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The Tech Cold War, the multipolarization of the world economy, and IB research

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ABSTRACT

This paper first traces the evolution of the Tech Cold War to multipolarization in the context of major developments in the global economy, i.e. the ascent of China in the 21st century, antagonistic rivalry for technological supremacy between the United States and China, and the impending bifurcation of the world economy and its consequences. The paper then discusses the implications of the aforementioned developments for international business (IB) research and practice. Research topics include the Global North-South divide, nonmarket influences, government-MNE relationships, industrial policy and techno-nationalism, innovation in a multipolar world economy, the rise of middle powers, and innovation under geopolitical pressure.

1. Introduction

Napoleon Bonaparte (1769-1821) is often quoted as having said: "Let China sleep, for when she wakes, she will shake the world". Some two decades ago, Raymond Vernon (2001) predicted that the rise of China would result in a struggle with the United States and Europe over the rules of international institutions. We are now in the beginning of an unprecedented Tech Cold War (Segal, 2020), one that centers around the domination of technology between the world's two largest economies, namely, the United States (hereinafter referred to as "the US") and the People's Republic of China (hereinafter referred to as "China"), albeit with important implications for all countries and organizations on our planet. The US-China trade conflict started on March 22, 2018 when then US President Trump announced his decision to carry out an "USTR Section 301 investigation of China's acts, policies, and practices related to technology transfer, intellectual property, and innovation" (Office of the United States Trade Representative, 2018), "imposing tariffs on as much as \$60 billion worth of Chinese goods to combat the rising threat from a nation that the White House called 'an economic enemy" (Landler & Tankersley, 2018). The trade conflict escalated to the Tech Cold War on May 15, 2019 when Trump signed an executive order to prohibit the use of "information and communications technology and services" from "foreign adversaries" because of "critical national security threats" (The White House, 2019). To date, more than 1000 Chinese entities and individuals, including Huawei (China's flagship in the tech sectors) have been sanctioned by the US. At the same time, China have met US sanctions with tit-for-tat countersanctions. As a consequence of the US-China rivalry and the geopolitical shocks and repercussions it has brought about in the world economy, international business (IB) research and practice are expected to undergo significant changes.

Broadly speaking, new techno-nationalism, defined as "an emerging strain of geopolitical thinking and actions that link technological capabilities directly to a country's national security and geopolitical benefits" (Luo, 2022, p. 551), has emerged as a new normal in the field of IB.

What triggered the US-China rivalry in the first place? According to Mahbubani (2020, p. 2), it was China's rapid ascendancy – "the 'mistake' China made was to grow so big and so fast". Even though China's rise was swift and its ascendancy as a significant global player has been evident for some time, the US seemed to have been slow to awaken to this new reality. As recently as the Obama administration, the US has essentially "pursued the policy of cooperation with Beijing that had dominated US thinking for decades" (Galston, 2021). Once Trump realized the severity and urgency of the situation, he adopted a confrontational posture, marking a paradigm shift in US foreign policy toward China from engagement to disengagement or containment (Mearsheimer, 2021). Under the Biden administration, US-China relations continued on its downward spiral. All signs seem to suggest that the conflict between the US and China will dominate the geopolitical arena in the foreseeable future.

The US-China geopolitical rivalry has often been discussed in terms of democracy versus authoritarianism, although China rejects the characterization of its development model as that of authoritarianism. Rather, China espouses the paradoxical model of democratic centralism (Zhao, 2023), which represents "a community with a shared future for mankind" (Qin, 2023) as an alternative to what is perceived by many in the Global South as a Global North vision of the world. Many in the Global North question China's sincerity (Zhao, 2018). Regardless, China's message of "shared future" seems to resonate well with many countries in the Global South who decry the West's hypocrisy (Klare, 2023; Spektor, 2023) that is the very antithesis of "shared future".

Viewed in this broader context – differences in world visions, new techno-nationalism, geopolitical turbulence, civilizational difference that is tinged with racial overtones – the rivalry between the US and China, often dubbed as Cold War 2.0 (Bekkevold, 2022), is likely to remain more antagonistic, acrimonious and toxic than the Cold War 1.0 between the US and the USSR during the post-World War II period (Bekkevold, 2022). In the words of Mearsheimer (2021, p. 48): "This rivalry will test US policymakers more than the original Cold War did, as China is likely to be a more powerful competitor than the Soviet Union was in its prime. And this cold war is more likely to turn hot".

As the US-Chinese rivalry escalates, other countries find themselves having to side with either Washington or Beijing, although most of them do not wish to make a choice (Fontaine, 2023). Even though many countries in the Global South appeared unwilling to choose sides, the fact remains that the measures and countermeasures within an enlarged group of nation states will undoubtedly affect the nature and development of IB transactions accordingly. The divide between the Global North and the Global South has its historical roots in the exploitation of countries and peoples in the Global South during the height of European colonialism and empire building. It has continued to the present day in the form of dissatisfaction that principles emanating from the Global North have been used to guide the norms and operations of international governance entities (Spektor, 2023) such as the World Trade Organization (WTO), the World Bank and the International Monetary Fund (IMF). From the perspective of the Global South, the rules of the game pertaining to the conduct of IB transactions fail to fully capture the realities and aspirations of these countries. As the UN Secretary-General Antonio Guterres noted, there is an urgent need to "reform the global multilateral architecture" as governance structures are archaic as they were developed when "African countries were still ruled by colonial powers" and, therefore, fail to capture the realities of the present-day world (Nyabiage, 2023).

A case in point is the Group of 7 (G7) that is comprised of six Western countries plus Japan. The G7 purports to discuss and strategize about economic policies and transnational issues that have bearings and implications for the rest of the world. From the perspective of "the rest", the continued imposition of Western-based values and approaches on non-Western countries can be viewed as condescending and/or unworkable. The five leading emerging economies that are excluded from G7 have coalesced to form their own alternative or "counterweight" to G7 in the form of BRICS (the acronym for Brazil, Russia, India, China and South Africa) to represent the aspirations and objectives of developing nations. While there are tensions among members of this group (Papa, O'Donnell, & Han, 2023; Pathak, 2023), at their 2023 summit more than 40 countries from Africa/Middle and Near East and Latin America have expressed interest in joining BRICS. Six have been admitted with their memberships starting from January 1, 2024 - Argentina, Egypt, Ethiopia, Iran, Saudi Arabia and the United Arab Emirates (UAE). These are major oil exporting countries that are capital rich, occupy strategic locations, and/or enjoy a demographic dividend (Nyabiage, 2023). The BRICS's New Development Bank (NDB) whose head is Dilma Rousseff, the former Brazilian President, seeks to "promote a more multipolar international financial system" that encourages "the use of alternatives to the dollar in trade and financial transactions" (Stott, 2023; Cotterill, 2023). The NDB has been billed as a "bank made by developing countries for themselves" (Stott, 2023). Even though the encouragement of alternative financial payments/arrangements may not immediately translate into replacing the primacy of the US dollar in IB transactions (i.e. "dedollarization"), it represents a concrete step in reducing "the dominance of the US dollar in international trade and finance, particularly as America's share of the global economy has more than halved" since the end of World War II (Stott & Kynge, 2023). Stott and Kynge (2023) noted that, as of August 2023, the US Treasury's Office of Foreign Assets Control has included over 12,000 names on their list of sanctioned individuals and/or entities. An erosion of US financial power will blunt the efficacy of such economic sanctions (cf. Norrlöf, 2023).

IB research and practice have to contend with the challenges and opportunities posed by the Global North-South divide and the G7 visà-vis BRICS. In 1995, the G7 countries accounted for 44.9% of global GDP at purchasing power parity vis-à-vis 16.9% for the BRICS economies. In 2023, this situation has reversed - the contribution of the BRICS economies to the world's GDP now exceeds that of G7 (32.1 versus 29.9%, respectively) (Richter, 2023). The addition of the six new BRICS nations in early 2024 will increase this bloc's share of the world's GDP to 37% (Cotterill, 2023). The growing economic and technological prowess among the BRICS countries, and the desire by many other emerging economies to join this group, suggests either bifurcation or multipolarization of the world economy. Under bifurcation, as visualized in the Cold War 2.0 scenario, there are two competing blocs with countries allying with one of the two competing economic superpowers, namely the US and China. In the multipolarization scenario, "With the US and China at loggerheads, a range of 'middle powers' see an opening to pursue their interests" (Russell, 2023). Indeed, the middle powers can play an increasingly important role not by choosing sides but by picking and joining forces in various alliances given situation, context, and time. Furthermore, these multipolar alliances are more fluid. Witness India's position, for example – it is part of the Quadrilateral Security Dialogue (Quad, in short) yet it remains neutral by not joining other democratic countries in condemning Russia's invasion of Ukraine. Russell (2023) has dubbed this as the "a la carte world" where "it's not a question of picking sides (but).... a question of picking everyone". This allows middle powers to be more assertive in their dealings with the two economic superpowers and to act according to their own national interests rather than subordinating themselves to the agenda of the superpowers. In the light of the increasing Global South-North divide, the recent inclusion of the 55-member bloc of African nations as a permanent member of the G20 at the 2023 G20 New Delhi Summit may be seen as "a symbol of inclusion" (India Times, 2023) which arguably may contribute to bridging the gap between the Global North and Global South.

2. Shifting tides in the global economy

Fundamental geopolitical changes such as the emerging multipolarization of the world economy are not a new phenomenon. Pathak (2023) notes: "International politics is an arena where there are no permanent friends or foes, there are only permanent interests. Because of the nature of international politics, shifting alliances have been a constant be it in the pre-World War II era, during the Cold War era or in the current multilateral system". The IB environment has thus always been subject to both short- and long-term changes in degrees of openness and integration, reflecting the co-evolution of government initiatives and policies at national and supra-national levels, technological advancements, and the competitive dynamics of multinational enterprises (MNEs). Periods of globalization, defined as the process of increasing interdependence and economic transactions across nations, have been replaced by periods of friction and fracturing of the global economy, including significant alterations of the strategies and organization of MNFs.

2.1. The integration of the global economy and MNEs

Reflecting upon developments around the turn of the 19th century, Keynes (1920, p. 10) applauded the absence of monopolies, restrictions, and exclusion and how internationalization was "nearly complete in practice". In the decades that followed, extending into World War II, openness and economic integration were then replaced by growing sentiments of mistrust, nationalism, and protectionism. The ending of the War then set the stage for a gradual but forceful drive toward globalization. Initially led by the US and its MNEs, over time it came to involve and incorporate an increasingly diverse number of countries (Ikenberry, 2018; Kobrin, 2015). A number of supra-national initiatives

contributed to an environment that was increasingly conducive to international commerce and foreign direct investment (FDI) and resulted in the incorporation of the developing economies (Wells, 1998). Overall, for several decades, developments at the supra-national and national levels contributed to an increasingly integrated and networked global business environment, with pro-market, pro-trade, pro-investment, and pro-globalization institutional changes (Cuervo-Cazurra, Gaur, & Singh, 2019).

For many MNEs, a progressively more integrated global economy meant opportunities to implement more elaborate and integrated organizational structures (Buckley, 2014). The offshoring and outsourcing of select business operations ultimately gave rise to extensive global value chains (GVCs). Enabled by the rapid developments in information technology, many of the early offshoring initiatives emanated from the US found their home in China ("the workshop of the world") and India ("the digital back office of the world"), although over time these patterns became more geographically diverse and progressed to include more advanced operations such as engineering and research and development (R&D) (Dachs, Amoroso, Castellani, Papanastassiou, & von Zedtwitz, 2023; Lewin, Massini, & Peeters, 2009) driven by "the global race for talent" (Lewin et al., 2009, p. 919). This expanded form of globalization, or hyper-globalization, resembled a "global factory" (Buckley, 2009, 2014), characterized by interdependent networks of disaggregated value chains that became increasingly dispersed across both geographical and organizational boundaries.

Over time, MNEs' responses to the opportunities offered by globalization came to have a significant impact also on the growth and location of their technological activities. Although patterns differed among MNEs of different national origins and industries (Håkanson, Kappen, & Zander, 2020), both incremental expansion of IB activities and strategic asset seeking in foreign markets led to the formation of geographically dispersed networks of advanced technological capabilities, located in both developed and developing economies. For ten consecutive years (2002-2012), China was the highest ranked country that inspired foreign investor confidence among top executives from around the world (Kearney Foreign Direct Investment Confidence Index., Miscellaneous Years). China also became a popular destination for regional R&D because of low-cost and increasingly sophisticated engineering skills that were combined with rapidly growing markets in middle- and high-end industry segments. MNEs thus gained access to a broader palette of knowledge sourcing possibilities, including the establishment of "listening post" for intelligence gathering in foreign locations, the establishment of foreign centers of technological excellence by means of greenfield investments and foreign acquisitions, and also the intra-firm integration and recombination of internationally dispersed knowledge.

The integration of the global economy further contributed to the emergence of new players in the global arena which, by virtue of their linkage into the GVCs that had been crafted by established MNEs, were able to leverage already existing resources in terms of technology, knowledge, and brand names. Through successive and concerted learning efforts, a growing number of emerging market MNEs (EMMNEs) were able to establish increasingly prominent positions in international markets (Buckley, 2009; Mathews, 2002). EMMNEs that engaged in what has been dubbed as springboard internationalization were able to tap into internationally dispersed knowledge by means of foreign acquisitions, thus gaining access to strategic assets and advanced technological capabilities to be leveraged through learning, intra-firm knowledge transfer, and sustained internationalization into developed economies (e.g., Elia & Santangelo, 2017; Luo & Tung, 2018).

2.2. The ascent of China

At the risk of over-simplification, China's rapid economic development and its increasing influence in major entities associated with governance of the global economy (WTO, IMF and World Bank), coincided with the broadening of the membership base in such global

governance entities, thus greatly enlarging the voting base on referendum matters that arise in these organizations. China's ascendancy and its growing willingness to articulate its vision of a new world order marked the shift away from a unipolar world that resulted from the collapse of the Soviet Union. It is also important to note that China that has traditionally positioned itself as the champion of the Third World or Global South countries, was thus seen as the challenger to US hegemony in the post-Soviet era and, in a broader sense, the liberal democracy model and global order or Global North (Ikenberry, 2011, 2018). The new entrants from the Global South demanded and exerted a greater influence in global governance structures and decisions that could shape the nature of economic development and participation in societal issues that affect them. This multiplexity of factors contributed to a shift, in part at least, from a unipolar to a bipolar and, more recently, a multipolar world economy (Bieber, 2018) where the issues that most concern the Global South may not necessarily align with that of the Global North countries. At the same time, countries in the Global South are not a homogeneous bloc but have different priorities and agenda thereby contributing to the "a la carte" world alluded to earlier (Russell, 2023). This captures the essence of multipolarization whereby participants from the Global South can pick and choose either of the two competing superpowers on different projects to suit their own national interests.

China's vast resources, primary of which are its labor supply, its learning culture, and its huge market potential as the most populous nation in the world until early 2023 made it "an important focal point of international business" (Tung, Worm, & Fang, 2008, p. 60). Today, China is the largest trading partners of more than 120 countries. In an age of hyper-globalization with intensive interactions with the West, Chinese cultural values underwent important changes, making Chinese society a true paradox (Faure & Fang, 2008). China also made astounding progress in science and technology so that, increasingly, the slogan "Made in China" has been replaced by "Created in China" (Keene, 2006; also see Godinho & Simoes, 2023, this issue; The Economist, 2019; WIPO, 2018; Zhang & Ma, 2022). In 2016, Chinese tech giant Huawei developed China's own 5G standard from scratch by identifying and investing in Turkish Professor Erdal Arikan's theory on Polar Codes (Huawei Digital Power., no date). In 2017, according to the National Science Foundation (NSF), the US and China published around 19% and 18%, respectively, of the 2.2 million peer-reviewed articles worldwide (Worldatlas, 2017). In 2018, China surpassed the 2017 record to become home to "the highest concentration of researchers, the highest number of patent applications submitted, and the number of scientific and technical publications" (Gray, 2018). In 2019, China made the world's first landing on the far side of the moon (Wall, 2019), demonstrating how far it has come in the outer space exploration.

China's ambitions in advancing its technological and innovation capabilities were evident in its "Made in China 2025" blueprint, which targeted ten key sectors such as new information technology, numerical control tools and robotics, aerospace equipment, energy saving and new energy vehicles, new materials, and biological medicine and medical devices (China Daily, 2015). Many of these sectors had hitherto been the domains of advanced industrialized countries, particularly the US. China's "One Belt One Road" (BRI) initiative, announced in 2013, became a further sign of its growing global ambitions and influence, as the land, maritime and digital routes associated with the BRI will connect regions of the world that have hitherto been ignored/sidestepped by the US, such as Central Asia, much of Africa and the Pacific Islands. While the US still maintains a lead in crucial sectors, such as software and semiconductors, "in industries including smartphones, drones and electric vehicles, Chinese companies are gaining ground — or already are far ahead" (Whalen & Alcantara, 2021). Some in the US viewed China's ambitions and ascendancy "as a direct threat" (Mearsheimer, 2021, p. 50) and "a zero-sum game" (ibid, p. 51), and alleged that China's rise was possible only through intellectual property theft and espionage through non-traditional sources, primarily via Chinese and non-Chinese nationals who undertake research and/or pursue higher

education in the STEM disciplines (Redden, 2019).

2.3. The Tech Cold War

We define Tech Cold War (TCW) as a state of antagonistic geopolitical rivalry between the superpowers along multiple fronts for achieving supremacy over technologies of crucial importance for national security as well as human development. The emergence of the TCW, which first began as a trade war between the US and China in 2018, brought a halt to hyperglobalization and amplified already emerging sentiments of a widening divide of the world economy. The TCW thus marked the end of the page of an extended period of mutual exchange and cooperation between the US and China in the age of hyper-globalization.

Today's TCW is not without connections with yesterday's Cold War between the US and the former Soviet Union. At the height of the Cold War and also of the Vietnam War, then US President Nixon made an unexpected visit to Mao's Communist China in February 1972 for the purported purpose of befriending China to gain a geopolitical upper hand over the Soviet Union. Nixon's historic visit to China ended more than two decades of isolation between the US and China (1949–1971) and resulted in the normalization of diplomatic relations between the two countries on January 1, 1979 (Richard Nixon Presidential Library, no date). The relations between the two countries since the normalization of diplomatic relations to the initiation of the TCW in 2018 can generally be characterized as warm, constructive and interdependent based on the principles laid down in the Three Communiqués of 1972, 1979 and 1982 (Wikipedia, no date) despite the fact that there were disagreements and frictions from time to time. The "Agreement Between the United States and China on Cooperation in Science and Technology" was signed on January 31, 1979 (The American Presidency Project, 1979) which has been extended every five years over time (Gilbert & Conroy, 2023). In people-to-people exchanges, the US and China reached a bilateral reciprocal agreement in November 2014 on the issuance of up-to-ten-year-validity tourist and business visas to each other's citizens, a practice which still works today, showcasing the extent to which the two societies have been intertwined with each other at the grassroots level in the GVCs in the passing epoch of globalization.

In 2001, then US President Clinton supported China's entry into the World Trade Organization (WTO), which further helped accelerate the economic growth and development in that country. The meteoric speed of China's ascent, both economic- and technology-wise, across a broad range of industries/sectors, including telecommunications, green industries, automotive, outer space, quantum computing, and artificial intelligence (AI), caught the US by surprise and could possibly have resulted in the latter's rude awakening (Galston, 2021) to the possibility of strategic rivalry, most probably already in 2011 when then President Obama's administration launched its "Pivot to Asia" policy (Lieberthal, 2011). Furthermore, there was US frustration that China's development did not follow the trajectory that had been anticipated. The US assumption was that, as China developed economically, it would embrace Western values; this failed to materialize (Mearsheimer, 2021). Strategic distrust between the US and China developed (Lieberthal & Wang, 2012). Against this backdrop and a revival of nationalism in the US, a trade war erupted between the world's two leading economic powers on June 15, 2018, when the US imposed a 25% tariff on more than \$50 billion of Chinese exports, following the USTR Section 301 investigation of China initiated on March 22, 2018. China swiftly responded with retaliatory tariffs on \$34 billion worth of US goods, including agricultural products. Most of these measures are still in effect under the Biden administration. In fact, "the Biden administration has taken a very hard line on China — much harder in practice than Donald Trump, who talked tough but mostly flailed around ineffectually" (Krugman, 2023).

Export restrictions quickly spiralled into a full-scale. US-China TCW with the enactment of the Foreign Investment Risk Review Modernization Act of 2018 (FIRRMA, 2018) that included changes to the foreign

investment screening process under the Committee for Foreign Investment in the United States (CFIUS). Restrictions on FDI were soon followed by other measures that had far-reaching consequences for select MNEs with global reach and ambitions and marked an explicit turn toward "new techno-nationalism" (Luo, 2022). On May 15, 2019, Trump signed an executive order to ban US firms from using telecom equipment from suppliers that the White House called "national security threats" (The White House, 2019). Huawei, then the largest telecom company in the world and a leader in 5G, was blacklisted and denied Android security updates as well as Google's proprietary add-ons to Android (Mohan, 2019). As a consequence of US sanctions, most of Huawei's smartphones are of 4G models using chips unaffected by U.S. sanctions. Huawei's global smartphone sales dropped sharply from 240 million units in 2019 to 28 million units in 2022. Since 2018, an increasing number of Chinese entities and individuals have been put on the US sanction list; by early August 2023, this number exceeded over 1300 (Embassy of the People's Republic of China in the United States, 2023). In response, on May 31, 2019, China announced the establishment of "a list of unreliable entities" that includes foreign entities and individuals that fail to "comply with market rules" and act in bad faith that "seriously damage the legitimate rights and interests of Chinese enterprises" (Xinhua, 2019). During the US-China top meeting in Anchorage, Alaska, March 18-19, 2021 (C-Span., 2021), confronting the Secretary of State Antony Blinken's "We need to be approaching China from a position of strength", Yang Jiechi, China's highest ranking official in foreign affairs, reminded the former that "the US isn't qualified to speak to China from a position of strength". In February 2023, China, added two US firms, namely Lockheed Martin Corporation and Raytheon Missiles and Defense, to its 2019 enacted list of unreliable entities on national security grounds. A year later, China's cyberspace regulator announced that it will conduct a cybersecurity review of products sold in the country by US chip giant Micron (Reuters, 2023b). Micron failed the Chinese cybersecurity review (Reuters, 2023c).

Semiconductors are critical to the functioning of the digital economy and of central importance for innovation in advanced areas such as quantum computing and AI, both of which have national security implications. This, coupled with China's continued dependence on semiconductor imports, made them a core target for sanctions by the US government in the TCW (Palmer, 2023; Wade, 2023). Hence, the enactment of the US CHIPS and Science Act on August 9, 2022 subsequently expanded to new export controls to China as from October 7, 2022 on advanced computing and semiconductor manufacturing items to China, including maintenance and repairs of Chinese fabs (Bureau of Industry and Security of the U.S. Department of Commerce, 2022). Collectively, these controls that encompass the "entire ecosystem of advanced technology" are tantamount to "an act of war" declaration on China (Palmer, 2023).

These developments have had repercussions well beyond the US-China relationship, as other actors and presumptive allies including their industries were increasingly drawn into the escalating rivalry. The Taiwan Semiconductor Manufacturing Company (TSMC), which manufactures some 65% of the world's semiconductors annually and over 90% of the most advanced ones, announced its plans to build a latest mega plant in Pheonix, Arizona in 2022 as part of the reshoring efforts by the Biden administration (Palmer, 2023), although this project has been delayed (Liang, 2023). In October 2022, the Dutch government imposed export controls that prohibited ASML, a Dutch company that makes chipmaking lithography machines, from selling to China. In August 2023, the Chinese government responded by restricting the export of two rare metals, namely gallium and germanium, essential to the semiconductor and microchip industry including lithography machine manufacturing (Stein, Kaja, Wang, Zhang, & Zhang, 2023).

Several years into the TCW, despite the US characterization of China as a "pacing challenge" and strategic rivalry with a "near-peer competitor" (Kardon & Leutert, 2023), in reality it has taken on the dynamics of an antagonistic rivalry for technological supremacy. The

nature of this all-out contest for technological supremacy, though often insightfully discussed in the ideological contexts of capitalism vs. communism, and that of democracy vs. authoritarianism (e.g., Hudson, 2022), may arguably be best captured in light of the "Thucydides Trap", a metaphor coined by Graham Allison (2017a,b). The metaphor initially referred to the inevitability of war/conflict between the ruling power (Sparta) and the then rising power (Athens) in the 5th Century BC, and suggests a natural outcome of great-power rivalry in the course of human development. The "Thucydides Trap" hypothesizes a ruthless scenario in human society where the incumbent Number 1 superpower is bound to crackdown the ascending superpower that is Number 2 in power hierarchy (Griffiths, 2019; NPR, 2019; Sachs, 2023; Vogel, 1979). At the risk of over-generalization, such rivalries can be categorized as either functional or dysfunctional although some overlapping between them may happen. Rivalries can be healthy when they motivate the competing parties to accelerate performative attributes and/or do their best in arriving at innovative solutions to problems. Rivalries become antagonistic when they represent all-out attempts where one or all competing parties seek to eliminate and/or stem progress on the part of their rivals, thereby leading to dysfunctional outcomes. The ongoing confrontation between the US and China appears to take on the features of antagonistic rivalry where decoupling, most recently rebranded as derisking (DW., 2023; Pollard, 2023), seems to be advocated and favored by the competing parties.

In his analysis of 16 strategic rivalries over the past five centuries, Allison (2017a,b) found that 12 of them resulted in war. A cursory review of the rivalries that did not result in war suggests that in the case of the United Kingdom vis-à-vis the US in the early 20th century, the rivalry was not contentious as the two countries were very close in terms of culture, language and ideologies. In the case of the rivalry between the US and the former Soviet Union in Cold War 1.0, the antagonism did not result in war most probably because of the threat of mutual annihilation, a state of stability that led historian John Lewis Gaddis to call the Cold War 1.0 era the "long peace" (Bekkevold, 2022). Even though the threat of mutual annihilation exists between the US and China because both countries are nuclear powers, the competition could be particularly bitter and antagonistic because of the "clash of civilizations", to borrow Huntington's (1993) terminology. Skinner Kiron, then Director of the US State Department Policy Planning, characterized the rivalry with China: "a fight with a really different civilization and a different ideology ... (This rivalry) poses a unique challenge ... because the regime in Beijing isn't a child of Western philosophy and history". In other words, Cold War 2.0 will be even more antagonistic and bitter because the Cold War 1.0 was "a fight within the Western family" whereas the rivalry with China is "the first time that we will have a great power competitor that is not Caucasian" (Ward, 2019). In the most recent case included in Allison's (2017a,b) analysis, it was the rivalry between the US and Japan that resulted in the former's willingness to deploy an atomic bomb over Hiroshima and Nagasaki. Ward (2019) cautions in a subheading: "The United States tried that with Japan. It didn't end well."

Although Allison's thesis can be debated (e.g., Mazarr, 2022), and today's IB environment is substantially more integrated and complex than in the past, the Thucydides Trap offers a perspective that the TCW is likely to be intense and endure for some time with far-reaching consequences worldwide, affecting MNEs, governments (including third parties and countries who seek to take sides or avoid taking sides in this rivalry), and their interrelationships alike. Many countries in the Global South, including countries in the ASEAN region (including Singapore although it can hardly be categorized as a Global South country), Latin America, Middle/Near East and Africa, try to avoid siding with either the US or China but seek instead to remain on friendly terms with both superpowers. However, navigating this tightrope to balance two antagonistic superpowers and to avoid inadvertently becoming casualties with far-reaching economic and/or military consequences has been challenging and requires adjustments in their geopolitical dealings.

As noted above, the middle powers increasingly see the advantages of non-alignment with a single superpower and instead pick and choose who to ally with to best suit their own national interests. This shift in attitude and response by the middle powers increases their bargaining power vis-à-vis either superpower that courts them, thereby necessitating adjustments in strategies on the part of the superpowers themselves.

2.4. Impending decoupling and its consequences

The antagonistic rivalry between the US and China, and its repercussions across a growing number of other countries, has caused many to envision a decoupling or fracturing of the global economy. While there are different views on the overall and long-term impact of decoupling or derisking (see, for example, Brown & Wang, 2023; Cui, Vertinsky, Wang, & Zhou, 2023; Petricevic & Teece, 2019; Vertinsky, Kuang, Zhou, & Cui, 2023; Witt, 2019; and Witt, Lewin, Li, & Gaur, 2023), the consensus is that many MNEs will need to revise their strategies and structures in response to and in compliance with government sanctions and industrial policies. Buckley (2023, this issue) reviews the theoretical foundations of decoupling in the global economy, discusses how it has been amplified by choke points in GVCs (such as the extraction of rare earths) and aspired control over data generated over the Internet, and outlines the effects on corporate GVCs. Framed within the context of an impending divide between "the West" and China, his account highlights the mounting pressures on MNEs to reposition themselves in and between the two institutional regimes while at the same time retaining the benefits of dispersion and orchestration of activities across national boundaries and geopolitical divides. In a fractured global economy, Buckley argues, MNEs will need to decide not only the extent of their engagement in GVCs, but also whether those engagements should be organized within firm boundaries (i.e., reshoring) or outsourced by means of contracting (or "friendshoring", to borrow Janet Yellen's terms).

Using the example of the semiconductor industry, Gao, Ren, & Shih (2023, this issue) detail the dynamic interplay between governments and firms in the semiconductor ecosystem. They adopt a coevolutionary theory perspective to highlight changes in firm strategy in response to turbulence in the geopolitical environment, positing the role that third-party manufacturers can play in navigating these changes. Semiconductors are perhaps one of the most sensitive sectors in the hostile, techno-nationalistic rivalry between the US and China. Even though the technology was invented in the US, by and large, the manufacture of microchips has been offshored to other countries/economies, principal of which is Taiwan that produces about 90% of the most advanced microchips in the world. China is reportedly unable to produce chips under the precision of 7 nanometers, hence the significant ramifications of the 2022 CHIPS and Science Act. Given the all-encompassing nature of the Act (as it covers US and non-US firms and all US persons), the efficacy of using third-party manufacturers is debatable. Furthermore, on 9 August 2023, President Biden signed an executive order that further restricted US investment and technology/management know-how to China in three sectors: quantum computing, AI with military implications, and advanced semiconductors (The White House, 2023). This latest curb by the Biden administration will undoubtedly escalate the antagonistic rivalry between the US and China and hasten the latter's drive to attain self-sufficiency in the semiconductor industry.

Governments and the nations they represent will nevertheless not be immune to the long-term and negative consequences of "decoupling" or "derisking" in the global economy, although the intention may be just the opposite. Of particular consideration are the effects on knowledge and knowledge creation, as discussed by Redding (2023, this issue). Drawing on the "lessons of history", Redding addresses the limitations and impending dangers of decoupling, first and foremost in the context of societal transformation and progress. Knowledge and the factors that promote its development are at the core of the argument, specifically the

elements of critical thinking, communicative action, and co-operativeness. These are elements that make for a poor fit with the TCW and increasingly far-reaching global decoupling. Notably in terms of knowledge generation, the effects of decoupling are symmetrical across nations and societies, in the sense that it will influence the transformative capacity of any society, whether it be liberal democratic or state-directed.

There is already evidence that cross-national collaborative research projects either have been discontinued or downgraded in terms of scale and scope (Curran, 2023; Lu & Rathi, 2023). Although Curran (2023) concludes that "great things happen" when US and Chinese scientists work together, the increasingly acrimonious nature of the US-China riserves to further discourage such collaborative knowledge-sharing. Professor Gang Chen of MIT, and co-discoverer of the "best semiconductor material ever found" (Chandler, 2022), was accused by the US Justice Department of spying for China. Even though the allegations were proven to be unfounded and Chen was later exonerated, he captured the consequences by stating the impact of this negative experience on his future career plans: "Basically, I am done with (US) federal funding.... I love science but I'm still living in fear. And many people like me are still living in fear... The wrongful prosecutions have created terror in people like me" (Yam, 2022). Professor Chen was referring to racial profiling under the China Initiative, a US Justice Department initiative to stem Chinese economic espionage (Lewis, 2021), which has now been disbanded. A 2021 report published by the Committee of 100 nevertheless found that "50.7% of scientists of Chinese descent feel considerable fear and/or anxiety" (Committee of 100, 2021; Xie, Lin, Li, He, & Huang, 2023). Only time can tell how these and other similar events and conditions will affect the fate of cross-country collaborative research between leading scientists from these top knowledge-producing nations.

The effects of decoupling on exchange and collaboration around technology are felt also into the corporate domain. Using the case of a private firm in the commercial outer space sector, Zhang, Zhao, Kern, Edwards, and Zhang (2023, this issue) highlight how a Chinese firm in the high-tech sector approaches innovation in the face of an increasingly decoupled and hostile geopolitical environment. The approach they uncover relies on three fundamental principles: "patriotism" (i.e., arousing national pride in accomplishments through self-reliance), "elitism" (i.e., emphasis on meritocracy as opposed to resorting to nepotism), and "endurance of hardship" (i.e., persistence and endurance in the face of hardships and setbacks). While specific to the case in question, these three principles are quite pervasive throughout the course of Chinese history and may have accounted for the country's rapid ascendancy on the world stage from the brink of economic collapse in 1976, which marked the end of the Cultural Revolution years (1966-1976). They may also have accounted for China's ability to develop its home-grown industries without assistance from other countries in nuclear weapons and outer space.

3. Implications for IB research

The catalytic impact and potentially wide-ranging and lasting consequences of the TCW, viewed in the broader context of a Global North-South divide as highlighted by the expansion of the BRICS bloc as a counterweight to G7, present abundant opportunities and challenges to IB researchers. These were already alluded to in the earlier sections and will be explored in some further detail below.

3.1. Nonmarket influence in the global economy

First, there is a need to revisit some of the assumptions which, consciously or unconsciously, have been characteristic of IB research in the era of globalization or hyper-globalization, as popularized in Thomas Friedman's book *The world is flat* (2005). Under this scenario, goods, services, people and ideas can be exchanged across countries

based primarily on market forces, with minimal or little intervention through nonmarket mechanisms (e.g., Baron, 1995; Boddewyn, 2003). Of course, nationality and national boundaries mattered even under hyper-globalization (Ghemawat, 2001; Hofstede, 1994, 2001). Buckley and Ghauri (2004, p. 84) noted that "national borders still matter. Borders continue to engender and to coincide with important discontinuities stemming from government policies, geography and societal differences.... Information discontinuities ... coincide with national boundaries and so create search and deliberation problems for trading and manufacturing firms."

With antagonistic rivalry, techno-nationalism and multipolarization, there are competing world views of the global order and the assumption of a "flat" world is no longer valid. While government-imposed export controls and associated sanctions are not new (Meyer, Fang, Panibratov, Peng, & Gaur, 2023), they are now invoked more frequently in the name of national security, are more far-reaching, and are also enforced with greater intensity in light of the "interconnectedness" dimension of globalization (Eriksen, 2007). The 2022 CHIPS and Science Act extends to all firms, US and non-US alike, that utilize technology derived from the US. The Act applies to all US persons, thereby prohibiting all US citizens and permanent residents (regardless of their ethnicity or country of origin) to work and/or provide expertise in areas covered by the provision (Luo & Van Assche, 2023).

Another emergent nonmarket influence takes the form of protectionism in the name of industrial policy. Until the outbreak of the TCW, the US has been highly critical of the use of industrial policy by other countries and ascribed the huge US-Japan trade deficits, in Japan's favor, to the espousal of industrial policy by Japan and the Ministry of Trade and Industry (MITI) (Lewis, 2023). Under Biden's administration, there has been a dramatic turnaround in the US attitude toward industrial policy. Instead of condemning the negatives associated with industrial policies, it began to extol the promises the industrial policies hold in winning the strategic rivalry with China (The Washington Post, 2023). The 2022 CHIPS and Science Act and the 2022 Inflation Reduction Act represent the two most encompassing industrial policies enacted by the Biden administration thus far. The EU is contemplating industrial policies of their own in response to the US, since US industrial policies favor domestic suppliers/manufacturers over foreign ones (European Parliament, no date).

3.2. Dynamics and consequences of multipolarization

In light of the challenge to the assumption of continuous integration of the global economy under the scenario of hyper-globalization, research needs to examine the shifting motives and dynamics of restructured global supply chains. Reshoring or "friend-shoring" are examples of a nonmarket mechanism intended to "de-risk" global supply chain reconfigurations (Ramesh & York, 2023), particularly in industries that have national security implications and/or technological rivalry, such as electric vehicles, pharmaceutical products, and similar. The so-called "democracy chips" alliance between the US, Taiwan, Japan and South Korea (Reuters, 2022, 2023a) on one side, and China's resistance by promulgating export controls on gallium and germanium and its ability to build advanced chips of its own (Che & Liu, 2023; Chiang, 2023) on the other side, illustrates the emerging practice of forming other forms of product-specific "friendly" techno-national alliances or clusters and how they play into the decoupling or derisking of the global economy in the 21st century. The expansion of the BRICS bloc as a counterweight to the G7 is another example, albeit tensions remain between member countries within the bloc. The Global South's initiative to increase the use of alternative financing and payment arrangements because of the "concerns over America's weaponization of financial sanctions" dramatically underlined once again the power of the US dollar (Russell, 2023), thereby having major implications for theory development in the area of international finance and beyond (Stott & Kynge, 2023). Even in the heyday of Cold War 1.0, little or no attention

was paid to the alternatives that challenged the primacy of the US dollar as there was limited economic interdependencies between the US and the USSR at that time.

Throughout the paper, we have alluded to the need to theorize the dynamics associated with the Global North-South divide. We have particularly highlighted that while all countries seek economic progress and development, the perspectives of the Global North are different from those of the Global South. These differences in perspectives may, in turn, moderate or hinder the attainment of the targets of the UN Sustainable Development Goals (SDGs) with far-reaching implications for IB research (Tung, 2023). Again, conducting research on multipolarization may be more nebulous and challenging because while there are similarities, countries in the Global South are at different stages of economic development with different national priorities and objectives. As such, IB research cannot be construed as truly global in nature if the perspectives of members of the Global South which "represents 85% of the world's population and nearly 39% of global GDP" (Véron, 2023) are ignored, and/or where it is presumed that the same assumptions that apply in the Global North are valid in the Global South.

3.3. Springboard internationalization in a decoupled world economy

Springboard internationalization (Luo & Tung, 2018) was used to explain how the motives and processes of outward foreign direct investment (OFDI) by EMMNEs differ from those of advanced countries multinationals (AMNEs), as elaborated in Dunning (1995). These theories assume that, by and large, host governments are receptive to inward investments, albeit the motives and processes of EMMNEs may differ from that of AMNEs. With bifurcation and multipolarization, EMMNEs may no longer be able to freely engage in springboard internationalization, as governments are increasingly stalling the acquisition of domestic firms and their strategic assets. As explained by Fjellström, Bai, Oliviera, and Fang (2023, forthcoming) there are good reasons to expect that nonmarket factors, such as government-imposed restrictions on foreign acquisitions of domestic firms, will play an increasingly important role in the processes associated with springboard internationalization. Using the case of Huawei, the one time poster child of Chinese success in OFDI, they show how nonmarket factors played a decisive role in excluding Huawei from the Swedish telecommunications industry and, in turn, the strategies that Huawei developed to deal with this new reality.

Does this spell the end of springboard internationalization? Most likely not, but springboard internationalization is likely to take new forms in the wake of the TCW. In light of the growing expansion of the BRICS bloc and the rise of middle powers, to paraphrase Mark Twain, the demise of springboard internationalization is "greatly exaggerated". In fact, the shifting tectonic plates of geopolitical power and influence provide fertile ground for refining the springboard perspective or outward investment by EMMNEs. More broadly speaking, perhaps there is a need to revisit theories of OFDI by incorporating into them nonmarket environment, mechanisms or factors to better capture the drivers and dynamics of multipolarization.

3.4. Government-MNE relationships

Renewed research on the drivers and dynamics of multipolarization necessitates attention to understanding the effects of decoupling on societal transformation. An important aspect of societal transformation is the relationship between governments and MNEs. In the earlier years of IB research, much research focused on whether such relationships were complementary or conflicting (e.g., Brewer, 1993; Luo, 2001; Lenway & Murtha, 1994; Rugman & Verbeke, 1998; Vernon, 1977, 2001; Wells, 1998; Wright & Ricks, 1994). In developing economies, government policies and initiatives affected local MNE operations through, for example, expropriations, limitations on profit repatriations, demands on technology transfer and licensing, and local employment and content

rules. MNEs, in turn, attempted to influence home and host country governments and external stakeholders, using lobbying for preferential treatment, alliances with other firms, bribery, and public relations campaigns to further their goals in various markets (Boddewyn, 1988). Conflicting interests oftentimes led to friction and also clashes between the interests of national governments and MNEs (e.g., Dunning, 1998; Knight & Chapman, 2004; Merrett, 2007; Sandvik & Storli, 2013).

Under the assumption of continued globalization or hyperglobalization, IB research on the interface between home and host governments, on the one hand, and MNEs, on the other hand, receded more into the background (Buckley, Doh, & Benischke, 2017; Cantwell & Brannen, 2016; Griffith, Cavusgil, & Xu, 2008). Keywords such as "government" and "nation states" have been largely absent in some leading IB journals over the past two or three decades (Buckley & Casson, 2021). A similar trend applies to references to key terms associated with commercial policy (Evenett, 2019). The TCW between the US and China, alongside other disruptive developments in the world economy such as the Covid-19 pandemic and the Ukrainian war, will likely rekindle scholarly and practitioner attention to the relationship between nation states, their governments, and MNE organization and strategy (Witt et al., 2023). The "role of borders and buffers" (Brakman, Garretsen, & van Witteloostuijn, 2020, p. 3, 4) needs to be revisited in light of the "re-embedding" force of globalization (Eriksen, 2007). In addition, the grand challenges such as AI and digital technologies, environmental, social and economic sustainability (Buckley et al., 2017; Ghauri, Strange, & Cooke, 2021) and the contestability of GVCs (Van Assche & Gangnes, 2019) suggest ample opportunities for renewed empirical and theoretical efforts to document and describe the multiplex relationships and partnerships among nation states, governments, and MNEs in the years to come.

How nonmarket forces can play a primary role in defining government-MNE relationships is apparent in several of the contributions to this Special Issue (SI). Wang, Yan, Ciabushi, and Su (2023, this issue) emphasize how governments concerned with intellectual property rights (IPR) protection can have a significant influence on EMMNEs investments. Earlier on, reference was made to the paper by Gao et al. (2023, this issue) on co-evolutionary dynamics and the consequences of government-driven decoupling of the GVC for semiconductors. It is clear from their account that the decoupling concern has affected the major players in the US and Chinese ecosystems and platforms, and how decoupling generates both challenges and opportunities among third-party manufacturers, for example in Taiwan and South Korea. To a much greater extent than before, these third party manufacturers must now balance the gains from efficiency against competing demands from rival countries. Similarly, Fjellström et al. (2023, forthcoming) show how the ban of Huawei in the US and some European countries exposed MNEs such as Ericsson to the impact of geopolitics, and how Ericsson engaged in deliberate efforts to influence government decisions in its home country. In an era of TCW with geopolitical tensions, for these and a growing number of MNEs the connection between governments and MNEs simply cannot be ignored.

3.5. Cultural change

While culture has been extensively studied in IB research during the past decades of globalization (cf. Hofstede, 1994), by and large, it was not considered as a nonmarket force. For example, Baron's (1995, p. 47) definition of the nonmarket environment, which "includes those interactions that are intermediated by the public, stakeholders, government, the media, and public institutions", does not include culture. Huntington's thesis of clashes of civilization, refined by Skinner Kiron to refer specifically to Western versus non-Western civilizations, highlights the need to include culture as an important nonmarket factor. Furthermore, we maintain that IB research needs to be broadened to give more importance to the geopolitically induced nonmarket influences from the media, stakeholders, public institutions, the general public, and

probably most important of all, government in the form of ideology, such as democracy versus authoritarianism, an area of inquiry dominated so far by political scientists.

The role of the diverging visions of world order, as exemplified in the BRICS expansion as an alternative to G7 and civilizational differences with racial overtones, should be explored in future research as they can shed light, in part at least, on the vitriol in the ongoing rivalry between the superpowers. While the study of such nonmarket elements and forces may be more difficult since there are no readily available nor quantifiable measures to gauge differences in divergence in visions of world order, nevertheless they merit attention as history shows that where there are fundamental (i.e., core-level) differences and contradictions, they may be more difficult to resolve yet yield longer-lasting effects. These fundamental differences are analogous to the inner layers of the onion (i.e., core values) that Hofstede used to characterize cultural differences across countries.

3.6. Media, (dis)information, and research methodology

Firms are exposed to ubiquitous media coverage (Graf-Vlachy, Oliver, Banfield, König, & Bundy, 2020). Media offers stakeholders and general public information that helps reduce information asymmetry about firms' activities (Deephouse, 2000). The TCW and the related nonmarket factors make the firm-media relationships increasingly complicated because political-correctness prevails and dominates the debate, which has important implications for research methodology in general and for information gathering and data collection in particular. The lack of trust not only affects the composition of research teams but also reduces the quality of empirical investigation, thereby adversely influencing the rigor of research. That journalism suffers from political correctness is a major issue in today's society (Von Münch, 2021). The invention of the Internet has contributed, in part at least, to a proliferation of outlets for people to access the latest news from disparate corners of the world. This greater access to news, albeit some of them are contaminated with disinformation or biases that reflect the perspectives of the people who produce them, has meant that the media can play a very important role in influencing/shaping actions/responses by governments, MNEs and other stakeholders. In other words, the dynamics of the TCW under the constant and continuous gaze of news and social media merit research attention. Clemente and Gabbioneta (2017) illustrate the decisive role that media play in shaping people's perceptions of corporate wrongdoing. Fang and Chimenson (2017) demonstrate media's own wrongdoing in generating the negative image of what in reality is a corporate success saga in cross-border acquisition. Building on earlier research on the liability of foreignness (LOF) (e.g., Zaheer, 1995) and the liability of origin (LOR) (e.g., Kolk & Curran, 2017), Zhang, Xu, & Robson (2023, this issue) posit that many EMMNEs are bound to face negative media coverage in many Western countries because of the latter's media framing with a de-legitimizing effect. They restricted their analysis to established news media. In reality, increasingly people, particularly the younger generation, get their news from social media. Despite its merits, online disinformation is rampant (Jankowicz, 2021) and generative AI has been shown to fabricate data (Elali & Rachid, 2023), which may facilitate the proliferation and dissemination of disinformation that may further exacerbate the LOF and LOR phenomena. To do research in a geopolitically sensitive environment it is imperative to adopt a pluralist research methodology (Welch, Piekkari, Plakoyiannaki, & Paavilainen-Mäntymäki, 2011), learning from multiple paradigms, accessing to multiple sources of information, and embracing the tensions between opposing perspectives in knowledge production.

4. Implications for practice

Overall, and while some of the main strategic and organizational consequences of the fracturing of the global economy have been outlined (Buckley, 2023, this issue), how the TCW and decoupling and/or multipolarization in a wider sense will affect the operations of MNEs remains to be documented by further research. Multipolarization can contribute to the rising power of middle powers that, by and large and so far, have been ignored and sidelined. The collective findings of this SI suggest impending and significant changes to how MNEs will need to consider and work on their relationships with governments and external stakeholders, particularly with middle power countries, and how they organize the exchange, assimilation and integration of knowledge in an environment characterized by distrust, protectionism, and antagonistic rivalry in the name of national security. While the implications for practice have been alluded to already in the preceding section, they will be outlined in some further detail below.

4.1. Managing double or multiple corporate identities

In the era of the TCW, MNE representatives will find it more important than before to review and adjust their relationships to multiple governments and nation states. To the extent that this entails the rebalancing and restructuring of MNE operations in different geographical locations, rather than the complete withdrawal from certain markets or types of operation, corporate diplomacy (Doh, Dahan, & Casario, 2022; Li, Shapiro, Peng, & Ufimtseva, 2022) and the delicate balancing of multiple corporate identities will be increasingly called for (Vernon, 1977)

As explained by Li et al. (2022) and Witt et al. (2023), some of the factors that determine the extent to which MNEs will have to deal with the complexity of double or multiple identities include the presence of formal laws and regulation, the MNEs' degree of dependence on international sources of critical supplies or sales, and reshorability. It also expresses itself in multiple forms as in: one, disguised national identity of the MNE (whether AMNEs or EMMNEs), for example through the splintering of the MNE into two or more separate legal entities or the relocation of global, national, regional, or business unit headquarters to geopolitically neutral places/countries (Meyer et al., 2023); and, two, hyphenated identity of key employees as determined by ethnicity irrespective of passport they hold. The issue of corporate splintering has surfaced in the case of TikTok because of the country-of-origin of its parent country. Traditionally, mergers and acquisitions (M&A) have been treated as a singular concept because acquisition leads naturally to merger. Due to the increasingly complex geopolitical landscape in the TCW, in which all economies are more or less involved directly or indirectly in the rules of the game in M&A, this is subject to change; acquirers may have to live with A (acquisition) without M (merger), as the case of Volvo Cars shows. Separating MNEs' organizations/businesses into a number of independent partnerships with distinct firms operating under separate brands is an emerging approach in the era of the TCW. For example, in June 2023, the multinational venture-capital giant Sequoia decided to separate its China and other Asia businesses from its US and European operations given the rising geopolitical tensions (Yang & Brown, 2023):

The planned moves, which would be completed by March 2024, would see its U.S. and Europe venture-capital business continuing to be known as Sequoia Capital. Sequoia China will change its English name to HongShan, which is what it is currently called in Mandarin. In India and Southeast Asia, the firm will be known as Peak XV Partners. The three units will stop sharing back-office functions such as IT, finance and accounting, according to a note to investors.

The question remains as to whether such and other measures are sufficient. This leads to the issue of hyphenated identity of key employees as determined by ethnicity rather than the passports they hold. In the case of TikTok, the CEO is an American-educated Singaporean Chinese and its head office is located in Singapore, not China. This does not appear to be sufficient to allay US concerns on the basis of national

security grounds, although there is no evidence that the platform has inappropriately used personal data that have been collected. The calling into question of loyalty of Chinese-American scientists in the absence of evidence of wrong-doing is another example of fear-mongering against those with hyphenated identity under the pretext of national security (cf. Lewis, 2021).

4.2. Corporate media strategies

In a multipolarized global economy, diverse and sometimes contradictory pressures will surface also among MNEs' external stakeholders, such as customers and the general public. Zhang et al. (2023, this issue) document how EMMNEs are affected by, and must deal with, negative media and de-legitimization in the general public. Using the case of Huawei in the UK press, they illustrate how EMMNEs may have to contend with media reports that: one, dehumanize their home country; two, apply home country stereotypes to the foreign investor; three, couch differences between the home country and the investor nation in terms of a clash of civilizations; and, four, frame corporate issues (i.e., firm-level) in the context of geopolitical relationships at the national level. They further examine how firms may design voice strategies for mitigating the effects of negative media coverage although they found, perhaps unsurprisingly, limited success at attenuating the negative consequences of de-legitimization in the local press. We predict that MNEs' use of media in general to manage and construct their relationships with local stakeholders is an issue that will become more prominent in the wake of the TCW, from both an academic and managerial point of view.

4.3. Knowledge sourcing and integration

Although the potential to benefit from the international dissemination and recombination of technological knowledge differs across industries, the TCW and decoupling in many ways changes the preconditions and dynamics for such international knowledge exchange. In the past, MNEs have been able to utilize their positions in different locations to learn and upgrade technological capabilities in geographically dispersed locations. The extent to which such intra-firm crossfertilization can occur also in the future hinges upon: (1) Whether local representatives of foreign MNEs will be allowed to operate under the same conditions as those of local firms, and (2) the compatibility of different technological standards, which as a result of the TCW and pressures for technology sovereignty (Crespi, Caravella, Menghini, & Salvatori, 2021; Edler, Blind, Kroll, & Schubert, 2023) may evolve along trajectories that diverge across countries and regions.

As shown by Godinho and Simoes (2023, this issue), MNEs engaged in computer processing, semiconductors, digital communication and wireless communication will need to carefully consider their presence and engagement in technological development in China. It is evident from their account that in industries where China has emerged as a powerhouse for technological advancements, it will be necessary to maintain a presence in that country to stay on top of developments and/or assimilate important new technological advancements. At the same time, it will also be necessary to steer clear of possible allegations of technological theft or industrial espionage and to show commitment and positive spill-over effects in the host country.

Although it may be tempting to shift toward decentralized and polycentric organizational structures for R&D activities, the creation of autonomous subsidiaries in countries such as China will likely have both short-term and long-term consequences for MNEs' ability to coordinate their internationally dispersed technological activities. It has been found that so called "superstar subsidiaries", which are typically found in large and important markets, tend to acquire and also defend their independence from headquarters in the home country (Blomkvist, Kappen, & Zander, 2012). To the extent that decentralization and polycentric approaches to R&D activities can be implemented, future processes of

re-integration and coordination will therefore likely be protracted and cumbersome. In other words, decisions about decentralization of R&D activities should be intimately connected to beliefs/assumptions about the longevity of the TCW.

Restricted trade in intellectual property and especially more limited opportunities to acquire foreign assets in the era of the TCW has particular implications for EMMNEs and their ambitions to expand international operations into the developed economies. Wang et al. (2023, this issue), for example, document a remarkable decline in the number of Chinese technology-driven acquisition since the peak year of 2017. Mirroring how nation-states may form partnerships and alliances in pursuit of common goals, the future may further see the more frequent formation of tightly held-together inter-MNEs alliances, perhaps intermixed with pressures for "friendshoring" emanating from contacts and exchanges with national governments (Maihold, 2022). This, in turn, will make it difficult for EMMNEs to, as before, tap into existing supply chains of established MNEs, gradually gain experience, and ultimately work their ways into the more developed economies. Zhang et al. (2023, this issue) illustrate how EMMNEs can leverage a set of organizational culture attributes and indigenous innovation to overcome the challenges in a fractious geopolitical environment. The extent to which such approaches can effectively replace EMMNE acquisitions of strategic assets in springboard internationalization remains to be seen.

4.4. A new decision-making context

It seems reasonable to conclude that developments such as the TCW and its amplifying effects on decoupling and multipolarization in important ways alter the requirements for successfully organizing activities that span national borders. Today as before, both managers and IB educators will be concerned with the question "What determines the international success and failure of firms?" (Peng, 2004, p. 102), but in times of increasing geopolitical complexities the answers will be harder to come by. Kobrin (2015, p. 269) warns that: "Without a predictable system of rules, norms and processes at the international level the uncertainty and risks associated with a globally integrated strategy will markedly increase." While decisions will have to be made, MNE executives must prepare for a more uncertain future where change appears to be the only constant. One option to reduce uncertainty, noted by Buckley (2023, this issue), is the formation of tacit collusion and concealment to circumvent the destabilizing effects of the fracturing of the global economy. Such strategies nevertheless come with significant risks, should they attract the attention of anti-trust authorities, whose rulings in the era of the TCW may increasingly consider national interests and sentiments among critical external stakeholders.

A related and complicating factor is that it is still unknown if the TCW will become a permanent feature in a more encompassing movement of policies toward decoupling (Luo & Van Assche, 2023). As aptly stated by Buckley (2023, this issue):

If this is a temporary "blip" in a generally upward trajectory of international cooperation and integration, then little needs to be done – small adjustments of strategy in location, outsourcing, governance and configuration of value chains and possibly branding (to adjust national identification) may be sufficient before "normality" resumes. But what if the "new normal" is disruption and fracture? Then strategy has to adjust and long term changes have to be implemented.

It can perhaps be expected that for some time MNE representatives will adopt a cautiously probing approach in their decision making, except for instances where legislative, governmental regulatory policies are put in place and strictly enforced. It has taken a good amount of time for some MNEs to align their structures and processes with an increasingly integrated global economy (Mees-Buss, Welch, & Westney, 2019), and managers are most probably reluctant to initiate any major changes

before developments of lasting impact are discernible. Even so, some of the potential elements of change and likely consequences for MNE firm strategies and managerial decision making have been indicated throughout the contributions to this SI.

5. Conclusions

Nations that master technology master the future. In this paper, we have outlined the causes and consequences of the TCW between the US and China and the two nations' quest for supremacy over technologies considered to be of national security and/or economic interests. This antagonistic rivalry has been couched in the broader context of the Global North-South Divide and the aspirations of emerging economies, as represented in the expansion of the BRICS, to present an alternative to the world order that was established to suit the needs and interests of the advanced countries in the Western world. Drawing upon the seven papers included in the SI, we have particularly emphasized the role of nonmarket factors in the workings of the global economy, an increasingly tight relationship between governments and MNEs, for good and bad, and considered how the TCW raises a set of important questions in the management of international operations of MNEs. As the effects of antagonistic rivalry between the US and China extend beyond the boundaries of the two economic powers, potentially finding an expression in a clearer separation between the Global North and Global South, and as captured in the alternative vision of world order articulated by the BRICS bloc, the current geopolitical developments should be of interest and concern to governments, policy makers, MNE managers, and IB researchers alike. In Fig. 1, we have drawn together the collective contributions to this Special Issue to outline a number of themes and issues that we predict will become of increasing relevance and importance for IB research and practice over the coming decades.

By highlighting the systemic, social, political and economic embeddedness of firms, collectively, the articles in this SI showcase how IB research is instrumental for understanding the complexity and scope of impact of the TCW and the emerging multipolarization of global economy and politics. They also speak for the continued importance of

Dynamics of antagonistic rivalry

Pluralist research methodology

IB as a distinctive and cross-disciplinary domain of research, rather than as a mere extension of market and efficiency-based explanations for the strategy and organization of firms. Dau, Beugelsdijk, Fleury, Roth, and Zaheer (2022, p. 3) suggest that: "IB academics, who are grounded in the importance of context, are therefore particularly well suited to study and train future business leaders and policymakers in the nuances of context, and to help them develop a global mindset that can appreciate differences and become more open to global business and economic opportunities". The onset of the TCW, resulting from and amplifying emerging shifts in the global order, necessitates the development of a global mindset that entails, at the very least, the following: One, an ability to view matters from divergent and even opposing perspectives that can be complicated by ideological differences. The world tends to be perceived through the lens of "the West" vs. "the Rest" (Huntington, 1993) with the world order dominated by the West. As Tung (2023, p. 5) pointed out, most management theories and concepts that are assumed to be universally valid and applicable are "essentially based on observations of under 8% of the world's peoples". In other words, there is an urgent need to understand the perspectives of "the rest", i.e., the remaining 92%. Two, the growing divide between the Global North and Global South, and the tensions among themselves, respectively, point to the need to better understand the priorities and needs of peoples in the Global South. Global governance structures that were developed and designed by a handful of Western countries may no longer be able to capture and address the aspirations of peoples in non-Western countries.

The TCW and the trend toward multipolarization suggest that we have reached an inflection point in our understanding of IB phenomena, which has important implications for future research and practice in IB. This poses challenges because many of the assumptions that were made in the past have to be revisited for relevance and rigor. Sanctions are said to paradoxically both hamper and stimulate innovation (Meyer et al., 2023). Yet, innovation under geopolitical pressure at the firm level, for example, is largely unknown. When writing this editorial, we read the news about Huawei's low-key release of its latest smartphone "Huawei Mate 60 Pro", the world's first satellite calling phone with the inbuilt 7 nm chip "Kirin 9000S", designed and made by China. We, like

Organization and management of international R&D

Research Areas and Topics

- Global North-South divide
- Friend-shoring
- Government MNF relationships
- Industrial policy, new techno-nationalism, and technological sovereignty
- The global race for talent and the IPR protection
- Innovation in a multipolar global economy
- MNE stakeholder relationships
- Nonmarket influences in the world economy
- Rise of middle powers
- Innovation under geopolitical pressure
- · Media, democracy, and cultural change

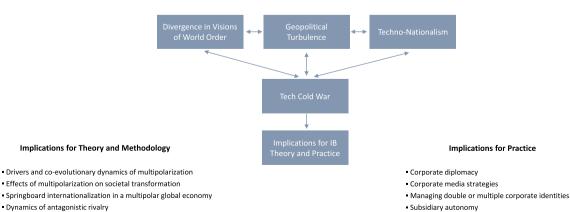


Fig. 1. Tech Cold War, multipolarization of the world economy, and IB research.

everyone in the industry, wonder how and why Huawei could manage to achieve such an impossible breakthrough right under the ongoing and unprecedented US sanctions. Capturing this and many other disruptive innovation cases in the corporate world presents tremendous opportunities to come up with revised and/or new IB theories and concepts, which can help not only IB but also other disciplines to better comprehend the dynamics, processes and consequences of the TCW in a multipolarized world economy.

Data Availability

No data was used for the research described in the article.

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