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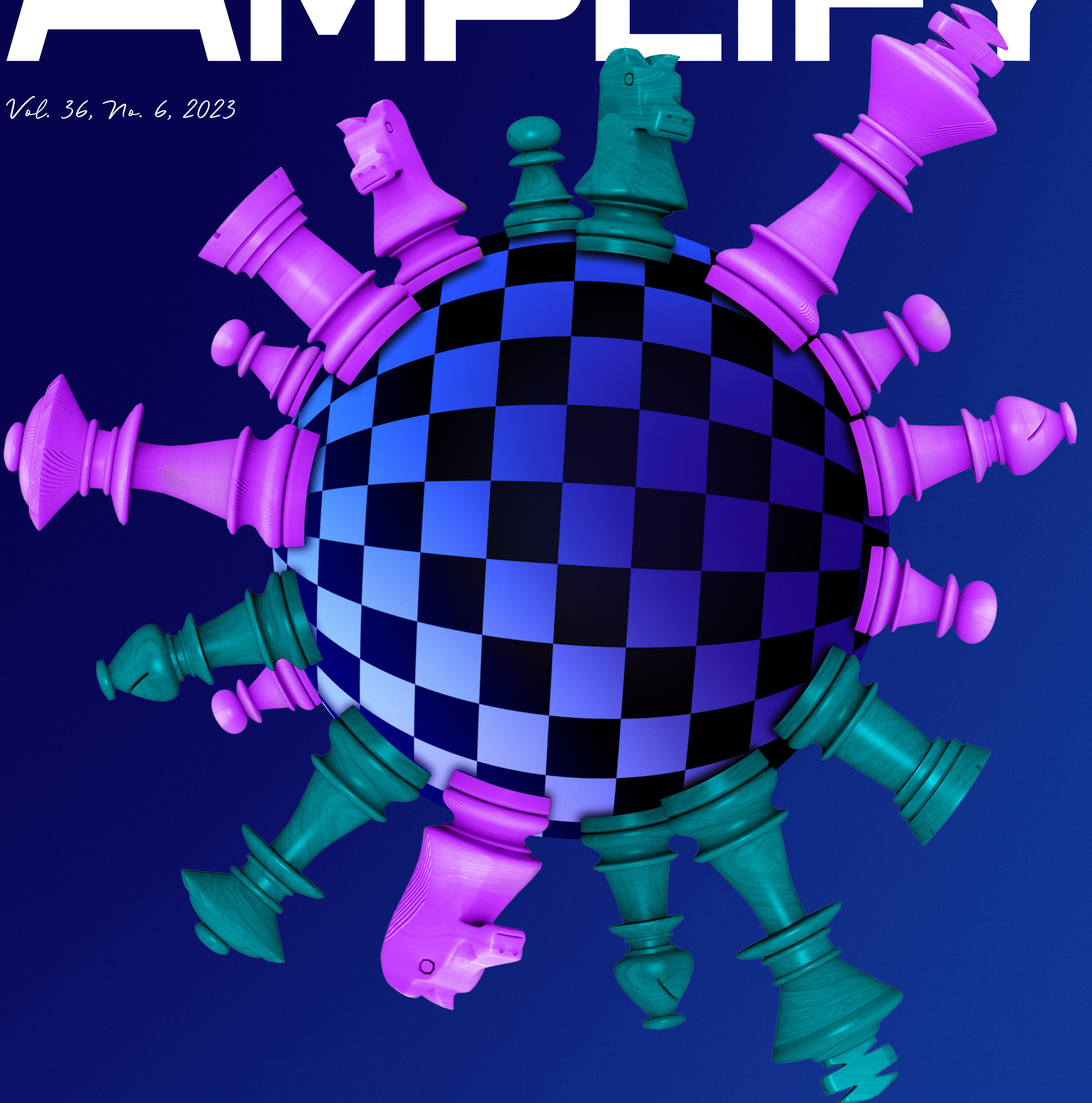

Navigating Geopolitical Risks

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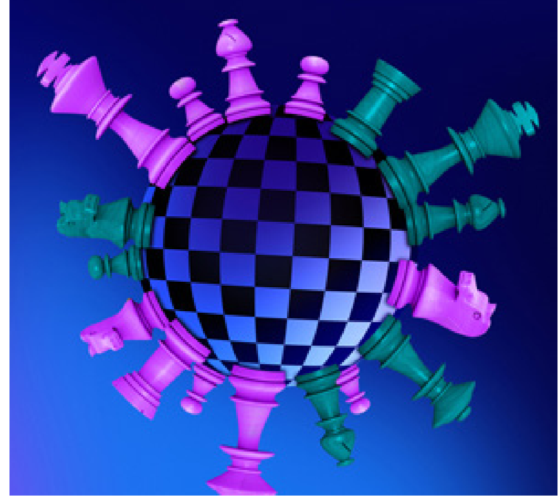

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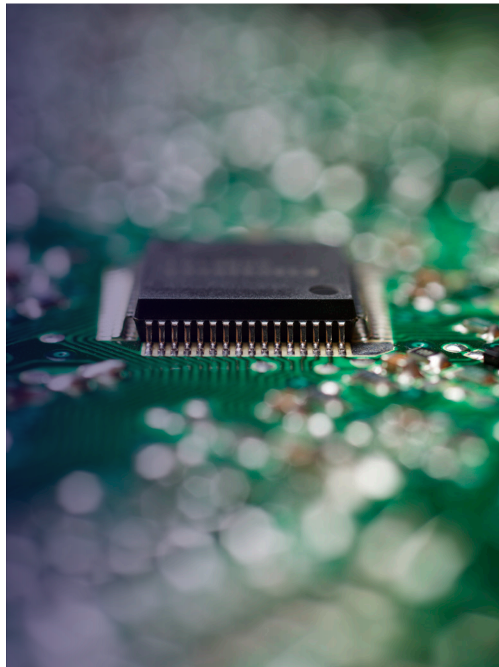

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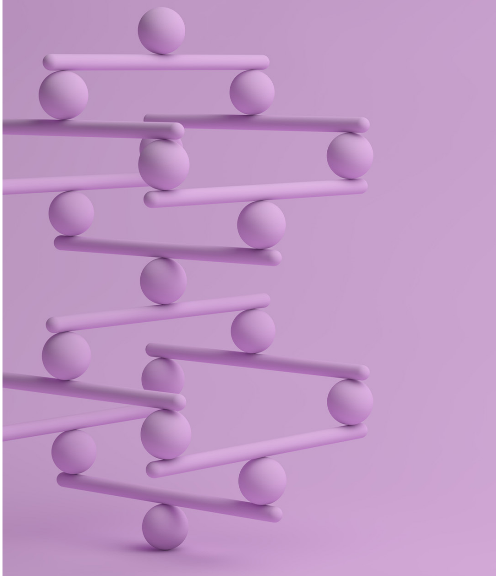

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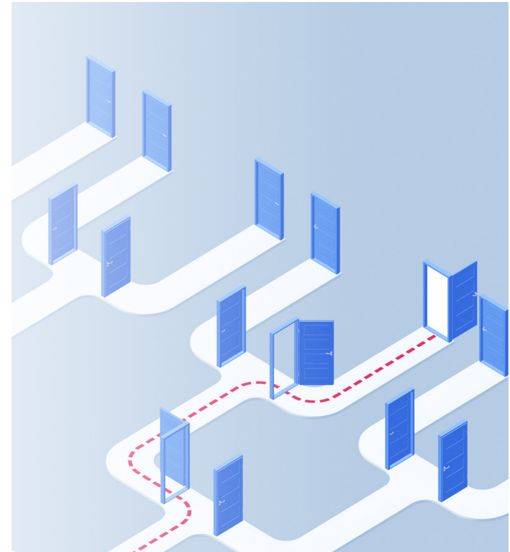

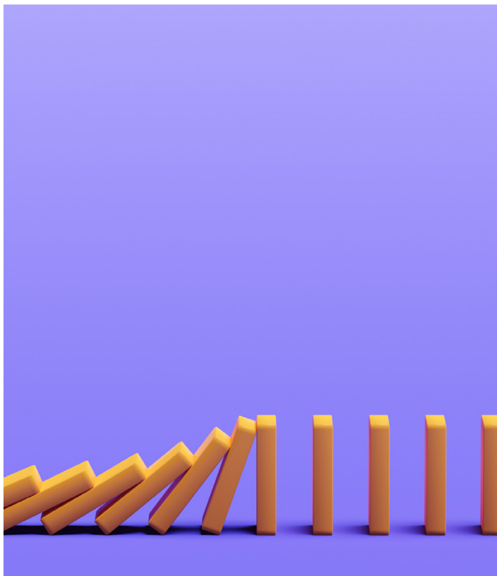

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NAVIGATING GEOPOLITICAL RISKS

BY DAVID S. LEE, GUEST EDITOR

Geopolitical risk has emerged as a key consideration for business leaders as they navigate an increasingly complex and volatile operating environment. The hope and promise of globalization have dissipated over the last few years as armed conflict, trade wars, and other forms of geopolitical tension replaced the era of openness and free trade that was the dominant narrative of the recent past. Unfortunately, most business leaders are not prepared to navigate this novel, uncertain landscape.

The intersection of politics and business is not new, but the modern milieu of how globalization, technology, and strategic competition interact creates a high-stakes environment that can result in commercial actors being drafted as instruments of national policy. For instance, the race between China and the US to dominate in artificial intelligence (AI) is not being run by government agencies, though public policies are certainly important. Rather, the competition is largely among technology companies from each country, which are also some of the world's most influential technology firms. For the countries and companies involved, the national and international ramifications go far beyond simply increasing profitability or market share.

Geopolitics have also added an important perspective to the ongoing debate around corporate purpose. The rise of environmental, social, and governance policies, corporate social responsibility, and recent social movements such as #MeToo and Black Lives Matter have required today's business leaders and organizations to address a range of issues beyond a company's profitability, very different from the profit-maximization approach that was common even just a decade ago.

Layering geopolitics onto the profit-maximization-versus-stakeholder-capitalism debate compels organizations to reflect on their principles and how they should be manifested. This reckoning was on full display in the days and weeks following Russia's invasion of Ukraine. Initially just a trickle, eventually more than 1,000 firms exited or significantly curtailed their business operations in Russia.

Hesitant companies were called to task by their stakeholders after the *Washington Post* reported on the work done by Yale School of Management Professor Jeffrey Sonnenfeld in tracking companies that were leaving Russia.[1] Companies not on Sonnenfeld's list often faced pressure from angry stakeholders questioning why they had not acted. Principles, or at least peer pressure, triumphed over profit in this instance of geopolitical risk.

In recent years, Professor Brad Glosserman and I have been thinking about and debating the consequences of geopolitics on business. Last year, in a *Harvard Business Review* article, we outlined our view of the role and impact of geopolitics on business by explaining a concept we dubbed the "new national security economy."[2]

The new national security economy is defined by the changing nature of globalization, strategic competition between China and the US, the importance of "winner takes all" technologies like AI, and the key role of businesses as geopolitical players. We believe the new national security economy has reshaped the business operating environment, creating increased risk and volatility. We also assert it will frame the operating environment that leaders and firms operate in for the foreseeable future.

Accordingly, it is imperative to identify and explore the ways businesses navigate and excel in the face of geopolitical risk. In this issue of *Amplify*, our contributors explore the challenges raised by geopolitical risk through a variety of angles. This diverse perspective from a group of academics and practitioners provides insights into the impact of geopolitical risk on supply chains, leadership, business planning, and share price.

> **GEOPOLITICS HAVE ADDED AN IMPORTANT PERSPECTIVE TO THE ONGOING DEBATE AROUND CORPORATE PURPOSE**

IN THIS ISSUE

We begin the issue with Douglas B. Fuller's take on the US's chip "war" with China. Fuller says the US's efforts in reshaping the global semiconductor industry by shifting activity away from China proves we are moving away from globalization and into de-risking. In other words, national security and supply chain resiliency now get (or should get) at least equal consideration from major economic powers. The author describes how the battle began (with Huawei's efforts to expand its 5G infrastructure outside of China), the US's multipronged regulatory response, and how companies should prepare for this new paradigm.

Our second article, by Yuriy Adamchuk, delves into repercussions from an actual, ongoing war — in Ukraine. The author's company, Avenga, has 11 offices and 1,300 professionals in the country. Knowing the risks of an attack (based on the 2014 invasion and subsequent expert predictions of escalation), the company developed its Service Endurance Plan. Adamchuk tells us why the implementation and execution of that plan were so successful that no employees were seriously physically hurt in the war and operations continued without interruption. He also describes how the company has taken steps to emerge from the current crisis stronger than before the war began.

Next, Joo-Seuk Maing brings us his perspective on an era in which emerging countries and societies no longer blindly follow the West. Based in Seoul, South Korea, Maing is the Korea/Vietnam CEO for a German manufacturer of the wire harnesses that connect automotive components. From his vantage point, he sees several things executives should be paying more attention to, including energy prices, the investment outlook in China, and the need for strong business continuity plans beyond those for natural disasters (i.e., geopolitical tensions or unrest). Maing also believes companies doing business in Asia should consider more local talent for top positions.

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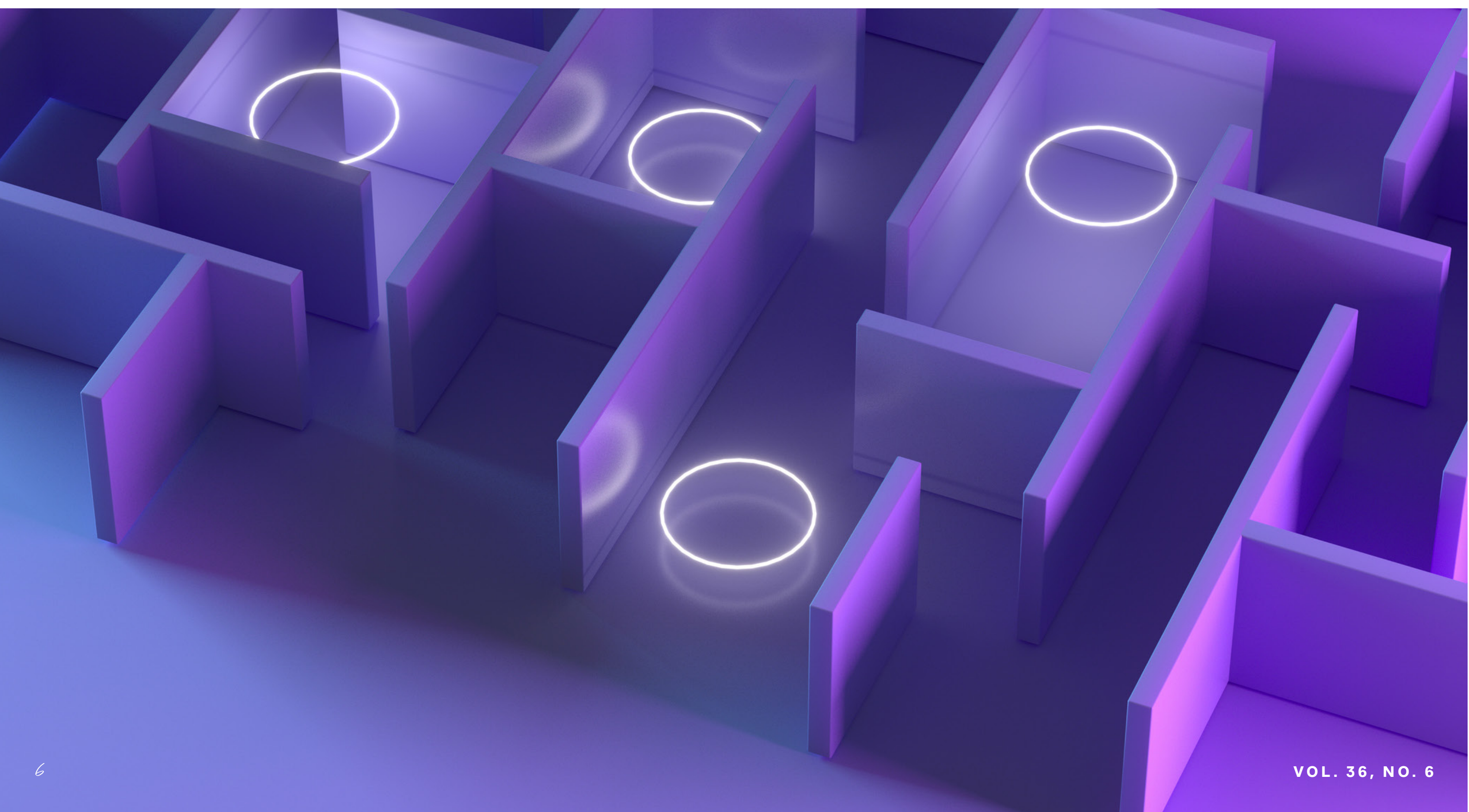
In our fourth article, Klaus Meyer and Saul Estrin focus on a decision tree approach to managing exit strategies. The authors use Russia's invasion in Ukraine as an example of complex situations that arise from major geopolitical disruptions. As companies try to extricate themselves from a country, they may need to consider whether a buyer can continue using its global names, what to do about promises to current customers (e.g., access to the App Store for Apple phones), and potential harm to the parent company from a sale. They must also consider the sticky issue of how the new owner will use critical assets (e.g., will they supply the military organizations deemed responsible for human rights abuses?).

NAVIGATING GEOPOLITICAL RISK IS NEVER EASY, AND NEW TECHNOLOGIES PROMISE TO CHURN THE WATERS SIGNIFICANTLY FOR THE FORESEEABLE FUTURE

The issue wraps up with an examination of financial data from a group of US and Chinese technology companies. Analysis spanning several years on price to earnings (P/E) and enterprise value to revenue (EV/Rev) clearly shows a negative effect on share prices from geopolitical risk: a 24% discount on a forward P/E basis and a 42% discount on forward EV/Rev. Author Jin Yoon says the analysis demonstrates the profound impact that geopolitical turmoil can have on a company or industry's market value and that this finding can guide investors and operators as they try to mitigate geopolitical risks.

Whether your company does business in one other country or dozens, navigating geopolitical risk is never easy, and new technologies promise to churn the waters significantly for the foreseeable future. We hope the articles in this issue of *Amplify* broaden your perspective of how to navigate geopolitical risk and assist you in guiding your organization and other stakeholders through these turbulent times.



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About the guest editor

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David S. Lee, of Hong Kong University (HKU) Business School, is an award-winning instructor, author, and corporate advisor in the areas of fintech, the intersection of geopolitics and business, technology risk, ethics, law, and corporate governance. Mr. Lee teaches in several programs for executive education, MBA, and other postgraduate degrees, including the IMBA with Fudan University, China, and the Executive MBA-Global Asia at Columbia Business School and London Business School. He develops business case studies and teaching materials in corporate governance, geopolitical risk, decision-making, ethics, fintech, and leadership. Mr. Lee is a Fellow of the Higher Education Academy (FHEA), a Network of Korean-American Leaders Fellow, an Asian Institute of International Financial Law Fellow at the University of Hong Kong, a former POSCO Visiting Fellow at the East-West Center, and a former Young Leader and James A. Kelly Fellow at the Pacific Forum, Center for Strategic & International Studies (CSIS), where he is currently an Adjunct Fellow. A recipient of multiple teaching excellence and innovation awards, he is the first business academic to receive a University Grants Committee (UGC) Teaching Award, the highest university teaching honor in Hong Kong. Mr. Lee has been published or featured in *Harvard Business Review, Handelsblatt, Nikkei Asia, The Korea Times, South China Morning Post, Arirang TV, TRT World*, and *NK News*. Mr. Lee regularly advises and trains companies, including *Fortune* 500, 100, and 5 companies, government bodies, board members, and corporate executives on leadership challenges. He works with entrepreneurs, particularly in fintech, advising on strategic and transactional matters from receiving seed funding as a new start-up to exiting via acquisition or public listing. Prior to joining HKU, Mr. Lee worked in investment management. He started his career at Goldman Sachs and also has experience as a lawyer and in management consulting. Mr. Lee earned a bachelor's degree in international politics and Asian studies from Brigham Young University, a master of arts degree in East Asian Studies from Harvard University, a master's of science degree (with merit) in organizational and social psychology from the London School of Economics and Political Science, a JD from UCLA School of Law, and a postgraduate certificate in philosophy from Cambridge University, UK. He is a lawyer and a Chartered Alternative Investment Analyst (CAIA). He can be reached at dslee@hku.hk.

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NAVIGATING THE CHIP WAR

Author

Douglas B. Fuller

In May 2019, the US government embarked on a radical policy to use choke points it controlled in the semiconductor supply chain to counter perceived security threats from China. This action precipitated a flurry of moves and countermoves between the US government, US firms, and allied governments and their firms.

From the vantage point of the summer of 2023, the US government has succeeded in shaping the development of the global semiconductor industry by shifting activity away from China. This development is evidence that we have moved away from peak globalization (prioritizing low barriers to achieve maximally efficient and lean supply chains) and into the world of "de-risking,"[1] in which national security and supply chain resiliency concerns receive at least equal consideration from the major economic powers. How did we get here?

THE WAR BEGINS

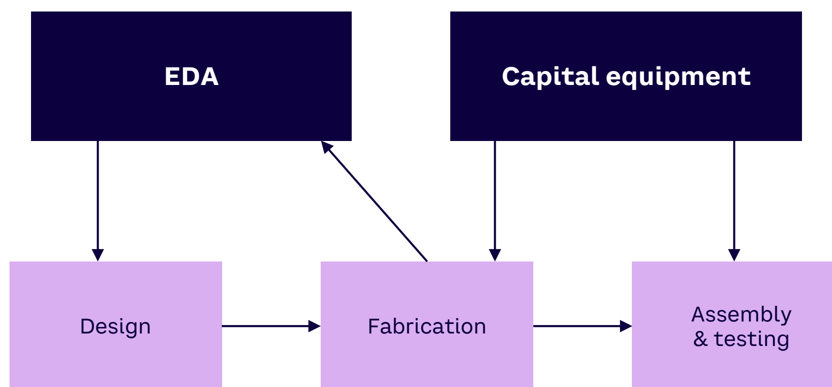
When the US began its effort to reshape the semiconductor supply chain, its main objective was to prevent Chinese telecommunications giant Huawei from rolling out 5G outside China by depriving Huawei of US inputs. This proved very unpopular among Huawei's US suppliers for several reasons. First, Huawei was a major procurer of US chips. Second, Huawei was a large purchaser of electronic design automation (EDA) tools (software used to design chips) for its in-house design firm, HiSilicon.

At the time, Huawei was one of the largest buyers of advanced chips. US firms were concerned that Huawei would turn to alternative suppliers and, to the extent that suppliers did not exist, create them through Huawei's near insatiable demand for chips. In contrast to the economic impact US chip suppliers feared from losing Huawei as a major customer, when the US government blocked Huawei from using Google Android software, the outcome was different. Ultimately, Huawei's smartphone market prospects abroad were harmed, while Android was only minimally impacted, since Android users could choose other smartphone brands that used Android (like Samsung), instead of only relying on Huawei.

Fortunately for US chip suppliers, the national security hawks advocating for the novel use of the US Department of Commerce's Entity List against Huawei did not understand the many loopholes in the law. Written long before the rise of global supply chains, the export controls required software sold to a firm on the Entity List to receive an export license as long as the software was deemed of US origin. For physical goods, the goods needed to have a certain level of US-produced content. For chips, this effectively meant that they had to be manufactured in the US to require such licenses.[2,3]

With so many chips either produced at foundries (chip contract manufacturers like the Taiwan Semiconductor Manufacturing Company [TSMC]) or in-house chipmaking factories ("fabs") abroad (e.g., Intel fabs in China, Ireland, and Israel and Micron factories in Japan and Taiwan), very few US-designed chips fell under the new regulations.

When the US government realized how ineffective its controls were, it began to revise them. The principal means was the Foreign Direct Product Rule (FDPR), announced in May 2020. With this rule, US firms could no longer provide equipment that would be used to supply Huawei, even indirectly. Thus, US capital equipment in factories abroad could not be used to manufacture chips for Huawei, even in offshore, foreign-owned factories. Similarly, it was illegal to use EDA software to design chips for Huawei without a license (see Figure 1).



- EDA tool vendors rely on exchange of information with leading fabrication firms on the design-manufacturing interface to stay ahead of competition.
- US dual choke-point strategy aimed to cut off Huawei from EDA tools for design and from fabrication via capital equipment.

Figure 1. US strategy to cut Huawei off from EDA tools and capital equipment

US suppliers all along the supply chain were alarmed by this and began making plans to counter it. US EDA vendors had already started setting up joint ventures (JVs) in China, including Synopsys's partnership with Advanced Manufacturing EDA Co. in September 2019. There were persistent rumors of other large EDA companies setting up JVs in China, with some speculating that these JVs were designed to be part of a string of intermediary companies to allow Entity List–designated firms to access US EDA tools.[4]

US capital equipment makers facing the FDPR regulations began to make their own plans to evade US export controls. In May 2020, the CEO of KLA, the third-largest US capital equipment producer, told investors that KLA would consider moving more production offshore to Southeast Asia to evade controls.[5]

Around the same time, US capital equipment makers conducted a war-gaming exercise to determine how to create an advanced fab without controlled American equipment. They concluded they could create such a fab in four to six years with much of the equipment still supplied by US producers' factories abroad.[6]

One sticking point would be the reliance on advanced extreme ultraviolet (EUV) lithography equipment from the sole provider of such equipment, the Netherlands' ASML. As ASML products contained significant US content, principally the critical light source component from ASML-owned Cymer, it would be difficult for EUV lithography equipment to evade controls.

When the new US controls were finalized in August 2020, Huawei lost access to advanced foundries, such as TSMC, because they were reliant on US equipment. One could have imagined a scenario in which the various companies subjected to controls worked together to circumvent them since Huawei represented a large portion of technically advanced chip orders in 2019/2020. However, the US equipment vendors, ASML, and foundries like TSMC and Samsung did not suffer from a huge fallout from declining Huawei sales (Huawei did receive permission to purchase some chips from the US Department of Commerce) because other firms, including Apple, provided large orders for foundries as Huawei's legal orders for advanced chips ended in September 2020.

THE LULL IN THE WAR

Starting with the announcement of the FDPR rules in May 2020 and continuing until broader policies were announced by the Biden administration in October 2022, industry participants adjusted to the new facts on the ground.

For example, Huawei abandoned the high-end smartphone market because of lack of access to chips. Despite the fact that Huawei is now the dominant vendor of 5G infrastructure equipment in China (because the Chinese government has compensated Huawei for losses incurred abroad due to US export controls), its sales outside China fell behind Ericsson from 2021 onward.[7]

For US and foreign vendors reliant on US inputs (e.g., TSMC and ASML), commerce continued with just a few bumps. Even as the US government added Chinese firms to the Entity List, these firms were not placed under the onerous FDPR rules that were specifically created for Huawei. For example, Chinese foundry SMIC was put on the Entity List for 10-nanometer-and-below processes (the lower the nanometer, the more advanced the process) but managed to access US equipment produced in Southeast Asia that could cross the 10-nanometer threshold without licenses.

Even during this lull, there were repeated rumors that the US government was aiming to impose more restrictive controls over a wider swath of China's industry.

THE WIDENING WAR

In October 2022, the Biden administration announced sweeping controls not focused on specific Chinese firms but on technologies. The stated purpose was to prevent China from even being a fast follower, trailing one to two generations behind the US's lead in semiconductors.

The new controls include broad FDPR rules for a variety of technologies, including advanced computing and advanced semiconductor manufacturing. More significantly, the new policy prevents US persons (which includes US companies, not just individuals) from helping Chinese firms with advanced semiconductor-fabrication technologies. The main targets were chips for high-end computing and artificial intelligence (AI) and advanced semiconductor manufacturing across the main semiconductor domains (logic and memory production).

The policy effectively cut off China's chipmaking industry from advanced US equipment. Although these moves were unilateral, the US government has from the start expressed confidence they will become multilateral with cooperation from the main foreign suppliers of chipmaking equipment: the Netherlands and Japan. For the Netherlands, the most advanced EUV and deep ultraviolet equipment is subject to US controls because of embedded American technology, so the US did not actually need Dutch cooperation aside from diplomatic niceties. The large number of Japanese vendors dictates more coordination, and Japan has announced controls. With US controls, there is presumption of denial of requests for export licenses, but export licensing is easily obtained from Japan.

China has tried to fill the gap with local suppliers, but these firms lag the performance offered by US and Japanese vendors. US vendors still voice concerns about losing out to Japanese and local vendors in the Chinese market, but market trends suggest China may be a less and less influential market. In fact, according to data obtained privately, China's spending on capital equipment this year may be only US $13 billion, a steep drop from previous years. US export controls are one reason. The other is the dramatic shift toward proactive, Chinese-style industrial policy in the EU, Japan, and the US. With these three traditional semiconductor powers announcing ambitious programs to rebuild semiconductor capacity at home, and Korea and Taiwan doubling down on their already active support for semiconductor manufacturing at home, Chinese demand for chipmaking equipment is becoming less important in the global market.

The market shift is making it even harder for China's local vendors to move ahead. Unlike in areas like electric vehicles where China's policies encouraged dramatic demand expansion at home, foreign state actions to support its domestic semiconductor capacity resulted in the opposite in chipmaking equipment — China's market actually shrank compared to other large markets. Trying to leverage China's relatively small market to compete with entrenched and capable suppliers from Japan, the Netherlands, and the US will be very difficult.

In other areas, US policy has not succeeded nearly as well. We see this with attempts to control Chinese access to the graphics processing units (GPUs) that are critical for AI computing. While Chinese firms such as Biren Technology have been cut off from accessing the advanced fabrication abroad they need to produce their own AI chips, America's Nvidia has designed AI chips for Chinese vendors to be just under the controlled parameters of their leading AI chips, and Alibaba and Baidu have bought copious amounts of these modified chips. There is also a question as to whether Baidu and Alibaba will suffer from the GPU to GPU data-transfer rate limits set by the US government, as these limits can potentially be overcome by software modifications using even more GPUs.

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The US also neglected to consider cloud-based computing services based outside the US offering access to the computing power of supposedly controlled high-end GPUs. Regulating them would require expanding US law in ways that probably are not feasible given diplomatic realities. Not to mention that high-end GPUs are already being smuggled in (they've been found by journalists in electronics markets in China).[8]

THE NEW REALITY OF NAVIGATING NATIONAL SECURITY

The resurgence of export controls and industrial policy presents technology firms with the pressing question of how to navigate the treacherous geopolitics of today's international business. US technology firms, including EDA toolmakers and AI chip vendors, must be concerned about losing out on large markets, particularly China, through effective and onerous export controls. There are three main strategies companies can try to avoid being damaged in these geopolitical storms: lobbying, bandwagoning, and corporate de-risking.

Many firms have lobbied for looser export controls and other new geopolitical constraints on trade. For example, Nvidia President Jensen Huang has complained vociferously about export controls even though they have yet to negatively impact his firm's performance. He may simply be anticipating future controls that would constrain his commercial opportunities.

Other semiconductor firms affected by the new policies have tried to do the same in less public ways. Unfortunately for them, there is little evidence of gains, especially under the Biden administration, which exhibits far more strategic coherence than the previous administration. What goes for US firms is even more true for foreign firms. Huawei has unsuccessfully lobbied the US government almost continually since 2019. In areas with plausible direct and indirect large national security implications, the US government and certain allies have continued to move toward ever tougher export controls.

The new reality is not all gloom and doom, however. As the EU, Japan, and the US reinvigorate their domestic semiconductor industries, Korea and Taiwan have doubled down on their support for their large chip industries, and India has decided to jump into the chip game. Thus, US chipmaking firms and many others may find opportunities in markets easier to operate in than China. In fact, bandwagoning with governments in support of the proactive industrial policies outside China helps shift market demand to safer geopolitical countries for multinationals headquartered in the US or one of its allies. Similarly, the wisest choice for Chinese firms is to move into closer alignment with the Chinese state. Huawei has embraced new markets with significant Chinese state procurement because the Chinese state wants to support Huawei, especially now that it is under attack by foreign governments.

Corporate de-risking dovetails nicely with bandwagoning. As US multinationals (and others) see the risk of relying too much on Chinese demand and operations increase, they will embrace initiatives that enhance demand and operations outside of China. They may also de-risk by moving operations outside the US to the extent possible, given the lure of bandwagoning with US industrial policies.

For example, China moved against Micron in retaliation for US export controls on Chinese chipmakers, so Micron took advantage of Indian subsidies to expand operations in India even as it tries to convey to the Chinese government that it is a good corporate contributor to China by announcing future investments there. Intel exited manufacturing in China by selling its plant to SK Hynix at the same time it squeezed another $3 billion in subsidies from the German government and announced new investments in Israel. These moves allowed Intel to achieve a larger operational footprint in non-Chinese and non-US locations.

Some policymakers and pundits may view these strategies as violating the ideals of economic efficiency. But new geopolitical realities dictate more corporate flexibility in pursuing healthy bottom lines. Maximizing operational efficiency and market presence in strategic markets was a smart way to sustain profitability in the world of peak globalization. Today, ignoring the heightened risks of operational efficiency and strategic market presence will have the opposite effect.

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Douglas B. Fuller is Associate Professor in the Department of International Economics, Government and Business at Copenhagen Business School, Denmark. His research focuses on the intersection of Chinese technology policy and corporate technology strategy along with the geopolitics of the technology industry. Dr. Fuller is author of *Paper Tigers, Hidden Dragons: Firms and the Political Economy of China's Technological Development* and editor of *Technology Transfer Between the US, China, and Taiwan: Moving Knowledge* and *Innovation Policy and the Limits of Laissez-Faire: Hong Kong's Policy in Comparative Perspective*. He has also written numerous articles and blogs about Chinese technology at *China Tech Tales*. Dr. Fuller earned a master's degree in East Asian studies from the University of California at Berkeley and a PhD in political science from Massachusetts Institute of Technology. He can be reached at dfu.egb@cbs.dk.

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INCORPORATING GEOPOLITICAL RISK INTO DECISION-MAKING & ORGANIZATIONAL STRATEGIES

Author

Yuriy Adamchuk

When Russia invaded Ukraine on 24 February 2022, the entire world woke up to a new, harsh reality. For many Ukrainians, the awakening was abrupt, involving blaring phones and sirens urging us to seek shelter from rocket attacks threatening our homes and lives. At that time, I was COO of Avenga, a global software engineering and consulting platform with 11 offices and 1,300 professionals in Ukraine (see Figure 1). The invasion profoundly impacted me and the lives of everyone around me.

Caught up in Europe's largest armed conflict since World War II, we had to get ourselves and our families to safety, ensure continuing business operations, and show our employees and clients that they could rely on us no matter what happened.

In today's globalized world, geopolitical risks increasingly extend into business, with profound and far-reaching effects. Business leaders everywhere should take note of the rapidly changing circumstances in the international arena — adjusting their strategies can affect their companies' ability to survive. Note that traditional business frameworks designed to help leaders analyze and understand the environment they're operating in do not include the category "geopolitical risk." In today's globalized world, that is a dangerous blind spot.

RISING GEOPOLITICAL ISSUES AFFECT BUSINESS

In March 2021 (almost a year before Russia's invasion of Ukraine), the US National Intelligence Council's "Global Trends 2040" report predicted a rise in geopolitical issues over the next two decades.[1] It suggested that competition for global

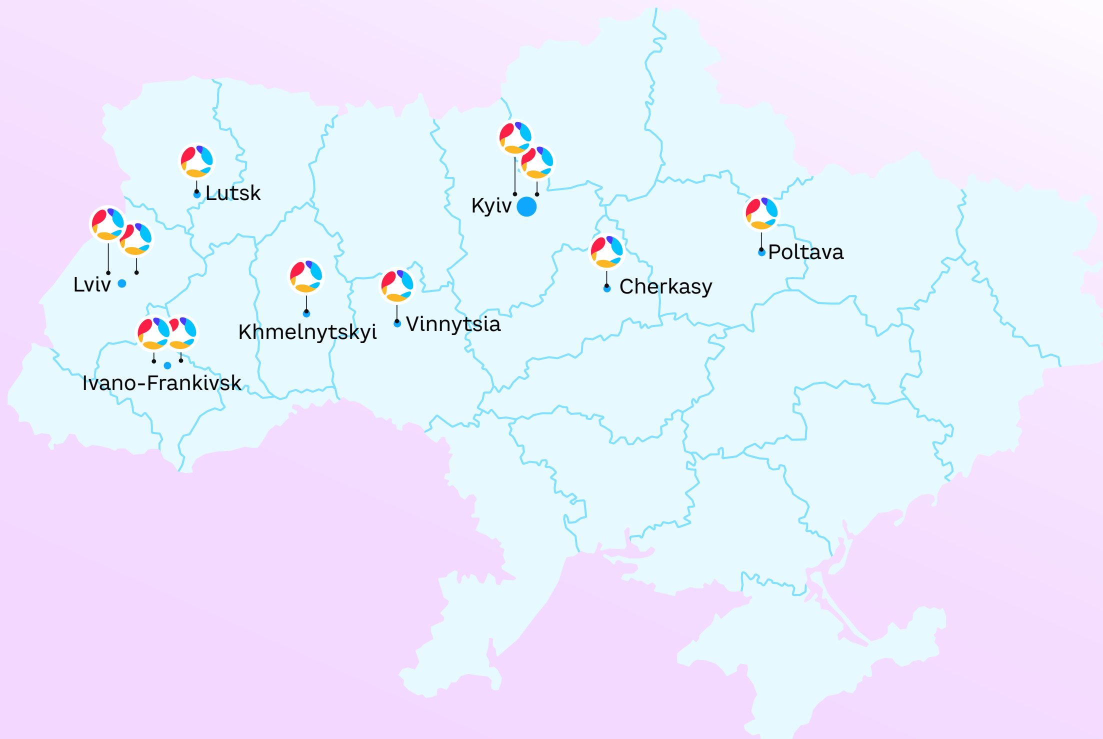

Figure 1. Location of Avenga's Ukraine offices

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influence would escalate to levels not seen since the Cold War era, with no single state expected to dominate all regions or domains. It predicted that a multitude of actors would vie to advance their ideologies, goals, and interests.

As multinational corporations grapple with volatile scenarios, the business landscape will be shaped by the geopolitical environment in which they operate. Whether it's Russian aggression, turmoil in Africa, tensions between the US and China, or a pandemic, chances are good that your organization will be confronted with the type of challenges posed by geopolitical risk.

In 2022, geopolitics became established as a major current concern for business leaders, many of whom publicly stated that the uncertainty that comes with geopolitical unrest is affecting their strategies. This comes as no surprise, with 93% of multinationals reporting losses linked to political risk, up from 35% in 2020.[2]

NAVIGATING THE TREACHEROUS WATERS OF GEOPOLITICAL RISK

Given that more than 15 million Ukraine citizens have been displaced (more than half left Ukraine altogether) and the country sustained damage to more than 150,000 residential buildings, 3,000 educational buildings, and 1,000 medical institutions as of March (the total impact exceeds US $143 billion), Avenga is doing well.

None of our employees were seriously physically injured in the war, and our operations continued without interruption. How did we accomplish this?

We developed, implemented, and executed our Service Endurance Plan (see Figure 2). The first part of this article describes Phase 1: how we went from monitoring and information gathering to scenario development and strategic planning. The second part highlights Phase 2: offering insights into the plan's tactical execution, from communications and building reputational resilience to diversifying our footprint and taking steps to emerge from the current crisis stronger than ever.

PHASE 1: PLANNING

MONITORING THE SITUATION

The attempted full-scale invasion of Ukraine did not catch us unprepared. The term "full-scale" is important because the original invasion started in 2014 when Russia violated international law by annexing Crimea. That act, combined with the subsequent war in Donbas, was more than enough for those of us in Ukraine to be keenly aware of the speed with which violent conflicts could escalate.

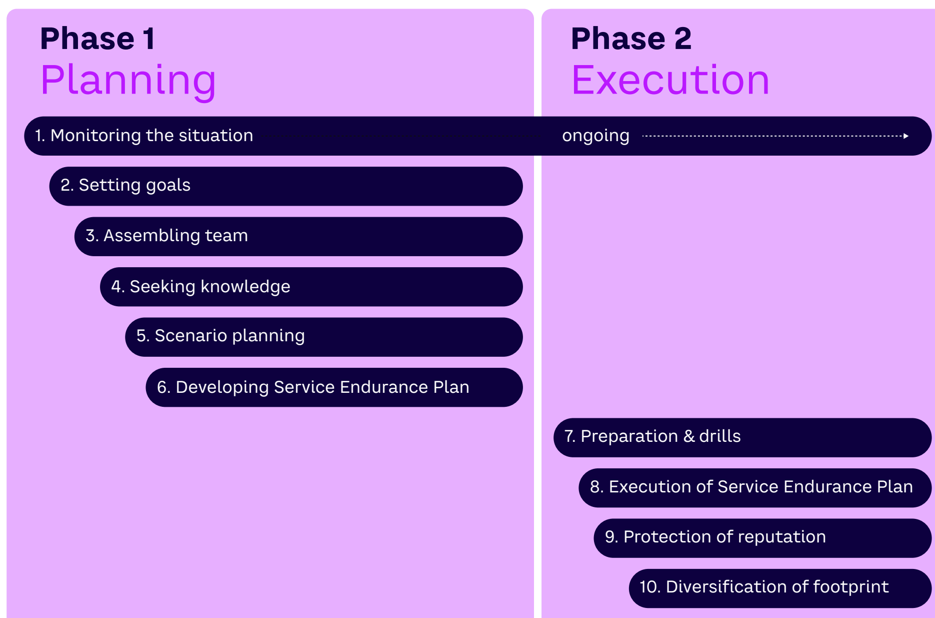

Figure 2. Avenga's Service Endurance Plan

That's a main reason Cologne, Germany, was picked as headquarters when Avenga was formed through the merger of four independent IT companies from different countries in 2019. Even though the vast majority of our employees were in Ukraine and Poland, company leaders felt a strong need to give our company a secure location in the heart of Europe.

SETTING GOALS

To effectively manage geopolitical risk, one must be acutely aware of what's happening in the world. Of course, the ability of a single business to influence international politics is limited, so business leaders should focus on the aspects they can control by developing proactive risk-mitigation measures and crisis-response plans.

Leaders must start by correctly assessing their company's position, including its current status, how it achieved that standing, and where it's headed in the near future and beyond. The fact that these questions are basic does not mean they are easy to answer. To get to the correct result, one must calculate based on the right premises. Ask the following: Is your business model still appropriate? Does it expose your organization to disproportionate risks? What changes could be made to minimize potential hazards?

Because Avenga had been founded just two years prior, we saw no compelling reason to change our plans for the future — quite the contrary. As an international software engineering and consulting platform with strong vertical positioning, robust technical expertise, and a blue-chip customer portfolio, we wanted to move ahead at full speed despite Ukraine's geopolitical situation.

To do this, company leadership and the supervisory board believed we would need to achieve two goals in the short, middle, and long term:

1. Keep our people safe.
2. Keep our promises to our clients at all costs.

Both goals required us to improve our ability to prepare for and adapt to changing conditions and recover from disruptions. The equation was simple: the more we improved our resilience, the faster we could recover, and the faster we recovered, the more likely we could mitigate losses.

ASSEMBLING TEAM

With these objectives in mind, we began assembling the right team to develop recommendations and a general action plan. Although the threat was still abstract at that point, it was evident the issue was not merely a domestic concern. On the contrary, Avenga's leadership team agreed that we needed to leverage the full capabilities of our international organization to create the most favorable conditions possible.

> **TO EFFECTIVELY MANAGE GEOPOLITICAL RISK, ONE MUST BE ACUTELY AWARE OF WHAT'S HAPPENING IN THE WORLD**

The group to whom we delegated the responsibility for monitoring and managing geopolitical risks across our organization consisted of myself and several country directors, along with leading representatives from HR, finance, legal, operations, IT, information security, and communications. By bringing together senior experts from various countries and departments, we hoped to get a comprehensive understanding of our abilities and deficiencies, with the goal of facilitating quick decision-making and prompt action.

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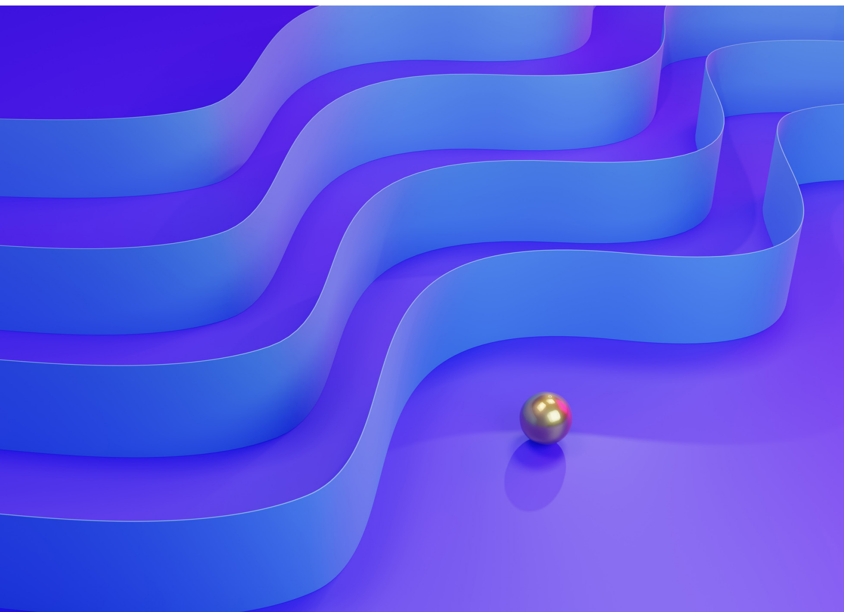
Almost immediately, we agreed on several actions we could quickly initiate, such as enhancing our security measures. We checked our redundancy and backup capacities and reinforced them wherever necessary and possible. For instance, we ensured we had multiple Internet service providers (ISPs), at least two independent power inputs, and backups of both onsite and offsite systems. Another decision we made early on was to migrate our critical infrastructure and data to secure environments in the EU and the US.

Having our data available in the cloud not only promised better protection against possible damage or destruction, it ensured that our employees could work from anywhere with an Internet connection. When the pandemic hit the year before, we were able to switch to remote work overnight; in retrospect, the pandemic was almost a dry run for what was to come.



SEEKING KNOWLEDGE

In our quest for reliable information and guidance, we regularly met in working groups dedicated to specific subtopics, often inviting experts from various departments within our organization. We also made a concerted effort to engage with as many external experts as possible, seeking diverse perspectives and opinions:

- We reached out to governmental bodies, international financial institutions, nongovernmental organizations, and peer organizations.
- We engaged with numerous external consultants and actively participated in discussions on topics relevant to our concerns, both as sponsors and cosponsors.
- We exchanged information with business and IT associations such as the European Business Association and the Polish Confederation Lewiatan.

Given the ever-changing news landscape, we understood the importance of collaboration, even with our strongest competitors.

SCENARIO PLANNING & DEVELOPING THE SERVICE ENDURANCE PLAN

Countless conversations during the summer of 2021 sharpened our situational awareness. Unfortunately, when it came to the crucial question of what actions we should take, the situation's numerous interconnected variables and diverging trends made forecasting almost impossible.

As a result, we turned to scenario planning. Unlike forecasts, which predict one event and assume other possibilities will not occur, scenarios do not need to be exact to help businesses identify strategic risks and prepare to minimize potential adverse effects.

As a rule, the more uncertainty a business faces, the more valuable scenario planning becomes. For us, the experience and knowledge we gained when defining scenarios with varying durations and scopes were invaluable. They enabled us to:

- Identify and prioritize risks.
- Define escalation scenarios.
- Assess financial and nonfinancial impacts (and secure the necessary funds from our investors to implement precautions that would counter their effects).
- Develop a crisis playbook (the Service Endurance Plan).
- Arrange relocation packages.
- Define triggers that would put each crisis response into motion.

PHASE 2:EXECUTION

CONDUCTING DRILLS & THE SERVICE ENDURANCE PLAN

Because even the best theoretical knowledge is no substitute for practical experience, we conducted multiple drills for each scenario over several weeks. This allowed us to meticulously rehearse the roles and responsibilities of each individual and rigorously test the resilience of our existing operations and the Service Endurance Plan. When we discovered a weakness, we made the necessary adjustments — nothing was left to chance.

When the day arrived, our Service Endurance Plan had been implemented, and all conceivable scenarios had been extensively tested. Every employee knew who to call, where to find prebooked buses that would take them away from danger, and which offices and hotels inside and outside the country they could go to.

Just as important were the mission-style tactics we deployed. First introduced by the German armed forces in the 19th century, *auftragstaktiks* require leaders to give their subordinates a clearly defined objective, time frame, and the freedom to choose the best methods to fulfill the mission. This approach was crucial to our success because strict, formal rules seldom work in a world shaped by uncertainty, chance, and human emotion.

Thanks to our extensive preparations, everyone in charge was well trained and had the necessary information and skills to make tactical decisions on the ground. As a result, the real-time execution of our evacuation and relocation was faster than any practice run, despite extreme circumstances:

- Within hours, pre-chartered buses were ready to take hundreds of people from endangered locations to safe hotels in the Carpathian Mountains and near the Polish border.
- Buses chartered in Poland brought Ukrainian Avenga employees to hotel rooms reserved in advance.
- Avenga Poland and Avenga Germany welcomed colleagues and helped them get settled, including assistance with paperwork and accommodations.
- Colleagues worldwide were prepared to take over all critical operations. This “mirrored” approach was so successful that daily operations continued for all clients without interruption.

Scenario planning didn’t only help in the early days of the war. In October 2022, after suffering a series of defeats on the battlefield, Russia targeted key infrastructure facilities away from the front lines. Once again, we were well prepared.

Most Ukrainian employees were already based in Lviv, 80 km (~50 miles) from the EU border. To ensure safe and comfortable conditions for our specialists in Eastern Ukraine, we gave them an opportunity to relocate to hotels in Western Ukraine free of charge. To secure our ability to meet our commitments to our clients and provide them with the high-quality services they expect, we made sure our offices did not depend on local electricity or local ISPs. Today, diesel generators, Starlink communications systems, biocabins, and stored water allow us to operate without interruption, even during blackouts.

Interestingly, after the first weeks, the war had the opposite effect as the pandemic. Many employees have come back to their offices and visit them regularly, as they are fortified against power and Internet outages.

PROTECTING OUR REPUTATION

In an uncertain situation with countless variables and a variety of stakeholders, it’s virtually impossible to overcommunicate. Employees must constantly be informed about ongoing developments to make the right decisions. Clients require transparency because your company’s situation could negatively affect them. It’s important to reassure them that your problems will not become theirs.

The only way to communicate this believably is to establish a clear understanding of what your company stands for and what it opposes. For example, we stressed the following messages:

- #WeAreUkrainians
- We are fully operational.

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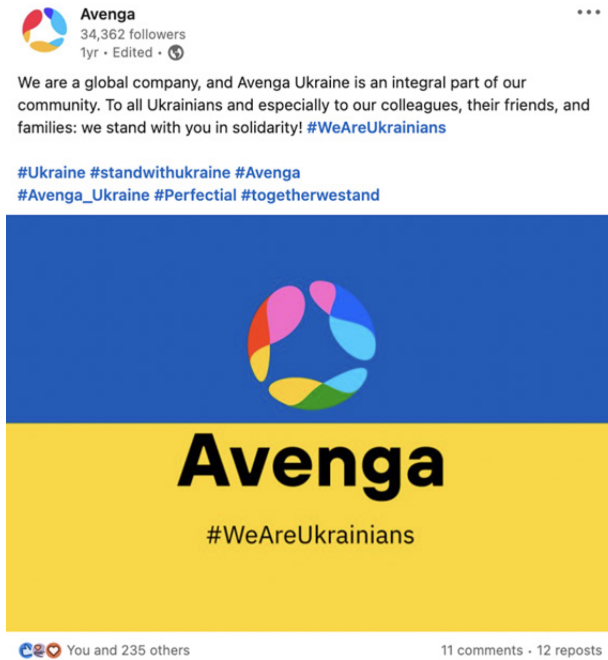

Figure 3. Avenga LinkedIn message, 14 Feb 2022

Understanding that the more important the message, the more vital it is to repeat it, we frequently reiterated these two messages on all available channels. We engaged with our stakeholders via personal calls, face-to-face meetings, emails, and messenger chats, and we made ourselves visible on television, newspapers, and social media platforms, including LinkedIn (see Figures 3-5).

We fostered trust and reassurance by being available 24/7 and actively seeking ways to be transparent about our situation. As long as there were questions, we did not stop answering them. This dedication helped us safeguard our reputation and maintain strong relationships with all relevant stakeholders.

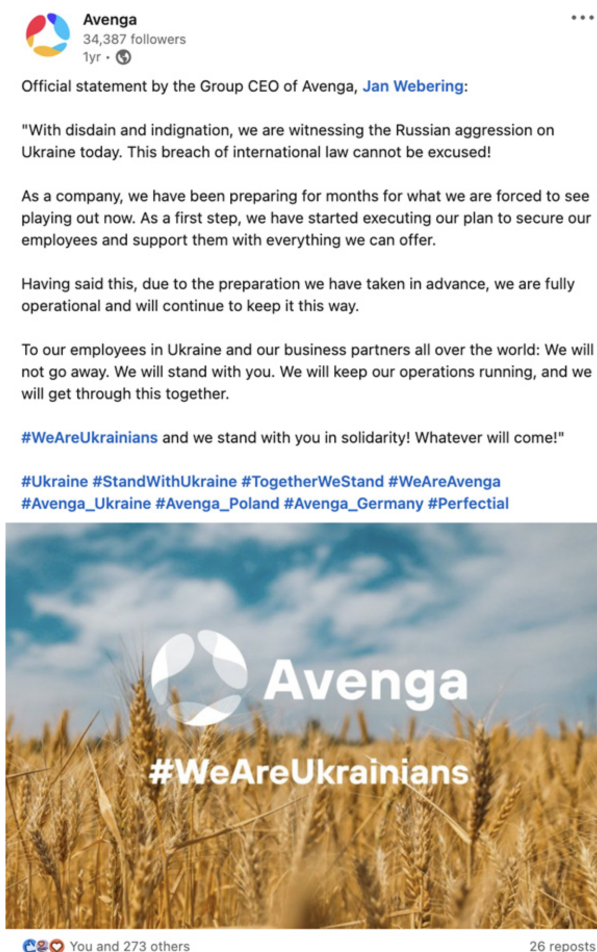

Figure 4. Avenga LinkedIn message, 24 Feb 2022

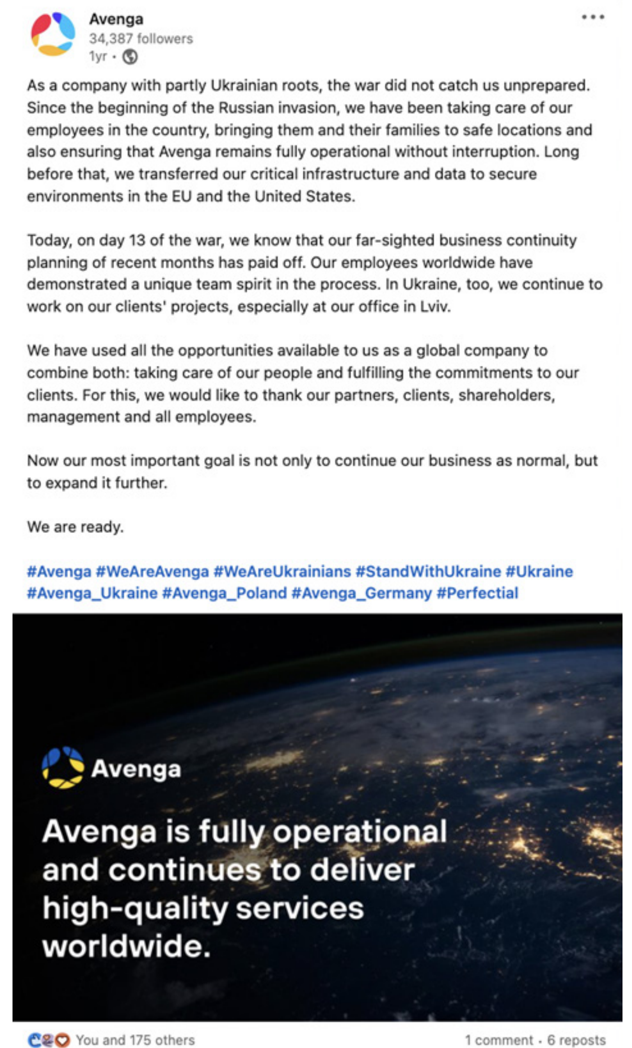

Figure 5. Avenga LinkedIn message, 8 March 2022

DIVERSIFYING OUR FOOTPRINT

From the outset, our goal was to establish Avenga as a global player, seeking out like-minded companies that match our high standards, enabling us to penetrate new continents and markets.

Diversifying our global footprint also plays a crucial role in mitigating geopolitical risk. By spreading our operations across several countries and continents, we avoid excessive exposure to any single market that may be unstable, whether that stems from legislative issues, rising inflation, or a volatile political environment.

Our acquisition of Argentina-based IncluIT in November 2022 was essential to this goal, adding 800 professionals operating across 17 countries (predominantly in Latin America) to our platform. With an extensive network of delivery centers across Europe, Southeast Asia, and Latin America, we can provide a high level of service to our customers even in times of geopolitical upheaval.

WITNESSING OUR EMPLOYEES FROM POLAND AND GERMANY STANDING SHOULDER TO SHOULDER WITH THEIR UKRAINIAN COLLEAGUES WAS EXHILARATING

STRONGER THAN BEFORE

Our story is a powerful reminder that shared purpose, hope, and personal commitment during a major disruption can lead to the type of success that might not be achieved through traditional methods.

For example, the merger of four formerly independent companies into Avenga in 2019 brought to light many cultural differences, leading to discussions about our values and identity. Russia's attack brought an end to only talking. Instead of engaging in theoretical debates, we needed to take immediate action, and we did just that.

When the war broke out, Avenga managed to relocate more than 300 individuals to Lviv and the Carpathians in Western Ukraine and a similar number to Poland, providing shelter and support for our employees and their families. That dedication continues to this day.

Avenga employees from Ukraine, Poland, and Germany privately raised several hundred thousand dollars to support various projects. With additional support from the company, the funds were used to purchase a fire truck, ambulances, tactical aids, walkie-talkies, Starlink devices, and truckloads of medical equipment and other humanitarian aid.

Witnessing our employees from Poland and Germany standing shoulder to shoulder with their Ukrainian colleagues was exhilarating. Ultimately, it was the best form of integration we could have hoped for.

Despite numerous challenges ahead, we feel confident because we are prepared. We continue to monitor the geopolitical landscape and have established plans and processes to cope with almost every conceivable development. Due to our comprehensive scenario planning, the tenacious execution of our Service Endurance Plan, and our strategic expansion, we are more resilient than ever.

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Our challenges are unique, but I hope the insights in this article will prompt other leaders to consider how they can best integrate geopolitical risk into their business strategy and prepare their organizations for future challenges. As Andrew Grove, Intel's former president and CEO, famously put it: "Only the paranoid survive."[3]

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About the author

Yuriy Adamchuk is CEO of Avenga, responsible for the execution of the company's vision and global strategy, expansion to new markets, change management, and integration. Previously, Mr. Adamchuk held various C-level positions at Avenga, including COO (chief operating officer), CDO (chief data officer), and Country Director for US/Ukraine. Before joining Avenga, he held various senior positions for CoreValue, PPF Investments, PricewaterhouseCoopers, and KPMG. Mr. Adamchuk earned a master of science degree in conflict resolution from George Mason University and completed the Advanced Management Program at Harvard Business School. He can be reached at yuriy.adamchuk@avenga.com.

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GEOPOLITICS & LEADERSHIP IN THE CONTEXT OF RISING ASIA

Author

Joo-Seuk Maing

During the last three decades, globalization has fundamentally transformed international flows of goods, capital, and services. One significant outcome of this shift is the substantial influence of Asian economies on the world stage.

Just over 20 years ago, countries like China and South Korea were viewed almost exclusively as low-cost production centers without meaningful domestic consumption — and certainly not sources of global leadership, capital, or innovation. Japan was perhaps the only exception to this narrative. Today's reality is significantly different, with many of the world's most innovative and technologically advanced economies now in Asia.

China is obviously at the forefront of this transformation. Originally viewed by Western companies as a location for factory manufacturing, this perspective has been eclipsed by the rapid growth of China's technology industry. China is now a global technology leader, and its strategic competition with the US in key areas like artificial intelligence and semiconductors brings this dynamic into stark relief. Beyond technology, the growth of the Chinese economy has highlighted the rise of the Chinese consumer. China is now a key export market for many countries, with Chinese consumers being a critical driver for the performance of many global companies.

China is not the only influential Asian economy. In 2022, South Korea, with a population of approximately 50 million, became the 10th-largest economy by GDP.[1] Given the formal state of war that still exists on the Korean peninsula, this is no small feat. Despite its small geographic footprint and a limited domestic market, South Korea is the fourth-largest economy in Asia, after China, Japan, and India.[2] In part, this is due to its strong industrial policies, including its Heavy-Chemical Industry Drive from 1972–1979, which targeted development in steel, nonferrous metals, electronics, machinery, chemicals, and shipbuilding.[3]

Such policies helped lay the groundwork for South Korea's participation (along with Taiwan, Singapore, and Hong Kong) in what's known as the "East Asian Miracle." Today, South Korea's influence includes the popularity of K-pop, Korean shows on streaming services, and Korean food — so-called soft power that has accompanied South Korea's economic emergence.[4]

The last few years have also seen the rise of the Association of Southeast Asian Nations (ASEAN). In ASEAN, Singapore obviously represents an exemplar of economic development, but countries like Vietnam and Indonesia have emerged as dynamic markets with a large demographic of young, technologically savvy professionals and consumers.

> **BEYOND TECHNOLOGY, THE GROWTH OF THE CHINESE ECONOMY HAS HIGHLIGHTED THE RISE OF THE CHINESE CONSUMER**

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With a total estimated population of almost 700 million, ASEAN is an important economic bloc for manufacturing, innovation, and professional services. With per capita income expected to rise in Southeast Asia, it has become an important hub of activity for Chinese, Japanese, and South Korean firms looking for continued growth in this rapidly growing region that is also taking on an increasingly important political role.

Although geopolitics has thrown the traditional globalization of the last few decades into flux, one of its lasting legacies will be how developing economies have made dramatic entrances onto the global stage, and nowhere is this trend more evident than in Asia. We now have a world where historical Western economic dominance is being offset, and in some ways displaced, by the rise of Asia's economies.

This transition creates its own set of responses and undoubtedly contributes to the geopolitical uncertainty being navigated globally by leaders and organizations today. The realization of what scholars called the "Asian Century" is upon us and is a key factor in navigating geopolitical risk.[5,6]

NAVIGATING TODAY'S GEOPOLITICAL RISKS

I am a witness and product of the Asian century. Geopolitics is an important consideration in my role as the CEO for Korea and Vietnam of a German company. Additionally, having grown up in Germany as a child of South Korean immigrants, I have now spent the past 14 years in Asia, living in India, Singapore, Japan, and currently South Korea.

When I assumed my role leading PRETTL SWH's Korea and Vietnam businesses in November 2021, pandemic policies were in the process of being rolled back in South Korea. As things slowly normalized, I was in charge of an organization that had been through a major restructuring due to market changes highlighted by the pandemic.

PRETTL SWH Group is a global company headquartered in Germany. Part of the PRETTL Group, PRETTL SWH develops sensor, connectivity, and electrification solutions primarily for the automobile industry. Our wiring harnesses play a critical role in connecting thousands of automotive components, including exhaust sensors, braking components, telematics, and connectivity solutions. Essentially, our products constitute a car's central nervous system, relaying important information and electric power to all parts of the vehicle. Globally, we have more than 8,000 employees and 10 manufacturing sites, including plants in Vietnam, Mexico, Morocco, China, India, and Ukraine.

Cable solutions integrators like PRETTL SWH are particularly sensitive to labor costs because many manufacturing processes still require manual labor. Although automated solutions are being implemented, they remain quite expensive. This is one reason that countries with a focus on manufacturing (e.g., Mexico, Morocco, China, India, and Vietnam) are so important to automotive producers in North America, Europe, and more recently, China and India.

Given these industry dynamics, the rise of geopolitical risk factors is making it increasingly important to never depend on a single source for manufacturing. Due to this mentality, robust contingency planning, and experienced leadership, PRETTL SWH was able to continue our operations in Southwest Ukraine during the war. In contrast, other wiring harness manufacturers were offline for weeks or months, causing shutdowns at several OEM plants.[7]

In a similar vein, vehicle sales dropped precipitously due to pandemic lockdowns. In Asia, this market dynamic was compounded as local governments introduced public health policies that heavily restricted operations. For example, only business operations deemed critical were allowed to continue in many countries. Specifically, in Vietnam, a major manufacturing site for our Korean operations, travel was restricted from state to state, making travel from Hanoi to our plant in Hai Duong extremely difficult. Having never encountered such a situation, this experience served as a meaningful reminder that companies need to account for local government policies and regulations in the context of both standard operations and their contingency planning.

When Western companies initially located manufacturing to Asia, cost was typically the determining factor. Given today's geopolitics, cost is no longer the primary factor: variables ranging from logistics to sanctions to environmental, social, and governance concerns all come into play. This broader perspective has become a necessity for leaders as they navigate today's geopolitical risks. It is certainly a lesson I have learned during my leadership tenure.

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TAKING A MACRO VIEW

When I joined PRETTL SWH Korea and Vietnam in 2021, my initial focus was moving past the pandemic, creating strategic plans amid uncertainty, and focusing on our people. In some respects, I had a very traditional view of managing and leading the business. As I reflected further, however, I realized I needed a broader perspective to build a sustainable company that could thrive for the long term. As part of this process, I found myself considering more macro types of questions such as:

- **How might energy prices change in the next few years?** Russian sanctions have caused energy prices to rise and fall dramatically since mid-2022, especially in Europe.
- **What is the investment outlook for China?** President Xi Jinping began a new term in March 2023. There is also a US presidential election coming up. What will this mean for Western companies operating in China?
- **Do our policies guarantee business continuity during an emergency?** Most companies have plans in place for natural disasters like earthquakes and hurricanes, but many have not considered the possibility of war. Given the open-ended nature of the Korean War (since a peace treaty has never been signed) and continuing North Korean weapons tests, do our business continuity plans contain sufficient guidance in the case of armed conflict?

Of course, these types of questions do not have definitive answers, but the exercise of discussing them helped myself and my colleagues account for geopolitical risk factors that would not typically have been meaningfully considered in planning and operations. I have found that big-picture questions are a key starting point for navigating geopolitical risk.

CHANGING ASIA, CHANGING LEADERSHIP

As Asia has changed dramatically, so have its business leaders. Frankly, a generation ago, it's unlikely someone like me would have been given the opportunity to lead. In the past, it was common for many multinational companies to transfer someone from headquarters in, say, Germany or the US to lead a business operation in Asia. These individuals typically had only minimal local experience, a cursory understanding of the culture, and a smattering of the local language. They would rotate back to headquarters after a few years, having stamped the international experience card in the hopes of a promotion.

Asia's economic emergence demands a new chapter of leadership. There is a burgeoning pool of talent across Asia that is educated, ambitious, and international — imbued with experience from both the West and Asia. In fact, Shanghai, Singapore, and Seoul are now just as cosmopolitan and globally connected as New York City, Paris, and London, and many cities in Asia are more technologically advanced than their Western peers due to superior infrastructure, prudent government policies, and close ties to innovative companies.

The days of relocating an inexperienced manager from HQ to Asia are waning, if not gone. For companies to flourish in the dynamic ecosystems we see in Asia, local knowledge and culture connected with global perspectives are necessary. This local-plus-global knowledge is key to navigating geopolitical risk because it allows for proper contextualization of how events on the other side of the world could impact your market.

This period known as the Asian Century will see further changes to the traditional global pecking order, which demands executives with a wider perspective to accurately choose the right strategies and successfully navigate global uncertainties.

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About the author

Joo-Seuk Maing is CEO of Prettl SWH (soon to be renamed FIT Voltaira) in Korea and Vietnam, where he is responsible for overall operations in that location. His focus is on organizational development with a regional setup, modern leadership principles, and working in a complex matrix organization among various stakeholders. Mr. Maing has almost 20 years' experience in the automotive supplier industry, with specialization in the aftermarket. He also continually learns about new workplace methodologies. Mr. Maing has extensive experience in Asia, with stations in India, Singapore, and Japan and is passionate about Asia-Pacific's (APAC's) role in the 21st century. He was selected to join the inaugural NetKAL Korea Class with leadership seminars, community work, and project assignments. He has also participated in the Leadership Reset of GIFT (Global Institute for Tomorrow), where he engaged in discussions with like-minded future APAC leaders on a different approach to capitalism. He can be reached at jooseuk@gmail.com.

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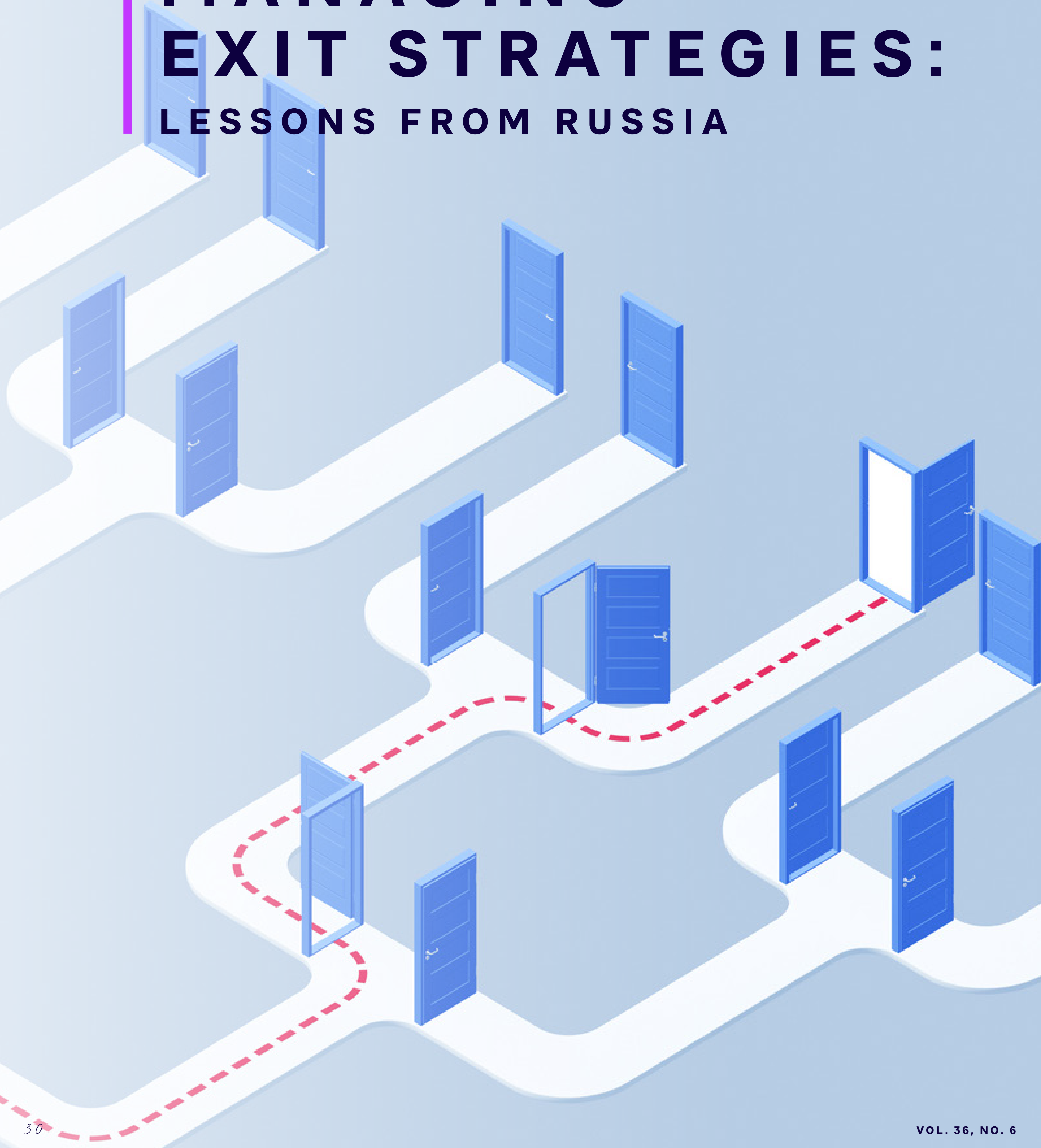
MANAGING EXIT STRATEGIES:

LESSONS FROM RUSSIA



Authors

Klaus Meyer and Saul Estrin

Executives spend a lot of time strategizing about how to enter and grow their business in emerging economies. But what happens when the wind changes and stakeholders at home no longer support such international expansion, instead creating obstacles — from non-governmental organization (NGOs) campaigning against alleged human rights abuses to governments imposing sanctions on countries deemed hostile to national interests?

Recent geopolitical tensions, in particular the Russian invasion of Ukraine, have pushed exit strategies toward the top of many global CEOs' agenda. Conventional analysis considers a full write-off of the invested capital as the worst-case scenario. In truth, it certainly could be worse. A company's global operations and reputation may be at risk. So how can executives best navigate the trip wires around exit strategies? Using examples from Russia, we illustrate some key steps in making exit decisions, including using a decision tree (see Figure 1).

FINANCIAL ANALYSIS

Let's start with an accounting perspective. The moment a major political disruption occurs, the market value of a multinationals' operation in the affected country collapses. In the case of Russia, this happened to the Western subsidiaries based there on 24 February 2022. Such a disruption typically leads to a drop in demand, cost increases, and a rise in economic and political risks. Moreover, potential buyers' willingness to pay for the firm's business unit declines sharply, especially if they are constrained by sanctions from their own governments. Western investors do not want to put fresh money into Russia, local buyers outside the energy sector lack financial resources, and third-country buyers often play a waiting game.

Thus, historical investment costs are sunk costs, and the book value in accounts is not the relevant benchmark. This is important to consider because the financial analysis of any exit strategy must be assessed against the next best option. The relevant baseline is the net present value (NPV) of the operation (if that's the performance indicator on which you focus) based on the revenue and cost projections at the time (i.e., after the disruption).

RECENT GEOPOLITICAL TENSIONS, IN PARTICULAR THE RUSSIAN INVASION OF UKRAINE, HAVE PUSHED EXIT STRATEGIES TOWARD THE TOP OF MANY GLOBAL CEOS' AGENDA

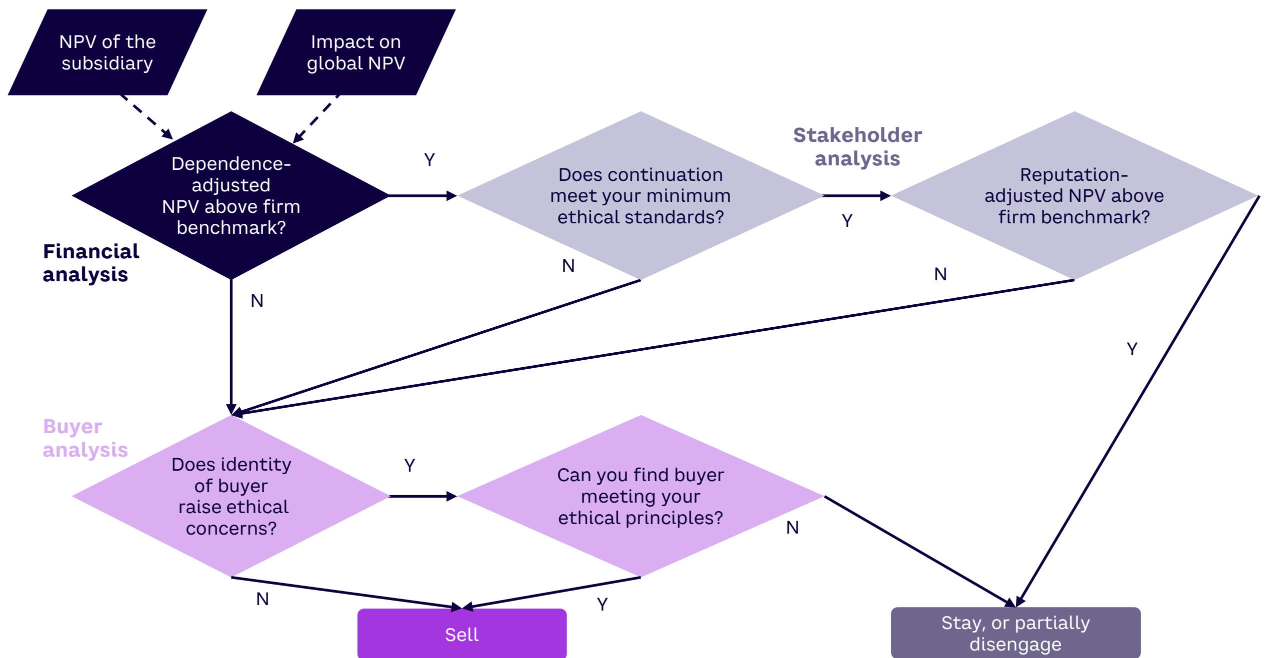


Figure 1. Exit strategy decision tree

UNDERSTANDING RESOURCE DEPENDENCIES

Executives must also consider the interdependence of affected subsidiaries with the rest of their company's global operations. Multinationals typically operate highly integrated operations that span national boundaries, with regular exchanges of goods, people, and knowledge across borders. Thus, a decision to exit from one country typically has implications for the entire operation. These interdependencies are not always obvious or straightforward. Figure 2 considers four scenarios.[1]

The simplest scenario is that of a largely autonomous subsidiary with limited product or technology exchange with other units of the enterprise (bottom-left quadrant, Figure 2). Pure diversification investments fall in this category, as do hospitality businesses like restaurants or hotel chains.

Consider French manufacturer Danone, which has been producing in Russia since 1994. In 2021, Danone was the largest milk processor in the country with 13 factories.[2] Its business model relied mainly on local supply chains and most sales were under local rather than global brand names. These product lines could be sold off to a local investor.

But Danone used global brand names (e.g., Actimel and Activa) for some products and imported specialized ingredients for others. When Danone sold its Russian operation to a local investor, a critical question was whether Danone would allow the new owners to continue using its global brand names.[3]

Operations that primarily serve the local market are often dependent on ongoing parent contributions in the form of specialized components or even finished products (bottom-right quadrant, Figure 2). Such operations are easily shut down by cutting off supplies. In contrast, distribution operations are not self-standing businesses and may not be able to be sold as "going concern."

Consider Apple, the leading provider of iPhones and other appliances, competing in 2021 with Huawei and Samsung to be the number one smartphone brand in the country. Apple's Russia operations were primarily market-oriented: selling iPhones and iPads via authorized resellers. It cut off Russia by halting product shipments in March 2022.[4] Resellers thus had to shut down unless they had access to grey imports via third countries. This resulted in a substantial drop of revenues; press estimates suggested losses of sales of US $1.4 billion per year.[5] Since Apple did not own its stores, an asset sale was not required.

		Subsidiary dependence on parent	
		Low	*High*
Parent dependence on the subsidiary	*High*	**Exit creates self-harm** *Case: Shell*	**Exit results in mutual self-destruction** *Case: Daimler/Mercedes*
	Low	**Exit by sale of operation highly feasible** *Case: Danone*	**Exit may destroy local operation** *Case: Apple*

Figure 2. Analyzing resource dependencies

Nevertheless, things proved complicated for Apple. Its devices are in circulation in Russia, and past buyers bought them with the expectation that software would be updated regularly and that the Apple App store would be readily available. Would Apple renege on the (implicit) promise it gave to customers? In fact, it only did so partially. Apple restricted the functionality of Apple Pay (in response to sanctions on financial transfers) and removed various apps of sanctioned Russian businesses from its smartphones.

Operations such as mining or upstream manufacturing usually create a dependence of the parent on the subsidiary (top-left quadrant, Figure 2). A disruption in a vertically integrated supply chain may severely undermine downstream operations. For mining operations, buyers are likely available because of the value of the resources in the ground, though they may face limitations if they do not have access to critical extraction technology.

For multinationals, the greater concern may be the disruption of the relationship with the subsidiary causing substantial harm to the parent. For example, Shell owned equity stakes in several oil and gas exploration projects, usually partnering with state-owned Russian businesses. Interdependencies arose from its network of local equity partners, which restricted the available options when Shell wanted to sell its equity stakes. Shell stopped all spot purchases of Russian gas and refined products and has not renewed any long-term contracts, but it was still legally obliged to take delivery of crude bought under contracts signed before the invasion.

In global supply chains like the automotive industry, dependencies in the value chain are often complex and mutual. Components are produced in specialized (internal or external) suppliers in some countries, from where they are shipped to assembly plants across Europe. Assembly plants specialize in certain car types and export the finished car to a third country, or even back to the headquarter country. Thus, components and technology flow both in and out of the country.

Consider Mercedes, which invested in a state-of-the-art passenger-car assembly line in Russia that began operating in 2019. This new production site increased Mercedes presence in Russia, despite sanctions in place since 2014. In 2022, Mercedes stopped exports of cars and vans and ceased local production, in part because new sanctions prohibited exports of high-tech components. Mercedes sold its shares in its distribution network, production plant, and joint ventures to Avtodom, a Russian dealership chain.

An interdependencies analysis must include the impact of costs and revenues of the global operation. Hence, the relevant NPV is not that of the subsidiary but that of the global operation. To inform an exit decision, the subsidiary NPV must be adjusted for losses in the NPV for the rest of the global organizations. In some cases, such losses can be mitigated by developing an alternative supply chain, but the resulting delays may prolong the presence of the controversial business unit.

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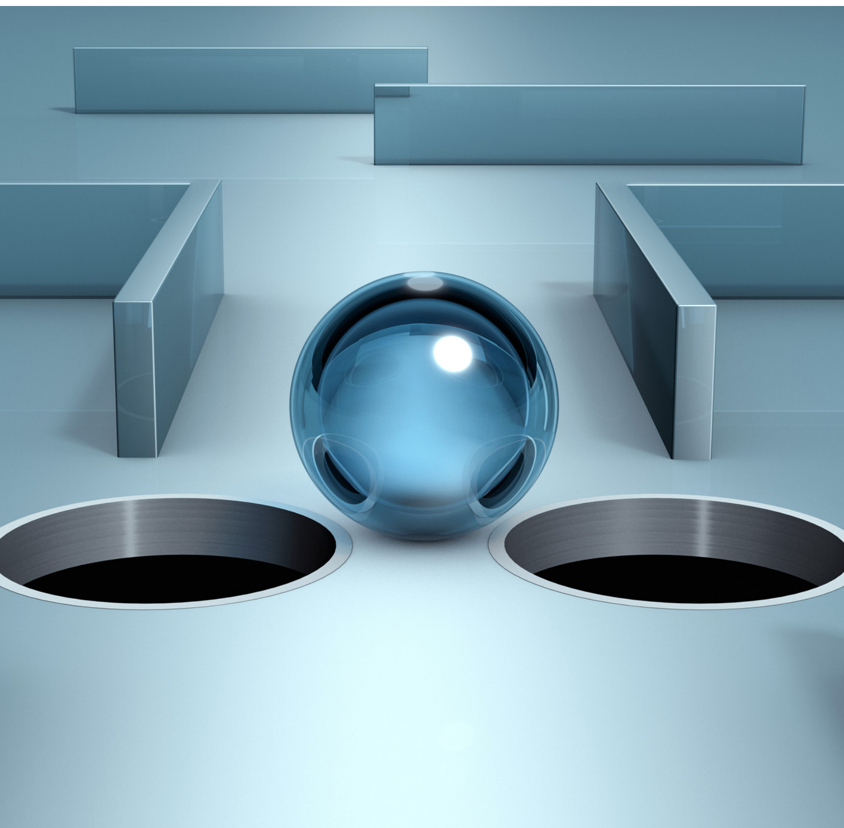
STAKEHOLDER ANALYSIS

The pressure to exit a foreign country due to ethical reasons usually comes from the home country or the place where your most important customers are based. Nevertheless, multinational companies have obligations to stakeholders in each country where they operate. An ethics analysis thus needs to consider the full range of ethical concerns raised by stakeholders, as well as the conflicts between them.

Pressure on multinationals from home country–based stakeholders to leave a foreign location typically focuses on the association between the company and the host government, which is accused of violations of generally accepted international norms such as human rights or peaceful settlement of conflicts with neighboring countries. Multinationals often incorporate such principles in their corporate codes, and when a major conflict arises, home-country stakeholders demand disengagement.



However, there are variations in associations with the identified violations of international norms. At a most direct level, violations may occur within the multinationals' operation, including when labor codes are strenuously violated or weapons are produced for an oppressive regime. For example, Mercedes is partner with KAMAZ in a joint venture assembling trucks, some of which are used by the Russia military. This became a highly sensitive issue after February 2022, and Mercedes froze its cooperation with KAMAZ and stopped the supply of critical components.

Multinationals are also held to account (often indirectly) for violations occurring along their value chains, including labor-standards violations among sub-suppliers and technical components being incorporated in products that eventually are used by military forces in hostile actions. Through their ethics codes, many multinationals have committed to standards for their operations and, to some extent, for their supply chains. Grave violations would fail to meet minimum ethics standards of the company and could therefore trigger an exit. Similarly, demands by host-country authorities that are in violation with laws or ethics codes at home can imply that minimum standards are violated, including provision of personal data on employees for a military draft or racially motivated prosecution.

In the discourse regarding Russia after February 2022, the political pressure has been broader: many activists and media view any form of business activity in Russia as implicit support for Putin's government and its military operations in Ukraine. Activists are concerned both about the symbolism of continued operations in the presence of war and the potential indirect economic benefits the Russian government may gain (e.g., tax revenue).

These concerns of stakeholders at home (or in other countries where the company has a strong market presence) need to be weighed against concerns of stakeholders in the country itself. Companies have complex webs of relationships and obligations in each location where they operate. Some of these obligations are codified in contracts; others are moral obligations.

Among local stakeholders, first and foremost are employees, many of whom may have dedicated their lives to the company for years and are typically not in positions where they can (in a non-democratic country) exert political influence. Danone, for example, employed around 7,200 workers in Russia (and worked closely with dairy farmers in Russia), and its exit strategy displayed concern for their continued employment.[6]

Customers are the second most important stakeholders. If a company's customers are part of the political regime, any harm caused to them may be intentional. Customers that come from vulnerable groups must also be considered. For example, if a pharmaceutical company's medicines are lifesaving and not easily substitutable, withdrawing them would create more ethical problems than it solves. Similar ethical challenges arise for providers of food for low-income groups or baby nutrition (Danone, for example, decided to retain its baby food plant[7]).

The situation is also complex for those selling services along with products, creating (explicitly or implicitly) long-term obligations to their customers. We already mentioned Apple. Consider Mercedes, which sells its luxury limousines with product guarantees and after-sales service contracts. Even if Mercedes stops selling new cars in Russia, its existing customers might have a legal claim on ongoing services. To avoid lawsuits, Mercedes had to provide, at a minimum, service and spare parts to those who bought their car from a regular Mercedes dealership (no such obligation exists for grey imports, which surged in 2022).[8] Thus, the acquirer of its sales network, Avtodom, also took on obligations to service and provide spare parts to existing Mercedes owners.

BUYER ANALYSIS

Local entrepreneurs may be happy to pick up assets from departing foreign investors, especially at fire-sale prices. A private equity investor that is less scrutinized by the public than a listed company may want to take a plunge. Investors from countries that do not object to Russian policies may be happy to use the opportunity to increase market share. This begs the question: should executives care who the new owner will be? In fact, there are several reasons why selling to the highest bidder may not be in the departing investor's interest. Consider several scenarios.

First, a sale under time pressure is likely to depress prices, possibly handing over valuable assets to potential competitors at a low price. If this acquirer is closely related to the political leaders who are supposed to be the target of sanctions, it is unclear whether the exit really contributes to the higher-level ethical objectives. For Shell's oil and gas resources, the primary parties interested in buying its equity stakes were companies such as Gazprom and Novatek that are associated with the Russian authorities. Shell sold its petrol stations to Lukoil, a private firm that has so far avoided Western sanctions. Shell's revaluations of book values of Russian assets add up to about US $4.8 billion[9] — a small amount in light of the record $39.9 billion profits on the back of rising energy prices in 2021.[10]

> **IF A COMPANY'S CUSTOMERS ARE PART OF THE POLITICAL REGIME, ANY HARM CAUSED TO THEM MAY BE INTENTIONAL**

Second, how will the new owners use critical assets? For example, will they supply the military or organizations deemed responsible for human rights abuses? Handing over assets and operations to a business oligarch with close ties to the political leaders of the country may strengthen the regime — yet the exit is supposed to weaken it. This is of particular concern for assets such as intellectual property (IP) rights, technology, or data (e.g., ISPs) that may be abused if the state attains de facto control over the business unit. In other words, a badly managed exit can play directly into Putin's hands.

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Third, will the buyer uphold the standards of the company, including the interests of the employees or the quality of products? Will they respect agreements concerning IP and brand names? This could require them to remove the brand from all properties, stay away from grey imports, and honor quality-control and service agreements. If the acquirer of the business acts unethically or provides fake products, this creates substantive reputation risks for the brand.

Fourth, what happens if the company one day wants to reenter the Russian market? Political analysts may consider a peaceful resolution of the military conflict unlikely, but businesses want to be prepared to seize opportunities when Russia reopens to business. The ideal buyer may be a group of investors closely associated with the departing investors who continue to represent the ethical values and business interests of the investor and would work with the investor once reentry is feasible and politically legitimate. Such buyers could be managers of the company or existing partners such as licensees, provided they can raise the necessary financial and human resources to run the company. Mercedes chose to sell to one of its distributors, Avtodom. With trusted partners as acquirers, it may be possible to include buy-back clauses in the sales contract, although it is not clear if these are enforceable in Russian courts.

Once you find a buyer that meets your expectations and has the necessary resources, you may still need regulatory approval. For complex M&A deals or deals in highly regulated industries like mining, obtaining all the approvals is a time-consuming process even at the best of times. It becomes even more complex if the host government is unfavorably inclined toward the parties to the deal.

Indeed, Russian authorities reportedly create obstacles to companies aiming to pull out of the country. New legislation essentially requires regulatory approval of any M&A involving the departure of a foreign investor. This gives local authorities considerable bargaining power. Moreover, contracts between the multinational and local partners are usually governed under local law and thus enforceable in local courts. A sudden withdrawal could lead to legal actions by local business partners and authorities who would probably find a sympathetic judge in the local courts. In some cases, Russian authorities have even threatened the expropriation of assets should a foreign multinational fail to live up to its obligations as defined under Russia law.

CONCLUSION

A decision to leave a foreign country requires complex financial, operational, and ethical considerations. First, the financial analysis of the operation under scrutiny must be adjusted to account for losses incurred elsewhere in the global organization. Second, the arguments of critical stakeholders need to be assessed for their merits, not forgetting that important stakeholders are in the country of operation. Third, the identity of the buyer may be important in many cases, as assets falling into hostile hands can cause major harm to the higher objectives that motivated the exit in the first place.

We hope our decision tree helps executives structure such decision processes.

We would like to thank Anna Tiunova for her effective research assistance.

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SNAPSHOT:

QUANTIFYING THE IMPACT OF GEOPOLITICAL RISK ON SHARE PRICE

Author

Jin Yoon

Geopolitical risk impacts global business in myriad ways. Over the last few years, companies have faced supply chain issues, limited access to capital markets, and heightened regulatory scrutiny — all emanating from increased geopolitical turmoil.

As the final word in this issue of *Amplify*, this article contains data on the impact of geopolitical risk on share price. Understanding the relationship between geopolitical risk and share price is obviously important for publicly traded companies and investors in such companies. Additionally, although management theories and practices are regularly discussed, their link to and impact on financial performance often remain vague. The goal of this article is to make that connection clearer — highlighting and demonstrating the ways geopolitical risk can negatively affect share price.

We selected a group of US ("American Internet Names") and Chinese technology companies, six from each country. Of the six Chinese companies, four are dual listed on an exchange in the US and the Stock Exchange of Hong Kong (SEHK). NetEase Games and Tencent are the only Chinese companies in our sample listed solely on the SEHK. All US companies in our sample are listed on Nasdaq. The companies used in our analysis are shown in Table 1.

APPROACH

Given the ongoing China-US trade dispute and continuing geopolitical issues between the two countries, New Street Research wanted to see whether we could quantify the impact of this geopolitical dynamic on Chinese Internet companies, referred to hereafter as "Chinese Internet Names."

Chinese Internet Names generally underperformed against the Nasdaq during the first half of 2023. Geopolitical tensions, including the "balloon incident" in February and the cybersecurity probe of Micron in April, spurred a sell-off of Chinese Internet Names shares. Simultaneously, signals that the Chinese central government may shift its focus from stimulus to long-term reforms are driving concern for Chinese equities. Although macroeconomic signs have shown recovery on a month-to-month basis, geopolitical risks remain as tensions between China and the US persist. Given all this, we wanted to understand the extent to which geopolitics has affected the performance of Chinese Internet Names.

> **GIVEN THE ONGOING CHINA-US TRADE DISPUTE AND CONTINUING GEOPOLITICAL ISSUES ... WE WANTED TO SEE WHETHER WE COULD QUANTIFY THE IMPACT OF THIS GEOPOLITICAL DYNAMIC ON CHINESE INTERNET COMPANIES**

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CHINESE INTERNET NAMES (TICKER)	EXCHANGE
Alibaba (BABA)	NYSE & SEHK
Baidu (BIDU & 9888)	NASDAQ & SEHK
JD (JD & 9618)	NASDAQ & SEHK
NetEase Games (9999)	SEHK
Tencent (700)	SEHK
Trip.com (TCOM & 9961)	NASDAQ & SEHK
AMERICAN INTERNET NAMES (TICKER)	**EXCHANGE**
Amazon (AMZN)	NASDAQ
Booking Holdings (BKNG)	NASDAQ
Meta (META)	NASDAQ
Microsoft (MSFT)	NASDAQ
Netflix (NFLX)	NASDAQ
PayPal (PYPL)	NASDAQ

Table 1. The 12 companies included in study sample

For each company, we examined the monthly data of forward multiples for both price to earnings (P/E) and enterprise value to revenue (EV/Rev) from 2018 through the first four months of 2023. We then compared the average forward P/E (or EV/Rev) of the six Chinese Internet Names over the average forward for P/E and EV/Rev of the six American Internet Names. A value of less than one implies that the average forward multiples of the Chinese Internet Names traded at a discount relative to the American Internet Names. Events that specifically affected the Chinese market were excluded from our analysis. For the sake of brevity, our explanation focuses on data from 2020 to 2023.

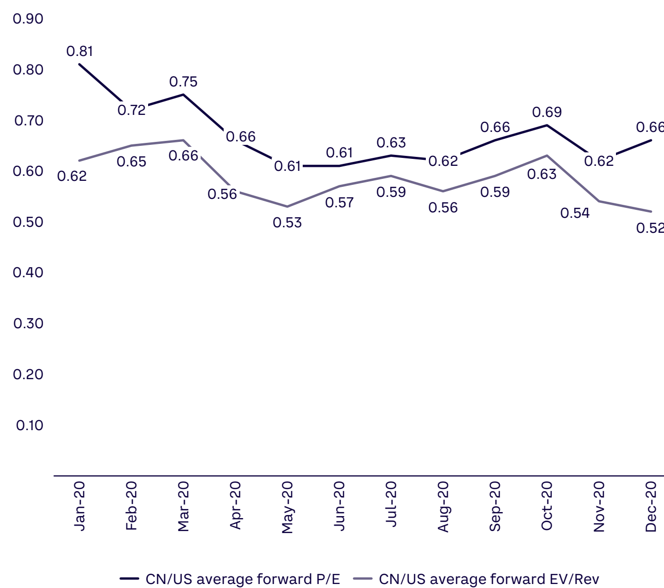
ANALYSIS

2020

For 2020, our analysis of the average China/US forward P/E and EV/Rev ratios during months with geopolitical events (see Figure 1) shows that Chinese Internet Names traded at a 36% and 44% discount, respectively, compared to American Internet Names.

During non-geopolitical event months (excluding November), the average China/US forward P/E and EV/Rev ratios show that Chinese Internet Names were not discounted to as great a degree, trading at a 31% and 40% discount, respectively.

November was excluded from our analysis because of the impact on Alibaba's valuation related to the suspension of the Ant Group's initial public offering (IPO). Our analysis shows that in 2020, the discount was wider by approximately 7% P/E and 7% EV/Rev during months when impactful geopolitical events occurred as compared to months without such events.



Jul 2020: White House advisor Peter Navarro mentions that he expects US President Donald Trump to take "strong actions" against Chinese-owned social media apps such as TikTok and WeChat and would not rule out banning them in the US. US orders China to close its consulate in Houston, Texas, alleging it was a hub of espionage and intellectual property theft. China condemns order and retaliates by closing the US consulate in Chengdu.

Nov 2020: Ant Group IPO suspended.

Dec 2020: US Congress passes Holding Foreign Companies Accountable Act (HFCAA).

Figure 1. China over US large-cap Internet average forward multiples, 2020

2021

The 2020 pattern repeats in 2021. Analysis of the average China/US forward P/E and EV/Rev ratios during 2021 shows that for months when disruptive geopolitical events occurred (see Figure 2), Chinese Internet Names traded at a 30% and 53% discount, respectively, compared to their American peers. During months without geopolitical events, the average China/US forward P/E and EV/Rev ratios were less impacted, trading at a 28% and 45% discount, respectively.

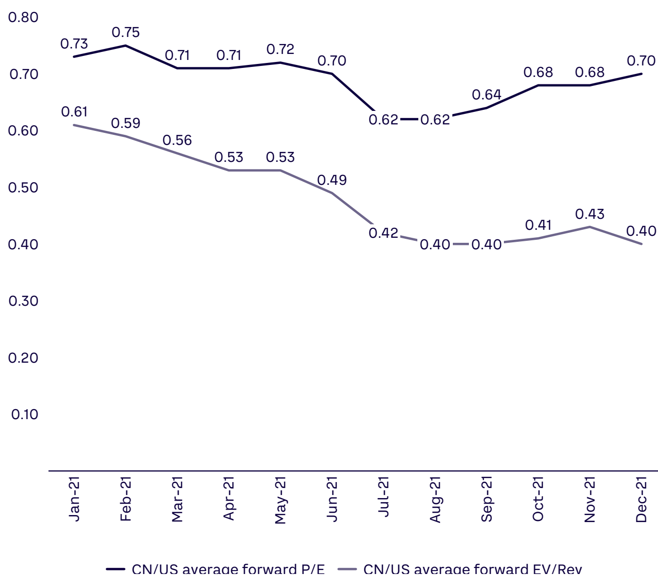
To ensure accuracy, the months of April, July, August, and September were excluded from non-geopolitical month consideration due to a variety of regulatory actions. In April, Alibaba was fined, and Chinese ride-hailing giant DiDi faced scrutiny and suspension related to its overseas IPO. August and September were removed because of the impact related to the suspension of gaming approval. Taking these additional factors into consideration, the discount was actually wider than the numbers indicate, namely ~3% P/E and ~16% EV/Rev during months with geopolitical events compared to months without geopolitical events in 2021.

2022

The pattern is similar in 2022. The average China/US forward P/E and EV/Rev during months when there were geopolitical events affecting US-China relations (see Figure 3) show that Chinese Internet Names traded at a 16% and 45% discount, respectively, compared to their American peers.

The average China/US forward P/E and EV/Rev ratios during months without relevant geopolitical events show a lower discount: 7% and 39%, respectively.

Our analysis excluded April and October as months without geopolitical events. April was not considered due to the COVID-19 lockdown in Shanghai, and October was not included because of concerns related to policy directions that might emerge from the Chinese Communist Party's 20th National Congress. Comparing our findings, we see that the discount was even wider: ~10% P/E and ~9% EV/Rev during months when there were relevant geopolitical events as compared to months when there were no such events.



Mar 2021: US telecom regulator moves against Chinese telecom firms over national security concerns.

Apr 2021: Fine placed on Alibaba and news surfaces of potential fine on Tencent related to anti-monopoly law.

May 2021: Rumor arises on restrictions for after-school tutoring.

Jun 2021: US President Joe Biden issues new executive order barring US investment into Chinese firms with purported ties to defense or surveillance technology sectors.

Jul 2021: US adds 23 Chinese companies to economic blacklist over role in alleged human rights abuses in Xinjiang and ties to the military. Canadian government suspends DiDi's new user registration and bans after-school tutoring (Chinese Double Reduction Policy).

Aug 2021: Limit placed on minor playing time.

Sep 2021: Suspension enacted on gaming approval.

Oct 2021: US Federal Communications Commission (FCC) revokes China Telecom Americas's services authority.

Dec 2021: China's top artificial intelligence firm — SenseTime — lands on US investment blacklist. US bans all imports from China's Xinjiang.

Figure 2. China over US large-cap Internet average forward multiples, 2021

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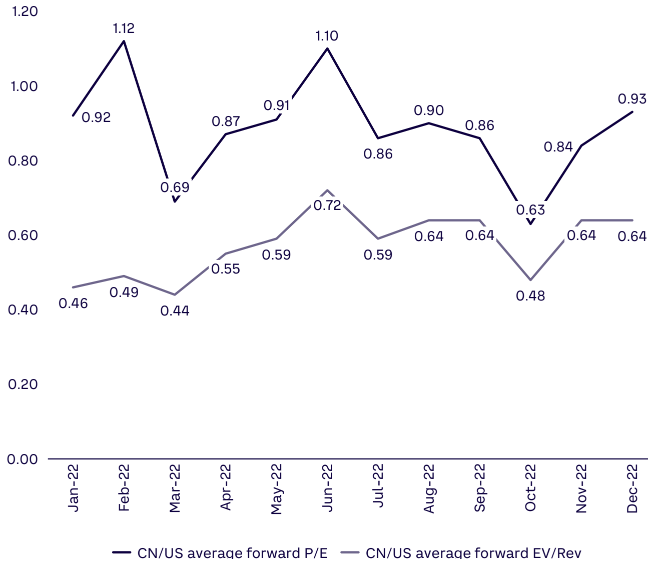


Feb 2022: US Commerce Department's Bureau of Industry and Security (BIS) adds 33 Chinese entities to Unverified List. Listed entities will face tougher rules on receiving shipments from US exporters. US also imposes diplomatic boycott of Winter Olympics in Beijing, citing the Chinese government's human rights abuses in Xinjiang and elsewhere.

Mar 2022: US Securities and Exchange Commission (SEC) publishes provisional list of issuers identified under HFCAA.

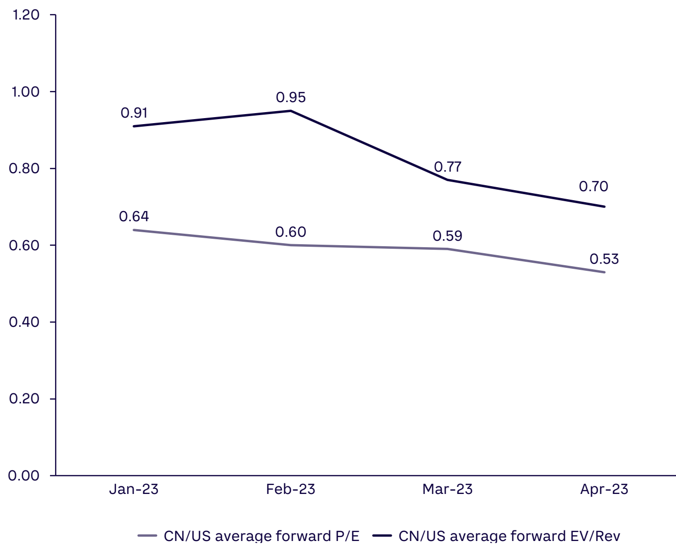
Apr 2022: Shanghai COVID-19 lockdown begins.

Aug 2022: After months of Chinese officials warning US against boosting ties with Taiwan, US House Speaker Nancy Pelosi visits Taipei to demonstrate US support for the island.

Oct 2022: US imposes new export restrictions on advanced semiconductors and chip manufacturing equipment in effort to prevent US technology from advancing China's military power. There was also the National Congress, causing initial concerns that the Chinese government may revert to 1980s style of governance.

Nov 2022: Biden administration bans approvals of new telecom equipment from China's Huawei Technologies and ZTE due to "unacceptable risk" to US national security.

Figure 3. China over US large-cap Internet average forward multiples, 2022



Feb 2023: Biden orders US Air Force to shoot down Chinese-operated balloon off the southeastern US coast after security officials say it was spying on sensitive military sites.

Mar 2023: BIS adds 37 new entities to Entity List for export restrictions, of which 28 are Chinese.

Apr 2023: Beijing announces cybersecurity review of Micron Technology, a top-tier US chip maker. China's Politburo signals that it is likely to shift focus from stimulus to reforms.

Figure 4. China over US large-cap Internet average forward multiples, first 4 months 2023

2023

Our analysis of January-April of 2023 shows that the average China/US forward P/E and EV/Rev ratios during months with pertinent geopolitical events (see Figure 4) indicate that Chinese Internet Names traded at a 14% and 41% discount, respectively, relative to American Internet Names.

The average China/US forward P/E and EV/Rev ratios during months in which these types of events did not occur show that Chinese Internet Names traded at a less pronounced discount: 9% and 36%, respectively.

Based on our analysis, we see that the discount was actually wider: ~5% P/E and ~7% EV/Rev during months marked by geopolitical events impacting China-US relations.

KEY TAKEAWAYS

Based on analysis of the total study period (2018 to beginning of 2023), we believe that after excluding outliers, on average, large-cap Chinese Internet Names traded at a 24% discount compared to large-cap American Internet Names on a forward P/E basis. The discount was even wider when considering forward EV/Rev: Chinese Internet Names traded at an average of 42% discount relative to their American peers during the same period.

Share prices fluctuated materially during months of heightened geopolitical tensions between China and the US. Based on our analysis, we estimate that geopolitical tensions contributed to high-single-digit percentage points of the overall trading discount observed over the past five years. Our analysis demonstrates the profound impact that geopolitical turmoil can have on a company or industry's market value.

In addition to quantifying the impact of geopolitical risk on share price, we feel this analysis can guide investors and operators as they think about mitigating geopolitical risks.

At the company level, organizations that build contingencies and resiliency into their operations and strategic planning can better weather geopolitical storms and preserve market value relative to peers that do not. Thus, managers should spend more time considering and planning for such contingencies and enhancing organizational robustness, and investors should include due diligence of such factors when considering an investment.

At a broader level — if a company is part of a larger group or an investor is taking a portfolio approach — such risks should be considered holistically and comprehensively as opposed to piecemeal when implementing new continuity policies and/or risk management practices like hedging around markets and foreign-exchange fluctuation.

Although geopolitical risk is broad in scope and deep in impact, aspects of it can be measured, and through that measurement, organizations and investors can better weather the proverbial storm.

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