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How long does a direct flight from Helsinki to Tokyo take? When Finnair launched its daily flight schedule between the two cities in March 2020, the flight time was about nine and half hours.¹ But by 2023, flying time was over thirteen hours. The two cities hadn't drifted apart - certainly not over a few short years. But Finnair could no longer fly the same route. European airlines were banned from Russian airspace after war broke out between Ukraine and Russia, which meant that Finnair had to avoid the time and fuel saving great circle route over northern Russia. This was a big problem for Finnair because their revenues depended on flights to Asia. The company operated flights to twenty-one Asian destinations in 2019 and generated 44 percent of its revenue from those flights. No wonder then that the company's stock dropped 21 percent following the ban.² But importantly, Chinese carriers were still allowed to fly over Russia and take shorter routes to Europe. So, when Chinese tourists and business travelers returned to popular destinations in Europe, the airlines they chose to fly were determined not just by the comfort of the seats, quality of the meals, and price of the ticket but also the nationality of the airline. European airlines claimed geopolitical factors gave the Chinese an unfair advantage.³ Whether

¹ Finnair to Add Daily Flights to Tokyo Haneda Airport. Business Traveller, October 8, 2019. Available at: www.businesstraveller.com/business-travel/2019/10/08/ finnair-to-add-daily-flights-to-tokyo-haneda-airport/

² Finnair Shares Plummet as Airline Is Banned from Russia's Airspace. *Financial Times*, March 1, 2022. Available at: www.ft.com/content/e0dc3e5b-dd14-4051-9068-87f71aa5a895

³ Airlines Say Chinese Have "Unfair Advantage" Flying over Russia. *Financial Times*, February 17, 2023. Available at: www.ft.com/content/21d7272a-af56-492d-ace1-57428c7219b5

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unfair or not, Chinese carriers increased the number of flights to Europe within a couple of years while European airlines slashed flights to Asia.⁴

ChatGPT, the AI-powered chatbot developed by OpenAI, was released in late 2022 and drew so much attention from curious users that it crashed several times.⁵ Its popularity shocked even executives at OpenAI⁶ and led to another furious round of contemplation about the future of work. Microsoft's multiyear, multibillion dollar investment in OpenAI may change the way we interact over the internet, but the transformative impact of large language models will depend on so much more than machine learning algorithms. Where (the markets) it will be available, who (which users) can benefit from it, and how (applications) they use it will be subject to national and international political calculations.

When ChatGPT was released, it was not available in China. However, shares in the Chinese search engine and technology company Baidu soared about 15 percent when it announced the launch of its own AI chatbot "Wenxin Yiyan" (or "Ernie Bot" in English).⁷ But while Baidu's Ernie drew on decades of data from running China's biggest search engine, they found themselves in a tough spot when processing those data. They couldn't easily access the AI chips they needed for data processing. Nvidia, the US company that made the fastest chips, and controlled about 80 percent of the world's AI chip market,⁸ faced

- ⁴ Western Airlines Slash Flights to China. *Financial Times*, August 19, 2024. Available at: www.ft.com/content/9156b23b-c74d-4daf-bfb2-c8ed61aebd7a
- ⁵ ChatGPT Is Too Popular for Its Own Good. *Gizmodo*, December 13, 2022. Available at: https://news.yahoo.com/chatgpt-too-popular-own-good-213000757.html
- ⁶ OpenAI Executives Say Releasing ChatGPT for Public Use Was a Last Resort after Running into Multiple Hurdles – and They're Shocked by Its Popularity. *Business Insider*, January 26, 2023. Available at: www.businessinsider.com/ chatgpt-openai-executives-are-shocked-by-ai-chatbot-popularity-2023-1
- ⁷ Baidu Stock Surges after Announcement of ChatGPT-Style AI Bot. CNN, February 7, 2023. Available at: https://edition.cnn.com/2023/02/06/tech/china-baidu-ai-botchatgpt-rival-intl-hnk/index.html
- ⁸ Can a South Korean Startup Take on Nvidia in the AI Chips Market? Tech Wire Asia, January 11, 2023. Available at: https://techwireasia.com/2023/02/ can-a-south-korean-startup-take-on-nvidia-in-the-ai-chips-mallarket/

LOOKING BACK, AND LOOKING AHEAD 3

export bans from its home government, preventing Baidu from buying the most advanced models.⁹

Finnair and ChatGPT are two examples, but they are hardly alone. Companies that came of age in the most recent era of globalization have taken for granted greater economic integration - with the associated global supply chains, international trade in goods and services, integrated financial markets, cross-border research and development, and increased foreign direct investment - as well as the institutional foundation that facilitates it. Individuals' choices related to jobs, careers, and lives have been built on this foundation. But this system is fraying. Shifts in the global balance of power, trade wars, US-China rivalry, the Ukraine war, technology decoupling, rising inflation, volatile politics, and nationalist and protectionist policies are reshaping the rules of the game, increasing uncertainty, and challenging the institutions that support international interactions. This will have profound implications for when, where, and how companies compete, the managerial talent needed to navigate these issues, and the nature of work available to employees in different parts of the world. And while boards and companies are increasingly concerned with geopolitical risks, not enough have the right expertise or confidence to manage the new environment.¹⁰

LOOKING BACK, AND LOOKING AHEAD

In 1989, a then staffer at the US State Department wrote an article titled "The End of History?." Francis Fukuyama's essay announced the triumph of liberal democracy. He argued that as history unfolded, it revealed an ideal form of political organization, one that emphasized

⁹ See: Baidu/Chatbots: Heavy R&D Spend Means Talk May Be Cheap. *Financial Times*, February 8, 2023. Available at: www.ft.com/content/d46cc615-068b-4c87-b10f-278854676957. US Orders Nvidia and AMD to Stop Selling AI Chips to China. *CNN*, September 1, 2022. Available at: https://edition.cnn.com/2022/09/01/tech/us-nvidia-amd-chips-china-sales-block-intl-hnk/index.html

¹⁰ Are You Making Political Risk a Strategic Priority? *EY Parthenon*, May 13, 2021. Available at: www.ey.com/en_gl/geostrategy/the-ceo-imperative-are-you-making-political-risk-a-strategic-priority

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liberal democratic states linked to market economies. In the years that followed – even as this idea itself was debated widely – the Berlin wall collapsed, and the European Union project moved forward. At the end of the twentieth century, one could have assumed that the world was moving in a progressive, liberal, international direction. And the US, then the undisputed leader with its unparalleled advantages in military, economic, and technological capabilities, became the organizer and manager of the global system. The global system, in turn, was fashioned in its image, emphasizing open markets and free trade, international organizations, cooperative security, democratic solidarity, and liberal values such as political equality, human rights, and freedom of thought and expression.¹¹

For companies considering international investments, longstanding challenges were rapidly being addressed. Thomas Friedman wrote in his book *The World Is Flat* that historical and geographic divisions were increasingly becoming irrelevant. Countries around the world opened their markets to foreign investors providing new opportunities. Liberalization and privatization, the buzzwords of the 1990s, allowed firms to compete in new industries and new geographies. Harmonized global rules on trade and investment allowed firms to access scarce or low-cost resources from other countries. International treaties on property rights protection and dispute resolution allowed firms to deal with foreign markets, customers, suppliers, and governments more confidently.¹² The result was an unprecedented exploitation of cross-border economic opportunities: Between 1990 and 2016, there was approximately a ten-fold increase

¹¹ For an overview of the US-led international liberal order, see: Acharya, A. (2018). *The end of American world order*. John Wiley & Sons and Ikenberry, G. J. (2010). The liberal international order and its discontents. *Millennium*, 38(3), 509–521.

¹² See, for example: Jandhyala, S., Henisz, W. J., & Mansfield, E. D. (2011). Three waves of BITs: The global diffusion of foreign investment policy. *Journal of Conflict Resolution*, 55(6), 1047–1073; Blake, D. J., & Moschieri, C. (2017). Policy risk, strategic decisions and contagion effects: Firm-specific considerations. *Strategic Management Journal*, 38(3), 732–750; and Jandhyala, S., & Weiner, R. J. (2014). Institutions sans frontières: International agreements and foreign investment. *Journal of International Business Studies*, 45, 649–669.

LOOKING BACK, AND LOOKING AHEAD 5

in worldwide inflows of foreign direct investment.¹³ Multinational corporations invested in locations that made most economic sense, that is, minimizing costs and maximizing profits.¹⁴

As companies expanded their geographic reach during the early years of the twenty-first century, aspiring managers flocked to business schools to hone their skills in economics, reading financial statements, analyzing investments, selling to old and new customers, and managing a distributed and diverse workforce. They spent little-to-no time thinking about grand politics and its role in international business. Today, as business students of the 2000s come of age in the corporate and investment worlds, the landscape is vastly different, and unfamiliar. And they are discovering that global politics is fundamentally reshaping the business world. Mark Carney, a former leader of both the Bank of Canada and the Bank of England, noted that the world is at a "moment … where the accepted forces and policies that have been in place virtually all my adult life are changing."¹⁵ Even companies that had previously largely been insulated from geopolitics had to figure out how to respond.

A new world order taking shape, with economic power distributed between the US and China.¹⁶ Considering purchasing power parity, China has already surpassed the US as the world's largest economy. It has become the number one trading partner for most countries and established itself as the most essential link in the world's critical global supply chains. It is also home to the largest

¹³ World FDI inflows were approximately US 204 billion and 2.07 trillion in 1990 and 2016, respectively (UNCTADStat, https://unctadstat.unctad.org/wds/TableViewer/ tableView.aspx?ReportId=96740).

¹⁴ This is not to suggest that the liberal international order did not have its drawbacks or critics. Income stagnation, increased inequality, lower growth, heightened risk, and lost jobs have been widely documented.

¹⁵ Could Mark Carney Lead Canada? *The Economist*, December 12, 2023. Available at: www.economist.com/the-americas/2023/12/12/could-mark-carney-lead-canada

¹⁶ For more details on the comparison between China and the US, see Allison, G., Kiersznowski, N., & Fitzek, C. (2022). "The Great Economic Rivalry: China vs the U.S.," Harvard Kenndey School Belfer Center Science and International Affairs Paper, March 2022.

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number of the most valuable global companies on Fortune's Global 500 list for the first time. China has rivaled the US in attracting foreign investment and investing in research and development. On the other hand, the US dollar remains the world's dominant reserve currency and currency of choice in cross-border transactions, US equity markets remain the world's largest, and the US retains a significant lead in venture capital investments. The US continues to attract the most talented innovators and entrepreneurs in the world.

As the world becomes multipolar, it is likely to see greater frictions among great powers as traditional values of Western liberal democracy clash with the Chinese ideology. In their work, Jessica Chen Weiss and Jeremy Wallace argue that the major features of the Chinese Communist Party rule include "a prioritization of the state over the individual, rule by law rather than rule of law, and a renewed emphasis on ethnic rather than civil nationalism."¹⁷ These features are inherently inconsistent with the tenets of the liberal international order such as individual freedom, rule of law, and free markets. One report argued that Chinese leadership rejects the concepts of independent judiciary and checks and balances as "erroneous Western thoughts."¹⁸ It is no surprise that some consider the rise of China to be "a death knell for the liberal international order."¹⁹

GEOPOLITICS IS ABOUT ECONOMICS

A manager may ask herself, should my company expand abroad? Should we sell our products to customers in foreign markets? Should we operate new factories, offices, or subsidiaries in another country? In most cases, these are hard-nosed business decisions. How attractive is the foreign opportunity? What is the net present value of the

¹⁷ Weiss, J. C., & Wallace, J. L. (2021). Domestic politics, China's rise, and the future of the liberal international order. *International Organization*, 75(2), 635–664.

¹⁸ Written testimony of Dr. Moritz Rudolf before the US-China Economic and Security Commission, May 4, 2023. Available at: www.uscc.gov/sites/default/files/2023-05/ Moritz_Rudolf_Testimony.pdf

¹⁹ Mearsheimer, J. J. (2019). Bound to fail: The rise and fall of the liberal international order. *International Security*, 43(4), 7–50.

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project? Can the firm manage risks associated with the investment? Is the cost of capital reasonable? What will the opportunity cost be? Does the company have sufficient human capital to manage this? At the end of the day, the company chooses to invest (or not) based on the direct costs and benefits that accrue to it.

But the company's corporate investment decision may also create indirect costs or benefits to other parties not involved in this transaction; what economists refer to as externalities. In particular, a business decision (invest or not) can have implications for a nation's security. It is a negative externality if it harms the country's security but a positive externality if it strengthens it. If what might be a smart business decision for a company is not considered to be so good for the country's economic and military security, governments will try to incentivize and restrain the actions of private companies in ways that strengthen their geopolitical position.

Take the case of the semiconductor chips. China was a huge and lucrative market for US chip exports. American companies supplied chips that were crucial for smartphones, laptops, coffee makers, cars, and a range of other products that Chinese firms produced for domestic and export markets. Nvidia, an American technology company, for instance, generated about \$400 million in quarterly revenue in 2022 by selling its most advanced chips to China.²⁰ Beyond rewarding shareholders, the additional revenue was invested in research and development, which resulted in this company (and the US semiconductor industry more broadly) retaining a competitive edge in the global industry – a positive externality for the US. At the same time, the US government was concerned that if advanced chips were available in China, it could give the country's military, intelligence, and security services an edge – a negative externality. To counter this, the US adopted sweeping restrictions on the sale of

²⁰ US Restricts Sale of Sophisticated Chips to China and Russia. New York Times, August 31, 2022. Available at: www.nytimes.com/2022/08/31/technology/gpu-chipschina-russia.html

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advanced computing and semiconductor technology that was essential to China's military and economic ambitions.²¹ Discussing the US approach, the Deputy Secretary of Commerce explicitly noted that the government's focus was "in key areas … where private industry, on its own, had not factored in our national and economic security interests."²² On the other hand, while many Chinese firms benefited economically from accessing American technology, the Chinese government worried about foreign control of important industries. What would happen to Chinese firms, military, and industry if the US could turn on and off the supply of crucial semiconductor chips whenever it chose to? In a bid to become self-sufficient and spur domestic development, China gave local chip firms US\$1.75 billion in subsidies in 2022.²³

As this example shows, economic statecraft is a key element of geopolitics. Governments directly control and influence the actions of private enterprises with an explicit purpose of weakening opponents and strengthening their geopolitical positions. Although it is most evident in the case of the US and China, the two great powers of today, other countries also leverage their economic sectors to position themselves favorably in a global system in flux. Countries that control critical networks in the global supply chain actively exploit them for geopolitical advantage.²⁴ French President, Emmanuel Macron, announced a \in 30 billion investment plan in 2021 to pour public money into nuclear power, electric

²¹ Biden Administration Clamps Down on China's Access to Chip Technology. New York Times, October 7, 2022. Available at: www.nytimes.com/2022/10/07/business/ economy/biden-chip-technology.html

²² Remarks by Deputy Secretary of Commerce Don Graves at the Georgetown Business School Forum: Modern Industrial Strategy for U.S. Competitiveness, Equity, and Resilience. November 29, 2022.

²³ China Gave 190 Chip Firms US\$1.75 Billion in Subsidies in 2022 as It Seeks Semiconductor Self-Sufficiency. South China Morning Post, May 7, 2023. Available at: www.scmp.com/tech/tech-war/article/3219697/china-gave-190-chip-firms-us175billion-subsidies-2022-it-seeks-semiconductor-self-sufficiency

²⁴ Farrell, H., & Newman, A. L. (2020). Choke points. Harvard Business Review, 98(1), 124–131.

GEOPOLITICAL RISK DEPENDS ON CORPORATE NATIONALITY 9

cars, agriculture, space, biotechnology, and other sectors to make the country less reliant on foreign imports and reclaim its independence.²⁵ Others altered their domestic markets to signal belonging to a geopolitical camp or intensify preexisting interstate relations. For example, in the face of active US pressure, Italy announced its intention to exit the China backed Belt and Road Initiative by the end of 2023.²⁶ The Dutch government similarly faced pressure from the United States to restrict the sale of cutting-edge lithography systems developed by the Dutch company ASML to China. While sale to Chinese customers may be economically profitable to the company, Dutch politicians also worried that the technology could promote Chinese "self-sufficiency in its military-technical development" and that Dutch ASML tools would go into "high-value weapons systems and weapons of mass destruction."²⁷

GEOPOLITICAL RISK DEPENDS ON CORPORATE NATIONALITY

Geopolitical risk is the threat, realization, and escalation of adverse events associated with interstate tensions.²⁸ It is the likelihood that when states prioritize national security and work to minimize the negative externalities of foreign investment, companies' ability to leverage their assets toward economic rents will be challenged. This can occur through actions by the company's own government, for instance, when a country limits a company's foreign sales through export bans of a product or technology. It can also occur through

²⁵ Macron Pushes Nuclear, Hydrogen Power in €30 Billion Plan to Reverse Industrial Decline. France 24, October 12, 2021. Available at: www.france24.com/en/ france/20211012-macron-unveils-%E2%82%AC30-billion-investment-plan-to-reindustralise-france

²⁶ Italy Intends to Exit China Belt and Road Pact as Relations Sour. *Bloomberg*, May 9, 2023. Available at: www.bloomberg.com/news/articles/2023-05-09/ italy-intends-to-exit-china-belt-and-road-pact-as-relations-sour

²⁷ Dutch Government Says China Seeks Military Advantage from ASML Tools. *Reuters*, February 20, 2024. Available at: www.reuters.com/technology/ dutch-government-says-china-seeks-military-advantage-asml-tools-2024-02-19/

²⁸ Caldara, D., & Iacoviello, M. (2022). Measuring geopolitical risk. American Economic Review, 112(4), 1194–1225.

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the actions of a foreign government. For example, a company is not allowed to acquire a foreign competitor because the other country's government prevents the transaction.

As discussed in recent work with my collaborators, underlying geopolitical risk is the idea that when a foreign firm – especially from an adversarial nation - operates in a country, it creates vulnerabilities in the nation's security.²⁹ There are at least three potential reasons for this concern. First, the foreign firm's commercial operations generate important revenues that can be converted to security advantages for its home country. For instance, by selling products to a rising middle class in Asia, Western multinational firms can repatriate profits to their home countries. Repatriated resources could then be used to create jobs at home, acquire companies domestically, build plants locally, and strengthen the economy in their home country rather than the country where profits were generated. Second, when a foreign firm plays an important role in the local economy, domestic industry could falter as local governments have limited means to encourage foreign firms to act in the "national interest." There are plenty of examples where domestic control of a company was deemed important by the local government. It was for this reason that the United States blocked the attempted acquisition of the American company Fairchild Semiconductor Corporation by Japan's Fujitsu Ltd in 1987. Similarly, the acquisition of US energy firm Unocal by the Chinese company COONC was blocked in 2005. The operation of US ports by the UAE-owned Dubai Ports World was also sidelined in 2006. The third reason is that the prevalence of foreign firms in a country can generate political leverage for the foreign government. Foreign firms can potentially act on behalf of their governments to collect information and/or spread propaganda in the country. Researchers in one study found that when people across nineteen countries in six

²⁹ See Blake, D., Jandhyala, S., Beazer, Q., & Cunha, R. (2024). Geopolitical Liability of Foreignness and Global Strategy. Working Paper, Wang, D., Weiner, R. J., Li, Q., & Jandhyala, S. (2021). Leviathan as foreign investor: Geopolitics and sovereign wealth funds. *Journal of International Business Studies*, 52(7), 1238–1255.