THE COSTS OF GEOPOLITICAL RIVALRY FOR BUSINESS:

Ten Lessons For Better Policy Design

_Paper prepared for the World Economic Forum_

Simon J. Evenett

13 February 2024

---

1 Heartfelt thanks for their cooperation on this paper go to Michael McAdoo and his colleagues on the Global Trade Team at BCG, to Sean Doherty and his team at the World Economic Forum, in particular to Nicolai Ruge and Simon Lacey, and to the executives interviewed during the research phase of this paper. Very useful comments on a 1 December 2023 draft of this paper were received from David Bach, Richard Baldwin, Bruno Caprettini, Alexis Crow, Camilla Erencin, Simon Lacey, Stefan Legge, Michael McAdoo, J. Peter Murmann, Nicolai Ruge, and Sarah Thorn. The views expressed in this paper and interpretation of the contents of the interviews presented here are mine alone and should not be attributed to anyone else or to any other organisation. As will become evident, steps have been taken to preserve the anonymity of the companies interviewed and of their executives. Reactions to this study’s findings largely from executives at sessions at the 2024 Annual Meeting of the World Economic Forum have also informed the current version of this paper.

2 Currently Professor of International Trade & Economic Development, University of St. Gallen, Switzerland, and from 1 August 2024 Professor at IMD Business School; Co-Chair, Global Future Council on Trade & Investment, World Economic Forum; and Founder, the St. Gallen Endowment for Prosperity Through Trade. Contact email address: simon.evenett@sgept.org
Executive Summary

Existing analyses of the potential for geopolitics to further fragment the world economy do not consider the impact of policy intervention on how firms create value from their international operations or on corporate performance. Nor are the numerous ways internationally-active firms can respond to geopolitics considered. The purpose of this White Paper is to fill in this knowledge gap, drawing upon 13 expert interviews with senior executives from international businesses deliberately selected to cover a range of manufacturing and service sectors. By laying out how international business perceives evolving geopolitical dynamics and their reactions to it, the overall goal of this study is to provide officials with a deeper understanding of associated commercial choices so as to allow them to better advise governments on how to manage cross-border commercial ties going forward.

A total of 12 different corporate options created by globalisation were identified by the executives interviewed for this study. Associated with each option are benefits that are at risk should geopolitical considerations force firms to thin ties to economies abroad. The benefits at risk are in four broad categories and relate to existing revenue streams, cost control, scale of operation, and advantages arising from certain organisational forms and innovation.

Senior executives interviewed for this study associated geopolitics with 12 different phenomena, perhaps the most commonly mentioned being the intensified rivalry between China and the United States. But many other state measures were mentioned too. It would be unwise to assume that corporate executives interpret official statements about geopolitics in the same way. Since, evidently, some governments seek to influence corporate deliberations about their international footprint, then how policymakers communicate their geopolitical priorities over time and how corporate executives understand those messages is critical.

The companies interviewed responded to growing geopolitical rivalry in different ways. Nevertheless, five broad classes of response could be discerned. Executives differed over the importance of some responses. For example, executives of North American firms put more emphasis than others on production repatriation to their region. Since firms choose between alternative locations, addressing talent shortages, infrastructure gaps, and other deficiencies in national business environments should complement any state encouragement to relocate production.

Companies have agency too. If policy intervention results in a decline in a company’s expected sales growth in a geopolitical hotspot, then the response is often to find new markets or to find under-served market segments in other nations. Policy measures that thin certain cross-border commercial ties create incentives for firms to develop other ties, creating new goods and service offerings along the way. If anything, choice is likely to expand for those buyers in the many nations whose governments refuse to take sides in the current geopolitical demarche. In this manner, globalisation evolves in response to geopolitics rather than retrenches.

Based on the evidence gathered for this study, a total of ten lessons for the better design of policy were identified. The North Star of geopolitically-motivated policy design should be to pick sensible objectives that take due account of the many commercial options facing firms and attain them through means that do the least harm to cross-border commerce. Doing so requires a stronger understanding by officials of the options and strategies available to the private sector. Corporate executives and company boards can raise their game as well and eight further recommendations are outlined to that end.
A. Introduction.

Geopolitical rivalry—taken to be the competition for economic, military, and technological dominance between nations or blocs of them—has come back with a vengeance during the past 15 years. While there is no accepted start date for the latest bout of geopolitical rivalry, there is a marked shift in narrative when compared to the years following the fall of the Berlin Wall. That shift is significant because so many internationally-active firms largely developed their global commercial footprints during calmer times. Now that geopolitical rivalry has intensified, how is international business responding?

There can be no doubt that corporate boards and senior executives now confront the reality of geopolitical rivalry. Export bans, screening of inward and outward investment plans on national security grounds, subsidies to induce the repatriation of production and greenfield sites, as well as import tariff hikes have become part of the geopolitical armoury in a multipolar global economy. According to corporate filings to the United States Securities and Exchange Commission (SEC), for the first time in 2022 more internationally-active firms mentioned geopolitical factors as driving business decisions or influencing risk assessments than terms relating to ESG, sustainability, or climate change. In 2015 just 27% of firms mentioned geopolitical factors—by 2022 that had risen to 67%. SEC filings during 2023 revealed that 75% of internationally-active firms noted the importance of geopolitical considerations (see Figure 1).

Concerns that geopolitically-driven policy measures might thin cross-border commercial ties have not gone unnoticed elsewhere either. Since 2021, a total of 16 macroeconomic studies have sought to estimate the costs of decoupling. The Annex to this White Paper summarises the scenarios developed and the headline losses in real GDP (income). Inevitably, the losses vary depending on the scenario defined. But some of the real income losses predicted in these studies are eye-watering, in double digits in percentage terms for certain countries and regions. While these macroeconomic estimates of the potential harm done by mismanaged geopolitical dynamics ought to be a source of serious concern to business executives and to officials, these findings typically have limited resonance beyond those technocratic stakeholders well versed in economics.

Moreover, the simulation models used do not explicitly consider the impact of geopolitically-motivated commercial policy interventions on how firms seek to create value from their international operations or on corporate performance. Nor are the numerous ways internationally-active firms can respond to geopolitics considered. The purpose of this White Paper is to fill in this knowledge gap, drawing upon 13 expert interviews with senior executives from international businesses deliberately selected to cover a range of manufacturing and service sectors. These companies were headquartered in China, Europe, the Middle East, and North America. By laying out how international business perceives evolving geopolitical dynamics and their reactions to it, the overall goal of this study is provide officials with a deeper understanding of associated commercial choices so as to allow them to better advise governments on how to manage cross-border commercial ties going forward.

The remainder of this White Paper is organised into five sections. Drawing upon the interviews conducted and observed corporate choice, to demonstrate what is at stake the 12 ways in which firms have taken advantage of globalisation are outlined in the next section. In section three of this White Paper, the 12 different understandings of contemporary geopolitical dynamics mentioned by the corporate executives interviewed are reported. This suggests that the international business community is not aligned on what geopolitics is in the first place, a finding that officials ought to take on board. As will become evident, the risk of talking past
each other on this critical matter should not be discounted. There is also a risk that geopolitics is being conflated with other policy dynamics.

In the fourth section, while recognising the diversity of corporate reactions to geopolitical dynamics, five broad classes of response could be discerned from the interviews and these are described. The consequences of those responses for corporate performance are discussed as well. The fifth section of this White Paper draws out 10 implications for the better design and execution of commercial policy initiatives motivated by geopolitical, security of supply, and national security considerations. Concluding remarks follow.

B. What’s at stake? Twelve benefits from cross-border commercial operations.

After the Berlin Wall fell and China’s opening up to the world accelerated globalisation, companies sought to strengthen cross-border ties. In many cases this involved extending commercial operations into nations that had previously been geopolitical foes or that had been relatively closed to international business. Falling communication and transportation costs facilitated the unbundling of manufacturing processes and eased the delivery of cross-border business services, increasingly by digital means. The result was certain corporate practices, such as offshoring, became salient.

Deliberate steps to integrate emerging economies into global markets through a combination of unilateral reforms (often taken with an eye to wooing foreign investors), signing bilateral investment treaties and regional trade agreements, and joining multilateral organisations that facilitate trade (in particular the World Trade Organization) also created options for companies minded to venture beyond their nation’s borders.

An era where a hegemon guided the world economy has now given way to one with multiple poles of economic activity, each vying for influence. The return of geopolitical rivalry in recent years confronts a world where different types of thick cross-border commercial ties are in place. The contrast with the start of the Cold War era during the years of reconstruction after World War II could not be starker.

To verify what is at stake from intensifying geopolitical rivalry, in collaboration with experts from the Global Trade Team of Boston Consulting Group, interviews with senior executives from 13 internationally-active companies were undertaken during the third quarter of 2023. First each executive was asked to explain how their company had benefited from globalisation; that is, in what ways did open markets underpin their fundamental corporate strategy choices? Twelve companies provided sophisticated answers to this question and their responses are summarised in Table 1.

Looking across that Table it is evident that there are a wide range of commercial options created by the integration of national markets into the world economy. Noteworthy is that the benefits of several options are associated with avoiding the downside of sourcing from, operating in, and relying entirely on growth in home markets. While much contemporary narrative emphasises the downside of cross-border commercial ties, in fact being able to avoid or overcome home constraints on commercial performance has motivated many an overseas expansion strategy. Without the option of organising some activities in foreign locations, the alternative for certain companies would have been to move all of their operations abroad.

A total of 12 different options created by globalisation were identified by the interviewees for this study. Associated with each option are benefits that are at risk if geopolitical considerations force firms to thin ties to economies abroad. The benefits at risk relate to

- existing revenue streams
• cost control
• scale of operation
• advantages arising from certain organisational forms and innovation.

The interview responses in Table 1 also highlight the stake that international businesses, their employees, and their customers have in current cross-border commercial arrangements, in the domestic policies and international architecture that underpins them, and in a manner in which geopolitical rivalry between governments unfolds.

One way to think about policy initiatives driven by geopolitical considerations is to consider which of these 12 options are impaired—and in some cases, cut off entirely—by state action or by the expectation of policy intervention. Indeed, when assessing different means to attaining a geopolitical end, governments should take into account any likely impairment to corporate performance associated with curtailing these 12 options. At the very minimum, this should raise awareness in qualitative terms of the firm and national competitiveness being sacrificed on the altar of geopolitics, national security, foreign policy considerations and the like. Even better would be to quantify in broad terms what is at stake from competing policy options.

C. The many ways international business understands the term “geopolitics”.

Having established what is at stake, my expectation was that the discussion would proceed directly to the impact of geopolitical rivalry on corporate performance. However, it became evident listening to the interviewees’ responses that their understanding of the term geopolitics diverged. Given that firms operate in different lines of business and in different geographies, as well as having made different legacy decisions, in retrospect, perhaps it is not surprising that the word geopolitics or the term geopolitical rivalry triggered different reactions. Still, the interview responses were revealing and, as argued below, this matters.

In fact, senior executives interviewed for this study associated geopolitics with 12 different phenomena, as summarised in Table 2. Sometimes geopolitics was associated with a particular state action or sequences of actions (e.g. a trade war). In others, geopolitics was associated with a cause, a consequence, and even a rationale. While many of these manifestations have their root in state concerns about their relative position vis-à-vis other states and with their capacity to deliver essential public services and to defend their national security, a range of situations associated with geopolitics were discerned.

For a number of interviewees, the growing rivalry between China and the United States was the dominant geopolitical theme. Potentially linked with this theme were certain industrial policies (in increasingly sensitive sectors such as semiconductors and critical raw materials) as well as initiatives to encourage the relocation of production away from geopolitical foes and sometimes towards home.

For others, geopolitics was associated with the world economy breaking into distinct blocs of nations, a process that some felt has been accelerated by sanctions against those nations—such as Russia—that are said to have violated established international norms. In turn, in the view of some interviewees, this fragmentation of the world economy has been reinforced by growing populism and nationalism in Western economies. The legacy of COVID-19—where security of supply considerations for medical goods and vaccines were paramount for a while—was seen by some as relevant to understanding contemporary geopolitical dynamics as well.
In yet other cases the term geopolitics was associated with particular actions taken against specific foreign firms. Some senior executives associated geopolitics with protectionism providing examples where, in their view, the former was the underlying rationale for the latter.

The principal takeaway here is that it would be unwise to assume that corporate executives interpret official statements about geopolitics in the same way. Since, evidently, some governments seek to influence corporate deliberations about their international footprint, then how policymakers communicate their geopolitical priorities over time and how corporate executives understand those messages is critical.

Indeed, one wonders if officials opining on geopolitical matters might learn something from the extraordinary lengths that their counterparts in central banks go when providing forward guidance to the private sector? The point here is not that central bankers have the answer—rather that, like officials tasked with managing geopolitical risks—central bankers consciously seek to shape private sector expectations and behaviour.

D. Five broad corporate responses to geopolitical tensions.

The international companies interviewed for this White Paper responded to growing geopolitical rivalry in different ways. Nevertheless, five broad classes of response could be discerned. The financial ramifications of these responses were repeatedly referred to and put into context in an era of higher costs of capital following the interest rate normalisation of recent years. In what follows, both the five responses and their ramifications are discussed.

1. **Reconfigure cross-border supply chains taking account of the pros and cons of alternative locations and configurations.** This corporate response was seen as increasingly attractive coming on top of the fallout from the COVID-19 pandemic. Executives from firms headquartered in North America emphasised on several occasions the degree to which sourcing has been repatriated to their region which, critically, is taken to include Mexico, to an extent not mentioned by other interviewees from companies headquartered elsewhere. Our interviews confirmed that firms have many options available to them when rewiring supply chains—reshoring is not the only option. Reluctance to give up proven economies of scale and reliable suppliers, and to incur investment costs from establishing new production facilities, were specifically mentioned as reasons why some firms are prepared to accept higher risks from continuing to source from geopolitical hotspots.

2. **Reassess corporate exposure to the Chinese market and other potential geopolitical hotspots** was another common response. Sometimes the trigger was changes in Chinese policy towards business—but in other cases US export controls were mentioned as raising question marks in the eyes of Chinese buyers of the reliability of certain Western suppliers. Again, a wide range of options were mentioned by interviewees from developing explicit China-for-China strategies, creating separate corporate structures for their Chinese operations, scaling back activity including partial exit, reduction in employment of expatriate staff, and in the limit, complete abandonment of the Chinese market. The view was expressed by one adviser to many multinational companies that complete exit from the Chinese market was not a viable commercial option. Overall, on the basis of these interviews, there appears to be little corporate appetite for complete decoupling from the Chinese market.

3. **Relocation of R&D facilities is only a credible option when alternative locations do not face shortages of PhD-trained scientific and engineering talent.** Here the point was made that repatriation to a firm’s home economy is contingent on the availability of relevant
qualified personnel and infrastructure necessary to support cutting-edge R&D. Separately, on the subject of talent management, certain sanctions rules also frustrate nationality-blind employment of talent and have resulted in reduced career opportunities for nationals from countries imposing those rules.

A number of company executives interviewed seemed resigned to the development of a world economy with bifurcated technological and digital domains. Whether the semiconductor sector or data localisation measures were in the spotlight, public policy in the largest economies is now fragmenting global markets. In turn, this compromises—but we learned need not render entirely unviable—business models based on common technological platforms that seek to attain global scale. These circumstances help rationalise the following corporate response.

4. **Market-by-market assessments of the merits of accommodating local policies are preferred to reflexively exiting markets** was the approach favoured by executives of one technology service provider. That many such firms have multiple revenue streams also allows for calibrated responses with commercial operations continuing in some business lines but maybe not in others. Engagement with officials imposing—or seeking to impose—restrictive measures was seen as a viable approach, in particular in cases where multiple means of attaining public policy ends are available.

5. **Develop new revenue streams supported by significant investments in R&D were first-order responses of firms singled out for sanctions.** Targeted firms realise they must enhance their value propositions to remaining and new customers. Those emerging markets with governments reluctant to take sides as the current geopolitical rivalry unfolds were said to be important sources of new business. These considerations serve as a reminder that the targets of sanctions have agency and may well have enough resources to be able to overcome restrictions on where they can source cutting-edge technology, for example. Firms face make-versus-buy decisions and sanctions may shift some decisions towards the former, potentially reinforcing existing tendencies towards geographical bifurcation of certain leading-edge technologies.

**Adverse implications for firm financial performance** arise from these corporate responses to growing geopolitical tensions, several interviewees contended. A common refrain was that **higher operating costs** were the consequence of many of the options available to firms as they responded to geopolitics. To the extent that such cost increases are broad based and can be passed on to customers then they add to inflationary pressures. To the extent that cost pass-through is limited or impossible, then profitability is impaired, putting at risk firms’ ability to raise funds internally for R&D and other investments—which, in turn, threatens competitiveness and jobs over the medium term. Ultimately, much turns here on how competitive the markets are in which a firm operates, and whether home state support for investments is available.

The point was also made by several interviewees that relocating commercial activities requires additional outlays (such as building new plants) which, in turn, impairs **cash flow performance metrics.** Coming at a time when investment and working capital are more expensive to finance, this places further pressure on business models that have been stretched by higher energy prices and the like. It is unclear whether the **cumulative effect of these pressures on firm financials** are being taken into account when policy towards geopolitical rivals is being formulated.

In sum, international businesses are reacting to geopolitical tensions in five discernible ways, broadly speaking. In each of these five cases, companies have numerous options to choose from. This ought to temper any expectations of uniform responses, such as blanket withdrawal from geopolitical hotspots. Risk appetites and competitive pressures facing firms differ. These
differences are compounded by different societal and government pressures to retrench in geopolitical foes and by the extent to which alternative locations can substitute for whatever advantages attracted a firm to invest in the foe in the first place. Whether diversity of corporate response matters to officials presumably depends on the outcomes sought from policy, assuming they have been identified in the first place.

E. Ten recommendations for the design and conduct of public policy.

During the latest wave of globalisation companies with international operations invested trillions of dollars of capital in foreign markets and continue to spend multiples of that each year sourcing more goods and services from foreign suppliers. There is no way that policy interventions seeking to trim commercial ties between geopolitical rivals can do so without disrupting corporate operations, impairing financial performance and, in some cases, stranding assets. The interviews conducted for this study underpin the following ten recommendations that governments should take on board when managing commercial relations during an era of intensifying geopolitical rivalry.

1. **Policy formation processes should be designed to identify the least commercially disruptive state means to advance carefully selected geopolitical goals.** As a matter of course, multiple options for attaining a given goal must be explicitly identified and systematically compared. Identification of those options should be informed by the relevant choices of other governments, now and in the past.

2. **Ground policy in a deeper understanding of corporate practices and strategic options, both domestic and cross-border.** Such understanding will help officials to properly diagnose geopolitical risks as well as the risks from domestic commercial operations, to better understand the options available to business, and to recognise the harm done by and uncertainty fostered by poorly-designed public policy intervention. That harm includes additional operational costs, greater investment outlays, impaired cash flows, unnecessary delays, and facing heightened uncertainty. Uncertainty, an enemy of corporate investment, is particularly pernicious and tends to be higher when policy changes sharply or frequently.

3. **Without effective communication by government, private sector responses will almost certainly disappoint.** Given the multi-faceted nature of geopolitics and its potential conflation and interaction with profound global shocks—such as the COVID-19 pandemic—it is unsurprising to learn that, when business people hear the term geopolitics, they interpret it in different ways. A failure to understand precisely what is meant by phrases such as “de-risking” may lead businesses to postpone making the very changes or investments that governments seek to promote. Ineffective communication that results in business and governments operating in parallel universes is a recipe for mounting frustration.

4. **The links between intended geopolitical goals, decisions and actions taken, and their rationale should be spelt out by officials as clearly as is practically possible.** This would help the private sector to better judge what corporate practices are now deemed acceptable/unacceptable, desirable/undesirable etc. Depending on the context, it may well be that, as states advance and communicate their geopolitical goals, many of the dozen ways in which firms capitalise on globalisation remain open.

5. **Coherence requires pairing steps to encourage reshoring with measures to improve the supply side of national economies.** Some governments have sought to discourage their nation’s firms from availing themselves of certain foreign locations, data, talent, and technologies. Encouraging firms to repatriate commercial activity is likely to encounter greater opposition the more glaring are the deficiencies in the home business environment.
Corporate subsidies should not be awarded to mask fixable deficiencies in national business environments.

6. **A venture capital mindset to industrial policy is preferable to lavishing subsidies and hoping for corporate take-up.** The mindset required involves focus on resolving bottlenecks to firms and industries as they seek to scale up and that addresses coordination failures along supply chains. On this view subsidies can make a valuable contribution but only as part of a comprehensive approach grounded in a thorough understanding of relevant business dynamics.

Given the length of many firms’ investment horizons with payback periods often stretching into decades, short-term subsidy interventions are less likely to influence business decision-making than a credible commitment to make long-term improvements to the relevant sectoral and national business environment. An interviewee pointedly remarked that in their assessment the vast subsidies being awarded in the semiconductor sector would ultimately shift the location of new fabs but would not necessarily increase the total number of such production facilities.

7. **Repurpose guidelines for Responsible Business Conduct (RBC) in geopolitical hotspots.** Existing Organisation for Economic Co-operation and Development (OECD) and United Nations (UN) guidelines for RBC need to be revised. To the extent that current guidelines relate to conflict zones they do not appear to contemplate that the eventuality where a conflict may have been instigated by a geopolitical foe. This exposes firms with operations in the foe to accusations of “trading with the enemy,” even if the relevant investments were made in less fractious times.

Moreover, geopolitical foes can introduce countermeasures that reduce the profitability and likelihood of disposing corporate assets. In turn, this creates the potential for genuinely trapped subsidiaries of multinationals. Sensible norms for RBC need to be articulated for these subsidiaries. These norms should be formulated in a multi-stakeholder dialogue to which business executives with operational experience operating in geopolitical hotspots should be invited to contribute.

8. **Reassess the effectiveness of punitive geopolitically-motivated state measures.** In a world with multiple poles of economic activity—where no one nation is a hegemon—tools such as trade sanctions may be considerably less effective than in the past. The documented surge in exports from some Western nations to the economies bordering Russia witnessed since the February 2022 invasion of Ukraine attests to this. So does the resilience of the Russian economy over the past two years. The literature on the effectiveness of trade and investment sanctions during the era of American hegemony is sobering enough—now such sanctions tend to be easier to circumvent and less effective as a result.

Moreover, pressures to exit geopolitical rivals are more likely to be resisted by companies with long payback periods and where home markets have matured and offer limited prospects for growth. A senior executive from a leading chemicals manufacturer told us that they could not conceive of a future where their company abandoned the Chinese market. That so few Western companies existed the Russian market in 2022 and 2023 should raise a red flag to those officials expecting to browbeat companies from the much larger Chinese market.

9. **Credible threats of countersanctions should influence the calculus when imposing sanctions in the first place.** That calculus ought to give greater weight to the potential fallout from countersanctions by targeted governments and to the options available to sanctioned firms. Tit-for-tat sanctions add to risk premia and can boomerang on those
involved. Moreover, a multi-polar world affords sanctioned firms the opportunity to develop revenue streams in underserved markets and to source needed components, materials, and technologies from third parties.

10. **Incoherent sanction regimes impose unnecessary costs and uncertainty on international business—maintaining coherence is at a premium.** Governments tend to ratchet up sanctions over time. The more objectives a sanctions regime has the higher the likelihood that a sequence of sanctions packages contains measures that cut against each other. For example, a presumably unintended consequence of European bans on professional services firms contracting with Western subsidiaries operating in Russia is that the exits of the latter have been delayed and more costly.

Sometimes objectives clash too: pressure on Western firms to leave Russia cuts against the goal of depriving the Kremlin of revenues to maintain its military operations in Ukraine. This is because subsidiaries from sanctioning Western nations must pay sizeable “voluntary contributions” to the Russian government to expedite their departure from the Russian market. Sanctions regimes ought to be reviewed periodically to ensure that they are coherent and sufficiently effective.

It is inevitable in turbulent times such as these that policymakers and businesspeople are on sharp learning curves. Based on the interviews conducted for this White Paper, on discussions with executives and officials attending the 2024 Annual Meeting of the World Economic Forum, and on desk research into the ways in which firms have reacted to unfolding rivalry between states, the purpose of this section has been to crystallise ten implications for the better design of policy initiatives that seek to attain geopolitical objectives while giving up the least benefits of globalisation.

**Box: Businesses can better manage geopolitics by taking these eight steps.**

Although the goal of this study was to allow officials to gain a deeper understanding of the ways in which international companies are reacting to unfolding geopolitical dynamics, inevitably there are implications for deliberation and decision-making by corporate executives and board members. Eight such implications follow from the interviews conducted here.

1. **Management and boards are right to give greater consideration to the implications of intensifying geopolitical rivalry.** This should result in a greater appreciation of the many ways in which contemporary business relies on cross-border ties as a means to enhance revenues, keep costs under control, tap the benefits of scale, manage risks, and accelerate innovation (recall the evidence in Table 1). If anything, intensifying geopolitical rivalry has highlighted why so many businesses—including those that may regard themselves as largely domestic in orientation—have a stake in the open global trading system.

2. **Managements and boards need to strengthen their understanding of geopolitical dynamics.** That geopolitics is associated with so many different potential factors affecting business (as shown in Table 2) implies that corporate executives need to ask how they can best learn about the various forms of geopolitical rivalry that most affect their business. Such learning needs to happen in operational business units as well as at senior executive and board level. As geopolitical rivalry can implicate technological, military, foreign policy, as well as trade, investment, and industrial policy matters, companies need to tap a wide range of expertise. This almost certainly requires going beyond having a former official or two sitting on a company’s board.

3. **Siloed functional responses must be avoided.** Given that geopolitical factors are likely to have cross-cutting implications for the operations and strategy of a company, no single unit
with the company should have sole responsibility for tracking and responding to these developments. Government affairs units may well have been one of the first to spot unfolding geopolitical developments but responsibility for managing their fallout should not rest there. Likewise, geopolitically-motivated sanctions regimes may implicate chief legal and compliance officers, however, responsibility for devising a coherent company-wide response is probably best done in a strategy unit or a unit close to the company’s chairman or chief executive.

4. **Putting geopolitical downside risks in perspective is vital.** Even when significant, geopolitical disruption is typically localised and is never the only factor influencing international commercial opportunities. At present, while many officials on both sides of the North Atlantic tend to see the (geopolitical) glass as half empty, it is worth recalling that in other regions of the world economy—such as Southeast Asia and Africa—many policymakers are keen to strengthen cross-border commercial ties. Companies that find their growth plans disrupted in economies their home governments designate geopolitical foes are searching for new markets and under-served market segments, often in countries not strongly aligned with any camp. The commercial opportunities from globalisation are evolving not ending. Governments alone do not determine the strength of cross-border commercial ties.

5. **Take steps to future-proof current and planned operations and investments.** Plausible if unwelcome contingencies, such as the re-election of Donald Trump and other potential sources of disruption, should be the subject of scenario planning exercises that draw upon expertise throughout the company. These exercises and the lessons drawn from them should not be confined to senior management and board members.

6. **Levels of geopolitical risk appetite need to be explicit.** As became evident in some interviews, some companies had considered the many options available to them and their attendant costs and risks and concluded that current exposure to geopolitical risks were acceptable. This type of decision can only be properly taken if levels of risk appetite and their consequences have been discussed explicitly. As is so often the case, risk reduction rather than risk elimination makes better commercial sense.

7. **Engage with officials early in policy formulation.** For many officials, geopolitical factors are still novel. Since commercially-relevant policy intervention is mediated through firms and markets, corporate executives typically have an informational advantage over officials in their understanding of the consequences of different policy or regulatory choices. Active engagement during consultation processes with officials can pay important dividends, not least when options are presented to officials that can attain sought-after goals at less cost, disruption, and potential for uncertainty.

8. **Joint action by business to encourage de-escalation of tensions will be needed from time to time.** Instability, turmoil, and worse threaten not only existing commercial operations but also lead to investments and corporate plans being postponed. International business has a strong stake in guardrails being developed that keep geopolitical competition within tolerable limits. There is only so much any one international business can do to encourage governments to de-escalate tensions and to reset relations after fraught periods. National, regional, and pan-regional business associations can play their part in encouraging governments to get to the negotiating table and devise ways to curb the excesses in geopolitical rivalry. After the First World War the phrase “Merchants For Peace” was coined to characterise the collective efforts of the international business community. A similar initiative is called for today.
F. Concluding remarks.

Recent years have seen companies and governments around the world reassessing the value of cross-border commercial ties. Long seen as a source of unalloyed good, a more nuanced view is emerging in a world beset by intensified and enduring geopolitical rivalry. The concern that cross-border flows of data, investment, trade, and even people have, from time to time, been “weaponised” has resulted in greater attention to considerations of risk and harm in cost-benefit calculations relating to commercial ties. Evidently, governments are not prepared to stand by and let the private sector alone determine the strength of these cross-border ties.

Yet, it is far from clear that governments have developed a coherent and comprehensive approach to reducing whatever downside risks they perceive at least cost. Indeed, from time to time the impression is given that official narrative, if not policy itself, is dominated by fears and suspicions in the capitals of the major economies rather than being grounded in evidence and an understanding of how business and markets work. Sweeping statements reflecting a command-and-control mentality belie a failure to appreciate that much policy works through incentives and markets.

Unlike the start of the Cold War where cross-border commercial ties had been thinned out by the Second World War, the backdrop for the current bout of intensifying geopolitical rivalry is one of the far-reaching but incomplete globalisation. Under these circumstances, taking pages out of the Cold War playbook may not be the wisest course of action. Moreover, and put rather starkly, in an era of faltering economic growth, our societies can little afford further reductions in living standards on account of poorly managed attempts to reduce geopolitical exposure to risks arising from commercial ties.

What motivated this project was the desire to inform officials of the realities faced by the executives of international business as the latter cope with unfolding contemporary geopolitical dynamics. Economic simulations of a fragmented world economy provide little guide to the commercial wiring that condition cross-border ties at present and how policy shapes those ties. Yet those simulations still have their value. Indeed, one of the studies listed in the Annex to this study contained the intriguing finding that firm-driven diversification of cross-border sourcing patterns would result in a third of the losses to global output than state-driven decoupling. This provides a further rationale for better understanding how risks can be managed through corporate means, possibly induced by appropriate state action.

For sure, governments can consult business about these matters but a third-party effort to learn about these ties—such as this one—won’t be tainted by attempts by executives and officials to directly influence one another. For this reason, in collaboration with other experts, a series of semi-structured interviews were conducted with executives from a diverse set of international businesses. Should it have been found useful, then this initiative could be repeated in some form every year or so to build a better understanding of how geopolitically-motivated public policy and international business are influencing each other over time.

Perhaps the greatest payoff from projects like this one is to step back from the circumstances facing any individual firm or government and to take stock of developments. Doing so revealed that firms have sought to capitalise on globalisation in 12 different ways. This is an indication of just how intertwined our economies have become. When it comes to geopolitics, the firms we interviewed associated it with 12 different steps taken by governments—a finding that calls for very careful messaging by states when communicating with the private sector.

Unlike monetary policy, say, which has a widely accepted set of objectives and a distinct tool box, geopolitics is associated with a range of goals not all of which are amenable to measurement and tracking. Moreover, governments advance geopolitical objectives with tools.
typically used for commercial policy purposes. The bleeding of trade and national security objectives and policy may be inevitable in times like these, but it certainly requires careful, transparent management by the state if the private sector is to draw the right inferences from policy action. The recommendations outlined in previous section of this paper for policymaking were devised with these considerations in mind.

Companies too should also take the opportunity to reflect on how they understand and act upon unfolding geopolitical dynamics, their likely future trajectory, and what is at stake for their firm’s current operations and strategy. There is no reason why every firm must tackle geopolitical challenges in the same way. Still, the interviews conducted for this study revealed differences across firms in how well prepared they were and the degree to which geopolitical considerations were being taken on board throughout their companies. The eight recommendations in the Box above were devised for companies seeking to raise their game.

Another advantage of talking to many companies in preparing this study is that it revealed how many corporate decisionmakers view geopolitics depended on where they sat, or rather, where their companies were headquartered. This is almost certainly the case for policymakers too and is a reminder that the “geo” in geopolitics refers to geography. Place matters. For example, North American executives were more likely to state that repatriation of production to their region was underway, in contrast to their counterparts in Western Europe and East Asia. Findings such as these remind us that there is a risk that decisionmakers in the private and public sectors extrapolate inappropriately from national and regional circumstances.

The “can do” spirit of many private sector executives—also on display at the 2024 Annual Meetings of the World Economic Forum—came through in the interviews. If policy intervention results in a decline in a company’s expected sales growth in a geopolitical hotspot, then the response is often to find new markets or to find under-served market segments in other nations. Policy measures that thin certain cross-border commercial ties create incentives for firms to develop other ties, creating new goods and service offerings along the way. If anything, choice is likely to expand for those buyers in many nations whose governments refuse to take sides in the current geopolitical demarche. In this manner, globalisation evolves in response to geopolitics rather than retrenches. This serves as a reminder that, to date, the downside from geopolitical rivalry should not be overdone.

Looking forward, how geopolitical rivalry is perceived and how it is expected to unfold in the years ahead may well shape electoral outcomes in the 60 or so nations whose populations vote this year. Given how fickle many votes appear to be, electoral upsets cannot be ruled out. Consequently, one cannot exclude attempts by officials to make sharp adjustments to cross-border commercial ties and by businesses in how they deploy capital, intellectual property, and talent around the world. Sanguine perspectives on the present state of fragmentation of the world economy may well amount to the calm before the storm.
Figure 1: From 2022 on geopolitical terms were mentioned in the SEC reports of internationally-active firms more often than ESG, sustainability, and climate change.

Source: Corporate filings to the US SEC.
<table>
<thead>
<tr>
<th>Option created by globalisation</th>
<th>Corporate benefits at risk from deglobalisation</th>
</tr>
</thead>
</table>
| **1** Trade and investment reforms opened markets allowing sales to new foreign customers or to follow existing customers as the latter expanded internationally | • New or increased revenue streams  
• Reduce excessive dependency on home market sales and attendant risks to viability of business model |
| **2** Access to markets abroad that are growing faster than home market                           | Firm’s prospects no longer tied to slower growing home market or region                                         |
| **3** Proximity to foreign customers facilitates tailoring of goods and services to their needs  | • Allows higher prices to be charged, creating the potential for higher profit margins  
• In addition, potential gains from economies of scope                                                      |
| **4** Cross-border temporary movement of personnel allows for higher quality support for clients    | Range and quality of services offered to foreign clients is circumscribed, reducing pricing power or potentially losing customers in the first place |
| **5** Move certain stages of commercial activity (not just production) to locations with more favourable cost/efficiency outcomes or potential | • Enhanced cost control  
• New or better ways to deploy a firm’s core competences  
• Reduce excessive dependence on suppliers in home market                                                   |
| **6** Source parts, components, and materials more readily, reliably, or cheaply abroad             | • Lower cost of capital  
• Access to innovative financing methods  
• Reduced dependency on principal financing mechanisms in home market                                           |
<p>| <strong>7</strong> Access to foreign capital markets                                                          |                                                                                                               |
| <strong>8</strong> Greater foreign sales combined with economies of scale in production allowed for lower prices to be offered to customers | • Better value propositions for customers at home and abroad, longer production runs                             |
| <strong>9</strong> Access to regional and global markets facilitates operations at sufficient scale to make certain business models viable | • Can spread major R&amp;D, other set-up costs, and fixed costs across a larger number of customers, creating greater profit potential |</p>
<table>
<thead>
<tr>
<th>Option created by globalisation</th>
<th>Corporate benefits at risk from deglobalisation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Explanation</td>
</tr>
<tr>
<td>10 Access to foreign technology</td>
<td>• Capacity to innovate higher value-added and</td>
</tr>
<tr>
<td>11 Access to foreign talent</td>
<td>and know-how enables firms to faster reach and then stay close to the technological frontier, sometimes through creation of R&amp;D centres abroad</td>
</tr>
<tr>
<td>12 Mergers with or acquisitions of foreign firms</td>
<td>• Ability to offer more attractive careers to national and foreign team members resulting in better hiring and retention of talent</td>
</tr>
<tr>
<td></td>
<td>• Exploit synergies (not only cost-related) and other complementarities</td>
</tr>
<tr>
<td></td>
<td>• Diversify revenue streams</td>
</tr>
<tr>
<td></td>
<td>• Reduce exposure or dependencies on certain sectors or geographies, including home market</td>
</tr>
</tbody>
</table>
Table 2: “Geopolitics” is understood very differently by firms with international operations.

<table>
<thead>
<tr>
<th>Developments associated with the term “geopolitics” by interviewees</th>
<th>Contemporary manifestations of this form of geopolitics mentioned by interviewees</th>
<th>Potential future examples mentioned by interviewed firms</th>
</tr>
</thead>
</table>
| 1 Intensified rivalry between China and the United States | • Tariffs imposed during the Trump Administration  
• Export controls on certain technologies  
• Foreign investment screening on national security grounds, inbound and outbound  
• Decoupling, derisking narratives | Potential sanctions on China should conflict erupt in the South China Sea |
| 2 Geopolitics as code for actions taken by the Chinese government against foreign firms | • Harassment of foreign firms, threats to their operations  
• Officials refuse to engage or advise foreign firms  
• Discouragement of local talent to work for foreign firms | |
| 3 Sanctions against nations violating international law | • Sanctions on Russia following invasion of Ukraine in 2014 and 2022  
• Weaponisation of wheat and energy flows by Russia and its commercial fallout  
• Unplanned sales of Russian subsidiaries | Potential sanctions on China should conflict erupt in the South China Sea |
| 4 Populism and nationalist sentiment in the West | • BREXIT, resulting in certain cases in zealous application of restored regulatory powers  
• “America First” trade policy | Re-election of Donald Trump |
| 5 Fragmentation of the world economy | • Fault lines between nations on willingness to sanction Russia  
• Reinforcement of North American and Western European economic blocs  
• Biden Administration’s IPEF initiative  
• Regional Comprehensive Economic Partnership and CPTPP  
• China’s Belt & Road Initiative  
• Scramble for critical raw materials | Fragmentation into distinct blocs with high walls |
| 6 Concerns about undue reliance on foreign suppliers of essential goods arising from the COVID-19 pandemic | • Attempts to reduce excessive dependencies on certain nations with subsidies to encourage local production or to repatriate factories  
• Friend shoring narrative | Mandating or incentivising production relocation, even reshoring |
<table>
<thead>
<tr>
<th>Developments associated with the term “geopolitics” by interviewees</th>
<th>Contemporary manifestations of this form of geopolitics mentioned by interviewees</th>
<th>Potential future examples mentioned by interviewed firms</th>
</tr>
</thead>
</table>
| • Pressures from customers to diversify production locations and to have more production facilities closer to buyers | • Export restrictions and bans by extracting nations  
• Pre-emptive investments to secure supplies by firms and governments, including foreign direct investments involving potential offtake agreements | Potential OPEC-like deals between suppliers of critical raw materials |
| 7 Availability of critical raw materials | • Combination of high US tariffs on imported goods from China and negotiation of USMCA  
• Japanese government scheme to incentive relocation of factories from China to home or to ASEAN nations | |
| 8 Attempts to induce relocation of factories away from geopolitical rivals or back home (“reshoring”) | • Initiatives to encourage semi-conductor production in G20 countries and to bans on certain sales of upstream technologies  
• Restrictions on foreign investment in national energy infrastructures  
• Localisation requirements, not only in digital sectors | |
| 9 Industrial policy in strategically-important sectors | • Resort to non-transparent non-tariff barriers, sometimes in the form of regulation  
• Reduced adherence to multilateral norms  
• Bailouts and subsidies of favoured local firms  
• Expropriation of foreign investors  
• Bans on foreign firms selling products to public sector buyers | |
| 10 Greater favouritism towards home commercial interests, overt or subtle protectionism | • Bans or onerous approval requirements on export of certain commercially or militarily sensitive technologies, not confined to semiconductors  
• Dual use regulations | |
| 11 Export controls on critical technologies | • Measures taken against Huawei and TikTok | |
| 12 Singling out of individual foreign firms for denial of market access | | |
## Annex: Estimates of the GDP losses from Decoupling Scenarios in 16 recent studies.

<table>
<thead>
<tr>
<th>Study</th>
<th>Scenario</th>
<th>Headline GDP losses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>McKinsey Global Institute (2024)</strong></td>
<td>Using the GTAP general equilibrium model, two scenarios for the world economy through to 2035 were considered. UN General Assembly votes between 2005 and 2022 were used to sort countries into three groups: a so-called Western group, an Eastern group, and a mid-aligned group. In one fragmentation scenario 60% tariffs are put on trade in critical goods between Eastern and Western groups and 20% import tariffs on other goods. Tariffs imposed on trade with the mid-aligned groups were lower. A second scenario modelled the consequences of diversification by firms so as to cap levels of geographic import concentration.</td>
<td>In the fragmentation scenario long run global GDP is found to be 1.5% lower relative to expectations for 2035. Some economies see their GDPs fall by up to 6%. In the diversification scenario, global GDP falls by only 0.5% and China’s GDP falls by 1%.</td>
</tr>
<tr>
<td><strong>Hakobyan, Meleshchuk, and Zymek (2023)</strong></td>
<td>Using a measure of geopolitical affinity based on treaty ties, three blocs are created (Eastern, Western, and non-aligned). Three scenarios are defined (1) increasing treaty ties within blocs, (2) doubled trade policy sensitivity to geopolitical affinity, and (3) the combination of (1) and (2). A dynamic trade model is used to simulate these three scenarios.</td>
<td>The median national GDP loss under scenario (1) is 0.2%. Under this scenario a quarter of all nations see GDP gains, largely resulting from enhanced trade within blocs. Latin America and Caribbean nations gain the most under this scenario. The median national GDP loss under scenario (2) is 1%, with the biggest losses seen in emerging Asia (0.7%) and the Middle East and Central Asia (1.5%). Scenario (3) sees median national GDP losses of 1.3%. Losses in the latter two mentioned regions increase markedly over scenario (2).</td>
</tr>
<tr>
<td><strong>International Monetary Fund (2023b)</strong></td>
<td>Examines impact on Latin America and the Caribbean of three scenarios (1) cessation of trade between Russia and the European Union and the United States, (2) countries are assigned to blocs based on intensity of current bilateral trade and (3) countries are assigned to blocs based on a measure of geopolitical affinity. Trade between blocs in (2) and (3) ceases. A trade model with input-output linkages was used to simulate the outcomes.</td>
<td>Scenario (1) sees Latin America and the Caribbean marginally better off (largely on account of benefiting from trade diversion), while average losses elsewhere in the world are between 0.5% and 1% of GDP. Scenarios (2) and (3), the more serious fragmentation scenarios, result in GDP losses in the range of 2-4% of GDP in Latin America and the Caribbean, with losses higher under (3).</td>
</tr>
<tr>
<td><strong>Clancy, Valenta, and Smith (2023)</strong></td>
<td>A dynamic general equilibrium model is used to model a three bloc world economy where localisation policies are used to encourage sourcing from home or from allies. Simulates a 1% fall in import content of exports.</td>
<td>Euro Area GDP losses can be as high as 0.5% if local firm productivity impaired by reshoring or if local firm mark-ups go up. Friend shoring scenarios yield losses no more than 0.04%.</td>
</tr>
<tr>
<td>Study</td>
<td>Scenario</td>
<td>Headline GDP losses</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Bolhuis, Chen, and Kett (2023)</td>
<td>Using a multi-sector, multi-country general equilibrium model to simulate effects of two fragmentation scenarios on commodity markets with latest available pre-pandemic data. Mild scenario has no trade between Russia and the EU and United States and no technology trade between US and China. More severe scenarios sees world economy split into two blocs, one centered around EU and US and the other around China and Russia.</td>
<td>Global GDP loss in mild scenario is 0.3%. In severe scenario the headline global GDP loss is 2.3% but, depending on modeling assumptions, can range from 1.9% to 7%. In more severe scenario low income nations face GDP losses of 4.3%.</td>
</tr>
<tr>
<td>Campos, Estefania-Flores, Furceri, and Timini (2023)</td>
<td>Simulates world economy splitting into three blocs based on UN General Assembly votes Russia’s membership of the Human Rights Council. Second scenario goes further and sees the “Eastern bloc” leave the WTO.</td>
<td>Three bloc scenario sees national welfare changes ranging from +0.9% to -8.3%. Exit of the Eastern block widens the range of national welfare outcomes to +0.9% to -18%.</td>
</tr>
<tr>
<td>Attinasi, Boeckelmann, and Muenier (2023)</td>
<td>Simulates four decoupling scenarios for trade in intermediate goods, the most severe of which involves no trade between Eastern and Western blocks. Again, block membership is determined by UN voting records. Deployed a model based on 2017 input-output tables for 73 jurisdictions.</td>
<td>With flexible prices and substitution practices, long-term welfare losses are around 2%. With less flexibility, welfare losses rise to 5%. The most severe decoupling scenarios generates welfare losses that range from -3.1% to -15.2%.</td>
</tr>
<tr>
<td>Felbermayr, Mahlkow, and Sandkamp (2023)</td>
<td>Uses GTAP model to double non-tariff barriers in five decoupling scenarios. Employs the Kiel Institute Trade Policy Evaluation (KITE) model.</td>
<td>Bilateral decoupling between China and the EU reduces their welfare by 0.92% and 0.78%, respectively. Decoupling of China from the US and its allies (including the EU) reduces Chinese welfare by 3.55% and US and ally welfare by 0.95%.</td>
</tr>
<tr>
<td>Goes and Bekkers (2023)</td>
<td>Models a world divided into two blocks, based on evidence in the Foreign Policy Similarity Database. A full decoupling scenario—in which trade costs between blocks rise by around 160%--is simulated. A second scenario involving the imposition of 32% import tariffs between blocks is considered. The impact of these policy regimes on the transfer of technology/ideas across borders was taken into account.</td>
<td>Median welfare losses for the Western block are 4% but range from 1% to 8%. Median welfare losses for the Eastern block are higher (10.5%) and range from 8% to 12%.</td>
</tr>
<tr>
<td>International Monetary Fund (2023a)</td>
<td>Using data on bilateral flows of inputs into investment as a proxy for FDI, the IMF’s multi-regional dynamic general equilibrium model is employed to simulate the effects of a 50% reduction in such trade between blocs of countries. The world is broken up into 8 groups of</td>
<td>In the baseline geopolitical fragmentation scenarios, global GDP losses in the longer run could reach 2%. While the United States would experience a 0.5% GDP loss, European nations, China, and other high income nations would lose around 2% of GDP. South East Asian nations would lose between 6% and 7% of GDP.</td>
</tr>
<tr>
<td>Study</td>
<td>Scenario</td>
<td>Headline GDP losses</td>
</tr>
<tr>
<td>-------</td>
<td>----------</td>
<td>---------------------</td>
</tr>
<tr>
<td>countries and different scenarios relate to geopolitical alignment between various configurations of groups.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>International Monetary Fund (2022)</strong></td>
<td>Uses a multi-country general equilibrium model to simulate effect of cutting trade in goods in high-tech manufacturing and in extractive industries. Word splits into blocks along lines given by votes at the UN.</td>
<td>Global annual GDP losses are 1.2%. GDP losses in the Asia-Pacific region estimated to be 1.5%. “Trade intensive” nations in the Asia-Pacific region see GDP losses of 3.3%.</td>
</tr>
<tr>
<td><strong>Javorcik, Kitzmueller, Schweiger, and Yildirim (2022)</strong></td>
<td>Models a world economy that splits into two blocks based on UN General Assembly votes on the conflict in Ukraine. Model takes account of input-output linkages across sectors and nations. Simulates imposition of 20% import tariffs or transport costs.</td>
<td>All countries lose 0.1-2.3% of GDP when 20% tariffs are imposed. Adding a further 20% of transport costs raises the GDP losses for nations to 0.6%-4.6%.</td>
</tr>
<tr>
<td><strong>Sandkamp (2022)</strong></td>
<td>Simulates four scenarios each involving EU decoupling with different groups of nations or with all nations. Same approach taken as Felbermayr, Mahlkow, and Sandkamp (2023).</td>
<td>Unilateral decoupling by the EU will reduce its welfare by 3.3%. Mutual decoupling reduces EU welfare by 5.3%. Under the latter scenario, German welfare falls 6.9%.</td>
</tr>
<tr>
<td><strong>Eppinger, Felbermayr, Krebs, and Kukharskyy (2021)</strong></td>
<td>To examine complete decoupling of trade in parts, components, and other intermediate goods, the cost of shipping these goods is set to infinity.</td>
<td>Small highly integrated economies see massive GDP losses from global decoupling of input trade (Luxembourg’s losses are estimated at 68%). Larger economies see smaller losses (US losses estimated at 3.3% from global decoupling.) Bilateral decoupling results in much lower GDP losses and trade diversion to alternative suppliers.</td>
</tr>
<tr>
<td><strong>Cerdiero, Eugster, Mano, Muir, and Peiris (2021)</strong></td>
<td>Simulates technological decoupling around “hubs” of nations using a global dynamic macroeconomic model. Here technological decoupling involves imposition of non-tariff barriers that eliminates trade in high-tech goods. Considers effects of non-hub nations having preferential and non-preferential attachments to hubs.</td>
<td>Depending on the scenario, real GDP losses for China after 10 years can lie in the range of -2% to -10%. For the United States the range of GDP losses is -1% to -4%. For the European Union the comparable range is 0 to -6%. For Japan and India the comparable range is 0 to -4%. Technological decoupling limited to the US and China results in smaller GDP losses.</td>
</tr>
<tr>
<td><strong>Economist Intelligence Unit (2021)</strong></td>
<td>Uses GTAP model to simulate consequences of imposing a 100% import tariff on trade between China and the so-called Five Eyes Countries (US, UK, Canada, Australia, and New Zealand). However, in eight “strategically important sectors” trade is completely embargoed.</td>
<td>Estimate of cumulative loss to world GDP over 2021-2030 amounts to 3.8% of world GDP. Cumulative losses for China are higher (-16.5%). Australia and Canada lose the most of the Five Eyes nations (-4.3% and 2.8%, respectively.) The cumulative loss for the United States is -1.2% of its GDP.</td>
</tr>
</tbody>
</table>