Network Embeddedness and Foreign Policy Alignment in Great Power Competition: Evidence from the US-China 5G Contest*

Haoming Xiong†

Abstract

What drives states' alignment decisions in great-power competition? I argue these decisions are shaped not only by power or ideology but also by the relational networks in which states are embedded. A state's network position influences its ability to shape others' behavior and its vulnerability to peer pressure. I test this relational theory of alignment through a large-N analysis of alignment choices during the US-China technological competition. Using a novel panel dataset on states' decisions to restrict Chinese telecom firms, I employ a Cox proportional-hazards model to estimate these network effects. Results show that states are likely to ban Chinese firms when more direct security partners have done so, but the likelihood decreases when more indirect partners have cut ties with China. Additionally, states with high degree centrality exert a stronger influence on others' alignment decisions. This study highlights the critical role of global networks in shaping state behavior.

*I thank Jonathan Caverley, Stephanie Char, Skyler Cranmer, Stacie Goddard, Eric Gomez, Sheena Chestnut Greitens, Jyhjong Hwang, Yuen Foong Khong, Jennifer Mitzen, Joseph Parent, Randall Schweller, Alexander Thompson, and Cartland Zhou, as well as the panel attendees at APSA 2024, participants in the Junior Scholars Symposium (2023) at the Cato Institute, and the International Relations Theory Colloquium (2023-2024) for comments on earlier drafts. I am grateful to the Charles Koch Foundation, the Institute of Humane Studies at George Mason University, and the Graduate School and Department of Political Science at The Ohio State University for funding.

†Ph.D. Candidate in Political Science, The Ohio State University. Email: xiong.361@osu.edu

1 Introduction

Great power rivalry is back. The United States and China, the two largest economies in the modern world, have ramped up their strategic competition in Asia and beyond. The outcome of this unprecedented competition, and perhaps more importantly, the future of the modern international order, will be shaped not only by the relative material and non-material capabilities of the two Titans, but also by the alignment choices of less powerful states caught in the middle. These states' foreign policy alignments serve as critical signals of which major power holds greater influence in the international arena (Jackson, 2020; Allison, 2020) and who can shape the rules and norms that underpin international order to benefit themselves while constraining their rivals (Bettiza and Lewis, 2020; Lascurettes, 2020).

How, then, do these states navigate the turbulent waters of great-power competition to make alignment choices? Conventional international relations (IR) scholarship often emphasizes the role of unit-level attributes such as power and ideology in shaping foreign policy alignment. Theories such as balance of power (Waltz, 1979), balance of threat (Walt, 1985), bandwagoning (Schweller, 1994), and ideology (Owen, 2005) have been widely used to explain why states choose to align (or not align) with great powers. More recently, some scholars have argued that weaker states are increasingly reluctant to commit to one side in great-power competition. Instead, they seek to maximize their interests by hedging—pursuing strategies that allow them to engage simultaneously with rival great powers (Kuik, 2008; Greitens and Kardon, 2024).

These theories offer valuable insights but are incomplete. Factors like power and ideological divides do not hold uniform importance across all great power rivalries—especially in the modern US-China competition, where economic and technological contests dominate (Brunnermeier et al., 2018; Schweller, 2022). Furthermore, while the literature on hedging often assumes states have the flexibility to maneuver, in reality, countries are frequently pressured to choose sides in great-power competitions, leaving little room for neutrality or playing both sides.

These challenges raise an important question for IR scholarship: In great-power competitions where conventional factors such as power and ideology offer no clear guidance, how do states make alignment choices when pressured to take a stance on critical foreign policy issues?

Drawing from a network-relational approach (Hafner-Burton et al., 2009; Jackson and Nexon, 1999; Maoz, 2012a), I argue that the broader structures of international relationships—specifically, the relational networks of states—play a crucial role in shaping foreign policy alignment in great-power competition. These networks can exert a *significant and independent* influence on state behavior, even though their formation and evolution are often associated with state attributes such as power and ideology. States often rely on "social cues" from their peers to navigate foreign policy alignment. In other words, alignment decisions are rarely made in isolation; rather, they are deeply shaped by the behaviors of allies or partners, particularly those positioned differently in relational networks.

To test this relational theory of alignment, I examine the recent US-China competition over fifth-generation mobile broadband (5G) technology. As a technological contest without clear power or ideological divides, the 5G case offers an ideal context to explore how relational networks influence alignment beyond traditional factors. Specifically, despite facing similar pressure from the US to cut ties with Chinese telecom companies, states' responses vary significantly and cannot be fully explained by power dynamics, ideological similarity, or threat perception.

I argue that states' 5G decisions are shaped not only by these factors but also by their positions within the global security partnership network. These positions determine both how vulnerable states are to influence from their security partners and which partners have the greatest power to shape their decisions.

To explore these network effects, I developed a novel dataset combining states' 5G policy choices with their positions in the global security partnership network from June 2019 to December 2022. Using a Cox proportional hazards model to analyze the timing of these decisions, I find that states are more likely to suspend 5G cooperation with China

when more of their direct security partners have done so. However, when more indirect partners ("partners of partners") have imposed bans, states are *less* likely to follow suit. This suggests that while direct peer influence promotes alignment with the US, indirect partners' alignment causes counterbalancing behavior. Moreover, the more central a state is in the security network, the more it shapes—and is shaped by—the alignment decisions of others.

This article makes several contributions to IR research. First, it advances alignment theories by highlighting the crucial role of relational structures in shaping alignment decisions, particularly in great-power rivalries where states are compelled to take sides. As demonstrated in the 5G case, beyond factors like threat perception and ideological preference, the position and behavior of security partners significantly influence a state's decision to cooperate with China. This relational perspective provides a more comprehensive understanding of foreign policy alignment and contributes to the growing literature on how network dynamics shape state behavior in power politics (Hafner-Burton et al., 2009; Goddard, 2018; Macdonald, 2014).

Second, this article finds that peer influence operates through both direct and indirect partnerships, meaning that states' foreign policy decisions are shaped not only by immediate partners but also by their partners' partners. More importantly, contrary to existing findings (Kinne, 2013; Cranmer et al., 2020), these influences are complex and not uniformly positive. In the US-China 5G contest, states are more likely to maintain cooperation with Chinese companies when more of their indirect partners align with the US to impose restrictions. This nuanced understanding of peer influence suggests that network effects can sometimes produce divergent foreign policies.

Third, the findings indicate that great powers can strategically leverage their position in relational networks to influence the foreign policy alignment of other states. Conventional studies, particularly those on wedge strategies, often focus on using power resources to *directly* coerce or reward states in the struggle for influence (Crawford, 2011; Izumikawa, 2013; Yin, 2022). This article demonstrates that network influence can serve as a useful

indirect tool for shaping alignment decisions. Understanding these dynamics can allow states to craft appropriate strategies that combine both direct and indirect approaches to shape the trajectory of great-power competition.

The article is structured as follows. The next section reviews key studies on alignment in international politics. I then explain how a network-relational approach complements existing theories and outline three mechanisms through which networks shape states' alignment decisions. Based on this theoretical framework, I introduce the US-China 5G contest and propose three hypotheses on how security partners affect alignment in the 5G case. The following sections detail the research design, data, and methodology, and present the results. I show that the findings are largely consistent with the proposed hypotheses. The final section discusses the broader implications of the study and suggests directions for future research.

2 Alignment in Great Power Competition

The pattern of alignment is a key component of great-power competition.[1] In rivalries between major powers, securing the support of less powerful states is not merely an advantage, but often a strategic necessity. Aligned states can act as force multipliers, enhancing a great power's capabilities (Waltz, 1979), providing access to resources like oil and minerals (McFarland, 2020), and bolstering its ability to project influence (Morrow, 1991). Weaker partners also confer status recognition (Lin, 2024), lend legitimacy to leadership (Lake, 2011), and offer diplomatic support, helping major powers establish or revise international rules and norms in their favor (Finnemore and Sikkink, 1998; Lascurettes, 2020).

Given these critical roles, weaker states' alignment decisions can significantly reshape the trajectory of great-power competition. As a result, understanding what drives these

[1] Although existing IR literature often uses "alignment" and "alliance" interchangeably, in this article I consider alliance as a subset of alignment. I argue that alliances mainly refer to formal military agreements between states, but alignment encompasses a broader range of foreign policy behaviors that signal support for one side.

states to align with one great power over another has long been one of the central topics in IR research. Scholars have developed a range of theories to explain the forces and mechanisms that shape foreign policy alignment in international politics.

Traditional IR theories argue that material capability is the primary driver of alignment, particularly in the security domain. Depending on whether states align *against* or *with* the most powerful actor in the system, these theories propose two competing alignment behaviors: balancing and bandwagoning. Balancing occurs when states side with the weaker party to prevent the powerful from dominating the system (Waltz, 1979). In contrast, bandwagoning involves aligning with the stronger side to avoid potential conflict, as a major power might otherwise take what it wants by force (Mearsheimer, 2001).

Building on this classic power-based logic, subsequent studies have introduced additional factors that shape states' balancing and bandwagoning behaviors. The balance of threat theory, for example, argues that it is not power alone, but the perception of threat that determines alignment decisions (Walt, 1990). States are thus more likely to align against actors they perceive as posing the greatest threat to their security. Others have emphasized that states may balance or bandwagon based on shared interests or rational calculation, rather than simply reacting to power or threat (Schweller, 1994; Snyder, 1997; Morrow, 1991). In this view, states may align not out of fear, but to pursue economic benefits or strategic gains.

In addition to these rationalist explanations, many scholars have highlighted the significance of ideational factors—such as shared ideologies, identities, and values—in affecting states' alignment choices. Ideological similarity can not only decrease the costs of joining a group led by a great power (Beek et al., 2024, 4), but also determine threat perception when combined with domestic considerations (Owen, 2005). This helps explain why states often clustered into rival ideological blocs during historical and contemporary great-power competitions.

Constructivist approaches also emphasize that ideational factors can serve as powerful tools for socialization and rhetorical action. Great powers can use norms and values to

socialize other states into their preferred order (Ikenberry and Kupchan, 1990; Johnston, 2001). When shared identities or interests are constructed, states are more likely to cooperate and align together (Wendt, 1994). Some scholars further argue that states can strategically leverage these values and norms to exert normative pressure, effectively "trapping" others into behavior consistent with the established group (Schimmelfennig, 2001).

Moving beyond this material-ideational discussion, a burgeoning literature in IR has shifted its focus to the agency of less powerful states, challenging the view that alignment is a binary choice—either fully committing to one side or the other. Scholars argue that weaker states can adopt hedging strategies, simultaneously engaging with competing great powers to maximize their interests (Kuik, 2008; Goh, 2007). This approach was evident in the Non-Aligned Movement during the Cold War and continues to shape the behavior of some states in the current US-China rivalry (Jones and Jenne, 2022).

While these studies have identified many crucial factors that affect alignment behavior, they are incomplete for at least two reasons. First, the key elements discussed above may not always play a decisive role, particularly in certain contexts or dimensions of great power rivalries. For example, in the contemporary US-China contest, neither Beijing nor Washington poses an immediate military threat to most countries, and their competition—especially in economic and technological domains—is not primarily driven by ideological considerations. This limits the ability of traditional material- or ideology-based approaches to capture the complexities of foreign policy alignment in these rivalries.

Additionally, while hedging theory suggests that weaker states prefer to remain neutral or engage with competing great powers simultaneously, in many cases, they are compelled to take sides.[2] This typically happens when rival great powers offer exclusive public goods or clash over critical foreign policy issues. Recent examples include South Korea's deployment of the THAAD missile defense system, which was supported by the United States but strongly criticized by China, and the debate over joining the China-led Asian

[2]On the discussion of limited space for hedging, see Korolev (2019).

Infrastructure Investment Bank (AIIB), which faced significant opposition from the US. In such situations, states caught in the middle have little room for neutrality and are often forced to align, making hedging a far less feasible strategy.

3 A Relational Approach to Foreign Policy Alignment

When material or ideational factors provide limited guidance, what drives states' foreign policy alignment when they are compelled to take sides? I argue that weaker countries, in such scenarios, are likely to be influenced by "social cues." That is, they often look to the choices of relevant peers in relational networks to decide whether to side with one great power or the other.

Although IR studies have traditionally treated foreign policy decisions as independent responses, scholars are increasingly recognizing the interdependence of state behavior. Just as individuals are embedded in social networks, states are connected through relationships across multiple domains. These connections form international networks, which, as Hafner-Burton et al. (2009, 560) argue, both "constrain and enable" state behavior. In other words, a state's decision is not only influenced by the actions of its peers but also has the potential to shape their actions in return. Thus, IR scholarship should move beyond focusing solely on macro-level (structural) and micro-level (state-specific) explanations of alignment to also explore how meso-level dynamics—specifically, the social contexts and relational networks—drive foreign policy.

Building on relational studies (Emirbayer and Goodwin, 1994; Jackson and Nexon, 1999; Qin, 2018) and network approaches in IR (Hafner-Burton et al., 2009; Maoz, 2012a; Cranmer et al., 2012), I propose a relational theory of alignment, arguing that relational networks can shape states' alignment decisions through three primary mechanisms: information diffusion, social conformity, and power asymmetry.

The first mechanism, information diffusion, suggests that relational networks serve as crucial channels through which states access critical information from their peers (Norrlof

and Wohlforth, 2019; Farrell and Newman, 2019). Stronger relationships, in particular, facilitate the exchange of high-quality, reliable information, as states are more likely to share valuable insights with trusted partners (Cook et al., 2004). This flow of information can significantly influence a state's strategic calculations and foreign policy decisions, providing the knowledge and foresight needed to navigate uncertainties in great-power rivalries.

Information from peers becomes especially critical when power distribution or ideological divides play a less significant role, forcing states to rely on cost-benefit analyses for alignment decisions. In these scenarios, states often turn to their partners to assess the potential risks and benefits of choosing a side. As more partners align with a particular side, a state's own calculations may change, prompting it to adjust its stance based on perceived costs and benefits. Existing research on the diffusion of policies and economic treaties has provided strong support for this mechanism, showing that states often emulate the policies or choices of their peers to reduce uncertainty and better navigate complex decision-making environments (Poulsen and Aisbett, 2013; Cao, 2010; Jandhyala et al., 2011; Gilardi et al., 2009).

The second mechanism, social conformity, suggests that relational networks can shape states' alignment behavior by generating social pressure to conform. States' connections in the network facilitate the diffusion of norms and rules, establishing shared understandings and expectations (or "common sense") within the cluster (Hopf, 2013). When a majority of connected peers adopt a particular stance, it creates strong social pressure for others to follow suit to maintain group cohesion and avoid marginalization, much like the dynamics at the individual level (Kertzer and Zeitzoff, 2017). This pressure often stems from the logic of appropriateness (March and Olsen, 1998), or a fear of losing connectivity and influence within the network. As a result, states may align their behavior with the prevailing patterns not only for rational reasons but also to preserve their status and acceptance within the group.

This social pressure mechanism is broadly consistent with constructivist theories of norm

diffusion, which argue that international norms spread through coercion, competition, learning, or emulation among states (Finnemore and Sikkink, 1998; Gilardi, 2013; Simmons et al., 2006). However, the key contribution of the relational approach is that it emphasizes state behavior may spread *along specific pathways*—primarily through strong ties, rather than uniformly across pairs of states. From this perspective, the global diffusion of norms or policies is less likely if the relational structure is highly clustered instead of well-connected. In the context of great-power rivalry, this mechanism suggests that how alignment behaviors diffuse depends on states' vulnerability to social pressure. It adds a new dimension to existing models by considering the varying degrees of susceptibility based on states' network positions.

The final mechanism, power asymmetry, emphasizes that relational networks—like other structures—do not affect all states equally. Instead, they create power imbalances among states, resulting in asymmetries in influence and control (Farrell and Newman, 2019; Goddard, 2018, 50-53). States occupy different positions within these networks, leading to disparities in their ability to shape foreign policy alignment.

Specifically, states with more extensive connections or those holding key brokerage positions may exert disproportionate influence over others' decisions because they have privileged access to information from multiple sources (Hafner-Burton et al., 2009; Jang, 2022; Goddard, 2018). These strategic advantages enable them to become pivotal players in shaping the alignment choices of less central states. Hence, the unequal distribution of power within relational networks can determine the extent of influence a state can wield, making some states more capable of shaping their peers' foreign policy decisions while leaving others more susceptible to the strategic maneuvers of these dominant actors.

These mechanisms suggest that the relational approach complements existing theories by offering a distinct, independent perspective to understanding states' alignment behavior. States often take social cues from partners' behaviors, drawing insights from the broader network of relationships in which they are embedded. Moreover, a state's influence grows with its network position—whether by maintaining more connections or by occupying

a strategic brokerage role. I now turn to the US-China 5G contest as a case study to test these arguments. The next section provides background on this case and introduces hypotheses grounded in the relational theory of alignment.

4 The US-China 5G Contest

As the most updated cellular technology, 5G is poised to redefine our digital age. Notably, in contrast to its predecessor, 5G promises a substantial reduction in latency, which leads to less loading time and enhanced responsiveness on the internet. This improvement facilitates the development of other cutting-edge technologies such as AI, robotics, and remote control, which have important military and economic implications (Lewis, 2018). In other words, countries that can lead the development and deployment of the 5G technology are expected to gain more material capabilities.

China recognizes these potential advantages. With the ambition to surpass the US in technologies, Beijing has pumped substantial resources into its telecom sectors. Bolstered by billions of state funding and strategic initiatives like "Made in China 2025," Chinese companies, primarily Huawei and ZTE, have emerged as key actors in the global telecom equipment industry, providing products and technical support for many countries' 5G infrastructure developments (Pongratz, 2019).

In contrast, the United States, despite being a long-time global tech powerhouse, failed to take advantage of this 5G momentum to maintain leadership in related industries. By 2018, even though prominent US firms like Cisco and Ciena continued to be influential players in the telecom equipment market, their combined revenue share was less than 10%—not even half of what Huawei alone held (Pongratz, 2019). More importantly, these American companies lack the competitive technology and products to rival their Chinese counterparts in the 5G infrastructure race.

This widening gap between the US and China in 5G raised serious concerns in Washington (Mihalcik, 2019). The Trump administration was particularly wary of Chinese

telecom giants expanding their influence globally. Such expansion challenges America's hegemony in the high-tech sector and positions China to set global 5G standards. By doing so, China could wield standardization power to accumulate capabilities and thwart competitors, ensuring sustained advantage in this sector and potentially in future military and economic competition (Rühlig, 2023). Hence, one major strategic objective of the US in this 5G rivalry was clear: to prevent China's dominance in the global telecom landscape.

The Trump administration adopted a set of policies targeting Chinese telecom giants like Huawei and ZTE to achieve this objective. First, it enforced a complete ban on these companies operating in the US in May 2019, citing serious national security risks (Geller, 2019). The administration argued that, due to their close ties with the Chinese government, these companies could be compelled to include backdoors in their hardware or software, granting Beijing remote access to sensitive information or data transmitted through their telecom or 5G infrastructure (Kaska et al., 2019; Pompeo, 2019).

Additionally, the US leveraged these security concerns on the international stage to pressure other countries into distancing themselves from China in the 5G sector. It employs wedge strategies—a state behavior aiming to divide others' alignment or relationships—to disrupt others' cooperation with China on 5G technology.[3] The US's central message to the world was clear: countries using Chinese 5G products could pose significant security risks to the US and its allies (Castle, 2019). This choice could lead the US to reconsider intelligence sharing, as well as diplomatic and military partnerships with those countries (Olson, 2019). The Trump administration also launched a "Clean Network Initiative" in August 2020, organizing like-minded countries to cooperate with trusted 5G vendors to replace Chinese telecom products (U.S. Department of State, 2020a).

Despite these efforts from the US, countries' responses varied significantly. Many states in Europe and Asia followed the US's lead (U.S. Department of State, 2020b). Some, such as Australia and Japan, even took preemptive measures before the US did (Zhang, 2018;

[3]On wedge strategies in IR, see for example, Crawford (2008, 2021); Izumikawa (2013); Huang (2020).

Denyer, 2018). However, a large number of states have decided to ignore US pressure and continue their cooperation with China in 5G. This group includes not only those traditionally thought to be more aligned with China, such as African and Central Asian countries (Ehl, 2022; Imamova, 2020) but also some of the US's important allies, like Saudi Arabia and the Philippines (Xinhua, 2021; Cuyegkeng, 2021).

Some studies highlight domestic factors, particularly threat perception, as key explanations for states' 5G decisions. States' assessments of the security risks posed by Chinese companies play a significant role in shaping their stances (Lee, 2022; Lee et al., 2022). National leaders who view China as a security threat and consider telecom infrastructure critical are more likely to align with the US (Lee, 2022). Other studies emphasize that state attributes such as national power and bilateral relations with the US and China are also important determinants. For example, Christie et al. (2024) found that less powerful states, those more reliant on trade with China, and those less aligned with the U.S. in security matters are more likely to resist U.S. pressure and continue working with Chinese firms.

These analyses provide important insights but do not fully capture the complexity of states' decisions in the 5G contest. First, there is no clear consensus among most countries, including key US allies, on the security risks of collaborating with Chinese companies to develop 5G infrastructure. While some nations shared the US's view that Chinese telecom firms pose a national security threat, many others did not. For example, Britain initially resisted U.S. pressure by including Huawei as a primary 5G vendor, only to reverse this decision later without presenting new evidence of a security risk (Sabbagh, 2019). Similarly, Germany was hesitant to impose bans on Chinese firms, despite eventually joining the U.S.-led Clean Network Initiative (Wintour, 2020). These divergent perspectives reveal the limitations of threat-based explanations. Faced with such uncertainty, many countries are likely to seek alternative sources of information when deciding whether to suspend cooperation with China.

More importantly, existing studies often assume that states' decisions are largely inde-

pendent, overlooking the strong interdependence among states in the security domain (Keohane and Nye, 1987; Fjäder, 2016). In practice, dense security partnership networks allow allies and partners to exchange information and intelligence regularly for defensive—and occasionally offensive—purposes. Since 5G infrastructure functions as a platform for transmitting sensitive information, a country's decision to collaborate with Chinese telecom firms can pose risks not only to its own national security but also to that of its allies and partners. This interdependence underpins the US's announcement that it would suspend or limit intelligence sharing and security cooperation with countries adopting Chinese products (Olson, 2019).

All of this suggests that the interstate security network plays a crucial role in shaping states' decisions in the US-China 5G contest. In the next section, I examine how this network influences states' choices regarding restrictions on Chinese telecom firms. Building on two key arguments discussed earlier—(1) states' alignment decisions are shaped by their peers, and (2) the more central a state is within these networks, the greater its influence on others—, I test how both direct and indirect partnerships, as well as a state's centrality in the security partnership network, affect alignment patterns in the 5G contest.

4.1 Networks and Peer Influence

4.1.1 Peer Influence from Direct Security Partners

How do direct security ties between states lead to the spread of 5G decisions? I argue that the two network-based mechanisms identified above—information diffusion and social conformity—help explain why states may *follow* their security partners in imposing restrictions on Chinese telecom companies.

The mechanism of information diffusion suggests that states often look to their close security partners for guidance when lacking sufficient information to assess risks from Chinese telecom firms. While the US and a few allies argue that these companies' ties to the Chinese government pose significant security risks, they have not provided conclusive

evidence of espionage. This uncertainty makes it difficult for many countries to evaluate the risks, especially given Chinese firms' track record of delivering reliable telecom services globally. As a result, divergent domestic opinions and pending decisions remain common across countries (Wintour, 2020).

Alliances or security partnerships involve significant trust and are costly to establish and maintain, making states more inclined to rely on trusted partners when navigating complex security decisions (Cranmer et al., 2020, 90). When close partners impose restrictions on Chinese telecom companies, this sends a powerful signal of potential risks, encouraging other states to follow suit. This process mirrors the "bottom-up" theory of public opinion, where individuals rely on their social networks to form foreign policy views (Kertzer and Zeitzoff, 2017).

In addition, the mechanism of social conformity highlights how security interdependence shapes alignment decisions. Since telecom infrastructure is integral to information exchange, differing views among allies on the risks of Chinese products can disrupt communication and cooperation. For example, an ally that perceives Chinese telecom firms as a security threat may refuse to share sensitive information with a partner that continues using Chinese products, fearing potential exposure to Chinese surveillance. Thus, states that restrict 5G ties with China often prefer to align with like-minded security partners.

In this context, when many of a state's direct security partners ban Chinese 5G products, the state is more likely to follow suit, even if it does not perceive Chinese companies as a serious threat. In other words, states may adopt restrictions on Chinese telecom firms not solely due to threat perception but to preserve their place within critical security networks.

These together suggest the following hypothesis:

Hypothesis 1: The more a state's *direct security partners* decide to impose restrictions on Chinese telecom companies, the more likely the state is to follow suit.

4.1.2 Peer Influence from Indirect Security Partners

Although direct security partners often exert a positive influence, they are not the only source of impact. The global security partnership network, like many social networks, is inherently complex. This means that most states are tied through multiple degrees of separation (i.e., "friends of friends") (Cranmer et al., 2020; Kinne, 2013).

Such intricate interdependencies suggest that states' decisions to impose restrictions on Chinese telecom companies can also be shaped by their *indirect partners*. However, unlike the more straightforward influence of direct partners, indirect influence tends to be nuanced and multifaceted. Scholars have differing perspectives on whether its effects are positive or negative.

One view suggests that indirect partners can also exert a positive influence on state behavior (Cranmer et al., 2020; Kinne, 2013). Like direct influence, this operates through mechanisms such as information diffusion and social conformity. It means states not only rely on their direct partners but also consider the behavior of their "friends of friends" when making alignment decisions. Additionally, because states are embedded in overlapping social groups with their indirect partners, maintaining their position within the group may also compel them to conform to group norms and respond to social pressure from indirect partners.

However, since indirect partners are more distant in the network, their influence tends to be weaker. As information spreads across multiple degrees of separation, its clarity and relevance can diminish, reducing its impact (Larson, 2017). Similarly, social pressure from indirect partners is generally less intense than that from direct allies (Cranmer et al., 2020). These dynamics suggest that while indirect influence may be positive, it is typically less significant than the influence exerted by direct partners.

In contrast, the second perspective argues that indirect influence can have negative effects, especially in great-power competition. This view acknowledges that greater degrees of separation weaken the flow of information and social pressure but adds that this weak-

ening may encourage states to pursue more independent strategies—particularly when the perceived costs of alignment outweigh the benefits (Haacke, 2019).

In the context of great-power rivalries, this relative independence may make states more likely to align with the opposing great power to maximize their interests. In the 5G case, for example, as more indirect partners align with the US, the marginal benefits of additional alignment diminish. At the same time, states may gain greater bargaining power with China, as Beijing seeks to prevent further defections to the US (Taş Yetim and Hazar, 2024). As a result, China may offer additional resources, investments, or favorable 5G deals to reward states that resist US pressure, enhancing their willingness to continue cooperation with Chinese telecom companies.

Both perspectives suggest two competing hypotheses about indirect peer influence:

Hypothesis 2a: The more a state's *indirect security partners* decide to impose restrictions on Chinese telecom companies, the *more* likely this state is to follow suit.

Hypothesis 2b: The more a state's *indirect security partners* decide to impose restrictions on Chinese telecom companies, the *less* likely this state is to follow suit.

4.2 The Influence of Network Centrality

While the previous discussion has primarily focused on how the number of partners shapes a state's decision, it is also important to consider the varying influence of these peers. As the mechanism of asymmetric power suggests, states occupy different positions in relational networks, and these positions can provide them with varying resources to exert influence (Goddard, 2018; Nexon and Wright, 2007; MacDonald, 2018).

Central actors in security networks often possess more leverage to shape others' decisions in the 5G contest. They tend to be better connected than those on the periphery, either by having a larger number of partners or by acting as bridges between otherwise disconnected communities (Hafner-Burton et al., 2009). Such positions provide greater access to valuable information, which enables these states to make more informed deci-

sions (Goddard, 2018; Farrell and Newman, 2019). When states cannot independently evaluate the security risks posed by Chinese telecom companies, they are likely to look to the behavior of central actors to make alignment choices.

Additionally, central states may leverage coercive power to amplify their influence. As noted by Farrell and Newman (2019), network centrality grants actors greater bargaining power and control over the flow of information and resources. These advantages enable the central actor to compel peripheral states to align with its preference in order to maintain access to critical network benefits. Thus, network centrality enhances influence not merely through connectivity but by strategically exploiting these positions.

Considering this, the third hypothesis is:

Hypothesis 3: The more influential a state is in the security partnership network, the greater its ability to influence its peers' decisions regarding imposing restrictions on Chinese telecom companies.

5 Research Design

I adopt a large-N analysis to test these hypotheses, focusing on the recent technological competition between the United States and China. Specifically, I examine the alignment decisions of 191 countries during the US's anti-Chinese 5G campaign from June 2019 to the end of 2022. As US officials emphasized, the campaign's broader goal was to pressure or persuade countries to suspend cooperation with China in developing 5G infrastructure (Rithmire, 2021). Thus, this 5G contest is an excellent case of great-power rivalry, as it forced most countries to navigate geopolitical tensions and make alignment choices between the two major powers.

5.1 Dependent Variable

The main dependent variable in the analysis is *states' decisions on whether to restrict their local telecom companies' cooperation with Chinese tech giants such as Huawei and ZTE.*

While Christie et al. (2024) provides a novel dataset on states' 5G decisions, it does not cover all states and does not fully meet the needs of my analysis. To address these gaps, I significantly expand their dataset, and use publicly available information—primarily international news media and published scholarly analyses—to code these decisions.

The dependent variable is treated as a dummy variable, coded as "1" when a country publicly declared it would or has imposed restrictions or a full ban on Chinese telecom companies, and "0" otherwise. This coding rule helps understand the decisions of many who did not publicly announce their stance on China's 5G providers. Given the US's strong preference for banning Chinese telecom companies and its efforts to coerce others to follow suit, those who refused to declare their positions were considered aligned more with China on this issue.

Additionally, two important points about the coding rule need to be highlighted. First, even if some countries did not explicitly announce their restrictions, their participation in the Clean Network Initiative—a US-led effort launched in August 2020 to exclude untrusted 5G vendors like Huawei and ZTE—also meant that they were more aligned with Washington. These countries were thus coded as "1" in the dataset.

Second, some countries changed their positions in this 5G contest. For example, Serbia joined the Clean Network Initiative in 2020 but did not impose any restrictions on Huawei and ZTE (Ruge and Vladisavljev, 2020). Similarly, Brazil initially joined the United States in banning Huawei in 2020 but reversed its decision in 2021, allowing Chinese companies to operate there (Reuters, 2021). Coding such countries' decisions is undoubtedly challenging. In these cases, I applied two rules to determine their stance: *consistency between 2019 and 2022*, and *prioritizing behavior over rhetoric*. A country is coded as aligning with the US (or "1") only if it has shown a consistent attitude during this period and no conflict between behaviors and rhetoric. If a country claimed to ban Huawei but allowed its presence in the domestic market, the decision was coded based on its behavior rather than rhetoric. Thus, for the examples listed above, Serbia and Brazil were both coded as "0" in the analysis.

Applying these two criteria, I identified 47 countries (including the US) that publicly decided to cut or restrict their 5G ties with China between 2019 and 2022. Table 1 below presents the list of these countries along with the timing of their alignment decisions. This dataset enables us to explore the role of peer influence in the decision-making process.

5.2 Independent Variables

The key explanatory factors in my analysis are (1) *peer influence*, defined as the impact of other states' decisions regarding cooperation with China in the 5G sector, and (2) *network centrality*, which reflects the influence of a state's peers in the network. Given that the United States has framed the 5G issue primarily as a security concern, these peers are mainly allies or partners in the global security partnership network. Accordingly, peer influence in this context refers to the decisions made by a state's direct and indirect security partners about whether to terminate their 5G cooperation with Chinese telecom companies.

Drawing on existing scholarship (Kinne, 2018), I define direct security partners as states that have formal offensive or defensive alliances and/or comprehensive defense cooperation agreements with the target state. In contrast, indirect security partners are states that lack such formal ties but share common partners within the same security network.

5.2.1 Direct and Indirect Peer Influence

The independent variable capturing direct peer influence in the network is *the number of direct security partners that impose restrictions on Chinese telecom companies*. This measure is calculated by summing the direct security partners that have already severed 5G ties with China before the state makes its own decision, reflecting the state's direct exposure to the actions of its immediate peers.

Moreover, to estimate indirect peer influence, I include the number of indirect partners—states that are not directly connected but share common partners—who have also cut ties with China prior to the state's own decision. This variable measures the influence exerted

Table 1: List of Countries Imposing their 5G Restrictions on China

Date (Month/Year)	**Country Names**
August 2018	Australia
November 2018	New Zealand
December 2018	Japan
May 2019	United States
September 2019	Poland
December 2019	Norway
January 2020	Vietnam
February 2020	Latvia
June 2020	Israel, Singapore
July 2020	United Kingdom, France, Portugal
August 2020	Albania, Slovenia
September 2020	Austria, Czech Republic
October 2020	Kosovo, North Macedonia, Greece, Belgium, Croatia, Sweden, Italy, Bulgaria, Dominican Republic, Slovakia
November 2020	Cyprus, Malta
December 2020	Finland, Luxembourg
January 2021	Nauru, Palau, Georgia
March 2021	Ecuador
April 2021	Romania, Germany
May 2021	Denmark, India, Netherlands, Lithuania
June 2021	Spain
July 2021	Malaysia
September 2021	Guyana
November 2021	Estonia
May 2022	Canada
October 2022	Ireland

through shared connections within the network. Together, these variables allow us to test Hypotheses 1 and 2, examining how the decisions of both direct and indirect partners shape a state's choice regarding 5G cooperation with Chinese telecom companies.

5.2.2 States' Network Influence

To evaluate Hypothesis 3, I employ two key measures of network centrality: *degree centrality* and *betweenness centrality*. Degree centrality captures the number of direct security partners a state has, reflecting its direct connectivity within the network. In contrast, betweenness centrality measures a state's role as a bridge within the network, facilitating the flow of information and connections between otherwise unconnected groups.

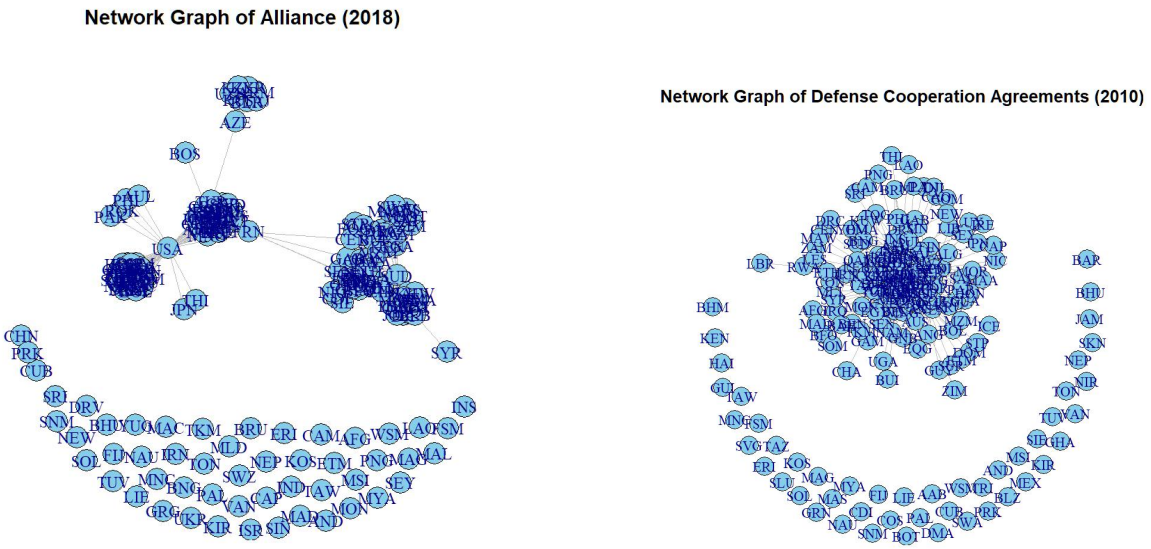
Both measures are vital indicators of a state's importance, as emphasized by network theories (Cranmer et al., 2012; Kinne, 2013; Goddard, 2009, 2018). Degree centrality emphasizes a state's immediate exposure and reach in the network, while betweenness centrality highlights the strategic advantage of acting as an intermediary. Together, these measures capture different facets of influence, with one focusing on direct ties and the other on brokerage within the broader structure.

5.3 Security Partnership Networks

The global security partnership network determines the key variables in this analysis. To estimate this network, I adopt a novel approach that goes beyond the traditional analysis that typically relies on military alliances as a primary indicator of security cooperation (Norrlof and Wohlforth, 2019; Maoz, 2012b). My approach integrates bilateral defense cooperation agreements (DCAs) with alliance treaties to capture a more comprehensive picture of interstate security ties.

As noted by Kinne (2018, 735), alliances typically outline broad areas of cooperation but fail to capture the full extent of a state's defense activities. In contrast, DCAs offer a more modern framework, focusing on day-to-day defense cooperation in key areas. These agreements are more dynamic and show a low correlation with alliance treaties, demonstrating that alliances and DCAs are complementary rather than interchangeable measures of security cooperation (Kinne, 2020, 735-736). Figure 1 illustrates the differences between these two networks.

Figure 1: Comparison of Alliance and DCA Network Graphs



(a) Alliance Network, 2018

(b) DCA Network, 2010

The use of both alliances and DCAs offers richer insights into interstate security cooperation than relying on alliances alone. This combined metric is particularly useful in capturing the US's strategy of using the threat of suspended security cooperation—especially intelligence sharing—as leverage to coerce secondary states into ending their partnerships with Chinese telecom firms.

The data for the security network comes from two specialized datasets. The Correlates of War (COW) Defense Cooperation Agreement Dataset (Kinne, 2020) provides data on DCAs, while the alliance data is sourced from the Alliance Treaty Obligations and Provisions (ATOP) dataset, version 5.1 (Leeds et al., 2002). In light of the US's use of security information sharing as the leverage, I focus on comprehensive DCAs and offensive or defensive alliances, as these relationships involve significant exchanges of security-related information.

As the Trump administration initiated its global campaign against Chinese telecom products in 2019, I use the most recent DCA and alliance data from 2018 to construct the global security partnership network. This approach allows me to identify each state's direct and indirect security partners and calculate their average degree and between-

ness centrality. By integrating this security network data with my original dataset on states' decisions regarding Chinese telecom companies, I obtain the information for key explanatory variables in the analysis.

5.4 Alternative Explanations and Control Variables

To account for alternative explanations and confounding factors, I include several key variables in the analysis. The first is a state's level of democracy. Democratic countries tend to cooperate more frequently in security matters due to shared political values and mutual trust (Lai and Reiter, 2000). Additionally, democracies may perceive greater security threats from non-democratic powers like China, especially through advanced telecom technologies such as 5G. To control for these potential correlations, I include two alternative measures of democracy: *the polity scores* from the Polity IV Project and *a composite score* of political constraints, political rights, and civil liberties from Freedom House. Both measures are drawn from the year 2018, before the key phase of the 5G contest.

Material capability is another important factor contributing to alignment. As conventional theories suggest, wealthier or more powerful states often have greater resources and capabilities, making them more resistant to external pressures from others, including the US and China. These states are also more likely to form security ties with great powers due to their significant military and economic influence. To capture these effects, I include the Composite Index of National Capability (CINC) in the analysis. The most recent CINC score (version 6.0) is obtained from the Correlates of War (COW) dataset, a widely used source for measuring national capabilities.

Moreover, geographical distance from China can also be a confounding factor. Physical distance influences both the formation of security cooperation and the frequency and intensity of a state's interactions with China; states that are distant may feel less direct pressure or influence from China. Consequently, these states might be more willing to sever ties with Chinese telecom companies. To capture this, I use the capital distance

between countries as a proxy, which quantifies the physical distance between a state's capital and Beijing (Bennett and Stam, 2000).

Economic ties with China also play a crucial role, as China often uses its economic leverage to influence or penalize states that do not align with its policies. To account for these dynamics, I include two economic variables: GDP per capita and imports from China. These indicators capture the extent of economic dependency and the potential costs of resisting China's influence. Both variables are retrieved from the World Bank.

Next, US security alignment is an important factor in determining state behavior in the 5G contest. States more closely aligned with the US are more susceptible to its coercive strategies and are therefore more likely to follow US-led initiatives (Christie et al., 2024). I measure alignment using a combined indicator of alliances and DCAs.

Finally, 4G LTE mobile coverage can influence a state's decision to cooperate with China as well. States with extensive 4G infrastructure may have less incentive to engage with Chinese telecom firms, while those with limited coverage might view such cooperation as essential. The 4G coverage data, sourced from the World Bank, reflects the situation as of 2018.

These control variables provide a robust framework for accounting for alternative explanations, ensuring that the analysis captures the independent influence of peer networks and centrality on states' decisions.

6 Empirical Results and Analysis

6.1 Model Formulation

Temporal network models, such as Temporal Exponential Random Graph Models (TERGM) and Stochastic Actor-Oriented Models (SAOM), are widely employed to examine how social networks evolve over time, including the formation and dissolution of relationships. These models, however, primarily focus on the dynamics of the entire network struc-

ture. In contrast, my analysis centers on the egocentric networks of states, specifically investigating how the decisions of other states shape an individual country's alignment choice.

Since the dependent variable—whether a state cuts its 5G ties with China—is binary and the timing of decisions plays a critical role, I adopt a Cox proportional-hazards model for the analysis. This model offers a more appropriate framework than temporal network models for capturing the influence of peers on a state's decision-making over time. The analysis is conducted at the month-country level and spans from June 2019 to December 2022, a period that captures the key phase of 5G-related geopolitical developments. The data are right censored. Once a country bans Chinese telecom firms, the remaining countries will enter a new period of observation with updated network information.

The hazard function for country i at time t is specified as follows:

$$\begin{aligned} P_i(t) = {} & \beta_0 \cdot \text{Polity}_i + \beta_1 \cdot \text{CINC}_i + \beta_2 \cdot \text{GDP per capita}_i + \beta_3 \cdot \text{Distance}_i \\ & + \beta_4 \cdot \text{ChinaImport}_i + \beta_5 \cdot \text{USPartners}_i + \beta_6 \cdot \text{4GCoverage}_i \\ & + \beta_7 \cdot \text{Number}_{\text{direct}}(i,t) + \beta_8 \cdot \text{Number}_{\text{indirect}}(i,t) + \beta_9 \cdot \text{Centrality}_{i,t} + \varepsilon_{i,t} \end{aligned}$$

In this equation, Polity refers to the country's level of democracy. CINC measures the state's material power through the Composite Index of National Capability. GDP per capita reflects the country's income level, while Distance measures the geographical distance between the state and China. ChinaImport captures the volume of imports from China, indicating the degree of economic interdependence. USPartners is a binary indicator of whether the country is a security partner of the United States. Finally, 4GCoverage measures the percentage of the country's 4G LTE mobile coverage. All of these variables are drawn from the year 2018.

The key variables of interest include the number of direct security partners that have

severed 5G ties with China before the state makes its own decision, $\text{Number}_{\text{direct}}(i,t)$, which tests Hypothesis 1. The second variable, $\text{Number}_{\text{indirect}}(i,t)$, represents the number of indirect partners—those who share partners with the target state—who have also cut 5G ties with China, testing Hypothesis 2. The third variable, $\text{Centrality}_{i,t}$, reflects the country's position within the network, either in terms of degree or betweenness centrality, and is used to evaluate Hypothesis 3.

Table 2 presents the key results of the Cox proportional-hazards models on the role of peer influence and centrality in shaping states' 5G restriction decisions. The findings reveal that both the decisions of peers—whether direct or indirect—and the average centrality of peers, measured by degree and betweenness, play critical roles in shaping states' alignment with the US or their opposition to Chinese telecom companies.

6.2 Peer Influence: Direct and Indirect Effects

The results underscore the critical role of direct peer influence in shaping states' decisions regarding 5G cooperation with China. Specifically, the number of direct cut-tie partners—those security partners that have imposed restrictions on Chinese telecom companies before a state makes its own decision—has a positive and significant effect across all models. This finding supports Hypothesis 1, indicating that states are more likely to sever their 5G ties with China when more of their direct security partners have already done so.

At the same time, indirect or second-order peer influence can also influence states' 5G decisions, but in an opposite way. The number of second-order cut-tie partners—those partners of partners who have imposed restrictions on Chinese telecom companies—has a negative and significant effect. This result diverges from some prior research, which often finds a positive second-order effect in social networks, where indirect connections tend to reinforce behavioral contagion (Cranmer et al., 2020). Instead, my finding suggests that states with more indirect peers cutting ties with China are less likely to follow suit.

This outcome supports Hypothesis 2b, indicating that in the context of great-power

Table 2: Cox Models of 5G Decisions

DV: States' 5G Restriction Decision					
Models	Model 1	Model 2	Model 3	Model 4	Model 5
Num. Direct Cut-tie Partners	0.171*	0.075*	0.075*	0.059*	0.059*
	(0.006)	(0.007)	(0.007)	(0.007)	(0.007)
Num. Indirect Cut-tie Partners	-0.090*	-0.060*	-0.061*	-0.062*	-0.063*
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Avg Degree Centrality (Direct Cut-tie Partners)	0.026*	0.007*	0.007*	—	—
	(0.001)	(0.002)	(0.002)		
Avg Betweenness Centrality (Direct Cut-tie Partners)	—	—	—	-0.0002*	-0.0002*
				(0.000)	(0.000)
Log Distance from China	—	-0.432*	-0.429*	-0.433*	-0.431*
		(0.055)	(0.055)	(0.057)	(0.058)
Log CINC Score	—	0.141*	0.150*	0.141*	0.142*
		(0.034)	(0.034)	(0.034)	(0.034)
Freedom Index	—	0.018*	—	0.019*	—
		(0.002)		(0.002)	
Polity Score	—	—	0.076*	—	0.078*
			(0.009)		(0.009)
US Security Partner	—	0.927*	0.364*	0.927*	0.927*
		(0.128)	(0.122)	(0.127)	(0.127)
4G Coverage	—	0.050*	0.051*	0.050*	0.050*
		(0.004)	(0.004)	(0.004)	(0.004)
Log GDP per Capita	—	0.265*	0.408*	0.255*	0.402*
		(0.048)	(0.043)	(0.047)	(0.042)
Log Import from China	—	-0.030	-0.037	-0.023	-0.030
		(0.025)	(0.025)	(0.026)	(0.025)
Pseudo R^2	0.319	0.412	0.423	0.409	0.418
Num. Events	1217	1189	1189	1189	1189
Num. Observations	8404	8096	8096	8096	8096

Significance: *p < 0.05

competition, the negative effects of indirect influence outweigh any potential positive reinforcement from distant peers. When indirect partners apply pressure, states may feel less compelled to comply, signaling a preference for independent strategic decisions. In such cases, economic hedging emerges as a key consideration: states seek to balance the economic benefits of maintaining relations with China against the geopolitical risks of alienating the US or indirect partners.

Together, these results highlight the nuanced nature of peer influence, demonstrating that states respond more strongly to the tangible pressure of direct partners than to broader trends among their indirect connections. This reinforces the idea that in highly interconnected global networks, alignment decisions are shaped not only by immediate

partners but also by a complex calculation of risks and benefits at multiple levels of influence.

6.3 Centrality and State Influence in Networks

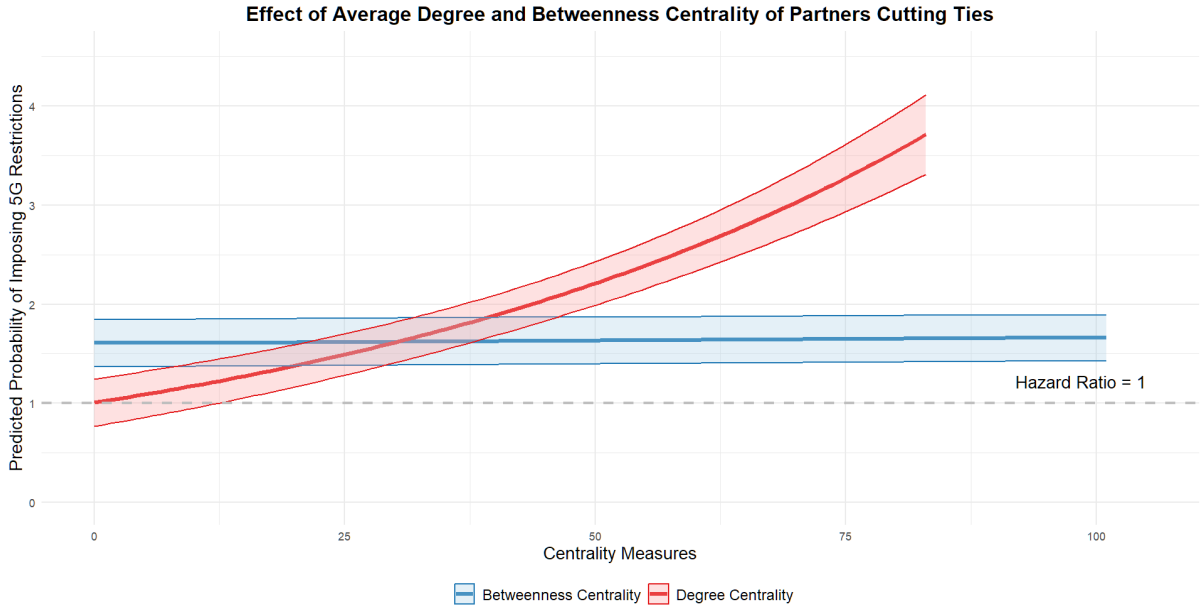
The results also highlight the importance of peer centrality—specifically the average degree and betweenness centrality of a state's direct cut-tie partners—in shaping 5G decisions. Degree centrality has a positive and large effect, indicating that states are significantly more likely to cut their 5G ties with China when their direct partners that have already done so are well-connected in the network. This means that states tend to align more with peers who are integrated into the security network in the 5G contest.

In contrast, the average betweenness centrality of direct partners exerts a negative but very small effect. That is, partners occupying key intermediary or brokerage roles—those that connect otherwise unconnected parts of the network—have limited influence over a state's decision to cut ties with China. This may reflect the fact that such intermediaries often balance multiple interests across different network clusters and tend to pursue more neutral or flexible strategies, making them less persuasive in influencing alignment decisions.

Figure 2 illustrates the impact of peer centrality on states' 5G decisions. The red line shows the effect of the average degree centrality of partners, while the blue line reflects the effect of the average betweenness centrality.

As shown in the figure, when all other variables are held at their mean, the predicted probability of a state imposing 5G restrictions grows substantially as the average degree centrality of its direct cut-tie partners (red line) increases. This effect becomes especially prominent when degree centrality surpasses 50, reinforcing the idea that states are more likely to follow the actions of highly connected peers. These highly connected partners exert a greater influence in shaping alignment decisions, consistent with network theories that emphasize the power of dense connections. On the other hand, the effect of average betweenness centrality remains mostly flat, with only a slight downward slope.

Figure 2: The Effects of Peer's Degree and Betweenness Centrality on 5G Decisions



This indicates that partners occupying brokerage positions—those with high betweenness centrality—exert limited influence on states' decisions. States seem less responsive to intermediaries.

These results suggest that degree centrality plays a much more significant role in shaping peer influence than betweenness centrality. Highly connected partners can influence others, creating alignment trends within the network. However, the findings on direct peer influence also suggest that the more direct partners that sever their 5G ties, the greater the pressure on a state to follow suit. This dynamic implies that while centrality can serve as a source of power, it also creates vulnerability. States positioned centrally in the network can strongly influence others but are themselves more likely to experience peer pressure to align.

This dual nature of degree centrality—as both a tool of influence and a point of susceptibility—underscores the strategic complexities of network position in great-power competition. In such contexts, influence and vulnerability coexist, shaping the behavior of states that navigate competing pressures from both their immediate and extended networks.

6.4 Non-linear Dynamics of Peer Influence

Building on the above discussions, I also use polynomial terms to capture potential non-linear relationships between peer influence and 5G restriction decisions. Existing studies on decision-making have found that agents may possess a threshold for making decisions (Schelling, 1978; Namatame and Chen, 2016). In this sense, the number of partners that have cut ties with China may not exert a constant effect across all levels. Assuming simple linear relationships between peer influence and 5G decisions may miss important complexities. States may react differently depending on whether a few or many partners have severed ties with Chinese telecom companies. Polynomial terms allow us to explore whether the impact of peer influence intensifies, plateaus, or reverses at certain points, revealing more nuanced patterns. To capture that, I add polynomial terms to two key independent variables in the Cox model, the number of direct cut-tie partners, and the number of indirect cut-tie partners.

Table 3 illustrates the non-linear dynamics of peer influence on states' 5G restriction decisions. The number of direct partners cutting ties with China has a positive and significant effect across all models, confirming the robustness of the earlier findings. This result supports Hypothesis 1, indicating that as more direct security partners impose restrictions on Chinese telecom companies, a state becomes increasingly likely to follow suit. The positive and significant curvature term strengthens this trend, showing that the influence of direct partners intensifies as more partners cut ties. This suggests that states are especially responsive when a large portion of their direct network has taken restrictive action, creating strong alignment pressure.

On the other hand, the number of second-order partners (indirect peers) cutting ties exhibits a negative and significant effect on a state's likelihood of imposing restrictions, aligning with Hypothesis 2b. This indicates that as more indirect peers (friends-of-friends) sever 5G cooperation, the probability of a state following suit decreases. The significant negative curvature term further highlights that the negative influence of indirect partners grows stronger at higher levels. These findings emphasize a divergence between direct and

Table 3: Cox Models with Non-linear Effects on 5G Decisions

DV: States' 5G Restriction Decision				
Variable	**Model 1**	**Model 2**	**Model 3**	**Model 4**
Log Distance from China	-0.570*	-0.566*	-0.534*	-0.532*
	(0.060)	(0.060)	(0.060)	(0.060)
Log CINC Score	0.098*	0.097*	0.099*	0.098*
	(0.035)	(0.035)	(0.035)	(0.035)
Partners Cut (Linear Term)	5.150*	5.130*	5.051*	5.007*
	(0.390)	(0.393)	(0.420)	(0.423)
Partners Cut (Curvature Term)	1.561*	1.593*	1.439*	1.472*
	(0.235)	(0.235)	(0.233)	(0.232)
Second-order Partners (Linear Term)	-2.648*	-2.654*	-2.277*	-2.274*
	(0.390)	(0.390)	(0.370)	(0.371)
Second-order Partners (Curvature Term)	-3.266*	-3.295*	-3.169*	-3.196*
	(0.190)	(0.189)	(0.187)	(0.186)
4G Coverage	0.042*	0.042*	0.044*	0.044*
	(0.004)	(0.004)	(0.004)	(0.004)
GDP per Capita (log)	0.245*	0.349*	0.241*	0.357*
	(0.048)	(0.043)	(0.048)	(0.043)
Avg Degree Centrality	0.016*	0.015*	—	—
	(0.002)	(0.002)		
Avg Betweenness Centrality	—	—	0.0004*	0.0003*
			(0.000)	(0.000)
Pseudo R^2	0.904	0.904	0.901	0.902
Num. Events	1189	1189	1189	1189
Num. Observations	8096	8096	8096	8096

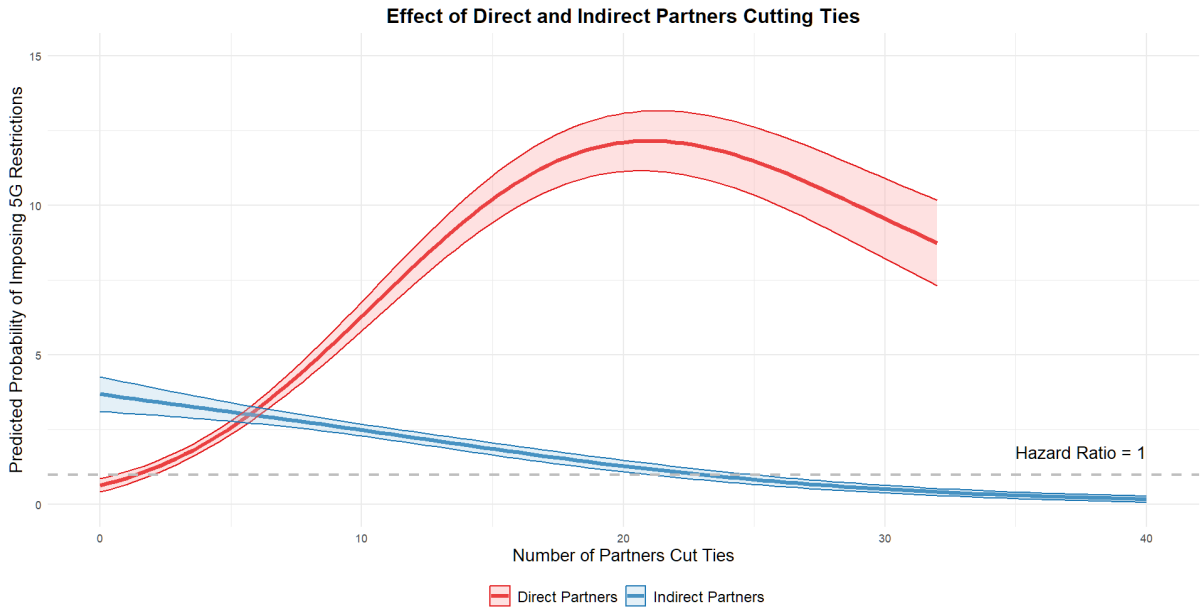
*p < 0.05

indirect peer influence: While more direct partners encourage alignment further, more indirect peers seem to lead to increasing opposition.

Figure 3 visually captures these dynamics by illustrating the predicted probabilities of states imposing 5G restrictions, based on the number of direct and indirect partners cutting ties, with all other variables held at their mean.

The red line in Figure 3 represents the effect of direct partners. As the number of direct partners cutting ties increases, the predicted probability of a state imposing restrictions rises sharply, particularly beyond the threshold of 20 partners. This growth demonstrates that direct peer influence is especially powerful when a critical mass of partners has already acted, driving alignment. However, the curve flattens slightly at higher levels, suggesting that once a sufficient number of partners have cut ties, the marginal impact

Figure 3: The Non-linear Effects of Direct and Indirect Partners



of additional partners diminishes. This seems to reflect a saturation effect: When a state is already aligned with the network trend, further influence becomes less impactful.

In contrast, the blue line captures the negative effect of indirect partners. Initially, when a small number of indirect partners (around 20) cut ties, the predicted probability of a state imposing restrictions exceeds the hazard ratio of 1, indicating some alignment pressure. However, as more indirect partners take restrictive action, the predicted probability steadily drops below 1. This pattern suggests that, while states may initially respond to signals from their broader network, excessive indirect pressure can trigger a counterreaction. Rather than aligning with the trend, states may pursue independent strategies, hedging their positions to maintain autonomy.

These insights offer a deeper understanding of how peer influence operates differently at multiple levels within the network, emphasizing the delicate balance between cooperation and resistance that shapes states' strategic decisions in the 5G contest.

6.5 The Effects of Other Variables

Beyond the core variables, other factors provide additional insights into states' decisions to restrict 5G cooperation with China, supporting or defying alternative explanations.

First, Distance from China is negatively correlated with the dependent variable, indicating that states geographically closer to China are more likely to sever their 5G ties. This finding suggests that proximity may increase the perceived security threat or pressure from China, prompting these states to align with US-led restrictions on Chinese telecom companies.

Material capabilities, measured by the CINC and GDP per capita, show a positive and significant relationship with the dependent variable. This suggests that more capable states are more inclined to cut their 5G ties with China. Such states may have the economic and military resources to resist potential economic retaliation from China and are better positioned to align with US-led initiatives without fear of significant backlash.

Both democratic measures—Polity Index and Freedom Index—show a positive and significant correlation, indicating that more democratic states are more likely to restrict 5G cooperation with China. This aligns with the alternative explanation that ideological similarity matters: Democracies, due to their institutional transparency and focus on security, are more cautious about engaging with non-democratic great powers like China. Democracies may prioritize the integrity and security of their telecommunications infrastructure over potential economic benefits, making them more likely to sever ties with Chinese telecom companies.

Finally, the coefficient for imports from China is not statistically significant, indicating that the alternative explanation of economic interdependence with China does not find support in my analysis. While it is plausible that states with higher import volumes might hesitate to impose 5G restrictions due to fears of economic retaliation from China, the result seems to suggest otherwise.

7 Conclusion

With the intensifying great-power rivalry between the US and China, states increasingly face difficult choices today about taking sides on critical foreign policy issues. Using

the 5G contest as a case study, this article demonstrates that alignment decisions in great-power rivalries are shaped not only by material and ideological factors but also by relational determinants—particularly peer influence and centrality—in international networks. States do not make foreign policy alignment decisions independently. Instead, their choices are shaped by the actions and positions of their peers in these networks, emphasizing the importance of using a network-relational perspective to understand state behavior (Hafner-Burton et al., 2009; Jackson and Nexon, 1999; Goddard et al., 2019).

The analyses of the US-China 5G contest reveal several important dynamics. First, peer influence on policy alignment is both complex and non-linear. The number of direct security partners cutting ties with China exerts a positive and significant effect, with the impact intensifying as more partners impose restrictions. In contrast, indirect peer influence—measured through second-order partners—has a negative effect, suggesting that states become less likely to follow suit when many of their indirect partners sever 5G cooperation with China. This implies that indirect influence may encourage counter-balancing rather than alignment behavior.

Additionally, the article finds that states' network centrality influences alignment decisions, but in nuanced ways. Having direct partners in the security partnership network aligning with the US significantly increases the likelihood of a state following the trend. In contrast, partners serving as brokers between otherwise unconnected groups exert a negative but minimal effect on alignment. This indicates that intermediary partners, despite their strategic position, have limited power in affecting alignment decisions.

Together, these findings contribute to IR research by demonstrating that peer influence in networks functions as a "double-edged sword." A well-connected state can better shape the behavior of its partners, but its decision is also more likely to be swayed if many of its direct partners adopt similar policies. All of this indicates the important and independent role of the broader network structures in influencing states' foreign policy.

At the same time, it is important to acknowledge that the findings are drawn from a single case study. Future research should examine whether similar dynamics exist in other do-

mains, such as economic rivalries, to assess the generalizability of the relational alignment theory. Furthermore, the negative influence of second-order partners warrants further investigation. It remains unclear what specific mechanisms drive this effect, whether it persists across other networks and contexts, or if it reflects strategic considerations in the 5G contest.

The network-based effects identified in this article suggest that as interdependencies among states continue to deepen, great powers like the US and China must carefully navigate their relationships, balancing coercion and cooperation in order to maintain influence over less powerful states. The outcome of the 21st-century great-power competition will hinge not only on material power and ideological narratives but also on the ability to shape and leverage the topology of global networks.

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