopolitical regulatory stress test or a set of scenarios at UK level to prompt financial institutions to examine and quantify risks arising from political volatility and uncertainty.

This paper aims to provide insights into how political shocks and global tensions influence the structure of financial services supervision, with a case study applied to the UK regulatory landscape. Therefore, the underlying research question is how to develop a severe but plausible scenario capturing geopolitical risks for financial institutions. The natural subsequent questions answered in this paper cover the following: Should a macroprudential geopolitical stress test be developed, under exploratory stresses? And given the uncertainty and unpredictability, is a specific scenario sufficient or is a set of scenarios required instead? Would these be at macroprudential level, or is the microprudential angle key, requiring a combination of both? Effectively, how should stress testing frameworks evolve to address political volatility and the associated geopolitical risks? Therefore, this paper adds to advances to the financial supervision and resilience as a response to geopolitical risks and political volatility, after discussing the application of regulatory stress testing within the UK regime. Building on the scenarios from political risks that are part of the Lloyd's of London annual realistic disaster scenario (RDS)¹⁴ as a key example from insurance supervision, considering its role in underwriting those risks, towards the creation of a market-wide stress. The geopolitical reverse stress test of the European Central Bank (ECB) planned for 2026 as the first EU macroprudential stress test capturing geopolitical risks is the inspiration.¹⁵

6 Ibid.

7 Bank of England 'The Bank of England's approach to stress testing the UK banking system' (2024) 29 November 2024, BoE.

8 Nathanaël Benjamin 'Joining the dots' (2025) speech by Nathanaël Benjamin Given at The City UK, BoE.

9 *For the exploratory scenarios, looking at climate, liquidity, and cyber risks for instance, based on the UK scenarios developed by the Bank of England and the PRA.* Pantos (n4) Fig. 2.

10 Jakob Thomä 'Stress testing Covid-19: an exploratory stress-test scenario for the next 36 months' (2020) 2^o Investing Initiative discussion paper

11 *The Climate Biennial Exploratory Scenario:* Bank of England 'Key elements of the 2021 Biennial Exploratory Scenario: Financial risks from climate change' (2021) BoE; Bank of England 'Results of the 2021 Climate Biennial Exploratory Scenario (CBES)' (2022), BoE.

12 *For more detail, please see the dedicated guidance developed, accompanied by technical documentation and an online scenario tool/portal:* Network for Greening the Financial System 'NGFS Scenarios for central banks and supervisors' (2022) September 2022, NGFS.

13 Prudential Regulation Authority 'Enhancing banks' and insurers' approaches to managing climate related risks' (2025) supervisory statement SS5/25, December 2025, PRA, Bank of England ch 3 21-28.

14 *The political risk scenarios are detailed in a separate publication from Lloyd's, the specification document, which is not publicly available. Political risk scenarios have been part of the Lloyd's Realistic Disaster Scenarios (RDS) in all previous lists of RDS since 2015.* Lloyd's 'RDS 2026' (2026) Realistic Disaster Scenarios, Scenario Specification, January 2026, EM 568 v1.0, Lloyd's of London 60.

15 European Central Bank 'ECB to assess banks' stress testing capabilities to capture geopolitical risk' (2025) Press Release, 12 December 2025, ECB.

01

Stress Testing, Risk Assessments, and Prudential Supervision

Stress testing is a key supervisory tool of prudential nature. It is utilised by the Bank of England and the PRA in the UK as part of their supervision of financial services.¹⁶ Scenarios for a range of risks are employed throughout the PRA's Risk Element Framework, covering both financial and operational resilience,¹⁷ as also reflected in the PRA Rulebook. The use of stress testing is applied to evaluate financial resilience in a forward-looking manner, covering capital and liquidity risks for deposit takers.¹⁸ It is an integral component of the Internal Capital Adequacy Assessment Process (ICAAP) and the Supervisory Review and Evaluation Process (SREP) for banks and building societies,¹⁹ including the small domestic deposit takers.²⁰ Developing a framework for stress testing and capital management is required at bank level, with the approach to stress testing and the relevant documentation reviewed by regulators.²¹ The same applies to insurers (within Solvency II) in relation to examining a range of severe but plausible stress tests,²² with a framework for stress testing and solvency assessment is required under the Own Risk and Solvency Assessment (ORSA) process.²³ For re-insurance undertakings, there are insurance-specific stress tests, either for life insurers (LIST), the latest completed in 2025, or for general insurers (GIST), with the current dynamic scenario, running as a crisis exercise simulating a market-wide event for a 3-week period, the Dynamic General Insurance Stress Test (DyGIST), planned for (May) 2026.²⁴ For investment firms, scenarios are considered within the Internal Capital Adequacy and Risk Assessment (ICARA) process, focusing on capital management and resources, under the Investment Firms Prudential Regime.²⁵ Stress testing requirements for investment firms also cover the scenarios for wind-down planning.²⁶

16 *Primarily by the Bank of England and the PRA, and less so by the Financial Conduct Authority (FCA). However, in certain regulatory prescribed scenarios, the FCA is also involved, since often these are jointly developed by both the prudential (PRA) and the conduct (FCA) supervisor.*

17 Prudential Regulation Authority 'The Prudential Regulation Authority's approach to banking supervision' (2023) July 2023, PRA, Bank of England Fig. 1; Prudential Regulation Authority 'The Prudential Regulation Authority's approach to insurance supervision' (2023) July 2023, PRA, BoE Fig. 1.

18 Charlotte Gerken and Laura Wallis 'UK Deposit Takers Supervision: 2026 Priorities' (2026) Dear CEO Letter, 15 January 2026, PRA, BoE.

19 Prudential Regulation Authority 'The Internal Capital Adequacy Assessment Process (ICAAP) and the Supervisory Review and Evaluation Process (SREP)' (2025) Supervisory Statement SS31/15, December 2025 (Updating February 2025), PRA, BoE ch 3.

20 Prudential Regulation Authority 'The Internal Capital Adequacy Assessment Process (ICAAP) and the Supervisory Review and Evaluation Process (SREP) for Small Domestic Deposit Takers (SDDTs)' (2026) Supervisory Statement SS4/25, January 2026, PRA, BoE 26.

21 Prudential Regulation Authority 'The Prudential Regulation Authority's approach to banking supervision' (2023) July 2023, PRA, BoE par. 79, par. 128.

22 Prudential Regulation Authority 'Solvency II: ORSA' (2024) Supervisory Statement SS19/16, November 2024 (Updating November 2016), PRA, BoE par. 8.1-4.

23 Prudential Regulation Authority 'The Prudential Regulation Authority's approach to insurance supervision' (2023) July 2023, PRA, BoE par. 84, par. 108.

24 Gareth Truran and Shoib Khan 'Insurance Supervision: 2026 Priorities' (2026) Dear CEO Letter, 15 January 2026, PRA, BoE.

25 Financial Conduct Authority 'Implementation of Investment Firms Prudential Regime' (2021) Policy Statement PS21/17, November 2021, FCA.

26 Financial Conduct Authority 'The Wind-down Planning Guide' (2026) Sourcebook, WDPG, FCA.

A special stress test category is reverse stress testing, which involves looking at extreme and adverse scenarios, for banks initially, which result in the financial institution failing.²⁷ Reverse stress tests are used by regulators²⁸ with the PRA defining them as ‘shocks that would render the business model unviable or financial position fragile’.²⁹ They could be applied to understand threats to financial stability, based on structural or cyclical risks, when evaluating the banking system as a whole, exploring a combination of assumptions.³⁰ A reverse stress test exercise, in a macroprudential setup, focusing on major banks was conducted by the Financial Policy Committee in 2020, confirming the resilience of the sector.³¹ Banks are required to perform reverse stress tests based on business model vulnerabilities in their ICAAP, with reverse stress tests often linked to recovery and resolution planning.³² Small domestic deposit institutions are required to examine a reverse stress test in their ICAAP at least every two years, which could be of qualitative nature, capturing the risk drivers, remedial actions, and mitigation.³³ Reverse stress tests are captured in the ORSA process, where insurers are required to define failure and the underlying conditions leading to this.³⁴ Reverse stress tests identifying events making an investment firm no longer viable are considered under wind-down planning scenarios.³⁵

In addition to the idiosyncratic scenarios considered by banks, insurers, and asset managers, part of their regulatory requirements, there are stress and scenario tests developed by regulatory authorities. There are different types of stress and scenario tests developed for financial services, looking at a range of risks, both financial and non-financial, for systemic institutions or the majority of the market, and usually examined on a sectoral basis. Regulatory prescribed stress tests at UK level are segmented into three broad categories; the macroeconomic scenarios for banks (Bank Stress Tests), the Insurance Stress Tests (IST) for general and life insurers, and the Exploratory Scenarios.³⁶ Insurance stress tests examine underwriting risks with market conditions and (macro) economic implications, such as inflation, as well as extreme events specific to the (Lloyd’s of) London insurance market under the annual RDS exercise.³⁷ Exploratory scenarios cover additional risks, such as climate and cyber, and usually different financial institutions are invited to participate simultaneously, comprising of banks, insurers, and asset managers,³⁸ such as the system-wide exploratory scenario (SWES) more recently.³⁹ After four different exploratory scenarios, the climate, liquidity, cyber, and system-wide exercises, the Bank of England formalised these types of stresses as a distinct category in its updated approach to stress testing.⁴⁰ Exploratory scenarios

27 Hull (n 3) ch 16 392-4.

28 Benjamin (n 8).

29 *For each bank in isolation, based on the PRA Rulebook*. BoE (n 7) 34.

30 Ibid 31-32.

31 Financial Policy Committee ‘Financial Stability Report’ (2020) August 2020, FPC, BoE 45, 48-51.

32 PRA (n 19) par. 4.2-8.

33 PRA (n 21) par. 4.1-3.

34 PRA (n 22) par. 8.2.

35 FCA (n 26) WDPG 3.3.3.

36 Pantos (n 4) Table 1.

37 Ibid 4.1-4.3.

38 *For the list of the participating institutions of the CBES and the SWES, please see Tables A3 and A4 respectively*. Ibid 5.1-5.4.

39 Bank of England ‘The Bank of England’s system-wide exploratory scenario exercise final report’ (2024) published on 29 November 2024, BoE.

40 *Please see Fig. 1 which provides a summary of the three types of bank stress tests, with their associated components and characteristics*. BoE (n 7) 7.

will continue to be developed for the assessment of structure and emerging risks,⁴¹ but not strictly biennial and every two years, as confirmed by Nathanaël Benjamin, the Bank of England's Financial Stability Strategy and Risk Executive Director, at a speech introducing the new approach to stress testing.⁴²

Therefore, stress tests and specifically the scenarios led by regulators as part of their supervisory programmes, focus primarily on financial resilience, covering solvency and financial risks, such as capital and liquidity, capturing adverse macroeconomic conditions and prior financial crises events. Operational resilience complements this, since the digitalisation of financial services have led to the increase and amplification of operational risks, based on the experience from the recent Covid-19 pandemic, resulting in the introduction of different scenarios covering information, digital, and cyber risks.⁴³ In the exploratory scenarios other risks have been considered within the supervisory objectives and targeting the resilience of the financial system. However, an exploratory scenario on geopolitical risks has yet to be developed, or at least publicly disclosed, by the Bank of England and the PRA.

02

Geopolitical Risks and Scenarios

Geopolitical risk is defined as *'the threat, realization, and escalation of adverse events associated with wars, terrorism, and any tensions among states and political actors that affect the peaceful course of international relations'* according to Caldara and Iacoviello⁴⁴, with this being the adopted definition used in this paper, consistent with regulatory publications from the ECB. The risk of significant escalation in geopolitical tensions is highlighted in the latest World Economic Outlook of the International Monetary Fund (IMF).⁴⁵ Those domestic and/or international tensions and escalations introduce new layers of uncertainty, disrupting the global economy, and amplify existing financial risks.⁴⁶ Geopolitical instability, with interlinked cyber threats, is considered a top risk under society, politics, and regulation, both at global and regional level.⁴⁷ It remains a key concern and an emerging risk of organisations as highlighted by risk management practitioners, driven by geopolitical tensions between major economies, trade policies with sanctions, fragmented geopolitical order, as well as escalated regional conflicts, resulting in an overall transformation of associated risks.⁴⁸ Global disruptions characterised by increased complexity, unpredictability, and frequency of developments, require the shift towards long-term resilience against uncertainty, putting the

41 Ibid 32.

42 Benjamin (n 8) 7.

43 Please see Table 2 and Figure 1 for the list of scenarios and stress tests focused on operational risk management, such as the CBEST, the CQUEST, the STAR-FS (Simulated Targeted Attack & Response for Financial Services), and the Cyber Stress Test (which has now been updated into the 'Cyber and operational resilience stress test', noted as 'CORST') among others. Stavros Pantos 'Defining resilience: Developing operational risk scenarios for UK insurance companies' (2025) Journal of Risk Management in Financial Institutions, 18(3) 281.

44 Dario Caldara and Matteo Iacoviello 'Measuring Geopolitical Risk' (2022) *American Economic Review*, 112(4) 1195.

45 International Monetary Fund 'Global Economy: Steady amid Divergent Forces' (2026) World Economic Outlook Update 7.5 pt, 19 January 2026, IMF 6.

46 Ibid 1, 7.

47 AXA 'Future Risks Report' (2025) 2025 Edition, AXA 7, 25-26, 32.

48 Based on the results of the IRM's survey. The Institute of Risk Management 'Risk Trends 2025' (2025) the IRM 2, 5.

emphasis on Enterprise Risk Management adaptation.⁴⁹ The shifting geopolitical landscape is recognised as a key emerging trend by the Chief Risk Officer's (CRO) Forum, noting the economic trade conflicts and sanctions, and the geopolitical conflicts and military build-up as two high-impact risks, where significant impact is already observed.⁵⁰ This originates from an unstable and unpredictable geopolitical landscape, supported by the ongoing geopolitical order transformation, in a contested and fragmented world, disrupting trade, energy, financial systems and economies, challenging resilience.⁵¹ Geopolitical is a key category of risks captured in the Global Risks Perceptions Survey (GRPS) as detailed in the Global Risks Report produced by the World Economic Forum.⁵² Geoeconomic confrontation and state-based armed conflict are the top two responses in the latest GRPS, followed by societal polarisation as number four, with those three geopolitical risks underlining the increased probability of conflict, heightened protectionism, reduced trust and threat to international relations and trade which describe the current global landscape.⁵³ Geopolitical tensions, accompanied by economic displacement and other factors, such as cost of living, discrimination, misinformation and the global pandemic have led to the retreat into insularity, starting from polarisation, and grievance,⁵⁴ overall amplifying political risks and uncertainty. Inter-state conflicts, sanctions and tariffs, the cancellation of trade licences, and expropriatory actions, from current and prior years, impact trade, rising geopolitical risks.⁵⁵

Scenario planning and horizon scanning are considered key tools to support the preparation against the crystallisation of geopolitical risks.⁵⁶ Specifically, shortlisting scenarios for key associated risks, embedded in the business planning process to support setting strategy after evaluating stress tests.⁵⁷ Focusing on the options and planning as opposed to predicting actual outcomes in the current 'low-likelihood environment'⁵⁸ which probably challenges the 'severe but plausible' mantra of stress tests for financial services. Therefore, recognising the importance of scenarios for geopolitical risks, as certain case studies already examined could form the basis and background of regulatory stress tests for financial services.⁵⁹

49 Ibid 3.

50 *Other risks associated with that trend (either in isolation or linked to other trends too) as highlighted in the latest version of emerging risk radar of the CRO Forum from 2025, are the following: collective redress, critical infrastructures failures, critical resource management, cyber risks, evolving terrorism, global debt crisis, legal and regulatory uncertainty, social fragmentation and disorder, space risk, supply chain complexity.* CRO Forum 'Emerging Risks Initiative' (2025) Major Trends and Emerging Risk Radar, July 2025, The CRO Forum.

51 Ibid 5.

52 World Economic Forum 'The Global Risks Report 2026' (2026) 21st Edition, Insight Report, WEF.

53 *The rest geopolitical risks are intrastate violence and the biological, chemical or nuclear weapons or hazards, though these are noted with lower likelihood to present a material crisis on a global scale in 2026, with increased impact in the long-term (10-year) horizon.* Ibid, 7-8 and 15, Fig. 2 and Fig. 11.

54 Edelman Trust Institute '2026 Edelman Trust Barometer' (2026) Global Report, Trust Amid Insularity, Edelman Trust Institute 4.

55 *Airmic's twelve questions provide a toolkit allowing organisations to understand more about political risks and their management.* Airmic 'Political Risk: Preparing for Threats, Seizing the Opportunities Perfecting Governance' (2024) Airmic guide 2024, Airmic in association with McGill and Partners.

56 Hoe-Yeong Loke and Gavin Hayes 'Navigating geopolitical risk: Building resilience demands collaboration in a challenging world' (2023) February 2023, Chartered Institute of Internal Auditors and Airmic in partnership with AuditBoard 4.

57 Ibid 4, 8, 25.

58 Ibid 9.

59 *Referring to the "economic meltdown: a global crisis on the horizon?", the "conflict involving China: Taiwan and the South China Sea", "war in Ukraine: global implications", "climate change and geopolitics", "US politics and democracy: challenges to global stability", and "cyber security and geopolitics" as detailed in the Appendix of: Ibid 31-45.*

Further cases explored and scenarios already developed could be adopted by financial services supervisors to support the development of dedicated regulatory prescribed scenarios to test geopolitical risks. Different geopolitical risk scenarios have been developed by the Cambridge Centre for Risk Studies, with industry collaborators from the insurance industry primarily, considering the role of that sector in providing cover for certain of those risks. Despite the fact that they might be outdated, not remaining relevant anymore, these scenarios are quite comprehensive, and constitute a good starting point for the development of regulatory stress tests for financial services. The first example is the hypothetical scenario assuming an armed conflict between China and Japan over disputed islands in the East China Sea.⁶⁰ That scenario comprises seven phases, categorising the anticipated consequences into economic, political, and social categories.⁶¹ This was further extended under a different China-Japan conflict scenario where military strikes are carried out without any allies becoming involved.⁶² Three variants of that scenario are examined based on the assumed duration, starting with the standard scenario, lasting 9 months, followed by the scenario lasting 2 years, with the extended conflict scenario of 5 years.⁶³ A particularly helpful scenario for insurance undertakings, as it provides indicative losses across different types of risk, covering underwriting, operational, and market exposures.⁶⁴ The structural modelling methodology presented, defines the scenario and estimates the losses, as well as the macroeconomic modelling and impact assessment, allows the development of a coherent scenario, and could be transferred across other scenarios as a prudent approach to stress testing geopolitical risks.⁶⁵ Another example in the area of political volatility and uncertainty, is the global social unrest scenario, based on the uprising of the millennial generation.⁶⁶ It is based on four levels of social unrest, “social unrest”, “civil disorder”, “mob rule”, and “rebellion”.⁶⁷ However, it shares many common characteristics with the China-Japan conflict in terms of its likelihood (a 1-in-100-year event return period), modelling methodology, and scenario variants for its application and examination.⁶⁸ Lloyd’s of London in partnership with the Centre for Risk Studies expanded those scenarios, identifying ten core geopolitical themes which will shape the geopolitical risk landscape over the next decade.⁶⁹ These are the (1) impact of Covid-19 on geopolitical relationships, (2) greater power rivalry, (3) localism vs. globalism, (4) multinationals at risk, (5) terrorism and armed conflict, (6) cyber, technology, and the new tech arms race, (7) social discontent and local conflicts, (8) political change, (9) politics vs. economics of climate change, and (10) migration and demographics.⁷⁰

60 *The return period of that hypothetical scenario is assumed to be a 1-in-100-year event. As supporting background, a catalogue of historical events is reviewed and analysed, also helpful to generate other scenarios covering those risks.* Joshua Wallace et al. ‘Profile of a Macro-Catastrophe Threat Type: Geopolitical Conflict’ (2013) *Cambridge Centre for Risk Studies Working Paper Series*, Paper 201308.02, Cambridge Risk Framework, Centre for Risk Studies, University of Cambridge.

61 *The seven phases are: 1) escalating tensions, 2) diplomacy and preparation for war – 8 days, 3) acts of war – 11 days, 4) collateral damage – 12 days, 5) escalation of war – 12 days, 6) global intervention – 25 days, 7) aftermath.* Ibid 43–8.

62 Gary Bowman et al. ‘Stress Test Scenario: China-Japan Geopolitical Conflict’ (2014) *Cambridge Risk Framework series*, Centre for Risk Studies, University of Cambridge.

63 *For each scenario variant, there are differences in the associated implications and assumed quantifiable impact, such as the monetary value of insured losses and the macroeconomic factors.* Ibid 4.

64 Ibid 5.

65 *In particular the scenario definition which covers the timeline, footprint, sectoral impact, and contagion mechanisms, and then the loss estimation, by category and risks.* Ibid 9.

66 Gary Bowman et al. ‘Stress Test Scenario: Millennial Uprising Social Unrest Scenario’ (2014) *Cambridge Risk Framework series*, Centre for Risk Studies, University of Cambridge.

67 Ibid 18.

68 *It has six phases: 1) underlying tensions, 2) trigger, 3) escalation and disruption, 4) violent run, 5) dispersal, 6) end.* Ibid 18–9.

69 Lloyd’s of London ‘Shifting powers: meeting the challenges of the geopolitical landscape’ (2021) Lloyd’s emerging risk report 2021, Lloyd’s Futureset, Lloyd’s of London in association with the Centre for Risk Studies, University of Cambridge Judge Business School.

70 Ibid 06.

High-level scenarios for each of the ten core geopolitical themes were identified, covering different risks, noting their probability and impact.⁷¹ Scenario planning is regarded as the key methodological approach to understand more about those risks, explore their impact, and quantify it, for insurers in this case, given their direct exposure.⁷² Cybersecurity and cyber risks are highlighted within geopolitical risks, and that is why physical cyber scenarios are developed.⁷³ These are the asymmetric attack exchange, with a ransomware on critical infrastructure (scenario #1), the offensive cyber retaliation, with a cyber-physical sabotage of critical infrastructure (scenario #2), and the symmetric attack exchange (scenario #3).⁷⁴ Similar scenarios are included in the Lloyd's RDS annual exercise, covering cyber risks, and political risks.⁷⁵ Those scenarios are essential for insurers considering their exposure to the pure risks, providing the underwriting against war⁷⁶ and nuclear, chemical, biological, and radiological (NCBR) classes.⁷⁷

Beyond the insurance-focused scenarios from Lloyd's and the RDS exercise, there is no regulatory prescribed stress test by the Bank of England and the PRA for banks, asset managers, and the financial services industry as a whole. However, at EU level, the ECB is conducting a geopolitical reverse stress test this year, assessing 110 directly supervised banks, planning to communicate the key findings in aggregate format in the summer of 2026.⁷⁸ This exercise aims to evaluate how geopolitical risks impact banks' business models, and how stress-testing capabilities reflect those risks.⁷⁹ The geopolitical reverse stress tests will become part of the 2026 ICAAP exercise of the participating banking institutions, feeding also into the SREP.⁸⁰ It is linked to the previous macroeconomic scenario of the ESRB/EBA/ECB as part of the 2025 exercise, where it was assumed that the aggravation of geopolitical tensions led to depressed global growth.⁸¹ Highlighting the adverse implications of geopolitical risks, in terms of magnitude and manifestation, via economic shocks and financial market disruption, as well as being detrimental to digital and operational resilience.⁸² This builds on the ECB's supervisory priority one to strengthen

71 Three scenarios are documented for each theme driven by the key risk capturing, covering the following: (1) inflation, (2) trade sanctions, (3) trade dispute, (4) sovereign debt crisis, (5) supply chain disruption, (6) cyber attack, (7) social unrest, (8) democratic backsliding, (9) tariff war, (10) migration crisis. Ibid 07-17.

72 Ibid 20.

73 Lloyd's of London 'Shifting powers: physical cyber risk in a changing geopolitical landscape' (2022) Lloyd's Futureset, Lloyd's of London in association with the Centre for Risk Studies, University of Cambridge Judge Business School.

74 According to the Lloyd's specifications, scenario #1 assumes a rudimentary cyber power sponsors non-state ransomware attacks by cybercriminals targeting another nation's critical infrastructure, with scenario #2 capturing regional tensions over nuclear development programmes spillover into cyber-physical sabotage of critical infrastructure, and scenario #3 based on two sophisticated cyber powers engaging in an escalation of destructive cyber attacks on critical infrastructure. Ibid 03, 13-25.

75 Lloyd's (n 14) 39-51, 60.

76 Based on the Lloyd's bulletin Y4972 the perils included are war, civil war, invasion, act of foreign enemies, hostilities, rebellion, revolution, insurrection, military or usurped power, but not terrorism or strikes, riots and civil commotion (SRCC). Tom Bolt 'War and NCBR Exposures' (2016) Market Bulletin Y4972, Lloyd's of London.

77 Lloyd's of London 'War & NCBR 2025' (2024) Guidance and Instructions, July 2024, EM 504 V1.0, Lloyd's of London.

78 ECB (n 15).

79 Ibid.

80 Ibid.

81 European Systemic Risk Board 'Macro-financial scenario for the 2025 EU-wide banking sector stress test' (2025) 28 February 2025, ESRB 2-3.

82 European Central Bank 'Interview with Sharon Donnery, Member of the Supervisory Board of the ECB, conducted by Sarah Collins on 29 January 2026' (2026) 9 February 2026, Interview with the Business Post, ECB. <<https://www.bankingsupervision.europa.eu/press/interviews/date/2026/html/ssm.in260209~1669236a42.en.html>> accessed 10 February 2026.

resilience to immediate macro-financial threats and severe geopolitical shocks for both 2024-26⁸³ and 2025-27 periods⁸⁴. As part of the efforts to establish the framework for assessing geopolitical risk, cognisant of its idiosyncrasies and characteristics.⁸⁵ In that direction, and looking at the European banking sector, the joint ESRB/ECB study of 2026 documented a comprehensive analysis of geopolitical and geoeconomic risks, capturing their relationship with financial stability and uncertainty, providing an assessment toolkit and framework.⁸⁶

The exact scenario specification has not been made available yet, but once this is released, it could be adapted and adopted by UK prudential authorities. Perhaps the next exploratory scenario of the Bank of England in 2027 and first exercise after updating its framework covers geopolitical risks and replicates ECB's geopolitical RST of 2026.⁸⁷ In addition to the ECB 2026 geopolitical RST, the Reserve Bank of New Zealand included a geopolitical-related economic stress in its 2025 solvency stress test exercise.⁸⁸ This bank regulatory stress test was based on the International Monetary Fund geoeconomic fragmentation.⁸⁹ These are additional examples which could be utilised by the Bank of England and the PRA in developing the geopolitical stress test for UK financial institutions.

There are different factors interconnected to geopolitical risks which should be considered when examining stress and scenario tests for financial services.⁹⁰ This is linked to the transmission channels of geopolitical tensions, capturing the macro-financial impact on banks after it cascaded into the financial market, real economy, and safety and security channels.⁹¹ Geopolitical risk affects financial stability via different transmission channels, and could adversely impact the global economy from the real and financial side, impacting both non-banks and banks, though vulnerabilities are conditional on the actual bank-specific exposure.⁹² Therefore, it is important to factor these transmission channels and risks for stress and scenarios, considering the international financial architecture

83 *Capturing shortcomings in credit risk and counterparty credit risk management frameworks, as well as shortcomings in asset and liability management frameworks for liquidity and funding risk, and interest rate risk on the banking book (IRRBB)*. European Central Bank 'ECB Banking Supervision: SSM supervisory priorities for 2024-2026' (2023) Banking Supervision, ECB 3.

84 *To address deficiencies in credit risk management frameworks, as well as deficiencies in operational resilience frameworks regarding IT outsourcing and IT security with cyber risks, under operational risk. In relation to multiple risk categories, the focus is placed on incorporating the management of geopolitical risks in supervisory priorities*. European Central Bank 'Supervisory priorities 2025-276' (2024) Banking Supervision, ECB 3.

85 *The key characteristics of geopolitical risk drivers are low predictability, high interdependencies, difficult quantification, high ambiguity, and high range of outcomes*. Claudia Buch 'Global rifts and financial shifts: supervising banks in an era of geopolitical instability' (2024) Keynote speech by Claudia Buch, Chair of the Supervisory Board of the ECB, at the eighth European Systemic Risk Board (ESRB) annual conference on "New Frontiers in Macroprudential Policy" Frankfurt am Main, 26 September 2024, ECB Table 1.

86 European Systemic Risk Board 'Financial stability risks from geoeconomic fragmentation' (2026) January 2026, ECB/ESRB workstream on financial stability risks from geoeconomic fragmentation.

87 Bank of England (n 7); Benjamin (n 8).

88 Ken Nicholls et al. 'Assessing banks' resilience to geopolitical risks: Results from the 2025 Solvency Stress Test' (2025) 3 November 2025, Reserve Bank of New Zealand Bulletin Vol 88, No 11 November 2025 7.

89 *Different scenarios are also captured in the IMF discussion note*. Shekhar Aiyar et al. 'Geoeconomic Fragmentation and the Future of Multilateralism' (2023) IMF Staff Discussion Notes, SDN/2023/001, Research Department and Strategy, Policy, & Review Department, IMF.

90 *According to Airmic's guide, these are political instability (at regional, national, and state level), the regulatory environment, government relations, economic conditions, corruption and bribery, geopolitical events (both regional and global), social and cultural factors*. Airmic (n 53) 5.

91 *Please see the ECB's diagram for further detail on the mapping and transmission channels for banks' key risks implications, covering*. European Central Bank 'Addressing the impact of geopolitical risk' (2026) ECB. < <https://www.bankingsupervision.europa.eu/framework/priorities/shared/geopoliticalshock.en.pdf> > accessed 10 February 2026; also explained and graphically depicted in Table 2 of: Buch (n 85).

92 Daniel Dieckelmann et al. 'Turbulent times: geopolitical risk and its impact on euro area financial stability' (2024) Financial Stability Review, May 2024, ECB Figure A.1.

with the global financial safety net in a geopolitically fragmented world.⁹³ This is irrespective of whether geopolitics are perceived as a risk, a theme, or collection of events, since the most important angle is their identification and understanding of their dynamics, in terms of how these are translated into quantifiable (and modelled) impact for financial services.⁹⁴

After describing certain existing geopolitical scenarios with their characteristics, as above, the proposed approach for UK financial services stress testing should be discussed. Regulators should either select an already developed scenario from an existing list, such as the ECB's 2026 RST, with modifications, or develop their own geopolitical stress test. Considering the high level of uncertainty with low predictability⁹⁵, under both options the scenario is merely a tool to provide a set of hypothetical conditions which could be translated into risks and impact. Geopolitical events could emerge unexpectedly, with a rapid escalation, thus the timeframe is key, with this covered under different potential scenarios, since these could vary.⁹⁶ Therefore, linked to those characteristics describing political volatility, it is important to introduce phases, with clear timelines, duration of the event and the velocity of escalation. This element should describe different scenarios, covering plausible outcomes, such as "likely" and "possible" scenarios, but also "remote" and "unlikely" scenarios, towards a reverse stress test territory in relation to likelihood and probability of occurrence. A range of outcomes under different scenarios adds to the robustness of the geopolitical stress test. Multiple scenarios are needed, since one scenario is simply not enough to adequately cover geopolitical risks.⁹⁷ Then, in terms of the quantification and interdependencies that is where this stress becomes more challenging. Recognising that it is difficult to quantify and model accurately due to underlying uncertainty,⁹⁸ a systematic approach to assessment is necessary. This involves identifying the risk transmission channels to understand the correlations, contagion, and amplification effects. Starting with a qualitative risk assessment to map the direct risks impacted, followed by the indirect risks and the corresponding risk drivers, supports the background preparation for the quantitative risk assessment. This systematic approach allows to adequately capture the risk implications, which should be mapped against the key risks of the financial institution within the scope of the geopolitical stress. For instance, showing how the geopolitical shock and exact scenario event impact the financial (market, credit, liquidity) and non-financial (operational, strategic, reputational) risks of a bank, explaining the magnitude and direction of implications (negative vs. positive).⁹⁹ This enhanced qualitative and quantitative risk assessment should be guided by financial services regulators as a starting point, providing guidance, and to ensure consistency of the exercise, as top-down. However, the bottom-up component is equally important and enriches the exercise, since each financial institution performing the geopolitical stress test should explain the underpinning risk thinking for the mapping and risk considerations. Therefore, combining the top-down and bottom-up views in the geopolitical stress testing is essential, as it assists with the decryption of the associated risks. Especially considering the complex, interconnected, and interdependent relationship between

93 Anusha Chari et al. 'Geopolitical tensions and international financial fragmentation: Evidence and Implications' (2025) General Reports on the World Economy 28, International Center for Monetary and Banking Studies (ICMB) and Centre for Economic Policy Research (CEPR) 101-21.

94 Hoe-Yeong Loke and Gavin Hayes (n 54) 7.

95 Buch (n 85).

96 Ibid.

97 Til Schuermann 'Mix Me the Perfect Stress Test' (2026) 2nd February 2026, , Systemic Risk Centre, Finance Markets Group, London School of Economics. <<https://www.systemicrisk.ac.uk/mix-me-perfect-stress-test>> accessed 10 February 2026.

98 Buch (n 85).

99 *Building from ECB's depiction of how geopolitical shocks are transmitted to the macro-financial environment and banks, impacting their risks: credit, liquidity and funding, market, business model, operational, governance.* ECB (n 91).

geopolitical shocks and implications for financial services.¹⁰⁰ This adds a layer of complexity to the modelling and quantification of risks and losses. This exemplifies the role of management actions and risk mitigation which are perhaps more helpful in this supervisory assessment, as opposed to the exact financial impact. The geopolitical stress test for UK financial services is a macroprudential stress, inviting for participation the largest banks, insurers and asset managers, for the top-down approach. But at the same time, it has microprudential foundations, for the bottom-up approach of this stress testing. Combining the internal, own scenarios, and supervisory model of with the regulatory prescribed stress test.¹⁰¹ Cognisant of the ambiguity of geopolitical risks and scenarios,¹⁰² the assumptions should be clear and sufficient for the quantification. However, that might not be sufficient for their quantification. An alternative could be using existing stress tests, part of the ICAAP, the ORSA, or the ICARA respectively, as a proxy for the anticipated implications. Meaning that a recession macroeconomic stress, or a supply chain disruption stress already considered as part of internal risk assessment and prudential requirements, could be utilised in the modelling geopolitical scenarios. Effectively, linking geopolitical scenarios with outcomes already assessed and examined, since financial institutions are familiar with the impact and management responses. Because as geopolitical scenarios touch different risks, and in a way threaten financial resilience but also digital and operational resilience, combining existing stresses might be prudent. For instance, looking at the aggregation of impact from a financial risk stress (e.g., inflation stress) and an operational risk stress (e.g., cyber-attack), either happening at the same time or sequentially, with an accumulation of losses. This “contagion” set-up with stresses being overlayed could be considered as a reliable approximation of the geopolitical stress impact. This sequential approach could be linked to the phases of the geopolitical stress. For example, the initial impact could be an economic downturn impacting investment performance, followed by underwriting losses at the escalation phase of the geopolitical shock, with increased cybersecurity vulnerabilities in the last phase. This recommendation has been inspired by the PRA’s 2019 Insurance Stress Test (IST) exercise for the largest general and life insurers respectively, where scenario combinations are examined, in isolation and superimposed.¹⁰³ Overlaying regulatory stress tests covering different risks as in the PRA’s 2019 IST¹⁰⁴ should be considered in defining the regulatory prescribed geopolitical stress test. The sequential set-up with the different stages replicates PRA’s IST for life insurers, the LIST 2022.¹⁰⁵ Combining already examined or known stress tests might not be the best solution, since this raises questions about the plausibility of the geopolitical stress tests, though could provide helpful insights. At least, when comparing the results, they could be used as a benchmark, with the indicative geopolitical stress test output presented relative to it. This dynamic setup of the geopolitical stress test incorporates the logic of the PRA’s

100 Buch (n 85).

101 *In a way what is described in option 4 under options for the way forward of EU stress tests. Plus, partially aligned to recommendation #8 about running top-down supervisory models under static and dynamic approaches.* Fernando de la Mora ‘EU Stress Tests: How can they be improved?’ (2026) 6th February 2026, Systemic Risk Centre, Finance Markets Group, London School of Economics Fig 5.

102 Buch (n 85).

103 Prudential Regulation Authority ‘General Insurance Stress Test 2019’ (2019) Scenario Specification, Guidelines and Instructions, 18 June 2019, PRA, Bank of England; Prudential Regulation Authority ‘Life Insurance Stress Test 2019’ (2019) Scenario Specification, Guidelines and Instructions, 18 June 2019, PRA, Bank of England.

104 *In the LIST 2019, scenario A is the deterioration in the economic environment, which is coupled with 3 life insurance specific scenarios (one each) as scenario B. Ibid 4; In the GIST 2019, scenario A is the deterioration in the economic environment (the same as in the LIST 2019), accompanied by four liability shock scenarios, as each covering a natural catastrophe occurring against the backdrop of deteriorating economic conditions, as scenario B. Ibid 4.*

105 *PRA’s LIST 2022 comprises four stages: Stage 1 – initial market shock, Stage 2 – developing market shock, Stage 3 – protracted market shock, Stage 4 – protracted market and longevity shock.* Prudential Regulation Authority ‘Life Insurance Stress Test 2022’ (2022) Scenario Specification, Guidelines and Instructions, 4 May 2022, PRA, Bank of England 6.

DyGIST.¹⁰⁶ The live exercise component of the DyGIST evaluates participating insurers against a sequential set of adverse events of a three-week period.¹⁰⁷ Once the exact specifications of the DyGIST are published in 2026, more insights could be extracted from its dynamic components.¹⁰⁸

03

Stress-Testing Frameworks to Address Political Volatility

Geopolitical risks are not new but as highlighted by regulatory authorities and bodies globally (i.e., IMF) they are exacerbated and remain a key priority. This confirms the need to develop and conduct a geopolitical risk stress test for UK financial services. The Bank of England and the PRA have different options to select from regarding geopolitical scenarios. Perhaps waiting for the ECB's 2026 RST, or even looking at other regulators across the globe (i.e., Reserve Bank of New Zealand as mentioned above), and collaborating with Lloyd's of London to capture the insurance risk angle. Regulatory collaboration is key, on the basis of the idiosyncrasies of geopolitical risk, and consequently that stress test. Ideally that could be at global level, with convergence on the scenario definition and themes, but UK market specific parameterisation.¹⁰⁹ Targeting consistency between geopolitical stress testing approaches and objectives.¹¹⁰

The geopolitical stress test of the Bank of England and the PRA should be embedded in the exploratory scenarios category becoming part of its stress testing framework.¹¹¹ In terms of its set-up, it should be conducted as a hybrid macroprudential top-down exercise, complemented by the bottom-up granularity with microprudential foundations for the risks and modelling at financial entity level.¹¹² This regulatory prescribed stress test should cover a range of geopolitical shocks, perhaps three scenarios,¹¹³ as a "baseline", an "adverse",¹¹⁴ and a "reverse stress test",¹¹⁵ like the ECB's exercise, to differentiate the likelihood and return period, capturing multiple options and future pathways.

106 Prudential Regulation Authority 'Prudential Regulation Authority (PRA) statement on the design of the dynamic general insurance stress test (DyGIST) 2025' (2024) 15 July 2024, PRA.

107 Ibid.

108 Prudential Regulation Authority 'Update on the 2026 Dynamic General Insurance Stress Test (DyGIST)' (2025) 18 July 2025, PRA. <<https://www.bankofengland.co.uk/prudential-regulation/publication/2025/july/update-on-2026-dygist>> accessed 10 February 2026.

109 *As per recommendation #16, but applied within the geopolitical regulatory stress test context.* de la Mora (n 101).

110 Patrizia Baudino et al. 'Stress-testing banks – a comparative analysis' (2018) FSI Insights on policy implementation, November 2018, Financial Stability Institute, Bank for International Settlements 23 par. 76.

111 *Perhaps named as the "Geopolitical Risk Exploratory Scenario", the "GRES" of 2027.* Bank of England (n 7); Benjamin (n 8).

112 *Stress tests are described as "baseline" or "adverse" from a severity perspective, "macroprudential" vs. "microprudential" from a policy objective, and "top-down" vs. "bottom-up" based on whether the regulators or the entity performing them, and "dynamic" vs. "static" regarding the balance sheet projection.* Baudino et al. (n 110) 6-7 par. 14.

113 *As in the stress tests part of the Cambridge Risk Framework, published by Centre for Risk Studies, including three scenarios, as explained in section 3 above.*

114 Baudino et al. (n 110) 6.

115 Ibid 9 par. 26.

Stress testing frameworks of financial institutions should be updated to explain how geopolitical risks are considered within their adjusted modelling approach. That should be reflected in the ICAAP, the ORSA, and the ICARA processes respectively, showing qualitatively and quantitatively their examination of geopolitical risks. Testing for geopolitical risks should be incorporated into business-as-usual scenarios, and in terms of severity considered as a standardised reverse stress test.¹¹⁶ A risk materiality assessment should accompany stress tests for geopolitical shocks and political volatility implications, in alignment to stress testing principles.¹¹⁷ These stress tests should be severe enough to provide meaningful risk management insights.¹¹⁸ The challenges associated with geopolitical risks will lead to advances to stress testing techniques. These should become part of the wider enterprise risk management framework, within quantitative risk management.¹¹⁹ For smaller financial institutions, not participating in regulatory-led stress tests, a proportionate and pragmatic approach is recommended, incorporating geopolitical risks as part of their internal scenario analysis and risk assessments.

Stress testing for geopolitical risks triggers the revision of scenario thinking, posing the question whether within prudential supervision we move from the “severe but plausible” to “unknown and possible” stresses. It would be interesting to extend these recommendations for the UK supervisory regime once the ECB 2026 RST is completed, while also looking at other regulatory-led exercises, such as the PRA’s DyGIST. Then, focusing on exact dynamics of the geopolitical risk stress test in relation to modelling using geopolitical risk indicators¹²⁰ via a dynamic balance sheet approach.¹²¹ In terms of the quantification, expanding this to factor resilience tools and measures.¹²²

116 Basel Committee on Banking Supervision ‘Principles for sound stress testing practices and supervision’ (2009) May 2009, BCBS, Bank for International Settlements 14-5.

117 *Principle #4 stipulating that ‘stress testing frameworks should capture material and relevant risks and apply stresses that are sufficiently severe’*: Basel Committee on Banking Supervision ‘Stress testing principles’ (2018) October 2018, BCBS, Bank for International Settlements 6.

118 *Principles #3 and #4*. Ibid, 5-6.

119 *For measurement and management, as in Insurance Core Principle (ICP) #16*. International Association of Insurance Supervisors ‘Insurance Core Principles and Common Framework for the Supervision of Internationally Active Insurance Groups’ (2024) IAIS ICPs and ComFrame, December 2024, IAIS 191 par. 16.2.

120 Caldara and Iacoviello (n 44) 1223.

121 Baudino et al. (n 110) 6.

122 *Referring to the contingent measures of*: Enrico Perotti ‘Resilience as a Guide for Regulatory Reform’ (2026) 28th January 2026, Systemic Risk Centre, Finance Markets Group, London School of Economics; Enrico Perotti ‘Financial resilience as flood containment’ (2024) *CEPR Policy insight* 136, December 2024, Centre for Economic Policy Research 1.

