

New Economic Statecraft: Industrial Policy in an Era of Strategic Competition

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The 2018 U.S. National Defense Strategy notes that the United States faces “an increasingly complex global security environment, characterized by overt challenges to the free and open international order and the re-emergence of long-term, strategic competition between nations.” In the ensuing months, much has been made of the security-related aspects of this return to great power competition — including Donald Trump’s role in the decline of the existing arms control architecture, responses to Russia’s annexation of Ukraine, and China’s use of subconventional — or “gray zone” — military operations in the South China Sea. What this analysis tends to miss, however, are the economic dimensions of strategic competition. To address the question of how insights from international political economy and security studies can be usefully combined to examine strategic competition, we examine how economic statecraft increasingly takes the form of economic policy beyond sanctions regimes. We argue that economic statecraft has become an increasingly central aspect of geostrategic consideration and consider how economic statecraft is being transformed in the current era.

KEYWORDS: Economic statecraft; strategic competition; industrial policy; cybersecurity.

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The 2018 U.S. National Defense Strategy notes that the United States faces “an increasingly complex global security environment, characterized by overt challenges to the free and open international order and the re-emergence of long-term, strategic competition between nations” (Mattis, 2018, p. 2). In the ensuing months, much has been made of the security-related aspects of this return to great

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power competition — including Donald Trump’s role in the decline of the existing arms control architecture, responses to Russia’s annexation of Ukraine, and China’s use of subconventional — or “gray zone” — military operations in the South China Sea. What this analysis tends to miss, however, are the economic dimensions of strategic competition.

In the economics literature, on the other hand, much attention has been paid to the question of whether President Trump’s trade policies are likely to address U.S. trade deficits. Most analysts have criticized the use of tariffs on steel, washing machines, aluminum, and a host of industries from Europe, China, and other countries as detrimental to consumer welfare or ineffective as other countries replace the exports of restricted countries. By contrast, a few scholars have argued that Chinese exports play a detrimental role leading to job losses and exacerbating the problems of the rust belt (Autor, Dorn, & Hanson, 2016). In evaluating what might be a good approach to China, many have drawn on a historical analogy, pointing to U.S. and European policies toward Japan as providing lessons, both good and bad, for suitable policy responses (Owen, 2012). Yet these analyses tend to miss the security dimensions of U.S.–Chinese competition that were largely absent from the U.S.–Japanese example.

To address the question of how insights from international political economy and security studies can be usefully combined to examine strategic competition, we argue that economic statecraft has become an increasingly central aspect of geostrategic consideration to consider how *economic statecraft* is being transformed in the current era (Norris, 2016). What we term “new economic statecraft” focuses on how government–firm relations affect geostrategic competition rather than the literature’s traditional focus on economic statecraft that emphasizes policies related to economic sanctions (Baldwin, 1985; Blanchard, Mansfield, & Ripsman, 2014; Blyth & Matthias, 2017; Drezner, 1999, 2003, 2015; Oatley, 2019). From our perspective, theorizing about new economic statecraft should take into account three important issues.

First, we argue that a traditional defense focus on military and security issues ignores the importance of the economic aspects of great power competition. In particular, we have seen the United States, Russia, China, and European countries making strategic investments in their own markets related to critical emerging technologies and increasingly using tools such as industrial policy and new legislation designed to impact cross-border investment, mergers, and acquisitions.

Second, scholars must not analogize incorrectly from the case of Japan in the 1980s to draw lessons for suitable policy responses today. Although Japan at the time

was seen to be posing an economic threat and despite some effort to frame this challenge in security terms,¹ the existing literature highlights the dichotomy between tense economic competition and dependence upon the United States for military protection (Hamada, 1995; Huntington, 1991; Rosecrance, 1993). Japan was not a military power of significance: it lacked nuclear weapons and its defense relied on an alliance with the United States within the post-war constraints the U.S. had imposed (Akaha, 1991; Coming, 1989; Wu, 2019).² By sharp contrast, policies that may have been effective vis-à-vis Japan do not translate into a feasible response to China, which is clearly an emerging geopolitical strategic competitor (Rosecrance, 1993). This focus also suggests that the concern of economic analysts on job losses, the trade deficit, and other economic issues — while obviously important — misses a critical component of strategic competition that is different from the past.

Third, the rapid evolution of new technologies over the last decade has increased the need to revisit our prior understanding of firm–government relations and the implications for policymaking. While many have noted the increasing competition in fundamentally transformative emerging technologies such as quantum computing, additive manufacturing, artificial intelligence, gene editing, and cybersecurity, less attention has been focused on their dual-use potential. The nature of these new technologies poses a medium- and long-term security threat to the United States and its European allies, leading to the need to understand how to respond to and regulate these technologies.³ In this paper, we describe how efforts to develop these technologies contribute to and potentially exacerbate the economic aspects of great power competition with implications for national and international security.

The paper is organized as follows. The second section examines the theory of economic statecraft and elaborates on what we consider to be key developments that

¹As Huntington noted in a *Survival* article published in 1991, “[T]he United States is obsessed with Japan for the same reasons that it was once obsessed with the Soviet Union. . . . [T]he Soviet military threat was on the public mind: discussions focused on the comparative statistics of Soviet and American missiles, warheads, throw-weight, bombers, tanks and submarines. Today, the Japanese economic threat is on people’s mind. The concern is not missile vulnerability but semiconductor vulnerability” (Huntington, 1991, p. 8).

²For an account of how this security relationship translated into an economic relationship between Tokyo and Washington, see Destler and Nacht (1990).

³We do not argue here that these technological developments reflect technological determinism — only that these and other technologies have opened up the aperture for a series of new political challenges and conversations. For existing work on these technologies, see Volpe (2019) (with regard to additive manufacturing), Buchanan (2017) (with regard to cybersecurity), Moreno (2016) (with regard to gene editing), McCreight (2013) (with regard to convergent technology across the various fields mentioned above), and Kirchoff (2017) (with regard to artificial intelligence).

necessitate a revisiting of this concept. The third section turns to the practice of “new economic statecraft” by China, both with respect to its domestic market and its forays into global ones. In the fourth section, we turn to an examination of the Western response, focusing on recent strategies to address the rise of Chinese national champions and strategic investment in critical technologies that are seen to pose a security threat.⁴ The fifth section briefly considers the use of new economic statecraft with examples of Japanese and Korean policies. We conclude by discussing the implications of these trends for both theorizing about security and economic statecraft.

Economic Statecraft: Old and New

Mastanduno and others have critiqued security scholars for their limited integration of economics into debates regarding the causes and consequences of international conflict. With that said, a number of scholars in the past have attempted to consider how economic considerations frame great power politics (Blanchard & Ripsman, 1999; Mansfield & Pollins, 2001; Mastanduno, 1998, 1999). For example “economic statecraft” as a concept emerged from theories of structural power, with Baldwin (1985) arguing that states use economic tools as a means to further their security objectives.⁵ Similarly, Gowa and Mansfield (1993) investigate the relationship between trade and military alliances, focusing on gains from trade and the allocation of resources for military development. But while these scholars address political economy concepts such as the relationship between military alliances and free-trade regimes, the literature on the indirect implications of free-trade regimes and other dimensions of economic integration related to geopolitical and strategic concerns has been limited (Gowa & Mansfield, 1993). This original scholarship concerning economic statecraft frames economic policy instruments as complementary to military objectives, for example through the use of sanctions as a coercive tool, but does little to address the potential for security externalities arising from economic development among geopolitical rivals (Chan & Drury, 2000).

More contemporary scholarship concerning economic statecraft examines the implications of economic development in a globalized economy where security,

⁴We are currently working on a broader paper that focuses on regional and transregional institutional strategies and the strategies of both great and middle powers.

⁵The grand strategy literature also acknowledges the economic aspects of national policymaking, even if much of the literature remains focused on military capabilities and objectives. Goldstein (2005), for example, describes grand strategy as “the distinctive combination of military, political, and *economic* means by which a state seeks to ensure its national interests.”

technology, and innovation are highly interdependent (Farrell & Newman, 2019). Although the traditional economic statecraft literature focuses on linking economic tools like sanctions with security objectives, new research extends this concept to security externalities arising from an interconnected economy characterized by rapid technological development (Mowery, 2008). While some argue that the defense technology industry will continue to direct the trajectory of defense innovation, the existing literature points to the necessity of dual-use technology development to sustain both novel product and process innovations in the information age (Dombrowski & Gholz, 2006, 2009; Molas-Gallart, 1997). The theoretical foundations of “new economic statecraft” draw upon the literature on the economics of innovation, but expand their scope by discussing the security of the state through the framework of national innovation systems (Christensen, 1997; Kennedy & Lim, 2018; Nelson, 1993; Reppy, 2000).⁶ Given the increasing importance of technology transfer, innovation networks, and associated spillover effects on economic foreign policies, we argue that it is necessary to have a broader reframing of economic statecraft beyond the use of economic policy to further military objectives.⁷

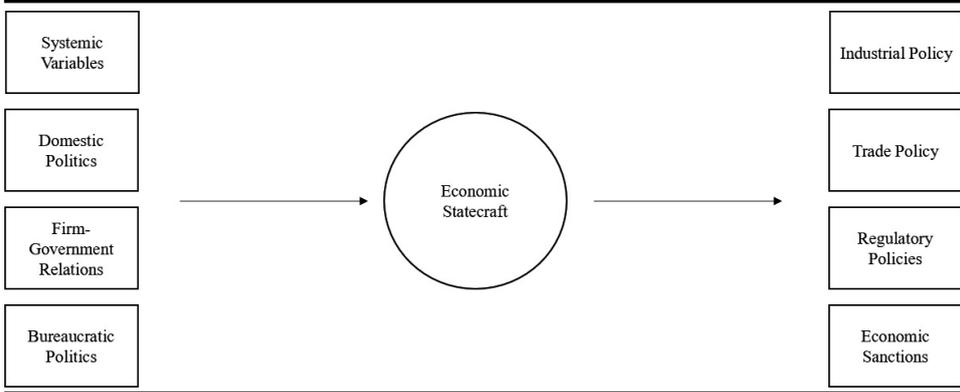
Table 1 outlines the theorized determinants of new economic statecraft. While the causal relationship between the variables is not developed formally here, the interplay between system-level, domestic politics, bureaucratic politics, and firm–government relations influences both the magnitude and type of intervention in their respective markets. The manifestation of economic statecraft, we suggest, can be found in industrial policy measures used to boost strategically important sectors of the economy, trade policy vis-à-vis foreign competitors to private industry, regulatory policies that proscribe or condition market activities, and the use of economic sanctions as a lever of coercion. We argue that both system- and domestic-level variables condition policy creation and practice.

As noted in Table 1, industrial policy, trade instruments, regulation, and sanctions each represent important tools to maintain the cutting edge of military technology for superpowers including the United States, China, and Russia as well as middle

⁶These scholars also emphasize the systemic processes that facilitate innovation rather than single-purpose products with limited civilian applications: see Bracken, Brandt, and Johnson (2005) and Cheung (2011).

⁷Technology transfer refers to a situation in which the products of research and development necessary for the development and fabrication of a product travel across a border. Generally, the term is used to describe situations in which this type of transfer is illicit or viewed to be undesirable. Innovation networks refer to the various institutions necessary to create new technologies that include universities, government labs, and private industry along with investment vehicles that fund research and development.

Table 1.
The Determinates of Economic Statecraft



powers maneuvering between competing interests (Brautigam & Tang, 2012; Cai, 1999; Zhang & Keith, 2017). Chinese policies provide a critical example of new economic statecraft as Beijing increasingly uses industrial policy to support and expand industries vital to its national defense innovation system, with civilian–military integration as a cornerstone of industrial policy (Cheung, 2008; Mansfield & Pollins, 2001). Innovation in dual-use technology is a key part of Chinese security strategy, with concerns of human capital, mandating technology transfer, and focusing domestic policy toward indigenous innovation rising the forefront of its policy agenda (Kennedy & Lim, 2018).

Although “new economic statecraft” is an essential component of U.S.–Chinese strategic competition, it also extends to middle powers navigating great power rivalry through linking economic externalities with security objectives in both domestic and foreign policies (Molas-Gallart & Sinclair, 1999; Schweitzer, 2000). For example, India is pursuing certain aspects of NES, using investment and strategic negotiations in addition to sanctions and trade agreements, to maintain its competitive edge against China and Russia (Ahuja & Kapur, 2018; Sinha, 2016). Japan, too, leverages its investment and developmental aid to the Kurile Islands to build support and economic linkages with the locals as Russia jostles for political control (Randall, 2001). In the following sections, we analyze how trade, investment, and industrial policy represent critical tools of new economic statecraft and provide evidence from rising, established, and middle powers to develop these points.

New Economic Statecraft: The Chinese Model

China has long been an exponent of new economic statecraft in its use of industrial policy, promotion of national champions, and investment regulation. While China's accession to the World Trade Organization (WTO) in 2001 led investors and analysts alike to believe that the country "had arrived" in terms of a commitment to neoliberal economic policies, the reality has been more complicated.

Over the past decade, the Chinese state has begun to pursue a more aggressive role in the economy, belying the excessive confidence in policy convergence with the West. Following the 2008 global financial crisis and China's massive fiscal stimulus in response to it, [Naughton and Tsai \(2015\)](#) argue that the Chinese economy reflects "state capitalism" in that it is characterized by direct control of strategic sectors, party control over personnel, a market foundation for large swaths of the economy, extensive industrial policy formulation on the part of the government, and continued state control over finance.

With the rise of Xi Jinping as head of state, the party leadership has asserted that the market will play "a decisive role" in the economy on the one hand while pledging to "persist in the dominant position of public ownership" on the other ([Economy, 2018](#)). But Xi Jinping's "Made in China 2025" initiative to become a global leader in advanced technologies like aerospace and computing is being increasingly carried out through investment decisions by bureaucrats and party officials through government-guided funds ([Lardy, 2018](#)). Indeed, the Chinese leadership is explicit about its hopes for state-owned firms to become national champions and compete with multinationals from around the world.⁸ As China continues to mix state and market forces in 2019 and beyond, the ebbs and flows of that balance warrant attention as economic and technological competition with the United States becomes more acute.

These shifting dynamics between the United States and China highlight the importance of "new economic statecraft" in strategic competition. China has striven to match U.S. innovation capabilities and strengthen its national security framework by implementing certain policy measures that are discussed in greater detail in the following ([Cheung, 2017](#)).

⁸For example, Xiao Yaqing, the head of the State-Owned Assets Supervision and Administration, has emphasized that firms under the agency's auspice are becoming larger and ever more capable of serving a global role ([Lardy, 2018](#), p. 122). See also Chapter 4 of [Economy \(2018\)](#) for a discussion of the reform of SOEs amidst goals of them becoming national champions.

Controlling the Domestic Market

The reality of China's move toward capitalism was quite different than the path outlined by convergence advocates. With respect to its industrial policy, China has continued to intervene in the market, both at the central government level and the provincial level. Moreover, although it continued to encourage foreign direct investment (FDI), it has maintained a policy of tight investment control since its creation of special economic zones.

The Sino-Foreign Equity Joint Venture Law of 1978 permitted foreign investment in China, but with a host of strict regulations, management, and oversight.⁹ In the 1990s, China created "The Catalogue" to monitor investments by distinguishing between investments that were encouraged, restricted, and prohibited, thereby providing sectoral restraints. Examples of prohibited investments in the 1990s included the power industry, telecommunications, broadcasting, and military arms, with conditions on the type of technology that firms could bring in that set the stage for later national security-oriented legislation. The Catalogue existed through 2017 when the Reform and Development Commission created a "negative" and "positive list" system that encouraged areas for foreign investment. The timing is intriguing insofar as it coincides with the confrontation between the United States and China regarding trade and technology theft. As part of this effort, the government created a specific National Security Review process to focus on merger and acquisition (M&A) activities in 2011. Any domestic companies in defense-related industries that included agriculture, energy, resources, transportation, and technology could all be subject to review. The passage of the 2015 PRC National Security Law had set the stage for a much more significant national security process on M&A, modeled in part on the Committee on Foreign Investment in the United States (CFIUS) and 2018 legislation in the United States known as the Foreign Investment Risk Review Modernization Act (FIRRMA). This was bolstered by the June 2017 Cybersecurity Law, which affected network operators in the critical sectors that were already subject to review but put restrictions on data storage and transfer.

Under pressure from the Trump Administration, the government passed a new version of the country's Foreign Investment Law on March 3, 2019. Effective as of January 1, 2020, Art. 22 specifies that "The State protects the intellectual property rights of foreign investors and foreign-invested enterprises. . . Administrative organs and their employees must not force the transfer of technology through administrative

⁹This subsection draws from Aggarwal and Reddie (2019).

measures.” At the same time, Art. 6 broadly declares that foreign investors or foreign-invested enterprises “must not endanger China’s national security or harm the public interest.”¹⁰ Most recently, the Chinese Government announced a forthcoming list identifying “uncertain entities”¹¹ or firms that pose a threat to Chinese security. Government officials say the list will not target specific industries or individuals, but it is possible that China’s increased domestic regulations is a response to increasing pressure from the Trump Administration (Cheng, 2019).

China’s Growing Outward Focus

Alongside efforts to bolster its domestic industry, Beijing has leveraged its market size and market access to enact technology transfer regimes and to influence the foreign policies of its near neighbors.

Technology Transfer

At the same time as China seeks to bolster the growth of its domestic firms through various industrial policy measures, it has made significant changes to its engagement abroad. The extension of its aid portfolio and investment in emerging markets, particularly in East and Southern Africa, have been well documented, given its effects on the global flows of rare earth minerals and other materials used in high-tech manufacturing (Alden, 2005; Chen, Dollar, & Tang, 2016; Scoones, Amanor, Favareto, & Qi, 2016; Shinn, 2016; Zeng, 2015). Less scrutinized, however, is rapidly growing Chinese investment in developed markets with a view toward owning and developing intellectual property (IP). Following the release of its “Made in 2025” policy in 2015, investments originating from Hong Kong, China, and Taiwan increased from US\$2.3 billion in 2014 to US\$9.9 billion in 2015 (the amount of investment coming into the U.S. market from Hong Kong, China, and Taiwan was less

¹⁰An English translation of this new legislation is available at <<https://www.chinalawtranslate.com/en/foreign-investment-law-2019/>> .

¹¹An alternative translation from Chinese is “unreliable entities” (不可靠實體, *bu ke kao shiti*, is used in Chinese language reports and press conferences). On June 27, 2019, a Ministry of Commerce spokesperson cited four criteria for an entity or individual to be blacklisted:

- (1) Behavior that impedes, fails to pay, or discriminates against Chinese firms.
- (2) Behavior that is basically non-competitive in its purpose, counter to market rules, or in breach of contracts.
- (3) Behavior that results in substantive losses to Chinese enterprises or related industries.
- (4) Behavior that constitutes a threat or potential threat to national security.

Our thanks to our Research Assistant Phil Rogers for his translation. Details of the press conference noted above can be found at <<http://world.huanqiu.com/article/9CaKrnKlbdh>>.

than US\$500 million in 2011) (Bennett & Bender, 2019). However, Chinese FDI in the United States dropped to US\$4.8 billion in 2018 — down from US\$29 billion in 2017 and US\$46 billion in 2016 — amid more restrictive U.S. investment policies (Hanemann, Gao, & Lysenko, 2019). Among these, Tencent, HAX, IDG Capital Partners, and the Alibaba Group have been some of the most active participants in the U.S. market — predominantly via their involvement in California-based venture capital during seed and Series A rounds of investment (“The Rise of Chinese,” 2016). Recent examples of Chinese investment in U.S. firms working on artificial intelligence (AI) include Baidu and JD’s investment in ZestFinance and Tencent backing ObEN (both AI firms are based in California). It remains unclear whether the new FIRRMA legislation passed in the United States will re-shape the patterns of these financial flows.

Beyond making strategic investments in firms working on emerging technologies, the U.S. Defense Innovation Unit (DIU) has noted that Beijing has also used several other licit and illicit strategies to garner IP. These other tools include industrial espionage via cyber-theft, Chinese-based technology transfer organizations that are used to track and reverse-engineer products created by foreign firms in China, U.S.-based firms used to recruit human capital, and leveraging academic partnerships (Brown & Singh, 2018). These activities have led the United States and Europe to leverage their own economic levers to address these policies.

Sanctions Policy

Alongside its efforts to garner intellectual property from private firms, Beijing is also increasingly using its sanctions policy to shape the foreign policy prerogatives of its near neighbors. As Nephew notes, while China has long been a recipient of sanctions, Beijing is becoming increasingly well versed in deploying sanctions in pursuit of its interests (Nephew, 2019). Recent interventions include raising tariffs on mining products from Mongolia following the Dalai Lama’s visit, curtailing exports from Norway following the 2010 decision by the Nobel Committee to award a Chinese dissident, Liu Xiaobo, and banning Philippine goods in 2014 following a dispute between Manila and Beijing regarding the Scarborough Shoal (Economy, 2018, p. 202; Harrell, Rosenberg, & Saravalle, 2018). Beijing also successfully deployed economic sanctions against South Korea’s tourism industry following its decision to host U.S. THAAD missile defense systems on the peninsula (Kim & Blanchard, 2017; Volodzko, 2017). China has also variously used economic carrots and sticks to influence the choices of regional states with regard to the recognition of Taiwan (Dou, 2019).

Taken together, these episodes suggest that Beijing is increasingly considering a broad use of economic tools in pursuit of its national interest. It is important to note,

however, that most of Beijing's sanctions are focused on states with which China enjoys an asymmetric advantage. This raises the question of how middle powers in the region, specifically Japan and South Korea, are employing their own levers of economic statecraft to influence the distribution of power in the region — particularly given their close relationship and reliance on Washington for extended deterrence.¹²

New Economic Statecraft: The Western Response

The geopolitical consequences of China's economic rise have elicited an increasingly aggressive response from Western countries for over the past decade long before the dramatic acceleration with Trump's trade and investment policies. These efforts have both targeted China's domestic industrial policies as well as its outward push to acquire markets and technology through FDI. We consider each in turn.

Pressuring China on Its Industrial Policy

From 2004 to 2019, the United States filed 23 cases in the WTO — in some cases driven by pressure from U.S. companies who have criticized their inability to invest freely in China or who have faced barriers to entering the Chinese market. While the WTO has often ruled in favor of the United States and other Western countries, various cases concerning subsidies, countervailing duties, and intellectual property rights remain unresolved. Outside of the WTO process, the Trump Administration appears to favor unilateral tariffs based on a variety of U.S. trade laws. In 2018, the U.S. imposed tariffs on solar panels, washers, steel, and aluminum. It has also threatened restrictions on autos and auto parts, targeting both friends and foes alike. But from a new economic statecraft perspective, American efforts to address China's "Made in China 2025" policy through the use of tariffs under Sec. 301 and new FIRRMA legislation are the most significant development to directly target China's domestic industrial policy.¹³

Using Sec. 301 in August 2017, the Trump Administration asked the U.S. Trade Representative's office (USTR) to consider whether China has implemented laws or policies that adversely affected the United States with respect to intellectual property

¹²South Korea, for example, faced Chinese sanctions following its decision to allow U.S. deployment of the THAAD missile defense on the Korean peninsula (McGuire, 2017). See also Kim and Blanchard (2017).

¹³China lodged a series of complaints against the United States in the WTO in response to these measures.

through forced technology transfers (USTR, 2018, p. 4). On March 22, 2018, USTR found in the affirmative, and the president proposed tariffs, called for a WTO case, and recommended investment restrictions (USTR, 2018). In July 2018, the first stage of import restraints with a tariff of 25% went into effect on about US\$34 billion of goods. In August, an additional US\$16 billion of Chinese imports were slapped with 25% tariffs. In the third stage, the U.S. imposed a 10% tariff on US\$200 billion of imports, effective September 24, 2018. These are slated to increase to 25% on January 1, 2019. For its part, China has retaliated against the initial US\$50 billion with its own 25% tariffs on US\$50 billion, and now has 5–10% tariffs on an additional US\$60 billion of imports from the U.S. In response to the most recent round, China announced that as of June 1, there would be an increase on US\$60 billion of imports that was initially targeted but not implemented back in September (Pramuk, 2019). The Trump Administration had said these tariffs are intended to get China to negotiate, but responded to the most recent retaliation by saying that Washington would impose tariffs on the remaining US\$267 billion of imports from China in a fourth stage (Lynch & Paletta, 2018).

Negotiations between Washington and Beijing appeared to be moving forward in 2018, and a tranche of U.S. tariff increases scheduled for March 2 were postponed. These negotiations represent an attempt to address sectoral issues related to the trade deficit between the two countries as well as broader structural issues in the Chinese economy — namely, state control of economic activity — that Washington contends have led to an unfair playing field for foreign firms. The trade talks between Washington and Beijing have been in a stop-and-go holding pattern. A meeting between President Trump and President Xi scheduled during the June G20 talks in Japan under uncertain conditions failed to yield a breakthrough agreement of any kind (Lee, 2019). President Trump announced the imposition of duties on US\$300 million of imports not already subject to a 25% tariff in the weeks following the G20 Summit. These developments over the summer of 2019 left expectations for an escalation and not a settlement of the trade war (Churchill, 2019), China and the United States agreed to a so-called Phase One Trade Deal in December 2019 that requires structural reform to China's economic and trade regime with regard to intellectual property, technology transfer, agriculture, financial services, and currency/foreign exchange. Under the agreement, the United States has agreed to significantly modify its Sec. 301 tariffs, China has agreed to increase its import of particular U.S. goods by no less than US\$200 billion to above 2017 levels, and both sides have agreed to a dispute resolution arrangement that creates regular bilateral consultations at both the principal and working levels (USTR, 2019).

Addressing China's Outward FDI Drive

As noted above, China's domestic industrial policies that are reminiscent of Japan's industrial policy efforts from the 1950s to the 1980s have led to an increasing outward push by Chinese firms to secure both market share and develop new technologies. Here, we focus on three types of efforts by Western countries to respond to this push: (1) the use of industrial policies to bolster strategic sectors of the economy and proscribe the activities of foreign firms; (2) the promotion of national champions as one key element of industrial policy; and (3) the regulation of Chinese FDI through national security reviews of foreign investment.

Industrial Policy

Among Western countries, the United States and Germany have largely eschewed industrial policy at the federal level in the post-WWII era. By contrast, France, Italy, and the United Kingdom all made efforts at various times to engage in vertical sectoral policies. In a systematic analysis of policies of the UK, France, and Germany from the post-WWII era until the 2010s, Owen (2012) argues that of the three, the UK made the most mistakes. By contrast, he argues that West Germany's limited intervention did the least damage. With respect to the French, he notes that efforts in industrial policy were mixed, but that the main problem encountered "was the preoccupation with national champions, which created some strong companies but had a distorting effect on the allocation of resources." We will turn to the question of national champions as a key form of industrial policy. Before we do so, however, we examine recent efforts to use industrial policy related to cybersecurity — an emerging technology that states have grappled with over the past decade — as an example of the varieties of policies available to policymakers to shape their domestic and international markets.

In a large number of Western countries, national governments have recently played a vital role in creating domestic cybersecurity-markets simply by becoming customers for cybersecurity-related goods and services (Aggarwal & Reddie, 2018). In France, for example, we see the use of coordinated procurement processes that are focused on building indigenous capabilities. These policies, designed to serve as a "sovereign solution" to the cybersecurity challenge, are enshrined within the *Loi de Programmation Militaire (LPM) 2014–2019* (Military Programming Law) (D'Elia, 2018). Such policies reflect a long tradition in which Paris has invested substantial public aid in support of the French IT market. In the United States, the government and military are major consumers of cybersecurity-related goods and services and have

government-linked venture capital arms devoted to maintaining their supply (Aggarwal & Reddie, 2018).

Many Western governments have also taken measures to promote their own firms in cybersecurity markets while limiting the participation of foreign ones, a process we call *indigenization*, in which states seek to create markets where both supply and demand are largely domestic. While some nations like Japan have opened their markets to foreign cybersecurity products to compensate for a lack of indigenous capacity, most have been skeptical of relying on foreign firms, preferring instead to create the conditions for national firms to build expertise. This skepticism appears to be growing in the United States, as evidenced by limits placed on the procurement of technology from China's Huawei and ZTE or the use of products from the Russian anti-virus firm Kaspersky Labs amid concerns that these companies may provide undue access to Beijing or Moscow, respectively.

The Trump Administration, for example, recently announced a ban against American companies providing hardware and software to the Chinese technology company Huawei citing security concerns, with implications for businesses and governments globally amid questions about how these regulations would be implemented (Waters, Hille, & Lucas, 2019). Panasonic subsequently suspended business with Huawei in line with Trump's policy, while UK chip manufacturer ARM less enthusiastically followed suit, facing losses from patents filed in the United States ("Huawei Ban," 2019; "Panasonic Examines," 2019). It remains unclear whether Huawei's partners with U.S. operations will cut ties with the Chinese firm as a precautionary measure or only on direct orders from Washington. The ban is also pushing the UK to reconsider its stance on Huawei, with inopportune timing for policy coordination as PM Theresa May was replaced by PM Boris Johnson ("Shocked British Officials," 2019). While European telecommunications firms see an opportunity to expand their market share where the ban is enforced, Huawei's low-cost 5G wireless network is an enticing prospect to European governments (Nakashima, 2019). Trump's retaliatory policy is certainly destabilizing for the telecom industry, creating challenges for both political and businesses allies affiliated with Huawei along the global supply chain. Despite the market uncertainty, China granted Huawei a 5G license for domestic commercial use following the ban and threatened counter-sanctions, which suggests that the Chinese Government will forge ahead with an industrial policy that supports the telecom giant (Liao, 2019).

To address technology transfer concerns, states also rely on export controls and procurement rules to limit the ability of domestic cybersecurity firms to take part in international markets. The United States, for example, has enshrined export control in

the Arms Export Control Act, while the United Kingdom limits exports through the Cyber Security Export Strategy and National Cyber Security Strategy (Carr & Tanczer, 2018). The European Union has moved forward with plans to institute export controls on technologies related to cyber-surveillance, much to the chagrin of BAE Systems and other private firms in the cyber-sector that must liaise with each respective government to determine appropriate technology sales (and potentially lose customers abroad to foreign competitors) (Timmers, 2018).

Promoting National Champions

One particularly important form of industrial policy is the use of national champions, which despite being discredited in the view of many analysts, has made a comeback. France had historically promoted the two national champions Usinor and Sacilor in its steel industry, and the two were merged in 1986. Similarly, the UK created British Steel out of 14 separate companies in 1967, while the Japanese helped Nippon Steel among others to become globally competitive. In the computer sector, the French created Compagnie Internationale de l'Informatique (CII) in 1966, the British created International Computers Limited (ICL) in 1968 through various mergers, and the Italians bailed out their troubled Olivetti. All of these efforts sought to compete with IBM in vain. CII was taken over by Honeywell-Bull in 1976, ICL was absorbed by Fujitsu in the 1990s following a government bailout in 1981, and Olivetti became part of Telecom Italia.

With privatization all the rage in the 1980s, the failures of government-led initiatives to create and sustain national champions were seen at best as a pipedream. Yet with the perceived threat from Chinese SOEs in becoming global behemoths,¹⁴ promoting national champions is once again back on the agenda. In Europe, concerns about Chinese competition have led to calls for the creation of national and European-wide champions. Long a staple of French industrial policy as noted, the most striking shift came from Germany. German Economy Minister Peter Altmeppen together with French Economy Minister Bruno Le Maire issued a “Franco-German Manifesto for a European industrial policy for the 21st century” on February 19, 2019. In addition to calling for support for technology innovation and the enforcement of rules on public procurement, trade, and investment, it called for a change in competition rules to enable the creation of national and European champions. Underlying this shift in policy was the EU Commission’s decision to block a merger between Alstom and

¹⁴In 2005, 18 Chinese companies have made the Fortune Global 500 list, by 2010, 47, and in 2018, 120.

Siemens earlier in February. Even Angela Merkel criticized this decision, noting that it “leaves me in doubt about whether we can really produce global players this way.” This shift in thinking has manifested itself even in the *Financial Times*, which is normally market-focused and highly critical of industrial policy efforts. As an editorial by the board noted on February 5, 2019, “There is a case for targeted subsidies to create a battery maker of scale in Europe. As for AI, a state-funded pan-EU venture may be the only way for Europe to stay in the race.”

In the United States, the success of technology firms such as Alphabet, Facebook, Amazon, and others have diminished the calls for government support for their activities (Owen, 2017). However, the relationship between these firms, their workers, and the government has remained a source of debate in the wake of Google pulling out of Project Maven, an initiative designed to bring AI tools into the U.S. Department of Defense, and concerns from Microsoft employees regarding the Pentagon’s use of augmented reality headsets for training and operations.

National Security Review of Foreign Direct Investment

The U.S. Government has rapidly increased its regulatory role in foreign direct investment. Implementing new legislation on national security review oversights of FDI has become the latest approach to dealing with China’s outward FDI push. For example, in 2018 the United States passed a legislation known as FIRRMA to expand the oversight procedures of the existing CFIUS process to include even minority stakes in American companies — including those from venture capital and private equity firms. Germany has also passed new laws after becoming deeply concerned about Chinese investments, and has been joined by the UK, Italy, France, and others. For its part, the EU has also created a framework effort to manage the new disparate FDI regimes in its member states.

Turning first to the United States, the CFIUS process has traditionally been focused on controlling stakes taken by foreign firms in U.S. companies or multinational companies with contracts related to U.S. critical infrastructure. These “traditional” pathways of regulation, however, turn a blind eye to how a number of countries engage with American firms, particularly those in the technology sector working on emerging technologies that include artificial intelligence, quantum computers, and next-generation space systems. While the role of Chinese investment funds and Chinese funding for traditional venture capital firms in the U.S. has been well documented, it has been largely absent from a public discourse that has instead focused on procurement guidelines (specifically related to Huawei and ZTE) and U.S.–China trade concerns. The 2018 FIRRMA legislation has put these issues back on the agenda

by expanding the types of foreign activity in the U.S. market that are subject to oversight. Specifically, FIRRMA lowers the threshold for investigating foreign investment to include any foreign “non-passive” investment in companies involved in critical technology. The technologies discussed during the floor debate concerning the passage of FIRRMA in the House of Representatives included artificial intelligence, robotics, augmented and virtual reality, new biotechnologies, new financial technologies, and advanced materials. According to Croley, Potter, Concannon, Carnegie, and Shapiro (2018), FIRRMA changes the jurisdictional framework by extending CFIUS review to “any investment that relates to a U.S. business owning or maintaining ‘critical infrastructure’; a business involved in the development, design or production of ‘critical technology’; or a business collecting or maintaining ‘sensitive personal data’ of U.S. citizens, in the event that the investor acquires (in connection with the investment) ‘any material nonpublic technical information’; is granted membership or observer rights on any board of the business; or has ‘any involvement’ in the decision-making of the business.” Importantly, this means that transactions that do not lead to foreign control of a company are still subject to disclosure, review, and investigation.

For some, this is a welcome amendment to the CFIUS review process. The U.S. Department of Defense’s DIU, formerly DIUx, has a series of reports outlining how Chinese investments have contributed to technology transfer across the Pacific, arguing that the existing traditional CFIUS review process has at best only been partially effective (Brown & Singh, 2018).

There are clearly significant challenges associated with the new legislation. First, the U.S. Treasury Department and other enforcing agencies face a series of decisions concerning which technologies will be subject to heightened scrutiny and control and whether some countries — particularly U.S. allies — are to be exempted from the requirements. Second, companies will have to amend their own procedures and auditing processes regarding foreign investment and resulting voluntary declarations to CFIUS review. Both concerns are suggestive of the difficult balance that policy-makers and companies in the U.S. must strike related to national security considerations while maintaining an open investment environment. But the changes we have seen in new legislation, driven in large part by Chinese foreign investment, are hardly restricted to the United States.

In Europe, the United Kingdom has moved forward to strengthen national security reviews of investment rather than only relying on the existing Competition and Markets Authority, a body which is based on a 2002 law that allowed the government to examine mergers based on national security considerations. The new approach, proposed in a July 2018 White Paper, specifies triggering events based on varying

levels of shares and assets (“National Security and Investment,” 2018). While parties to a transaction are encouraged to voluntarily submit their proposed acquisition to the government, the government can also initiate a review of transactions on its own. In terms of likely impact, the White Paper predicts that approximately 200 cases will be subject to review on a yearly basis, with about 50 requiring some mitigating action on the part of the parties in light of national security concerns. This proposed approach is likely to be instituted by 2020, and venture capital firms, law firms, pension funds, and others have responded by expressing concerns about the possible uptick in cases that will fall under national security review. Under the 2002 law, only nine cases were subject to government intervention (Martin, 2018).

In continental Europe, France has regulated and blocked FDI since 1966. Its 2004 law expanded the sectors that would be subject to review from weapons to include infrastructure investments such as electricity, gas, oil, and water. Pending approval of the French Senate, the PACTE Law first proposed in June 2018 will expand its sectoral overview to AI, data, space, cybersecurity, dual-use goods, robotics, and the like. The bill gives the government the right to suspend voting rights and dividend distributions, appoint a trustee in the company to oversee French interests, and sell French assets. Moreover, both acquiring and target companies can seek a review by the Ministry of Economy for their opinion of the investment.

Germany has for the most part been very welcoming with respect to FDI, with few restrictions for national security. Very recently, this has begun to change dramatically. Since 2004, the German Ministry for Economic Affairs and Energy has had the power to review M&A activity in security-related industries that include military equipment and IT products used for encryption. This review was extended in 2009 to include any M&A activity by non-European investors if a foreign entity acquired more than 25% of voting rights. In the aftermath of concerns about a 2016 acquisition effort by a Chinese company of a German industrial robotics company and a proposed chip company acquisition in 2017, the scope of review was expanded to include critical infrastructure, cloud computing, telematics, and some key software. The 25% threshold was lowered to 10% for sector-specific acquisitions that might impinge on national security, and the scope was expanded to include the media in December 2018.

The EU has long coordinated trade policy but has done little with respect to creating common national security review policies on FDI. Currently, only 14 of the EU member states have a national security screening procedure on FDI. But beginning with a European Commission proposal in September 2017 for the development of a framework to screen FDI entering the EU, the EU quickly acquired both Parliamentary and Council approvals by July 2018 for a proposed agreement on November 20, 2018.

Following approval by Parliament this year, the framework is likely to come into effect in November 2020. The accord does not call for a single common policy but for information exchange on best practices and allows the Commission to “issue opinions in cases concerning several Member States” (“Commission Welcomes,” 2019). With respect to its scope, the deal covers critical infrastructure and technologies, robotics, AI, cybersecurity, dual-use products, media, and broader infrastructure — similar to the coverage of the new German FDI laws.

Middle Powers in the Asian Context

In line with the broader thrust of this Special Issue, we provide a brief example of economic statecraft enacted by middle powers as they respond to China’s growing use of economic statecraft outlined above.¹⁵

The Economic Determinants of Middle Power Foreign Policy

Much of the existing literature concerning middle powers takes its cues from middle power strategies during and immediately following the Cold War.¹⁶ Amid China’s rise, the concept of “middle powers” has continuing relevance and offers a useful prism through which to consider the hedging strategies used by regional powers in general and the use of economic levers as part of this strategy in particular. For our purposes, we suggest that middle powers represent those states that are able to influence the conduct of great powers — in this case the United States and China — while engaging in balancing, bandwagoning, and hedging behavior vis-à-vis the rising and status quo states. Often, this behavior is explored in a treatment of various alliance relationships that privilege the security relationships between these states. As is the case above, we suggest below that economic policy represents an important lever of middle power policymaking and explore the use of these tools in the Japanese and South Korean cases below.

Tokyo’s Economic Statecraft

Tokyo has long used economic statecraft to focus public investment in strategic sectors of its economy, and this practice has been well documented in the existing

¹⁵For a discussion of the definition of a middle power, see [Chapnick \(1999\)](#). For a historical treatment, see [Holbraad \(1984\)](#).

¹⁶On the application of the “middle power” concept to contemporary issues, see [Cooper, Higgott, and Nossal \(1993\)](#).

literature (Bartlett, 2018; Johnson, 1982; Okimoto, 1989). These policies have contributed to Japan's leadership in high-tech industries and have in general been augmented by the provision of foreign direct investment. This leadership, however, has made it the target of the technology transfer schemes employed by Beijing and described in detail above.

In response, Tokyo has introduced new legislation that substantially amends the Foreign Exchange and Foreign Trade Act (FEFTA) to tighten reporting requirements associated with foreign investment (Harding & Lewis, 2019). Passed in late 2019, this legislation requires regulatory approval for investments of 1% or more for specific strategic sectors of the economy identified by the governance of a Japanese company's shares, a reduction from the threshold of 10% under existing rules (Suzuki, 2019). The new rules also call for more stringent oversight of strategic sectors of the economy to include national security, public order, public safety, and "the smooth operation of the Japanese economy." It is understood that these sectors will include economic activities related to weapons, Internet technology and communication (ICT), aircraft, nuclear energy, agriculture, and shipping. Interestingly, U.S. firms that have traditionally provided Japanese companies with foreign direct investment and other opponents of the legislation have communicated their concern that the new legislation will lead to a drop in FDI into Japan. Indeed, the uncertainty regarding the downstream consequences of the legislation is emblematic of the broader challenge facing Japanese policymakers as they orient themselves between China and the United States.

Seoul's Economic Statecraft

The story in Seoul is similar in that a long history of state intervention in the country through industrial policy has shifted toward making sure that sensitive sectors of the economy are protected from foreign technology transfer via intellectual property theft (Chang, 1993; Westphal, 1990). To this end, various efforts have been taken to bolster the existing Act on Prevention of Divulgence and Protection of Industrial Technology "to prevent undue divulgence of industrial technology and protect industrial technology in order to strengthen the competitiveness of Korean industries and contribute to national security and development of the national economy."¹⁷ Unlike the Japanese case above, Korea has used punitive sanctions rather than regulatory oversight in this policy shift. As an example of this policy in action, nine individuals

¹⁷Enforcement Decree of the Act on Prevention of Divulgence and Protection of Industrial Technology (No. 28212 updated on July 26, 2017). See also: Rules on Foreign Investment (Notice No. 2016166, September 22, 2016).

working from a Samsung supplier (Toptec) were indicted in November 2018 for leaking flexible display technology to a Chinese firm. Interestingly, South Korea's own businesses via industry associations — including the Korea Semiconductor Industry Association — have played an important role in driving this process forward.

Many of these measures and particularly new rules concerning foreign investment in strategic industry mirror the renewed use of economic statecraft by Washington and European states noted above.

The Consequences of Economic Statecraft

As we outline above, both inward- and outward-facing economic policies have both political and security externalities. Moreover, we suggest that economic statecraft should be broadened from a traditional framing around economic coercion to include all of the economic tools at a government's disposal to affect its strategic position. Moreover, we argue that economic statecraft represents a core aspect of strategic competition involving China, the United States, and middle powers in the Asian context.

This paper provides empirical examples of economic statecraft for further examination and outlines a research agenda that considers the causes and consequences of economic statecraft. As we note throughout, a number of issues are ripe for future, policy-relevant scholarship. In particular, patterns of investment, technology transfer efforts, and regulatory efforts to protect R&D related to emerging technologies are likely to be particularly important given the conjectured consequences of these technologies for the balance of power. Second, analysis of regional networks, particularly in East Asia and Europe, is needed to consider the effect of reinvigorated strategic competition on global supply chains. In East Asia, for example, Beijing has played an increasingly integral economic role that has transformed its relationship with its smaller neighbors while also making territorial claims in the South China Sea (Norris, 2016). While these developments have been well documented, China's use of strategic investments in its private sector as well as promoting investment in emerging technologies abroad has not hitherto been well documented in the existing theoretical literature, particularly as it relates to the conduct of Chinese firms in the Japanese and South Korean markets.

In light of this re-framing of economic statecraft, there are three natural extensions of the arguments made in this paper. First, scholars might consider how economic statecraft contributes to changes in existing global and regional governance

mechanisms. As noted above, international arrangements have been important to the extant global order. With that said, these arrangements face a number of challenges — not least in the realm of intellectual property — that include a number of efforts to create regional economic arrangements. These include Trans-Pacific Partnership (TPP) and Transatlantic Trade and Investment Partnership (TTIP), which were both championed by the United States under President Obama while the former was abandoned by President Trump. They also include the Regional Comprehensive Economic Partnership (RECEP) and the Belt and Road Initiative supported by Beijing.

Second, more attention needs to be paid to the trade-offs associated with middle powers caught between a rising China and historical dependence on the United States. While the Japanese and Korean cases considered in this paper focus on addressing the activities of near neighbors, it is likely that the challenges faced by middle powers regarding how to appropriately balance, bandwagon, and hedge are traveling to other middle powers in Asia, Europe, and North America.

Finally, firm–government relations have traditionally been left out of security analysis despite their important role in financing, building, and procuring the very military technologies that states depend upon for their security. Taking these relationships into account may contribute to a more nuanced discussion of the causes and consequences of the security-oriented strategies undertaken by policymakers.

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