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CHINA'S RISE AND TECHNOLOGY DENIALS:  
A STUDY OF VARIATIONS IN ALLIES' COOPERATION WITH THE UNITED STATES

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LINGNAN UNIVERSITY

2022

CHINA'S RISE AND TECHNOLOGY DENIALS:  
A STUDY OF VARIATIONS IN ALLIES' COOPERATION WITH THE UNITED STATES

by  
PONG Cheuk Ling  
龐焯玲

A thesis  
submitted in partial fulfilment  
of the requirements for the Degree of  
Master of Philosophy in Political Science

Lingnan University

2022

## ABSTRACT

### China's Rise and Technology Denials: A Study of Variations in Allies' Cooperation with the United States

by

PONG Cheuk Ling


Master of Philosophy

US and its allies worked closely to deny the USSR's access to advanced technologies during the Cold War. In addition to multilateral mechanisms such as CoCom, they also took similar unilateral measures despite disputes between them. Yet, compared to the US-Soviet strategic rivalry, US-allies cooperation over technology denials against China is much less coordinated. Allies have not only taken different unilateral policies but also shown major disputes with the US. Allies' unsynchronized and inconsistent unilateral technology transfer policies and the absence of multilateral institutions similar to the CoCom demonstrate the looseness in current US cooperation with allies in the China context. This study finds that the presence and absence of allies' security rivalry with China and their threat perceptions shape their motives to work with the US over technology denials against rising powers.

## DECLARATION

I declare that this is an original work based primarily on my own research, and I warrant that all citations of previous research, published or unpublished, have been duly acknowledged.

  
 SIGNED

  
\_\_\_\_\_  
(Pong Cheuk Ling)

Date: 22 Aug 2022





CERTIFICATE OF APPROVAL OF THESIS

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A STUDY OF VARIATIONS IN ALLIES' COOPERATION WITH THE UNITED STATES

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## CONTENTS

LIST OF TABLES .....	vi
LIST OF FIGURES .....	vii
LIST OF ABBREVIATIONS.....	viii
ACKNOWLEDGEMENTS .....	xi
1. INTRODUCTION: US STRATEGIC RIVALRY WITH CHINA .....	1
DIFFERENCES IN ALLIES RESPONSES TO THE US FOR COOPERATION.....	2
MAIN ARGUMENT AND ROAD MAP OF THE THESIS .....	3
2. LITERATURE REVIEW: PERCEPTION AND US-ALLIES COOPERATION OVER TECHNOLOGY DENIALS .....	6
US' RELATIVE DECLINE .....	7
CONTAINMENT AS THE US GRAND STRATEGY IN RESPONSE TO RELATIVE DECLINE .....	9
TECHNOLOGY AND STATE POWER.....	11
US UNILATERAL TECHNOLOGY DENIAL POLICY BACK AND THEN .....	12
RELATIVE DECLINE, TECHNOLOGY DENIAL, AND ALLIANCE .....	14
DIFFERENCES IN ALLIES RESPONSES .....	16
RESEARCH QUESTION AND HYPOTHESIS.....	19
METHODOLOGY .....	21
3. US-ALLIES TECHNOLOGY EXPORT CONTROL AND THE COLD WAR .....	23
OVERVIEW OF THE US-ALLIES POST-WAR POLICY IN THE 1940S .....	23
US' RELATIVE DECLINE .....	24
DILEMMATIC POLICY TOWARDS THE USSR BEFORE 1946.....	25
SOVIET EXPANSION AND THE US CONTAINMENT AFTER 1946 .....	26
US RESPONSES AND EXPORT CONTROL AGAINST THE USSR.....	27
ALLIES' REACTION TOWARDS THE COCOM AND THE US.....	29
Germany:.....	30
France:.....	32
UK:.....	34
Japan:.....	36



COCOM IN ACTION .....	38
SUMMARY:.....	41
4. US-CHINA AND THE NEW TECH COLD WAR.....	43
CHINA’S QUEST FOR GLOBAL TECHNOLOGY LEADERSHIP .....	43
TRUMP’S CONCERNS OVER RELATIVE GAINS.....	44
US UNILATERAL EFFORT IN CONTAINING CHINA’S MILITARY- TECHNOLOGICAL RISE .....	44
1. Reducing Reliance on China along US Supply Chain.....	44
2. Tariff on China’s Technology Imports .....	46
3. Enhancing capability In Technology and Innovation.....	47
4. Restriction on Public and Private Procurement .....	48
5. Stricter Export Control to China .....	50
6. Investment and Capitalization Restriction .....	52
7. Espionage Prevention.....	57
8. Government Agencies Restructuring .....	59
COOPERATION WITH OTHER DEMOCRATIC STATES AGAINST CHINA’S RISE	61
1. Diplomatic Persuasion .....	61
2. Research and Development (R&D) Partnership .....	62
3. Intergovernmental Dialogues .....	62
EVALUATION ON THE US-ALLIES COOPERATION.....	63
SUMMARY .....	64
5. JAPAN’S DILEMMA: ECONOMIC GAINS FROM CHINA OR SECURITY FROM THE US? .....	65
POST-WAR JAPANESE-US ALLIES .....	65
JAPAN-CHINA SECURITY RIVALRY .....	66
1. East China Sea and the Senkaku Islands Dispute .....	66
2. Taiwan Strait .....	67
3. Military Construction and Modernization.....	68
COMPARISON BETWEEN THE US AND JAPANESE UNILATERAL TECHNOLOGY EXPORT POLICY.....	70

1. Strengthening Domestic Technological Capability.....	70
2. Reducing Reliance on China along Japanese Supply Chain.....	72
3. Restriction on Public Procurement .....	73
4. Investment Restriction .....	74
5. Stringent Export Control.....	76
6. Espionage and Cyberattack Prevention.....	77
7. New Government Agencies Establishment.....	80
STRONGER US-JAPAN-ALLIES COOPERATION.....	82
1. Research and Development.....	82
2. Mutual Defense Equipment and Technology Transfer.....	85
3. Restricting Export to China.....	87
4. Supply Chain and Economic Security .....	87
5. Deterring China’s Cyberattack and Espionage .....	89
JAPAN-US COOPERATION THROUGH MULTILATERAL INSTITUTIONS.....	91
1. Prague Proposal: .....	91
2. The Clean Network: .....	91
3. The Quadrilateral Security Dialogue (QUAD): .....	92
4. The Group of Seven (G7): .....	93
5. NATO:.....	94
6. World Trade Organization (WTO).....	95
7. Miscellaneous Multilateral Co-operations: .....	96
SUMMARY:.....	96
6. IS UK-US SPECIAL TIE NO LONGER SPECIAL?.....	98
‘GOLDEN ERA’ MERELY FOR TRADE AND ECONOMIC BENEFITS .....	98
NATIONAL SECURITY: OUT OF SIGHT, OUT OF MIND .....	101
HONG KONG AND MINOR CHANGES IN THE UK’S CHINA POLICY.....	102
MILD CHANGES IN THE UK’S CHINA POLICY AFTER 2020.....	104
1. Limiting Reliance on Chinese Technology .....	104
2. Enhancing UK Domestic R&D Capability .....	106

3. Investment Restriction .....	107
4. Export Control over Strategic Items .....	110
5. Visa Restriction.....	111
6. Espionage Prevention.....	111
7. Government Agencies Changes .....	112
UK-US DISPUTES DUE TO VARIATIONS IN THREAT PERCEPTION OVER CHINA .....	114
UK-US COOPERATION BASED ON VALUES OTHER THAN SECURITY.....	116
1. Research and Development Collaboration.....	116
2. Cybersecurity .....	118
SUMMARY .....	119
7. FRANCE’S DEFIANCE TO THE US’ CALL AND ITS COOPERATION WITH CHINA.....	119
ABSENCE OF FIERCE STRATEGIC RIVALRY WITH CHINA .....	120
1. Human Rights .....	120
2. Sphere of Influence in Africa .....	121
3. Taiwan Strait and South China Sea.....	122
ABSOLUTE GAINS FROM FRANCO-CHINESE COOPERATION .....	125
STRATEGIC RIVALRY VS STRATEGIC AUTONOMY .....	126
NARROWLY SCOPED AND INCONSISTENT TECHNOLOGY POLICY .....	127
1. Competition for Technological and Economic Advancement.....	128
2. Technological Cooperation with China.....	129
AMBIGUOUS POLICY TOWARDS BANNING CHINESE TECHNOLOGY .....	131
1. Anti-Espionage and Cyber Security.....	131
2. Investment Restriction .....	133
SUMMARY .....	134
8. THE GERMAN DILEMMA.....	136
ABSENCE OF FIERCE SECURITY RIVALRY .....	136
1. Human Rights Issues.....	136

2. South China Sea Issues .....	139
DEUTSCHLAND'S DANCE WITH THE DEVIL .....	140
1. Joint Investment Project.....	141
2. Private Investment and Acquisition .....	141
3. Trade and Production .....	142
GERMAN DILEMMATIC TECH POLICY TOWARDS CHINA .....	143
1. Reducing Dependence on China .....	143
2. Inconsistent Investment Restriction .....	144
3. Incoherent Anti-Espionage Actions .....	146
US-GERMAN DISPUTES.....	148
SUMMARY .....	148
9. DISCUSSION AND CONCLUSION .....	150
DIFFERENCES IN THE US' AND ALLIES' THREAT PERCEPTION OF CHINA....	150
POTENTIAL NEOCLASSICAL REALIST AND CONSTRUCTIVIST EXPLANATIONS	
TO ALLIES' RESPONSES .....	151
IMPACT OF THREAT PERCEPTION AND DIRECT SECURITY RIVALRY .....	151
IMPLICATIONS FOR INTER-STATE RIVALRY .....	159
ECONOMIC INTERDEPENDENCE IS NOT ALWAYS THE ANSWER .....	159
SHARED THREAT STRENGTHENS ALLIANCE .....	164
BALANCE OF THREAT OR BALANCE OF POWER?.....	166
CONCLUSION.....	167
BIBLIOGRAPHY .....	169

## LIST OF TABLES

Table 1 Relationship between West-East Relationship and the Number of Items on the CoCom Positive List

Table 2 Behaviour of states in relation to their perceived security threat

Table 3 Threat Perception on China and Direct Security Rivalry between US, Japan, UK, France, and Germany (Source: Author's database)

Table 4 Dates of Implementation of, Or Decision to Adopt, New Policies Denying China's Access to Technology by the US, Japan, the UK, France, and Germany (Source: Author's Database)

Table 6 Year-by-year rejection rate of Chinese acquisition deals in the US, Japan, the UK, France, and Germany from 2005 to 2021 (Source: China Global Investment Tracker)

## LIST OF FIGURES

Figure 1 Relationship between Variables

Figure 2 Percentage of Individual States' Actions in Denying Chinese Access to Advanced Technologies from 2010 to 2021

Figure 3 Percentage of Individual Allies' Cooperation Among All the US Bilateral/Multilateral Cooperation

Figure 4 China's Share as Import Partner of the US, Japan, The UK, Germany, And France from 2000 to 2019 (Source: The World Integrated Trade Solution (WITS))

Figure 5 China's Share as Export Partner of the US, Japan, The UK, Germany, And France from 2000 To 2019 (Source: The World Integrated Trade Solution (WITS))

Figure 6 Inflow of Foreign Investment from China to the US, Japan, The UK, Germany, And France from 2013 To 2020 (Source: OECD)

Figure 7 Outflow of Foreign Investment to China from the US, Japan, The UK, Germany, And France from 2005 To 2020 (Source: OECD)

Figure 8 Correlation between Security Threat from China and allies' cooperation with the US

## LIST OF ABBREVIATIONS

Abbreviation	Definition
AI	Artificial intelligence
AIIB	Asian Infrastructure Investment Bank
ANSSI	Agence nationale de la sécurité des systèmes d'information (National Agency for the Security of Information Systems)
ASEAN	Association of Southeast Asian Nations
AWG	Außenwirtschaftsgesetz (Foreign Trade and Payments Act)
BAFA	Bundesamt für Wirtschaft und Ausfuhrkontrolle (Federal Office of Economics and Export Control)
BIS	Bureau of Industry and Security
BNetzA	Bundesnetzagentur (Federal Network Agency)
CCL	Commodity Control List
CCP	Chinese Communist Party (中国共产党)
CFIUS	Committee on Foreign Investment in the United States China General Nuclear Power Group (中国广核集团) and affiliates
CGN	(FKA: China Guangdong Nuclear Power Group (中国广东核电集团有限公司) (until 26 April 2013)
CHIPS Act	Creating Helpful Incentives to Produce Semiconductors for America Act
CIA	Central Intelligence Agency
CIEEMG	Commission interministérielle pour l'étude des exportations de matériels de guerre (Inter-ministerial Commission for The Study of Exports of War Material)
CNOCC	China National Offshore Oil Corporation (中国海洋石油总公司) and affiliates
CNR	Non-re-export clause
CoCom	The Coordinating Committee for Multilateral Export Controls
COMPETES Act	Pre-Eminence in Technology, and Economic Strength Act of 2022
CoRe Partnership	U.S.-Japan Competitiveness and Resilience Partnership
DARPA	US Defense Advanced Research Projects Agency
DCRI	Direction Centrale du Renseignement Intérieur (General Directorate for Internal Security)
DGDDI	Direction générale des douanes et droits indirects (Directorate-General of Customs and Indirect Taxes)
DGSE	Direction Générale de la Sécurité Extérieure (General Directorate for External Security)
DoD	The US Department of Defense
DoJ	The US Department of Justice
EAR	Export Administration Regulations
Economic Security Bill	Act on The Promotion of National Security Through Integrated Economic Measures (経済施策を一体的に講ずることによる安全保障の確保の推進に関する法律案) (AKA: 経済安全保障法)
EO	Executive Order
ERP	European Recovery Program (AKA: Marshall Plan)
ECO	Export Control Organization
ELAB	Extradition Law Amendment Bill
ETF	Exchange-traded fund

EU	The European Union
EUC	End-Use Certificate
FBI	Federal Bureau of Investigation
FCC	Federal Communications Commission
FDI	Foreign direct investment
FEFTA	Foreign Exchange and Foreign Trade Act
FIRRMA	Foreign Investment Risk Review Modernization Act of 2018
FONOP	Freedom of Navigation Operation
FRG	Federal Republic of Germany
G-7	The Group of Seven
GATT	General Agreement on Tariffs and Trade
GCHQ	Government Communications Headquarters
GDP (PPP)	Gross domestic product based on purchasing power parity
GPAI	Global Partnership on Artificial Intelligence
HFCAA	Holding Foreign Companies Accountable Act
Huawei	Huawei Technologies Co., Ltd. (华为技术有限公司) and affiliates
JBF	Japan Business Federation 日本経済団体連合会 (AKA: 経団連)
JCS	Joint Chiefs of Staff
JETRO	Japan External Trade Organization (日本貿易振興機構 (ジェトロ))
KWKG	Kriegswaffenkontrollgesetz (Weapons Control Act)
KWL	Kriegswaffenliste (War Weapons List)
M&A	Merging and acquisition
MCF	Military-Civil Fusion (军民融合)
METI	Ministry of Economy, Trade and Industry (経済産業省)
MEU List	Military End User List
MI5	The Security Service
MI6	The Secret Intelligence Service
MIC 2025	Made in China 2025 (中国制造 2025)
MoD	Ministry of Defense
NASA	The National Aeronautics and Space Administration
NATO	The North Atlantic Treaty Organization
NDAA	National Defense Authorization Act
NISC	The National Center of Incident Readiness and Strategy for Cybersecurity (内閣サイバーセキュリティセンター) Non-SDN Chinese Military-Industrial Complex Companies List (since 3 June 2021)
NS-CMIC List	FKA: Non-SDN Communist Chinese Military Companies List (NS-CCMC List) (until 3 June 2021)
NSL	The National Aeronautics and Space Administration
NSS	National Security Strategy
OECD	Organisation for Economic Co-operation and Development
OEEC	Organisation for European Economic Co-operation
OFAC	Department of the Treasury's Office of Foreign Assets Control
PLA	The People's Liberation Army (中国人民解放军)
QUAD	Quadrilateral Security Dialogue
R&D	Research and development
SASAC	State-owned Assets Supervision and Administration Commission of the State Council (国务院国有资产监督管理委员会)
SCAP	Supreme Commander for the Allied Powers
JSDF	Japan Self-Defense Forces (自衛隊)
SEC	Securities and Exchange Commission
SGDSN	Secrétariat général de la Défense et de la Sécurité Nationale (Secretariat-General for National Defence and Security)
SNIA	La stratégie nationale pour l'intelligence artificielle (The National Strategy for Artificial Intelligence)
SOE	State-owned enterprise



STEM	Science, technology, engineering, and mathematics
TPP	Trans-Pacific Partnership
UAE	United Arab Emirates
UN	United Nations
UNCLOS	The United Nations Convention on the Law of the Sea
USSR	Union of Soviet Socialist Republics
USTR	Office of the United States Trade Representative
WTO	World Trade Organization
WWII	World War II
XUAR	Xinjiang Uygur Autonomous Region (新疆维吾尔自治区)
ZTE	Zhongxing Telecommunication Equipment Corporation (中兴通讯股份有限公司) and affiliates

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*“But he said to me, “My grace is sufficient for you, for my power is made perfect in weakness.” Therefore, I will boast all the more gladly about my weaknesses, so that Christ’s power may rest on me.”*

*2 Corinthians 12:9,10*

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When Jesus spoke again to the people, he said, “I am the light of the world. Whoever follows me will never walk in darkness but will have the light of life.” May the God be watch over our coming and going both now and forevermore.

P.S. without the help from my editor, Mr Andy Goh, you may find my writing illegible and messy.



Pong Cheuk Ling, Cheri

15 June 2022

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## 1. INTRODUCTION: US STRATEGIC RIVALRY WITH CHINA

A consensus among many scholars is that the US has been in relative decline against China. Yet, different explanations for this phenomenon have been proposed. For example, Layne,<sup>1</sup> Friedberg,<sup>2</sup> Mearsheimer,<sup>3</sup> Walt,<sup>4</sup> and McDonald,<sup>5</sup> suggested China's emergence in terms of military capability, economic power, and influence in international organizations as a major reason, while Navarro, for instance, argued that it is simply because China has been ruining the US' advantage in military, economy, and so forth through market manipulation. Scholars have also proposed possible US response to the situation. On the one hand, experts like MacDonald and Parent argued that the US should gracefully accept its decline and endorse engagement, as this would help the country to avoid imperial overstretch.<sup>6</sup> On the other hand, Mearsheimer,<sup>7</sup> Navarro,<sup>8</sup> and Pottinger considered US' competition with China as necessary and inevitable from the realist perspective, which holds that as states handle their own survival, they must maximize security or maximize power.<sup>9</sup> Therefore, the US might have no choice but to compete with and contain China to maintain its global dominance, security, and ultimately, survival.

Despite the scholars' discussions, the White House has not made any response to the US' relative decline until Obama announced the "Pivot to Asia Strategy", and it was not until Trump took office in January 2017 that "total competition" became an option.<sup>10</sup> In the National Strategy and the National Defense Authorization Act, the Trump administration unambiguously said that China, apart from Russia, is also the US' strategic competitor. Since then, the Trump government has invoked strategies in different areas, such as trade, human rights, and global governance, in an attempt to deter China's rise.<sup>11</sup>

A highlight in the strategic rivalry between the US and China is the technological competition

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<sup>1</sup> Layne, Christopher. "This Time It's Real: The End of Unipolarity and the 'Pax Americana.'" *International Studies Quarterly* 56, no. 1 (2012): 203–13. <http://www.jstor.org/stable/41409832>.

<sup>2</sup> Friedberg, Aaron L. *A Contest for Supremacy: China, America, and the Struggle for Mastery in Asia*, 1–57. New York, NY: W.W. Norton & Co., 2012.

<sup>3</sup> Ibid.

<sup>4</sup> Walt, Stephen M. "The End of the American Era." *The National Interest*, no. 116 (2011): 6–16. <http://www.jstor.org/stable/42896410>.

<sup>5</sup> MacDonald, Paul K., and Joseph M. Parent. "Graceful decline? The surprising success of great power retrenchment." *International Security* 35, no. 4 (2011): 7–44.

<sup>6</sup> Ibid.

<sup>7</sup> Ibid.

<sup>8</sup> Navarro, Peter, and Greg Autry. *Death by China: Confronting the Dragon - A Global Call to Action*, 215–264. Upper Saddle River, NJ: Pearson Education Inc., 2015.

<sup>9</sup> *Hearing to Receive Testimony on the United States' Strategic Competition with China, Tuesday, June 8, 2021. Before the Select Comm. on Armed Services, 117<sup>th</sup> Cong. 27-29* (2021) (testimony of Matt Pottinger, Former Deputy National Security Advisor and Distinguished Visiting Fellow at the Hoover Institution, Stanford University).

<sup>10</sup> Zhang, Baohui. "From Defensive toward Offensive Realism: Strategic Competition and Continuities in the United States' China Policy." *Journal of Contemporary China* (2021): 1-17.

<sup>11</sup> Congress.gov. "H.R.2810 - 115th Congress (2017-2018): National Defense Authorization Act for Fiscal Year 2018." December 12, 2017. <https://www.congress.gov/bill/115th-congress/house-bill/2810>.

between the two countries. Technologies such as artificial intelligence and robotics play an indispensable role in military development, making this an important aspect in the strategic rivalry that should not be overlooked. China's ambition in catching up with the US and becoming a dominant power can be seen from its Made in China 2025 Initiative and the Thousand Talents Programme. In response, the US has been proactively restricting the rise of Chinese technological and economic development through policies, such as sanctions, export controls, and visa restrictions, which will be carefully discussed and elaborated on in later chapters of this thesis.

#### DIFFERENCES IN ALLIES RESPONSES TO THE US FOR COOPERATION

Apart from internally balancing rivals by improving their own technological and military capability, states would also try to collaborate with allies to balance their common rivals. In fact, the US tried to work closely with allies in its strategic rivalries with both the USSR and China under a similar bipolar system. However, while the US aims to gain support from allies to deny both the USSR and China's access to advanced technologies, the US allies' responses have varied significantly over time.

During the Cold War, the US, France, Germany, Japan, and the UK managed to work closely to deny the USSR's access to technologies for deterring its technological, economic, and military emergence during the Cold War. The US and allies' unilateral policies on export control and technological transfer policies shared a lot of similarities, and the Coordinating Committee for Multilateral Export Controls (COCOM), formed by the US-led bloc, not only served as a platform for interstate cooperation, but also exerted authority over its member states to abide to its regulations.<sup>12</sup> Take the Toshiba-Kornberg Case for example, in which Toshiba and Kornberg violated the COCOM's export control policies over technology transfer to the USSR, the companies were heavily penalized by Japan and Norway, respectively.<sup>13</sup>

Fast-forward the present, when it can be observed that key US allies, particularly the UK, France, and Germany are sitting on the fence in issues related to the current US-China strategic rivalry. Some experts blamed Trump's unilateralism for tarnishing the US' cooperation with its allies, especially with Merkel and Macron.<sup>14</sup> Yet, despite Trump's successor Biden's

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<sup>12</sup> Henshaw, John H. *"The Origins of COCOM: Lessons for Contemporary Proliferation Control Regimes."* (1993). The Henry L. Stimson Center, Washington DC.

<sup>13</sup> Wrubel, Wende A.. "The Toshiba-Kongsberg Incident: Shortcomings of Cocom, and Recommendations for Increased Effectiveness of Export Controls to the East Bloc." *American University of International Law Review* 4 (1989): 16.

<sup>14</sup> Noack, Rick. "Analysis | A Tale of Two Handshakes - Why France's Macron Works Well with Trump and Germany's Merkel Doesn't." The Washington Post. WP Company, December 1, 2021. <https://www.washingtonpost.com/news/worldviews/wp/2018/04/24/a-tale-of-two-handshakes-why-frances-macron-works-well-with-trump-and-germanys-merkel-doesnt/>.

willingness to work closely with allies, cooperation between the US and its allies in containing China is still stalled, and despite the formation of the EU-US Trade and Technology Council, it, unlike the COCOM, is not entitled to exert legal authority over member states for coordinating the US-led allies' responses. It is also obvious that France and Germany hold different views from the US in their response to China's rise, and cooperation from them is minimal. However, Japan does show greater willingness to cooperate with the US.

After reviewing the situation during the Cold War and at present, one may wonder 1) what motivated allies to work more closely with the US during the Cold War than now, and 2) why is Japan more willing to work closely with the US than the UK, France, and Germany?

### MAIN ARGUMENT AND ROAD MAP OF THE THESIS

For this study, the structural realist approach and relevant theories are adopted to answer the above questions.

Structural realism assumes that states' behaviours are shaped by the anarchic international structure with no authority superior to sovereign states. For survival, states must help themselves by maximizing security and power.<sup>15</sup> This notion also predicts states may balance the power of their rivals. Nonetheless, it can be observed that while China has been rising for decades, the US and its allies have not taken any measures to contain the former's rise before the mid-2010s. Therefore, the balance of power theory may not be applicable to this study.

Instead, the balance of threat theory may offer a more accurate understanding of the US and its allies' response to the rising China. This theory predicts that states tend to form alliance to balance a state when they perceive that state as a security threat. Security threat is constituted by geographical proximity between states, aggregate power, offensive power, and intention of the rival. The balance of threat theory is particularly able to explain the cooperation between the US and its allies in the Cold War. Specifically, as the USSR, a nuclear power with an ambition to expand, was located close to Europe, the European states felt threatened by the USSR and consequently opted to form a close alliance with the US. As the Cold War and the current US-China rivalry are comparable, the theory may also be useful in explaining the current relationship between the US and its allies. Specifically, this theory suggests if the US' allies experience the same security threat as the US does, they will closely cooperate with each other in response to the threat, the rising China.

In the meantime, as realists suggest, states are also concerned with their relative gains in

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<sup>15</sup> Waltz, Kenneth N. *Essay*. In *Theory of International Politics*, 39–128. Boston: McGraw-Hill, 2008.

relation to other states, as uneven division of relative gains in states' cooperation would allow a state's counterparts to rise and become a security threat to itself, and the more significant the threat, the greater the state's relative concern. Applied to the current study, states perceiving China as a significant threat are less likely to cooperate with China because of their concerns over relative gains and security in relations to China.

Based on the above theories, this thesis will argue the existence of security threat would alter states' threat perception, and thus concerns over relative gains in their cooperation with China alongside their cooperation with the US. The more a state perceives China as a threat, the more it would be concerned with its relative gains against China, leading to a reduction in its cooperation with China to avoid uneven relative gains that may aid China's rise while cooperating closely with the US.

To testify this hypothesis, this thesis will assess the allies' cooperation with the US in terms of the consistency in their unilateral policies against China's access to advanced technologies. If a state shares similar unilateral policies while working closely with the US to contain China, the state is said to have a sound cooperation with the US, and vice versa.

Data will be collected from news reports and government policy papers, which will be coded into an event catalog to study the changes in the different states' government policies concerning sanctions, export control, investment restriction, visa restriction, market exclusion, and espionage prevention against China's technological access. These states' cooperation with the US will also be studied. As Japan, UK, Germany, and France are major US allies having different power status and geographical proximity to China, they will serve as the cases for studying in this thesis.

Among the US allies examined in this research, Japan is said to be the most cooperative of all, as its policies are the most similar to those of the US, and the two countries have not faced any disputes over the handling of China's technological rise. Since Japan has had a variety of security rivalries and disputes with China, it has perceived China as the greatest security threat. Therefore, Japan's concerns over its relative gains in relation to China would be great enough to motivate a reduction in its cooperation with and dependence on China, even on the expense of absolute gains from its economic ties with China. Simultaneously, Japan has been working closely with the US because of comparable threat perception on China.

The UK began viewing China as a rising security concern after its crackdown on Hong Kong's social movement in 2019, in addition to human rights issues and China's assertiveness in the South China Sea. However, since the two countries are physically distant from each other and

do not face a direct security rivalry as the US and China do, the balance of threat theory predicts that the UK would not consider China as a major security threat, and thus would be less worried about its relative gains in relation to China. As a result, the UK holds a less intimidating attitude towards China, is less likely to cooperate with the US to contain the rise of China through adoption of equivalently tough policies, and would maintain its economic ties for absolute gains from China.

France and China may have disputes over human rights issues, but these are not significant enough to become a de facto direct security threat to France. Given the absence of security threat from China, France is less concerned with its relative gains than its absolute gains from maintaining economic ties with China. This can be reflected in the French's lax and less comprehensive policy goals towards China's emergence in comparison to those of the US. In fact, France, in contrast to the US, has constantly cooperated with China in technological areas, such as the setting up of the Sino-French Aviation University for joint research projects.

Germany, like France, does not have any direct security rivalries with China. Although Germany has also shown its discontent towards China's human right issues and assertiveness in the South China Sea, these are not urgent enough to be considered a direct security threat to Germany. Therefore, Germany is less concerned with its relative gains from China comparing to the US and Japan. In view of the absolute gains from its economic and investment ties with China, the German government has adopted inconsistent policies towards China. Ideally, Germany can defend its basic security while enjoying the economic benefits from its cooperation with China.

With these brief discussions of the relations between the US allies and China in mind, the thesis will first revisit some basic realist theories, especially those on relative gains, and the balance of threat theory in the literature review chapter. In the empirical chapters that follow, the dynamics between the US and its allies during the Cold War will be studied to gain insights into the contemporary US-allies cooperation. The remaining empirical chapters will be dedicated to studying the current US policy towards China and US' cooperation with Japan, UK, France, and Germany in the present US-China strategic rivalry. Further discussion on the implication of threat perception on interstate cooperation will be included in the discussion chapter.



## 2. LITERATURE REVIEW: PERCEPTION AND US-ALLIES COOPERATION OVER TECHNOLOGY DENIALS

Despite the US' adoption of similar internal balancing and external balancing policies in response to its rising strategic rivals, namely, the USSR during the Cold War and China at present, its allies' willingness to cooperate has varied. Specifically, all of US' allies cooperated closely with Washington against USSR, but only some of them have chosen to work actively with the US in dealing with China's rise, while others opted to sit on the fence. This begs the questions: Why do the allies behave differently between the two scenarios, and how are the cooperation different? Can the existing international relations theories explain these behavioural differences?

Realism proposes that sovereign states are the unitary actor in the international system, since individuals, particularly state leaders, are constrained by the same anarchic international system,<sup>16</sup> which Waltz argued shapes states' behaviours and international stability. The international system is 'decentralized and anarchic'<sup>17</sup> because of the absence of a central government that is entitled to the coercive authority over all states.<sup>18</sup> As a result, a state must defend its own national security, as no higher authorities exist to protect it from other states' aggression and offence.

The realists' perspective also supposes that states are insecure and sensitive to others' rise in power capability and dominance. Based on this assumption, some realists, including Waltz, contended that some states would tend to balance the power equilibrium that is disturbed when one state has become more powerful, while others will balance the power through internal or external balancing efforts. In other words, states are cautious about the relative gains from their relationship with other states, as they worry that these rivals would abuse their 'disproportionate gains' to change the balance of power and 'damage or destroy the other'.<sup>19</sup>

Uneven relative gains division can cause a state's relative decline. If a dominant state gains less than its counterpart in their cooperation, the power balance between the two states would shift. Specifically, the dominant power would be in relative decline vis-à-vis the counterpart. Ultimately, power would shift from the state in relative decline to the rising state, which receives greater relative gains from their cooperation.

With the above discussion in mind, power shift or power transition can be defined as the power

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<sup>16</sup> Waltz, Theory of International Politics, p. 1-88

<sup>17</sup> Waltz, Theory of International Politics, p. 88

<sup>18</sup> Waltz, Theory of International Politics, p. 89

<sup>19</sup> Waltz, Theory of International Politics, p. 105

equilibrium being disturbed in a way that is unfavourable to the dominant power's dominance and security. Power transition theory proposes that the rising power is discontented with the international order constructed by the dominant power, so, they transform into a revisionist power challenging the dominant power and the status quo. Following the realists' logic, namely, states' balancing behaviour are derived from their concerns over relative gains from ties with other states, the state in relative decline would naturally counterbalance the rising power, which may ultimately escalate to a strategic rivalry between the two states. Moreover, because of states' resistance to the power shift, the rise and decline of great powers could significantly destabilize the international system.

On the other hand, dynamic realism, developed by Copeland based on realists' theories, holds that strategic rivalry is instigated by the power in relative decline instead of the rising power. It is just a matter of time until the rising power will eventually become more powerful than the power in relative decline, so the former only needs to take its time and wait for the moment when the latter becomes less powerful.

The power transition theories and dynamic realism are able to illustrate how a power in relative decline and the rising power would behave, and could empirically provide insights into the US' effort in containing and deterring China by forsaking absolute gains from economic relations to preserve its global dominance. The response by the US will be discussed in the next section.

#### US' RELATIVE DECLINE

Scholars have attempted to extrapolate how the dominant and emerging powers behave during power transition, and the US' strategies in response to its relative decline episodes in the 1940s and at present, namely, rebalance and contain, are consistent with the realists' theoretical prediction.

The theory of both Waltz and Mearsheimer envisaged that all states encountering an emerging counterpart would try to counterbalance this rival, since self-help is required under an anarchic international environment regardless of the intention being for power maximization or security maximization.<sup>20</sup> From the US' point of view, therefore, a rising power is always a security threat to its global dominance.

Copeland's dynamic realism studies the issue using a more dynamic approach and proposes the idea of dynamic differentials, which is determined by 1) the depth of dominant state's future

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<sup>20</sup> Waltz, Kenneth N. *Theory of International Politics*. Long Grove, IL: Waveland Press, 2010.; Mearsheimer, John J. *The Tragedy of Great Power Politics*. New York: W. W. Norton & Company; 2014.

decline in the absence of ‘strong’ response, and 2) probability of dominant state’s decline in the absence of ‘strong’ response under the assumption that the declining power would opt for a policy that is able to achieve the highest expected probability of survival (EPS).<sup>21</sup>

As mentioned previously, the US has experienced two episodes of relative decline since WWII, namely, during the Cold War and at present, and both times, the state adopted a containment policy to maximize its security and power as the theories predicted. The US’ rival during the Cold War was the USSR. After WWII, the Truman Administration prioritized domestic affairs over intervening in international affairs.<sup>22</sup> Meanwhile, uncertainties and ambivalence over the USSR’s intention and capability was prevalent among officials.<sup>23</sup> Although military planners and intelligence officers predicted that the Soviets would be war-averse given its strategic weakness in terms of military capability, concerns over the state’s potential occupation of Western Europe, the Middle East, and Northeast Asia remained.<sup>24</sup> It was not until the Soviet repression of Romania, Bulgaria, Hungary, and Poland that the US started to believe its economic and strategic power would be in relative decline vis-à-vis the Soviets once its rival managed to expand its influence into Eastern Europe and the Balkans. Eventually, the US identified the USSR as its rival after George Kennan’s X Article gained appeal within the policy circle.<sup>25</sup>

Two decades after the demise of the Cold War, the US experienced another relative decline vis-à-vis another emerging power, China. Layne, with the aid of economic data and evidence, even predicted that the US unipolarity and the ‘Pax Americana’ would end because of the rise of China amidst other domestic problems, such as national debt, war-engendered deficit, and weakening currency.<sup>26</sup> Friedberg, Mearsheimer,<sup>27</sup> Walt,<sup>28</sup> McDonald,<sup>29</sup> and Friedberg also made a similar prediction.<sup>30</sup> Navarro further elaborated on how China has gradually become a credible threat since the 2000s, namely, the rise in its economic power, military capacity, and influence from participating in a range of international organizations, and specifically pointed

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<sup>21</sup>Copeland, Dale C. *The Origins of Major War*, 37–42. Ithaca, NY: Cornell University Press, 2000.

<sup>22</sup> Lefler, Melvyn P. *A Preponderance of Power: National Security, the Truman Administration, and the Cold War*. 46. Stanford, CA: Stanford University Press, 2007.

<sup>23</sup> Lefler, Melvyn P. *A Preponderance of Power: National Security, the Truman Administration, and the Cold War*. 46–47. Stanford, CA: Stanford University Press, 2007.

<sup>24</sup> Lefler, Melvyn P. *A Preponderance of Power: National Security, the Truman Administration, and the Cold War*. 47. Stanford, CA: Stanford University Press, 2007.

<sup>25</sup> Lefler, Melvyn P. *A Preponderance of Power: National Security, the Truman Administration, and the Cold War*. 106–109. Stanford, CA: Stanford University Press, 2007.

<sup>26</sup> Layne, Christopher. “This Time It’s Real: The End of Unipolarity and the Pax Americana.” *International Studies Quarterly* 56, no. 1 (2012): 203–13. <https://doi.org/10.1111/j.1468-2478.2011.00704.x>.

<sup>27</sup> *Ibid.*

<sup>28</sup> *Ibid.*

<sup>29</sup> MacDonald, Paul K., and Joseph M. Parent. “Graceful decline? The surprising success of great power retrenchment.” *International Security* 35, no. 4 (2011): 7–44.

<sup>30</sup> Friedberg, Aaron L. *A contest for supremacy: China, America, and the struggle for mastery in Asia*. New York: NY: WW Norton & Company, 2011.

out in his *Death by China* that the US-China trade deficit is corroding US' relative economic power.<sup>31</sup> This stemmed from China unscrupulously manoeuvring 'Exceedingly Potent "Eight Weapons of Job Destruction"'<sup>32</sup> to foster its economic growth while hampering the US manufacturing sector's competitiveness. In addition to the job market, China has been considered as a threat to the globe via currency manipulation alongside the overseas market expansion.<sup>33</sup> So, the US has switched from 'conengagement' to a total containment policy as predicted.<sup>34</sup>

#### CONTAINMENT AS THE US GRAND STRATEGY IN RESPONSE TO RELATIVE DECLINE

As discussed above, the US responded to its relative decline both during the Cold War and at present by shifting its general policy from engagement to containment. Truman's doctrine, backed by his Secretary of State George Marshall, Undersecretary of State Dean Acheson, and George Kennan, was developed to contain the USSR in, among others, the economic and military aspects. Since the dissolution of the USSR in the 1990s, the US has become a dominant power enjoying global pre-eminence, albeit not for very long.

The rise of another rival, China, initiated another US relative decline and put an end to the so-called 'Pax-Americana'.<sup>35</sup> Although the US adopted a 'conengagement' policy towards China since the end of the Cold War, liberalists were confident that China's economic development since the start of the Reform and Opening Up in the 1980s would transform China into a democratic state. Despite the disruption of China's relations with the West after the June Fourth Incident, the policy, by-and-large, remained constant. Yet, realizing the US' relative decline vis-à-vis China, strategic competition has gradually become the crux of US-China policy since the 2010s.

In 2010, Obama unambiguously announced in his first National Security Strategy that the US would pursue 'a positive, constructive, and comprehensive relationship with China', especially on global economic recovery, climate change, and weapons non-proliferation with 'responsible leadership'.<sup>36</sup> Undoubtedly, China's military modernization raised US concerns.

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<sup>31</sup> Navarro, Peter, and Greg Autry. *Death by China: Confronting the Dragon - a Global Call to Action*. 67. Upper Saddle River, NJ: Pearson, 2015.

<sup>32</sup> Navarro, Peter, and Greg Autry. *Death by China: Confronting the Dragon - a Global Call to Action*. 50. Upper Saddle River, NJ: Pearson, 2015.

<sup>33</sup> Navarro, Peter, and Greg Autry. *Death by China: Confronting the Dragon - a Global Call to Action*. 49-50, 67-68, 91-92. Upper Saddle River, NJ: Pearson, 2015.

<sup>34</sup> *Ibid.*

<sup>35</sup> MacDonald, Paul K., and Joseph M. Parent. "Graceful decline? The surprising success of great power retrenchment." *International Security* 35, no. 4 (2011): 7-44.

<sup>36</sup> President, U. S. "National security strategy." Executive Document. Washington, DC, Government Printing Office (2010).

Yet, if the US and its allies' interests were not 'negatively' affected, China would still be encouraged to expand its influence by contributing to collective security and economic prosperity through unilateral and multilateral institutions.<sup>37</sup> To facilitate trust-building, the US even set up the Strategic and Economic Dialogue with China. In general, the US, at least on paper, was not only willing to collaborate with China, but also expected China's emergence as a responsible rising power.

After the end of the financial tsunami, the Obama administration attempted to engage China in multifarious areas, including strategic reassurance, climate change, and economic cooperation, until the announcement of the "Pivot to the Pacific", which marked the shift of US-China Policy as pundits noted. Friedberg, on the one hand, noted that Obama embraced engagement before realizing the importance of rebalancing in 2010, when the US took a tougher stance towards China concerning issues including human rights, South China Sea disputes, and Taiwan Strait.<sup>38</sup> On the other hand, Zhang proposed that hedging and engagement are the essences of Obama's China policy until 2011, when a policy statement demonstrated the consolidation of US' 'Pivot to Asia Policy'.<sup>39</sup> Both scholars agreed the pivot policy lifted the curtain on the US-China competition.

After Trump took office, he not only addressed China as America's 'strategic rival', but also adopted more comprehensive and rigorous policies compared to Obama. In addition to human rights, ideology, cybersecurity, and territorial issues, Trump even pushed for 'decoupling' from China, thus putting engagement and hedging into history books. After identifying China as a strategic rival in Trump's first National Security Strategy in December 2017, trade war, human rights issues, Taiwan Strait, and technology export issues have become some focal points of disputes and conflicts between the US and China. In the view of its containment of the USSR and China, the US appears to be eager to defend its dominance through strategic competition, that is, enhancing a state's power capacity while deterring its rivals from flexing their power capability. If strategic competition is the solution, the next question for the US would be in what ways can it strengthen itself while deterring the rise of China.

The technology denial policy, including export control and anti-espionage, is one of the tools. For example, the US and its allies blocked Chinese acquisitions of chips and semiconductor producers in the west. Assuming that technology denial is a means to deter the rise of an emerging power, it may imply that technology is highly related to state power capacity. This

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<sup>37</sup> Ibid.

<sup>38</sup> Ibid.

<sup>39</sup> Zhang, Baohui. "From Defensive toward Offensive Realism: Strategic Competition and Continuities in the United States' China Policy." *Journal of Contemporary China*, 2021, 1-17. <https://doi.org/10.1080/10670564.2021.2010885>.

will be further elaborated in the following section.

## TECHNOLOGY AND STATE POWER

An example of how technology and state power are intertwined is states applying their state-of-the-art technologies in the production of weapons for national security and economic productivity. Great powers are accustomed to converting their economic wealth into formidable military capability.

Theoretically speaking, scholars agree that military technology determines states' sensitivity towards relative gains and their specific gains. For example, Snidal identified military technology as one of the determinants of threat imposed by states' rivals by the offense-defence balance.<sup>40</sup> Undoubtedly, states with higher military technology and greater military power are more likely to be perceived as a threat, thus changing the relative gains alongside other states' sensitivity towards their relative gains.

Powell employed a repeated prisoner dilemma game and suggested that if a state's economic power is strong, thus allowing it to assimilate technology into warfare, the relative gains to itself and the others would change. Given that the use of force is one of the options of a state, its counterparts' cost for noncompliance and war would greatly increase if future cost were taken into consideration in a repeated game.<sup>41</sup> Therefore, technology and military prowess become a state's leverage for power in the sense that they can shape other states' responses in its favour, which coincides with Nye's notion of 'hard power'<sup>42</sup> in international relations.

Empirically speaking, technology has long been an indispensable constituent of a state's military power. During the Age of Exploration, technological advancement in steel refining and weaponries enhanced European expansion and dominance by the production of swords and guns, which allowed the Spanish to defeat and colonize the Incas and Aztecs and setting up the Columbus Triangle, through which the Europeans gained access to abundant resources, like sugar and silk, for trading and extending their economic might,<sup>43</sup> and strategic commodities, like rubber and minerals, for arms building.<sup>44</sup> Spain, the Netherlands, and the UK all gained their economic and military prowess through similar ways, allowing them to enjoy power and status that lasted until the end of the Second World War.<sup>45</sup>

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<sup>40</sup> Snidal, Duncan. "International Cooperation among Relative Gains Maximizers." *International Studies Quarterly* 35, no. 4 (1991): 387–402. <https://doi.org/10.2307/2600947>.

<sup>41</sup> Powell, Robert. "Absolute and Relative Gains in International Relations Theory." *The American Political Science Review* 85, no. 4 (1991): 1303–20. <https://doi.org/10.2307/1963947>.

<sup>42</sup> Nye, Joseph S. "Soft Power." *Foreign Policy*, no. 80 (1990): 153–71. <https://doi.org/10.2307/1148580>.

<sup>43</sup> Diamond, Jared M., and Doug Ordunio. *Guns, germs, and steel*. Books on Tape, 1999.

<sup>44</sup> *Ibid.*

<sup>45</sup> *Ibid.*

Biddle examined the relation between military technology and power preponderance via studying cases that include operations in the World Wars, Cold War, and Afghanistan War, and concluded that evolving military technology since 1918 has increased ‘firepower and lethality; greater mobility over longer distances; and the ability to see’<sup>46</sup>. In a battle between two powers, an attacker wielding a modern system with high technology will be able to exploit a defender without advanced technology and modern systems, leading to low casualties and exceptionally large territorial gains within a brief period for the former, and high casualties for the latter.<sup>47</sup>

The discussion in this section clearly indicates that technology plays an indispensable role in enhancing states’ capacity and power.

#### US UNILATERAL TECHNOLOGY DENIAL POLICY BACK AND THEN

Technology denial is one of the major policy areas both during the Cold War and at present, as underpinned in the earlier sections, but what has the US done unilaterally in this regard during these two periods?

To prevent USSR from accessing technology through trade, the Export Control Act of 1949, built upon the Export Control Act of 1940, gave the US Department of Commerce Bureau of Export Administration primary responsibility for administering and enforcing export controls on dual-use items. This newly founded agency mainly focused on addressing regional stability, human rights, anti-terrorism, missile technology, and chemical and biological warfare issues, with an ultimate aim of alleviating the shortage of strategic critical materials, aiding the President in implementing foreign policy, and controlling items considered critical to US national security.<sup>48</sup>

The US was also made aware of the necessity to deny China’s access to ultramodern technology by the latter’s proposal of the ‘Made in China 2025 Strategy’ (MIC2025, in Chinese, 中国制造 2025) in 2015, which is believed to aim at enhancing China’s power and status as a world power via fostering the state’s innovation capacity, artificial intelligence industrial application, basic industries development, quality assurance, and green technology,<sup>49</sup> and which raised the US’ concerns over China’s policy intention, technology transfer, state-

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<sup>46</sup> Biddle, Stephen. *Military Power: Explaining Victory and Defeat in Modern Battle*. 53. Princeton: Princeton University Press, 2010. <https://doi.org/10.1515/9781400837823>

<sup>47</sup> Biddle, Stephen. *Military Power: Explaining Victory and Defeat in Modern Battle*. 73-77. Princeton: Princeton University Press, 2010. <https://doi.org/10.1515/9781400837823>

<sup>48</sup> Essay. In *Technology nology and East-West Trade*, 112. Washington: Congress of the United States, Office of Technology nology Assessment, 1979.

<sup>49</sup> “国务院关于印发《中国制造 2025》的通知。” 国务院关于印发《中国制造 2025》的通知（国发〔2015〕28号）\_政府信息公开专栏, May 8, 2019. [http://www.gov.cn/zhengce/content/2015-05/19/content\\_9784.htm](http://www.gov.cn/zhengce/content/2015-05/19/content_9784.htm).

sponsored acquisitions in strategic industries, state-backed espionage, and so forth.<sup>50</sup>

In response, the US has taken a myriad of measures to check and balance China. In addition to placing companies onto the Military End-user List in 2020,<sup>51</sup> a wide range of policies have been introduced.<sup>52</sup> Targeting China's Thousand Talents Program (in Chinese, 千人计划) and espionage issue, the US revoked more than 1,000 visas granted to Chinese while suspending entry of students and researchers from China with ties to the state's military[-civil] fusion strategy – an action that Acting Homeland Security Secretary Chad Wolf unequivocally said is to 'prevent them from stealing and otherwise appropriating sensitive research'.<sup>53</sup> Two Chinese diplomats who allegedly drove into a military base in Virginia were arrested and expelled.<sup>54</sup>

Regarding Chinese investment and capitalization, the Office of Foreign Assets Control (OFAC) under the Department of the Treasury sanctioned Chinese corporations by placing them onto the Non-SDN Communist Chinese Military Companies List (NS-CCMC). These Chinese entities were barred from capitalizing in the US stock market, as US persons are prohibited from investing in US or foreign funds, such as exchange-traded funds (ETFs) or other mutual funds, that hold publicly traded securities, including but not limited to derivatives (e.g., futures, options, swaps), warrants, American depositary receipts (ADRs), global depositary receipts (GDRs), ETFs, index funds, and mutual funds, of a Communist Chinese military company.<sup>55</sup> Upon the implementation of this regulation, Chinese corporations listed in the US were affected.<sup>56</sup> For instance, China National Offshore Oil Corporation (in Chinese, 中国海洋石油总公司; 00883. HK) was delisted by the New York Stock Exchange on 9 March 2021.<sup>57</sup>

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<sup>50</sup> "‘Made in China 2025’ Industrial Policies: Issues for Congress," August 11, 2020. <https://sgp.fas.org/crs/row/IF10964.pdf>.

<sup>51</sup> "Federal Register :: Addition of Entities to the Entity List." Addition of Entities to the Entity List. Bureau of Industry and Security, Commerce., September 4, 2021.

<sup>52</sup> "Timeline of Executive Actions on China." 3-5. U.S.- CHINA | ECONOMIC and SECURITY REVIEW COMMISSION. The U.S.-China Economic and Security Review Commission, April 1, 2021. <https://www.uscc.gov/research/timeline-executive-actions-china-2017-2021>.

<sup>53</sup> "The Threat Posed by the Chinese Government and the Chinese Communist Party to the Economic and National Security of the United States." FBI. FBI, July 7, 2020. <https://www.fbi.gov/news/speeches/the-threat-posed-by-the-chinese-government-and-the-chinese-communist-party-to-the-economic-and-national-security-of-the-united-states>.

<sup>54</sup> Wong, Edward, and Julian E. Barnes. "U.S. Secretly Expelled Chinese Officials Suspected of Spying after Breach of Military Base." The New York Times. The New York Times, December 15, 2019. <https://www.nytimes.com/2019/12/15/world/asia/us-china-spies.html#:~:text=WASHINGTON%E2%80%94The%20American%20government%20secretly,in%20more%20than%2030%20years>.

<sup>55</sup> "EXECUTIVE ORDER - ADDRESSING THE THREAT FROM SECURITIES INVESTMENTS THAT FINANCE CERTAIN COMPANIES OF THE PEOPLE'S REPUBLIC OF CHINA ." Executive Order - United States secretary of the Treasury. Accessed January 3, 2022. [https://home.treasury.gov/system/files/126/eo\\_cmic.pdf](https://home.treasury.gov/system/files/126/eo_cmic.pdf). ; Treanor , James A., Jodi L. Avergum , Nihal S. Patel , and Steven Lofchie . "Unwelcome Intrusion: Reckoning with the Impact of Economic Sanctions on Derivatives Transactions." The National Law Review, March 1, 2021.

<sup>56</sup> Ibid.

<sup>57</sup> "NYSE Begins Move to Delist Chinese State Oil Producer CNOOC." Reuters. Thomson Reuters, February 26,



Meanwhile, the Holding Foreign Companies Accountable Act (HFCA) enforced by the US Securities and Exchange Commission (SEC) requires accounting firms to allow US regulators review the audits of overseas companies. Disclosure of state influence and the names of Chinese Communist Party members on boards are also made compulsory for Chinese entities. Since Chinese regulations ban Chinese companies from giving foreign regulators access to their accounting documents without state approval, these corporations would be delisted.<sup>58</sup> Experts, thus, consider this a tactic to impede China from obtaining US capital in the stock market.

Another financial regulating agency involved was the CFIUS, whose authority over types of FDI that mainly concern Chinese investors was extended under the Foreign Investment Risk Review Modernization Act (FIRRMA) (2018) to include handling of real estate investment scrutinization, areas where minority investment through private equity supplies access to US technology companies' business information, and US-Chinese joint ventures.<sup>59</sup> The authority expansion gave CFIUS more appropriations, staffing, and power to enforce a longer review period and formalize more thorough material agreement disclosure. Consequently, more cases were filed and investigated. For example, Canyon Bridge, heavily invested by the CCP, was blocked from buying Lattice Semiconductor.<sup>60</sup> TikTok was also under CFIUS review due to the rules.<sup>61</sup>

Other than unilateral technology denial policy, the US also endeavoured in appealing to allies for collaboration to prevent its strategic rival from accessing technology for advancing technological and military capability.

## RELATIVE DECLINE, TECHNOLOGY DENIAL, AND ALLIANCE

Astute neo-realists believe that due to the anarchical self-help system, in which no authority is superior to the state, states must help themselves for their own interests and survival.<sup>62</sup> Since

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2021. <https://www.reuters.com/article/us-usa-china-securities-cnooc-idUSKBN2AQ2ZW>.

<sup>58</sup> "Disclosure Considerations for China-Based Issuers." Disclosure Considerations for China-Based Issuers. Division of Corporation Finance Securities and Exchange Commission, November 23, 2020. <https://www.sec.gov/corpfin/disclosure-considerations-china-based-issuers>.

<https://www.reuters.com/business/finance/exclusive-sec-gives-chinese-companies-new-requirements-us-ipo-disclosures-2021-08-23/>

<sup>59</sup> "The Committee on Foreign Investment in the United States (CFIUS)." U.S. Department of the Treasury, November 10, 2021. <https://home.treasury.gov/policy-issues/international/the-committee-on-foreign-investment-in-the-united-states-cfius>.

<sup>60</sup> Baker, Liana B. "Trump Bars Chinese-Backed Firm from Buying U.S. Chipmaker Lattice." Reuters. Thomson Reuters, September 13, 2017. <https://www.reuters.com/article/us-lattice-m-a-canyonbridge-trump-idUSKCN1BO2ME>.

<sup>61</sup> Leary, Alex, and Katy Stechnology Ferek. "Biden Builds on Trump's Use of Investment Review Panel to Take on China." The Wall Street Journal. Dow Jones & Company, July 7, 2021. <https://www.wsj.com/articles/investment-review-panel-gets-wider-role-under-biden-in-rivalry-with-china-11625650200>.

<sup>62</sup> Mearsheimer, John J. The Tragedy of Great Power Politics. New York: W. W. Norton & Company, 2014. 30-33.;

states are presupposed to strive for their preservation or domination, they would check and balance their emerging counterparts by internal balancing or external balancing.<sup>63</sup>

On the contrary, instead of assuming an anarchic world system as the defensive realists do, offensive realism argues that great powers crave for power maximization.<sup>64</sup> Encountering a rising power in a bipolar system, another dominant power would choose to directly counterbalance the rival instead of passing the buck without ‘buck-catcher’<sup>65</sup>. Despite different interpretation, external balancing, and thus creating a defensive alliance, in a bipolar system is desirable.<sup>66</sup>

Empirically, the US believed that collaborating with allies in north-east Asia and the Persian Gulf, which is rich in wealth and oil, can effectively deter the USSR’s access to raw materials and money for arms building. Since leakage of technology to the USSR would be detrimental to its preponderance in economic and military power, the US introduced a range of multilateral technology denial policies. In response to the emerging USSR, the US counterbalanced not only through internal balancing, but also external balancing, as manifested by the formation of international organizations, such as the North Atlantic Treaty Organization (NATO) and the Coordinating Committee for Multilateral Export Controls (CoCom). In other words, the US chose to contain the USSR by forming alliances.<sup>67</sup>

Similarly, the US has been attempting to work with its allies to contain the rise of China. Obama highlighted the role of the allies when he proposed the TPP to economically contain China and in his “Pivot to Pacific” strategy. In return, he worked diligently to defend the allies’ interests in the South China Sea. Trump succeeded Obama’s reliance on allies to deter China, despite his seemingly obsession to unilateralism and his attacking of the allies for not sharing the burden for their nation to instigating trade disputes.<sup>68</sup> For instance, the Indo-Pacific Strategy is a concrete grand strategy involving allies, including Japan, India, and other Pacific allies. QUAD, the Five Eyes, and AUKUS are also some typical examples of alliances that are formed to deter China’s military expansion in the region.<sup>69</sup> On cyber security and technology,

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Waltz, Kenneth N. *Theory of International Politics*. 105-110. Long Grove, IL: Waveland Press, 2010.

<sup>63</sup> Mearsheimer, John J. *The Tragedy of Great Power Politics*. New York: W. W. Norton & Company, 2014. 52-53.;

Waltz, Kenneth N. *Theory of International Politics*. 118. Long Grove, IL: Waveland Press, 2010.

<sup>64</sup> Mearsheimer, *Theory of International Politics*, 34, 46

<sup>65</sup> Mearsheimer, *Theory of International Politics*, 156-158

<sup>66</sup> *Ibid.*

<sup>67</sup> CHRISTENSEN, THOMAS J. “No New Cold War: Why US-China Strategic Competition Will Not Be like the US-Soviet Cold War.” Asan Institute for Policy Studies, 2020. <http://www.jstor.org/stable/resrep26078>.

<sup>68</sup> Cassidy, John. “Trump Launches a Trade War That Hurts America’s Allies More than China.” *The New Yorker*. *The New Yorker*, June 1, 2018. <https://www.newyorker.com/news/our-columnists/after-talking-tough-on-china-trump-launches-a-trade-war-thats-harder-on-us-allies>.

<sup>69</sup> “Remarks by Secretary of Defense Lloyd J. Austin III at the Reagan National Defense Forum (.” SECRETARY OF DEFENSE SPEECH . U.S. Department of Defense, December 4, 2021. <https://www.defense.gov/News/Speeches/Speech/Article/2861931/remarks-by-secretary-of-defense-lloyd-j->

Mike Pompeo, Trump's Secretary of State, also visited Europe to persuade European allies to abandon the use of Huawei and technology linked to China.<sup>70</sup> Biden, after taking office, also reiterated the indispensability of alliance cooperation to deal with China.<sup>71</sup>

Despite Obama and Trump showing their frustration towards their allies and criticising them for freeriding the US,<sup>72</sup> it can be seen that they recognize the key roles the allies play in deterring the rising power, not just during the Cold War but also at present. This is why Biden vowed to collaborate with the allies on a myriad of issues after taking office.<sup>73</sup> Yet, despite US' intention to align with other states to counterbalance the rise of China, it is up to those states to determine their willingness to collaborate with the US.

### DIFFERENCES IN ALLIES RESPONSES

The US' urge for its allies to deter the respective rise of the USSR and China, especially in the military and technology aspects, was met with varied response. Specifically, the allies were more willing to cooperate with the US in restricting technology export to the USSR than to China. The degree of cooperation can be determined from the coherence of the technology export policy of the US and its allies, along with relevant international establishments formed. Although the US may not have the authority punish its allies for incompliance, it can still yield support from allies by turning to a carrot and stick strategy. On the one hand, Trump employed diplomatic bargaining and threatening by sending Pompeo to Central Europe in February 2019 and August 2020 to persuade them to end their cooperation with Huawei, and personally pressurizing Germany by threatening to stop sharing national security intelligence with the allies.<sup>74</sup> On the other hand, the US has been offering certain incentives to keep its allies in line.

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[austin-iii-at-the-reagan-national-defen/](#).

<sup>70</sup> Wroughton, Lesley, and Gergely Szakacs. "Pompeo Warns Allies Huawei Presence Complicates Partnership with U.S." Reuters. Thomson Reuters, February 11, 2019. <https://www.reuters.com/article/us-usa-pompeo-hungary-idUSKCN1Q0007>.

<sup>71</sup> Tisdall, Simon. "Biden Races to Unite Allies against China Knowing Sooner or Later an Explosion Will Occur." The Guardian. Guardian News and Media, July 25, 2021. <https://www.theguardian.com/world/commentisfree/2021/jul/25/an-explosion-is-coming-biden-races-to-unite-allies-against-china>.

<sup>72</sup> Drezner, Daniel W. "Enough with the Complaints of European Free Riding Already." The Washington Post. WP Company, October 6, 2021. <https://www.washingtonpost.com/posteverything/wp/2016/04/25/enough-with-the-complaints-of-european-free-riding-already/>; Sato, Yoichiro. "Trump Wrong to Accuse Japan of Free Riding on Security." Nikkei Asia. Nikkei Asia, July 17, 2019. <https://asia.nikkei.com/Opinion/Trump-wrong-to-accuse-Japan-of-free-riding-on-security>; Obama Unhappy with Allies, Upset at Free Riders. Atlantic Council, March 10, 2016. <https://www.atlanticcouncil.org/blogs/natosource/obama-unhappy-with-allies-upset-at-free-riders/>.

<sup>73</sup> "American Leadership: Joe Biden." Joe Biden for President: Official Campaign Website, July 29, 2020. <https://joebiden.com/americanleadership/>.

<sup>74</sup> Payne, Adam. "Mike Pompeo Urges Eastern European Countries to Reject Huawei, Warning That China Is in 'Some Ways Worse' than Their Former Soviet Union Rulers." Business Insider. Business Insider, August 13, 2020. <https://www.businessinsider.com/pompeo-tells-eastern-european-countries-reject-huawei-china-some-ways-worse-than-soviets-2020-8>; Wroughton, Lesley. "Pompeo Visit to Focus on U.S. Concerns over Huawei in Central Europe." Reuters. Thomson Reuters, February 8, 2019. <https://www.reuters.com/article/usa-hungary-pompeo-idINKCN1PX1ZW>; Choudhury, Saheli Roy. "Trump Reportedly Will Threaten to Curb Intelligence Sharing with UK over Huawei." CNBC. CNBC, May 31, 2019. <https://www.cnbc.com/2019/05/31/trump-to-threaten-to-curb-intelligence-sharing-with-uk-over-huawei-ft.html>.

For example, it helped with its European allies' post-war reconstruction through different loans and aids, such as the Marshall Plan.<sup>75</sup>

During the Cold War era, the world was divided into the US-led capitalist bloc and the USSR-lead Communist bloc. To deter the USSR from accessing western technology for military advancement and economic competitiveness, the US Export Control Act of 1949 proposed the formation of CoCom, a multilateral framework encompassing the US and 16 other countries, Australia, Belgium, Canada, Denmark, France, West Germany, Greece, Italy, Japan, Luxembourg, Netherlands, Norway, Portugal, Spain, Turkey, as well as the UK. As US was the *primus inter pares*, the CoCom lists, which categorized items by their specifications and applications, were highly similar to the US Battle Act List and US Commodity Control List (CCL).<sup>76</sup>

Although the CoCom was technically formed by 'gentleman agreement' without a legally binding international treaty, it was more than a barking dog that never bites. The enforcement mechanism was governed by a subcommittee. Measures including end-user check and The Import Certificate/ Delivery Verification were adopted to avoid dual-use products from being exported to the USSR.<sup>77</sup> Private entities not following the relevant export regulations would be reprimanded and even penalized. Recall the case of Toshiba, Kongsberg Trade, and trade broker C. Itoh Company briefly mentioned in Chapter 1, in which feigned certificates were issued showing certain machines were for civilian use when in fact they were not. In the end, managers working for Kongsberg Trade were sued by the Norwegian government, and the company was shut down. Norwegians taking part in illegal sales to the USSR were not allowed to be hired by any trading company.<sup>78</sup> For the Japanese, five senior executives at Toshiba Corporation stepped down, and charges were filed against them for violating Japan's trade control law. C. Itoh was barred from exporting machinery to the Socialist Camp. The Japanese government also invited US experts to evaluate regulations to avoid recrudescence. The incident exposed CoCom's pitfall, but also proved that allies were willing to work closely with the US to deny USSR's access to technology.

Despite CoCom's strict rules and enforcement, disputes and concerns did exist among its members. US businessmen often repudiated the "laxity" of export controls in other member

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<sup>75</sup> "Marshall Plan, 1948." U.S. Department of State. U.S. Department of State. Accessed January 4, 2022. <https://history.state.gov/milestones/1945-1952/marshall-plan>.

<sup>76</sup> Henshaw, John H. "The Origins of COCOM: Lessons for Contemporary Proliferation Control Regimes." *The Origins of Cocom: Lessons for Contemporary Proliferation Control Regimes*. 1-21. Stimson Center, 1993. <http://www.jstor.org/stable/resrep10989.5>.

<sup>77</sup> Wrubel, Wende A.. "The Toshiba-Kongsberg Incident: Shortcomings of Cocom, and Recommendations for Increased Effectiveness of Export Controls to the East Bloc." *American University of International Law Review* 4 (1989): 16.

<sup>78</sup> Ibid.

nations, and charges of deliberate evasion of CoCom restrictions by firms in other countries were not uncommon. On the flip side, the US too was the subject of often heated criticism from its partners, as it was engaged in negotiations with Belgium, France, and the UK on the enforcement and necessities of such export controls.<sup>79</sup> Though mild conflicts existed within the committee, consistent policy and regulations enforcement under the establishment of a sound international regime was a demonstration that the US and its allies, to a substantial extent, could work closely to contain the rise of the USSR in the military and technology front.

Decades later, facing the rise of China in technological domains, the US proactively made the same appeal to its allies, only to receive mixed response. Japan responded positively by partnering with US to draw up guidelines on supporting the development of high-quality infrastructure, including 5G wireless and hydrogen power, in the Indo-Pacific and elsewhere to counter China's Belt and Road initiative. It was the only ally following the US' pace in sanctioning Chinese entities on its End-User List.<sup>80</sup>

Things did not go as smoothly for the European allies, as they seemingly did not view China as a threat or a systematic competitor. The French expressed their eagerness in preserving its 'strategic autonomy'<sup>81</sup>. They even considered aligning with the US to deter China as 'counter-productive'. Germany reacted similarly by tacitly allowing Huawei to embed itself in the German domestic telecom networks and depending on China's efforts in addressing global issues. The British will only remove all Huawei components by 2027, when local telecom companies turned down Huawei's bid to be a component supplier for 5G network construction.<sup>82</sup>

The estranged cooperation between the US and its allies also manifested itself through the weakened authority and rule enforcement of related international organizations. For example, the Clean Network Initiative and the US-EU Trade and Technology Council formed between the US and its allies both lack the legal authority of CoCom. The Clean Network Initiative contains only a set of principles for guaranteeing a 'clean network', rather than a set of restrictions holding member states accountable as in the CoCom.<sup>83</sup> In other words, unlike in

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<sup>79</sup> Reiko, Miki. "US and Japan Plan 'Belt and Road' Alternative for Indo-Pacific." Nikkei Asia. Nikkei Asia, April 5, 2021. <https://asia.nikkei.com/Politics/International-relations/Indo-Pacific/US-and-Japan-plan-Belt-and-Road-alternative-for-Indo-Pacific>.

<sup>80</sup> Essay. In *Technology and East-West Trade*, 160–166. Washington: Congress of the United States, Office of Technology Assessment, 1979.

<sup>81</sup> Cohen, Roger. "A New Ambition for the European Union: 'Power'." *The New York Times*. The New York Times, December 9, 2021. <https://www.nytimes.com/2021/12/09/world/europe/macron-france-eu.html>.

<sup>82</sup> Kelion, Leo. "Huawei 5G Kit Must Be Removed from UK by 2027." *BBC News*. BBC, July 14, 2020. <https://www.bbc.com/news/technology-53403793>.

<sup>83</sup> "The Clean Network - United States Department of State." U.S. Department of State. U.S. Department of State, January 17, 2021. <https://2017-2021.state.gov/the-clean-network/#:~:text=The%20Clean%20Network%20program%20is,as%20the%20Chinese%20Communist%20Party>.

the CoCom, members may not be reprimanded or penalized for any violation of the rules and regulations. Similarly, the US-EU Trade and Technology Council functions more like a platform for multilateral cooperation than an organization with legal authority in handling rule-breakers.

Given the lack of consistency among allies' responses and legally binding international institutions, the US-allies collaboration at present is definitely weaker than that in the Cold War era. One may not help but wonder what determines the strength of interstate cooperation.

## RESEARCH QUESTION AND HYPOTHESIS

Why have US allies behaved differently in US-USSR and US-China rivalries?

In view of the above discussion on the differences between its allies' response to the US' appeal for containing a rising power, that is for this study, USSR and China, in terms of their technology export policies' scope and depth, this research intends to assess the reasons for and circumstances in which the US' allies would collaborate with the US.

For the purpose of this study, a power in relative decline denotes a dominant sovereign state with narrowing power gap vis-à-vis a rising power. 'Cooperation' is defined as whether the allies would adopt similar policies as and work with the power in relative decline through multilateral institutions to contain the emerging power. Finally, 'contain' implies that the relatively declining power's grand strategy aims to maintain and enlarge the power gap between itself and the rising power, or strategic rival, by internal balancing (strengthening its hard power) and forming alliance to limit the rival's rise in power capability.

As demonstrated earlier, the US-allies cooperation against the USSR during the Cold War was much stronger than that against the rise of China in recent years. What are the factors that contributed to this difference?

The balance of power theory seemingly has limited usefulness in this case, as it is unable to explain the allies' response to the US' call for containing the rise of China. The UK, France, and Germany have been working closely with China ever since the latter's adoption of Reform and Opening. Although such cooperation hit rock bottom after the June Fourth Incident, trade and economic ties have remained stable. If the balance of power theory is applicable, the UK, France, and Germany would not have cooperated this closely with the rising China through the decades. Instead, they should have aligned with the US to balance China's rise. Hence, the balance of power theory is incapable of explaining the lack of cooperation by some of the US' allies.

Rather, Walt's balance of threat theory is more effective in explaining the allies' responses to the US. According to this theory, perceived security threat is determined by geographical proximity to the threat, a state's aggregate power, offensive power, and intention. As a case in point, during the Cold War era, since the USSR, a rising and assertive power, was the Europeans' neighbour, the Europeans perceived the USSR as the greatest and the most immediate security threat, so much that they felt even more insecure than during WWII.

Applied to the contemporary context, since China is more geographically remote from the US' European counterparts than the Japanese, the urgency for the Europeans to bandwagon with the US would be less intensive. Besides, China has not created any security threat on the European continent, so the Europeans would not consider China as a security threat. Thus, compared to the Japanese, the Europeans would be less willing to follow the US in adopting a stringent technology export policy against China.

As discussed in the section on the realist assumptions, states worry about their gain division in cooperation, as uneven gains would endanger their national security. Therefore, they are extremely concerned with their relative gains with others if they feel threatened and insecure in the anarchic international system, and the more the insecure the state is, the more likely they worry about the relative gains issue in their relations with states that pose threats to them. The balance of threat theory predicts that if a rising power is considered a threat by certain states, these states would tend to counterbalance the threat through formation of an alliance with the dominant state against the rising power. They are also willing to forsake absolute gains from their economic cooperation with the state that threatens their security.

To test the above theoretical prediction, this research hypothesizes that the greater the security threat perceived by the relatively declining power and its allies, the more the concerns over the relative gains issue in their relations with the rising power (China). As such, they are willing to work with the US and sacrifice their own absolute gains from technological exports to China. The relationship between perceived security threats, relative gain concerns, and cooperation between the US and allies are presented in the flow chart below.



*Figure 1 Relationship between Variables*

If the logical deduction above is sound and valid, allies' concerns over relative gains would

escalate along with the rising threat they perceive from China. As a result, states would be more willing to cooperate with the US to balance China's rise, including collectively denying China's access to their advanced technologies. As a case in point, owing to its emergence, China has become more assertive within the Pacific region. Therefore, Japan, a neighbour with security rivalry with China, would be more threatened by China's assertiveness in security issues, such as the Taiwan Strait issue and the East China Sea issue. With a heightened threat perception on China, Japan's relative gains concerns against its relations with China would be greater. Therefore, it would avoid cooperating with China despite absolute gains from its trade relations with the state. As Walt's theory predicts, Japan should be working closely with the US to limit technology exports due to similar relative gains concerns.

Conversely, as the UK, France, and Germany do not have any direct security rivalries with China, the rising China is merely a concern rather than a de facto security threat. If they do not feel as insecure and threatened as the Japanese do, they will not be concerned about the relative gains from their relations with China. They are expected to maintain their economic and technological cooperation with China for absolute gains instead of supporting the US' efforts in limiting technological relations with China.

## METHODOLOGY

This comparative research aims to assess the impact of relative gain concerns and perceived probability of security conflicts on US-allies cooperation via investigation of US-allies cooperation during the Truman and Obama eras, respectively. Realizing its relative decline vis-a-vis its strategic rival, namely, the USSR and China, the US started calling for allies' support in containing the rise of these two countries. Yet, allies' response and support displayed great discrepancies between the two eras, thus calling for a comparative study. Since the UK, France, Germany, and Japan have been some of the major powers among US allies, their responses during the Cold War and at present would be examined.

Content analysis and processing tracing by event catalog will be adopted in this research. To assess the impact of the perceived probability of security conflicts and concerns over relative gains, the content of a state's government official documents, such as the state's defence strategies, legal acts, research reports, policy papers, and statements and speeches from the state's leaders, will be reviewed and analysed for a comprehensive understanding of the state's interpretation of the rising power's power capability, intention, and conflicts of security interests. Geographical proximity is simply determined by the objective geographical distance between the state and the rising power.

Assuming technology is of remarkable importance to the rise of a state, the outcome of the US



cooperation with the allies would be limited to unilateral tactics introduced by the US and its allies alongside the setting up of multilateral organizations/institutions to prevent the rising power's technological advancement.

Regarding states' unilateral tactics, to systematically demonstrate the general trend and dynamics between the US and its allies, their actions or responses as reported on international or local news media will be recorded in an event catalog. Time means of US pressure on its allies (verbal warning/ restriction), targeted allies, and allies' response will be examined. Additionally, all the policies of the states will be chronologically catalogued and analysed by time and nature. The similarity and differences between their tactics will also be examined. If the US and its allies' unilateral tactics show significant compatibility, the allies will be considered to be in line with the US.

Regarding multilateral cooperation, certain international institutions formed by the US and its allies during the Cold War and at present will be compared in terms of the aims, functions, legal authority, and policies adopted. The more specific the goals against the rising power, the higher the legal authority, and the broader the scope of policies implemented, the more willing the allies are in collaborating with the US. This conclusion is made under the assumption that international institutions with legal obligations are more likely to exploit states' autonomy in policymaking. If there is not enough trust and coordination between states, it would be unlikely for them to sacrifice certain autonomy in policymaking. Allies' response to the US' verbal appeal, or pressure, will be taken into consideration, with positive responses, such as introduction of corresponding policies in the US' favour, implying that they are generally willing to collaborate with the US in this regard. Incongruence between the allies' response and the US' appeal would, in contrast, imply less coherent cooperation between the two sides.

### 3. US-ALLIES TECHNOLOGY EXPORT CONTROL AND THE COLD WAR

The US and its European allies started perceiving the USSR as a threat to Europe after 1946, when they realized the Soviet's assertiveness in dealing with post-war issues, particularly those related to territories and spheres of influence and Eastern Europe and Germany. Despite some minor conflicts among themselves, both the Europeans and the Americans considered the Soviets a common security threat, thus becoming concerned with their relative gains against the USSR. As a result, they cooperated closely with each other on defence, economic, and trade policies to contain the USSR. The strength of the US-European alliance was reflected in the consistency in the policy implementation time, policy scope, and interactions for denying the USSR's access to the West's advanced technology for military use. COCOM's authority and implementation was also a reflection of the allies' commitment to combating the USSR on the technology front. In summary, the allies' relatively coordinated cooperation was indebted to 1) the existence of USSR as a shared national security threat to the allies drove these states to prioritise security threat, and 2) absence of economic interdependence between the allies and the USSR.

#### OVERVIEW OF THE US-ALLIES POST-WAR POLICY IN THE 1940S

After the end of the Second World War, the US did not intend to deter its war-time ally, the Soviet Union, for several reasons. First, the newly inaugurated president, Harry Truman was occupied by the idea of safeguarding international peace and security by international institutions,<sup>84</sup> thus, rather than containing the USSR, he chose to cooperate with the Soviets.<sup>85</sup> Second, the Truman administration's Soviet policy was, by and large, loop-holed and ambiguous.<sup>86</sup> Not until 1946 did the US realize the Soviets' ambitious intention and capability to expand its sphere of influence would pose a significant national security threat to the US and its European allies. To deter this threat and prevent its relative decline vis-à-vis the USSR, the US eventually adopted the Truman Doctrine to contain the Soviets. In addition to the formation of the military alliance, NATO, and provision of economic aids to the European allies through the Marshall Plan, the US-allies export control policies were key to curbing Soviet technological advancement that led to its economic growth, and thus, military capability. Despite mild disputes and disagreements between the US and its allies, the relevant export control policies coordinated by the CoCom remained effective.

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<sup>84</sup> Truman, Harry S. In *Year of Decision*, 271. New York, NY: Da Capo Press, 1986.

<sup>85</sup> Leffler, Melvyn P. *A Preponderance of Power: National Security, the Truman Administration, and the Cold War*, 32. Stanford, CA: Stanford University Press, 2007.

<sup>86</sup> *Ibid.*

## US' RELATIVE DECLINE

Unlike its European allies, the US was not directly involved in the catastrophic WWII, allowing it to be spared from devastation by the axis powers and contributing to its post-war dominance. The invention of the atomic bomb and thriving war-time economy only helped to further secure the state's supremacy, which was manifested through its military size and strength, and its political-economic influence around the globe. The US has, hence, played a leading role in a myriad of newly formed international organizations, for instance, the United Nations, the Bretton Woods System, and the General Agreement on Tariffs and Trade (GATT).<sup>87</sup>

However, the USSR, benefiting from the war being fought on both the Western and the Eastern Fronts, also became a dominant power by expanding its territory to Finland, a portion of Poland, East Prussia, and a few Eastern European states -referred to as the new *cordon sanitaire* or the Iron Curtain.<sup>88</sup> According to the JCS report (discussed in the previous section) and some historians, such as Munting, such expansion could be attributed to productive assets, raw materials, food (such as luncheon meat - Spam), aluminium, high-quality steel for military use, tanks, finished aircrafts provided by the allies, and most importantly, the lend-lease policy from 1941 to 1945, which allowed the USSR to inherit reparations and machines, along with related western ultramodern technology,<sup>89</sup> from the Germans. Despite tremendous economic losses in the war, the USSR's technological and economic advancement brought by the lend-lease policy were by no means negligible.

Some technologies may have entered from the west through espionage, with atomic technology being one of the eminent examples. As early as in 1946, the Venona project secretly administered by the CIA (Central Intelligence Agency) successfully decrypted many reports sent from Soviet spies to Moscow, revealing that not only every government department, but also the weapons development programme was penetrated. An example was Klaus Fuchs, who used to work as a scientist in the Manhattan Project before being arrested by the US government in the 1950s. Another example was the Cambridge Five.

The rise in the Soviet's economic, military, and territorial power was seemingly a result of the US' war-time policy, which led to a narrowing of the power gap between the US and the USSR and a relative decline of the former. However, if relative decline against the Soviets was a major concern in the eyes of the Americans, the US should have started to take a tougher stance

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<sup>87</sup> Kennedy, P. *The Rise and Fall of the Great Powers: Economic Change and Military Conflict from 1500 to 2000*, 360. London: Hyman, 1988.

<sup>88</sup> Kennedy, "The Rise and Fall of the Great Powers", 361

<sup>89</sup> Henshaw, "The Origins of COCOM", 8

against the USSR before the end of the war. However, Truman and certain officials were still willing to collaborate with the USSR. As George Kennan recalled in his memoir, he had informed the State Department about the Soviet threat, but it was already 1946 when his X Article was circulated. Therefore, relative decline was not the most immediate reason for the US' response. Instead, total containment and the Cold War started in 1946 probably because the USSR replaced Nazi Germany and Japan as the US' top security threat.

#### DILEMMATIC POLICY TOWARDS THE USSR BEFORE 1946

Despite America's relative decline, the Truman administration did not carry out a consistent containment policy towards the Soviets before 1946 because of senior officials' contradicting belief on the Soviets' intention, power capability, and possible security threat.

Truman's positive attitude towards cooperating with the Soviets remained possible for several reasons. As a president with 'superficial understanding of history and instinctive appreciation of the lessons of the past'<sup>90</sup>, Truman believed international peace and security can be achieved through international institutions. Moreover, from his perspective, Stalin, instead of an aggressor, was 'a fine man who wanted to do right things'. These led to his belief that the Soviets may be a collaborative great power. In addition to his impatience and unwillingness to be plagued by series of verbose discussions on post-war territorial and reparatory settlements,<sup>91</sup> which may be attributed to his priority of post-war domestic crisis over foreign affairs,<sup>92</sup> Truman, like his predecessor Roosevelt, preferred satisfying the USSR's demand for expanding its sphere of influence, and more importantly, weakening Germany's economic and military power.

Apart from Truman's belief and attitude towards the Soviet, rifts between well-trusted officials and their counterparts that were by no means subtle may also explain US' unsystematic policy towards the Soviet.<sup>93</sup> On the pessimists' side, diplomats who had spent time in the USSR, such as George Kennan and Elbridge Dubrow, witnessed the Soviet government's oppression in the late 1930s, and many of them complained about Kremlin's uncooperative attitude. Their concerns and suspicion towards the Soviets grew naturally. Dean Acheson, Secretary of State, was concerned with the volatile international environment teamed with unknowns, especially the doomed global economic outlook and USSR's mysterious intention.<sup>94</sup>

Another factor contributing to the pessimism was the prediction on potential geographical

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<sup>90</sup> Leffler, "Preponderance of Power", 30

<sup>91</sup> Truman, "In Year of Decision", 369

<sup>92</sup> Leffler, "Preponderance of Power", 46

<sup>93</sup> Leffler, "Preponderance of Power", 31

<sup>94</sup> Preponderance of power, 35

conflicts. As early as in 1944, Admiral William Leachy had already expressed his geopolitical concerns over the Soviets' military and economic growth in his letter to the Secretary of State Cordell Hull.<sup>95</sup> Sharing similar concerns, Henry Stimson was said to be ambivalent towards the bilateral relations. He even warned Truman about the Soviets' intention and potential geopolitical clash between the two great powers.<sup>96</sup> His view was echoed in General Marshall's note to Stimson.<sup>97</sup> Another report published by the Office of Strategic Services, CIA's predecessor, indicated the rise in overall power capacity may enable the Soviets to dominate in Europe while developing her hegemony in Asia.<sup>98</sup>

On the contrary, optimists tended not to view the USSR as a significant threat based on perception on the state's capability and intention. For example, General Lincoln and Byrnes believed that the USSR would not instigate conflicts in 1946.<sup>99</sup> Some officials, like Joseph Davies, who, despite his suspicious towards the USSR, still urged Truman to be patient with the Soviets, as he believed US-Soviet relations would be as positive as Roosevelt used to believe.<sup>100</sup>

Judging from the Soviets' capability, the Joint Intelligence Staff predicted that the Soviet Union would seek to avoid war for five to ten years in October 1945. In fact, both Truman and Averell Harriman believed that the loan to the Soviets would be a financial leverage for the US to play an upper hand in its negotiation with the USSR.<sup>101</sup> Even into 1947, the CIA still assumed that the USSR was incapable of controlling its own population and domestic affairs, let alone waging a war against the US.<sup>102</sup>

Such contradicting perceptions on the Soviets' intention, power, and geopolitical threat resulted in the contradictions that can easily be spotted in the US' grand strategy before 1947.

#### SOVIET EXPANSION AND THE US CONTAINMENT AFTER 1946

Although the numerous territorial disputes and military conflicts in Eastern Europe did not directly jeopardize the national security of the US in terms of territories and military capability, the Soviets' expansion did pose a threat to the US' allies in Western Europe, especially the

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<sup>95</sup> Copeland, "Origins of Major Wars", 150

<sup>96</sup> Ibid.

<sup>97</sup> Copeland, "Origins of Major Wars", 152

<sup>98</sup> Copeland, "Origins of Major Wars", 151

<sup>99</sup> The American Conception of National Security and the Beginnings of the Cold War, 1945-48 Melvyn P. Leffler (p.359)

<sup>100</sup> Leffler, "Preponderance of Power", 32

<sup>101</sup> Gaddis, John Lewis. Strategies of Containment: A Critical Appraisal of Postwar American National Security Policy, 19. New York, NY: Oxford University Press, 2005.

<sup>102</sup> Leffler, Melvyn P. The American Conception of National Security and the Beginnings of the Cold War, 1945-48, 359. Washington, D.C.: Wilson Center, International Security Studies Program, 1983.

Federal Republic of Germany (FRG) and Poland. This was in addition to the USSR's support for communist insurgents in Middle East and Eastern Europe, which further proved the state to be a security threat to the allies and a strategic rival of the US.

The Azerbaijan Crisis, Turkish Straits Crisis, and the Greek Civil War revealed the Soviets' ambition in expanding its sphere of influence by military conquer, so the US decided to introduce the Truman Doctrine to contain the USSR. While Iran, Turkey, and Greece were not close to the US, they were of geopolitical importance to the Americans. Middle East, particularly Iran, had been in the western powers' sphere of influence since the Scramble of Concession for oil, raw materials, and trade in the late nineteenth century. The fall of Iran would endanger the US-led bloc's national interest and security. Similarly, Turkey was of strategic importance in trade and military as a gateway from the Black Sea to the rest of the world. Therefore, if the Soviets succeeded in capturing the Turkish Straits through neighbouring Eastern European states, the US allies' national interest and security would be tarnished. Lastly, Greece had long been in the British sphere of influence, and communist control over the state would directly affect Britain's interest. The Harriman Committee and other official reports predicted, if the USSR captured these strongholds and key industrial centres, the US' access to foreign resources and trade would be undermined. In the worst-case scenario, the US' liberal and capitalist way of life would be endangered. Given the strategic importance of these states, security rivalries engendered between the USSR and geographically proximal states backed by the US.

The security conflict and expansionist ambition discussed above caused the US to start worrying about the potential rise in the USSR's geopolitical influence, military technology, and economic power. As a result, the Truman Doctrine and Marshall Plan was introduced to help the European allies to withstand Soviet intervention. Furthermore, to maintain military dominance for national security, as stated in the JCS 1477 and NSC 68,<sup>103</sup> the US became obsessed with advancing its own technology and denying the Soviets' access to advanced technology for greater military capability.<sup>104</sup>

## US RESPONSES AND EXPORT CONTROL AGAINST THE USSR

To attain military dominance against the Soviets, the US not only facilitated its own scientific research and development, but also deterred the USSR from accessing technology through

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<sup>103</sup> Rearden, Steven L. Council of War: A History of the Joint Chiefs of Staff, 1942-1991. Joint Chiefs of Staff Washington Dc Joint History Office, 2012.; "MILESTONES: 1945-1952 NSC-68, 1950." Office of the Historian. U.S. Department of State. Accessed May 31, 2022. <https://history.state.gov/milestones/1945-1952/NSC68>.

<sup>104</sup> Panel on the Future Design and Implementation of US Exports, National Academy Sciences Staff, and National Academy of Engineering Staff. Finding Common Ground: US Export Controls in a Changed Global Environment, 3. National Academies Press, 1900.

numerous unilateral export controls.

Thanks to the effort of Dr Vannevar Bush and his team, the US government started devising policies to sponsor scientific research conducive to the US' military power. Institutions and projects, such as the Office of Scientific Research and Development and Project RAND, were established. Bush's advocacy also led to the government's acceptance of the "military-industrial-academic complex". Numerous research on weapons and anti-espionage marked the US' global military dominance under the concerted effort of the government, universities, and the military.

Starting in 1949, the US introduced a wide range of export control measures upon the approval of numerous acts, including the Export Control Act of 1949, Defense Production Act of 1950, Mutual Defense Assistance Control Act of 1951, China Committee (ChinCom) (1952), Foreign Assistance Act of 1961 (FAA), Foreign Military Sales Act of 1968, The Export Administration Act (1969), and The Arms Export Control Act (1976). In general, the US' unilateral export control policy aims to constrain the Soviets' access to military items, facilitate the US' foreign policy implementation, deter arms proliferation, and engage other states to contain arms proliferation through multilateral institutions.

The Export Control Act of 1949 was 'the first comprehensive system of export controls ever adopted by the Congress in peace time' that aims to alleviate shortage of strategically crucial materials and control items important to US national security. The act conferred the primary accountability in managing and implementing export control on dual-use items on the US Department of Commerce Bureau of Export Administration. Restrictions could be placed on issues relevant to regional stability, human rights, anti-terrorism, missile technology, and chemical and biological warfare.

To this end, a licensing system for exporters was founded. Individuals exporting objects in the nine categories listed on the Commodity Control List, including nuclear articles, computers, marine, propulsion, space vehicles, and related equipment, were required to apply for a license indicating the articles' content, ultimate use, and ultimate end users. Upon license denial, explanations for denial or "undue delay" would be provided. The president was also granted the power of restricting exports of goods, as long as the reasons were reported to the Congress.

<sup>105</sup> A blacklist of uncomplying entities and countries was also included.

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<sup>105</sup> Fergusson, Ian F., Paul K. Kerr, and Christopher A. Casey. "The U.S. Export Control System and the Export Control Reform Act of 2018." The U.S. Export Control System and the Export Control Reform Act of 2018. Congressional Research Service, June 7, 2020. <https://crsreports.congress.gov/product/pdf/R/R46814>.

Further policies and blacklists were created upon the execution of later regulations throughout the Cold War. For instance, the Commerce Control List and the Military End User List under the Export Administration Regulations. Overall, the US and its allies worked shoulder to shoulder to preserve the US' military dominance.

#### ALLIES' REACTION TOWARDS THE COCOM AND THE US

Allies were responsive to the US' appeal to contain the rise of USSR, as they were geographically close to the Soviets and felt seriously threatened by the Soviets' ambitious and offensive intention to expand, and were thus concerned with their relative gains with the USSR. As a result, they all chose to align with the US, albeit with mild disputes, at the expense of their absolute gains in relations to the USSR.

One highlight among all joint actions was the formation of the US-dominant CoCom. The Mutual Defense Assistance Act 1951, like the Export Control Act of 1949, also aimed to coordinate multilateral cooperation in tandem with the US' policy and explicitly targeting the Soviet bloc. The act required all states receiving American aids under the Marshall Plan to conform with the embargo of certain products after negotiations with the US State Department, or states may have their aids terminated. While the condition was stringent, Section 103(b) of the act also allowed leeway for the US president in handling uncooperative allies. Non-complying states would be subject to punishments and cessation depending on their contribution to the overall collective security of the western bloc and the adverse impacts on American security. With the US using financial aid provision as a pressure, the CoCom was formed encompassing the US, its European allies, and Japan.

The CoCom was a multilateral arrangement restricting the export of articles/ commodities of strategic importance from the western camp to the Soviet bloc based on the CoCom Lists, which included a munitions list, an atomic energy list, and an industrial/commercial list. Dual-use items were categorized in a way comparable to the US Battle Act List and the US Commodity Control List. Despite disputes between allies over the coverage of the dual-use list, export of strategic items was effectively restrained.<sup>106</sup>

From the US' perspective, Truman and his strategic planners understood the importance of preventing the Soviets from obtaining its state-of-the-art military technology, especially when the Soviets started to make use of German technology to produce more weapons and successfully tested an atomic bomb in 1949. From the allies' perspective, despite their need

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<sup>106</sup> Oettinger, Philip H. "National Discretion: Choosing CoCom's Successor and the New Export Administration Act." *Am. UJ Int'l L. & Pol'y* 9 (1993): 559.



for security assurance and aids from the US, they were still aware of their own national interests, which led to conflicts and disputes that can were manifested through their de facto responses towards CoCom.

## Germany

During the Cold War, Germany was considered a pillar for European collective security because of its advanced technology, abundant natural resource, industrial production capacity, and geopolitical importance in the Cold War. Even though the Morgenthau plan called for the removal of Germany's industries, and hence war waging capability, after its defeat in WWII, the US still facilitated the formation of the Bundeswehr and German rearmament in the 1950s. In a paper written by Henry A. Byroade, the Director of the Bureau of German Affairs, to George Butler, the Deputy Director of the Policy Planning Staff, West Germany's and, to an extent, US' security, was threatened by the Soviets' pressure for dominance, post-war partition of Germany, proximity of the Soviet troops, and East Germany's sovietisation, leading to the Americans' eagerness in cooperating with West Germany.<sup>107</sup>

Then-Chancellor of West Germany, Konrad Adenauer, was an anti-communist,<sup>108</sup> who considered compromise with the Soviets impossible. His attitude towards the USSR was also reflected in his *Foreign Affairs* article of 1962, in which he reiterated the importance of a close-knitted European community to check against 'the advance Soviet Communism which threatens the freedom' of all western European states.<sup>109</sup> In fact, as a developed capitalist state led by pre-war social elites, anti-communist sentiment was naturally embedded in the West German society. Adenauer proposal of *Westpolitik*, a product of his personal belief and also a social consensus,<sup>110</sup> aimed at winning trust from the western allies by consolidating West German democratic institutions,<sup>111</sup> which he believed, along with West Germany's unique geographical position and economic development, would allow his state to finally attain equal status as the western allies,<sup>112</sup> and ultimately, regain its political status and economic recovery through integrating with the western alliances through a set of bilateral and multilateral

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<sup>107</sup> Byroade, Henry A. "Memorandum by the Director of the Bureau of German Affairs ( Byroade ) to the Deputy Director of the Policy Planning Staff ( Butler )." FOREIGN RELATIONS OF THE UNITED STATES, 1950, CENTRAL AND EASTERN EUROPE; THE SOVIET UNION, VOLUME IV. U.S. Department of State, March 9, 1950. <https://history.state.gov/historicaldocuments/frus1950v04/d359>.

<sup>108</sup> Ingimundarson, Valur. "The Eisenhower Administration, the Adenauer Government, and the Political Uses of the East German Uprising in 1953." *Diplomatic History* 20, no. 3 (1996): 381–409. <http://www.jstor.org/stable/24913422>.

<sup>109</sup> Adenauer, Konrad. "The German Problem, A World Problem." *Foreign Affairs* 41, no. 1 (Oct 01, 1962): 59. <https://lingnan.idm.oclc.org/login?url=https://www.proquest.com/scholarly-journals/german-problem-world/docview/1290380593/se-2?accountid=12107>.

<sup>110</sup> Graf, William. "Anti-Communism in the Federal Republic of Germany." *Socialist Register* 21 (1984).

<sup>111</sup> Clemens, Clayton M. "Germany After Schmidt: The Origins and Implications of Foreign Policy under A CDU/CSU Government." *The Fletcher Forum* 6, no. 2 (1982): 393–407. <http://www.jstor.org/stable/45331090>.

<sup>112</sup> Germany after Schmidt: The Origins and Implications of Foreign Policy under a CDU/CSU Government

frameworks.<sup>113</sup> For instance, Adenauer considered the European Coal and Steel Community (ECSC) formed in 1952 ‘as a decisive step to a close connection between Germany and France and thus to a new order in Europe that is based on peaceful co-operation’<sup>114</sup>. In the same year, FRG was also admitted into the CoCom, and, despite reliance on strategic export for economic gains, the Germans still worked closely with other CoCom members on technology export control measures. A few years after that, FRG joined the NATO.

With its rearmament and admission to the NATO, FRG adopted the Weapons Control Act (in German, *Kriegswaffenkontrollgesetz*, abbreviated *KrWaffKontrG* or *KWKG*), the affiliated War Weapons List (in German, *Kriegswaffenliste*, abbreviated *KWL*), and the Foreign Trade and Payments Act (in German, *Außenwirtschaftsgesetz*, abbreviated *AWG*) in 1961, thus establishing an export control regime. *KWKG* not only provided a definition for war weapons, but also laid out a licensing procedure required for sales and production.<sup>115</sup> At the same time, while the *AWG*, which was a partial enactment of the CoCom regulations concerning east-west trade, was laxer than the *KWKG*, it provided a guidance for license denial. According to the act, the government could only reject an application that would create security concerns.<sup>116</sup>

The licensing authority was the Federal Office of Economics and Export Control (in German, *Bundesamt für Wirtschaft und Ausfuhrkontrolle*, abbreviated *BAFA*), and the procedure included exporter declarations, certifications, import certificates, and end-user certificates for any item to any designated state. A ‘General License’ was required for dual-use items export, and transshipment of any dual-used items required a special license, which would be evaluated on a case-by-case basis. The customs authority was entitled to clandestine surveillance if necessary,<sup>117</sup> and violation of the relevant regulations would result in government inquiry.

Compared to the US version, FRG’s version of export control policy was less stringent. Such variation was due to the German’s higher dependency on export, less state centralization decision-making power on export control policy, greater involvement of ‘parapublic’ institutions in policy making.<sup>118</sup> In other words, FRG’s export policy may be partly influenced

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<sup>113</sup> Hanrieder, Wolfram F. “The Foreign Policies of the Federal Republic of Germany, 1949-1989.” *German Studies Review* 12, no. 2 (1989): 311–32. <https://doi.org/10.2307/1430097>.

<sup>114</sup> Buchstab, Günter, and Reinhard Schreiner, eds. *Konrad Adenauer and the European Integration*. Konrad Adenauer Foundation, 2007. [https://www.kas.de/c/document\\_library/get\\_file?uuid=90b35710-947e-00bf-9779-bbab91844282&groupId=252038](https://www.kas.de/c/document_library/get_file?uuid=90b35710-947e-00bf-9779-bbab91844282&groupId=252038).

<sup>115</sup> Pearson, Frederic S. “‘Necessary Evil’: Perspectives on West German Arms Transfer Policies.” *Armed Forces & Society* 12, no. 4 (1986): 525–52. <http://www.jstor.org/stable/45304870>.

<sup>116</sup> *Ibid.*

<sup>117</sup> Rudney, Robert, and T. J. Anthony. “Beyond CoCom: A comparative study of five national export control systems and their implications for a multilateral nonproliferation regime.” *Comparative Strategy* 15, no. 1 (1996): 41-57.

<sup>118</sup> Hofhansel, Claus. “Explaining Foreign Economic Policy: A Comparison of U.S and West German Export Controls.” *Journal of Public Policy* 10, no. 3 (1990): 299-330. doi:10.1017/S0143814X00005845.

by its domestic politics, which is beyond the scope of the current study.

Traditionally, West Germany yielded great profits from trading strategic items covered in the embargo lists with the East. As Petzina estimated, the contribution from trading with the East dropped from slightly less than a fifth to around three percent between 1950 and 1952.<sup>119</sup> Yet, FRG was willing to tolerate with this economic loss stemming from its compliance with the CoCom's restrictions and, in principle, still agreed with the CoCom's objectives and responded positively to CoCom.<sup>120</sup>

After Willy Brandt, Adenauer's successor, took office, he subscribed to Egon Bahr's idea of "*Wandel Durch Annäherung*" (change through rapprochement) and *Ostpolitik*, whereafter the FRG started to engage the east by hosting diplomatic talks and signing several trade agreements with the Eastern Bloc, except Czechoslovakia.<sup>121</sup> These agreements and exchanges took place during the détente period, when the Soviets were considered less threatening than they were during the Adenauer era, showing that the FRG's threat perception had a role in determining its west-east trade.

## France

France had been an important US ally since WWII ended. Its identity as one of the world police, its position as one of the permanent members of Security Council of the newly founded United Nations, and its history as an occupying power of Germany after the war led the US to work closely with the state on strategic good export control and check the Soviets' expansion.<sup>122</sup>

However, France did not consider the USSR a major threat as the Americans did. Instead, because of the historical antagonism between the states in both the WWI and WWII,<sup>123</sup> France's major concern was amputating Germany's military and economic capability. In 1944, de Gaulle and Stalin even signed the Franco-Soviet pact against German territorial restoration of Rhine,<sup>124</sup> though the act also recognized the Soviet-manipulated Polish regime.<sup>125</sup>

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<sup>119</sup> Petzina, Dietmar. "The Economic Dimension of the East-West Conflict and the Role of Germany." *Contemporary European History* 3, no. 2 (1994): 203–15. <http://www.jstor.org/stable/20081514>.

<sup>120</sup> "Multilateral Export Control Policy: The Coordinating Committee (CoCom)." Essay. In *Technology and East-West Trade*, 162. Washington, D.C.: Congress of the United States, Office of Technology Assessment, 1979.

<sup>121</sup> Niedhart, Gottfried (2016). *Ostpolitik: Transformation through Communication and the Quest for Peaceful Change*. *Journal of Cold War Studies*, 18(3), 14–59. doi:10.1162/jcws\_a\_00652

<sup>122</sup> Soutou, Georges-Henri. "France and the Cold War, 1944–63." *Diplomacy and Statecraft* 12, no. 4 (2001): 35–52.

<sup>123</sup> Ackermann, Alice. "Reconciliation as A Peace-Building Process in Postwar Europe: The Franco-German Case." *Peace & Change* 19, no. 3 (1994): 229–250.

<sup>124</sup> Bozo, Frédéric. "France, "Gaullism," and the Cold War." In *The Cambridge History of the Cold War*, edited by Melvyn P. Leffler and Odd Arne Westad, 158–78. *The Cambridge History of the Cold War*. Cambridge: Cambridge University Press, 2010. doi:10.1017/CHOL9780521837200.009.

<sup>125</sup> Ackermann, "Reconciliation as A Peace-Building Process in Postwar Europe"

In addition to the German problem, France was concerned with the ties with its Eastern and Central European allies for its post-WWII standing and communists' influence inside the state,<sup>126</sup> which motivated the government to adopt a relatively neutral stance,<sup>127</sup> or even serve as a bridge between the East and the West,<sup>128</sup> in the US-Soviet strategic rivalry.<sup>129</sup>

The change in moderate leaders' attitude towards the communists was also ignited by the communism-inspired strike from November to December 1947, which made them realize the threat of communism to France. Certainly, change in France's perception on the USSR's threat was also a significant reason behind its attitude towards FRG and America. The USSR's expansion into France's colonies, such as Algeria and Indochina, further alerted the French of the Soviets' threat to its own national interest in the colonies. Eventually, Paris accepted the creation of FRG in exchange for the US' security guarantee.<sup>130</sup> As noted by some historians, the Franco-German reconciliation was mainly driven by their concern about the Soviets' threat to their national security,<sup>131</sup> its failure in pushing for the establishment of an European army that would avoid German rearmament, and pressure from the allies in 1954.<sup>132</sup> More importantly, France became more willing to play a more vital role in fostering European integration.<sup>133</sup>

Regarding technology and export control, French officials, despite feeling discontented with the CoCom, believed that curbing technology transfer to the communist states could protect France's national security. However, de Gaulle's preference for independent foreign policy<sup>134</sup> led to his government's criticism of CoCom's operation. Apart from following the US' export controls teamed with rigid case-by-case technical discussions, the French also focused on its economic gains from export, meaning that France, apart from some enforcement details, was in general still willing to collaborate with the US and other powers in the CoCom.

Domestically, the Inter-ministerial Commission for The Study of Exports of War Material (in French, *Commission interministérielle pour l'étude des exportations de matériels de guerre*, abbreviated *CIEEMG*) was established on 14 June 1949, and reorganized in 1955,<sup>135</sup> to handle

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<sup>126</sup> Bozo, "France, "Gaullism," and the Cold War."

<sup>127</sup> Soutou, "France and the Cold War, 1944–63"

<sup>128</sup> Bozo, "France, "Gaullism," and the Cold War."

<sup>129</sup> Soutou, "France and the Cold War, 1944–63"

<sup>130</sup> Ibid.

<sup>131</sup> Ackermann, "Reconciliation as A Peace-Building Process in Postwar Europe"

<sup>132</sup> Soutou, "France and the Cold War, 1944–63"

<sup>133</sup> Ibid.

<sup>134</sup> Пуинична, Afonshina Alexandra. "Gaullism and neogaullism: foreign policy continuity and dynamics in France." *Вестник Российского университета дружбы народов. Серия: Международные отношения* 19, no. 2 (2019): 256-263.

<sup>135</sup> Décret n°55-965 du 16 juillet 1955 portant réorganisation de la commission interministérielle pour l'étude des exportations de matériels de guerre. *Légifrance*. Accessed June 11, 2022. <https://www.legifrance.gouv.fr/loda/id/JORFTEXT000000521432/>.

license application for military and dual-used products.<sup>136</sup> Chaired by the General Secretariat for Defense and National Security (in French, *Secrétariat général de la Défense et de la Sécurité nationale*, abbreviated *SGDSN*), the *CIEEMG* also consisted of representatives from the Ministry of Foreign Affairs, Ministry of Defense, and the Ministry of Economy and Finance. Application would only be approved upon certain conditions, including non-re-export clause (CNR) and end-use certificate (EUC). The final decision would be made by the Prime Minister upon the advice of *CIEEMG*, after which the customs (*DGDDI*) would issue the license accordingly.<sup>137</sup> Criminal and civil actions would be taken for any violations.<sup>138</sup>

Given the similarity between the French and other CoCom members' export control policy, as well as France's response to the CoCom, the state, to a significant extent, was still cooperative because of the Soviet threat.

## UK

Like the French, the UK was also one of the post-war world police, and as such, was considered as another essential ally in the eyes of the US. From the British's perspective, trade with states from around the globe, such as Russia, was of utmost importance. The Anglo-Russian trade relations could be traced back to the 1850s.<sup>139</sup> Yet, faced with the Soviets' threat, along with the US' economic strength and post-war aids, the UK was driven to adhere to the US' strategic economic measures despite severe domestic economic problems and mistrust towards the Americans.<sup>140</sup>

The Labour government indeed distrusted the US as the US would endanger their ties with the British imperial system while establishing a multilateral system. In the meantime, the British and US also had conflicts on issues such as Palestine Jewish settlement and the UK's position in the Middle East.<sup>141</sup>

In addition to conflicts of national interests, Clement Attlee's Labour government was plagued by numerous economic problems, ranging from national debts to trade and payments, and a

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<sup>136</sup> Ibid.

<sup>137</sup> "Contrôler Les Exportations De Matériel De Guerre." Contrôler les exportations de matériel de guerre | Secrétariat général de la défense et de la sécurité nationale. Secrétariat général de la défense et de la sécurité nationale. Accessed May 31, 2022. <http://www.sgdsn.gouv.fr/missions/controler-les-exportations-de-materiel-de-guerre/>.

<sup>138</sup> Rudney, Robert, and T. J. Anthony. "Beyond Cocom: A Comparative Study of Five National Export Control Systems and Their Implications for a Multilateral Nonproliferation Regime." *Comparative Strategy* 15, no. 1 (1996): 41–57. <https://doi.org/10.1080/01495939608403055>.

<sup>139</sup> Cain, Frank M. "Exporting the Cold War: British Responses to the USA's Establishment of COCOM, 1947-51." *Journal of Contemporary History* 29, no. 3 (1994): 501–22. <http://www.jstor.org/stable/260771>.

<sup>140</sup> Weiler, Peter. "British Labour and the Cold War: The Foreign Policy of the Labour Governments, 1945-1951." *Journal of British Studies* 26, no. 1 (1987): 54–82. <http://www.jstor.org/stable/175554>.

<sup>141</sup> Ibid.

weak sterling vis-à-vis the US dollar, since the end of the Cold War. The drain of US dollars since implementation of the Bretton Woods system even pushed the UK to the verge of economic crisis. To stabilize the economy, the British attempted to minimize dependence on the dollar and stimulate trade, among which the trade with eastern Europe had been the most effective, so the British government had signed trade agreements with the eastern European Government before 1947.<sup>142</sup>

The UK's attitude towards the US started to change because of the security threat brought by the Soviets' expansionist policy in the Middle East and Europe, especially regarding Greece, Turkey, Iran, and Berlin, and its determination to defend Southeast Asia, such as Malaya and Indochina, because of its belief in the domino theory. The British even worked to present the UK as one of the US' key allies against the Soviet and downplayed their socialist-leaning attitude to convince the US to work with them.<sup>143</sup> In return, the US took advantage of the UK as a bridge between itself and its European counterparts.<sup>144</sup>

Foreign Secretary Ernest Bevin, considered by Alan Bullock as the most decisive person in the reconstruction of Europe, organized a meeting with his European counterparts in response to the Marshall Plan for security and economic prosperity in Europe, and came up with various agreements. One particular example would be the Anglo-French agreement on the export control list. Yet, despite contrasting opinion within the UK Government, the cabinet still favoured the general framework and rationale of the US export policy.<sup>145</sup> The ministers started their discussion on the 163 items included in the US version of the 1-A List, and, after taking the UK's security and economic gains into consideration, the Attlee government came up with a British version of 1-A List containing two-thirds of the items on the US list for negotiation among the states sponsored by the European Recovery Plan (ERP).

Despite failure in reaching a consensus among the Organisation for European Economic Co-operation (OEEC) governments, Britain started to align with the French, who shared the same concerns over security in the Western Europe. In 1949, the British and French agreed on the Anglo-French list based on the British list and their bilateral negotiations. Later, the two states signed the Dunkirk treaty, followed by the Brussels Pact formulating the European response to the Marshall Plan and the export control requirements. After a series of negotiations among the Europeans, the OEEC member states finally agreed on the creation of the CoCom. Despite the US' conflicts with the UK and France on the 1-B List concerning dual-use items, the

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<sup>142</sup> Jackson, Ian. "“Rival Desirabilities”: Britain, East–West Trade and the Cold War, 1948–51.” *European History Quarterly* 31, no. 2 (2001): 265–87. <https://doi.org/10.1177/026569140103100201>.

<sup>143</sup> Weiler, “British Labour and the Cold War”

<sup>144</sup> *Ibid.*

<sup>145</sup> Jackson, “Rival Desirabilities”, 265–87.

security threat posed by the communist expansion was too grave that the CoCom members finally gave unanimous approval to an export control list in January 1951. It is quite clear from the UK's contribution to the formulation of European's response to the US that security threat from the Soviets could be the most decisive factor in the UK's shift of its foreign and export control policies,<sup>146</sup> which also induced the UK and its allies to compromise on a control list.<sup>147</sup> On the domestic level, the UK largely remained consistent with the US' and other allies' export control policy. The Export Control Organization (ECO) was established as an agency affiliated to the Department of Trade and Industry to manage and approve license applications, update UK export control policy, and monitor policy enforcement.<sup>148</sup> As in other states, the UK also adopted commodity-based and destination-based approaches in the licensing system. In addition to general licenses for export of military or dual-used articles, the UK also listed destination states that could possibly engage in arms proliferation.<sup>149</sup>

To apply for a license, the ECO required exporters to describe whether the goods would be used for constructing weapons of mass destruction or any related activities, and/ or for proliferation purposes. Violators would be subject to legal accountabilities.<sup>150</sup>

In general, security threats from the Soviets drove the UK to adopt a more cooperative stance in its collaboration with the US and European allies on export control.

## Japan

Like Germany, Japan was a defeated state in the Second World War. Between the end of the war and 1952, Japan was demilitarized and democratized under the Supreme Commander for the Allied Powers (SCAP)'s supervision. The plan was to weaken the Japanese through a range of policies, for instance, the introduction of a new constitution renouncing Japanese military formation and war instigation and breaking up of the *zaibatsu*. However, the rise of both the Soviets in Asia Pacific and communism in Japan since the late 1940s paved way for a shift in the US' Japan policy, or 'Reverse Course' (in Japanese, 逆コース).

In response to the USSR's expansion, the SCAP not only facilitated the founding of the Japan Self Defense Force, but also strengthened the Japanese economy by restoring the old *zaibatsu* for industrial production. To consolidate Japan's status as a US ally, the Treaty of San Francisco was signed, marking Japan's post-war rapprochement with the allies. Japan was also admitted to the CoCom in 1952 after announcing its willingness to adhere to CoCom

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<sup>146</sup> Ibid.

<sup>147</sup> Ibid.

<sup>148</sup> Rudney, and Anthony, "Beyond CoCom", 41-57.

<sup>149</sup> Ibid.

<sup>150</sup> Ibid.



restrictions, for example, by including the CoCom list as part of its domestic export control list.

Under the Yoshida Doctrine, Japan would rely on the US alliance for its own security, foster foreign economic relations for domestic economic reconstruction, and become a low-key player in the international arena.<sup>151</sup> Therefore, the Japanese government took a relatively pro-American stance in the 1950s. This could be reflected in the Japanese's compliance with the US' export control policy. Focusing on industrial development, the Japanese also worked closely with the CoCom in limiting the export of strategic products through trade. Even after the SCAP ended its occupation, the Japanese government still maintained the US-established export control rules.<sup>152</sup>

Furthermore, the Japanese Government was willing to cooperate with the US, instead of merely following the American's policy. The Japanese even expressed its desire to the Paris Group, though the proposal was rejected because of its geographical distance from the NATO members. In exchange, Japan was allowed to join ChinCom. On 5 September, Harold Linder, Deputy Assistant Secretary of Economic Affairs, and Takeuchi Ryuji, Chief of the Japanese Government Overseas Agency in the US, concluded an agreement entitled "Understanding Between Japan and the United States Concerning the Control of Exports to Communist China"<sup>153</sup> that required Japan to impose export control on all items on the international control lists and the US export control lists and some additional items. In total, export of approximately 400 items were to be controlled by the Japanese Government.<sup>154</sup>

With heightening security concern posed by the Soviets, the Foreign Exchange and Foreign Trade Act, which regulated Japanese export, was passed in 1949, giving the Ministry of International Trade and Industry (in Japanese, 通商産業省, MITI) responsibility in dealing with all license applications for export. Other than the government agency, the Japanese policy was in tandem with the Americans.<sup>155</sup>

In 1967, the Japanese government proposed the Three Principles of Arms Export, noting that arms export to communist bloc countries, countries sanctioned by the United Nations Security Council, and countries that may be involved in any international conflicts would be prohibited. Takeo Miki's government further extended the export ban in 1976 to include relevant

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<sup>151</sup> Potter, David Morris. "Evolution of Japan's Postwar Foreign Policy." (2009).

<sup>152</sup> Yasuhara, Yoko. "Japan, Communist China, and Export Controls in Asia, 1948–52." *Diplomatic History* 10, no. 1 (1986): 75–89. <http://www.jstor.org/stable/24911682>.

<sup>153</sup> *Ibid.*

<sup>154</sup> *Ibid.*

<sup>155</sup> *Ibid.*



technology transfer.

Japan’s effectiveness and determination in enforcing the export control was clearly demonstrated in the few cases involving Japanese corporations breaching the export control policy, for instance, the Toshiba Machinery Case and JAE-Iran Case. In the Toshiba Machinery Case, the Japanese company unlawfully exported five-axis numerically controlled giant propellers to the Soviet Union, leading to two employees being arrested and three executives being charged with the Foreign Exchange and Foreign Trade Control Law of Japan<sup>156</sup>. This is evidence of the Japanese government’s willingness in keeping its promise of preventing technology transfer and export to the Soviets.

In short, the European allies’ response to the US and the CoCom were driven by the security concern stemming from the Soviets’ expansion, as manifested by the change in UK, France, and Germany’s attitude since circa 1947, when the Soviets started expanding in the Middle East, eastern Europe, and Asia.

#### COCOM IN ACTION

On examination of major allies’ response to the CoCom, states were willing to make concession on absolute gains from trading with the Soviets for national security. As shown in Table 1 below, the number of items on the CoCom Positive List was proportional to the allies’ perception of the magnitude of Soviet threat, such as Soviet-US relations, the relationship between the west and the east in terms of the cold-war related conflicts, and other proxy wars around the world. In other words, allies’ cooperation with the US was determined by the existence of security threat, and the presence of security threat would motivate states’ collaboration and the inclusion of more items onto the list.

List as of	Number of Items	Security Conflicts between the West and the East
November 1949	86	Berlin Blockade and Airlift, Greek Civil War, Chinese Civil War
November 1951	270	The Korean War (1950–1953)
January 1952	285	Formation of ChinCom
List as of (Cont’d)	Number of Items (Cont’d)	Security Conflicts between the West and the East (Cont’d)
March 1954	265	First Taiwan Strait Crisis (1954-55, 1958) *
August 1954	170	Algerian War (1954-1962)

<sup>156</sup> Wrubel, Wende A. “The Toshiba-Kongsberg Incident: Shortcomings of Cocom, and Recommendations for Increased Effectiveness of Export Controls to the East Bloc.” *American University of International Law Review* 4 (1989): 16.

March 1958	181	The Suez Crisis (1956)
July 1958	118	The repression of the Hungarian Uprising (1956), Cuban Revolution (1958)
April 1961	NA	The building of the Berlin Wall (1961)
July 1962	NA	The Cuban Missile Crisis (1962) <sup>#</sup>
June 1964	1507	
August 1965	161	Indo-Pakistani War of 1965
March 1967	NA	Six Day War of 1967
September 1969	156	Détente (1967-1979)
September 1972	151	
March 1976	149	

*Table 1 Relationship between West-East Relationship and the Number of Items on the CoCom Positive List*

*Source: Sarkees, Meredith Reid and Frank Wayman. Resort to War: 1816 - 2007. Washington, D.C.: CQ Press. United States. Congress. Office of Technology Assessment. Technology and East-West Trade, report, November 1979; [Washington D.C.].*

In addition to the number of items on the CoCom Positive List, allies' cooperation could be seen from their communication throughout the negotiation process. As an illustration, the Consultative Group, with representatives from the US, France, and the UK, succeeded in reaching a consensus on strategic items to be included in the 1A-list. As reported in the updates written by Winthrop G. Brown for the Secretary of State to several diplomatic offices, List I was increased to 144 items (by the addition of 12 items proposed by the US, 6 items upgraded from List III, and 2 items downgraded from List I to List II); List II was expanded to 6 items (by transfers from List III in the November meeting); and List III now totalled 27 items (4 carried over from the November meeting and 23 proposed by the US proposed).

Despite consensus on the strategic embargo, divisions could still be seen,<sup>157</sup> Douglas mentioned in a message to the Secretary of State that the European states doubted the extension of the embargo to List-1B "goes beyond strictly security considerations into field economic warfare"<sup>158</sup>. Extraterritoriality of the US-centric export control regulations also fuelled conflicts among allies, while some believed that laxity in law enforcement indicated the CoCom in fact did not have much authority if allies were unwilling to collaborate on export control.

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<sup>157</sup> Brown, Winthrop G. "The Secretary Of State To Certain Diplomatic Offices." FOREIGN RELATIONS OF THE UNITED STATES, 1950, CENTRAL AND EASTERN EUROPE; THE SOVIET UNION, VOLUME IV. U.S. Department Of State, April 26, 1950. <https://History.State.Gov/Historicaldocuments/Frus1950v04/D44>.

<sup>158</sup> Douglas, Lewis Williams. "The Ambassador In The United Kingdom (Douglas) To The Secretary Of State." FOREIGN RELATIONS OF THE UNITED STATES, 1950, CENTRAL AND EASTERN EUROPE; THE SOVIET UNION, VOLUME IV. U.S. Department Of State, May 1, 1950. <https://History.State.Gov/Historicaldocuments/Frus1950v04/D46>.

Yet, these controversies did not necessarily weaken the fact that allies were still willing to work with the US for security reasons, as indicated by the allies' unremitting participation and cooperation with the US. Take France as an example. Though the French did not willingly join the CoCom on the onset, it still chose to follow the US' proposal on financial aids and security in view of the threat from the Soviets. The reasons for the French's participation proved that existence of security threat would motivate other threatened states to join hands to counterbalance their shared security threat. A report evaluating the allies' compliance published in 1979 also indicated that allies were willing to follow the restrictions.<sup>159</sup>

Another indication that the CoCom regulations still had authority over the allies was the way these states deal with entities that breached the regulations, as in the Toshiba-Kongsberg case mentioned in the previous chapter. Although some would suggest the case exposed CoCom's limitations, it still demonstrated that the allies were eager to abide by and enforce relevant regulations.

Lastly, apart from their dynamics in the CoCom, similarities in their unilateral export control policy also confirmed the allies' desire to cooperate with the US. Germany, the UK, France, and Japan's policies were in many ways consistent. Each of these states also established relevant government agencies responsible for approving export licenses according to the product nature and export destination based on similar item lists. Penalties were also, in theory, clearly coded in the relevant states' civil and criminal law.<sup>160</sup> Although states still had disputes over whether the principle of extraterritoriality should be applicable to the export and re-export process, the problem was addressed by the effort by US and support from allies in maintaining the re-export system via the Import Certificate/Delivery Verification System. In the meantime, as Mineiro suggested, conflicts over "extraterritoriality" only took place in the 1980s, when the USSR was in relative decline and thus a diminishing security threat to the Europeans.<sup>161</sup> Therefore, the presence of the Soviet security threat determined whether US' allies would comply with and adopt similar policy framework as the US.<sup>162</sup>

In conclusion, while often plagued by disputes, the general dynamics within the CoCom and willingness to comply with related regulations proved that the US and its allies were, to a certain extent, still happy to cooperate with each other. CoCom, thus, was more than an

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<sup>159</sup> *Technology and East-West Trade*. Washington, D.C.: Congress of the United States, Office of Technology Assessment, 1979.

<sup>160</sup> Rudney and Anthony, "Beyond CoCom", 41-57.

<sup>161</sup> Mineiro, Michael C. *Space Technology Export Controls and International Cooperation in Outer Space*, 148. Dordrecht: Springer, 2012.

<sup>162</sup> Mastanduno, Michael. *Economic Containment: COCOM and the Politics of East-West Trade*, 103. Ithaca, NY: Cornell University Press, 1992.

agreement on paper. It was a functional international institution with legal obligations.

## SUMMARY

From the US' responses to the Soviets and the allies to the US' call for containment, the presence of security threat from the USSR raised the US allies' alertness on their relative gains vis-à-vis the USSR. Hence, they were, to a considerable extent, willing to offset their absolute gains from trade with the USSR for security from the US. Its perception on the rise of the Soviets, as well as the Soviets' security threats to its allies and dominance since 1946 also fuelled the US' concerns over its relative decline. Accordingly, the Americans would be more willing to cooperate with their allies to contain the Soviets. From the Europeans' perspective, without the security threat of the Soviets, they might not be willing to cooperate with the US for security assurance and aids from the Marshall Plan. In general, relative gains concerns derived from states' perceived security threat explain the cooperation between the US and allies, as summarized in Table 2 below.

State	US	Japan*	UK	France	Germany
Perception of security rivalry before 1946	No	No	No	No	No
States' reaction towards the Soviets	Willing to cooperate with the soviet despite suspicion	Under the control of the SCAP#, not many reactions	Willing to cooperate with the soviet	Willing to cooperate with the soviet on trade. Care more about deterring Germany's re-emergence	Willing to cooperate with the soviet due to its link with the Eastern Germany; aim for unification (Ostpolitik)
Participation in multilateral export control regime	No	No	No	No	No
Consistent Unilateral Policy	No	No	No	No	No
Perception of security rivalry after 1946	Yes	Yes	Yes	Yes	Yes
States' Policy towards the Soviets	Introduce Truman Doctrine; Call for allies' containment; Introduce export control	introduce export control and work with the US; form the JSDF	introduce export control and work with the US	introduce export control and work with the US	introduce export control and work with the US
Consistent Unilateral Policy	No	No	No	No	No
Participation in multilateral	Yes	Yes	Yes	Yes	Yes

export control regime					
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*Table 2 Behaviour of states in relation to their perceived security threat*

Remarks:

\*The US focused on demilitarizing and democratizing Japan before the Reverse Course policy since 1947

#The SCAP stationed in Japan until 1952

Despite divisions over technical issues regarding the CoCom's operation, the US and its allies still unanimously believed export control on technology transfer to the Soviets was necessary and effective in protecting allies from the Soviets' expansion and security threat. Meanwhile, major powers in the CoCom's shared similar principles and criteria in the making of export control policy. More significantly, penalties were encoded in the relevant criminal and civil laws of member states for more effective law enforcement.

#### 4. US-CHINA AND THE NEW TECH COLD WAR

As previously discussed, the US in relative decline would like to contain the rise of China – something that it can accomplish by enhancing its own military and economic capability while forestalling the rise of its strategic rival’s capability. Owing to the significance of military technology to a state’s capacity, the US has been adopting multi-pronged approaches to deny China’s access to advanced technology, including visa restriction, restriction on public procurement, and export control. In addition to multifaceted domestic policy, the US’ effort in lining up its allies is also a highlight. This chapter will first illustrate the US’ unilateral policies, followed by an evaluation of the Americans’ efforts in collaborating with their allies, showing how the US’ response demonstrates that the greater the security threat posed by a challenger, the more likely the dominant power would adopt a hard-lined unilateral policy against the emerging power and cooperate with its allies.

##### CHINA’S QUEST FOR GLOBAL TECHNOLOGY LEADERSHIP

America has been the leader in technology since the end of the Second World War. However, the US have become more aware of China’s intention to compete for global technology dominance through different domestic policies intended for strengthening its own research and development (R&D) capacity and production capability, including the Made in China 2025 Strategy, Thousand Talents Plans, State High-Tech Development Plan, and boosting state funding on R&D. Thanks to state sponsors, China’s expenditure on R&D has been steadily increasing in terms of the GDP (PPP) proportion. According to a report published by the US Congress, China’s proportion of GDP dedicated to military defense R&D programs has constantly increased from 4.9% in 2000 to 23.9% in 2019, with the total expense superseding that of Germany and Japan in 2004 and 2009, respectively. In 2019, China was second only to the US in terms of gross expenditures on R&D. The same was highlighted in the US threat assessment report.<sup>163</sup>

In addition to the national technology development programs, the Chinese have been notorious for pursuing its global technology leadership through theft of intellectual property, foreign direct investment acquisition, and sending students to study or researchers to work in science, technology, engineering, and mathematics (STEM) fields in the US and other western countries. Obama even threatened to impose export controls on China for its cybertheft

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<sup>163</sup>Haines, A. and Office of the Director of National Intelligence. Annual Threat Assessment of the US Intelligence Community, 6-9. Independently Published, 2022. <https://www.dni.gov/files/ODNI/documents/assessments/ATA-2022-Unclassified-Report.pdf>; Sargent, John F., and Marcy E. Gallo. The Global Research and Development Landscape and Implications for the Department of Defense (R45403), 7. United States Congressional Research Service, June 28, 2021. <https://crsreports.congress.gov/product/details?prodcode=R45403>.

activities.

After Trump took office, the US began implementing a number of sanctions, export controls, visa restrictions, and investment controls to deny China's access to the US' leading technology for enhancing its military technology strength.

#### TRUMP'S CONCERNS OVER RELATIVE GAINS

Even before the introduction of the Made in China 2025 Strategy in May 2015, China's economy has been growing for decades. Yet, while the US should have imposed stringent measures to contain the rise of China, it has in fact been slow in making a response to its relative decline against China. The reason for this delay could be in the US' perception of threat. Similar to the Cold War, the US had not perceived China as a real security threat until they realized China's assertiveness in its pursuit of global dominance in military, economy, and other aspects. By then, Trump and some US experts, such as Peter Navarro, finally identified the uneven distribution of absolute gains between the US and China as the reason for their state's relative decline. To ensure that the US' security would not be threatened in the long run, the Trump administration chose to wage a trade war against China. As Trump repeatedly reiterated, the US gained much less than the Chinese from their trade, so the US must take actions to axe 'unfair' trade relations with China.

As discussed in the previous section, trade and economic ties would fuel China's technological acquisition and advancement. Trump's approach to the uneven relative gain from trade with China stemmed from his concern over relative gains and security threat, and showed that the US finally considered China as a real security threat. In the following section, the US' unilateral policies for deterring China's rise and its own relative decline will be introduced.

#### US UNILATERAL EFFORT IN CONTAINING CHINA'S MILITARY-TECHNOLOGICAL RISE

##### 1. Reducing Reliance on China along US Supply Chain

The rise of China can be attributed to its position in the global supply chain, especially as a source of natural raw materials and minerals, particularly rare earth elements, which a number of states rely on for technological production. As revealed by the US designated mineral commodities and an analysis published by the US Geological Survey, China was one of the world's largest producers and the US' main source of mineral imports. As Trump admitted, 80 percent of the US' rare earth elements were imported directly from China, with portions of the remainder indirectly sourced from China through other countries.

Such reliance on the Chinese for resources needed for production and innovation could

jeopardize the US' economic security, as China could cut its supply of rare earths to the US when rivalry or disputes arise between the two states. In fact, China had taken advantage of its position and suspended rare earth exports to Japan in 2010, forcing multiple companies to allocate more production capacity to China.<sup>164</sup> Similarly, China could use its rare earth supply as a leverage against the US and its allies, thus affecting their economic security.<sup>165</sup>

The US government also claimed that Huawei and other 5G suppliers deliberately installed malwares in components they supplied to the US, allowing classified information to be stolen by these Chinese corporations that are backed by the Chinese government, and ultimately the Chinese Communist Party.<sup>166</sup> Therefore, the Americans' reliance on Chinese 5G would endanger their state, and banning Huawei carriers could safeguard the US' economic and national security.

In view of these potential Chinese threats to US' economic security, Trump signed an Executive Order entitled 'A Federal Strategy to Ensure Secure and Reliable Supplies of Critical Minerals' on 20 December 2017,<sup>167</sup> which required the Secretary of the Interior to identify critical materials requiring stable supply before 1 January 2021, so that the US could devise and strengthen its domestic supply of critical materials as well as related capability,<sup>168</sup> with the ultimate goal of reducing US' reliance on imports from "foreign adversaries". Biden issued a similar Executive Order on America's Supply Chains on 24 February 2021.<sup>169</sup>

Finally, since many high technology products invented and designed by the US and its allies, such as Apple's iPhones, are assembled in China, the Chinese can easily access and steal US corporations' trade and technology secrets. As Director of the Federal Bureau of Investigation (FBI) Christopher Wray revealed in his remarks at the Hudson Institute, counterfeit goods,

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<sup>164</sup> Executive Order on Addressing the Threat to the Domestic Supply Chain from Reliance on Critical Minerals from Foreign Adversaries. The White House, September 30, 2020. The White House. <https://trumpwhitehouse.archives.gov/presidential-actions/executive-order-addressing-threat-domestic-supply-chain-reliance-critical-minerals-foreign-adversaries/>.

<sup>165</sup> Xie, John. "Studies Reveal China's Dominant Position in High-Tech Minerals." VOA. Studies Reveal China's Dominant Position in High-Tech Minerals, May 30, 2021. [https://www.voanews.com/a/east-asia-pacific\\_voa-news-china\\_studies-reveal-chinas-dominant-position-high-tech-minerals/6206341.html](https://www.voanews.com/a/east-asia-pacific_voa-news-china_studies-reveal-chinas-dominant-position-high-tech-minerals/6206341.html);

The Federal Register, The Federal Register: Final List of Critical Minerals 2018. The Federal Register, May 18, 2018. <https://www.federalregister.gov/documents/2018/05/18/2018-10667/final-list-of-critical-minerals-2018>.

<sup>166</sup> Lee, Doowan, and Shannon Brandao. "Huawei Is Bad for Business." Foreign Policy. Foreign Policy, April 30, 2021. <https://foreignpolicy.com/2021/04/30/huawei-china-business-risk/#:~:text=Reports%20alleging%20that%20China%20and,an%20agent%20of%20Chinese%20espionage>

<sup>167</sup> Town, Jay. "China Exploiting Supply Chain Vulnerabilities." China exploiting supply chain vulnerabilities. National Defense Industrial Association, September 12, 2020. <https://www.nationaldefensemagazine.org/articles/2020/12/9/china-exploiting-supply-chain-vulnerabilities>.

<sup>168</sup> The White House, "Executive Order on Addressing the Threat to the Domestic Supply Chain from Reliance on Critical Minerals from Foreign Adversaries" <https://trumpwhitehouse.archives.gov/presidential-actions/executive-order-addressing-threat-domestic-supply-chain-reliance-critical-minerals-foreign-adversaries/>

<sup>169</sup> Executive Order on America's Supply Chains. The White House, February 24, 2021. The White House. <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/02/24/executive-order-on-americas-supply-chains/>.



pirated software, and theft of trade secrets have cost the US around US\$600 billion.<sup>170</sup> As such, companies has been reshoring production back to the US to avoid Chinese infiltration and theft of US technology through the production process, and the passage of the America COMPETES Act would facilitate the creation of manufacturing jobs, as will be elaborated in the following section.<sup>171</sup>

## 2. Tariff on China's Technology Imports

The US-China technology war started in January 2018. Although tariffs were deemed to be Trump's anti-globalization policy or decoupling from China for jobs and narrowing of the US-China trade deficit,<sup>172</sup> they remained intact even during the Biden era. Therefore, Trump's policy has been misperceived as tactics for merely economic interests might sound inaccurate.

The Trump administration began imposing tariffs on solar panels and laundry machines in January 2018,<sup>173</sup> followed by another round of tariffs on steel and aluminum on all states.<sup>174</sup> Although certain tariffs were applicable to many states, the number of tariffs targeting China's technology outnumbered those targeting other states. In March 2018, the Trump Administration imposed tariffs on China's high-technology imports after the USTR's investigation on "China's state-led, market-distorting efforts to force, pressure, and steal U.S. technologies and intellectual property,"<sup>175</sup>. An approximate US\$50 billion tariff was placed on Chinese products, as the USTR expanded the list of levied products from 120 to over 1300 in April 2018, covering items such as weapons, medical devices, aircrafts parts, and batteries.<sup>176</sup>

Two months later, the Trump administration, because of China's alleged intellectual property theft, imposed a 25% tariff on Chinese products with significant technologies,<sup>177</sup> with the

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<sup>170</sup> The White House, "Executive Order on Addressing the Threat to the Domestic Supply Chain from Reliance on Critical Minerals from Foreign Adversaries"

<sup>171</sup> Statement from U.S. Secretary of Commerce Gina M. Raimondo on House Passage of the America COMPETES Act. Office of Public Affairs, Department of Commerce, February 24, 2022. <https://www.commerce.gov/news/press-releases/2022/02/statement-us-secretary-commerce-gina-m-raimondo-house-passage-america>.

<sup>172</sup> Wiseman, Paul. "Trump Says He'll Bring Jobs Back to America. Economists Are Skeptical." PBS. Public Broadcasting Service, March 14, 2016. <https://www.pbs.org/newshour/economy/trump-says-hell-bring-jobs-back-to-america-economists-are-skeptical>.

<sup>173</sup> Gonzales, Richard. "Trump Slaps Tariffs on Imported Solar Panels and Washing Machines." NPR. NPR, January 23, 2018. <https://www.npr.org/sections/thetwo-way/2018/01/22/579848409/trump-slaps-tariffs-on-imported-solar-panels-and-washing-machines>.

<sup>174</sup> Sheldrick, Aaron. "Asia's Biggest Exporters Bristle over U.S. Tariffs, Fanning Trade War Fears." Reuters. Thomson Reuters, March 9, 2018. <https://www.reuters.com/article/us-usa-trade-china-idUSKCN1GL03Q>.

<sup>175</sup> Chance, David, and Steve Holland. "Trump Set for China Tariff Announcement on Thursday, Trade War Fears Grow." Reuters. Thomson Reuters, March 21, 2018. <https://www.reuters.com/article/us-usa-trade-idUSKBN1GX20V>.

<sup>176</sup> Under Section 301 Action, USTR Releases Proposed Tariff List on Chinese Products. Office of the United States Trade Representative, April 3, 2018. <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2018/april/under-section-301-action-ustr>.

<sup>177</sup> Pramuk, Jacob. "Trump to Slap 25% Tariffs on up to \$50 Billion of Chinese Goods; China Retaliates." CNBC. CNBC, June 15, 2018. <https://www.cnbc.com/2018/06/15/trump-administration-to-slap-a-25-percent-tariff-on-50-billion-of-chinese-goods-threatens-more.html>.

USTR proposing another list (List 3) against China's trade in July 2018.<sup>178</sup> In May 2019, levy was placed on another 3800 China-imported products, including smartphones and laptop computers.<sup>179</sup> Finally, in December 2019, the strategic rivals came to an agreement, in which the US would reduce tariffs on China's products as long as China purchased soybeans from the US.<sup>180</sup>

While Trump has wished to force corporations to relocate their production line to the US through punitive tariffs on imported goods from China, Apple still has nearly all its iPhones assembled in China.<sup>181</sup> In other words, the Trump administration did not intend to lure companies to relocate their production back to the US for jobs. Instead, the US would like to deal with China's technology theft. In fact, the willingness to settle trade disputes on steel with its allies, such as the EU,<sup>182</sup> Japan,<sup>183</sup> South Korea,<sup>184</sup> showed that the US did not wish to rip off economic gains from its allies at the expense of US-allies' cooperation against China.

The Biden administration continued Trump's tariffs, as China failed to fulfill the commitments it has made in the trade deal signed in the Trump era.<sup>185</sup> Moreover, as revealed by an official, the Chinese government's manipulation of the state economy was still the main focus. Thus, containing China's economics and technology was the major reason for the US imposing tariffs on China.

### 3. Enhancing capability In Technology and Innovation

In response to China's spike in R&D, the Trump administration has upped the US' R&D through allotting extra funding for related projects and close cooperation with allies and

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<sup>178</sup> "\$200 Billion Trade Action (List 3)." United States Trade Representative. Accessed June 1, 2022. <https://ustr.gov/issue-areas/enforcement/section-301-investigations/section-301-china/200-billion-trade-action>.

<sup>179</sup> Cheng, Ting-Fang, and Lauly Li. "US Reveals Tariffs on \$300bn of Chinese Goods, Including Phones." Nikkei Asia. Nikkei Asia, May 14, 2019. <https://asia.nikkei.com/Economy/Trade-war/US-reveals-tariffs-on-300bn-of-Chinese-goods-including-phones>.

<sup>180</sup> Prescott, Katie. Trump halts new tariffs in US China trade war. BBC News, December 13, 2019. <https://www.bbc.com/news/business-50784554>.

<sup>181</sup> Iles, Kif. "Apple Dodges iPhone Tariff after Trump Confirms Trade Deal Agreement with China." CNBC. CNBC, December 13, 2019. <https://www.cnbc.com/2019/12/13/apple-dodges-iphone-tariff-after-trump-confirms-china-trade-agreement.html>.

<sup>182</sup> Bermingham, Finbarr. "US and EU Strike Metals Pact to Take on China's 'Steel Dumping'." South China Morning Post. South China Morning Post, October 31, 2021. <https://www.scmp.com/news/china/diplomacy/article/3154362/us-and-eu-strike-metals-pact-take-chinas-steel-dumping>.

<sup>183</sup> Lawder, David. U.S., Japan reach deal to cut tariffs on Japanese steel, fight excess output. Thomson Reuters, February 8, 2022. <https://www.reuters.com/world/asia-pacific/japan-us-announce-deal-restrict-trump-era-steel-tariffs-bloomberg-2022-02-07/>.

<sup>184</sup> Jun, Kwanwoo. "U.S., South Korea Strike Trade Deal; Seoul Exempt from Steel Tariffs." The Wall Street Journal. Dow Jones & Company, March 26, 2018. <https://www.wsj.com/articles/u-s-south-korea-amend-trade-deal-seoul-exempt-from-steel-tariffs-1522032055>; Song, Jung-a. South Korea secures US Steel Tariff Exemption. Financial Times, March 26, 2018. <https://www.ft.com/content/68659a66-30a8-11e8-b5bf-23cb17fd1498>.

<sup>185</sup> Shalal, Andrea, and Alexandra Alper. Biden says 'not there yet' on possible easing of tariffs on Chinese goods. Thomson Reuters, January 20, 2022. <https://www.reuters.com/business/biden-says-not-there-yet-possible-easing-tariffs-chinese-goods-2022-01-19/>.

private corporations. As revealed in the National Security Strategy (NSS) and Defense Secretary Mattis' testimony before the Senate, the US was determined to increase investment to support basic research and Defense Advanced Research Projects Agency's (DARPA's) projects for maintaining the US' competitive edge in military technology. Data from the SIPRI shows that the increase in the overall US military R&D expenditure to preserve its competitiveness in technology over its strategic competitors.<sup>186</sup>

To further ensure financing for US research in response to China's threat, the Congress approved the 'America Creating Opportunities for Manufacturing, Pre-Eminence in Technology, and Economic Strength (COMPETES) Act of 2022'' with bipartisan support on 4 February 2022.<sup>187</sup> Upon the establishment of the CHIPS for America Fund, the act would appropriate a total of US\$52 billion to facilitate domestic production of semiconductors. The act, as a critical component in the US' response to the China's rise in military technology, also aims to strengthen the US' supply chain and research capacity for global dominance and calls for evaluation of Chinese expansion overseas. House Science Committee Chair Eddie Bernice Johnson specifically mentioned the significance of the act to America's competitiveness against China.<sup>188</sup>

In addition to extra fund provision from the government, the White House has closely collaborated with multinational corporations and universities. For example, Biden approached Samsung, Texas Instruments, and Micron to gage their interest in semiconductor production, and appropriated US\$20 billion to Intel for its semiconductor factory in Ohio. The White House also contacted TSMC, Intel, Samsung, Apple, Microsoft, Daimler and BMW in late 2021 for their semiconductor production technology amid chips shortage.<sup>189</sup> Such public-private cooperation in semiconductor production is another tactic by the US to respond to the Made in China 2025 Initiative.

#### 4. Restriction on Public and Private Procurement

Although the Trump administration issued bans on purchasing Chinese telecommunication components due to Chinese espionage committed in 2016, the related risks had raised US

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<sup>186</sup> World military expenditure passes \$2 trillion for first time. SIPRI, April 25, 2022. <https://www.sipri.org/media/press-release/2022/world-military-expenditure-passes-2-trillion-first-time#:~:text=United%20States%20focuses%20on%20military%20research%20and%20development&text=The%20US%20military%20burden%20decreased,3.5%20per%20cent%20in%202021.>

<sup>187</sup> Bill, RULES COMMITTEE PRINT 117-31 TEXT OF H.R. 4521, THE AMERICA COMPETES ACT OF 2022 § (2022). <https://docs.house.gov/billsthisweek/20220131/BILLS-117HR4521RH-RCP117-31.pdf>.

<sup>188</sup> Walsh, Deirdre, and Caitlyn Kim. The House passed a bill aimed at boosting U.S. competitiveness with China. NPR, February 4, 2022. <https://www.npr.org/2022/02/04/1078226282/u-s-house-passes-china-competition-bill>.

<sup>189</sup> Shen, Xinmei. "Some See Us Request for Chip Supply Data as Targeting Chinese Industry." South China Morning Post. South China Morning Post, October 7, 2021. <https://www.scmp.com/tech/tech-war/article/3151347/us-demand-chip-supply-data-tsmc-samsung-apple-others-sparks-debate>.

lawmakers' concern as early as in 2012.<sup>190</sup> Based on an investigation on Huawei and ZTE, the US House of Representatives Intelligence Committee published a report pinpointing equipment produced by the technology corporations that would induce long-term security risks.<sup>191</sup> However, it was not until 2014 did the US government propose a risk assessment for federal procurements for Chinese technology.<sup>192</sup>

Despite relevant countermeasure, no procurement ban was issued until Trump took office. The National Defense Authorization Act of 2018 prohibited government agencies from acquiring ZTE and Huawei equipment,<sup>193</sup> and Trump signed an Executive Order banning transactions of Huawei components.<sup>194</sup> The US Federal Communications (FCC) barred subsidies for Huawei and ZTE in November 2019, citing potential security risks.<sup>195</sup> By 2020, small telecommunication companies were barred from purchasing components from Huawei, ZTE, and other companies considered as a threat to US security,<sup>196</sup> and subsidies were provided to these small companies to cover replacement cost.<sup>197</sup>

Apart from banning purchases from Chinese telecommunications giants, Trump also called for the replacement of Chinese devices. In the name of national economic emergency, the Trump administration declared a 150-day review on the state's telecommunication supply chain in a bid to seek non-Chinese replacements.<sup>198</sup> Some tertiary education institutions, such as the University of California at Berkeley and Irvine also complied with the ban by replacing Chinese-made equipment installed on campus and rejecting funding and partnership offers made by Chinese companies.<sup>199</sup>

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<sup>190</sup> Wolf, Jim. U.S. lawmakers seek to block China Huawei, ZTE U.S. inroads. Thomson Reuters, October 8, 2012. <https://www.reuters.com/article/us-usa-china-huawei-zte-idUSBRE8960NH20121008>.

<sup>191</sup> Ibid.

<sup>192</sup> Blanchard, Ben, Norihiko Shirouzu, Doina Chiacu, Richard Cowan, David Lawder, and Patricia Zengerle. Edited by Clarence Fernandez. China decries U.S. spending bill. Thomson Reuters, January 19, 2014. <https://www.reuters.com/article/us-china-usa-trade-idUSBREA0100Z20140119>.

<sup>193</sup> Mulligan, Stephen P., and Chris D. Linebaugh. Huawei and U.S. law - congress. US Congressional Research Service, February 23, 2021. <https://crsreports.congress.gov/product/pdf/R/R46693>.

<sup>194</sup> Shepardson, David, and Karen Freifeld. China's Huawei, 70 affiliates placed on U.S. Trade Blacklist. Thomson Reuters, May 15, 2019. <https://www.reuters.com/article/us-usa-china-huaweitech-idUSKCN1SL2W4>; Kuo, Lily, and Sabrina Siddiqui. Huawei hits back over Trump's national emergency on Telecoms 'threat'. Guardian News and Media, May 16, 2019. <https://www.theguardian.com/us-news/2019/may/15/donald-trump-national-emergency-telecoms-threats-huawei>.

<sup>195</sup> *FCC Bars Subsidies for Equipment Posing National Security Threats*. Federal Communications Commission, November 22, 2019. <https://www.fcc.gov/document/fcc-bars-subsidies-equipment-posing-national-security-threats>.

<sup>196</sup> Shepardson, David. "Exclusive: U.S. Finalizing Federal Contract Ban for Companies That Use Huawei, Others." Reuters. Exclusive: U.S. finalizing federal contract ban for companies that use Huawei, others, July 9, 2020. <https://www.reuters.com/article/us-usa-china-contracting-exclusive-idUSKBN24A22F>.

<sup>197</sup> Shepardson, David. "Trump Signs Law to Prevent U.S. Rural Telecom Carriers from Using Huawei Network Equipment." Trump Signs Law to Prevent U.S. Rural Telecom Carriers from Using Huawei Network Equipment. Thomson Reuters, March 13, 2020. <https://www.reuters.com/article/huawei-tech-china-usa-idINKBN2100MS>.

<sup>198</sup> Kuo and Siddiqui, "Huawei hits back over Trump's national emergency on Telecoms 'threat'"

<sup>199</sup> Somerville, Heather, and Jane Lanhee Lee. U.S. universities unplug from China's Huawei under pressure from trump. Thomson Reuters, January 24, 2019. <https://www.reuters.com/article/us-usa-china-security-universities->

These policies were extended and tightened after Trump stepped down in 2021, as license denial became another means of cracking down on Chinese technology firms. The operation license of China Telecom<sup>200</sup> and China Unicom<sup>201</sup> were revoked by the FCC in October 2021 and January 2022, respectively, and Chinese companies were barred from obtaining licenses from US regulators a month later.<sup>202</sup>

In summary, through countermeasures like procurement ban, facilities replacement, and operation licenses revocation, Chinese telecommunication firms were restricted from accessing the American market.

## 5. Stricter Export Control to China

The US imposed restrictions on exporting crime control and crime detection equipment and instruments listed in the Export Administration Regulations (EAR) to China after the Tiananmen Square Incident. Since then, export restrictions, mainly administered by the Bureau of Industry and Security of the US Department of Commerce and targeting China's dual-used technology and military, have become more frequent. Entities placed under the Entity List and Military End User (MEU) List, regardless of their types of legal persons, are required to apply for licenses with strict specifications before transferring specific items. Some entities are presumed to obtain denial, while some would be evaluated on a case-by-case basis. Over the years, the number of Chinese entities included in the list has surged, implying heightened US awareness of China's ambition in becoming a global technology leader with military technology might, particularly after the announcement of MIC2025 in May 2015.<sup>203</sup>

Before 2015, entities facilitating Iran and North Korea nuclear programs are common on the Entity List.<sup>204</sup> Since then, restrictions on Chinese individuals or institutions taking part in developing China's military technology programs began to come under the spotlight. The National University of Defense Technology, National Supercomputing Center in Changsha

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[insig-idUSKCN1PI0GV](#).

<sup>200</sup> Shepardson, David. FCC revokes authorization of China Telecom's U.S. unit. Thomson Reuters, October 27, 2021. <https://www.reuters.com/business/media-telecom/fcc-votes-terminate-china-telecom-americans-authority-provide-us-services-2021-10-26/>.

<sup>201</sup> Shepardson, David, and Diane Bartz. FCC revokes China Unicom's authorization to operate in U.S. Thomson Reuters, January 27, 2022. <https://www.reuters.com/business/media-telecom/us-regulator-revokes-china-unicoms-authorization-operate-us-2022-01-27/>.

<sup>202</sup> Shepardson, David. Biden signs legislation to tighten U.S. restrictions on Huawei, ZTE. Thomson Reuters, November 12, 2021. <https://www.reuters.com/technology/biden-signs-legislation-tighten-us-restrictions-huawei-zte-2021-11-11/>.

<sup>203</sup> 国务院关于印发《中国制造2025》的通知（国发〔2015〕28号）\_政府信息公开专栏. State Council of the People's Republic of China, May 8, 2015. [http://www.gov.cn/zhengce/content/2015-05/19/content\\_9784.htm](http://www.gov.cn/zhengce/content/2015-05/19/content_9784.htm).

<sup>204</sup> "Iran Sanctions." U.S. Department of the Treasury. U.S. Department of the Treasury, May 10, 2022. <https://home.treasury.gov/policy-issues/financial-sanctions/sanctions-programs-and-country-information/iran-sanctions>; "North Korea Sanctions." U.S. Department of the Treasury. U.S. Department of the Treasury, May 16, 2022. <https://home.treasury.gov/policy-issues/financial-sanctions/sanctions-programs-and-country-information/north-korea-sanctions>.

(NSCC-CS), National Supercomputing Center in Guangzhou (NSCC-GZ), and the National Supercomputing Center in Tianjin (NSCC-TJ) were listed because they were alleged for importing components from the US to build Tianhe-1A and Tianhe-2A supercomputers for nuclear weapons development as prohibited in § 744.2(a) of the EAR.<sup>205</sup> The US Department of Commerce denied Intel’s license application for exporting its Xeon and Xeon Phi parts for Tianhe-1A and Tianhe-2A supercomputers on 10 April 2015, which is also the first time semiconductor export to China was blocked.<sup>206</sup>

As time went on, more technologies companies or research institutions were placed onto the Entity List. On 8 March 2016, ZTE was blacklisted,<sup>207</sup> followed by Huawei and all its affiliates around the world on 16 May 2019.<sup>208</sup> The 54th Research Institute of China, Beijing Aeronautical Manufacturing Technology Research Institute, China Aerospace Science and Industry Corporation (CASIC), China Aerospace Science and Technology Corporation (CASC), China Communications Construction Company, and China Electronic Technology Group Corporation were all added to the list.<sup>209</sup>

Meanwhile, the number of corporations on the Military End User Lists also hiked since 2020. On 23 December 2020, the Trump administration placed a number of state-owned research institutions focusing on aviation, telecommunication, maritime, satellites, mechanical engineering, and materials research onto the list, including the eight subordinate institutions of AeroEngine Company of China, Academy of Aerospace Solid Propulsion Technology, CAST Xi’an Spaceflight Engine Factory, CSSC Xinjian Shipbuilding Co., Ltd., Harbin General Aircraft Industry Co., Ltd., National Satellite Meteorological Bureau, and the Second Institute of Oceanography under the Ministry of Natural Resources.<sup>210</sup> On 26 September 2020, China’s biggest chip producer, Semiconductor Manufacturing International Corporation (SMIC), also joined the list for an unacceptable equipment that has to risk of being used for military purpose.<sup>211</sup>

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<sup>205</sup> Addition of Certain Persons to the Entity List; and Removal of Person From the Entity List Based on a Removal Request, 80 FR 8524 § (2015).

<sup>206</sup> “US Nuclear Fears Block Intel China Supercomputer Update.” BBC News. BBC, April 10, 2015. <https://www.bbc.com/news/technology-32247532>.

<sup>207</sup> Additions to the Entity List, 81 FR 12004 § (2016).

<sup>208</sup> Addition of Entities to the Entity List, 84 FR 22961 § (2019).

<sup>209</sup> Worrell, John. “Supplement No. 4 to Part 744 - ENTITY LIST.” Supplement No. 1 to Part 740 - Country Groups, 28-532. Bureau of Industry and Security, Department of Commerce, April 11, 2022. <https://bis.doc.gov/index.php/documents/regulations-docs/2255-supplement-no-1-to-part-740-country-groups-1>.

<sup>210</sup> SUPPLEMENT NO. 7 TO PART 744 – ‘MILITARY END-USER’ (MEU) LIST. Bureau of Industry and Security, Department of Commerce, February 24, 2022. <https://www.bis.doc.gov/index.php/documents/regulations-docs/2714-supplement-no-7-to-part-744-military-end-user-meu-list/file..>

<sup>211</sup> Horwitz, Josh, Karen Freifeld, Alexandra Alper, and Douglas Busvine. Edited by Chris Sanders and Grant McCool. U.S. tightens exports to China's chipmaker smic, citing risk of military use. Thomson Reuters, September 26, 2020. <https://www.reuters.com/article/usa-china-smic-idUSKBN26H0LO>.



## 6. Investment and Capitalization Restriction

Financially, the US' unilateral measures limiting China include merging and acquisition deals blocks, sanctions, and tightening regulations on companies' investments.

Regarding disposing transactions for national security, the Committee on Foreign Investment in the United States (CFIUS) of the Department of Treasury and a few government agencies are considered key gatekeepers to prevent China's access to US technology through investment, especially merging and acquisition (M&A) deals. CFIUS statistics show that the committee has not denied any deals before 2008.<sup>212</sup>

The US blocked a tech acquisition deal for the first time in 2008. Led by Bain Capital Partners and Huawei Technologies, the deal proposed purchasing a US-based technology corporation, 3Com Corp. However, the deal was blocked by CFIUS because of the US' security concerns over Huawei and 3Com's importance in the production of national security-related software.<sup>213</sup>

A deal involving China's Fujian Grand Chip Investment Fund proposed take-over of Aixtron, a German chip maker, was also blocked, as the company was responsible for producing devices refining rare earth for producing semiconductors installed in the US war system.<sup>214</sup> The US further complained that China's policy was preventing reciprocal US acquisition in China. The Chinese venture eventually withdrew its proposal.<sup>215</sup>

The blockade of M&A proposals in the technology sector out of national security continued into the Trump era. The first deal barred by Trump was the proposed US\$1.3-billion acquisition of Lattice Semiconductor Corp by Canyon Bridge Capital Partners, which was partially funded by the PRC government and said to have indirect connections to China's space program, leading to concerns from the US Department of Defense. The deal was finally terminated in September 2017.<sup>216</sup>

Other deals rejected include MoneyGram's sale to China's Ant Financial.<sup>217</sup> AppLovin's

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<sup>212</sup> CFIUS Public Annual Report CY 2020. The Committee on Foreign Investment in the United States (CFIUS), 2021. <https://home.treasury.gov/system/files/206/CFIUS-Public-Annual-Report-CY-2020.pdf>.

<sup>213</sup> Hall, Jessica, and Sophie Taylor. U.S. concerns stall Bain, 3Com deal on Chinese stake. Thomson Reuters, February 21, 2008. <https://www.reuters.com/article/us-3com-bain-idUSN2035046520080221>.

<sup>214</sup> Sheahan, Maria. China's Fujian drops Aixtron bid after Obama blocks deal. Thomson Reuters, December 8, 2016. <https://www.reuters.com/article/us-aixtron-m-a-fujian-idUSKBN13X16H>.

<sup>215</sup> Ibid.

<sup>216</sup> Baker, Liana B. "Trump Bars Chinese-Backed Firm from Buying U.S. Chipmaker Lattice." Trump bars Chinese-backed firm from buying U.S. chipmaker Lattice. Thomson Reuters, September 13, 2017. <https://www.reuters.com/article/us-lattice-m-a-canyonbridge-trump-idUSKCN1BO2ME>.

<sup>217</sup> Roumeliotis, Greg. "U.S. Blocks Moneygram Sale to China's ANT Financial on National Security Concerns." China's ANT financial on national security concerns. Thomson Reuters, January 2, 2018. <https://www.reuters.com/article/us-moneygram-intl-m-a-ant-financial-idUSKBN1ER1R7>.

proposal of selling its majority ownership to the Orient Hontai Capital based in Shanghai,<sup>218</sup> and ByteDance's acquisition of musical.ly, an American firm.<sup>219</sup> In 2019 alone, a total of eight deals were rejected by CFIUS.<sup>220</sup>

Meanwhile, the CFIUS also forced Chinese-based ventures to divest from US-based tech firms. In March 2019, Beijing Kunlun Tech sold Grindr, a dating app for gays, citing national security concerns without revealing further details.<sup>221</sup> The same also applied to StayNTouch, a platform offering cloud-based management system for hotel reservations bought by Beijing Shiji Group in 2018. The CFIUS ordered Shiji to sell StayNTouch in 2020.<sup>222</sup> It can be seen that CFIUS has been more proactive in blocking Chinese acquisition of corporations and properties in the technology sector, as the US realized Chinese ownership of these corporation would pose a risk its own national security.

In 2018, Trump also rejected Broadcom, a Singapore-based company, from purchasing Qualcomm, a leading chip maker, citing potential damage to the US' technological dominance, as revealed in a letter from CFIUS, which mentioned Qualcomm's lead over Huawei and other Chinese telecommunications companies as the key reason for the rejection.<sup>223</sup>

Although certain deals posing potential harm to the US' national security were blocked, only one law regarding Chinese technology corporate investment was passed since the Trump era. The Holding Foreign Companies Accountable Act (HFCAA) gave the Public Company Accounting Oversight Board (PCAOB) and the Securities Exchange Commission (SEC) access to foreign companies' auditing and financial records.<sup>224</sup> Non-conforming companies may risk trading ban and be delisted from the stock market by the SEC.<sup>225</sup> The act also required companies to disclose their board members' connection with the Chinese Communist Party.<sup>226</sup>

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<sup>218</sup> Baker, Liana B. Exclusive: Applovin tweaks Chinese takeover deal after U.S. pushback. Thomson Reuters, November 21, 2017. <https://www.reuters.com/article/us-applovin-m-a-hontaicapital-exclusive-idUSKBN1DL2N3>.

<sup>219</sup> CFIUS, "CFIUS Public Annual Report CY 2020", 15

<sup>220</sup> Bartz, Diane. Edited by Leslie Adler. U.S. National Security Panel Killed Eight deals in 2019, Trump ended one. Thomson Reuters, July 30, 2020. <https://www.reuters.com/article/us-cfius-2019-report-idUSKCN24V3KK>.

<sup>221</sup> O'Donnell, Carl, Liana B. Baker, and Echo Wang. Exclusive-U.S. pushes Chinese owner of Grindr to divest the dating app -sources. Thomson Reuters, March 27, 2019. <https://www.reuters.com/article/grindr-ma-idUKL1N2190PY>.

<sup>222</sup> "CFIUS Presidential Order: Beijing Shiji Information Technology and StayNTouch." CFIUS Presidential Order: Beijing Shiji Information Technology and StayNTouch. The National Law Review, March 7, 2020. <https://www.natlawreview.com/article/cfius-presidential-order-beijing-shiji-information-technology-and-stayntouch>.

<sup>223</sup> Bartz, Diane, Steve Holland, Chris Sanders, Supantha Mukherjee, Pushkala Aripaka, Greg Roumeliotis, Steve Nellis, Sijia Jiang, and Peter Henderson. "President Trump Halts Broadcom Takeover of Qualcomm." Edited by Clive McKeef and Leslie Adler. Reuters. Thomson Reuters, March 12, 2018. <https://www.reuters.com/article/us-qualcomm-m-a-broadcom-merger-idUSKCN1G01Q4>.

<sup>224</sup> Holding Foreign Companies Accountable Act Disclosure, 17 CFR Parts 200, 232, and 249 § (2021).

<sup>225</sup> Ibid.

<sup>226</sup> Kharpal, Arjun. Chinese tech stocks hammered as U.S. law threatens to delist firms from American exchanges. CNBC, March 25, 2021. <https://www.cnbc.com/2021/03/25/chinese-tech-stocks-fall-as-us-sec-begins-law-aimed-at-delisting.html>.



This posed a dilemma for Chinese companies, as, in 2021, the Chinese government adopted the Data Security Law of the People's Republic of China, which constricts Chinese company's information disclosure by 'placing legal liability on entities that handle digital data outside China in a way that would damage national security, public interest, or the legitimate interests of [PRC's] citizens and organizations' (in Chinese, 在中华人民共和国境外开展数据处理活动, 损害中华人民共和国国家安全、公共利益或者公民、组织合法权益的, 依法追究法律责任。)<sup>227</sup>. Such conflict in information reveal regulations between the two countries might have far-reaching impact on Chinese tech firms' capitalization, as numerous Chinese tech companies that are listed on the US stock market or have issued American Depositary Receipts (ADRS), American Depositary Shares (ADSs) or other securities in the US might have to retreat from the American capital market,<sup>228</sup> and many more saw their dream of issuing stocks and securities in the US dashed. In response, some of these Chinese companies chose the Hong Kong Stock Exchange as a replacement.

Right after the law came into effect on 24 March 2021, US-listed Chinese tech firms, such as Alibaba, Baidu, JD. Com, and NetEase, saw a fall in their stock price. In the meantime, Didi Global dropped its plan of listing in the US and chose to issue its Initial Public Offerings (IPO) in Hong Kong instead. Some other US-listed companies, such as Alibaba and BeiGene, a Chinese biotech firm, planned to have a secondary listing in Hong Kong in response to the act.<sup>229</sup> The New York Stock Exchange also prevailed in its attempt to delist Danke, a Chinese online home platform, due to its incompliance of the act.<sup>230</sup> Clearly, the act has hammered Chinese tech groups' capitalization and capability to raise fund for research and expansion.

The HFCAA is in fact an amendment to the Sarbanes-Oxley Act of 2002, which gave PCAOB the authority to inspect companies in the US. As SEC Chair Gary Genslet pointed out, China and Hong Kong were the only two jurisdictions denying the PCAOB's request for inspection.<sup>231</sup> The timing of the passage of HFCAA and its potential impact on Chinese tech firms, thus, add another playing card for the US to contain the rise of China in the technological

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<sup>227</sup> “中华人民共和国数据安全法.” 中华人民共和国数据安全法\_中国人大网. National People's Congress, People's Republic of China, June 10, 2021. <http://www.npc.gov.cn/npc/c30834/202106/7c9af12f51334a73b56d7938f99a788a.shtml>.

<sup>228</sup> Kharpal, “Chinese tech stocks hammered”

<sup>229</sup> How the delisting of Chinese firms on American exchanges might play out. The Economist Newspaper, August 14, 2021. <https://www.economist.com/finance-and-economics/2021/08/14/how-the-delisting-of-chinese-firms-on-american-exchanges-might-play-out>.

<sup>230</sup> Bray, Chad. New York Stock Exchange to delist embattled Chinese property company Danke. South China Morning Post, April 7, 2021. <https://www.scmp.com/business/banking-finance/article/3128564/new-york-stock-exchange-delist-chinese-property-company>.

<sup>231</sup> Pisani, Bob. SEC finalizes rule that allows it to delist foreign stocks for failure to meet audit requirements. CNBC, December 2, 2021. <https://www.cnbc.com/2021/12/02/sec-issues-final-regs-that-allow-it-to-delist-foreign-companies-that-dont-comply-with-audit-rules.html>.

front according to Trump's plan in December 2020.<sup>232</sup>

Simultaneously, the Foreign Investment Risk Review Modernization Act of 2018 (FIRRMA) expanded the authority of the president and CFIUS on non-controlling investments and real estate transactions involving foreigners. Though applicable to all foreign firms, the act specifically pointed out that its creation was due to national security risks brought by countries such as China and Russia, meaning that it will become another weapon for the US to contain the rise of China on the technological front.<sup>233</sup>

In pursuant to FIRRMA, a pilot program was introduced on 10 November 2018<sup>234</sup> that allowed CIFIUS to review any foreign investments' effect on US national security, especially regarding critical technologies transaction.<sup>235</sup> Declarations were made mandatory for foreign transactions involving US strategic industries.<sup>236</sup> Filings on foreign investment transaction related to key technology sector or those linked to foreign governments were also made mandatory. In addition, the act expanded CFIUS' timespan for investigation from 30 to 45 days, with an additional 15-day extension granted if necessary. The bar for both parties involved to enter into a mitigation agreement to address national security risks during CIFIUS' review process was also raised.

Moreover, penalties for rule violation were increased. In the past, parties were subject to civil penalty only if they breached the mitigation agreement "intentionally or through gross negligence"<sup>237</sup>. After the passage of this act, parties could be subject to a penalty of under US\$250,000 per violation as long as the mitigation agreement was breached. Penalties also exist for other misconducts.<sup>238</sup>

With an anticipated increase in the number of reviews related to transactions involving Chinese tech firms and rejections out of national security reasons, for effective regulation execution,

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<sup>232</sup> Johnson, Katanga, and Scott Murdoch. Chinese tech stocks slump as U.S. SEC begins rollout of law aimed at delisting. Thomson Reuters, March 24, 2021. <https://www.reuters.com/article/us-usa-sec-foreigncompanies-idUSKBN2BG2AI>.

<sup>233</sup> Foreign Investment Risk Review Modernization Act of 2018: Report (to accompany H.R. 5841), 6-7. Bill (2018).

<sup>234</sup> CFIUS pilot program instructions (part 801). U.S. Department of the Treasury, February 24, 2021. <https://home.treasury.gov/policy-issues/international/the-committee-on-foreign-investment-in-the-united-states-cfius/cfius-pilot-program>.

<sup>235</sup> Fact Sheet-FIRRMA Pilot Program. Office of Public Affairs, U.S. Department of the Treasury, October 10, 2018. <https://home.treasury.gov/system/files/206/Fact-Sheet-FIRRMA-Pilot-Program.pdf>.

<sup>236</sup> Ibid.

<sup>237</sup> Kyle, Derrick. "When CFIUS Mitigation Agreements and Foci Reviews Overlap: A Critical Balancing Act - International Trade & Investment - United States." When CFIUS Mitigation Agreements And FOCI Reviews Overlap: A Critical Balancing Act - International Trade & Investment - United States. Torres Trade Law, PLLC, January 19, 2022. <https://www.mondaq.com/unitedstates/international-trade-investment/1151744/when-cfius-mitigation-agreements-and-foci-reviews-overlap-a-critical-balancing-act>.

<sup>238</sup> Spiliotes, Nicholas J., Robert S. Litt, and Charles L. Capito. New Cfius Pilot Program expands U.S. Government Review of Tech Transactions. Morrison Foerster, October 13, 2018. <https://www.mofo.com/resources/insights/181012-cfius-pilot-program.html>.

the committee also received special grants for hiring, with a fund established for the addition fees collected under the new regulation.<sup>239</sup> With all these in place, the US hopes to safeguard its tech sector from being controlled by Chinese firms via M&A proposals.

As discussed in the previous section, the Office of Foreign Assets Control of the Department of Treasury also imposed financial sanctions on Chinese entities engaging in programs related to the People's Liberation Army (PLA). These entities were recorded on the Non-SDN Communist Chinese Military Companies List (NS-CCMC List), which was later expanded and replaced by the Non-SDN Chinese Military-Industrial Complex Companies List (NS-CMIC List), as will be discussed below.

The Pentagon, under bipartisan pressure from Senators Tom Cotton (R-Arkansas) and Chuck Schumer (D-New York), and Congressmen Mike Gallagher (R-Wisconsin) and Ruben Gallego (D-Arizona),<sup>240</sup> also issued a list comprising 20 companies with links to the PLA across the aviation, railway, telecommunication, surveillance technology, nuclear power, and shipbuilding industries.<sup>241</sup> Additional identifications were made on 28 August 2020,<sup>242</sup> 3 December 2020,<sup>243</sup> 14 January 2021,<sup>244</sup> and 3 June 2021.<sup>245</sup> These entities were also identified as contributors to the Military-Civil Fusion development strategy for the PLA modernization in statements issued by the Department of Defense. Clearly, it was the objective of the US to restrict China's military technology development for protecting its own global dominance.

Biden issued Executive Order 14032 on 3 June 2021, replacing the NS-CCMC List with the NS-CMIC List with the addition of 59 entities and expanded the applicability of the list.<sup>246</sup>

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<sup>239</sup> The Committee on Foreign Investment in the United States (CFIUS). U.S. Department of the Treasury, May 27, 2022. <https://home.treasury.gov/policy-issues/international/the-committee-on-foreign-investment-in-the-united-states-cfius>.

<sup>240</sup> COTTON, SCHUMER, GALLAGHER, GALLEGU URGE DOD TO NAME CHINESE DEFENSE COMPANIES IN U.S. Office of Tom Cotton Senator of Arkansas, September 12, 2019. <https://www.cotton.senate.gov/news/press-releases/cotton-schumer-gallagher-gallego-urge-dod-to-name-chinese-defense-companies-in-us>.

<sup>241</sup> DOD Releases List of Additional Companies, in Accordance with Section 1237 of FY99 NDAA. US Department of Defense, August 28, 2020. <https://www.defense.gov/News/Releases/Release/Article/2328894/dod-releases-list-of-additional-companies-in-accordance-with-section-1237-of-fy/>.

<sup>242</sup> Ibid.

<sup>243</sup> DOD Releases List of Additional Companies, In Accordance With Section 1237 of FY99 NDAA. US Department of Defense, December 3, 2020. <https://www.defense.gov/News/Releases/Release/Article/2434513/dod-releases-list-of-additional-companies-in-accordance-with-section-1237-of-fy/>

<sup>244</sup> DOD Releases List of Additional Companies, In Accordance with Section 1237 of FY99 NDAA. US Department of Defense, January 14, 2021. <https://www.defense.gov/News/Releases/Release/Article/2472464/dod-releases-list-of-additional-companies-in-accordance-with-section-1237-of-fy/>.

<sup>245</sup> DOD Releases List of Chinese Military Companies in Accordance With Section 1260H of the National Defense Authorization Act for Fiscal Year 2021. US Department of Defense, June 3, 2021. <https://www.defense.gov/News/Releases/Release/Article/2645126/dod-releases-list-of-chinese-military-companies-in-accordance-with-section-1260/>.

<sup>246</sup> "CHINESE MILITARY COMPANIES SANCTIONS." Frequently Asked Questions. U.S. Department of the Treasury, June 3, 2021. <https://home.treasury.gov/policy-issues/financial-sanctions/faqs/topic/5671>.

While previously only US persons were prohibited from trading or purchasing traded securities or derivatives as listed in the order, all persons, not solely American persons, are now prohibited from operating in the defense, related material, or surveillance technology sector of China as determined by the Secretary of Treasury.<sup>247</sup>

The Executive Order led to the delisting of companies named in the NS-CMIC List by major US stock exchanges. For instance, CNOCC was delisted by the NYSE in February 2021.<sup>248</sup> Three Chinese telecommunication corporations on the list, namely China Mobile, China Unicom, and China Telecom Corp, were all delisted in May 2021.<sup>249</sup>

With the legislations and executive orders discussed above, namely, HFCAA, FIRMA, MEU List, Entity List and NS-CMIC List, the US has equipped itself with crucial weapons to contain the rise of China in military technology through acquiring overseas competitors or raising fund for corporate R&D.

## 7. Espionage Prevention

Apart from placing restrictions on investments to prevent the Chinese from accessing US technologies through legal M&A projects and imports, the US was also aware that the Chinese government has been engaging in unlawful activities, such as espionage. As FBI Director Christopher Wray elaborated in a video event hosted by the Hudson Institute, China has been engaging in espionage through different means, such as hacking and sending talents to the US through Thousand Talents Program.<sup>250</sup> Although the US has fallen prey to Chinese espionage as early as in 2000, the US government had not exposed such activities after 2007. Obama was the first to raise the issue in September 2015, and he followed up by holding a cybersecurity dialogue with Chinese President Xi Jinping. Since 2017, the US government has not only unambiguously identified China's cyber-attack in the National Security Strategy, but also been more active in responding to China's economic espionage.<sup>251</sup>

In 2018, the Trump administration reportedly was devising new background vetting and

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<sup>247</sup> Ibid.

<sup>248</sup> Bray, Chad. New York exchange moves to delist CNOOC's American depository shares as Trump-era executive order kicks in. South China Morning Post, February 27, 2021. <https://www.scmp.com/business/banking-finance/article/3123405/new-york-exchange-moves-delist-cnoocs-american-depository>.

<sup>249</sup> Kerber, Ross. Edited by Diane Craft. Three Chinese telecom companies to be delisted by NYSE. Thomson Reuters, May 7, 2021. <https://www.reuters.com/business/media-telecom/three-chinese-telecom-companies-be-delisted-by-nyse-2021-05-07/>.

<sup>250</sup> The threat posed by the Chinese government and the Chinese Communist Party to the economic and national security of the United States. FBI, July 7, 2020. <https://www.fbi.gov/news/speeches/the-threat-posed-by-the-chinese-government-and-the-chinese-communist-party-to-the-economic-and-national-security-of-the-united-states>.

<sup>251</sup> National Security Strategy of the United States of America. The White House, December 18, 2018. <https://trumpwhitehouse.archives.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf>.

restrictions on Chinese students because of concerns over Chinese espionage.<sup>252</sup> In June 2020, the White House issued Proclamation 10043 aimed at suspending Chinese students and researchers' entry to the US out of the security concerns over their collusion with the Chinese government to steal US technologies for the PLA's modernization.<sup>253</sup> These restrictions continued into the Biden presidency,<sup>254</sup> and in the academic year alone, at least 500 Chinese students' visas were rejected due to national security concerns.<sup>255</sup>

In addition to tighter visa policy, the US Department of Justice's (DOJ) National Security Division also launched the China Initiative in response to Chinese espionage practice.<sup>256</sup> According to a survey by the Center for Strategy & International Studies, 160 cases of espionage directed at the US were reported between 2000 and 2021. Among them, 58 cases were reported by the DOJ under the Initiative. More than a third of all cases were filed after 2018. The sudden increase in the number of prosecutions demonstrates the US' effort in eliminating Chinese espionage.

At the same time, the FBI raided Chinese tech companies on several occasions for suspected espionage activities. For example, they reportedly raided Huawei a few times before its probe Pax Global in October 2021.<sup>257</sup> The FBI also conducted another raid on ZTE, though it was related to the company's violation of the US' sanctions on Iran.<sup>258</sup> US universities were also warned by the Bureau to closely scrutinize Chinese students starting 2019.<sup>259</sup>

The above discussions demonstrate that Chinese espionage has become a key US security

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<sup>252</sup> Zengerle, Patricia, and Matt Spetalnick. Exclusive: Fearing espionage, U.S. weighs tighter rules on Chinese students. Thomson Reuters, November 29, 2018. <https://www.reuters.com/article/us-usa-china-students-exclusive-idUSKCN1NY1HE>.

<sup>253</sup> Suspension of Entry as Nonimmigrants of Certain Students and Researchers From the People's Republic of China. Executive Office of the President, May 29, 2020. <https://www.federalregister.gov/documents/2020/06/04/2020-12217/suspension-of-entry-as-nonimmigrants-of-certain-students-and-researchers-from-the-peoples-republic>.

<sup>254</sup> Anderson, Stuart. Biden keeps costly trump visa policy denying Chinese grad students. Forbes Magazine, December 10, 2021. <https://www.forbes.com/sites/stuartanderson/2021/08/10/biden-keeps-costly-trump-visa-policy-denying-chinese-grad-students/>.

<sup>255</sup> Fu, Ting. Chinese students hit by US visa rejections amid tension. Associated Press, September 14, 2021. <https://apnews.com/article/technology-lifestyle-donald-trump-china-education-be7fc34757c7ed54d995ebe77772d461>.

<sup>256</sup> Information about the Department of Justice's china initiative and a compilation of China-related prosecutions since 2018. The United States Department of Justice, February 23, 2022. <https://www.justice.gov/nsd/information-about-department-justice-s-china-initiative-and-compilation-china-related>

<sup>257</sup> Salinas, Sara C. The FBI reportedly raided a Huawei Lab and set up a Sting at CES as part of a previously unrevealed investigation. CNBC, February 4, 2019. <https://www.cnbc.com/2019/02/04/third-fbi-huawei-investigation-includes-a-lab-raid-ces-sting-report.html>; Manekar, Sameer. "China's Pax Global Says FBI, Homeland Security Raided Subsidiary Office in Florida." Edited by Arun Koyyur. China's Pax Global says FBI, Homeland Security raided subsidiary office in Florida. Thomson Reuters, October 29, 2021. <https://www.reuters.com/technology/chinas-pax-global-says-fbi-homeland-security-raided-subsidiary-office-florida-2021-10-29/>.

<sup>258</sup> FBI 'probes' ZTE trade deals with Iran. BBC, July 13, 2012. <https://www.bbc.com/news/technology-18827211>.

<sup>259</sup> Feng, Emily. FBI urges universities to monitor some Chinese students and scholars in the U.S. NPR, June 28, 2019. <https://www.npr.org/2019/06/28/728659124/fbi-urges-universities-to-monitor-some-chinese-students-and-scholars-in-the-u-s>.

concern since late 2015.

## 8. Government Agencies Restructuring

To effectively execute policies on protecting national security, the US has correspondingly restructured and established government agencies in an effort to foster its own capability. In the National Defense Authorization Act (NDAA) for 2017, two positions, namely the Under Secretary of Defense for Research and Engineering (USD (R&E)) and Under Secretary of Defense for Acquisition and Sustainment (USD (A&S)), were created to accelerate and eliminate risks from modern technological innovation by allocating funds and directing programs effectively.<sup>260</sup>

In addition to the Department of Defense, supplementary funds and positions were also allocated to the National Science Funds to facilitate scientific research and innovation. Additionally, upon the passage of The US Innovation and Competition Act (S.1260), a Directorate for Technology, Innovation, and Partnerships will be formed to focus on advancing American research in areas including Artificial Intelligence, High-performance computing, semiconductors, quantum computing, robotics, advanced communication technology, cybersecurity, biotechnology, advanced materials science, as well as disasters prevention or alleviation,<sup>261</sup> to ensure US dominance in technology and economic gains.<sup>262</sup>

Aside from pursuing breakthrough in technological research, cross-sectored partnerships are to be enhanced for accelerating research and cultivating emerging industries of national importance.<sup>263</sup> An estimated US\$50 million was requested for building the Partnerships Office under the directorate for enhancing private-public research partnerships in 2022. Another extra US\$20 million was reserved for nurturing scientists to strengthen the connections between the market, government, and academic research.<sup>264</sup>

In April 2022, the Department of State also established the Bureau of Cyberspace and Digital Policy to address the US national security related to cyberspace, digital technology and relevant policy.<sup>265</sup>

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<sup>260</sup> Sargent Jr. and Gallo, “The Global Research and Development Landscape”, 16

<sup>261</sup> FY 2022 NSF Budget Request to Congress - Technology, Innovation, and Partnerships. US National Science Foundation, 2022. <https://www.nsf.gov/about/budget/fy2022/pdf/fy2022budget.pdf>.

<sup>262</sup> NSF Establishes New Directorate for Technology, Innovation and Partnerships. National Science Foundation, March 16, 2020. US National Science Foundation. [https://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=304624](https://www.nsf.gov/news/news_summ.jsp?cntn_id=304624).

<sup>263</sup> US National Science Foundation, “FY 2022 NSF Budget Request to Congress - Technology, Innovation, and Partnerships”

<sup>264</sup> Ibid.

<sup>265</sup> Establishment of the Bureau of Cyberspace and Digital Policy - United States Department of State. U.S. Department of State, April 4, 2022. <https://www.state.gov/establishment-of-the-bureau-of-cyberspace-and-digital-policy/>.

Notably, these key technology and research areas not only coincide with those of MIC2025, but the importance of private-public partnerships is also highlighted as China does.<sup>266</sup> Overall, with the structural changes in the DoD and the State Department since 2017, one may expect the US to be attempting to contain China's rise in technology.

In short, the US government has been proactively hindering China's pursuit for global technology leadership since late 2015. These measures included enhancing the US' R&D capacity in critical technologies, imposing export control, sanctions, anti-espionage prosecution, visa restrictions, and investment restrictions on Chinese technological companies.

However, despite China's engagement in espionage or financial misconduct for more than two decades, the US has only responded through actions involving its own government agencies, such as the Department of Treasury, DoD, DOJ, and FBI. Presumably, the US, as a power in relative decline, should be containing the rising power's emergence through multifarious approaches. The unilateral measures in a wide policy scope administered by the numerous US government agencies are evidence that the US hoped to contain China's economic, technological, and military rise as planned in its MCF Strategy. These policies mainly focused on denying China's access to raw materials and technologies for production and innovation via import, espionage, and investment. Simultaneously, the US government has also dedicated more resources, such as additional funds, new government agencies, and extra headcounts, into enhancing its own R&D and manufacturing capability, so as to widen the power parity between US and China in terms of technology, economic, and military capacity.

Furthermore, unilateral policies have been used by the US as a yardstick or a model for the US-led bloc's policies since the Cold War. For instance, the CoCom lists were based on the US' CCL list. Other close allies, such as the UK, France, Germany, and Japan also adopted unilateral measures against the USSR in technological areas like the US. Therefore, it is sensible to adopt the similarity between the US and its allies' domestic policy scopes as a benchmark for assessing the US-allies cooperation. Certainly, in addition to containing China's rise through its unilateral policies, the scope of bilateral alongside multilateral cooperation between the US and its allies would be another indicator of the degree to which the US' allies would like to work with the US. Based on previous assumptions, the US' allies would be willing to adopt similar policies as the US while working closely in various policy areas to support the US in deterring China's dominance for its national security, and vice versa.

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<sup>266</sup> Ibid.



## COOPERATION WITH OTHER DEMOCRATIC STATES AGAINST CHINA'S RISE

Despite the importance of unilateral measures in slowing down China's rise in technological innovation, the US' success still hinges on its cooperation with its allies. Over the years, the US has been cooperating with its allies through sharing of military intelligence, technology transfer, and R&D programs, so the US would definitely unite its allies in response to the Chinese's espionage of military and economic secrets. In general, the US engages its allies through verbal warnings, intergovernmental dialogues, R&D cooperation, arms procurement deals, and establishing multinational cooperation.

### 1. Diplomatic Persuasion

The Trump administration was reportedly pressuring allies to get rid of Chinese telecommunications devices in their state by verbal warning in January 2019 after he declared a national economic emergency aiming to get rid of Huawei, ZTE, and other Chinese telecommunication components.<sup>267</sup> Echoing his boss, Secretary of State Mike Pompeo also warned the US' European allies to drop Huawei and ZTE for protecting their national security in an op-ed to Politico Europe.<sup>268</sup> The US also focused on persuading a few specific states, such as Germany,<sup>269</sup> Hungary,<sup>270</sup> the Philippines,<sup>271</sup> Israel and Switzerland,<sup>272</sup> EU member states,<sup>273</sup> and NATO members<sup>274</sup> to do the same thing throughout the year. Pompeo even embarked on a tour to Central Europe for the same purpose in August 2020.<sup>275</sup> In November 2019, Chief Technology Officer of the US, Michael Kratsios, also censured the US' allies for "open(ing) their arms" to Chinese technology.<sup>276</sup> However, the US has not put into action its

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<sup>267</sup> Lovelace, Berkeley. "Trump Administration Reportedly Pushing Allies to Bar China's Huawei in Race for 5G Networking." Trump administration reportedly pushing allies to bar China's Huawei in race for 5G networking. CNBC, January 28, 2019. <https://www.cnbc.com/2019/01/27/trump-reportedly-pushes-allies-to-bar-chinas-huawei-in-race-for-5g.html>.

<sup>268</sup> Bowden, John. Pompeo warns Europe against letting 'Chinese tech giants' build 5G networks. The Hill, December 2, 2019. <https://thehill.com/policy/international/472576-pompeo-warns-european-countries-against-letting-chinese-tech-giants>.

<sup>269</sup> Atwood, Kylie, and Nicole Gouette. US warns Germany that using Huawei Tech will come at a cost. Cable News Network, March 12, 2019. <https://www.cnn.com/2019/03/11/politics/us-germany-huawei-letter/index.html>.

<sup>270</sup> Auto, Hermes. Pompeo warns allies huawei presence complicates partnership with US. The Straits Times, February 12, 2019. <https://www.straitstimes.com/world/united-states/pompeo-warns-allies-huawei-presence-complicates-partnership-with-us>.

<sup>271</sup> Petty, Martin, Neil Jerome Morales, and Karen Lema. "Pompeo Says World Should Have Eyes Wide Open about Chinese Tech Risks." Edited by Simon Cameron-Moore. Pompeo says world should have eyes wide open about Chinese tech risks. Thomson Reuters, March 1, 2019. <https://www.reuters.com/article/us-philippines-usa-technology-china-idUSKCN1QI3FV>.

<sup>272</sup> Pompeo warns Switzerland about China ties. Swiss Broadcasting Corporation SRG SSR, June 4, 2019. <https://www.swissinfo.ch/eng/security-risk-pompeo-warns-switzerland-about-china-ties/45008320>.

<sup>273</sup> Emmott, Robin. U.S. warns European allies not to use Chinese gear for 5G networks. Thomson Reuters, February 5, 2019. <https://www.reuters.com/article/us-usa-china-huawei-tech-eu-idUSKCN1PU1TG>.

<sup>274</sup> Seldin, Jeff. NATO members risk losing US Intel over China tech. VOA, April 5, 2019. <https://www.voanews.com/a/nato-members-risk-losing-us-intel-over-china-technology/4862522.html>.

<sup>275</sup> Pompeo kicks off Central Europe Tour, Huawei Dominates Agenda. Al Jazeera, August 11, 2020. <https://www.aljazeera.com/news/2020/8/11/pompeo-kicks-off-central-europe-tour-huawei-dominates-agenda>.

<sup>276</sup> Waldersee, Victoria. U.S. official criticizes countries 'opening their arms' to Chinese 5G. Thomson Reuters, November 7, 2019. <https://www.reuters.com/article/us-portugal-websummit-kratsios-idUSKBN1XH2PJ>.



repeated warnings to allies who continued using Chinese telecommunication gears of denying their access to American intelligence.

The repeated warnings from the US were met with cold response from its European allies. As reported by the Deutsche Welle in May 2019, the Netherlands, Germany, and France did not plan to follow the US' restriction on Chinese-manufactured devices.<sup>277</sup> The UK even published a report rebutting the US' claim, saying that security threats posed by Chinese telecommunication components are manageable. Clearly, the US' effort in lining up its allies against China was less yielding than that during the Cold War against USSR. The specific response by selected allies will be discussed in the upcoming chapters.

## 2. Research and Development (R&D) Partnership

In addition to verbal or diplomatic persuasion, the US and its allies also sought to collaborate in R&D projects to provide more options for replacing Chinese products while counteracting the Chinese's dominance in the technology area. Specifically, the US announced a partnership with Japan to produce items like quantum computer, rare-earth minerals, 6G network, and nuclear technology. The US also formed the AUKUS with Australia and the UK to design a new nuclear-powered submarines series, quantum technologies, artificial intelligence, and cyber capabilities. Since these bi-/trilateral projects shared similar goals with MIC2025, showing that the US' effort in engaging allies through research is a response to China's ambition in dominating global technology.

## 3. Intergovernmental Dialogues

Another action taken by the US was to participate in different intergovernmental dialogues for better coordination with its allies. Aside from the QUAD and AUKUS, the US also formed alliances with individual states. For example, the US and Taiwan had co-hosted the Taiwan-US Defense Business Forum for many years. Despite being called a business forum, the themes and personnel involved might have some implications on the US-Taiwan alliance. For example, topics of discussion in the forum covered security issues that ranged from US-Taiwan response to the Chinese intrusion into the Taiwan Air Defense Identification Zone (ADIZ) to the future of the US-Taiwan alliance. Those attending included Taiwan's President Tsai-In Wen and Rupert Hammond-Chambers, president of the US-Taiwan Business Council - an organization involved in US-China business.<sup>278</sup> These show the significance of the forum in

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<sup>277</sup> EU leaders: We won't follow Trump's Huawei ban. Deutsche Welle, May 16, 2019. <https://www.dw.com/en/eu-leaders-we-wont-follow-trumps-huawei-ban/a-48768000>.

<sup>278</sup> The current staff at the US-taiwan business council (USTBC). US Taiwan Business Council (USTBC), January 10, 2021. <https://www.us-taiwan.org/ustbc-staff/>.

fostering US-Taiwan defense and tech cooperation.<sup>279</sup>

Another example of multilateral platforms created by the US is the Clean Network program, which was created in 2020 and comprises over 30 states, including the UK, Czech Republic, Poland, Sweden, Estonia, Romania, Denmark, and Latvia. In addition to abandoning Huawei and other Chinese-based telecommunications firms, these states agreed to intensify their coordination in safeguarding democratic states' data privacy, security, human rights.<sup>280</sup> The US even claimed the program aims to deter 'aggressive intrusions by malign actors, such as the Chinese Communist Party.'<sup>281</sup> Therefore, China's threat to the US' technological security might be a driver for the creation of the program. The US-EU Trade and Technology Council was also established by the US in October 2021 to lubricate US, EU, and other stakeholders' collaboration for better transatlantic cooperation.

#### EVALUATION ON THE US-ALLIES COOPERATION

Despite states' participation in the consultation and inter-governmental dialogue, these platforms were not comparable to the CoCom formed during the Cold War for a few reasons. First, unlike the CoCom, which had legal authority over its members, these organizations only served as a platform for consultation and cooperation. As such, parties not thoroughly complying with the rules were not subject to any penalty. Second, these organizations' regulations might not closely follow the US' domestic policies. In the Cold War era, the CoCom entity list and export rules were highly similar to the US' CCL List. However, common regulations were not explicitly established in these organizations, let alone adoption of the US' standard. Finally, consistency was low among the US and its allies' technology policies against China in terms of their varied policy scope and time of implementation.

US Secretary of State Antony Blinken told NATO members in a speech that the US would not force allies into a dilemma of choosing between 'us or them'.<sup>282</sup> Why would the US not to coerce allies into following its policies? What made the Japanese so active in engaging with the US allies? Why would, in comparison to the Cold War, the number of bilateral cooperation outnumber that of multilateral cooperation? These will be the core issues that will be addressed in this thesis in explaining what determines the US' cooperation with the allies. Simply put, differentiation in the magnitude of security threat brought by China to the US' allies would

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<sup>279</sup> "US-Taiwan Defense Industry Conference 2021." US-Taiwan Defense Industry Conference 2021. US-Taiwan Business Council (USTBC). Accessed June 1, 2022. <https://www.taiwandefenseconference.com/>.

<sup>280</sup> "The Clean Network - U.S. Department of State." U.S. Department of State. U.S. Department of State, January 17, 2021. <https://2017-2021.state.gov/the-clean-network/index.html>.

<sup>281</sup> Ibid.

<sup>282</sup> Emmott, Robin. U.S. won't force NATO allies into 'us or them' choice on China. Thomson Reuters, March 24, 2021. <https://www.reuters.com/article/us-usa-blinken-nato-china-idUSKBN2BG1KC>.

drive these states to be aware of their relative gains in national security over their absolute gains in the economy from cooperating with China. In other words, since the US is another dominant power in a bipolar system, other relatively less powerful US allies would choose to work with the US for their national security.

## SUMMARY

Although the US had realized China's threat to its national security, especially military technology, as early as in the 2000s, consistent and systematic domestic policies were only introduced since 2016 as a response. Consistent policies concerning domestic technology and innovation enhancement, Chinese supply reliance reduction, export control, procurement prohibition, investment restriction, and espionage prevention were adopted in the Trump era. Despite efforts in convincing its allies to cooperate in responding to the threat of China, these states, in general, were only mildly positive in their response to the US.

Based on the information discussed in this chapter, a few questions regarding the US-allies cooperation on technology remain to be answered in this thesis. They include:

1. Why did the US only start to formulate systematic policies to contain the rise of China in the Trump era?
2. What determined the extent to which the allies cooperate with the US?
3. Why would the US be more likely to adopt bilateral rather than multilateral approach?
4. What made Japan especially active in collaborating with other democratic states, such as Australia, India, the UK, and France?

## 5. JAPAN'S DILEMMA: ECONOMIC GAINS FROM CHINA OR SECURITY FROM THE US?

Similar to its most powerful ally, the US, Tokyo's foreign policy has been dominated by the balance of threat mentality. In face of the security threat from the USSR during the Cold War, Japan worked closely with the US-led capitalist bloc to contain the rise of the Soviets. Presently, Japan is very concerned about the security threat posed by a rising China, and has been paying great attention on the relative gains issue in its economic ties with China. Japan's concerns over its relative gains and willingness in balancing China are reflected by its strict unilateral policies defending its economic security and close cooperation with the US. This chapter aims to discuss the direct security rivalry between Japan and China, and policy consistency between Japan and the US. It will also be shown that Japan's alliance with the US has remained strong due to their shared needs to balance the security threat brought by China.

### POST-WAR JAPANESE-US ALLIES

During the occupation by SCAP after the Second World War, Japan was forced to renounce its sovereign right of war-waging and army establishment. Even during the Korean War, Japan was only allowed to own a JSDF under the SCAP's supervision. In other words, Japan, in theory, did not have any military power to defend itself, and must rely on the US for its national security. As such, the US was, and is still, entitled to station its army in Japan, even after the Japanese recovered their sovereignty as stated in the US-Japanese Mutual Security Pact. Therefore, the US has a role in Japan's national security.

Considering the international environment and with encouragement from the US, Japan, under the Yoshida Doctrine, determined to focus on economic development while relying on the US for national security. In consequence, the US-Japanese security alliance was formed. Since then, Japan's alliance with the US has become closer, especially when the rise of China started to be considered as a security threat to Japan in the 1990s, and the 'China Threat Theory' became popular in the state.

However, the rise of China has also led to the state becoming a global economic powerhouse, resulting in Japan forming close economic and trade relations with China and Japanese corporations moving their production to China. By 2015, China had even overtaken the US to become Japan's greatest trading partner. Some scholars coined the term 'Chimerica' to describe the Japanese's dilemmatic approach of cooperating with China for economic gains and cooperating with the US for security. Yet, as China becomes more powerful, Japan, as the US ally with the greatest direct security rivalry with China, has been paying more and more attention on its relative gains from China, leading to the implementation of policies to defend

its relative gains at the expense of its absolute gains from China.

## JAPAN-CHINA SECURITY RIVALRY

Japan has had a long-standing security rivalry with China regarding sovereignty over the Senkaku Islands and the East China Sea, in addition to the Taiwan Strait issue. Since Japan, in theory, is a sovereign state without a military and nuclear weapon, Beijing's military build-up and modernization would pose a great security threat to Tokyo, based on the realist theory emphasizing the importance of security. Therefore, *prima facie* on simmering Chinese threat to Japan should be discussed before an examination of the Japan-US alliance.

### 1. East China Sea and the Senkaku Islands Dispute

As mentioned in the previous part, the historical territorial dispute over the Senkaku Islands has forced Japan to view China as a threat, especially when both states are involved in series of diplomatic conflicts and military stand-off since 2010.

On 7 September 2010, the crew of a Chinese fishing boat was held in custody after clashing with a Japanese Coast Guard vessel. Afterwards, China imposed export control of rare earth minerals and arrested four Japanese for intruding a Chinese military facility.<sup>283</sup> In response to the Chinese's action, the Japanese government announced its purchase of three uninhabited islands in the Senkaku Island group with US\$26 million. Accusing Tokyo's action as 'okaying fire', Beijing sent two patrol vessels near the islands. Small-scale uproars also took place in Beijing, Weihai, and Chongqing.<sup>284</sup>

In 2014, the PRC established a self-proclaimed "East China Sea Air Defense Identification Zone" that included the Senkaku Islands, and required all aircrafts passing through the zone to submit their flight plan and radio information. The Chinese government further stepped up its action in 2021 by amending a law to allow Chinese Coast Guard members to use weapons against foreign vessels that refuse to follow the Coast Guard's instruction beginning 1 February 2021.<sup>285</sup> By June 2021, Chinese ships were reported to have sailed near the Senkaku

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<sup>283</sup> Timeline: China's maritime disputes. Council on Foreign Relations. Accessed June 6, 2022. <https://www.cfr.org/timeline/chinas-maritime-disputes>; Drifte, Reinhard. "The Japan-China Confrontation over the Senkaku/Diaoyu Islands – between 'Shelving' and 'Dispute Escalation.'" *The Japan-China Confrontation Over the Senkaku/Diaoyu Islands – Between "shelving" and "dispute escalation"* 尖閣・釣魚諸島をめぐる日中対立 棚上げと激化のあいだとは. *The Asia Pacific Journal*, July 27, 2014. <https://apjif.org/2014/12/30/Reinhard-Drifte/4154/article.html>.

<sup>284</sup> Takenaka, Kiyoshi. Japan buys Disputed Islands, China sends patrol ships. Thomson Reuters, September 11, 2012. <https://www.reuters.com/article/us-japan-china-idUSBRE88A0GY20120911>.

<sup>285</sup> Funakoshi, Takashi, Shun Niekawa, Yoshitaka Ito, and Daizo Teramoto. "New Chinese Law Raises Pressure on Japan around Senkaku Islands: The Asahi Shimbun: Breaking News, Japan News and Analysis." *New Chinese law raises pressure on Japan around Senkaku Islands*. *The Asahi Shimbun*, February 24, 2021. <https://www.asahi.com/ajw/articles/14216374>.

for 112 consecutive days.<sup>286</sup> Chinese Coast Guard ships were also sighted in the disputed waters.<sup>287</sup>

The incident prompted the Japanese to respond to China's expansion. Prime Minister Shinzo Abe attempted to counterbalance China by revising the Peace Constitution and strengthening Japan's alliance with the US while denying China's request to 'shelf the dispute'. Prime Minister Yoshihide Suga even told the Lower House that the Japanese Coast Guard would react 'calmly and firmly' towards intruding Chinese ships.<sup>288</sup>

A meeting held on 11 November 2011 between Takehiro Funakoshi, Head of the Asian and Oceanian Affairs Bureau of the Japanese Foreign Ministry and Hong Liang, Director General of the Boundary and Ocean Affairs Department of the Chinese Foreign Ministry, yielded no result, as Hong merely urged Funakoshi not to complicate the situation when the latter raised concerns over China's increasing military activity in the East China Sea.<sup>289</sup> With its key role in maintaining Japan's security, the US DoD corroborated the Japanese's sovereignty over Senkaku on 25 February 2021<sup>290</sup> and backed it up with a joint military exercise with Japan aimed at defending Senkaku one month later.<sup>291</sup>

The security threat created by China's actions regarding the Senkaku Islands had shaped the Japanese's response to the dispute and motivated them to strengthen their relationship with the US for greater security against China.

## 2. Taiwan Strait

The Japanese Ministry of Defense identified the Taiwan Strait as one of Japan's security concerns, warning in its 2021 Defense White Paper that conflicts in the Strait would pose a major threat to Japan's national security.<sup>292</sup> In face of the increasing threat from China to

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<sup>286</sup> Kobara, Junnosuke. Chinese ships sail near Senkaku Islands for record 112 days straight. Nikkei Asia, June 4, 2021. <https://asia.nikkei.com/Politics/International-relations/Chinese-ships-sail-near-Senkaku-Islands-for-record-112-days-straight>.

<sup>287</sup> Two Chinese government ships enter Japan's waters: NHK world-japan news. NHK WORLD, January 31, 2022. [https://web.archive.org/web/20220131060802/https://www3.nhk.or.jp/nhkworld/en/news/20220131\\_18/](https://web.archive.org/web/20220131060802/https://www3.nhk.or.jp/nhkworld/en/news/20220131_18/).

<sup>288</sup> Funakoshi, Niekawa, Ito and Teramoto, "New Chinese Law Raises Pressure on Japan around Senkaku Islands"  
<sup>289</sup> Japan voices concerns over China's increasing military activities. KYODO NEWS+, November 11, 2021. <https://english.kyodonews.net/news/2021/11/f52021ae0516-japan-voices-concerns-over-chinas-increasing-military-activities.html>.

<sup>290</sup> Nagasawa, Tsuyoshi, and Masaya Kato. US supports Japan's sovereignty over Senkakus: Pentagon. Nikkei Asia, February 24, 2021. <https://asia.nikkei.com/Politics/International-relations/Biden-s-Asia-policy/US-supports-Japan-s-sovereignty-over-Senkakus-Pentagon>.

<sup>291</sup> Kobara, Junnosuke. "Japan and US to Conduct Joint Drills for Senkaku Defense." Japan and US to conduct joint drills for Senkaku defense. Nikkei Asia, March 20, 2021. <https://asia.nikkei.com/Politics/International-relations/Japan-and-US-to-conduct-joint-drills-for-Senkaku-defense>.

<sup>292</sup> Jennings, Ralph. "Japan Talks of Defending Taiwan against China Aggression." VOA. Japan Talks of Defending Taiwan Against China Aggression, July 26, 2021. [https://www.voanews.com/a/east-asia-pacific\\_japan-talks-defending-taiwan-against-china-aggression/6208742.html](https://www.voanews.com/a/east-asia-pacific_japan-talks-defending-taiwan-against-china-aggression/6208742.html).

Taiwan, such as frequently sending fighters and warships near Taiwan,<sup>293</sup> Japanese Deputy Prime Minister Taro Aso stated that Japan would join the US in defending the island. In fact, according to the Japanese Air SDF, there had been over 700 cases of PLA aircrafts nearing Japan's ADIZ within seven months, showing the threat posed by China on Japan.<sup>294</sup>

In addition to China's aggressive actions, Japan would probably be dragged into conflicts in the Taiwan Strait due to its geographical proximity. Japan's Yonaguni Island, on which American soldiers are stationed, is just less than 10 miles from Taiwan. More importantly, as the American ally closest to Taiwan, the Japanese would be expected to send reinforcements. Thus, in view of China's expansionist actions, Japan's geographical proximity to Taiwan and position as an US ally in the region would be inevitably cause the Japanese to be involved in any conflict in the Taiwan Strait. In other words, an emerging China is indeed a security threat to the Japanese.<sup>295</sup>

### 3. Military Construction and Modernization

Apart from territorial disputes, China's military modernization since 2010 has also raised the Japanese's alertness. According to the China Security Report 2010, China was said to have enhanced its military capability with increased military spending in the last two decades, thanks to its economic achievements. Also, the weapons displayed on the 60<sup>th</sup> Anniversary of the Establishment of the PRC parade, such as amphibious vehicles, J-10 aircraft fighters, DF-31A intercontinental ballistic missiles, and DH-10 long-range cruise missiles were evidence of China's ambitions in modernizing its army.<sup>296</sup>

The Japanese government views China's military compilations as aiming to settle the Taiwan Strait issue, territorial disputes with other surrounding states, especially in the South China Sea, the Senkaku Islands, and the Yellow Sea.<sup>297</sup> Several incidents were cited to substantiate the Japanese's threat perception, including China's response to the exclusive economic zone in the South China Sea, seizing of non-Chinese vessels, menacing of vessels belonging to other

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<sup>293</sup> Kuhn, Anthony. After being silent for decades, Japan now speaks up about Taiwan - and angers china. NPR, August 2, 2021. <https://www.npr.org/2021/07/26/1020866539/japans-position-on-defending-taiwan-has-taken-a-remarkable-shift>.

<sup>294</sup> Tiwari, Sakshi. "Exhausting Japanese Air Force, Chinese, Russian Incursions Forced Tokyo to Scramble Its Fighters over 700 Times in 9 Months." Exhausting Japanese Air Force, Chinese, Russian Incursions Forced Tokyo To Scramble Its Fighters Over 700 Times In 9 Months. The EurAsian Times, January 27, 2022. <https://eurasianimes.com/exhausting-japanese-air-force-chinese-russian-incursions-tokyo/>.

<sup>295</sup> Kuhn, Anthony. After being silent for decades, Japan now speaks up about Taiwan - and angers china. NPR, August 2, 2021. <https://www.npr.org/2021/07/26/1020866539/japans-position-on-defending-taiwan-has-taken-a-remarkable-shift>.

<sup>296</sup> Rep. *NIDS China Security Report*. 2. National Institute of Defense Studies, 2022. [http://www.nids.mod.go.jp/english/publication/chinareport/pdf/china\\_report\\_EN\\_4C\\_A01.pdf](http://www.nids.mod.go.jp/english/publication/chinareport/pdf/china_report_EN_4C_A01.pdf).

<sup>297</sup> Rep. *NIDS China Security Report*. 3-4. National Institute of Defense Studies, 2022. [http://www.nids.mod.go.jp/english/publication/chinareport/pdf/china\\_report\\_EN\\_4C\\_A01.pdf](http://www.nids.mod.go.jp/english/publication/chinareport/pdf/china_report_EN_4C_A01.pdf).

governments, repeated military drills in the South China Sea, and most notably, the vigorous responses to the Japan Coast Guard. These events led to the publication of the Japanese China Security Report since 2010.<sup>298</sup>

In the 2016, 2019, and 2021 versions of the Defense White Paper,<sup>299</sup> it was noted that China's enhancement of military capability and focus on maritime development had upset the regional military and security balance.<sup>300</sup> The introduction of the 'Chinese Dream' and promotion of 'Revolution in Military Affairs with Chinese Characteristics' were also deemed as indicators of China's subscription of relating military, political, diplomatic, economic, cultural, and legal endeavours.<sup>301</sup> Based on Japan's assessment of China's military capability and intention, Beijing's policy in military capability enhancement might allow China to play an upper hand in its territorial disputes and shape its behaviour within the region.

Facing such regional security challenges, Nobuo Kishi, Japan's Minister of Defense, took to cooperating with the US in the Indo-Pacific region as a response.<sup>302</sup> He specifically mentioned in his statement that 'cooperation with the United States, our only ally, is of paramount importance', showing Japan's willingness to work closely with the US.<sup>303</sup> Domestically, discussion on revising Article 9 of the constitution<sup>304</sup> and year after year of record-breaking national defense budget, especially for military technology R&D projects,<sup>305</sup> could both be explained by China's assertiveness in the region.

The threat posed by China's military modernization could also account for Japan's tightening of its technology export policy and such policy's consistency with its US counterpart. This is also a reflection of the closeness between the US and Japan and the role Japan played in the cooperation with other regional powers. In the following section, a comprehensive comparison between the similarity between the American and Japanese technology export policy in terms of the policy scope will be conducted.

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<sup>298</sup> Ibid.

<sup>299</sup> Kelly, Tim. Japan lists China as bigger threat than nuclear-armed North Korea. Thomson Reuters, September 27, 2019. <https://www.reuters.com/article/us-japan-defence-idUSKBN1WC051?fbclid=IwAR3YICrA8ev2IGaCI3LT0oj4WzOEji-VsAXvN9Ba70LhuI5mMHnFitr-bY>.

<sup>300</sup> "Defense of Japan (Annual White Paper)." Defense of Japan 2021, 2. Japan Ministry of Defense, 2021.

<sup>301</sup> "Defense of Japan (Annual White Paper)." Defense of Japan 2021, 43. Japan Ministry of Defense, 2021. [https://www.mod.go.jp/en/publ/w\\_paper/wp2021/DOJ2021\\_EN\\_Full.pdf](https://www.mod.go.jp/en/publ/w_paper/wp2021/DOJ2021_EN_Full.pdf)

<sup>302</sup> "Defense of Japan (Annual White Paper)." Defense of Japan 2021, 3-4. Japan Ministry of Defense, 2021. [https://www.mod.go.jp/en/publ/w\\_paper/wp2021/DOJ2021\\_EN\\_Full.pdf](https://www.mod.go.jp/en/publ/w_paper/wp2021/DOJ2021_EN_Full.pdf)

<sup>303</sup> Ibid.

<sup>304</sup> Associated Press. Japan ruling party renews its push to revise pacifist constitution: The Asahi Shimbun: Breaking News, Japan news and analysis. The Asahi Shimbun, May 12, 2021. <https://www.asahi.com/ajw/articles/14346719>.

<sup>305</sup> Reito, Kaneko. Japan's defense budget for 2022 hits record for Eighth Year. The Japan Times, December 24, 2021. <https://www.japantimes.co.jp/news/2021/12/24/national/defense-budget-record/>.



## COMPARISON BETWEEN THE US AND JAPANESE UNILATERAL TECHNOLOGY EXPORT POLICY

Of the states studied in this research, Japan's unilateral technology export policy is said to be the most comprehensive and most closely following the US in terms of its policy scope. Major similarities include strengthening domestic technological capability, restricting China's investment, tightening export control, taking actions against espionage, reducing reliance on China, visa restriction, and establishing new government agency. Japan is the most willing to sacrifice its absolute gains from China for its relative gains and national security, because it has long considered China as the greatest security threat and paid the greatest attention on its relative gains from China among all US allies.

### 1. Strengthening Domestic Technological Capability

Another action taken by Japan in response to China's effort in modernizing the PLA for expansion and the lingering Sino-Japanese geographical and historical tension in the East China Sea is to boost its military industry's technological invention capability by channeling supplementary funds for new R&D projects. This can be observed from the types of technology targeted, increased number of institutions eligible for subsidies, and overall military expenses, which had hit record high for six consecutive years since 2013.<sup>306</sup>

In 2013, the newly formed Abe administration, amid tension with China over the East China Sea, demanded an extra 100 billion yen for Japan's military budget. Foreign Minister Fumio Kishida revealed that the extra spending would be used to develop a new radar system, buy fuel, and settle other maintenance cost.<sup>307</sup> A year later, the military budget had risen to USD\$160 billion, or an increase of 3.5% over 2014.<sup>308</sup> According to reports, the money was mainly used for deterring threats from China and North Korea.<sup>309</sup> By 2017, the military budget had expanded to USD\$48 billion, with portions of the money used for sponsoring missile development funds, hypersonic missiles, and missile range extension. As the Ministry of Defense told Reuters, the goal of the research projects was to enhance the defense of the Okinawan island chains in the East China Sea. This is evidence that China's security threat in the East China Sea is a motivator for the Japanese to put extra effort into domestic military

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<sup>306</sup> Defense outlays see first rise in 11 years. The Japan Times, January 29, 2013. <https://www.japantimes.co.jp/news/2013/01/30/national/politics-diplomacy/defense-outlays-see-first-rise-in-11-years/>.

<sup>307</sup> Torode, Greg, and Raissa Robles. Japan increases military budget amid tension with Beijing. South China Morning Post, June 20, 2018. <https://www.scmp.com/news/asia/article/1123359/japan-increases-military-budget-amid-tension-beijing>.

<sup>308</sup> Kelly, Tim, and Nobuhiro Kubo. Japan seeks funds to boost missile ranges days after North Korea threat. Thomson Reuters, August 31, 2017. <https://www.reuters.com/article/us-japan-defence-budget-idUSKCN1BB0DH>.

<sup>309</sup> Westbrook, Laura. Japan Defence Ministry makes largest-ever budget request. BBC News, August 29, 2014. <https://www.bbc.com/news/world-asia-28978322>.

technology R&D projects.<sup>310</sup>

After Abe's successor, Suga, took office, the overall military budget was already up to US\$51.7 billion,<sup>311</sup> with a certain portion of the money being allocated to R&D projects for a long-range anti-ship missile and a new fighter jet developed by Mitsubishi and Lockheed Martin.<sup>312</sup> As explained by Suga's government, the budget increase would allow Japan to expand missile deployment in areas including islands it controls in the East China Sea that are also claimed by Beijing.<sup>313</sup>

The administration of Suga's successor, Kishida, approved a budget that included a surge in expenditure on R&D to 37.6% of the total defense expense. Projects related to satellites, lasers, and hypersonic weapons would be launched.<sup>314</sup> In the latest military budget plan, the Kishida government continued to allocate more resources to research, especially on hypersonic weapons, which both Russia and China already had a head start, and high-powered microwaves technology designed for shooting down drones.<sup>315</sup> Defense Minister Nobuo Kishi admitted that it is China's military activity that motivated Japan to improve its military technology and forced the government to demand for extra funding so as to respond to China's threat.<sup>316</sup>

Apart from the national defense spending, the Japanese government has also encouraged universities and private corporations to carry out R&D projects on technologies that China had been developing. In May 2021, the Japanese government was reported to be enhancing its domestic semiconductor production and R&D on advanced semiconductors by appropriating 200 billion yen (US\$1.8 billion) to a fund for chipmakers<sup>317</sup>. In addition, another 100 billion yen was dedicated to another fund for facilitating local research on advanced technology, such as 5G, artificial intelligence, biotechnology, robotics, big data and semiconductors, and economic security.<sup>318</sup> This fund, managed by the Cabinet Office, Ministry of Economy, Trade,

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<sup>310</sup> Kelly and Kubo, "Japan seeks funds to boost missile ranges"

<sup>311</sup> Yamaguchi, Mari. "Japan Cabinet Oks More Defense Funds amid Potential Threats." AP NEWS. Associated Press, December 21, 2020. <https://apnews.com/article/technology-yoshihide-suga-north-korea-national-budgets-china-af175b243f0419e724eb7c7ef0efd8bb8>.

<sup>312</sup> Kelly, Tim. Japan sets record \$52 billion military budget with stealth jets, long-range missiles. Thomson Reuters, December 21, 2020. <https://www.reuters.com/article/japan-defence-budget-idUSKBN28V03X>.

<sup>313</sup> Yamaguchi, "Japan Cabinet Oks More Defense Funds"

<sup>314</sup> Takenaka, Kiyoshi. Japan plans record defence spending in 2022 with 10th straight annual increase. Thomson Reuters, December 24, 2021. <https://www.reuters.com/world/asia-pacific/japan-plans-record-defence-spending-2022-with-10th-straight-annual-increase-2021-12-24/>.

<sup>315</sup> Reito, "Japan's defense budget for 2022"

<sup>316</sup> Takenaka, Kiyoshi, and Yoshifumi Takemoto. Japan plans record extra defence spending as China threat eyed. Thomson Reuters, November 19, 2021. <https://www.reuters.com/world/asia-pacific/japan-plans-record-67-bl-plus-defence-spending-extra-budget-kyodo-2021-11-18/>.

<sup>317</sup> Miki, Rieko, Takashi Tsuji, and Kosuke Takeuchi. Japan to pour cash into domestic chipmaking, following US and China. Nikkei Asia, May 18, 2021. <https://asia.nikkei.com/Business/Tech/Semiconductors/Japan-to-pour-cash-into-domestic-chipmaking-following-US-and-China>.

<sup>318</sup> Japan to set up Advanced-Tech Fund with eye on economic security. Nikkei Asia, October 16, 2021.

and Industry, Ministry of Education, Culture, Sports, Science and Technology, and the National Security Secretariat, would provide money for eligible universities and corporations to conduct R&D and applications of technology deemed to be important.<sup>319</sup> This was followed by a promise to establish a university fund in a bid to increase research on clean energy.<sup>320</sup> Thus, both the Abe and Kishida administrations were determined enough to financially support local R&D through subsidies and programs.

Another significant point is that the 2021 military budget particularly highlighted the application of civilian technologies in the military domain. Apart from promoting research at tertiary institutions, around 800 million yen would be utilised for applying technologies, such as artificial intelligence (AI), to military operation, making civilian-military technology a key effort in promoting the Japanese technology capability.<sup>321</sup>

From the discussion in this section, it is clear that the Japanese has followed the US closely in terms of its policy on R&D, as more funding is offered to different institutions to perform research projects on a great spectrum of military technologies because of the threat from China.

## 2. Reducing Reliance on China along Japanese Supply Chain

Apart from improving its own capabilities, the Japanese government has also attempted to both unilaterally and multilaterally exclude China from its supply chain to avoid forced technology transfer and espionage for ultimate economic security.

Rare earths have long been considered as a strategic commodity as they are the raw materials for producing semiconductors and ships. Japan imports more nearly 60% of its rare earths from China, implying that China could easily disrupt Japan's economic security by imposing export restrictions, which China did in 2010 for two months due to the arrest of a Chinese fishing boat captain in the East China Sea by Japan.<sup>322</sup> In the view of China's potential embargo on rare earth export, the Japanese government started to search for new rare earth mines overseas to ensure stable supply.<sup>323</sup>

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<https://asia.nikkei.com/Business/Technology/Japan-to-set-up-advanced-tech-fund-with-eye-on-economic-security>.

<sup>319</sup> Ibid.

<sup>320</sup> Kajimoto, Tetsushi. Japan unveils \$88 BLN University Fund in growth strategy. Thomson Reuters, November 8, 2021. <https://www.reuters.com/world/asia-pacific/japan-panel-urges-govt-launch-88-bln-university-fund-2021-11-08/>.

<sup>321</sup> Defense Programs and Budget of Japan Overview of FY2021 Budget. Japan Ministry of Defense, December 2020. [https://www.mod.go.jp/en/d\\_act/d\\_budget/index.html](https://www.mod.go.jp/en/d_act/d_budget/index.html).

<sup>322</sup> China resumes rare earth exports to Japan. BBC News, November 24, 2010. <https://www.bbc.com/news/business-11826870#:~:text=China%20has%20begun%20exporting%20rare,tech%20products%2C%20started%20this%20week>.

<sup>323</sup> Ryall, Julian. Japan moves to secure rare earths to reduce dependence on China. South China Morning Post, August 17, 2020. <https://www.scmp.com/week-asia/politics/article/3097672/japan-moves-secure-rare-earths->

In addition to lowering its reliance on Chinese rare earths, the Japanese government also began sponsoring Japanese who wished to relocate back home from June 2020. The pandemic might be one of the reasons, but more importantly, it was a move to safeguard national security. The Ministry of Economy, Trade and Industry and Minister for Economic and Fiscal Policy Yasutoshi Nishimura had both warned of Japan's vulnerability because of its reliance on China.<sup>324</sup>

In early 2022, the government was reported to be planning to provide subsidies to companies developing or producing chips, batteries, and other strategic materials in a bid to reduce Japan's reliance on China.<sup>325</sup>

Japan's measures to minimize its dependence on China are similar to those of the US, as the Biden administration also worked to secure critical materials for the US through diversifying supply, expanding domestic materials processing,<sup>326</sup> and providing subsidies to corporations relocating their production lines back home.<sup>327</sup> With both states sharing similar views and approaches in dealing with their dependence on Chinese imports along their supply chain, cooperation between Japan and the US became natural. Moreover, both government's willingness to offer extra subsidies in return for national security is an indication that economic interdependence may not be able to explain states' relationship in face of security threats. The cooperation between Japan and the US to minimize China's role in their supply chain to ensure security will be further explored later in this chapter.

### 3. Restriction on Public Procurement

Other than encouraging private entities to minimize their dependence on China's supply, Japan also attempted to restrict government purchase of telecommunication equipment from China.

As early as in December 2018, the Japanese government reportedly proscribed government purchases of Huawei and ZTE components, citing threats to national security and following in the US, Australia, and New Zealand's footsteps. Some private telecommunication network

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[reduce-dependence-china](#).

<sup>324</sup> Denyer, Simon. Japan helps 87 companies to break from China after pandemic exposed overreliance. The Washington Post, July 21, 2020. [https://www.washingtonpost.com/world/asia\\_pacific/japan-helps-87-companies-to-exit-china-after-pandemic-exposed-overreliance/2020/07/21/4889abd2-cb2f-11ea-99b0-8426e26d203b\\_story.html](https://www.washingtonpost.com/world/asia_pacific/japan-helps-87-companies-to-exit-china-after-pandemic-exposed-overreliance/2020/07/21/4889abd2-cb2f-11ea-99b0-8426e26d203b_story.html); Japan's big push to bring manufacturing back from China. Al Jazeera, June 9, 2020. <https://www.aljazeera.com/economy/2020/6/9/japans-big-push-to-bring-manufacturing-back-from-china>.

<sup>325</sup> Miki, Reiko. Chips and batteries: Japan to AMP UP Supply Chains with subsidies. Nikkei Asia, January 16, 2022. <https://asia.nikkei.com/Spotlight/Supply-Chain/Chips-and-batteries-Japan-to-amp-up-supply-chains-with-subsidies>.

<sup>326</sup> *FACT SHEET: Securing a Made in America Supply Chain for Critical Minerals*. The White House, February 22, 2022. <https://www.whitehouse.gov/briefing-room/statements-releases/2022/02/22/fact-sheet-securing-a-made-in-america-supply-chain-for-critical-minerals/>.

<sup>327</sup> Ibid.

providers, such as KDDI, also expressed their willingness to switch their procurement policy in accordance with the government's decision.<sup>328</sup> This was followed by a prohibition of purchasing Chinese drones two years later, which, as a senior official explained, was due to worries over advanced technology leaking to China and being assimilated into the Chinese military system.<sup>329</sup>

Clearly, one of the aims of Japan's unilateral policy is to deny China's access to its advanced technology to prevent the modernization of the Chinese military through espionage. To deter China's spies from accessing its cutting-edge technologies, the Japanese government dedicated huge effort to strengthening Japan's innovation capability, restricting China's foreign direct investment in Japan, tightening its export policy, introducing more regulations on researchers, setting up new government agencies, and avoiding the use of Chinese technological products in public facilities.

#### 4. Investment Restriction

As mentioned in the previous section, strengthening of regulations on foreign investment through legislation is one of the methods used by the Japanese government to safeguard its national security. Some of these policies were said to be inspired by those of the US and other allies. In 2019, for example, Japan started to consider enforcing stricter regulations on foreign investment in a way similar to the US and Europeans, namely, lowering the threshold that foreign ownership in a company is to be reported. A Japanese official told Reuters that the move aimed to 'enable closer monitoring of Chinese investment'<sup>330</sup> for national security by preventing Chinese state-sponsored entities from accessing strategic technologies via foreign direct investment.<sup>331</sup> Accordingly, foreign direct investment on Japanese technological entities is regulated for the first time for the sake of cyber security.<sup>332</sup>

In 2020, following the adoption of FIRMA by the US in 2018 and related EU regulations in 2019<sup>333</sup>, the Ministry of Finance officially proposed a supplementary legislation to the Foreign

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<sup>328</sup> Shida, Yoshiyasu, and Yoshifumi Takemoto. Japan government to halt buying Huawei, ZTE equipment: Sources. Thomson Reuters, December 7, 2018. <https://www.reuters.com/article/us-japan-china-huawei-idUSKBN1O600X>.

<sup>329</sup> Kaneko, Kaori, and Izumi Nakagawa. Wary of security issues, Japan's government moves to shut China out of its drone supply chain. Thomson Reuters, October 30, 2020. <https://www.reuters.com/article/japan-china-technology-idINKBN27F0CQ>.

<sup>330</sup> Umekawa, Takashi. Exclusive: Japan considers tighter ownership reporting rules to better monitor China, officials say. Thomson Reuters, August 29, 2019. <https://www.reuters.com/article/us-japan-investment-exclusive-idUSKCN1VJ089>.

<sup>331</sup> Ibid.

<sup>332</sup> Tsuji, Takashi. Japan to step up scrutiny of foreign investment in Technology. Nikkei Asia, August 17, 2019. <https://asia.nikkei.com/Business/Japan-to-step-up-scrutiny-of-foreign-investment-in-technology>.

<sup>333</sup> Draft Rules and Regulations of the Foreign Exchange and Foreign Trade Act. Japan Ministry of Finance, March 4, 2020. [https://www.mof.go.jp/english/policy/international\\_policy/fdi/20200314.htm](https://www.mof.go.jp/english/policy/international_policy/fdi/20200314.htm).

Exchange and Foreign Trade Act (FEFTA).<sup>334</sup> To enforce the act, the Japanese Ministry of Finance issued a list of 518 corporations out of around 4000 with operations related to the state's national security, such as oil, aviation, telecommunications, and cyber security.<sup>335</sup> Purchases of stakes of 1% or more of these listed corporations would be subjected to the most stringent regulations and screening by the authorities.<sup>336</sup> Exemptions might be granted on rare occasions, but never to sovereign wealth funds unaccredited by the Japanese government.<sup>337</sup>

Limitations in the updated FEFTA was exposed in Tencent's proposed acquisition of Rakuten Group in 2021, which brought worries over personal data security and the Chinese technology giant became a major shareholder of the Japanese corporation, and prompted the Japanese authorities to carry out further scrutiny.<sup>338</sup> Despite this, the case still demonstrated the Japanese's initiative in guarding its economic security.

Though the Japanese government is clearly aware of the importance of blocking China's access to Japanese technologies through securities and direct investment, it did not impose stricter control on capitalization in the stock market as did the US in the sense that the number of new regulations introduced are relatively less. This might be attributed to the fact that Chinese investment in Japan is significantly less than in the US, as observed from the obscurer portion of Chinese FDI vis-à-vis Japanese inward FDI. According to the JETRO, for many years, China's net FDI only accounted for less than 1% of the net total of Japanese inward FDI,<sup>339</sup> as Chinese companies preferred listing in the US or Hong Kong rather than in Japan.<sup>340</sup> Therefore, Japan's concerns about China accessing technology through investment might not be on the same level as the US, leading to more lenient regulations on Chinese investment compared to those of the US.

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<sup>334</sup> Ibid.

<sup>335</sup> Kajimoto, Tetsushi, and Daniel Leussink. Japan tightens rules on Foreign Stakes in 518 firms, citing National Security. Thomson Reuters, May 8, 2020. <https://www.reuters.com/article/us-japan-investment-mof-idUSKBN22K0Z0>.

<sup>336</sup> Ibid.

<sup>337</sup> Yamada, Kaori, and Hitoshi Nakajima. "The Foreign Investment Regulation Review: Japan." The Foreign Investment Regulation Review - The Law Reviews. The Law Reviews, October 17, 2021. <https://thelawreviews.co.uk/title/the-foreign-investment-regulation-review/japan>.

<sup>338</sup> Kodaki, Mariko. "Tencent-Rakuten Deal Exposes Limits of Japan Investment Rules." Tencent-Rakuten deal exposes limits of Japan investment rules. Nikkei Asia, April 20, 2021. <https://asia.nikkei.com/Politics/Tencent-Rakuten-deal-exposes-limits-of-Japan-investment-rules>.

<sup>339</sup> Reiko, Sakurai. "Japanese Lawmakers Rush to Bolster Economic Security: NHK World-Japan News." NHK WORLD. NHK WORLD, May 18, 2022. <https://www3.nhk.or.jp/nhkworld/en/news/backstories/1994/>. ; Smith, Sheila A. "Japan Turns Its Attention to Economic Security." Council on Foreign Relations. Council on Foreign Relations, May 16, 2022. <https://www.cfr.org/blog/japan-turns-its-attention-economic-security>.

<sup>340</sup> Bray, Chad. Goldman says many Chinese Overseas Issuers Mulling IPO Shift to Hong Kong. South China Morning Post, November 8, 2021. <https://www.scmp.com/business/banking-finance/article/3155176/goldmans-top-banker-says-many-chinese-ipo-clients>.

## 5. Stringent Export Control

The Japanese export control policy, administrated by the METI since the end of the WWII, is implemented on the basis of the FEFTA and the international regimes on export control over goods export and technologies under the control system.<sup>341</sup> In addition to conventional weapons and nuclear weapons, dual-use products are also regulated by the license system as they were during the Cold War.<sup>342</sup>

In 2013,<sup>343</sup> 2014,<sup>344</sup> and 2018,<sup>345</sup> Japan revised its list of military end-users to whom exports are to be limited. Notably, many Chinese entities found on the Japanese list could also be found on the US Military End-User List, such as 10th Research Institute of China Electronic Technology Group Corporation (CETC, in Chinese, 中国电子科技集团公司第十研究所), 13th Research Institute, 9th Academy, China Aerospace Science and Technology Corporation (CASC, in Chinese, 中国航天科技集团公司第九研究院第十三研究所) and Beijing University of Aeronautics and Astronautics (BUAA, in Chinese, 北京航空航天大学), all of which were found to be engaging in military activities<sup>346</sup>, and were blacklisted by the US in 2020.<sup>347</sup> Clearly, the Japanese government has the intention to follow the US in restricting exports to certain entities. In other words, Japan appears to be cooperative with the US.

In addition to banning exports to corporations or individual entities, certain technologies and items are also prohibited. The Abe administration revised the FEFTA in 2019 to restrict the export of 14 technological items, including artificial intelligence, robotics biotechnology, and other items that are also restricted by the US.<sup>348</sup> In 2022, export of facial recognition technology was also banned by Japan.<sup>349</sup>

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<sup>341</sup>“Guidance for the Control of Sensitive Technologies for Security Export for Academic and Research Institutions 4th Edition.” Ministry of Economy, Trade and Industry Trade Control Department. Ministry of Economy, February 2022. [https://www.meti.go.jp/policy/anpo/law\\_document/tutatu/t07sonota/t07sonota\\_jishukanri03\\_eng.pdf](https://www.meti.go.jp/policy/anpo/law_document/tutatu/t07sonota/t07sonota_jishukanri03_eng.pdf).

<sup>342</sup> Ibid.

<sup>343</sup>“Review of End User List.” The Ministry of Economy, Trade and Industry (METI). The Ministry of Economy, Trade and Industry (METI). Accessed June 6, 2022. [https://www.meti.go.jp/policy/anpo/law\\_document/tutatu/t10kaisei/130206kaisei\\_userlistpress\\_english.pdf](https://www.meti.go.jp/policy/anpo/law_document/tutatu/t10kaisei/130206kaisei_userlistpress_english.pdf).

<sup>344</sup> *Review of the End User List*. The Ministry of Economy, Trade and Industry (METI), April 1, 2014. [https://www.meti.go.jp/english/press/2014/0401\\_01.html](https://www.meti.go.jp/english/press/2014/0401_01.html).

<sup>345</sup> “Review of the End User List .” Internet archive: Wayback Machine. The Ministry of Economy, Trade and Industry (METI), May 2, 2018. <https://web.archive.org/web/20190621122023/https://www.meti.go.jp/press/2018/05/20180502001/20180502001-1.pdf>.

<sup>346</sup> End User List. The Ministry of Economy, Trade and Industry (METI), 2019. [https://www.meti.go.jp/policy/anpo/2\\_0917.pdf](https://www.meti.go.jp/policy/anpo/2_0917.pdf).

<sup>347</sup> Worrell, John. “Supplement No. 1 to Part 740 - Country Groups.” Supplement No. 1 to Part 740 - Country Groups. Bureau of Industry and Security, April 11, 2022. <https://bis.doc.gov/index.php/documents/regulations-docs/2255-supplement-no-1-to-part-740-country-groups-1>.

<sup>348</sup> Tsuji, Takashi. Japan weighs export controls for cutting-edge tech. *Nikkei Asia*, May 19, 2019. <https://asia.nikkei.com/Economy/Trade-war/Japan-weighs-export-controls-for-cutting-edge-tech>.

<sup>349</sup> Gibson, Liam. Japan bans facial recognition tech exports due to China's human rights abuses. *Taiwan News*, January 3, 2022. <https://www.taiwannews.com.tw/en/news/4396710>.



The policy shifts mentioned above shows Japan's heightened awareness to economic security in export. In response to the Japanese and American governments' policy, Mitsubishi Electric Corporation established a department to handle economic security.<sup>350</sup> The Tokyo Electron, one of the major producers of EUV photolithography machines, even appreciated the US for its effort in sanctioning Chinese chip producers. Some other corporations owned by Japanese venture, such as British-based chip designer ARM, also suspended its business ties with Huawei.<sup>351</sup> Export of Japanese robotics, one of the sensitive technologies subject to the new restrictions, also saw continued decline, despite China still being the largest importer.<sup>352</sup> Judging from the Japanese firms' responses, the government's policy might be effective in deterring technology export to China, thus keeping Japan's economic security intact.<sup>353</sup>

## 6. Espionage and Cyberattack Prevention

The importance of information security prompted the Japanese government to establish the National Information Security Centre and the Information Security Policy Council in 2005 for facilitating Japanese cybersecurity policy decision-making and execution.<sup>354</sup> Yet, this might not necessarily reflect Japan's concern about cyberattack and espionage from China for two reasons. First, these agencies are placed under the cabinet office rather than authorities specifically responsible for national security, such as the Ministry of Defense. Also, the policy objectives of these agencies focus on establishing security standard, educating the public, and developing basic capability in response to security issues, with no mentioning of handling national-level attacks.<sup>355</sup>

Japan's awakening to the threats of China-launched cyberattacks and espionage action came on 11 August 2011, when Mitsubishi Heavy Industries, the largest defense contractor in Japan capable of producing American-designed F-15 jets and weapons, suffered from cyberattacks. The arms producer revealed that 83 computers and servers, along with a R&D centre, were attacked in the incident. The attack also raised the alert of the US, because Mitsubishi had also been working with other US DoD contractors, such as Lockheed-Martin and Boeing. China

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<sup>350</sup> Japan walking a tightrope amid U.S.-China economic tussle. The Asahi Shimbun, April 26, 2021. <https://www.asahi.com/ajw/articles/14325911>.

<sup>351</sup> Yamazaki, Makiko. Exclusive: Top Japanese chip gear firm to honor U.S. blacklist of Chinese firms - executive. Thomson Reuters, June 11, 2019. <https://www.reuters.com/article/us-usa-trade-china-semiconductors-exclus-idUSKCN1TC0H6>.

<sup>352</sup> Hu, Minghe. "China's Imports of Industrial Robots from Japan Continue to Slide amid US-China Trade War." Japan's industrial robots industry becomes latest victim of the Trade War. South China Morning Post, September 11, 2019. <https://www.scmp.com/tech/policy/article/3026760/chinas-imports-industrial-robots-japan-continue-slide-amid-us-china>.

<sup>353</sup> Yamazaki, "Top Japanese chip gear firm"

<sup>354</sup> Japanese Government's Efforts to Address Information Security Issues . National Information Security Center , November 2007. [https://www.nisc.go.jp/eng/pdf/overview\\_eng.pdf](https://www.nisc.go.jp/eng/pdf/overview_eng.pdf).

<sup>355</sup> Ibid.



was seen as the alleged attacker, as a Japanese newspaper discovered Chinese language script in the attack.<sup>356</sup> A month later, the House of Representatives of Japan was also attacked by a ‘Trojan horse’ linked to a server based in China. The attack was believed to be related to espionage.<sup>357</sup>

China was also alleged to have attacked 19 Japanese websites after a heated exchange on the East China Sea between Beijing and Tokyo. The Japanese National Police Agency (NPA) reported in a statement that messages proclaiming Chinese sovereignty over Diaoyu Islands were displayed on those websites.<sup>358</sup> The police were able to further confirm that the attack was targeting public utilities and government ministries sites after investigating ‘YY Chat’, a popular chat site, and Honker Union, a Chinese hackers’ group. According to Minister for Internal Affairs and Communications, Tatsuo Kawabata, 95 percent of the traffic of a bureau’s website originated in China.<sup>359</sup> Similar incident also happened in 2021 when Tokyo Police disclosed the Chinese military linked to cyberattacks against around 200 Japanese research institutes and corporates.<sup>360</sup>

These cases above show that security rivalry between Japan and China on territories may escalate into a threat to the Japanese cybersecurity, prompting the Japanese government to take further actions to strengthen the state’s cybersecurity policy. Specifically, a Cyber Defense Unit was established by the Ministry of Defense in 2014. The SDF’s Command, Control, Communications, and Computer Systems Command also worked to enhance its capability in responding to national-level attack and espionage.<sup>361</sup>

Over time, Japan’s policies on espionage prevention has become more consistent with the US’. For example, investigations on suspected cases and arrests has become more frequent. In 2018, the Unfair Competition Prevention Act was expanded to cover civil remedies against wrong acquisition, use, and disclosure of shared data with restricted access. For other civil proceedings, the plaintiff’s burden of proof of the defendants’ wrongful use of trade secrets within a longer statute of limitations to 20 years.<sup>362</sup> The act also strengthened regulation over

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<sup>356</sup> Japan defence firm Mitsubishi Heavy in cyber attack. BBC News, September 20, 2011. <https://www.bbc.com/news/world-asia-pacific-14982906>.

<sup>357</sup> Japan Parliament hit by China-based Cyber Attack. Telegraph Media Group, October 25, 2011. <https://www.telegraph.co.uk/news/worldnews/asia/japan/8848100/Japan-parliament-hit-by-China-based-cyber-attack.html>.

<sup>358</sup> AFP. “China Cyberattacks Hit Japan in Island Row: Police.” China cyberattacks hit Japan in island row: police. Bangkok Post, September 19, 2012. <https://www.bangkokpost.com/tech/313094/china-cyberattacks-hit-japan-in-island-row-police>.

<sup>359</sup> Ibid.

<sup>360</sup> Yamaguchi, Mari. Japan says Chinese military likely behind cyberattacks. Associated Press, April 21, 2021. <https://abcnews.go.com/Technology/wireStory/japan-chinese-military-cyberattacks-77186972>.

<sup>361</sup> Lewis, James Andrew. U.S.-Japan Cooperation in Cybersecurity, 11. Center for Strategic and International Studies, November 5, 2015. <https://www.csis.org/analysis/us-japan-cooperation-cybersecurity>.

<sup>362</sup> Nakajima, Masaru. “Summary of Japanese Unfair Competition Prevention Law 2015 as Revised Aiming at

unfair competition with the use of technology with tougher fines and penalties.<sup>363</sup>

Other tactics that are similar to the US' include more vigorous screening and background check before granting visa to Chinese students and researchers,<sup>364</sup> and restrictions on access to key technologies. This came after the Trump government imposed similar measures<sup>365</sup> and the release of the Yomiuri Report, which mentioned the potential risk that some Chinese students could be stealing Japanese cutting-edge technology.<sup>366</sup>

The Japanese government also approved the innovation strategy for 2020, offering guidelines on measures including minimizing foreign intervention in scientific research through strengthening corporation and research institutions' code of conduct on international collaborators' due diligence requirements and declaration of foreign research sponsors.<sup>367</sup> This move came after the US' crackdown on PLA-linked researchers,<sup>368</sup> and is crucial to maintaining Japanese and American cooperation in research – yet another example that demonstrates the coherence between Japan and US policy in preventing China's state intervention in their research, and Japan's willingness to cooperate with the US on R&D.<sup>369</sup>

Apart from stringent regulations, incentives are offered in a bid to lower the chance of espionage. In a proposed legislation related to Japanese economic security, the Kishida administration proposed to pay corporations for keeping patents with potential military applications to themselves,<sup>370</sup> thus denying China's access to Japan's advanced weapon development technology through regulations.

The academia is another venue focused on by the Japanese government to deter Chinese

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Strengthening Protection of Trade Secret - Trade Secrets - Japan.” Summary Of Japanese Unfair Competition Prevention Law 2015 As Revised Aiming At Strengthening Protection Of Trade Secret - Trade Secrets - Japan. Seiwa Patent & Law, March 22, 2017. <https://www.mondaq.com/trade-secrets/572206/summary-of-japanese-unfair-competition-prevention-law-2015-as-revised-aiming-at-strengthening-protection-of-trade-secret>

<sup>363</sup> Revision of unfair competition prevention act. Ministry of Economics, Trade and Industries (METI) , 2018. [https://www.meti.go.jp/english/policy/economy/chizai/chiteki/pdf/english\\_2018rev.pdf](https://www.meti.go.jp/english/policy/economy/chizai/chiteki/pdf/english_2018rev.pdf).

; Nakajima, “Summary of Japanese Unfair Competition Prevention Law 2015”

<sup>364</sup> Sim, Walter. “Japan to Tighten Checks on Visa Applications by Chinese Students, Researchers over Espionage Concerns: Report.” Japan to tighten checks on visa applications by Chinese students, researchers over espionage concerns: Report. The Straits Times, October 7, 2020. <https://www.straitstimes.com/asia/east-asia/japan-to-tighten-checks-on-visa-applications-by-chinese-students-researchers-over>

<sup>365</sup> Ibid.

<sup>366</sup> Osaki, Tomohiro. Japan boosts screening of Chinese students amid fears of campus espionage. The Japan Times, October 15, 2020. <https://www.japantimes.co.jp/news/2020/10/15/national/crime-legal/japan-chinese-students-campus-espionage/>.

<sup>367</sup> Mallapaty, Smriti. Japan considers tougher rules on research interference amid US-China tensions. Nature News, August 4, 2020. <https://www.nature.com/articles/d41586-020-02273-w>.

<sup>368</sup> Ibid.

<sup>369</sup> Oikawa, Akira. Japan tightens rules on Tech theft to safeguard research with US. Nikkei Asia, April 27, 2021. <https://asia.nikkei.com/Business/Technology/Japan-tightens-rules-on-tech-theft-to-safeguard-research-with-US>.

<sup>370</sup> Jogi, Nishit, and Kantaro Komiya. Edited by Nick Zieminski, Dan Grebler, and William Mallard. Japan to pay companies to keep sensitive patents secret- Nikkei. Thomson Reuters, December 26, 2021. <https://www.reuters.com/technology/japan-pay-companies-keep-sensitive-patents-secret-nikkei-2021-12-25/>.

technology espionage and cyberattack. After an alleged cyberattack by the PLA on key business firms and research institutions in 2020, investigations were conducted on several Confucius Institutes for suspected engagement in espionage. For the first time since the opening of the first research-focused Confucius Institute in Waseda University in 2007,<sup>371</sup> the Ministry of Education started to monitor all funding details of the respective Confucius Institute hosted by 14 different universities to prevent money from being used for espionage and propaganda.<sup>372</sup> The timing of this action by the Japanese government seems to coincide with Trump's respective action on Confucius Institutes in the US.

Education is also a means to protect cybersecurity. In 2021, the Japanese Security Police hosted workshops to educate firms on anti-spy tactics and corresponding solutions, so that, before the police could get involved, firms could take pre-emptive measures to prevent foreign spies, particularly those from China, Russia, and North Korea, from stealing their companies' secrets.<sup>373</sup> This shows that Japan's policy on preventing China-related espionage is so comprehensive that even Japanese firms could protect their own economic security.

## 7. New Government Agencies Establishment

Japan is the only state among all US allies in this study that has established a new government agency in response to China's economic security threat.

As early as in 2019, the METI already set up the Subcommittee on Security Export Control Policy under the Trade Committee of the Industrial Structure Council to discuss measures safeguarding economic security.<sup>374</sup> An interim report by the subcommittee named China's incompliance with the WTO regulations and other western values, in addition to concerns about its civil-military integration policy, as reasons for the founding of the subcommittee - a reflection of Japanese perception of China as a threat in the economy and military aspects.<sup>375</sup>

Also in 2019, lawmakers from the ruling Liberal Democratic Party proposed the establishment of an agency similar to the US National Economic Council. Before becoming prime minister,

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<sup>371</sup> Sim, Walter. Japan to probe China-funded Confucius Institutes amid propaganda, Spy Threat. The Straits Times, June 11, 2021. <https://www.straitstimes.com/asia/east-asia/japan-to-probe-china-funded-confucius-institutes-amid-propaganda-spy-threat>.

<sup>372</sup> Zhou, Ying, and Sabrina Luk. "Establishing Confucius Institutes: a tool for promoting China's soft power?." *Journal of Contemporary China* 25, no. 100 (2016): 628-642.

<sup>373</sup> Machida, Naritake. Japan police educating firms on foreign spy tactics to protect themselves from data theft. *The Mainichi*, December 25, 2021. <https://mainichi.jp/english/articles/20211225/p2a/00m/0na/010000c>.

<sup>374</sup> Rep. *Subcommittee on Security Export Control Policy, Trade Committee, Industrial Structure Council Interim Report (Overview)*. Subcommittee on Security Export Control Policy, Trade Committee, Industrial Structure Council, October 8, 2019. [https://www.meti.go.jp/english/policy/external\\_economy/trade\\_control/pdf/191008a.pdf](https://www.meti.go.jp/english/policy/external_economy/trade_control/pdf/191008a.pdf).

<sup>375</sup> Ibid.

Kishida, with his colleague Amari, composed a report on economic security that identified China as using its ‘economic measures to compose their own desires on other countries’, and ultimately ‘reshaping the existing international order’ in its favour.<sup>376</sup> Briefly after Kishida took power in October 2021, he appointed Takayuki Kobayashi (小林鷹之) as the Economic Security Minister responsible for devising strategies and legislation to enhance Japan’s economic security.<sup>377</sup>

In February 2022, after a government panel discussion, proposals were submitted to Takayuki Kobayashi on creating a committee composed of government officials, particularly representatives from the Ministry of Defense, private corporations, and the academia to study technology application in military domains, offer support on procurement of key materials such as semiconductors, and prevent leakage of certain sensitive technologies.<sup>378</sup> Despite resistance from business lobbyists, namely, the JBF, concerning the proposal’s impact on economic freedom and coherence to the international rules,<sup>379</sup> the government still aimed to submit the proposal for further parliamentary proceedings.<sup>380</sup> The Economic Security Act was approved by the Diet in 2020.<sup>381</sup>

The means and policy frameworks raised in the proposal were very much similar to those of the US, showing Japan’s preference in adopting the ‘American way’ of safeguarding economic security against China’s rise in technology and military. In fact, the Ministry itself is a de facto replication of the US National Economic Council. Albeit domestic controversies over the bill, the Japanese government still considered the ‘American way’ as reliable and viable.

In addition to setting up of new government departments, Japan, like the US, also used restructuring as a method to tighter control Chinese espionage. Citing concerns over China’s intelligence activities, the Metropolitan Police Department (MPD)'s Public Security Bureau restructured its foreign affairs department for more effective crackdown on espionage.<sup>382</sup> An

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<sup>376</sup> Tachikawa, Tomoyuki. Focus: China intrigued by role of Japan's new minister for economic security. KYODO NEWS+, October 24, 2021. <https://english.kyodonews.net/news/2021/10/e5ffa4458a3c-focus-china-intrigued-by-role-of-japans-new-minister-for-economic-security.html>.

<sup>377</sup> Ibid.

<sup>378</sup> Kaneko, Kaori, and Tim Kelly. Edited by Kenneth Maxwell. Japan passes economic security bill to guard sensitive technology. Thomson Reuters, May 11, 2022. <https://www.reuters.com/world/asia-pacific/japan-passes-economic-security-bill-guard-sensitive-technology-2022-05-11/>.

<sup>379</sup> Reiko, Sakurai. “Japanese Lawmakers Rush to Bolster Economic Security: NHK World-Japan News.” NHK WORLD. NHK WORLD, May 18, 2022. ;<https://www3.nhk.or.jp/nhkworld/en/news/backstories/1994/>; Smith, Sheila A. “Japan Turns Its Attention to Economic Security.” Council on Foreign Relations. Council on Foreign Relations, May 16, 2022. <https://www.cfr.org/blog/japan-turns-its-attention-economic-security>.

<sup>380</sup> Kaneko and Kelly, “Japan passes economic security bill”

<sup>381</sup> 経済施策を一体的に講ずることによる安全保障の確保の推進に関する法律案：参議院。参議院, May 18, 2022. <https://www.sangiin.go.jp/japanese/joho1/kousei/gian/208/meisai/m208080208037.htm>.

<sup>382</sup> Saito, Buntaro. Tokyo police toughening espionage crackdowns amid Intel threat from China, N. Korea. The Mainichi, March 20, 2021. <https://mainichi.jp/english/articles/20210320/p2a/00m/0na/018000c>.

additional thirty headcounts in charge of China and North Korea affairs were provided.<sup>383</sup> The reorganization and the rationale behind clearly show the Japanese's effort in attempting to preclude Chinese espionage and security threats by assigning more manpower to perform relevant duties.<sup>384</sup>

## STRONGER US-JAPAN-ALLIES COOPERATION

Bilateral and multilateral cooperation with the US and its allies in areas like R&D, technology transfer, and supply chain reconstruction are also important aspects in Japan's effort to safeguard its national security. As the security threat posed by China on their territorial dispute on the East China Sea and China's rise in military capability increased, cooperation between Japan and US also became more intense and diverse.<sup>385</sup>

### 1. Research and Development

Japanese and American cooperation in R&D began with the signing of the Japan-US Science and Technology Agreement in 1988.<sup>386</sup> Since then, both states have launched over 160 projects on life science, information technology, automation, geoscience, advanced materials (including superconductors), space technology,<sup>387</sup> along with some other cooperation in neutron scattering, traffic control, and transportation management.<sup>388</sup>

Some of these collaborations were facilitated by China's security threat to the Japanese.<sup>389</sup> In 1998,<sup>390</sup> for example, Japan and the US signed a memorandum of understanding (MOU) on joint research on theatre missile defense system, as both states were worried about the Chinese development of medium range CSS-2 and CSS-5 missiles,<sup>391</sup> especially after seeing China's ballistic missiles deployment towards Taiwan during the 1996 Taiwan Strait Confrontation, as US policymakers were concerned over the ability of the US to defend against limited ballistic missile attacks.<sup>392</sup> China's military advancement is also a motivation to Japan and the US' concerted effort in military technology R&D, especially since the Chinese's development of

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<sup>383</sup> Ibid.

<sup>384</sup> Ibid.

<sup>385</sup> Nurkin, Tate. "Emerging Technologies and the Future of US-Japan Defense Collaboration." (2020).

<sup>386</sup> "Japan-US Science and Technology Cooperation." MOFA: Japan-U.S. Security. Japan Ministry of Foreign Affairs. Accessed June 6, 2022. <https://www.mofa.go.jp/region/n-america/us/q&a/science/Science.html>.

<sup>387</sup> Ibid.

<sup>388</sup> "Summary List of Agreed Projects." Summary List of Agreed Projects. Ministry of Foreign Affairs of Japan . Accessed June 11, 2022. <https://www.mofa.go.jp/region/n-america/us/q&a/science/table.html#7>.

<sup>389</sup> Nurkin, "Emerging Technologies and the Future of US-Japan Defense Collaboration."

<sup>390</sup> Yuan, Jing-dong. "Chinese Responses to U.S. Missile Defenses: Implications for Arms Control and Regional Security." *The Nonproliferation Review* 10, no. 1 (2003): 75–96. <https://doi.org/10.1080/10736700308436918>.

<sup>391</sup> Cronin, Richard P., and Foreign Affairs, Defense, and Trade Division. "Japan-US Cooperation on Ballistic Missile Defense: Issues and Prospects." Library of Congress, Congressional Research Service, 2002.

<sup>392</sup> Ibid.

quantum computers could be used in military operations.<sup>393</sup> In response, an agreement on partnership in quantum technology was signed in December 2019 between Japan and the US,<sup>394</sup> leading to the setting up by International Business Machines (IBM) of its second quantum computer for research projects in conjunction with The University of Tokyo, Toyota Motors, Sony, and Mitsubishi Chemical in July 2021.<sup>395</sup>

The formation of the US-Japan Competitiveness and Resilience (CoRe) Partnership in April 2021 further increased areas of collaboration between the two states.<sup>396</sup> With funds from both government, the partnership fosters R&D projects in 5G (beyond 5G), ICT standards, supply chain, advanced biotechnology, and intellectual exchange between institutions from both states.<sup>397</sup> Despite without specifically naming China in the CoRe document, a statement issued jointly by Biden and Suga on the partnership mentioned the ‘challenges posed by the Chinese on peace and prosperity in the Indo-Pacific region and the world’.<sup>398</sup> Thus, the CoRe partnership could be considered as one of the bilateral R&D frameworks against China.

Another item of importance in the cooperation between Japan and the US is nuclear technology R&D, which has been on the agenda since 2021. Both states have expressed concerns over China’s nuclear compilation, which, according to some thinktanks, could be over 1000 by 2030, and its aggressive claims over South China Sea in a meeting at the ASEAN Regional Forum hosted in August 2021.<sup>399</sup> Indeed, territorial disputes and nuclear weapons might be intertwined, posing an even greater threat to Japan and the US. In January 2021, after vows from Deputy Prime Minister Aso and Defense Minister Nakayama that Japan would help protect Taiwan, a CCP channel aired a video warning Japan about the risk of nuclear war if

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<sup>393</sup> Duan, Dylan. “What Is Quantum Computing and How Does It Work?” Explainer | Quantum technology: how it works, applications and why the US and China are racing to achieve supremacy. South China Morning Post, January 2, 2022. <https://www.scmp.com/news/china/science/article/3161830/quantum-technology-how-it-works-applications-and-why-us-and#:~:text=China%20has%20already%20developed%20quantum,generating%20a%20small%20electromagnetic%20storm>.

<sup>394</sup> Goda , Roku, and Hisatoshi Kabata. “Japan, U.S. Unite to Counter China in Quantum Computer Race: The Asahi Shimbun: Breaking News, Japan News and Analysis.” Japan, U.S. unite to counter China in quantum computer race. The Asahi Shimbun, December 20, 2019. <https://www.asahi.com/ajw/articles/13055861>.

<sup>395</sup> “Japan's 1st Commercial-Use Quantum Computer Starts Operations.” Japan's 1st commercial-use quantum computer starts operations. KYODO NEWS+, July 31, 2021. <https://english.kyodonews.net/news/2021/07/95619bbad72e-japans-1st-commercial-use-quantum-computer-starts-operations.html>.

<sup>396</sup> *Fact Sheet: U.S.-Japan Competitiveness and Resilience (CoRe) Partnership*. The White House, April 16, 2021. <https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/16/fact-sheet-u-s-japan-competitiveness-and-resilience-core-partnership/>.

<sup>397</sup> Ibid.

<sup>398</sup> *U.S.- Japan Joint Leaders' Statement: “U.S. – JAPAN GLOBAL PARTNERSHIP FOR A NEW ERA.”* The White House, April 16, 2021. <https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/16/u-s-japan-joint-leaders-statement-u-s-japan-global-partnership-for-a-new-era/>.

<sup>399</sup> Kyodo. China likely to own at least 1,000 nuclear warheads by 2030: Pentagon. The Japan Times, November 4, 2021. <https://www.japantimes.co.jp/news/2021/11/04/asia-pacific/china-1000-warheads-2030-pentagon/>.



Japanese intervenes in potential Taiwan Strait conflicts.<sup>400</sup> In a virtual meeting in late 2021, both Biden and Kishida agreed that China's nuclear capacity remained a dominant security concern.<sup>401</sup>

China's nuclear threats have also prompted a project between Japan and the US on developing plutonium-burning fast reactors and advanced energy plants based on small modular reactors (SMRs) in January 2022,<sup>402</sup> which was in addition to another US-government funded nuclear program, TerraPower, featuring joint effort from the Japan Atomic Energy Agency (JAEA) and Mitsubishi Heavy Industries. Interestingly, the Japanese corporation only replaced China National Nuclear Corp after the state-owned enterprise was placed onto the entity list.<sup>403</sup>

Based on the Japanese and American's attitude and concerns over China's nuclear arsenal and China's responses to the territorial disputes, the two states seem to be motivated to cooperate, and thus, launch more projects on nuclear use. Clearly, the security threat from China in technology and military domains paved way to closer US-Japanese collaboration.

As mentioned before, apart from nuclear use, the two states also cooperate in other aspects. On 7 January 2022, American Secretary of State Antony Blinken, Japanese Foreign Minister Yoshimasa Hayashi, and the two states' defence ministers held a meeting on US-Japan defense ties. During the meeting, the senior officials discussed China's assertiveness in the disputed territories and contempt to the 'rules based' orders.<sup>404</sup> Due to their shared concerns over China's military development, research collaboration on 'emerging defense-related issues', such as hypersonic missiles and outer space-technology, came into play. This could be a response to China's hypersonic missile test in November 2021,<sup>405</sup> followed by its claim for harnessing heat-seeking technology in hypersonic missiles on 31 December 2021.<sup>406</sup>

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<sup>400</sup> Everington, Keoni. CCP channel reposts video threatening to nuke Japan if it defends Taiwan. Taiwan News, July 6, 2021. <https://www.taiwannews.com.tw/en/news/4250097>.

<sup>401</sup> Security, China dominate Biden's talks with Japan's kishida. Al Jazeera, January 21, 2022. <https://www.aljazeera.com/news/2022/1/21/security-china-to-dominate-bidens-talks-with-japans-kishida>.

<sup>402</sup> Ryall, Julian. Tokyo embarks on nuclear projects with us that could power Japan for decades. South China Morning Post, January 13, 2022. <https://www.scmp.com/week-asia/politics/article/3163110/us-partner-japan-push-next-generation-nuclear-technology>.

<sup>403</sup> Murakami, Sakura, and Kim Coghill. Japan to help build Bill Gates' high-tech nuclear reactor in Wyoming - Yomiuri. Thomson Reuters, January 1, 2022. <https://www.reuters.com/markets/commodities/japan-help-build-bill-gates-high-tech-nuclear-reactor-wyoming-yomiuri-2022-01-01/>.

<sup>404</sup> Churchill, Owen. US, Japan respond to China's growing hypersonic weapons, space capabilities. South China Morning Post, January 7, 2022. <https://www.scmp.com/news/china/diplomacy/article/3162467/us-japan-boost-scientific-cooperation-defence-against>.

<sup>405</sup> Duster, Chandelis. Top military leader says China's hypersonic missile test 'went around the world'. Cable News Network, November 18, 2021. <https://edition.cnn.com/2021/11/17/politics/john-hyten-china-hypersonic-weapons-test/index.html>.

<sup>406</sup> Chen, Stephen. China says it has hypersonic missiles with heat-seeking tech – years before US. South China Morning Post, December 31, 2021. <https://www.scmp.com/news/china/military/article/3161762/china-says-it-has-hypersonic-missiles-heat-seeking-tech-years>.

In view of the above examples, the threat from China in terms of its strengthening military capacity has driven the Japanese to work closer with the Americans through joint research programmes on technologies that China enjoys a lead.

## 2. Mutual Defense Equipment and Technology Transfer

Apart from joint research projects to counterbalance China's technological advantage, Japan and the US have been engaging in mutual technology transfer through export and acquisition. The Japanese government even relaxed its military export policy so as to facilitate technology and weapon export to the US and its allies in response to the threat from China in April 2014.<sup>407</sup> Some of the biggest corporations, such as Mitsubishi, Kawasaki, Hitachi, Toshiba, have resumed exporting motorcycles, washing machines, laptop computers, military hardware, and the like.<sup>408</sup>

As Abe admitted, military activities and arms construction of neighbouring states are a security challenge to Japan. North Korea's missiles tests, China's drastic soar in defense expenditure, and tensions in the East China Sea are some such examples.<sup>409</sup> By exporting weapons to allies sharing the same wariness of China's emergence, Japan hopes to fortify its security through military deterrence by its allies.<sup>410</sup> As a case in point, the Japanese government turned on the green light to export missile interceptors and sensor technologies to the US.<sup>411</sup> Other weapons were also sold to regional allies, for instance, Australia, Vietnam, Philippines, and India, to strengthen the deterrence against China.

In the meantime, as concerns over China's opaque military modernization in the region were 'explicitly identified'<sup>412</sup> by both Japan and the US,<sup>413</sup> the allies are determined to work closer on defence cooperation to better prepare themselves for possible conflicts. In the eyes of the US, Japan is becoming more willing to pursue its own offensive capability.<sup>414</sup> For example, ever since Beijing started replacing Cold War-era fighters with newer and more capable multi-purpose aircrafts, such as J-10 and J-11B, Japan has increased its willingness to work with US

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<sup>407</sup> Japan to relax arms export ban. BBC News, April 1, 2014. <https://www.bbc.com/news/world-asia-26830504>.

<sup>408</sup> Takenaka, Kiyoshi. Japan's security fears grow as neighbours build up arms. Thomson Reuters, August 5, 2014. <https://www.reuters.com/article/uk-japan-defence-idUKKBN0G502N20140805>.

<sup>409</sup> Ibid.

<sup>410</sup> Soble, Jonathan. With ban on exports lifted, Japan arms makers cautiously market wares abroad. The New York Times, July 12, 2015. <https://www.nytimes.com/2015/07/13/business/international/with-ban-on-exports-lifted-japan-arms-makers-cautiously-market-wares-abroad.html>.

<sup>411</sup> Miki, "Chips and batteries"

<sup>412</sup> Japan's National Defense Program Guidelines 2010 and 2013

<sup>413</sup> Carter, Ashton B., and Jennifer C. Bulkeley. The U.S. response to China's military modernization. The National Bureau of Asian Research (NBR), August 4, 2018. <https://www.nbr.org/publication/the-u-s-response-to-chinas-military-modernization-2/>.

<sup>414</sup> Chanlett-Avery, Emma, Caitlin Campbell, and Joshua A. Williams. Rep. *The U.S.-Japan Alliance*. Congressional Research Service, June 13, 2019. <https://crsreports.congress.gov/product/pdf/RL/RL33740>.



military contractors for technologies transfer, especially in the cooperation between Lockheed-Martin and Mitsubishi on the production F-X stealth fighters with technologies from Northrop-Grumman and BAE Systems integrated.<sup>415</sup> Ultimately, Japanese engineers would be able to apply these technologies in their future R&D.

At the same time, to facilitate the import of Japanese components, the US dropped its import ban on military devices from Japan. In 2016, the two states signed the Reciprocal Defence Procurement MOU during a meeting at the Shangri-La Dialogue (SLD), which aims to offer effective defense cooperation through constant communication on market access and procurement.<sup>416</sup> With the MOU in effect, US arms producers, especially Lockheed-Martin and Raytheon, could appoint Japanese firms as suppliers, as tariffs on imported materials from Japan would be waived.<sup>417</sup> Japanese arms producers are also given the opportunity to secure more business opportunity to rebuild the Japanese military industry with profits from US arms contractors and technology transfer through working on US design.<sup>418</sup> As an illustration, Mitsubishi has been working with the US in the assembly and maintenance of F-35s to be provided to the Japanese SDF since as early as 2013,<sup>419</sup> thus giving the Japanese access to the US' latest technology and design.<sup>420</sup> The same applies when Boeing signed a deal with Mitsubishi for upgrading the Japanese's F-15 fighters in 2020.<sup>421</sup>

Apart from technologies transfer through contracting, procurement is another means to facilitate technology transfer. The Japanese have acquired military technology from the US for its own security through the Foreign Military Sales (FMS) program administrated by the US DoD,<sup>422</sup> which allows Japan to procure from the US the likes of F-35 Joint Strike Fighters, E-2D "Hawkeye" airborne early warning and control aircraft, V-22B "Osprey" tilt-rotor aircraft,

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<sup>415</sup> Roblin, Sebastien. Japan plans to spend \$48 billion to field F-X stealth fighters by 2035 that would outperform F-35 and Chinese fighters. *Forbes Magazine*, December 15, 2020. <https://www.forbes.com/sites/sebastienroblin/2020/12/15/japans-mitsubishi-to-deploy-48-billion-f-x-stealth-fighters-by-2035-with-boost-from-lockheed/?sh=2db031852036>.

<sup>416</sup> Negotiation of a Follow on Reciprocal Defense Procurement Memorandum of Understanding With the Ministry of Defence of the United Kingdom of Great Britain and Northern Ireland and With the Republic of Finland. Defense Acquisition Regulations System, October 20, 2017. <https://www.federalregister.gov/documents/2017/10/20/2017-22714/negotiation-of-a-follow-on-reciprocal-defense-procurement-memorandum-of-understanding-with-the#:~:text=The%20purpose%20of%20a%20RDP,that%20enhance%20effective%20defense%20cooperation.>

<sup>417</sup> Kelly, Tim, Nobuhiro Kubo, and Lincoln Feast. U.S. agrees to waive restrictions on Japanese military component imports. *Thomson Reuters*, June 4, 2016. <https://www.reuters.com/article/japan-usa-defense-idUSL4N18V26G>.

<sup>418</sup> *Ibid.*

<sup>419</sup> Takenaka, Kiyoshi. Edited by Richard Pullin. Japan exempts F-35 components from Arms Export Ban. *Thomson Reuters*, March 1, 2013. <https://www.reuters.com/article/us-lockheed-fighter-japan-idUSBRE92007420130301>.

<sup>420</sup> Sobrero, Arnaud. Does Japan need to develop a new fighter aircraft? *The Diplomat*, January 13, 2021. <https://thediplomat.com/2021/01/does-japan-need-to-develop-a-new-fighter-aircraft/>; Roblin, "Japan Plans To Spend \$48 Billion" ; <https://www.forbes.com/sites/sebastienroblin/2020/12/15/japans-mitsubishi-to-deploy-48-billion-f-x-stealth-fighters-by-2035-with-boost-from-lockheed/>

<sup>421</sup> "Boeing and MHI to Upgrade Japan's F-15J Fleet." Boeing and MHI to upgrade Japan's F-15J fleet. *Japan Today*, April 1, 2020. <https://japantoday.com/category/business/boeing-and-mhi-to-upgrade-japan%E2%80%99s-f-15j-fleet>.

<sup>422</sup> Chanlett-Avery Campbell, and Williams, "The U.S.-Japan Alliance.", 38

KC-46A “Pegasus” aerial refueling tankers, RQ-4 “Global Hawk” unmanned aerial vehicles (UAVs), and missiles.<sup>423</sup> With reference to SIPRI data, US-imported equipment accounts for over 80% of Japan’s arms import,<sup>424</sup> showing Japan’s heavy reliance on American weapons for security and technology in face of increasingly significant threat from the Chinese.<sup>425</sup>

It could be concluded from the discussion above that China’s security threat to Japan in terms of its assertiveness in the disputed territories and military modernization program have fostered ties between Japan and the US. Thus, mounting security threat is a key driver to tighter US-Japanese ties.

### 3. Restricting Export to China

Apart from facilitating bilateral trade and technology transfer for greater security, Japan and the US have also worked to deter China’s development in military technology by restricting export of certain commodities to China.

In 2022, Japan and the US drew up a proposal for a multilateral framework to restrict the export of advanced technology, including semiconductor production apparatus, quantum technology, and artificial intelligence. The reason for this is China’s military-civil fusion strategy, which alerted Japan and the US of the necessity to work with their European counterparts through a brand-new multilateral framework.<sup>426</sup> As the first state invited to join this new multilateral framework for regulating sensitive technology export, Japan might be considered one of US’ most trusted allies.

### 4. Supply Chain and Economic Security

Another joint action by Japan and the US is to exclude China from their supply chain, with an aim to rule out unlawful forced technology transfer and espionage. The global shortage of semiconductors and chips also warranted cooperation between both states to search for a solution.

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<sup>423</sup> Ibid.

<sup>424</sup> Stockholm International Peace Research Institute, “Importer/Exporter TIV Tables,” accessed April 17, 2019, at <http://armstrade.sipri.org/armstrade/page/values.php>. SIPRI’s methodology for calculating the value of arms transfers is available at <https://www.sipri.org/databases/armstransfers/sources-and-methods/>.

<sup>425</sup>Kahn, Wajahat, and Ken Moriyasu. US arms sales in Indo-Pacific pick up as China tensions build. *Nikkei Asia*, August 21, 2020. <https://asia.nikkei.com/Politics/International-relations/US-arms-sales-in-Indo-Pacific-pick-up-as-China-tensions-build>.; Reuters. “Tokyo to Spend Billions on US Arms to Counter Beijing, Pyongyang.” Japan is set to spend billions of dollars on US arms to narrow its trade surplus as it seeks to counter China and North Korea. *South China Morning Post*, December 8, 2018. <https://www.scmp.com/news/asia/east-asia/article/2177050/japan-set-spend-billions-dollars-us-arms-narrow-its-trade>.

<sup>426</sup> *U.S.-Japan Joint Statement On Global Supply Chain Security*. Ministry of Foreign Affairs of Japan, May 1, 2012. [https://www.mofa.go.jp/region/n-america/us/pmv1204/gscs\\_en.html](https://www.mofa.go.jp/region/n-america/us/pmv1204/gscs_en.html).

It should be noted that Japan and the US started their discussion on global supply chain security not because of China's threat, but rather, due to the 3/11 Great Eastern Japan Earthquake and terrorist attacks.<sup>427</sup> However, threat from China has become the main reason for Japanese and American partnership since Biden took office.

During Abe's tenure, he and his Minister for Foreign Affairs, Kishida, voiced their support for the TPP as a means to ensure economic security in face of potential threat from the Chinese 5G.<sup>428</sup> After Trump blocked global chip supply to Huawei in 2020 due to the impact of China's espionage on US' national security, Tokyo established a security dialogue on 5G networks and dual-use technology with Washington,<sup>429</sup> and the allies moved from mere discussion to proposing concrete solutions to the problem.

Since 2020, the Japanese and the US government also started seeking solutions to reduce their reliance and China's monopoly on rare earths. From Tokyo's perspective, this would enhance its economic security, especially after China suspended its rare earths export to Japan in 2010.<sup>430</sup> On the other hand, the US realized how overdependence on China could threaten its national economic security while researching on rare earth supply.<sup>431</sup> To resolve the issue, both states started looking for alternatives to importing Chinese rare earths.

In April 2021, Biden and Suga, after their first in-person meeting, consented to a cooperation on supply of sensitive materials, such as semiconductors, and other critical technologies.<sup>432</sup> In the long run, both states agreed to replace China's supply through joint research efforts on semiconductors.<sup>433</sup> A bilateral Supply Chain Steering Committee was also established as a result, with an aim to enhance public-private partnerships for more secured production of high-technology items.<sup>434</sup> Japanese and American business leaders also called for building a

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<sup>427</sup> Ibid.

<sup>428</sup> Sasaki, Sayo. FOCUS: Japan's Kishida to boost TPP, economic security with China in sight. KYODO NEWS+, October 4, 2021. <https://english.kyodonews.net/news/2021/10/d15877c0c4f1-focus-japans-kishida-to-promote-tpp-economic-security-with-china-in-sight.html>; Shimada, Gaku. Abe sees China's 5G lead as 'economic security' threat. Nikkei Asia, December 11, 2019. <https://asia.nikkei.com/Politics/Abe-sees-China-s-5G-lead-as-economic-security-threat>.

<sup>429</sup> White, Stanley. "Japan, U.S. to Set up Economic Security Dialogue: Yomiuri." Edited by William Mallard. Japan, U.S. to set up economic security dialogue: Yomiuri. Thomson Reuters, May 16, 2020. <https://www.reuters.com/article/us-usa-japan-security-idUSKBN22S05B>.

<sup>430</sup> Ryall, "Japan moves to secure rare earths"

<sup>431</sup> Trump to Expand Rare Earths Mining, Citing China Threat." Trump to expand rare earths mining, citing China threat. South China Morning Post, October 2, 2020. <https://www.scmp.com/news/world/united-states-canada/article/3103886/donald-trump-moves-expand-rare-earths-mining-citing>.

<sup>432</sup> The White House, "'U.S. - JAPAN GLOBAL PARTNERSHIP FOR A NEW ERA"

<sup>433</sup> Overly, Steven. Few details as Japan, U.S. agree to tackle supply chains. POLITICO, April 19, 2021. <https://www.politico.com/newsletters/weekly-trade/2021/04/19/few-details-as-japan-us-agree-to-tackle-supply-chains-794747>.

<sup>434</sup> Oh, Miyeon, and James Hildebrand. Enhancing US-japan cooperation on Global Supply Chains. Atlantic Council, June 3, 2021. <https://www.atlanticcouncil.org/in-depth-research-reports/enhancing-us-japan-cooperation-on-global-supply-chains/>.

"resilient and trusted" supply chain via diversifying their supply in a meeting co-organized by the Japan-US Business Council and the US-Japan Business Council in October 2021.<sup>435</sup>

In January 2022, a bilateral economic forum known as the Japan-US Security Consultative Committee (Japan-US "2+2") was formed, with US Secretary of State Antony Blinken, US Defense Secretary Lloyd Austin, Japanese Foreign Minister Motegi Toshimitsu, and Japanese Defense Minister Kishi Nobuo as hosts.<sup>436</sup> The new platform demonstrates Japan and the US' determination to form a closer partnership in response to China. During the ministers' first meeting, topics including China's assertiveness in the disputed seas and military aggression,<sup>437</sup> as well as expanding the states' cooperation beyond semiconductors to include replacing Chinese-supplied batteries, were discussed.<sup>438</sup> In their statement after the meeting, the two states emphasized their collaboration in constructing a 'resilient defense supply chain'<sup>439</sup>.

Although the Covid-19 pandemic might be a motivator for states to consider issues on global supply chain security, it is not enough to explain the bilateral and multilateral cooperation between the US and its allies with China excluded. Also, based on topics discussed in the meetings between Japan and the US, it is clear that China's security threat in the East China Sea and South China Sea and economic threat are of utmost concern, and thus, are the main drivers for the enhanced cooperation between the two states.

## 5. Detering China's Cyberattack and Espionage

Japan learnt about the threats posed by cyberattacks of Chinese origin in 2011. This, along with the US' concerns about potential Chinese cyberattacks, motivated the allies to work closely to eliminate cyberattacks and espionage activities.

As elaborated in the previous part, the Japanese government has become more cautious about cyberattacks backed by China since 2011, and it countered the threat through the establishment of government agencies and development of relevant policies. The US government, in fact,

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<sup>435</sup> Kyodo News. Japan, US business leaders call for improved supply chains. ABS-CBN News, October 7, 2021. <https://news.abs-cbn.com/business/10/07/21/japan-us-business-leaders-call-for-improved-supply-chains>. ; *Joint Statement of the U.S.-Japan Security Consultative Committee ("2+2")*. US Department of State, January 6, 2022. <https://www.state.gov/joint-statement-of-the-u-s-japan-security-consultative-committee-22/>.

<sup>436</sup> *Background Press Call By Senior Administration Officials On President Biden's Meeting With Prime Minister Kishida of Japan*. The White House, January 21, 2022. <https://www.whitehouse.gov/briefing-room/speeches-remarks/2022/01/21/remarks-by-president-biden-on-increasing-the-supply-of-semiconductors-and-rebuilding-our-supply-chains-2/>.

<sup>437</sup> Takenaka, Kiyoshi. "Japan Foreign Minister Says Blinken Gave U.S. Commitment to Defend Japan." Edited by William Mallard. Japan foreign minister says Blinken gave U.S. commitment to defend Japan. Thomson Reuters, November 13, 2021. <https://www.reuters.com/world/asia-pacific/japan-foreign-minister-says-blinken-gave-us-commitment-defend-japan-2021-11-13/>.

<sup>438</sup> Miki, "Chips and batteries"

<sup>439</sup> US Department of State, "*Joint Statement of the U.S.-Japan Security Consultative Committee*"

also shares the same concern. As early as in 2010, the US-China Economic and Security Review Commission annual report already highlighted how China's military and cyberattack capabilities would enable them to steal sensitive intellectual properties from US and foreign technology companies.<sup>440</sup> In the same report, China Telecom, a state-owned telecommunication company, was accused of instructing massive volumes of internet traffic to the US, affecting a large number of US government and commercial websites. Though the incident was deemed a non-malicious error, it raised the commission's alertness to China's capability in launching attacks.<sup>441</sup>

With both Japan and the US' apprehensions about China's capacity in waging cyberattacks for espionage, Tokyo and Washington strengthened their defense cooperation on cybersecurity and espionage in October 2013.<sup>442</sup> For better communication, the Japan-US Cyber Dialogue was created in May 2013 with the involvement of several ministerial representatives from both sides.<sup>443</sup> This led to the formation of the Japan-US Cyber Defense Policy Working Group. In the Guidelines for Japan-US Defense Cooperation published on 27 April 2015, the governments promised to share their expertise in protecting cybersecurity while arranging drills.<sup>444</sup> The US would also provide technical support to the Japanese SDF in the event of cyber incidents.<sup>445</sup>

Apart from more frequent intergovernmental dialogues, the Japanese government also became more active in related US-led programs. In July 2017, Abe and Trump met during the fifth Japan-US Cyber Dialogue, which ended with the Japanese NISC agreeing to join the US Department of Homeland Security's Indicator Sharing (AIS) program for information sharing and response coordination.<sup>446</sup>

Since then, bilateral cooperation between Washington and Tokyo has become increasingly stronger and communication more frequent. For instance, Anne Neuberger, Deputy National Security Advisor for Cyber and Emerging Technologies, visited Japan to meet with her

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<sup>440</sup> 2010 Report to Congress of the U.S.-China Economic and Security Review Commission, 15. U.S.-China Economic and Security Review Commission, November 2010. [https://www.uscc.gov/sites/default/files/annual\\_reports/2010-Report-to-Congress.pdf](https://www.uscc.gov/sites/default/files/annual_reports/2010-Report-to-Congress.pdf).

<sup>441</sup> Wolf, Jim. Pentagon says "aware" of China internet rerouting. Thomson Reuters, November 19, 2010. <https://www.reuters.com/article/us-cyber-china-pentagon-idUSTRE6A14HJ20101119>.

<sup>442</sup> Steinhauer, Jennifer, and Martin Fackler. U.S. and Japan agree to broaden military alliance. The New York Times, October 3, 2013. <https://www.nytimes.com/2013/10/04/world/asia/japan-and-us-agree-to-broaden-military-alliance.html>.

<sup>443</sup> *Joint Statement Japan-U.S. Cyber Dialogue*. Ministry of Foreign Affairs of Japan, May 10, 2013. [https://www.mofa.go.jp/region/page22e\\_000001.html](https://www.mofa.go.jp/region/page22e_000001.html).

<sup>444</sup> The guidelines for japan-U.S. defense cooperation, 22. April 27, 2015. Ministry of Foreign Affairs of Japan, April 27, 2015. <https://www.mofa.go.jp/files/000078188.pdf>.

<sup>445</sup> Ibid.

<sup>446</sup> *Joint Press Release the Japan-U.S. Cyber Dialogue*. Ministry of Foreign Affairs of Japan, July 21, 2017. <https://www.mofa.go.jp/files/000275182.pdf>.

Japanese counterparts in November 2021 for conversations on potential cyber threats and encountering measures.<sup>447</sup>

Overall speaking, because of their shared concerns over China's development and threat posed on the aspects of R&D, supply chain security, export control on sensitive items, and cybersecurity and espionage, the Japanese and Americans have extended their defense ties in terms of the scope and depth of cooperation over the years. Certainly, apart from intimate defense relationship, Japan has also been working with other US allies through multilateral platforms, such as Group of Seven (G7), Quadrilateral Security Dialogue (QUAD), and NATO. In the following section, collaboration among Japan, the US, and their allies will be further explored.

## JAPAN-US COOPERATION THROUGH MULTILATERAL INSTITUTIONS

Japan, apart from bilateral cooperation, has also been engaged in multilateral collaboration with the US and other allies through different multilateral frameworks in areas of R&D, espionage prevention, and economic security.

### 1. Prague Proposal

As early as in May 2019, Japan, together with representatives from the EU and NATO, reached a consensus on a set of rules and regulations to avoid the future 5G network being influenced by third countries, without naming China. Neither China nor any of the Chinese 5G network suppliers was invited to the meeting. The attending states agreed to better examine the impact of 5G network and develop remedies to the possible threats proposed. In the meantime, all signatories of the Prague Proposal also agreed to 'promote security and resilience of national critical infrastructure networks, systems and connected devices'<sup>448</sup>. Japan's cyber policy ambassador, Masato Ohtaka, expressed his expectation for another similar event.<sup>449</sup> From its participation in and attitude towards the Prague Proposal, Japan appears to be willing to cooperate with the US and other western allies on R&D and cybersecurity.

### 2. The Clean Network

Other than the QUAD, the Japanese are also collaborating with the US and other western allies through the Clean Network. The Clean Network is, as discussed in the previous section, a US-

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<sup>447</sup> *Statement by NSC Spokesperson Emily Horne on Deputy National Security Advisor Anne Neuberger's Travel to Japan*. The White House, November 28, 2021. <https://www.whitehouse.gov/briefing-room/statements-releases/2021/11/18/statement-by-nsc-spokesperson-emily-horne-on-deputy-national-security-advisor-anne-neuberger-travel-to-japan/>.

<sup>448</sup> Kahn, Michael, and Jan Lopatka. Western allies agree 5G security guidelines, warn of outside influence. Thomson Reuters, May 3, 2019. <https://www.reuters.com/article/us-telecoms-5g-security-idUSKCN1S91D2>.

<sup>449</sup> *Ibid.*

led international campaign against China's threat to the democratic states in terms of data privacy, human rights, and security. Although Japan is not a founding member, it was admitted to the program in November 2020. Through the program, the Japanese government and corporations would work with their democratic peers on 5G network standardization.

### 3. The Quadrilateral Security Dialogue (QUAD)

The QUAD leaders, after a virtual meeting in March 2021, established the Quad Critical and Emerging Technology Group, which aims to encourage cooperation in technology design, technology standards, and telecommunication supply diversification.<sup>450</sup> Under the context that US allies have been gradually eliminating the use of Huawei, ZTE, and other Chinese-made telecommunications equipment, the group might in fact be a mechanism for the US to coordinate its major allies in the Indo-Pacific region. This view could be confirmed by the QUAD's statement issued in July 2021 on agreeing to strengthen their cooperation in advanced technology, such as artificial intelligence, to oppose threats from China.<sup>451</sup> During the first in-person meeting in September 2021, the QUAD members also agreed to extend their scope of cooperation to outer-space, cyberspace, and other infrastructures.<sup>452</sup> Principles on the use and development of technologies were also outlined during the meeting.<sup>453</sup> These actions were phrased as a push back to China as the states were reported to have discussed China's assertiveness in the East China Sea and South China Sea.<sup>454</sup>

To put the above consented plans in action, the Australians established the QUAD Tech Network (QTN) in a bid to promote exchange between the member states. Partners joining the network include Australian National University's National Security College, Center for a New American Security (US), Observer Research Foundation (India), and National Graduate Institute for Policy Studies (Japan). The QTN aimed to support the International Cyber and Critical Technology Engagement Strategy via policy research and policy advocacy that would be parallel to QUAD states, all of which are willing to commit to the international rules-based order as liberal democracies. Its first policy paper was released on 9 February 2021.<sup>455</sup> In September 2021, the QUAD also decided to expand the R&D cooperation to space technology

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<sup>450</sup> *Quad Critical and Emerging Technology Working Group*. Department of Foreign Affairs and Trade of the Australian Government, April 16, 2021. the Australian Government. <https://www.internationalcybertech.gov.au/node/137>.

<sup>451</sup> 'Quad' Nations agree to strengthen cooperation over Advanced Tech. The Japan Times, July 14, 2021. <https://www.japantimes.co.jp/news/2021/07/14/national/quad-tech-cooperation/>.

<sup>452</sup> Kyoto News. "Quad Expands Cooperation to Space, Regularizes Summit amid China Rise." Kyodo News+. KYODO NEWS+, September 25, 2021. <https://english.kyodonews.net/news/2021/09/a05c6440575d-breaking-news-quad-leaders-agree-to-hold-summit-annually-japan-pm-suga.html>.

<sup>453</sup> Ibid.

<sup>454</sup> Ibid.

<sup>455</sup> Department of Foreign Affairs and Trade of the Australian Government, "*Quad Critical and Emerging Technology Working Group*."



in an agreement. Data collected by the states' satellites would be shared for climatological research and natural disaster management.<sup>456</sup>

Furthermore, during their meeting in March 2021, the QUAD also promised to secure their own rare earths, which are essential to the production of electric products, to counterbalance China's rise in technology.<sup>457</sup>

Although the QUAD was originally formed due to the 2004 earthquake and tsunami in the Indian Ocean, it has gradually become a multilateral platform for the four democracies to handle the rise of China, as can be seen from the QUAD's actions towards China, especially in the cyber security domain. China's rise would probably lead to Japan's willingness to work with other allies through QUAD.

#### 4. The Group of Seven (G7)

The Japanese government has been pushing G7 to establish rules and regulations on R&D of artificial intelligence (AI) since 2016 due to the rise of China. In 2020, the US eventually decided to follow other G7 members in joining the Global Partnership on Artificial Intelligence (GPAI) after India also joined.<sup>458</sup> As cited by Kratsios, the cooperation is due to China, a non-member state's, abuse of AI, leading to a conflict in values between China and the US-led alliance.

The GPAI's goal is to undertake projects supporting sustainable economic development with the employment of AI based on the principles of human rights, inclusion, diversity, and innovation, in addition to international cooperation and information exchange between stakeholders. The partnership would also focus on AI innovation, commercialization, and data governance.<sup>459</sup> As US Deputy Chief Technology Officer Lynn Parker told POLITICO in an interview in September 2020, the GPAI is anticipated to be a platform for the western allies to brainstorm 'a good counter to what China is doing'.<sup>460</sup> As Parker further explained, the GPAI is probably a response to China's abuse of AI and other surveillance technology against human

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<sup>456</sup> Kyoto News, "Quad Expands Cooperation to Space"

<sup>457</sup> Kim, Chang-Ran. Edited by Alex Richardson. With eye on China, 'quad' nations to tie up in Rare earths: Nikkei. Thomson Reuters, March 11, 2021. <https://www.reuters.com/article/us-usa-biden-quad-idUSKBN2B314N>.

<sup>458</sup> US will join G7 artificial intelligence pact, citing threat from China. The South China Morning Post, May 28, 2020. <https://www.scmp.com/tech/policy/article/3086425/us-will-join-g7-artificial-intelligence-pact-citing-threat-china>.; India joins GPAI as founding member to support responsible, human-centric development, use of AI. The New Indian Express, June 15, 2020. <https://www.newindianexpress.com/business/2020/jun/15/india-joins-gpai-as-founding-member-to-support-responsible-human-centric-development-use-of-ai-2156937.html>.

<sup>459</sup> Our work - GPAI. The Global Partnership on Artificial Intelligence (GPAI). Accessed June 6, 2022. <https://gpai.ai/projects/>.

<sup>460</sup> Delcker, Janosch. Wary of china, the West closes ranks to set rules for Artificial Intelligence. POLITICO, September 7, 2020. <https://www.politico.eu/article/artificial-intelligence-wary-of-china-the-west-closes-ranks-to-set-rules/>.



rights.

In addition to human rights, GPAI also focuses on the threat brought by China in business, defense, and state security, as stated in a framework paper published by GPAI's Data Governance Working Group in November 2020.<sup>461</sup> Japan's participation in GPAI can be considered an attempt to strengthen its partnership with the US through the G7 in face of the threat from China in AI and cybersecurity.

In addition to GPAI, membership in the G7 also allows Japan to work with its peers in terms of supply chain security. In a statement issued by the G7 ministers and the ASEAN attendees, China was condemned for its intention to alter the status quo through coercive economic policies.<sup>462</sup> Although concrete policies are yet to be announced, the statement indicated G7 might be another multilateral platform for the Japanese government to collaborate with the US regarding supply chain and cybersecurity, as discussed earlier in the chapter.

## 5. NATO

Although Japan has never been a member of the NATO, it has been partnering with NATO as an observer since the early 1990s.

In January 2018, Japan became a member of NATO Cooperative Cyber Defense Center of Excellence during Abe's visit.<sup>463</sup> In May 2018, The Ambassador of Japan to Belgium was appointed as the head of the Japanese mission to NATO.<sup>464</sup> After the meeting, Japan and NATO did not only agree to promote their dialogues and exchanges, but they also prioritized a few areas, particularly cyber defense, maritime security, together with other areas in the Partnership Cooperation Menu.<sup>465</sup> In April 2018, Japan, together with Australia, joined the NATO annual cyberdefense drills for the first time.<sup>466</sup> In the following year, Japan and the US-led bloc also completed a drill in face of China's cyber-threat.<sup>467</sup>

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<sup>461</sup> "Data Governance Working Group A Framework Paper for GPAI's Work on Data Governance." GPAI Data Governance Working Group A Framework Paper for GPAI's work on Data Governance. The Global Partnership of Artificial Intelligence Alliance, November 2020. <https://www.gpai.ai/projects/data-governance/>.

<sup>462</sup> James, William, Guy Faulconbridge, and Andy Bruce. "G7 Is Concerned about China's 'Coercive' Economic Policies - UK's Truss." G7 is concerned about China's 'coercive' economic policies - UK's Truss. Reuters, December 12, 2021. <https://www.reuters.com/world/g7-is-concerned-about-chinas-coercive-economic-policies-uks-truss-2021-12-12/>.

<sup>463</sup> Yanaseko, Yujin. Big three cyberthreats bring Asia-Pacific and NATO allies closer. Nikkei Asia, May 24, 2018. <https://asia.nikkei.com/Politics/International-relations/Big-three-cyberthreats-bring-Asia-Pacific-and-NATO-allies-closer>.

<sup>464</sup> *Allies Agree Japan's Mission to NATO*. NATO, May 24, 2018. [https://www.nato.int/cps/en/natohq/news\\_154886.htm](https://www.nato.int/cps/en/natohq/news_154886.htm).

<sup>465</sup> "Individual Partnership and Cooperation Programme Japan - NATO." INDIVIDUAL PARTNERSHIP AND COOPERATION PROGRAMME BETWEEN JAPAN AND NATO. NATO, May 31, 2018. [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/2020/6/pdf/200626-ipcp-japan.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/2020/6/pdf/200626-ipcp-japan.pdf).

<sup>466</sup> Yanaseko, "Big three cyberthreats bring Asia-Pacific and NATO allies closer"

<sup>467</sup> Ibid.

Although Russia, North Korea, and China are some of the threats driving the Japanese to work with the NATO, China's threat may be the greatest stimulus among the three states. As noted in the 'Defense of Japan 2018', China has been developing new operational capabilities, particularly electronic and cyber warfare, in recent years, while Russia and North Korea were not illustrated as a cyber warfare threat. As such, Japan's partnership with the NATO on cyberdefense might be driven by the increasing threats from China.

In addition, in a thematic chapter on China, the Japanese government deemed that the Chinese has been assimilating cutting-edge into its military operations in one of the commentaries. Evidence cited include dual-used ("swarm") technology owned by the China Electronics Technology Group has outnumbered that of the US in June 2018. China's strategy of Military-Civil Fusion (MCF) and the US actions in response to China's investment in the US also prompted Japan's concern over whether technology would be employed for military uses.<sup>468</sup> In view of the Japanese perception and their actions towards the Chinese MCF strategy, China's cyber threat may be considered a driver to closer partnership between Japan and the US through NATO.

## 6. World Trade Organization (WTO)

The WTO is also utilized by Japan, the US, and the EU to counter China in terms of supply chain security.

Before securing alternative rare earth supply in 2012, Japan, the US, and the EU worked to ensure a stable supply from China.<sup>469</sup> Lodging an appeal to the WTO, the plaintiffs alleged China to be deliberately imposing export restrictions on rare earths to enhance competitiveness for Chinese technology producers since 2010, and causing them the three parties to suffer from higher cost of production. In 2014, the WTO ruled against China's restrictions.<sup>470</sup> However, to ensure rare earth supply would not threaten their national security in the future, Japan, the US, and the EU co-organized the EU-Japan-US Conference on Critical Materials to strengthen R&D and supply chain management of rare earths.<sup>471</sup>

Japan was also a party in a collective action against China's sanctions on Lithuania after it allowed the establishment of a Taiwanese representative office, joining the EU, the US, Taiwan,

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<sup>468</sup> Defense of Japan (Annual White Paper).” Defense of Japan 2018. Japan Ministry of Defense, 2018. [https://warp.da.ndl.go.jp/info:ndljp/pid/11591426/www.mod.go.jp/e/publ/w\\_paper/pdf/2018/DOJ2018\\_Full\\_1130.pdf](https://warp.da.ndl.go.jp/info:ndljp/pid/11591426/www.mod.go.jp/e/publ/w_paper/pdf/2018/DOJ2018_Full_1130.pdf)

<sup>469</sup> Moffett, Sebastian. EU, U.S., Japan seek WTO steps on China rare earths. Thomson Reuters, June 27, 2012. <https://www.reuters.com/article/us-eu-china-rareearths-idUSBRE85Q0KJ20120627>.

<sup>470</sup> Miles, Tom, and Krista Hughes. China loses trade dispute over Rare Earth exports. Thomson Reuters, March 26, 2014. <https://www.reuters.com/article/us-china-wto-rareearths-idUSBREA2P0ZK20140326>.

<sup>471</sup> *Trilateral EU-Japan-U.S. Conference on Critical Materials*. New Energy and Industrial Technology Development Organization, March 28, 2012. [https://www.nedo.go.jp/english/events/event\\_20120326\\_index.html](https://www.nedo.go.jp/english/events/event_20120326_index.html).

Australia, and other G7 members in bringing the case to the WTO.<sup>472</sup>

From the Japanese and the Americans' involvement in the WTO appeal against China in terms of export and supply chain security, WTO may be another international organization in which Japan has the opportunity to work with the US on issues related to both trade and economic and national security.

#### 7. Miscellaneous Multilateral Co-operations:

Apart from cooperating with the US on the cyber front through the above-mentioned organizations, the US and Japan have also been working closely with other allies due to the rise of China in cyber warfare. For instance, the Japanese led the first cyberdefense drill with the US, Europe, and ASEAN also participating.<sup>473</sup> Japan, the US, and Australia also funded 5G projects in the South Pacific to ensure networks in those places can be free from China's interference while competing with China for their influence regarding technology and infrastructure constructions. In 2021, Japan, the US, NATO, and other allies united to censure China for launching a national-level hacking that would jeopardize other states' economic and national security.<sup>474</sup>

#### SUMMARY

From the discussion in this chapter, it can be seen that Japan has always considered China a security threat because of its many direct security rivalries with China. Japan's perception of threat from China and its responses prove that threat perception would lead to states' greater concern on their relative gains than absolute gains from their relations with others. Thus, as the realist assumed, Japan has imposed a series of policies, such as restrictions on technological transfer and strategic materials export, to defend its relative gains for ensuring its security in the long run at the expense of its absolute gains from its economic and trade relations with China. The high consistency between Japan and the US' unilateral policies is an indication that the Japanese are very willing to cooperate with the US. Japan's situation enables us to further discuss the importance of shared threat in alliance formation, since both Japan and the US have similar threat perceptions of China, and they have always seen China as a common security rival. Therefore, the two states can maintain a stable alliance to deter

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<sup>472</sup> Hetherington, William. WTO says China complainants rising. Taipei Times, February 12, 2022. <https://www.taipetimes.com/News/front/archives/2022/02/13/2003773030>.

<sup>473</sup> Tajima, Yukio. Japan to lead First Cyber Defense Drill with ASEAN, US and Europe. Nikkei Asia, August 8, 2020. <https://asia.nikkei.com/Business/Technology/Japan-to-lead-first-cyber-defense-drill-with-ASEAN-US-and-Europe>.

<sup>474</sup> U.S., Japan, other allies condemn China over cyberattacks. KYODO NEWS+, July 20, 2021. <https://english.kyodonews.net/news/2021/07/ddb5cbafc591-update1-us-japan-other-allies-condemn-china-over-cyberattacks.html>.

China's rise.

## 6. IS UK-US SPECIAL TIE NO LONGER SPECIAL?

The UK has continued to work closely with China even after the start of the US-China strategic rivalry. China's oppression of the Hong Kong Anti-Extradition Law Movement served as a wake-up call to the UK that China is a rising power attempting to revise the current international liberal order. Despite changes in the UK's threat perception of China, it has not considered China as a direct security threat. Rather, China is mainly a concern for the British because its revisionist behaviours have encroached the rule-based international liberal order. Britain has paid more attention to its relative gains in its ties with China, but its concerns about absolute gains from economic ties with China still override those about relative gains. Fundamentally, the UK does not view China as a critical and direct security threat as both the US and Japan do. Therefore, the UK's policies for limiting China's access to high technologies are less comprehensive than those of Japan. Accordingly, areas of cooperation between UK and US are fewer than those between Japan and the US. In other words, the UK is less cooperative with the US than Japan.

### 'GOLDEN ERA' MERELY FOR TRADE AND ECONOMIC BENEFITS

'It's going to be a very important moment for British-Chinese relations, which are in a very good state, something of a golden era in our relationship,' Prime Minister David Cameron said in an interview. In further elaboration, the British put much emphasis on economic and trade gains from ties with China in the backdrop of potential impact of EU membership negotiation, and the latter Brexit, on British economy.

In fact, the British government has long been enthusiastic in forming a close business relation with China. As early as in 2003, the Blair government promised to enhance UK-China trade relations in the absence of any potential security threats. Even during the North Korean nuclear crisis, Blair was still quite optimistic about China's commitment in peacefully resolving the issue.<sup>475</sup>

Although the UK and China clashed on human rights and death penalty when, in 2003, the Chinese executed a British heroin smuggler without first completing a proper mental health assessment, the conflict did not appear to have hindered the UK-China relations, let alone become a security threat to the UK. In Ivan Lewis, Minister of State for Foreign and Commonwealth Affairs, and Prime Minister Gordon Brown's words, the UK was only disappointed by China's approach. They were still eager to engage with China.<sup>476</sup> Another

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<sup>475</sup> Blair pledges to boost China trade links. Guardian News and Media, July 21, 2003. <https://www.theguardian.com/politics/2003/jul/21/foreignpolicy.china>.

<sup>476</sup> Duncan, Maxim. China and Britain clash over execution. Thomson Reuters, December 29, 2009. <https://www.reuters.com/article/us-china-execution-uk-idUSTRE5BS08L20091229>.

diplomatic dispute arose in 2008, when an adviser to Gordon Brown reportedly had his BlackBerry phone stolen by a Chinese intelligence officer, though the matter did not lead to many responses from Downing Street. It was only until the issues of Tibetan human rights and media freedom came under the spotlight that Gordon Brown decided not to attend the opening ceremony of the Beijing Olympics in 2008.<sup>477</sup> Yet, despite these disputes, no further actions, such as sanctions and investment restrictions, were implemented. These incidents also demonstrated that the UK's concerns over issues related to Chinese human rights would not hamper its trade relations with China, as there was no concern about threats to the UK's national security back then.

Constructing closer economic ties with China remained the top agenda of David Cameron's government. For example, amidst disputes over Chinese intellectual espionage and human rights issues,<sup>478</sup> Cameron and Chinese Premier Wen Jiabao concluded a trade deal worth USD202 billion in 2011,<sup>479</sup> and despite the diplomatic spat over Cameron's meeting with the Dalai Lama in 2012, the British government still organized the "biggest-ever" trade mission to China in 2013.<sup>480</sup> In 2015, during Chinese officials and diplomats' first visit to Britain since 2005, Cameron and Chinese President Xi Jinping reached another UK-Chinese trade deal<sup>481</sup> and issued a joint statement declaring both states' determination to creating 'a global comprehensive strategic partnership for the 21<sup>st</sup> century' to enhance cooperation in various areas.<sup>482</sup> In 2017, another Anglo-Chinese trade deal was struck, with the UK committing £750 million to improving roads, railways, and ports between China and its trading partners.<sup>483</sup>

In addition to trade, the UK and China also cooperated in areas like finance, nuclear power, creative industries, automobile industries, cultural exchange, and travel visa.<sup>484</sup> Apart from the trade deal, Cameron and Xi also signed a cybersecurity pact during Xi's visit in 2015, which Cameron considered a baby step for more comprehensive cybersecurity cooperation, despite

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<sup>477</sup> Wintour, Patrick. Brown will miss Beijing opening ceremony. Guardian News and Media, April 10, 2008. <https://www.theguardian.com/politics/2008/apr/10/gordonbrown.olympicgames2008>. ; FACTBOX: World leaders to attend Olympics opening in Beijing. Thomson Reuters, August 6, 2008. <https://www.reuters.com/article/us-olympics-leaders-idUST30989220080806>.

<sup>478</sup> Chelsom-Pill, Charlotte. Edited by Martin Kuebler. UK announces series of new trade deals with China. Deutsche Welle, June 27, 2011. <https://www.dw.com/en/uk-announces-series-of-new-trade-deals-with-china/a-15192338>.

<sup>479</sup> Wintour, Patrick. China rebukes Cameron for pointing the finger over human rights abuses. Guardian News and Media, June 27, 2011. <https://www.theguardian.com/world/2011/jun/27/china-cameron-human-rights-abuses>.

<sup>480</sup> Kleinman, Mark. Cameron assembles biggest China Trade Mission. Sky News, November 29, 2013. <https://news.sky.com/story/cameron-assembles-biggest-china-trade-mission-10426300>.

<sup>481</sup> Inman, Phillip, Terry Macalister, Gwyn Topham, and Mark Sweney. The UK's deals worth billions with China: What do they really mean? Guardian News and Media, October 24, 2015. <https://www.theguardian.com/business/2015/oct/24/britains-deals-with-china-billions-what-do-they-mean>.

<sup>482</sup> Ibid.

<sup>483</sup> Slawson, Nicola. David Cameron to lead £750m UK-China investment initiative. Guardian News and Media, December 16, 2017. <https://www.theguardian.com/politics/2017/dec/16/david-cameron-to-lead-750m-uk-china-investment-initiative>.

<sup>484</sup> Inman, Macalister, Topham and Sweney, "The UK's deals worth billions with China"

the British Government Communications Headquarters (GCHQ) alleging China for masterminding cyberattacks on corporations.<sup>485</sup>

The UK and China also fostered their cooperation on technological innovation through government-funded joint projects. In 2017, the two states jointly committed over £125 million in support of the UK-China Joint Strategy for Science, Technology and Innovation Cooperation, with both governments promising to act together on a few principles, which include intellectual property rights protection, project-focused bilateral cooperation, engaging research, and innovation communities.<sup>486</sup> Aside from partnering on projects related to smart technology, biotechnologies, food sciences, environmental issues, food security and physics, the states would also attempt to commercialize these technologies through a more comprehensive cooperative mechanism. From the areas involved in this research partnership, the UK seemingly did not consider China a threat, despite China long being notorious for espionage and breaching of intellectual properties rights.

The Chinese entered the UK's strategic industries, especially in the chip/ semiconductor production sector, through its FDI to the UK. In September 2019, Imagination, one of the largest British chipmakers, was acquired by Crayon Bridge, a California-based investment fund backed by Yitai Capital Limited (in Chinese, 奕泰资本有限公司), which was reported to be a subsidiary of the China State-owned Capital VC Fund Co., Ltd (CSCVCF, in Chinese, 中国国有资本风险投资基金管理公司),<sup>487</sup> which, in turn, is owned by a few state-owned venture funds affiliated to the State-owned Assets Supervision and Administration Commission of the State Council (SASAC) in the pursuant of the Made in China 2025 Strategy.<sup>488</sup> Other shareholders of the CSCVCF included China Reform Holdings Co. Ltd. (in Chinese, 中国国新控股有限责任公司),<sup>489</sup> Postal Savings Bank of China (in Chinese, 中国

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<sup>485</sup> Mason, Rowena. Xi jinpings state visit: UK and china sign cybersecurity pact. Guardian News and Media, October 21, 2015. <https://www.theguardian.com/politics/2015/oct/21/uk-china-cybersecurity-pact-xi-jinping-david-cameron>.

<sup>486</sup> Joint UK-China Strategy for Science, Technology and Innovation Cooperation Sets New Horizons for Closer International Collaborations. Department for Business, Energy & Industrial Strategy and The Rt Hon Jo Johnson, December 6, 2017. . <https://www.gov.uk/government/news/joint-uk-china-strategy-for-science-technology-and-innovation-cooperation-sets-new-horizons-for-closer-international-collaborations>.

<sup>487</sup> “特朗普叫停‘中资背景’公司收购芯片厂商案。” 特朗普叫停“中资背景”公司收购芯片厂商案. Caixin Media , September 14, 2017. <https://other.caixin.com/2017-09-14/101144892.html>.

<sup>488</sup> “基金投资.” 中国国新控股有限责任公司\_基金投资. 中国国新控股有限责任公司. Accessed June 2, 2022. [https://www.crhc.cn/crhc\\_services/crhc\\_fund/](https://www.crhc.cn/crhc_services/crhc_fund/).

<sup>489</sup> (央 企) 名录 — 国务院国有资产监督管理委员会. State-owned Assets Supervision and Administration Commission of the State Council (SASAC), June 24, 2021. <http://www.sasac.gov.cn/n2588035/n2641579/n2641645/index.html>.

邮政储蓄银行),<sup>490</sup> China Construction Bank (in Chinese, 中国建设银行),<sup>491</sup> and Shenzhen Investment Holdings Co. Ltd. (in Chinese, 深圳市投资控股有限公司),<sup>492</sup> all of which are state-owned enterprise. Therefore, the sale of Imagination may facilitate China's rise in technology and military, as the buyer was backed by the Chinese government with the objective to facilitate the Made in China 2025 Strategy. In contrast, Trump government's blocked Crayon's bridge acquisition of Lettice Semiconductor in the US as previously discussed. The opposing approaches taken by the UK and the US on the same entity reflects the difference in their threat perception of, and concerns over, relative gains from China.

Unlike the US, which put restrictions on the granting of visa to researchers to avoid espionage, the UK government loosened its visa restrictions on Chinese students by cancelling the educational, financial, and language requirement on students in 2013,<sup>493</sup> despite reports by some UK media on how Chinese intrude universities and research institutions for sensitive data in the early 2010s. Given that the UK government and other states should have been aware of Chinese spies' activities, if national security was the only consideration, the UK government should not have loosened the requirements for student visa. Yet, if gains in tuition and other income were the only consideration, the UK government might be enthusiastic about welcoming more Chinese students.<sup>494</sup> Of course, it is impossible that all Chinese students would engage in espionage, but the decision to eliminate the visa requirement might imply that the UK government was viewing China as a money tree rather than a security threat.

Based on the analysis of the UK's China policy before Boris Johnson took office, it seems that business has always been the crux of Anglo-Chinese relations. In the next section, the UK's military and technological policy on China, as well as whether the UK-US Special Relations was tarnished because of the 'Golden Era', will be explored.

## NATIONAL SECURITY: OUT OF SIGHT, OUT OF MIND

Considering the cooperation between the UK and China as discussed above, the UK might not

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<sup>490</sup> Postal Savings Bank of China is not directly owned by the SASAC, but a total of 70.19% of the shares are owned by four SOEs. These include China Post Group Corporation Limited (67.37%), China Telecommunications Corporation (1.21%), Shanghai International Port (Group) Co., Ltd. (0.12%), China Life Insurance Company Ltd. (2.7%). For further details, you may refer to the page 6 of the Third Quarterly Report of 2021 (H-shares) published on 28 October 2021 (url: <https://www1.hkexnews.hk/listedco/listconews/sehk/2021/1028/2021102800678.pdf>)

<sup>491</sup> China Construction Bank is not directly controlled by the SASAC, but six SOEs. For details, you may refer to p.3 of the Third Quarterly Report of 2021 (H-shares) published on 29 October 2021 (url: [http://www.ccb.com/cn/investor/20211029\\_1635513413/20211029211213719998.pdf](http://www.ccb.com/cn/investor/20211029_1635513413/20211029211213719998.pdf))

<sup>492</sup> “深圳市投资控股有限公司.” 深圳市人民政府国有资产监督管理委员会网站. SASAC of the People's Government of Shenzhen Municipality, November 24, 2021. [http://gzw.sz.gov.cn/szgg/content/post\\_9395771.html](http://gzw.sz.gov.cn/szgg/content/post_9395771.html).

<sup>493</sup> Ford, Richard. Home Office relaxes Visa Rules for Chinese students. The Times, June 16, 2018. <https://www.thetimes.co.uk/article/home-office-relaxes-visa-rules-for-chinese-students-pjw9200pq>.

<sup>494</sup> Adams, Richard. Almost a quarter of postgrad students at English universities are Chinese. Guardian News and Media, April 1, 2014. <https://www.theguardian.com/education/2014/apr/02/quarter-postgrad-student-english-universities-chinese>.



be willing to work with the US against China. In fact, there had not been sound cooperation and strong policy consistency between the UK and the US before 2021, when the UK first imposed unilateral policies targeting China's rise in military and technology.

As noted in the National Security Strategy published by the UK government in 2010, the UK recognized the rise of China in economic and global influence. However, China was not narrated as a threat, and instead of containing China, the British government decided to engage China.<sup>495</sup> Even in 2015, the National Security Strategy was still highlighting engagement and cooperation with China in areas such as education, trade, and investment. The documents demonstrate that the UK, compared to the US and Japan, was adopting a less confrontational attitude towards China. This can also be explained by the balance of threat theory.

As the UK is not a geographical neighbour of China as Japan is, China's rise in military and economic capability may not be as threatening to the UK as to Japan. More importantly, the UK, unlike Japan, does not have any security rivalry with China on issues concerning regional dominance, regional security, and territorial disputes. As such, the UK does not take China's rise as seriously as the Japanese, leading to its unilateral policies being less comprehensive than those of Japan. Similarly, because the UK does not have any strategic rivalry with China as the US does, it would not format policies that are consistent with the US'. This also applies to the bilateral cooperation between the two states, as the absence of security rivalry and threat from China provides less incentive for London to work with Washington.

#### HONG KONG AND MINOR CHANGES IN THE UK'S CHINA POLICY

The discussion above on the cooperation between the UK and China shows that the potential security threats posed by the Chinese was not a major concern of the British. Yet, in July 2020, Johnson announced the UK's decision to remove all Huawei equipment by 2027. The turning point for this tightening of policy could be China's method of dealing with the 2019 social movement in Hong Kong.

As mentioned previously, the UK does not have many security rivalries, such as global/regional dominance and territorial disputes, with China. So, in theory, the UK would not be motivated to make sharp shifts in its policies, especially given the economic gains from its cooperation with China since 2015. The Chinese state-led initiation of the 2019 Extradition Law Amendment Bill (ELAB) and the implementation of the National Security Law (NSL) in Hong Kong, a former British colony, which led to increased Anglo-Chinese diplomatic rifts,<sup>496</sup>

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<sup>495</sup> Securing Britain in an Age of Uncertainty: The Strategic Defence and Security Review, 16. London: TSO, 2010.

<sup>496</sup> Giles, Christopher. Why are UK and China relations getting worse? BBC News, July 20, 2020. <https://www.bbc.com/news/world-asia-48868140>.

could be the reason behind Johnson's decision.

Indeed, the UK government had shown its concern about the ELAB legislation even before the outbreak of a series of anti-ELAB protests in Hong Kong, as evident from its joint statement against the law with Canada on 30 May 2019, which also demonstrated the UK's interest in upholding the status quo, that is, continued existence of freedom and human rights in Hong Kong. Jeremy Hunt, Foreign Secretary, and his Canadian counterpart, Chrystia Freeland, further explained that their concern was more than the interest of their businesses and expatriates. It was also about how the legislation would put human rights and freedoms set down in the Sino-British Joint Declaration at risk, and how the promise of 'One Country, Two Systems' could be ruined.<sup>497</sup>

From the UK's perspective, the ELAB and the NSL are both detrimental to the universal values that they uphold. Worse still, China's violent oppression of peaceful demonstrations and detainment of reporters and first aiders on the site of the protests again show its increasing threat to the international liberal order. With the implementation of the NSL, the UK government started imposing an export embargo on crowd-control equipment to Hong Kong in July 2020.<sup>498</sup> Thus, universal values seem to be the focus of the UK on the Hong Kong issue. As will be further explained later in this chapter, values are also a highlight in the UK's cooperation with the US.

In addition, as the Sino-British Joint Declaration is a diplomatic agreement that had been filed to the United Nations,<sup>499</sup> it is a legally binding treaty.<sup>500</sup> The PRC's actions are indeed damaging the mutual trust between the UK and China as signatories of the declaration. The diplomatic conflict further intensified when the Chinese government bombarded the UK for interfering with China's internal politics.<sup>501</sup> The violation of the Joint Declaration also demonstrates China's faux commitment to the UN and the existing international liberal order.

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<sup>497</sup> Proposed Extradition Law Changes in Hong Kong: UK and Canada Joint Statement. Foreign & Commonwealth Office and The Rt Hon Jeremy Hunt MP, May 30, 2019. <https://www.gov.uk/government/news/uk-and-canada-joint-statement-on-hong-kong>.

<sup>498</sup> "UK Arms Embargo on Mainland China and Hong Kong." UK arms embargo on mainland China and Hong Kong. Foreign, Commonwealth & Development Office and Export Control Joint Unit, December 31, 2020. <https://www.gov.uk/government/collections/uk-arms-embargo-on-mainland-china-and-hong-kong#:~:text=In%20June%202019%2C%20the%20UK,to%20the%20National%20Security%20Law>.

<sup>499</sup> "Treaty Series Volume 1399 ." Treaty Series Volume 1399, 39-94. United Nations, 1994. <https://treaties.un.org/doc/Publication/UNTS/Volume%201399/v1399.pdf>.

<sup>500</sup> Brooke-Holland, Louisa. Hong Kong: The joint declaration - house of commons library. House of Commons Library, July 5, 2019. <https://commonslibrary.parliament.uk/research-briefings/cbp-8616/>.

<sup>501</sup> "British Government's Hong Kong Intervention Riles China." British government's Hong Kong intervention riles China. Guardian News and Media, August 11, 2019. <https://www.theguardian.com/world/2019/aug/11/british-governments-hong-kong-intervention-riles-china>.; Ng, Teddy, Kinling Lo, and Jun Mai. "China Protests to Britain over Hunt's Hong Kong Warning." China protests over British Foreign Secretary Jeremy Hunt's warning on Hong Kong agreement. South China Morning Post, July 4, 2019. <https://www.scmp.com/news/china/diplomacy/article/3017095/china-protests-britain-over-british-foreign-secretary-jeremy>.

In other words, China behaves like a revisionist state, as the power transaction theory defined.<sup>502</sup>

The impact of the Hong Kong issue on the international liberal order and values is also echoed in the UK's Integrated Review of Security, Defence, Development and Foreign Policy, entitled 'Global Britain in a competitive age'. In the policy review, the UK declared that it would not hesitate to defend its interest and the values damaged by China's actions in Hong Kong,<sup>503</sup> deal with the human rights issue in Xinjiang,<sup>504</sup> and confront China's assertiveness in the South China Sea. As such, the UK government is probably considering China's oppression as a violation of the liberal values. Yet, China is still far from a direct security threat to the UK since they are geographically apart from each other, unlike China and Japan. At the same time, the UK, unlike the US, also does not view China as a global competitor. Owing to a threat perception different from those of the US and Japan, the UK's policies, in terms of scope and toughness, are still far from being comparable to those of these two states, even after 2020.

#### MILD CHANGES IN THE UK'S CHINA POLICY AFTER 2020

In face of China's violation of human rights and other political values, the Johnson government effected mild changes to the UK's China policy. However, the UK's policies for denying China's access to technologies are less stringent and narrower in scope than, and thus, far from consistent with, those of the US and Japan. The stems from the UK not perceiving China as a security threat as do the US and Japan, causing the British government to be less concerned with their relative gains from their ties with China, which is much less significant than its absolute gains from economic ties with the Chinese.

##### 1. Limiting Reliance on Chinese Technology

Johnson told the media that the UK should rely less on both China and Russia for security, but it was attributed to the impact of pandemic and Russian's invasion of Ukraine.<sup>505</sup> Judging from

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<sup>502</sup> Organski, Abramo FK. "Power transition." *Realism Reader* 207 (2014).

<sup>503</sup> Global Britain in a Competitive Age: The Integrated Review of Security, Defence, Development and Foreign Policy. CP403. APS Group, 2021.

<sup>504</sup> The original text relating Hong Kong and Xinjiang can be refer to p.62 of the "Global Britain in a competitive age' policy paper, in which states "We will require a robust diplomatic framework for this relationship that allows us to manage disagreements, defend our values and preserve space for cooperation where our interests align. China is an increasingly important partner in tackling global challenges like pandemic preparedness, biodiversity and climate change. We will continue to pursue a positive economic relationship, including deeper trade links and more Chinese investment in the UK. At the same time, we will increase protection of our CNI, institutions and sensitive technology, and strengthen the resilience of our critical supply chains, so that we can engage with confidence. We will not hesitate to stand up for our values and our interests where they are threatened, or when China acts in breach of existing agreements. The UK has responded to China's actions in Hong Kong by creating a new immigration route for British Nationals (Overseas) and their eligible family members and dependents, and to China's human rights violations in Xinjiang through measures to ensure that British organisations are neither complicit in nor profiting from them.

<sup>505</sup> Meyer-Funnell, Catherine. "Boris Told to Free Brexit Britain from Shackles of China and Russia - 'Too Reliant'."

Johnson's attitude, the UK's policy of reducing its reliance on Chinese technology, unlike the US, is seemingly not aimed at containing the rise of China.

The difference in the policy goals between the UK and the US is reflected in the UK's less restrictive policies against China. Unlike the US, whose policies target all Chinese technological companies, the UK merely targets Huawei and ZTE for national security concerns, and only requires network suppliers to remove related equipment gradually, lowering the percentage of Huawei equipment in networks to at most 35% before 28 January 2023,<sup>506</sup> and complete removal before 2027. New Huawei 5G telecommunication gears are also prohibited from being installed since September 2021. The cost for removing all Huawei components from the UK 2G, 3G and 4G networks, in addition to that caused by the delayed rollout of 5G, amounts to £2 billion.<sup>507</sup> In face of this removal requirement, British telecommunication network supplies, such as British Telecom and Vodafone, had already turned to Ericsson and Nokia as replacement.

Since Huawei and ZTE are the UK's only target, it has not established an entity list of Chinese technological corporations with suspiciously close relationship with the Chinese government, showing the leniency in its policies as opposed to the US'. The timing of the decision to ban these two Chinese companies, July 2020, also lags the US by a few years. This probably indicates that the UK and the US do not share a similar perception of the level of security threat brought by China.

Although the UK government also intends to eliminate its reliance on China Nuclear Power Group's (CGN) involvement in its Sizewell C nuclear power plant and another proposed project at Bradwell-on-Sea in Essex, the company is not directly banned by legislation, as the US usually does through its MEU list. Instead, the UK government seeks to complete the task through negotiation and market mechanisms. Although final decision on the project is yet to be made, the UK government was reported to have negotiated and intend to reduce the influence of CGN on its project by selling shares to other investors in the stock market.<sup>508</sup> Despite the possibility of CGN being kicked out of current projects, the company can still take

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Brexit Britain from shackles of China and Russia - 'too reliant'. Express.co.uk, March 5, 2022. <https://www.express.co.uk/news/politics/1575972/boris-johnson-brexit-britain-shackles-of-dependence-china-russia-ont>.

<sup>506</sup> James, William, and Paul Sandle. Edited by Alexander Smith and Jan Harvey. Britain bans new Huawei 5G kit installation from September 2021. Thomson Reuters, November 30, 2020. <https://www.reuters.com/article/us-britain-huawei-idUSKBN28A005>.

<sup>507</sup> Kelion, Leo. Huawei 5G kit must be removed from UK by 2027. BBC News, July 14, 2020. <https://www.bbc.com/news/technology-53403793>.

<sup>508</sup> Bhalla, Aakriti, Dominique Patton, and Kanishka Singh. Edited by Muralikumar Anantharaman, Simon Cameron-Moore, and Louise Heavens. UK looks at ways to remove China's CGN from nuclear project through stake sale- ft. Thomson Reuters, September 29, 2021. <https://www.reuters.com/world/uk/uk-weighs-sale-nuclear-plant-stake-institutional-investors-ft-2021-09-29/>.

part bidding for future projects. This shows that, despite uncertainties in the UK-China cooperation after 2020, the UK, unlike the US, remains cautious on not adopting a confrontational attitude towards China's corporations.

Lastly, London has also made a move to break free from Beijing's grip on the UK's rare earth supply, but this is out of economic concern rather than the national security concern cited by the US and Japan. Officials from the security departments and the parliament are both favourable to the construction of a rare-earth production plant in Hull for £125 million. The plant is to be operated by Pensana, a Britain-based mineral company, in a bid to eliminate the impact of Chinese monopoly over the supply of rare-earths.<sup>509</sup> This attempt by the UK to be less dependent on China's import without directly eliminating China's involvement from its supply chain can be seen as an intention to diversify the source of materials to prevent a monopoly from controlling the market. The focus on market share demonstrates that the UK's policy is also driven by its concerns over economic gains, rather than solely due to security concerns about China.

Overall speaking, the UK's policies towards on China, especially on the use of Chinese technologies, have always been less confrontational than its US counterparts, even after security concerns heightened after 2020. Since the UK does not consider China as a significant security threat as does the US, its concerns over relative gains in relation to China would be lower than that of the US.

## 2. Enhancing UK Domestic R&D Capability

Similar to the US, the UK is determined to boost its domestic research and development capability, but with a different policy goal. London's focus is to attempt to catch up with both China and the US while gaining a technological advantage over adversaries.

The UK Ministry of Defence's Science and Technology Strategy 2020 mentioned that an 'increasingly powerful China are taking aggressive actions that threaten regional security and stability and challenge the existing rules-based international order'<sup>510</sup>, but Russia remains 'the UK's and NATO's principal strategic challenge'<sup>511</sup>. In response to these challenges, the MoD has started to develop its R&D capability,<sup>512</sup> and in March 2022, the Department for Business, Energy & Industrial Strategy (BEIS) and the UK Space Agency proposed allocating £39.8

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<sup>509</sup> King, Jon. Move over China! £125m Yorkshire Project to break Beijing's rare earths stranglehold. Express.co.uk, January 16, 2022. <https://www.express.co.uk/news/uk/1550525/yorkshire-news-hull-pensana-breaks-china-rare-earth-metals-stranglehold>.

<sup>510</sup>McLean, Angela. "MOD Science and Technology Strategy 2020." London: UK Ministry of Defence (MOD), October 19, 2020.

<sup>511</sup>Ibid.

<sup>512</sup>Ibid.

billion to R&D projects between 2022 and 2025.<sup>513</sup>

It is noteworthy that the UK considers Russia a principal strategic challenge, as opposed to the Biden government, which proposed China as the focus of the US. This became obvious during the Russian annexation of Ukraine in February 2022 when, just a few days after the outbreak of the war, the Biden administration sent a delegation of former principal defence officers to Taiwan to show the US' support while warning China not to take advantage of the chaos.<sup>514</sup> In March 2022, Biden was reported to have appointed H.R. McMaster and Matthew Pottinger, both of whom served as national security advisers for Trump, to assist the present Secretary of Commerce, Gina Raimondo, to promote another bipartisan innovation bill in the congress. Clearly, Biden has been focusing on the US' strategic competition with China, while the UK seems to be obsessed with overcoming the national security challenge posed by Russia.

Apart from the differences in perception of security threats posed by China, UK's goal, as listed in the "National Artificial Intelligence Strategy", is to become a global artificial intelligence superpower compatible to China and the US by attracting international investment to the UK AI industries and breeding talents.<sup>515</sup> This statement, though simple, shows some differences in the policy goals between the UK and the US. The UK does not share the same view as the US that the world is dominated by competition between the US and China, as it still views the US as a comparable peer in AI competition. Besides, the plan seems to focus on integrating AI into the UK businesses and industries. The strategy shows that the UK's goal is different from the US', as it intends to compete with both China and the US. In the meantime, different from the US and China, which use AI to boost their military capability, AI is used by the UK mainly in the economic domain. Without a common threat perception and policy goal, it is understandable that UK's policy would be less consistent with the US', meaning that bilateral cooperation would be less probable.

### 3. Investment Restriction

Another piece of evidence indicating the differences between the UK and the US's threat perception of China is the inconsistencies between the two states' investment restriction on China's technological firms. Before the introduction of National Security and Investment Act

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<sup>513</sup> Government Announces Plans for Largest Ever R&D Budget. Department for Business, Energy & Industrial Strategy and UK Space Agency, March 14, 2022. <https://www.gov.uk/government/news/government-announces-plans-for-largest-ever-rd-budget>.

<sup>514</sup> Brunnstrom, David, and Michael Martina. Exclusive: Biden sends former top defense officials to Taiwan in show of support. Thomson Reuters, February 28, 2022. <https://www.reuters.com/world/china/exclusive-biden-sends-former-top-defense-officials-taiwan-show-support-2022-02-28/>.

<sup>515</sup> Shear, Sam. UK publishes 10-year plan to become 'A.I. Superpower', seeking to rival U.S. and China. CNBC, September 23, 2021. <https://www.cnbc.com/2021/09/22/uk-publishes-plan-to-become-ai-superpower-and-rival-us-and-china.html>.

in January 2022, a few incidents regarding Chinese acquisition in the UK may shed light on the changes in the UK's policy and attitude towards China.

After Nexperia, a top original design manufacturer in China, announced its success in obtaining full ownership of the Newport Wafer Fab, one of the key semiconductor producers in the UK on 5 July 2021,<sup>516</sup> Johnson demanded his national security adviser Stephen Lovegrove to review the deal after the conservatives raised concerns over the strategic importance of the semiconductor sector. Nexperia is an affiliate of Wingtech Technology (in Chinese, 聞泰科技), which is a company responsible for designing new smartphones for Huawei, Lenovo, and MEIZU and some other corporations, except Apple.<sup>517</sup> The company founder and Chief Executive Officer, Zhang Xuezheng (Wing) (in Chinese, 张学政),<sup>518</sup> revealed his plan to establish a new R&D centre for projects on 5G, automobile electronics, and internet of things (IoT) in an interview with the Shanghai Securities News. As such, the sale of Newport Wafer Fab to Nexperia would drive the development of Chinese 5G and rise in technological capability, particularly when Huawei is one of Nexperia's key clients.

Even more worrisome is that Newport Wafer Fab has been working on UK government's R&D contracts, such as chip technology for fighter jets' radar system.<sup>519</sup> In other words, the acquisition may enable China to access UK's defence technology, thus allowing China to enhance its chip technology for its technological and military rise and putting UK's national security at stake. Apart from ordering a national security review, the UK government also terminated its funding to the company after the acquisition deal.<sup>520</sup>

In October 2021, after prohibiting Chinese corporations from bidding for UK's 5G and nuclear projects, Johnson told Bloomberg that the UK would not 'pitchfork away every overture from China', and he is 'no sinophobe'. The Prime Minister also told the reporter that 'China is a gigantic part of our economic life and will be for a long time -- for our lifetimes... But that does not mean that we should be naive in the way that we look at our critical national

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<sup>516</sup> Nexperia Obtains 100% Ownership of Newport Wafer Fab, to Be Renamed Nexperia Newport. Nexperia, July 5, 2021. <https://www.nexperia.com/about/news-events/press-releases/nexperia-obtains-100-ownership-of-newport-wafer-fab-to-further-boost-production-capacity.html>.

<sup>517</sup> 闻泰科技张学政谈并购安世：百亿只是开始，双千亿不远了。上海证券报, February 4, 2018. <https://news.cnstock.com/paper.2018-12-04.1092595.htm>.

<sup>518</sup> “高级管理团队。” Nexperia. Nexperia. Accessed June 2, 2022. <https://www.nexperia.cn/about/management-team.html>.

<sup>519</sup> Shead, Sam. The UK chip plant that's being sold to a Chinese-owned firm has over a dozen contracts with the British Government. CNBC, August 4, 2021. <https://www.cnbc.com/2021/07/20/newport-wafer-fab-has-over-a-dozen-contracts-with-british-government.html>.

<sup>520</sup> Titcomb, James. Ministers cut off funding to chip factory after sale to Chinese-owned firm. Telegraph Media Group, July 20, 2021. <https://www.telegraph.co.uk/technology/2021/07/20/chip-factory-sold-china-involved-taxpayer-funded-defence-project/>.



infrastructure'<sup>521</sup>. This somehow delineates Johnson and UK's attitude towards China amidst rising security concerns.

Aside from investigating deals concerning national security, the UK government also introduced stricter and institutionalized measures to restrain Chinese investment in British technological enterprises, one of which is the National Security and Investment Act, which grants the government the power to scrutinize and intervene in acquisitions that pose potential dangers to the UK's national security. Acquisitions in areas of advanced materials, advanced robotics, artificial intelligence, communications, civil nuclear, critical suppliers to government, together with military and dual-use items, must be reported to the government. Though without specifically naming China, the areas covered by the act have long been the focus of China's Made in China 2025 strategy, and the Chinese have been eager to invest in these industries in the UK. Thus, it is safe to conclude that the act is targeting China's military modernisation.

The timing of the legislation, though, is a manifestation of the unsynchronized response to China's technological rise between the UK and the US. The FIRMA was signed into law by the US president in August 2018, followed by further amendments in January 2020 and September 2020.<sup>522</sup> Yet, the National Security and Investment Act 2021 only gained Royal Assent in 2021 and came into force in January 2022.<sup>523</sup> This is an indication that the UK's awareness of China's technological emergence came a few, if not four, years later than the US. This time lag between the two legislations again sheds light on difference between how the UK and the US view the national security threat posed by China.

In fact, differences in policies are not only seen between the UK and the US, but also between the UK and Japan, with those of the UK being much less stringent than those of Japan. Specifically, the UK has not explicitly restrained Chinese fund from buying a small proportion of shares of a specific list of companies as the Japanese has. Instead, the British government would only intervene in any acquisition of companies in specific sectors without naming specific corporations. In consequence, the UK's policy may still allow the Chinese to have leeway to access British technologies by purchasing substantial portion of shares from the

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<sup>521</sup> Donaldson, Kitty. Boris Johnson says U.K. doesn't want to turn away Chinese investment. Bloomberg, October 19, 2021. <https://www.bloombergquint.com/business/johnson-says-u-k-doesn-t-want-to-turn-away-chinese-investment>.

<sup>522</sup> "National Security and Investment Act: Guidance on Notifiable Acquisitions." National Security and Investment Act: guidance on notifiable acquisitions. Department for Business, Energy & Industrial Strategy, January 4, 2022. <https://www.gov.uk/government/publications/national-security-and-investment-act-guidance-on-notifiable-acquisitions/national-security-and-investment-act-guidance-on-notifiable-acquisitions>.

<sup>523</sup> The Committee on Foreign Investment in the United States (CFIUS). U.S. Department of the Treasury, May 27, 2022. <https://home.treasury.gov/policy-issues/international/the-committee-on-foreign-investment-in-the-united-states-cfius>.



market rather than through direct acquisition.

In the next section, discrepancies between the UK and the US in their export policies will be discussed.

#### 4. Export Control over Strategic Items

As in other aspects, Downing Street's export control policies are not as comprehensive as those adopted by the White House.

As described previously, the US government has developed several lists, including the Military End User (MEU) List and the Entity List,<sup>524</sup> the former of which lists entities that are defined as military end user,<sup>525</sup> and to which export, reexport, or transfer of any microprocessors, relevant technology, and software for the assumably military use are prohibited.<sup>526</sup> In addition to the EAR, the Bureau of Industrial and Security (BIS) may also attach additional prohibitions to the license. Although dealers can apply for license from the BIS, all applications are presumably denied.<sup>527</sup> Meanwhile, entities listed are required to apply for specific licenses with requirements not limited to those on Commerce Control List. Similarly, although listed entities can still apply for licenses, all applications would be presumably denied.<sup>528</sup>

Different from the US, the UK does not presumably deny all applications made by restricted entities. The updated UK Strategic Export Licensing Criteria only control export, transfer, trade, and transit of strategic items under eight criteria to certain destinations, including China. These criteria include the respect of UK's obligations to agreements on non-proliferation, respect of human rights and freedoms of the destination state, preservation of internal/international peace and security, the UK and allies' national security, the behaviour of the buyer country with regard to the international community, the existence of a risk that the items will be diverted to an undesirable end-user or for an undesirable end-use, and the compatibility of the transfer with the technical and economic capacity of the recipient country.<sup>529</sup> In a sense, it is still possible for entities to successfully apply for a license.

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<sup>524</sup> Bureau of Industry and Security. Department of Commerce. Export Administration Regulations. 15 CFR §744.9, §744.16 - §774.18, March 3, 2022

<sup>525</sup> According to the part 744.17 of the Export Administration Regulations (EAR), the term 'military end user' means the national armed services (army, navy, marine, air force, or coast guard), as well as the national guard and national police, government intelligence or reconnaissance organizations, or any person or entity whose actions or functions are intended to support 'military end uses' as defined in the part 744.17 (d).

<sup>526</sup> According to Part 774.17 (a) of the EAR, "microprocessor microcircuits," "microcomputer microcircuits," and microcontroller microcircuits having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating "information security" functionality.

<sup>527</sup> <https://www.bis.doc.gov/index.php/documents/regulations-docs/2343-part-744-control-policy-end-user-and-end-use-based-2/file> p.23

<sup>528</sup> Bureau of Industry and Security. Department of Commerce. Export Administration Regulations. 15 CFR §744.9, §744.16 - §774.18, March 3, 2022

<sup>529</sup> Department for International Trade, Trade Policy Update Statement made on 8 December 2021, Anne-Marie

Compared to the US' lists, which clearly name specific entities, such as individuals and corporations, the UK's approach seems to be far more lenient.

It is also worth noting that a time lag also exists in the export policy aspect between the UK and the US. Chinese military end users have been blacklisted by the US since 2020, but the UK only started doing it in late 2021. The reason is probably also due to the different threat perception by these two states.

Judging from the difference in leniency and approach, as well as the time lag between the UK and US' export control regime, the cooperation between these two states may not be necessarily smooth, consistent, and well-coordinated. Considering how closely Japan follows the US in export control policies, for example, Japan's establishment of an MEU list similar to the US', it can be concluded that the UK's export control policies are also less restrictive than those of the Japanese.

#### 5. Visa Restriction

Another area in which discrepancies are seen between the UK and the US is in their espionage prevention policy, which, again, arose from the difference in their threat perception of China. Compared to the US, which simply blocked all student visa application from China, the UK is only targeting a portion of students who wish to pursue further studies in sensitive subjects related to military and cybersecurity.<sup>530</sup> Specifically, the UK government has expanded the list of sensitive subjects that Chinese students are not allowed to study to include aircraft and cybersecurity studies<sup>531</sup> and set up the Academic Technology Approval Scheme (ATAS) to conduct background check on students from non-European Economic Areas or not from Switzerland who wish to study subjects that could be used in weapons programmes.

The UK's relatively small-scale student visa restriction policy seems to be an indication that its alertness of China's espionage activities is lower than that of the US. Hence, the UK has not adopted a total ban on student visa application from China.

#### 6. Espionage Prevention

The degree of institutionalization of government's investigation on Chinese engagement in espionage also differs between the UK and the US. While the China Initiative was launched

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Trevelyan. HCWS449, London, UK: HM Department for International Trade, 2021 <https://questions-statements.parliament.uk/written-statements/detail/2021-12-08/hcws449> (accessed June 6, 2022)

<sup>530</sup> Fu, Ting. Chinese students hit by US visa rejections amid tension. Associated Press, September 14, 2021. <https://apnews.com/article/technology-lifestyle-donald-trump-china-education-be7fc34757c7ed54d995e77772d461>.

<sup>531</sup> Shirbon, Estelle. Edited by Stephen Addison. UK to exclude Chinese students from sensitive subjects - Times. Thomson Reuters, October 1, 2020. <https://www.reuters.com/article/uk-britain-china-students-idUSKBN26M5YY>.

jointly by the DoJ and FBI in the US,<sup>532</sup> the UK government seems to be less enthusiastic about creating similar policy initiatives or programmes to systematically examine all potential Chinese espionage threats. Despite warning from the MI6 that China would be a greater threat than Russia,<sup>533</sup> and Iran in global terrorism due to its dominance in global technology,<sup>534</sup> institutionalized effort to eliminate China's spying activities in the UK is still limited, and action is mostly taken on a case-by-case basis. For example, London quietly expelled three Chinese journalists working as spies in the UK in February 2021. A more recent case involves an MI5 warning to Whitehall on one Christine Lee, 58, a solicitor working as an undercover agent for the Chinese Communist Party.<sup>535</sup> Apart from these one-off actions against espionage activities, no significant policies or initiatives have been implemented by London to prosecute, arrest, or expel suspected Chinese spies.

## 7. Government Agencies Changes

Last but not the least, while both UK established new government agencies in respond to China's espionage activity and enhancing research capability, the UK approaches was still less consistent to the US in terms of the closeness of the agency with the defence authority as well as the agency's authority.

The UK government established the Research Collaboration Advice Team (RCAT) to promote the government's advice in protecting intellectual properties and national security, in addition to other security related areas within the research community.<sup>536</sup> However, RCAT is under the direction of BEIS but not the defense system, and its main duty is only to promote the government's policy.

On the other side of the Atlantic, the Under Secretary of Defense for Research and Engineering (USD (R&E)) and Under Secretary of Defense for Acquisition and Sustainment (USD (A&S))

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<sup>532</sup> US Department of Justice, "Information about the Department of Justice's China Initiative"

<sup>533</sup> Mundhra, Shreya. Wary of Chinese tech prowess, British MI6 says China bigger threat to UK than Russia, Iran & Global Terrorism. The EurAsian Times, December 14, 2021. <https://eurasianimes.com/british-mi6-says-china-bigger-threat-to-uk-than-russia-iran-global-terrorism/>.

<sup>534</sup> Gant, James. Army chief warns military needs more computer scientists to cope with foreign threats. Daily Mail Online, September 14, 2021. <https://www.dailymail.co.uk/news/article-9990151/Army-chief-warns-military-needs-computer-scientists-cope-foreign-threats.html>.; Faulconbridge, Guy, and Michael Holden. China could rule World's technology, UK Cyber Spy Chief says. Thomson Reuters, April 22, 2021. <https://www.reuters.com/technology/west-faces-moment-reckoning-over-technology-uk-top-cyber-spy-says-2021-04-22/>.

<sup>535</sup> Chinese spy targeted UK for 15 years and bragged about plot to install mps in Commons. Daily Mail Online, January 17, 2022. <https://www.dailymail.co.uk/news/article-10409277/Chinese-spy-targeted-UK-15-years-bragged-plot-install-MPs-Commons.html>.

<sup>536</sup> Dedicated Government Team to Protect Researchers' Work from Hostile Activity. Department for Business, Energy & Industrial Strategy, The Rt Hon Kwasi Kwarteng MP, and Amanda Solloway MP, May 25, 2021. <https://www.gov.uk/government/news/dedicated-government-team-to-protect-researchers-work-from-hostile-activity#:~:text=higher%20education%20institution-,Dedicated%20government%20team%20to%20protect%20researchers%20work%20from%20hostile%20activity,and%20protection%20of%20intellectual%20property>.

are the persons responsible for safeguarding the fruits of US research from security risks and enhancing the US research capability in critical technologies.<sup>537</sup> Different from the UK, these two positions do not report to the Department of Commerce, but rather, to the DoD. Obviously, the US tends to take research as a national security issue as it is also working to enhance its own military technology capability.

From the differences between the UK and US' newly established agencies in terms of authority and association with the defense-related departments, the UK probably may not be taking China as such a serious threat to its national security as the US is. Therefore, the RCAT is placed under the BEIS but not the UK MoD. In the meantime, given the limited authority delegated to RCAT as a promotor of government policy, it is also possible to conclude that the UK, unlike the US, may not be considering China as a strategic rival in both military and technology, and the UK government is not attempting to compete with China in military research domains. In other words, the UK government is adopting a relatively defensive posture towards China. Again, these observations may be explained by the fact that the UK is facing less security rivalries with and threats from China as their Americans counterparts do.

Even when compared to Japan, the UK seems to be less willing to confront China's threat to its overall economic security. As discussed in the previous chapter, the Japanese government has founded the Economic Security Ministry to manage the impacts of China on its economic security. Yet, the RCAT does not address China's impact to its economic security, but simply aims to avoid technologies from academic research being leaked to China.

In addition to the relatively narrower jurisdiction of RCAT, the resources allocated to the two agencies differ because of the differences in their ranking in the government. The Japanese established its agency at the ministry level, which is entitled to more funding and greater authority in policy formation and coordination, as opposed to the RCAT, which is an agency under the supervision of a ministry. As such, the Japanese government appears to be more willing to tackle China's potential threat to its overall economic security, not just intellectual property, than the UK does. Comparatively, the UK's policies are less restrictive than those of Japan.

Overall speaking, British policies are the least restrictive among the UK, the US, and Japan. The laxness in the UK's policies may be explained by the fact that UK does not have any direct security rival with China, so it does not have great relative gains concerns against China, in addition to its desire to preserve its economic relations with China.

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<sup>537</sup> Sargent Jr. and Gallo, "The Global Research and Development Landscape", 16

## UK-US DISPUTES DUE TO VARIATIONS IN THREAT PERCEPTION OVER CHINA

In addition to the inconsistencies between the US and UK policies, some disputes described below between the US and UK may show that the UK has not considered China as an immediate security threat as the US and Japan has been.

The UK and US had a dispute on joining the Chinese-led Asian Infrastructure Investment Bank (AIIB), with the US boycotting and the UK joining. As the UK treasures its absolute gains from trade with China more than its relative gains, the UK chose to join the bank for gains. On the contrary, as the US views China as a strategic rival, the US is extremely concerned about its relative gains from China in any cooperation. The UK's joining of the AIIB was seen by the US as having lost its influence and support from an ally against China. The differences between the UK and US' threat perception can explain why the Obama administration criticized UK for its 'constant accommodation' of China when the UK applied for the AIIB membership.<sup>538</sup> An US official even told the media that 'we are wary about a trend toward constant accommodation of China, which is not the best way to engage a rising power'<sup>539</sup>. The statement was considered as an indicator of the damaged special relations between the two states. In response to the news, the Obama administration only expressed that it respects the UK's decision, as well as the US' expectation that 'the UK will use its voice to push for adoption of high standards'<sup>540</sup>. Despite Cameron's dismissal of the rift between the UK and the US, inconsistency between the two states' policy against China and the limited UK-US cooperation is an indication that the allies were not working together very well.

A worse problem came when reports surfaced that the UK and the US failed to compromise on Huawei's involvement in the UK's 5G network construction in early 2020. Trump had been constantly persuading the UK to discontinue the use of Huawei components in its 5G network. However, the UK's National Cyber Security Centre, though concerned about the potential security threats brought by Huawei, still concluded that the triggered risks were 'manageable'<sup>541</sup>. Yet, the Huawei Cyber Security Evaluation Centre Oversight Board, a watchdog group, came up with an opposite conclusion, saying that they could 'only provide

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<sup>538</sup> Robinson, Julian. "Cracks in the 'Special Relationship'? Obama Administration Hits out at UK for Trying to 'Constantly Accommodate' China after Britain Signs up to \$50bn Beijing Bank." Obama administration hits out at UK for trying to 'constantly accommodate' China after Britain signs up to \$50bn Beijing bank. Daily Mail Online, March 13, 2015. <https://www.dailymail.co.uk/news/article-2993006/Cracks-special-relationship-Obama-administration-hits-UK-closer-ties-China-50bn-Asian-bank-rare-public-slapdown.html>.

<sup>539</sup> Dyer, Geoff, and George Parker. US accuses UK over China stance. CNBC, March 13, 2015. <https://www.cnbc.com/2015/03/12/us-accuses-uk-over-china-stance.html>.

<sup>540</sup> Watt, Nicholas, Paul Lewis, and Tania Branigan. US anger at Britain joining Chinese-led Investment Bank aiib. Guardian News and Media, March 13, 2015. <https://www.theguardian.com/us-news/2015/mar/13/white-house-pointedly-asks-uk-to-use-its-voice-as-part-of-chinese-led-bank>.

<sup>541</sup> BBC. Huawei risk can be managed, say UK cyber-security chiefs. BBC News, February 18, 2019. <https://www.bbc.com/news/business-47274643>.

limited assurance that all risks to U.K. national security from Huawei's involvement in the U.K.'s critical networks can be sufficiently mitigated long term'<sup>542</sup>.

Despite the contradicting outcome in the assessment of the risk associated with using Huawei, the Trump administration was still keen on pressuring Johnson, even threatening to not share intelligence with the UK if it kept its decision to include Huawei in its telecommunication projects.

Johnson was reported to have postponed his visit to the US due to his disagreement with Trump on a phone call. A paper released giving a summary of the phone call on 28 January 2020 even stated Trump was so 'apoplectic' that some British officials were startled by his tone. Some other officials described the call as a 'very difficult' one.<sup>543</sup> A follow-up report even disclosed that Johnson decided to cancel his plan for a visit to the US in spring,<sup>544</sup> despite Mick Mulvaney, Trump's White House chief of staff, originally scheduled to meet with Dominic Cummings, Johnson's top aide, in February.<sup>545</sup> The relationship between the two states did not thaw until July 2020, with the UK extending the olive branch. This incident related to the use of Huawei sheds light on the fact that even the closest allies may not cooperate well in every regard.

As for the reason for the rift, it is possible that the US is more concerned about its relative gains for national security and global dominance against China as a dominant power. From the British's perspective, since the UK is not a power as great as the US and China, it would not see China as a strategic rival. In addition, compared to Japan, the UK was not threatened by China's assertiveness in the territorial disputes and regional security. In the absence of security rivalries, albeit the existence of conflicts in international political values, the UK, as a liberal democratic state, did not respond as vigorously as the US and Japan, until the UK really felt the threat of China. This also explains why the UK's policies in general aim to aggregate its economic gains from China. Even if China is taken as a threat to the stability of the global liberal order, the UK government and British pundits did not consider the US-China rivalry as a new Cold War due to their extensive trade and investment.<sup>546</sup>

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<sup>542</sup> Eschulze, Elizabeth. "Huawei's Equipment Poses 'Significant' Security Risks, UK Says." Huawei's equipment poses 'significant' security risks, UK says. CNBC, March 28, 2019. <https://www.cnbc.com/2019/03/28/huawei-equipment-poses-significant-security-risks-uk-says.html>.

<sup>543</sup> Holden, Michael. "Trump 'Apoplectic' with UK's Johnson over Huawei Decision: FT." Edited by Andrew Heavens. Trump 'apoplectic' with UK's Johnson over Huawei decision: FT. Thomson Reuters, February 6, 2020. <https://www.reuters.com/article/us-britain-usa-huawei-trump-idUSKBN2002R2>.

<sup>544</sup> Buchan, Lizzy. Boris Johnson delays plans for US visit after angry phone call with trump. Independent Digital News and Media, February 14, 2020. <https://www.independent.co.uk/news/uk/politics/boris-johnson-trump-us-visit-huawei-5g-g7-brex-it-a9335986.html>.

<sup>545</sup> Hamilton, Isobel Asher. Trump's chief of staff warned the UK against Huawei ahead of meeting Boris Johnson's most important aide. Business Insider, February 20, 2020. <https://www.businessinsider.com/mick-mulvaney-warns-uk-against-using-huawei-for-5g-2020-2>.

<sup>546</sup> UK. House of Lords. International Relations and Defence Committee *'The UK and China's security and trade*

Thus, the not-very-tight UK-US cooperation on denying China's access to technology can be explained by the UK not perceiving China as significant a threat and not sharing the same security concern with the US. As will be revealed in the next section, a factor that may foster better cooperation between the two states could be their shared values.

## UK-US COOPERATION BASED ON VALUES OTHER THAN SECURITY

As mentioned in previous discussions, the UK does not see China as a key security threat as do the US and Japan, leading to its more lenient unilateral policies against China and higher likelihood of disputes with the US than Japan. Indeed, the differences in perception of China between the UK and Japan lead to a narrower scope of cooperation based on values between the UK and the US, which is barely comparable to the all-rounded cooperation based on national security threats between Japan and the US.

In June 2021, Johnson and Biden signed the New Atlantic Charter, which signifies UK-US cooperation in tackling global challenges, including the emergence of China.<sup>547</sup> In addition to climate change, healthcare, and multilateral cooperation, the agreement also features the allies' commitment in defending democratic principles, fostering international cooperation, deterring cyberattacks, constructing fair trade, and reaffirming collective security. Though China is not named in the charter, an anonymous British official stated that, 'It's not unreasonable to see a read-across to China'. Yet, the focus of the charter is on defending the liberal orders cherished by both the UK and the US. Whether it is an indication that the UK is targeting China as an authoritarian state or a strategic rival as the US is remains questionable.<sup>548</sup>

### 1. Research and Development Collaboration

Since 2020, the UK and the US have cooperated more closely on R&D. However, from the UK's narrative, these collaborations are induced by the UK-US shared values rather than their shared concerns over China's security threat.

In September 2020, the Trump administration announced a new agreement with the UK on AI research.<sup>549</sup> Compared to the UK-US Science and Technology Agreement signed in 2017,<sup>550</sup>

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*relationship: A strategic void'. Sessional Papers, 2021-2022, 10 September 2021. <https://committees.parliament.uk/publications/7214/documents/75842/default/>*

<sup>547</sup> Parker, George. Johnson and Biden set to focus on China in new UK-US accord. Financial Times, June 9, 2021. <https://www.ft.com/content/3e630dec-300c-412e-b246-75db58dff499>.

<sup>548</sup> Johnson, Boris. "New Atlantic Charter and Joint Statement Agreed by the PM and President Biden." New Atlantic Charter and joint statement agreed by the PM and president Biden. Prime Minister's Office, 10 Downing Street, June 10, 2021. <https://www.gov.uk/government/publications/new-atlantic-charter-and-joint-statement-agreed-by-the-pm-and-president-biden>.

<sup>549</sup> Nair, Aishwarya. Edited by Shailesh Kuber. U.S., UK announce AI partnership: Axios. Thomson Reuters, September 25, 2020. <https://www.reuters.com/article/us-uk-ai-idUKKCN26G1IH>.

<sup>550</sup> First-Ever UK-US Science and Technology Agreement Paves the Way for Closer Research Collaborations. Department for Business, Energy & Industrial Strategy, Arts and Humanities Research Council, Science and



this new agreement dedicates more attention on the impact brought by AI on areas such as economic growth, democratic values, and national security. As stated in the declaration, ‘promoting research and development in AI, focusing on challenging technical issues, and protecting against efforts to adopt and apply these technologies in the service of authoritarianism and repression’<sup>551</sup> is one of the key issues aside from joint R&D projects, AI commercialization, and establishing regulatory frameworks. Based on the context in which China has been bombarded for abusing AI for human rights violation, the agreement appears to be a response to China’s aggression in Xinjiang and a demonstration of the UK’s awareness of the ideological conflicts with China, particularly on liberal and democratic values.

A year later, London and Washington also decided to collaborate in quantum technology. As with the declaration on AI, this agreement also highlights the importance of ‘good-faith cooperation underpinned by our shared values such as freedom of inquiry, merit-based competition, openness and transparency, accountability, and reciprocity’ between the UK and the US. Clearly, the shared values on democracy, rather than shared security rivalries with China, is the main reason facilitating the cooperation between the two states.<sup>552</sup>

Apart from intergovernmental cooperation, bilateral academic research cooperation between the UK and the US is also enhanced through the Bilateral Academic Research Initiative (BARI) Pilot Program. Started in 2018, the program aims to foster basic research cooperation between British/American tertiary education institutions in science and engineering.<sup>553</sup> Selected projects deemed to be vital to both DoD and MOD will receive funding from both these defence authorities.<sup>554</sup>

From the various cooperative agreements on R&D mentioned in this part, it is quite obvious

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Technology Facilities Council, and The Rt Hon Jo Johnson, September 20, 2017. <https://www.gov.uk/government/news/first-ever-uk-us-science-and-technology-agreement-paves-the-way-for-closer-research-collaborations>.

<sup>551</sup> Declaration of the United States of America and the United Kingdom of Great Britain and Northern Ireland on Cooperation in Artificial Intelligence Research and Development: A shared vision for driving technological breakthroughs in artificial intelligence - united states department of state. U.S. Department of State, December 1, 2020. <https://2017-2021.state.gov/declaration-of-the-united-states-of-america-and-the-united-kingdom-of-great-britain-and-northern-ireland-on-cooperation-in-artificial-intelligence-research-and-development-a-shared-vision-for-driving/index.html>.

<sup>552</sup> Joint Statement of the United Kingdom of Great Britain and Northern Ireland and the United States of America on Cooperation in Quantum Information Sciences and Technologies. Department for Business, Energy & Industrial Strategy, November 4, 2021. <https://www.gov.uk/government/publications/uk-us-joint-statement-on-cooperation-in-quantum-information-sciences-and-technologies/joint-statement-of-the-united-kingdom-of-great-britain-and-northern-ireland-and-the-united-states-of-america-on-cooperation-in-quantum-information-sci>.

<sup>553</sup> <https://www.federalgrants.com/Bilateral-Academic-Research-Initiative-BARI-Pilot-Program-71139.html>

<sup>554</sup> Office of the Under Secretary of Defense for Research & Engineering. Bilateral Academic Research Initiative. Office of the Under Secretary of Defense for Research & Engineering, US Department of Defense. Accessed June 2, 2022. <https://basicresearch.defense.gov/Pilots/BARI-Bilateral-Academic-Research-Initiative/#:~:text=BARI%20is%20a%20pilot%20program,truely%20team%20with%20human%20counterparts>.

<sup>554</sup> <https://basicresearch.defense.gov/Pilots/BARI-Bilateral-Academic-Research-Initiative/>



that shared value is a main driver for UK-US cooperation. That echoes the view of former Secretary of Defence, Jim Mattis, who told Michael Fallon, the British Defense Secretary, during a meeting in March 2017 that the UK and the US are ‘united by values that took root here so long ago’<sup>555</sup>.

## 2. Cybersecurity

Apart from R&D, the UK and the US also cooperate on cybersecurity, again mainly because of their shared values rather than their threat perception of China, as noted in the US-UK cyber communique signed between the two governments in 2011,<sup>556</sup> ‘The United States and the United Kingdom share unparalleled bilateral cooperation that seeks to preserve peace and stability, empower innovation and prosperity, and protect and promote the democratic rights and responsibilities of citizens around the world’<sup>557</sup>.

In 2015, the Obama administration and Cameron government carried out an exercise, the first between the two states, on cyberattacks on Wall Street and the City of London. However, the timing of this drill, which was after cyberattacks from North Korea and the Islamic State,<sup>558</sup> seems to suggest that China’s cyberattack was not the main concern. The next drill between the UK and the US would have to wait until April 2021, when other NATO members were also involved.<sup>559</sup>

In December 2018, in face of two Chinese nationals being prosecuted in the US for hacking into computers owned by at least 45 entities, which included NASA, US Navy, and some other private defence and technology firms,<sup>560</sup> the UK and the US merely criticized China for its constant hacking. In June 2021, the two states, along with EU, NATO, Japan, and other allies, were still only complaining to China on its pervasive hacking spree.<sup>561</sup> Further action had to wait until 2021, when the UK and the US held the 2021 Cyber Management Review.<sup>562</sup> Unlike

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<sup>555</sup> *In London, Mattis Discusses Security Concerns, Highlights U.S.-U.K. Ties*. DOD NEWS, March 31, 2017. <https://www.defense.gov/News/News-Stories/Article/Article/1137082/in-london-mattis-discusses-security-concerns-highlights-us-uk-ties/>.

<sup>556</sup> US - UK cyber communique. Cabinet Office and National security and intelligence, May 25, 2011. <https://www.gov.uk/government/publications/us-uk-cyber-communique>.

<sup>557</sup> *Ibid.*

<sup>558</sup> ‘Cyber-attack war games’ to be staged by UK and US. BBC News, January 16, 2015. <https://www.bbc.com/news/uk-politics-30842669>.

<sup>559</sup> Martin, Alexander. NATO prepares for world’s largest cyber war game - with focus on Grey Zone. Sky News, April 13, 2021. <https://news.sky.com/story/nato-prepares-for-worlds-largest-cyber-war-game-with-focus-on-grey-zone-12274488>.

<sup>560</sup> Wintour, Patrick. US and UK accuse China of sustained hacking campaign. Guardian News and Media, December 21, 2018. <https://www.theguardian.com/world/2018/dec/20/us-and-uk-accuse-china-of-sustained-hacking-campaign>.

<sup>561</sup> Holland, Steve, and Chiacu Doina. U.S. and allies accuse China of global hacking spree. Thomson Reuters, July 20, 2021. <https://www.reuters.com/technology/us-allies-accuse-china-global-cyber-hacking-campaign-2021-07-19/>.

<sup>562</sup> UK and US Defence Conduct Cyber Management Review. Strategic Command and Ministry of Defence, November 18, 2021. <https://www.gov.uk/government/news/uk-and-us-defence-conduct-cyber-management-review>.

the previous review in 2016, which focused on the cyberthreat posed by Russia and China under systematic competition,<sup>563</sup> the new report highlights the ‘systemic competition between great powers, a clash of values between countries that want to preserve a system based on open societies and systemic competitors like China and Russia who are promoting greater state control’, and has instigated debates within the ruling circle. This may hint that, rather than taking China as a strategic rival as the US does in a bipolar system, the UK is more concerned about the liberal democratic values.

Compared to the limited cooperation on cybersecurity between the UK and the US, the cooperation between the US and Japan seems to be closer because of their shared perception of security threats. On the contrary, shared democratic values may not necessarily drive the UK and the US to work closer with each other. Once again, security rivalry serves as a key lubricant to the US’ cooperation with its allies.

## SUMMARY

The UK may have considered China as a security concern only after China’s repression of the social movement in Hong Kong, its former colony. Mild changes in the UK’s technological policies on China can also be observed. However, China is not a direct security threat to the UK for two reasons. First, based on the prediction of the balance of threat theory, because the UK and China are geographically remote, and they do not have a security rivalry as do the US and China, the UK would not consider China as a major security threat as the US and Japan do. Second, the Hong Kong issue, South China Sea issue, and human rights issues may not be substantial enough to become security threats to the UK. Therefore, despite the mild changes, the UK’s technology policies on China are still less hostile and overt than those of the US and Japan.

As China is not seen as a major security threat, the UK’s concerns over relative gains against China would be lower than those of the Americans and Japanese over China. Accordingly, the UK’s relative gains concerns in relation to China is lower than that of its absolute gains from trade with China. Hence, the UK would still maintain a less confrontational approach without decoupling from China for its economic gains.

## 7. FRANCE’S DEFIANCE TO THE US’ CALL AND ITS COOPERATION WITH CHINA

France is said to be one of the allies that not only defied the US’ appeal to contain China, but

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<sup>563</sup> Sabbagh, Dan. Cyber Review warns UK and West in 'clash of values' with Russia and China. Guardian News and Media, December 14, 2021. <https://www.theguardian.com/technology/2021/dec/14/cyber-review-warns-uk-and-west-in-clash-of-values-with-russia-and-china>.

also maintained its cooperation with the Chinese. The French's rationale can also be explained by their threat perception of China and relative gains concerns, as will be explained in this chapter. Although France and China often have conflicts on human rights and issues related to rule-based liberal international order, these disputes do not fatally detriment France's national security. More importantly, there are no direct security conflicts, such as territorial disputes, between France and China because of their geographical distance from each other, so France does not see China as a security threat. Rather, France only recognizes China as a security concern because of China's revisionist ambition in changing the liberal international order. Due to the lack of security threat, France does not have much relative gains concerns in its relations with China. In contrast, since the French creates tremendous absolute gains from its trade and economic relations with China, their concerns over absolute gains would be much higher than that of relative gains. As a result, to maintain absolute gains, France chooses not to cooperate with the US to deny China's access to its advanced technology for its relative gains, instead maintaining its cooperation with China for absolute gains.

#### ABSENCE OF FIERCE STRATEGIC RIVALRY WITH CHINA

While China's military and economic emergence is often seen as one of the national security concerns for France,<sup>564</sup> unlike Japan and the US, France does not have any territorial disputes and competition for global dominance with China. In the meantime, France is geographically remote from China, so the threat posed by the Chinese military expansion and modernization in the Pacific region to the French would be less substantial to that to the US and Japan. In short, despite conflicts with China on human rights, Taiwan Strait issues, South China Sea disputes, as well as competition for influence in Africa, France does not consider these issues a security threat.

##### 1. Human Rights

On first sight, some may deem Franco-Chinese relation to be always challenged by the pair's contradiction in terms of their political values and human rights. For instance, France has always been condemning China for exploiting the Uyghurs' human rights in Xinjiang Uyghur Autonomous Region (XUAR) through re-education camps and other means of abuse. After the outbreak of Hong Kong's Anti-Extradition Law Movement in 2019, and especially after the implementation of the National Security Law implementation in city, France has also spoken up on Hong Kong issues.<sup>565</sup>

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<sup>564</sup> National security strategy

<sup>565</sup> Rose, Michel, and Maya Nikolaeva. "France's Macron Expressed Concerns about Human Rights to China's Wang Yi." Edited by Alex Richardson. Reuters. Thomson Reuters, August 29, 2020. <https://www.reuters.com/article/us-france-china-idUSKBN25P0HK>.

However, Xinjiang's human rights issues have been under the spotlight even before the Franco-Chinese relations turned sour in 2020. If human rights issues are the main determinant of the French's relations with China, the French should have adopted more confrontational policies against, rather than cooperating with, China. Besides, the French government should have taken measures against human rights issues in XUAR instead of responding through investigation<sup>566</sup> and sanctions.<sup>567</sup> Given the French's cooperation with China alongside the time interval between its sanctions on China's human rights issues, values and human rights may not necessarily be the immediate cause for the slight shift in France policy.

## 2. Sphere of Influence in Africa

Since France used to be a colonial power with many African colonies, the French government has always been concerned about its sphere of influence on the continent. President Emmanuel Macron has been attempting to revive his state's global influence, and hence, he has dedicated some effort to strengthening France's tie with the African states.<sup>568</sup> In addition, Macron also warned of the dangers of Chinese debt trap,<sup>569</sup> which may shape the perception of the African states on China and the relationship between them. This competition for sphere of influence, though, may not be a factor significant enough to upset the Franco-Chinese ties for a few reasons.

First, the rivalry between France and China for regional influence in Africa can be categorised as a soft power competition. In other words, it would not be seen as a security threat to the French. As French Foreign Minister Jean-Yves Le Drian told the media, 'France is fighting China in a battle for influence – and a battle over what system of government countries should see as their model.' This statement implies that France only views China as a competitor for regional influence and a hurdle to the spread of liberal-democratic values and governance cherished by the French. This can also be observed from the French's non-military response to the Chinese actions in Africa. For example, Macron has pledged to fund education in the developing states in the region while setting up a €65 million fund, offered by the French Development Bank, for African digital start-ups.<sup>570</sup> Other tactics including boosting the French's foreign aids budget by 2022, albeit the pandemic, to facilitate public health and

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<sup>566</sup> Timmins, Beth. "France Investigates Retailers over China Forced Labour Claims." BBC News. BBC, July 2, 2021. <https://www.bbc.com/news/business-57677157>.

<sup>567</sup> "French Lawmakers Officially Recognise China's Treatment of Uyghurs as 'Genocide'." France 24. AFP, January 20, 2022. <https://www.france24.com/en/europe/20220120-french-lawmakers-officially-recognise-china-s-treatment-of-uyghurs-as-genocide>.

<sup>568</sup> Chhor, Khatya. "Macron's Soft Power Push in Africa Is Key to 'Making France Great Again'." France 24. France 24, July 4, 2018. <https://www.france24.com/en/20180703-macron-soft-power-push-africa-make-france-great-again-global-influence-diplomacy>.

<sup>569</sup> Irish, John. "Macron Warns of Chinese Risk to African Sovereignty." Reuters. Thomson Reuters, March 11, 2019. <https://www.reuters.com/article/us-djibouti-france-idUSKBN1QS2QP>.

<sup>570</sup> Khatya, "Macron's Soft Power Push in Africa Is Key to 'Making France Great Again'."

address poverty in Africa.<sup>571</sup> Obviously, France does not perceive China as a dominant security threat as Japan and the US do.

Another notable move is that, even though Paris has been considering Beijing as a rival, the two states are still working together on various projects, with agreements to cooperate on seven infrastructure projects in Africa, Southeast Asia, and Eastern Europe as recently as in February 2022. France is also the first country to establish the third-party market intergovernmental cooperation mechanism with China.<sup>572</sup> France's attitude on its cooperation with China seems to indicate that they do not consider the Chinese a tremendous security threat. Otherwise, France would not have worked with China on these projects that can help countries expand their sphere of influence and construct a benign image.<sup>573</sup>

Based on the discussion in this section, Franco-Chinese relations do not seem to be hurt by the two states' competition for influence in Africa.

### 3. Taiwan Strait and South China Sea

France has long been condemning the Chinese government for interrupting the status quo and the liberal international order on issues related to the Taiwan Strait and the South China Sea. Though the French had sent naval ships to the disputed seas, these only happened on rare occasions. More importantly, there are no direct military standoffs in the area.

Despite France's criticisms on China's deployment of naval ships across the Taiwan Strait, there has not been significant military standoffs or diplomatic squabbles that can deteriorate the Franco-Chinese relations. In April 2019, a French frigate, Vendémiaire, carried out a transit of the strait amid tension between China and the US. Yet, in addition to warning off the vessel<sup>574</sup>, China simply issued a notification to the French that they would no longer be invited to join the parade for the 70<sup>th</sup> anniversary of the China's navy establishment.<sup>575</sup> In the meantime, the Chinese Minister for Foreign Affairs, Huang Yi, told his French counterpart that France 'should cherish their hard-won and good relations'<sup>576</sup>. In response to Huang in a

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<sup>571</sup> SAUVAGE, Grégoire. "France Shifts Policy on Aid to Africa to Counter Rising Chinese Influence." France 24. France 24, March 6, 2021. <https://www.france24.com/en/africa/20210306-france-shifts-policy-on-aid-to-africa-to-counter-rising-chinese-influence>.

<sup>572</sup> Harper, Jo. "France and China Link up in Global Infrastructure Projects." Deutsche Welle. Deutsche Welle, February 24, 2022. <https://www.dw.com/en/france-and-china-link-up-in-global-infrastructure-projects/a-60890734>.

<sup>573</sup> Ibid.

<sup>574</sup> "China Says Navy Warned off French Warship in Taiwan Strait." France 24. AFP, April 25, 2019. <https://www.france24.com/en/20190425-china-says-navy-warned-off-french-warship-taiwan-strait>.

<sup>575</sup> Ali, Idrees, and Phil Stewart. "Exclusive: In Rare Move, French Warship Passes through Taiwan Strait." Reuters. Thomson Reuters, April 24, 2019. <https://www.reuters.com/article/us-taiwan-france-warship-exclusive-idUSKCN1S027E>.

<sup>576</sup> Lu, Zhenhua. "Cherish the Love: China Tells France Not to Disrupt Relations." South China Morning Post. South China Morning Post, April 27, 2019. <https://www.scmp.com/news/china/diplomacy/article/3007941/cherish-love-china-and-france-should-avoid-causing-unnecessary>.

statement, Le Drian still expressed the French willingness in maintaining “the growth momentum of bilateral relations”<sup>577</sup>. No further confrontational actions were taken by both China and France due to the incident.

A similar incident occurred in October 2021, when Florence Parly, the French Defence Minister, admitted that a navy signals intelligence ship was sent to Taiwan after FS Provence, another French naval vessel, was spotted by netizens near Changhua County in Taiwan.<sup>578</sup> The Chinese government did not criticize the French government for sending the intelligence vessel. Yet, a visit by five French senators, led by former Defence Minister Alain Richard, to Taiwan did irritate China. In addition to meet Tsai Ing-wen, the Taiwanese President, to demonstrate France’s support for Taiwan’s involvement in UN and other international affairs,<sup>579</sup> the French senators irritated China by addressing Taiwan as a country. Zhao Lijian, a spokesperson for the Chinese Ministry of Foreign Affairs, strongly condemned the senators’ address as ‘flagrant violation of the universal consensus of the international community, including France.’<sup>580</sup> Again, the event did not further escalate.

Aside from the Taiwan Strait, interactions between France and China on issues related to the South China Sea also show that France does not necessarily take China’s posture in the area as a significant threat to its national security. As part of the *Jeanne d’Arc* Mission, French vessels had patrolled the South China Sea from 2015 to 2017<sup>581</sup> in the name of safeguarding freedom of navigation based on international law.<sup>582</sup>

At the Shangri-La Dialogue in June 2018, France and the UK, for the first time, announced their participation in the Freedom of Navigation Operations (FONOPs), which targeted China’s military expansion in the South China Sea.<sup>583</sup> French Minister of Armed Forces, Florence Parly, explained in a speech on the two states’ cooperation that France and the UK

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<sup>577</sup> Ibid.

<sup>578</sup> Strong, Matthew. “France Acknowledges It Sent Navy Ship to Taiwan Strait: Taiwan News: 2021-10-13 20:26:00.” Taiwan News. Taiwan News, October 13, 2021. <https://www.taiwannews.com.tw/en/news/4314084>.

<sup>579</sup> Auto, Hermes. “Taiwan Seeks International Support after Chinese Incursions.” The Straits Times. The Straits Times, October 8, 2021. <https://www.straitstimes.com/asia/east-asia/french-senators-visit-taiwan-despite-china-protests>.

<sup>580</sup> “Beijing Condemns French Senator for Calling Taiwan a ‘Country’: DW: 08.10.2021.” DW.COM. Deutsche Welle, October 8, 2021. <https://www.dw.com/en/beijing-condemns-french-senator-for-calling-taiwan-a-country/a-59448578>.

<sup>581</sup> Wang, Amber. “How the French Navy Is Charting Its Course between China and the US.” South China Morning Post. South China Morning Post, February 28, 2021. <https://www.scmp.com/news/china/diplomacy/article/3123341/south-china-sea-how-french-navy-charting-its-own-course>.

<sup>582</sup> First Maritime Exercise Conducted by Australian, French, Japanese and US Ships in the Indian Ocean. Department of Defence, May 17, 2019. Department of Defence. <https://news.defence.gov.au/media/media-releases/first-maritime-exercise-conducted-australian-french-japanese-and-us-ships>.

<sup>583</sup> Rahn, Wesley. “South China Sea: France and Britain Join the US to Oppose China: DW: 27.06.2018.” DW.COM. Deutsche Welle, June 27, 2018. <https://www.dw.com/en/south-china-sea-france-and-britain-join-the-us-to-oppose-china/a-44422935>.

share ‘vision, strength, and values’ and ‘willingness to project them’. She also clearly stated that ‘France fully supports a code of conduct in the South China Sea, which should be legally binding, comprehensive, effective and consistent with international law’, and that, “We should be very clear that the *fait accompli* is not a *fait accepté*’. Judging from her speech, the French’s involvement in the South China Sea disputes is attributed more to France’s affirmation of international law based on the liberal democratic international order.<sup>584</sup>

In fact, the French did put their determination to defend the liberal international order into action by becoming increasingly active in the South China Sea. Since 2019, France, Japan, and Australia have jointly hosted *La Pérouse*, a multinational naval exercise taking place in the Eastern Indian Ocean.<sup>585</sup> In 2021, UAE and QUAD also took part in the exercise.<sup>586</sup>

In February 2021, France sent a nuclear attack submarine to the South China Sea to show the French’s commitment to ‘supporting multilateralism, international law and the principle of freedom of navigation’, as the French Armed Forces explained.<sup>587</sup> A month later, a French frigate docked at Cam Ranh Port in Vietnam, which demonstrated the French willingness to ‘support of freedom of navigation in the air and at sea, which is shared by both Vietnam and France’, as the French ambassador to Vietnam told the media.<sup>588</sup>

In addition to sending warships and conducting military drills, France also showed its dedication to South China Sea issues through other diplomatic means. France, Germany, and the UK issued a joint statement reiterating that China’s ‘nine-dash line’ claim over the South China Sea is illegitimate, and verdict of the UNCLOS should be overserved. In other words, the states supported the Philippines, which prevailed in a case regarding the disputes that was heard by the UNCLOS in 2016.<sup>589</sup>

France and China did have some diplomatic conflicts over Taiwan, but those did not constitute direct security conflicts, as no military confrontation ever occurred, and the two states continue

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<sup>584</sup> Ibid.

<sup>585</sup> Department of Defence, First Maritime Exercise Conducted by Australian, French, Japanese and US Ships in the Indian Ocean

<sup>586</sup> Gupta, Shishir. “Quad, France and UAE Join Hands in 2 Naval Exercises to Dominate Indo-Pacific.” Hindustan Times. Hindustan Times, March 9, 2021. <https://www.hindustantimes.com/india-news/quad-france-and-uae-join-hands-in-2-naval-exercises-to-dominate-indopacific-101615248156836.html>.

<sup>587</sup> Seibt, Sébastien. “France Wades into the South China Sea with a Nuclear Attack Submarine.” France 24. France 24, February 12, 2021. <https://www.france24.com/en/france/20210212-france-wades-into-the-south-china-sea-with-a-nuclear-attack-submarine>.; Irish, John. “French Nuclear Submarine Patrolled in South China Sea - Navy.” Edited by Philippa Fletcher. Reuters. Thomson Reuters, February 9, 2021. <https://www.reuters.com/article/southchina-sea-france-submarine-idUSL1N2KF1J7>.

<sup>588</sup> Haver, Zachary. “French Warship Docks in Vietnam as Foreign Powers Step up in South China Sea.” Radio Free Asia. Radio Free Asia, March 12, 2021. <https://www.rfa.org/english/news/china/france-southchinasea-03122021135920.html>.

<sup>589</sup> “France, Germany, UK Recognize Ph Win vs. China in South China Sea Row.” CNN. CNN Philippines Staff, September 18, 2020. <https://www.cnnphilippines.com/news/2020/9/18/France-Germany-United-Kingdom-reject-China-South-China-Sea.html>.



to maintain a sound relationship. Therefore, the French's mildness in its response to China's assertiveness in the disputes may insinuate that Taiwan Strait and the South China Sea issues are not significant national security threats to France. Hence France, based on balance of threat theory, is expected to be largely unconcerned about its technological relations with China and would be unmotivated to work with the US.

#### ABSOLUTE GAINS FROM FRANCO-CHINESE COOPERATION

The previous section demonstrated that, despite the existence of some conflicts of interests between France and China, none of these issues seemed to have imposed an adverse effect on the Franco-Chinese cooperation. In fact, the cooperation between these two states have become closer. The reason could be the absence of strategic rivalry between France and China, which would lead to the French being less likely to consider its relative gains from cooperating with China. On the contrary, France would focus on its absolute gains from the cooperation. Some of these collaborations between the French and the Chinese will be examined in this section.

In addition to the joint infrastructure projects in Africa discussed previously, France and China were also engaged in some other projects despite rifts on human rights and other issues. In April 2013, then-French President Hollande visited China and signed the China-France Joint Press Communiqué —Build Together a World of Peace, Democracy, Prosperity, and Progress with Chinese President Xi Jinping, in addition to 18 other cooperation agreements in different domains, such as nuclear energy, aviation, urbanization, agriculture, food, energy conservation, environmental protection, sustainable development of cities, health, and digitalization.<sup>590</sup>

Six years later, France and China signed another series of trade agreements, including a €30 billion deal with Airbus,<sup>591</sup> and other agreements on food and commodities export.<sup>592</sup> A Franco-Chinese cooperation fund co-financed by BNP Paribas and the Bank of China was also established.<sup>593</sup> Notably, these finance and trade agreements were signed in March and November 2019, when the US-China relationship was in the trough. The French's friendly gestures towards China may imply some differences in France's and the US' foreign policy goals, as will be discussed in the next section.

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<sup>590</sup> China and France. Ministry of Foreign Affairs, the People's Republic of China, 2014. [https://web.archive.org/web/20220302163958/https://www.fmprc.gov.cn/mfa\\_eng/wjb\\_663304/zzjg\\_663340/xos\\_664404/gjlb\\_664408/3291\\_664540/](https://web.archive.org/web/20220302163958/https://www.fmprc.gov.cn/mfa_eng/wjb_663304/zzjg_663340/xos_664404/gjlb_664408/3291_664540/).

<sup>591</sup> Momtaz, Rym. "Macron Steals Trump's Thunder with Chinese Airbus Order." POLITICO. POLITICO, April 15, 2019. <https://www.politico.eu/article/macron-steals-trumps-thunder-with-chinese-airbus-order/>.

<sup>592</sup> Pennetier, Marine, Aizhu Chen, and Dominique Patton. "China and France Sign Deals Worth \$15 Billion during Macron's Visit." Edited by Robert Birsell and Gareth Jones. Reuters. Thomson Reuters, November 6, 2019. <https://www.reuters.com/article/us-china-france-macron-idUSKBN1XG0NM>.

<sup>593</sup> Momtaz, "Macron Steals Trump's Thunder with Chinese Airbus Order."



Despite several clashes on human rights issues in Xinjiang and Hong Kong, France still constantly and closely collaborated with China. In addition to the trade deals that Macron and Xi signed in November 2019 after the outbreak of the Hong Kong Anti-Extradition Law Movement<sup>594</sup>, towards the end of December 2021, France still hosted the eighth High Level Economic and Financial Dialogue with China for deepening cooperation,<sup>595</sup> with some more trade agreements, such as regional management agreement for African swine fever and livestock exporting zones, signed during the meeting.<sup>596</sup>

With the continued cooperation and signing of various trade agreements, Franco-Chinese trade may have improved over this decade. According to the French government, China has been its 7th largest customer and 2nd largest supplier.<sup>597</sup> Probably, the French has attained absolute gains from their relations with China. More important is that, as previously mentioned, France has never considered China as a security threat as do Japan and the US because of the lack of direct security rivalries between the two states. Therefore, France's concerns over relative gains would be much lower than that on absolute gains. In consequence, France is still willing to maintain a sound relation with China despite rifts over human rights and other issues. France's tolerance to China can be observed from its comparatively lax policies on China compared to the US and Japan, together with its reluctance to cooperate with the US.

#### STRATEGIC RIVALRY VS STRATEGIC AUTONOMY

In addition to the fact that France's absolute gains from China outweigh its relative gains, variances in national interests and foreign policy objectives between the US and France may also explain for the French's reluctance in cooperating with the US.

Since Macron took office, Elysee's policy has been adhering to the principle of 'strategic autonomy' in trade and diplomacy – a policy that is also adopted by the EU. As defined by the EU, strategic autonomy 'further signifies that the EU continues to reap the benefits of international opportunities, while assertively defending its interests, protecting the EU's economy from unfair trade practices, and ensuring a level playing field. Finally, it implies supporting domestic policies to strengthen the EU's economy and to help position it as a global

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<sup>594</sup> Pannetier, Chen and Patton, "China and France Sign Deals Worth \$15 Billion during Macron's Visit."

<sup>595</sup> China-France Joint Fact Sheet on the 8th High Level Economic and Financial Dialogue. Direction générale du Trésor, December 13, 2021. Ministère de l'Économie et des Finances. <https://www.tresor.economie.gouv.fr/Articles/7f2ddc82-fe15-4062-bcac-caf9a40ea8ec/files/22cf72c3-7b2e-4b0f-9e6d-9fbffec4dfa1>.

<sup>596</sup> Trompiz, Gus, Leigh Thomas, Sudip Kar-Gupta, Dominique Patton, and Michael Hogan. "France, China Agree Regional Approach to Pig Disease and Trade." Edited by Sybille de La Hamaide and Barbara Lewis. Reuters. Thomson Reuters, December 13, 2021. <https://www.reuters.com/business/healthcare-pharmaceuticals/france-says-china-agrees-regional-approach-pig-disease-trade-2021-12-13/>.

<sup>597</sup> "France and China." France Diplomacy - Ministry for Europe and Foreign Affairs. Ministère de l'Europe et des Affaires étrangères, March 2019. [https://www.diplomatie.gouv.fr/en/country-files/china/france-and-china/#:~:text=China%20is%20France's%207th%20largest,2018\)%2C%20ahead%20of%20Germany.](https://www.diplomatie.gouv.fr/en/country-files/china/france-and-china/#:~:text=China%20is%20France's%207th%20largest,2018)%2C%20ahead%20of%20Germany.)

leader in pursuit of a reformed rules-based system of global trade governance<sup>598</sup>. In other words, France and the EU intend to rely on the rule-based international system instead of the US' dominance as a democratic state. In the meantime, they would also cooperate with China if economic gains could be guaranteed.

In fact, the principle can also be applied to the national security domain. As early as in 2020, Macron told the UN that, 'The world today cannot be reduced to the rivalry between China and the United States, irrespective of the global weight of these great powers'<sup>599</sup>. He reiterated that Europeans would try to coordinate with the US while constructing a security order for Europe in January 2022.<sup>600</sup>

Macron's view was echoed by Ursula von der Leyen, President of The European Commission, who said in 2019 that that the EU can 'shape global order'<sup>601</sup> and should seek new balance<sup>602</sup>. In a 2020 interview with the Council on Foreign Relations, von der Leyen stated clearly that disposing Chinese 5G/6G networks is more likely a decision based on global rules and liberal democratic orders, which China has constantly been violating.<sup>603</sup>

Both leaders confirmed respectively that neither France nor the EU would be passively witnessing the US-China rivalry. In other words, France, as well as the EU, may not align with the US in many policy areas, including technology transfer. Since only the US views China as a threat to its global dominance and national security, the French is anticipated to adopt less stringent and confrontation policies regarding the rise of China.

## NARROWLY SCOPED AND INCONSISTENT TECHNOLOGY POLICY

The geographical distance between France and China, coupled with the lack of direct security rivalries, can account for France not considering China as an immediate security threat.

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<sup>598</sup> "Trade Policy and European Strategic Autonomy." France Diplomacy - Ministry for Europe and Foreign Affairs. Ministère de l'Europe et des Affaires étrangères. Accessed May 31, 2022. <https://www.diplomatie.gouv.fr/en/french-foreign-policy/europe/the-french-presidency-of-the-council-of-the-european-union/article/trade-policy-and-european-strategic-autonomy>.

<sup>599</sup> "World Should Not Be Dominated by US-China 'Rivalry', Macron Tells Un." France 24. France 24, September 22, 2020. <https://www.france24.com/en/20200922-live-trump-xi-macron-address-virtual-un-general-assembly-from-a-far-amid-pandemic>.

<sup>600</sup> Overstraeten, Benoit van, Myriam Rivet, Ingrid Melander, Tangi Salaün, Tassilo Hummel, Hugh Lawson, William Maclean, and Philippa Fletcher. "Macron Urges New EU Security Deal in 'Frank' Dialogue with Russia." Reuters. Thomson Reuters, January 19, 2022. <https://www.reuters.com/world/europe/macron-says-eu-must-work-new-security-pact-put-russia-2022-01-19/>.

<sup>601</sup> Crowcroft, Orlando. "Ursula Von Der Leyen: 'Europe Can Shape the Global Order'." euronews, November 27, 2019. <https://www.euronews.com/my-europe/2019/11/27/watch-live-ursula-von-der-leyen-addresses-eu-parliament-ahead-of-commission-vote>.

<sup>602</sup> Herszenhorn, David M., Hans von der Burchard, and Lili Bayer. "Ursula Von Der Leyen Seeks New Balance." POLITICO. POLITICO, November 10, 2019. <https://www.politico.eu/article/ursula-von-der-leyen-tricky-balancing-act/>.

<sup>603</sup> "A Conversation with President Ursula Von Der Leyen of the European Commission." Council on Foreign Relations. Council on Foreign Relations, November 20, 2020. <https://www.cfr.org/event/conversation-president-ursula-von-der-leyen-european-commission>.

Therefore, it has not decoupled from and competed as vigorously with China as the US and Japan. Although the French government has also implemented policies restricting China's investment and preventing espionage, their policies are barely compatible in their objectives and restrictiveness to the US'. Unlike the US aiming to deter China's rise as a strategic rival, France merely aims to punish China for its human rights violation in Xinjiang. Besides, the French's measures against China's espionage mainly focus on defending the French's economic interests and are one-off. More importantly, instead of decoupling from China, the French still maintains certain cooperation in technology with the Chinese. Overall, France's policies are relatively narrowly-scoped and inconsistent with those of the US.

### 1. Competition for Technological and Economic Advancement

Based on the principle of 'strategic autonomy,' Macron has been keen on calling France and the EU to reduce their reliance on both China and the US amid the great power strategic rivalry. In other words, France, rather than taking China as a direct security threat, simply views China as a competitor in high-end technology R&D for economic development. Thus, the French government has not completely decoupled from and competed with China like the US has been, so competition and cooperation in technological development co-exist.

The Elysee Palace released *la Stratégie Nationale pour l'Intelligence Artificielle* (SNIA) (National Artificial Intelligence Strategy) envisioning Macron's persistence in making France a great technology state in 2018.<sup>604</sup> The strategy has three main goals, namely, attracting technological talents, innovating using big data, and forging international cooperation for 'IA *de confiance*' ('trusted AI').<sup>605</sup> Apparently, the strategy aims to boost France's economic capability by developing AI for economic interests rather than a tool to strategically compete with China.

To be more independent in technological research, retain local talents, and catch up with the great powers, France has decided to allocate €1.5 billion (US\$1.85 billion) for enhancing artificial intelligence by 2022. The fund would be used for supporting start-ups, enhancing technological training in higher education institutions, and fostering private-public research collaboration.<sup>606</sup> Macron also promised to facilitate the growth of 10 European technology start-ups and French unicorns by 2030.<sup>607</sup> Some other breakthroughs include the launch of

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<sup>604</sup> "Stratégie Nationale Pour L'intelligence Artificielle." La Stratégie Nationale pour l'IA | Stratégie nationale pour l'intelligence artificielle, June 14, 2021. <https://www.intelligence-artificielle.gouv.fr/fr/strategie-nationale/la-strategie-nationale-pour-l-ia>.

<sup>605</sup> Ibid.

<sup>606</sup> Rosemain, Mathieu, and Michel Rose. "France to Spend \$1.8 Billion on AI to Compete with U.S., China." Reuters. Thomson Reuters, March 29, 2018. <https://www.reuters.com/article/us-france-tech-idUSKBN1H51XP>.

<sup>607</sup> Kayali, Laura. "Macron Aims for 10 European Tech Giants Valued at €100B by 2030." POLITICO. POLITICO, June 15, 2021. <https://www.politico.eu/article/macron-aims-for-10-european-tech-giants-valued-at-e100b-by->

research institutions and projects on health and automotive. The Global Partnership for Artificial Intelligence (in French, '*Partenariat Mondial pour l'Intelligence Artificielle*', PMIA), consisting of the EU and other member states, was also established.

Judging from the French's initiative in forging global partnership and strengthening domestic technological capability, France would like to become more independent from both China and the US even before the COVID-19. In fact, the pandemic may also become a legitimate excuse for France to further distance itself from the two great powers.<sup>608</sup> More vitally, this is evidence that France's policy is narrow-scoped compared to the US', as it is simply focusing on developing artificial intelligence and other technologies but not on counterbalancing China's rise. Rather, the catchword for France is 'catching up' – to follow on the heels of the US and China in technological and economic development. Therefore, France's policy objective may be contradicting to that of the US.

## 2. Technological Cooperation with China

The differences between France's and the US' attitude towards China can also be seen in the area of technological and intellectual exchange. Specifically, as the US decouples itself from and limits its technological exchange with China, France is still cooperating with China on aviation technologies. In 2020, France and China even co-founded the Sino-French Aviation University in Hangzhou, which is expected to open in 2022.<sup>609</sup>

Despite the word 'aviation' in its name, the university has in fact established joint Sino-French research projects in a wide range of other domains, including those on dual-use technology, such as quantum measuring and sensing technology,<sup>610</sup> integrated circuit platform,<sup>611</sup> materials science,<sup>612</sup> intelligent manufacturing,<sup>613</sup> and ultra-precision space pointing mechanism,<sup>614</sup> all of which may facilitate China's military technology advancement. For instance, integrated

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<sup>608</sup> Kar-Gupta, Sudip, Michel Rose, and Matthias Blamont. "France's Macron Says Europe Needs to Be Less Dependent on China, U.S." Edited by Edmund Blair. Reuters. Thomson Reuters, June 14, 2020. <https://www.reuters.com/article/us-health-coronavirus-france-macron-euro-idUSKBN23L0Q5>.

<sup>609</sup> "Sino-French Aviation University Project Breaks Ground in East China." CGTN. Xinhua News Agency, January 1, 2020. <https://news.cgtn.com/news/2020-01-01/Sino-French-aviation-university-project-breaks-ground-in-east-China-MTiYoyw5IA/index.html>.

<sup>610</sup> "Quantum Precision Measurement and Sensing Technology Platform." Quantum Precision Measurement and sensing technology platform-Zhongfa Aviation University. Zhongfa Aviation University, November 22, 2021. <https://www.zfau.cn/en/info/1034/1231.htm>.

<sup>611</sup> "The Integrated Circuit Platform." The Integrated Circuit Platform-Zhongfa Aviation University. Zhongfa Aviation University, November 21, 2021. <https://www.zfau.cn/en/info/1034/1232.htm>.

<sup>612</sup> "Experiment Platform for Materials Discipline." Experiment platform for materials discipline-zhongfa aviation university. Zhongfa Aviation University, November 21, 2021. <https://www.zfau.cn/en/info/1034/1234.htm>.

<sup>613</sup> "Experiment platform for intelligent manufacturing". Zhongfa Aviation University, November 22, 2021. <https://www.zfau.cn/en/info/1034/1233.htm>.

<sup>614</sup> "Advanced Control Platform for Ultra-Precision Space Pointing Mechanism and Platform." Advanced control platform for ultra-precision space pointing mechanism and platform-zhongfa aviation university. Zhongfa Aviation University, November 22, 2021. <https://www.zfau.cn/en/info/1034/1238.htm>.

circuit platform, according to the university's website, focuses on research of 'national strategic needs' in integrated circuit equipment, electronic design automation (EDA), and aerospace microelectronics.<sup>615</sup> Although the description does not further explain what constitutes 'national strategic needs', improving China's semiconductor and chips production capability for military technology modernization may be one of them.

The above deduction may also be substantiated by the faculty, which comprise experts involved in different research programmes, including the National Natural Science Foundation of China, National Key Research and Development Program of China ('973 Program'), and National High-tech Research and Development Program ('863 Program').<sup>616</sup> Launched in 1997, the 973 program intends to support basic research satisfying the Chinese 'major strategic needs', such as design, synthesis, and characterization of 'new electrode materials'<sup>617</sup> and 'organic light emitting materials'. New electrode materials, particularly graphite and transition metals (rare earths), are raw materials for semiconductor production,<sup>618</sup> and thus critical for modern national defence.<sup>619</sup> Similarly, the 863 program focuses on dual-use technology research for military development.<sup>620</sup>

Since dual-use technology research projects are some of the highlights of the Aviation University, France's participation in the university may facilitate China's development in dual-use technology for further military modernization. Clearly, in the absence of national security rivalry between China and France, the French does not consider China as a national threat in economic and military domains, and thus, would be willing to cooperate with the Chinese in these research programmes.

Apart from the Aviation University, as recent as in February 2022, France and China still co-hosted a seminar series on advanced technology and realised the first guidelines for joint research projects. Therefore, contrary to the US' effort in technologically decoupling from China, France remains dedicated to intensifying its "comprehensive strategic partnership"<sup>621</sup>

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<sup>615</sup> Zhongfa Aviation University, "The Integrated Circuit Platform."

<sup>616</sup> Ibid.

<sup>617</sup> "Key Fundamental Research on Organic/Polymeric Light-Emitting Materials." National Basic Research Program of China. National Basic Research Program of China, 2004. <https://web.archive.org/web/20070915181100/http://www.973.gov.cn/English/ReadItem.aspx?itemid=318>.

<sup>618</sup> Peter, Laurence M., and K. G. Upul Wijayantha. "Photoelectrochemical water splitting at semiconductor electrodes: fundamental problems and new perspectives." *ChemPhysChem* 15, no. 10 (2014): 1983-1995.

<sup>619</sup> Lewis, James Andrew. "Semiconductors and Modern Defense Spending." *Semiconductors and Modern Defense Spending* | Center for Strategic and International Studies. Center for Strategic and International Studies, May 16, 2022. <https://www.csis.org/analysis/semiconductors-and-modern-defense-spending>.

<sup>620</sup> High Tech Research and Development (863) programme. Embassy of the People's Republic of China in Ireland. Accessed May 31, 2022. <https://www.mfa.gov.cn/ce/ceie/eng/ScienceTech/ScienceandTechnologyDevelopmentProgrammes/t112844.htm>.

<sup>621</sup> Qin, Qi. "Xi, Macron's Conversation Signals Deepening Cooperation, Guides Relations toward Greater Development." The State Council Information Office of the People's Republic of China. The State Council Information Office of the People's Republic of China, February 18, 2022. <http://english.scio.gov.cn/topnews/2022->

and forging closer, instead of limiting, cooperation with, China.

## AMBIGUOUS POLICY TOWARDS BANNING CHINESE TECHNOLOGY

Unlike the US and Japan, the French government did not publicly name Huawei as a threat to France's national security, let alone putting any Chinese technology giant onto a sanction list. Rather, France only secretly came to the decision to limit the use of Huawei in July 2020. According to a report by the Reuters, the *Agence nationale de la sécurité des systèmes d'information* (ANSSI), France's national intelligence and cybersecurity agency, surreptitiously informed all telecommunication network operators that the operation license for Huawei equipment will not be renewable after 2028, and urged them not to adopt equipment produced by that company.<sup>622</sup> However, the government itself merely opted for alternatives, such as Samsung from South Korea, Nokia from Finland, and the Japanese NEC, without following the US in directly excluding Huawei from bidding for any government contracts.<sup>623</sup>

France's ambiguous policy towards China may imply that France, unlike the US, does not consider China as a security threat to its technological dominance. Due to the absence of direct security rivalry between France and China, the French have been less concerned with their relative gains and national security against China. As a result, their policies would appear to be softer and less explicit than those of the US.

### 1. Anti-Espionage and Cyber Security

Although France has been aware of the importance of cybersecurity and cracking down on Chinese's espionage effort, there has not been any consistent operation or initiative particularly dedicated to Chinese-led espionage and spying. Moreover, France tends to protect its economic secrets out of economic concerns rather than concerns over China's rise as a direct strategic rival and security threat.

Compared to the US, France's effort on stopping China's espionage is less regular and coordinated. In 2007, there were allegations that state-sponsored Chinese students and trainees were infiltrating French automotive equipment producer Valeo to transcribe and transfer

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[02/18/content\\_78057377.htm](https://www.reuters.com/article/us-france-huawei-5g-security-exclusive/exclusive-french-limits-on-huawei-5g-equipment-amount-to-de-facto-ban-by-2028-idUKKCN24N26R).

<sup>622</sup> Rosemain, Mathieu, and Gwénaëlle Barzic. "Exclusive: French Limits on Huawei 5G Equipment Amount to De Facto Ban by 2028." Reuters. Thomson Reuters, July 22, 2020. <https://www.reuters.com/article/us-france-huawei-5g-security-exclusive/exclusive-french-limits-on-huawei-5g-equipment-amount-to-de-facto-ban-by-2028-idUKKCN24N26R>.

<sup>623</sup> Loukil, Ridha. "Huawei Perd La Bataille De La 5g En Europe Au Profit D'Ericsson Et De Nokia." usinenouvelle.com. L'Usine Nouvelle, April 22, 2021. <https://www.usinenouvelle.com/article/huawei-perd-la-bataille-de-la-5g-en-europe-au-profit-d-ericsson-et-de-nokia.N1083424>.



confidential information.<sup>624</sup> Some experts even deduced that many students and trainees in France were working for the Chinese government or corporations to steal economic secrets. In 2011, Chinese spies were linked to a commercial espionage case related to Renault, a French automobile giant partly owned by the state. After an investigation conducted by the *Direction Centrale du Renseignement Intérieur* (General Directorate for Internal Security, DCRI), three workers were suspended from duty though no concrete reports or further legal actions were made, despite a member of the DCRI being quoted as saying that the case was a “classic case of spying” that the Chinese are constantly engaged in.<sup>625</sup> From these cases reported by the media, it can be seen that DCRI’s operations against China are not conducted on a regular basis, given the quantity and time interval between prosecutions. From 2000 to 2021, only two espionage cases involving Chinese spies or illicit technological transfer, uncovered five years apart, were tried in court. Over the same period, the US publicly reported over 100 espionage cases involving Chinese entities.<sup>626</sup> The differences in the number of, and the time interval between, cases demonstrate that France has been lagging behind the US in its dedication to combating espionage by China, despite experts’ warnings on China’s constant engagement in spying.

Although the *Direction Générale de la Sécurité Extérieure* (The General Directorate for External Security, DGSE) raised concerns over Chinese’s espionage effort, its attitude has been ambiguous compared to that of the US. In July 2021, two former intelligence agents for DGSE were sentenced to eight and 12 years of imprisonment respectively for spying for China. A spouse of one of the agents was also incarcerated for four years. ANSSI also warned of on-going attacks launched against a handful of French organizations by the APT31, a state-sponsored hacking group in China. Yet, no other comments were made by either the Elysée Palace or the Paris Prosecutor.<sup>627</sup> On the contrary, US has been constantly calling out on China for its state-sponsored espionage. The DGSE’s reticence about the case may imply that the French government tends to avoid any direct diplomatic confrontation with China regarding spying and national security. Differences in the US’ and French’s responses to cases related to Chinese espionage may be imputed to the different level of security threats posed by China to

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<sup>624</sup> Sage, Adam. “Chinese Trainee Goes on Trial as French Industry Fears Espionage.” *The Times*. The Times, April 2, 2010. <https://www.thetimes.co.uk/article/chinese-trainee-goes-on-trial-as-french-industry-fears-espionage-xzvv5xcrklr>.

<sup>625</sup> Willsher, Kim. “French Suspect Chinese Link in Industrial Spying at Renault.” *The Guardian*. Guardian News and Media, January 7, 2011. <https://www.theguardian.com/world/2011/jan/07/renault-france-china-spying-link>.

<sup>626</sup> Burke, Evan, Matthew Serrone, Khristal Thomas, Arthur Nelson, Ian Haimowitz, and David Robusto. “Survey of Chinese Espionage in the United States since 2000.” *Survey of Chinese Espionage in the United States Since 2000* | Center for Strategic and International Studies. Center for Strategic and International Studies. Accessed May 31, 2022. <https://www.csis.org/programs/strategic-technologies-program/archives/survey-chinese-espionage-united-states-2000>.

<sup>627</sup> Blamont, Matthias. “Two Former French Agents Sentenced to Prison over China Spying Case: France Info.” Edited by Frances Kerry. Reuters. Thomson Reuters, July 11, 2020. <https://www.reuters.com/article/us-france-intelligence-idUSKCN24C0F3>.

the US and France. Since France, unlike the US, does not have direct and fierce strategic rivalry with China, it may be less concerned about, and less confrontational against, China. More critically, the French government has not systematically and institutionally address China's espionage as has the US. In the US, both the DOJ and FBI have been involved in "China's Initiative", which targets Chinese-related spying activities in the US, for decades. However, from the French perspective, anti-terrorism is still the focus of Paris as it revealed a new counterterrorism and intelligence bill in April 2021.<sup>628</sup> No similar legislation or programme targeting China's state-backed espionage has been implemented.<sup>629</sup>

Based on the differences in France's and the US' effort in eliminating China's espionage activities in terms of the number of reported cases, government attitude on the issue, as well as the existence of relevant policies, it is obvious that France is less worried than the US about China's espionage efforts.

## 2. Investment Restriction

France's policies on restricting Chinese investment in the state's strategic sectors are mostly related to China's human rights situation. This is different from the US, whose concerns are related to the national security threat posed by the rise of China's technological firms with the support of US capital. With reference to the *Registre national des gels* (National Freeze Registry) records, the French government has only imposed financial sanctions, or investment restrictions, on certain entities that have allegedly violated human rights in XUAR, violated the North Korean sanctions, or launched cyberattack against France. No further sanctions are imposed on Chinese state-sponsored technological corporations, research institutions, and persons.<sup>630</sup> The EU-China Investment Agreement was also suspended only because of China's human rights violation in XUAR and Hong Kong.<sup>631</sup> It is obvious that the French's policies are driven by their concerns over their own cybersecurity and human rights issues, while the US is driven by the security threat brought by the Chinese technology firms. Since France and the US do not have completely overlapping policy objectives, there could only be limited cooperation between the two states in terms of restricting China's investment.

Apart from policy objectives, the French are also less interested than the US in restricting

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<sup>628</sup> "France Unveils New Counterterrorism Bill That Boosts Surveillance of Extremist Websites." France 24. France 24, April 28, 2021. <https://www.france24.com/en/europe/20210428-france-presents-counter-terrorism-bill-to-boost-surveillance-of-extremist-websites>.

<sup>629</sup> Strategic review of cyber defence (February 2018) § (2018). <http://www.sgdsn.gouv.fr/uploads/2018/03/revue-cyber-resume-in-english.pdf>.

<sup>630</sup> "Registre National Des Gels." Accessed May 31, 2022. <https://gels-avoirs.dgtresor.gouv.fr/List>.

<sup>631</sup> Made, Jan van der. "European Parliament Votes to Freeze EU-China Investment Deal." RFI. RFI, May 20, 2021. <https://www.rfi.fr/en/business/20210520-european-parliament-votes-to-freeze-eu-china-investment-deal-cai-human-rights-sanctions-xinjiang-hong-kong>.



China's investment through legislation. Specifically, the US has adopted more comprehensive tactics against Chinese companies that are related to the PLA and the CCP, and have done it much earlier than France. As previously discussed, as early as in 2016, the US has already imposed bans on Chinese entities through a variety of entity lists and introduced policies, including FIRMA and HFCAA, to ensure the US technologies and capital would not be supporting the Chinese military modernization programme. In comparison, the French government seems to be less concerned about limiting Chinese access to their capital and technologies through investment. As recent as in 2018, France still approved the acquisition of Linxens, a French chip producer, by Tsinghua Unigroup Ltd. (紫光集团有限公司), a China-based state-owned corporation.<sup>632</sup> Although France finally revised its legislation to limit Chinese acquisition of corporations in the strategic sectors, it already lags the US by a few years. In addition, France only tightened supervision on foreign investment related to military technology research and national security, as defined in Article L151-3 of the *Le Code monétaire et financier* (Monetary and Financial Code) (CMF), by requirement projects in the designated fields to obtain prior approval from the Ministry of Economy and Finance after 2019.<sup>633</sup>

Overall speaking, in addition to the inconsistencies in policies between the French and the Americans, which could be attributed to the principal of 'strategic autonomy', the French's foreign policy on China also appears to be contradicting. On the one hand, France has made attempts to reduce its reliance on China while tackling technology transfer via espionage and investment. On the other hand, it has been cooperating with China in different technological areas, particularly aviation, that can offer China access to the French's advanced technology for China's military modernization.

## SUMMARY

France has achieved absolute gains from China over the decades from trade and investment. Even if China has become a security concern to France due to disputes over human rights issues and sphere of influence, France has never considered China as a security threat as has Japan and the US. Therefore, relative gains for ultimate national security have not been a concern to the French. In other words, France would have paid more attention to their absolute gains from economic ties than relative gains for long-term security. This explains why France has kept on cooperating with China in economic aspects. In the meantime, since working closely with the US to deny China's access to technologies may cost France's revenue from

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<sup>632</sup> Barzic, Gwenaëlle, Michel Rose, and Sudip Kar-Gupta. "France Not Objecting to Sale of Linxens to Chinese Group." Reuters. Thomson Reuters, July 26, 2018. <https://www.reuters.com/article/linxens-m-a-tsinghua-unigroup-idINKBN1KG1MG>.

<sup>633</sup> Code monétaire et financier, Articles L151-1 à L151-7 § (2014).

trade and investment, concerns over absolute gains would motivate France not to cooperate with the US at the expense of their economic gains from China. Macron even criticised Trump for his unilateral approach in handling the US' relations with China and its allies, which Macron claimed would simply jeopardize the global liberal order and globalization.<sup>634</sup> The French's reluctance to cooperate with the US can also be reflected in its narrow-scoped technology policies on China compared to those of the Japanese.

France's case might be a proof that shared ideologies may neither be necessary nor significant to states' cooperation. Trump has always been blamed for straining the US-allies relationship with his unilateral policies. Yet, despite Biden's return to a multilateral approach in dealing with China and extending an olive branch to the Europeans for rapprochement, France and the EU, both of which support multilateralism, still would not create any changes to their China policy. A diplomatic crisis was even instigated between the French and the Americans on France being excluded from the AUKUS agreement, which was described by the French Foreign Minister as a 'breach of trust'<sup>635</sup>. The two states soon managed to mend the rifts,<sup>636</sup> but Macron reiterated in 2022 that his government would try to change the world order.<sup>637</sup>

In addition to the explanation of the Franco-US dynamics, the French grand strategy can be further investigated from the perspective of hedging and countering, similar to how some scholars explained the Japanese grand strategy. With the absence of fierce national security threat from, and rivalry, with China, the French can still hedge between China and the US. On the contrary, the Japanese government may have switched from hedging to balancing due to the increasing security threats from China.

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<sup>634</sup> "Countries Team up to Save the Liberal Order from Donald Trump." *The Economist*. The Economist Newspaper, August 2, 2018. <https://www.economist.com/international/2018/08/02/countries-team-up-to-save-the-liberal-order-from-donald-trump>.

<sup>635</sup> "Aukus: French Minister Condemns Us and Australia 'Lies' over Security Pact." BBC News. BBC, September 19, 2021. <https://www.bbc.com/news/world-europe-58610234>.

<sup>636</sup> Marcos, Pierre. "After the AUKUS Crisis, Are France-U.S. Relations Back on Track?" *After the AUKUS Crisis, Are France-U.S. Relations Back on Track?* | Center for Strategic and International Studies. Center for Strategic and International Studies, May 19, 2022. <https://www.csis.org/analysis/after-aukus-crisis-are-france-us-relations-back-track>; Schofield, Hugh. "Aukus Pact: France and US Seek to Mend Rift." BBC News. BBC, September 23, 2021. <https://www.bbc.com/news/world-europe-58659627>.

<sup>637</sup> Overstraeten, Rivet, Melander, Salaün, Hummel, Lawson, Maclean, and Fletcher. "Macron Urges New EU Security Deal in 'Frank' Dialogue with Russia."

## 8. THE GERMAN DILEMMA

Germany had considered China as its “strategic partner” for decades. Not until the new coalition government formed by Chancellor Olaf Scholz in 2021, has Germany recognized China as a “strategic competitor” in their foreign policy paper.<sup>638</sup> Although China’s revisionist attitude towards the current international liberal order and human rights has mildly altered Germany’s China strategy, Berlin has maintained its ties with China. In general, Germany’s policy on China can be explained by 1) the absence in fierce security rivalry between Germany and China, and 2) Absolute economic gains from cooperating with China. The balance of threat theory thus expects Germany to be comparatively less concerned with the relative gains issue in its technological relations with China and be unmotivated to cooperate with the US. Owing to the German’s concerns over absolute gains, Germany is trapped in a dilemma on whether to be tough against China or not. Germany’s ambivalence in containing China is reflected in its policies on China and its lack of cooperation with the US.

### ABSENCE OF FIERCE SECURITY RIVALRY

In comparison to Japan and the US, Germany does not have any territorial disputes or strategic rivalry with China for global dominance. Nevertheless, Germany and China still have conflicts on human rights issues in Hong Kong and Xinjiang. In the meanwhile, China’s assertiveness in the South China Sea also raised Germany’s awareness of China’s ambition of expanding its influence in the disputed waters. Although these issues may instigate diplomatic conflicts between the states, they may not necessarily be Germany’s core national security concerns, which is also why Germany continues to engage China as a close partner, economic competitor, and systematic rival.<sup>639</sup>

#### 1. Human Rights Issues

Although Germany emphasizes human rights in its foreign policy, it has been criticized for its indifference towards China’s alleged human rights abuses.<sup>640</sup>

As early as in 2012, the Chairman of the Human Rights Committee of the Bundestag, Tom Koenigs, had already criticized Chancellor Angela Merkel for her soft approach towards China

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<sup>638</sup> Schult, Christoph, and Gerald Traufetter. “Germany Rethinks Position on Beijing: Government in Berlin Classifies China as a ‘Systemic Rival.’” DER SPIEGEL. DER SPIEGEL, February 4, 2022. <https://www.spiegel.de/international/world/germany-rethinks-position-on-beijing-government-in-berlin-classifies-china-as-a-systemic-rival-a-57cf368a-79e9-41f2-8121-73654f3c6c7c>.

<sup>639</sup> Amt, Auswärtiges. “China – a Land with Many Faces.” German Federal Foreign Office. Accessed May 30, 2022. <https://www.auswaertiges-amt.de/en/aussenpolitik/regionaleschwerpunkte/asien/-/231348>.

<sup>640</sup> Walker, Richard. “Has Angela Merkel’s Germany given China Too Much Leeway?: DW: 18.02.2021.” DW.COM. Deutsche Welle, February 18, 2021. <https://www.dw.com/en/has-angela-merkels-germany-given-china-too-much-leeway/a-56616344>.

on human rights issues.<sup>641</sup> Tilman Spengler, a German sinologist, echoed Koenigs by condemning Germany and the west for their ‘double-standard’ regarding China’s human rights abuse.<sup>642</sup> In 2018, Kai Müller, Managing Director of the International Campaign for Tibet in Germany, told *Der Tagesspiegel* that the German government should clearly point out the Chinese government’s misdeeds.<sup>643</sup>

Over the years, the German government has only been addressing its concerns through diplomatic dialogues or verbal statements. For instance, Merkel was scorned by *Welt* for only stressing the importance of the rule of law but not firmly addressing China’s human rights issues during the presentation ceremony of her honorary doctorate at Nanjing University in 2016.<sup>644</sup> Even after the Chinese government’s violent repression of Hong Kong’s Anti-Extradition Bill movement in June 2019,<sup>645</sup> Merkel still refrained from criticizing the Chinese government, merely expressing her concerns about the ELAB during a joint press conference with Chinese Premier Li Keqiang by stating that, ‘Solutions can only be found through dialogue’<sup>646</sup>.

It was not till 2020 that Germany, and the EU on the whole, started to take concrete actions on China for its violation of human rights. On 28 June 2020, the EU, led by Germany, began to constantly scrutinize Hong Kong’s situation and the export of equipment and technologies that can be used for repression and surveillance to China, even placing restrictions on some of these items.<sup>647</sup>

Yet, when responding to human rights issues related to the implementation of the Hong Kong National Security Law in 2020, Germany and the EU mostly remained on a verbal level. In March 2020, German Foreign Minister Heiko Maas chided China for the proposed

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<sup>641</sup> Klein, Bettina. “Koenigs Kritisiert Merkels Sanften Umgang Mit China.” Deutschlandfunk. deutschlandfunk.de, August 29, 2012. <https://www.deutschlandfunk.de/koenigs-kritisiert-merkels-sanften-umgang-mit-china-100.html>.

<sup>642</sup> Führer, Susan, and Tilman Spengler. “Im Verhältnis Zu China Hat ‘Die Wirtschaft Priorität Vor Der Politik.’” Deutschlandfunk Kultur. deutschlandfunkkultur.de, August 29, 2012. <https://www.deutschlandfunkkultur.de/im-verhaeltnis-zu-china-hat-die-wirtschaft-prioritaet-vor-100.html>.

<sup>643</sup> “Merkel Soll Sich in Peking Für Menschenrechte Einsetzen.” *Der Tagesspiegel*, May 23, 2018. <https://www.tagesspiegel.de/politik/china-merkel-soll-sich-in-pekings-fuer-menschenrechte-einsetzen/22592436.html>.

<sup>644</sup> “Kanzlerin in China: Merkel Spricht Menschenrechte an - Ganz Diplomatisch - Welt.” *DIE WELT*. WELT, June 13, 2016. <https://www.welt.de/politik/deutschland/article156167296/Merkel-spricht-Menschenrechte-an-ganz-diplomatisch.html>.

<sup>645</sup> “Report: Lockruf Der Freiheit: Wie Unternehmen in Den Sog Des Hongkong-Konflikts Geraten.” *Hongkong: Unternehmen geraten den Sog des Konflikts*. Handelsblatt, September 3, 2019. <https://www.handelsblatt.com/politik/international/report-lockruf-der-freiheit-wie-unternehmen-in-den-sog-des-hongkong-konflikts-geraten/24974186.html>.

<sup>646</sup> “China-Reise: Kanzlerin Merkel Mahnt in Peking Die Einhaltung Der Menschenrechte An.” *Angela Merkel mahnt in China Einhaltung der Menschenrechte an*. Handelsblatt, September 6, 2019. <https://www.handelsblatt.com/politik/international/china-reise-kanzlerin-merkel-mahnt-in-pekings-die-einhaltung-der-menschenrechte-an/24987108.html>.

<sup>647</sup> “Germany Chides China over New Hong Kong Security Law: DW: 29.05.2020.” *DW.COM*. Deutsche Welle, May 29, 2020. <https://www.dw.com/en/hong-kong-china-germany/a-53608848>.

promulgation of the law in Hong Kong.<sup>648</sup> Even after its implementation, Maas only urged China to withdraw the law during his meeting with Wang Yi in Berlin in September.<sup>649</sup>

Similarly, even though the Chinese government has been repressing Uyghurs in Xinjiang for many years, Germany has only verbally called for international attention on the issue through the UN.<sup>650</sup> Even after Barbel Kofler, the top German human rights official, was denied access to XUAR for investigation in December 2018, the German government still only verbally censured China for its human rights violation,<sup>651</sup> with no sanction imposed on Chinese officials involved in XUAR until EU decided to do it in March 2021.<sup>652</sup> Even after this, Merkel still persisted in persuading China to resume their human rights dialogues in April 2021,<sup>653</sup> rather than adopting new legislations or policies to handle the issue.

Germany's way of responding to human rights violations in Hong Kong and XUAR seemingly indicates that it is not taking these issues seriously. In fact, even though human rights issues have plagued China for many years, the German government has only taken EU-approved economic measures against China, such as sanctions,<sup>654</sup> export control, and suspension of trade and investment agreements.<sup>655</sup> If human rights issues were the main driver of Germany's foreign policy, it should have adopted tougher measures on its own instead of continuing to foster its ties with China.

Scholz, similar to his predecessor Merkel, is still determined to intensify his state's economic ties with China without raising any concern about the human rights issues in Hong Kong.<sup>656</sup> Therefore, assuming that a state would defend its national security, the German government's

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<sup>648</sup> "Germany's Maas Calls for Withdrawal of Hong Kong Security Law: DW: 01.09.2020." Deutsche Welle, September 1, 2020. <https://www.dw.com/en/germanys-maas-calls-for-withdrawal-of-hong-kong-security-law/a-54781315>.

<sup>649</sup> "Hong Kong: Council Expresses Grave Concern over National Security Law." Council of the EU. Council of the EU, July 28, 2020. <https://www.consilium.europa.eu/en/press/press-releases/2020/07/28/hong-kong-council-expresses-grave-concern-over-national-security-law/>.

<sup>650</sup> "China Hails Human Rights Progress amid Calls to Close Detention Camps ." United Nations. United Nations, November 6, 2018. <https://news.un.org/en/story/2018/11/1025061>.

<sup>651</sup> "Germany's Top Human Rights Official Says Barred from Xinjiang." France 24. France 24, December 5, 2018. <https://www.france24.com/en/20181205-germanys-top-human-rights-official-says-barred-xinjiang>.

<sup>652</sup> Lau, Stuart, and Jacopo Barigazzi. "EU Imposes Sanctions on Four Chinese Officials." POLITICO. POLITICO, March 22, 2021. <https://www.politico.eu/article/eu-imposes-sanctions-on-four-chinese-officials/>.

<sup>653</sup> Chambers, Madeline. "Germany's Merkel Calls for Human Rights Dialogue with China to Resume." Edited by Kirsti Knolle. Reuters. Thomson Reuters, April 28, 2021. <https://www.reuters.com/world/china/merkel-calls-human-rights-dialogue-with-china-resume-2021-04-28/>.

<sup>654</sup> Emmott, Robin. "EU Extends Human Rights Sanctions, Including on Chinese Officials." Reuters. Thomson Reuters, November 24, 2021. <https://www.reuters.com/world/eu-extends-human-rights-sanctions-including-chinese-officials-2021-11-24/>.

<sup>655</sup> Ridgwell, Henry. "EU Suspends China Trade Deal as Tensions Grow over Xinjiang, Hong Kong." VOA. EU Suspends China Trade Deal as Tensions Grow Over Xinjiang, Hong Kong, May 10, 2021. [https://www.voanews.com/a/east-asia-pacific\\_voa-news-china\\_eu-suspends-china-trade-deal-tensions-grow-over-xinjiang-hong-kong/6205673.html](https://www.voanews.com/a/east-asia-pacific_voa-news-china_eu-suspends-china-trade-deal-tensions-grow-over-xinjiang-hong-kong/6205673.html).

<sup>656</sup> Burchard, Hans von der. "Scholz Tells Xi He Wants to 'Deepen' Economic Ties with China." POLITICO. POLITICO, December 24, 2021. <https://www.politico.eu/article/olaf-scholz-xi-jinping-deepen-economic-ties-germany-china-human-rights/>.

slow and mild responses may mean that China's human rights violation is not detrimental to Germany's national security.

## 2. South China Sea Issues

Apart from human rights, judging from Germany's responses, disputes in the South China Sea, though possibly heightening the German's alertness of China assertiveness, is still not a major security concern to Germany.

The German government was so cautious about not intensifying geopolitical rivalry in the Indo-Pacific that it even adopted a Guidelines on the Indo-Pacific (in German, *Leitlinien zum Indo-Pazifik*) in 2020.<sup>657</sup> According to the guideline, Germany considers itself as one of the key players in the region because of its economic gains from trade and aviation aside from human rights concern. As such, it attempts to strengthen the rule-based international order in the region, such as sending naval frigates or conducting naval drills with other states in the disputed seas.<sup>658</sup>

The Germans demonstrated their interest in the South China Sea by issuing a statement supporting the UN UNCLOS adjudication in favour of the Philippines in 2019.<sup>659</sup> Berlin also considered sending warship to the South China Sea in March 2021 – a proposal endorsed by the US.<sup>660</sup> In September 2021, Germany's request for having their frigate, Bayern, berth a Chinese port during a voyage to the Indo-Pacific, which aimed to show German presence in the area, was denied by China.<sup>661</sup> Despite the denial, German Vice Admiral Kay-Achim Schonbach still announced that the Bayern would travel to the South China Sea to defend the freedom of navigation and demonstrate the state's support for Japan and the US. In December, Germany ordered the same warship to cross the South China Sea - a first in two decades - as a response to China's assertiveness in the region.<sup>662</sup> After the trip, Berlin reiterated its interest

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<sup>657</sup> "Germany – Europe – Asia: Shaping the 21st Century Together": The German Government Adopts Policy Guidelines on the Indo-Pacific Region." German Federal Foreign Office, September 1, 2020. <https://www.auswaertiges-amt.de/en/aussenpolitik/regionaleschwerpunkte/asien/german-government-policy-guidelines-indo-pacific/2380510>.

<sup>658</sup> "The Indo-Pacific Region." German Federal Foreign Office, October 28, 2021. <https://www.auswaertiges-amt.de/en/aussenpolitik/regionaleschwerpunkte/asien/indo-pacific/2493040>.

<sup>659</sup> "South China Sea: Statement on Legal Position under UNCLOS." AIDE MEMOIRE: South China Sea: Statement on Legal Position under UNCLOS. Auswärtiges Amt, April 12, 2019. <https://www.auswaertiges-amt.de/blob/2231464/86254dd0ab0d8b2e1d3045d262254b5e/seerecht--aide-memoire-freiheit-der-hohen-see-suedchin--meer-data.pdf>.

<sup>660</sup> "US Hails German Warship Plan to Sail South China Sea." VOA. US Hails German Warship Plan to Sail South China Sea, March 4, 2021. [https://www.voanews.com/a/east-asia-pacific\\_us-hails-german-warship-plan-sail-south-china-sea/6202863.html](https://www.voanews.com/a/east-asia-pacific_us-hails-german-warship-plan-sail-south-china-sea/6202863.html).

<sup>661</sup> "China Denies Port Visit by German Warship: DW: 15.09.2021." DW.COM. Deutsche Welle. Accessed May 30, 2022. <https://www.dw.com/en/china-denies-port-visit-by-german-warship/a-59190643>.

<sup>662</sup> Siebold, Sabine. "First German Warship in Almost Two Decades Enters South China Sea." Edited by Michael Perry. Reuters. Thomson Reuters, December 15, 2021. <https://www.reuters.com/world/first-german-warship-almost-two-decades-enters-south-china-sea-2021-12-15/>.

in upholding the international rule-based order.<sup>663</sup>

Judging from its involvement in the South China Sea and the rationale behind, Germany seemingly does not see China as a national security threat as do the US and Japan. As Schonbach said, the trip would serve as a signal to Beijing,<sup>664</sup> implying that the issue may be assumed as an operation without any security and military significance. On the contrary, Japan and the US have direct strategic/security rivalry with China, the rationale also sheds light on the fact that the national security threat posed by China to Germany is more moderate than that to the US and Japan.

Germany's position on Chinese human rights issues and South China Sea disputes demonstrates that it does not view China as a direct security threat. Instead, it only considers China as a revisionist power infringing the international order and universal values. This perception of China accounts for Germany's soft and inconsistent China policy in comparison to the Japanese and the Americans, as it, on the one hand, hopes to cooperate with China for economic gains, but on the other hand, is determined to avoid being caught up by China in the military and technological domains. Yet, these concerns do not constitute direct security conflict between Germany and China. Therefore, it can be expected that Germany should not be concerned with the relative gains issue in technological relations with China as the US and Japan do.

#### DEUTSCHLAND'S DANCE WITH THE DEVIL

Whether Germany is willing to deepen its economic ties with China does not only hinge on the potential security threat brought by China, but also the benefits from their cooperation. China has, for the first time, replaced the US as Germany's top trading partner in 2016.<sup>665</sup> Since then, the German-Chinese trade volume has grown steadily.<sup>666</sup> Germany identifies its absolute gains from economic collaboration with China, and thus is eager to further foster their ties in other areas, such as technology, finance,<sup>667</sup> climate change, and safeguarding

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<sup>663</sup> Sim, Deway. "German Navy Sends 'Signal to Beijing' after Frigate's South China Sea Foray." South China Morning Post. South China Morning Post, December 21, 2021. <https://www.scmp.com/week-asia/politics/article/3160545/germany-plans-step-asian-deployments-after-warships-south-china>.

<sup>664</sup> Ibid.

<sup>665</sup> Wagner, Rene, and Michael Nienaber. "China Steams Past U.S., France to Be Germany's Biggest Trading Partner." Reuters. Thomson Reuters, February 24, 2017. <https://www.reuters.com/article/us-germany-economy-trade-idUSKBN1622SO>.

<sup>666</sup> "China Was Germany's Most Important Trading Partner in 2021 for the Sixth Year in a Row." Federal Statistical Office, February 18, 2022. [https://www.destatis.de/EN/Press/2022/02/PE22\\_068\\_51.html#:~:text=WIESBADEN%20%E2%80%93%20The%20People's%20Republic%20of,trade%20between%20the%20two%20countries](https://www.destatis.de/EN/Press/2022/02/PE22_068_51.html#:~:text=WIESBADEN%20%E2%80%93%20The%20People's%20Republic%20of,trade%20between%20the%20two%20countries).

<sup>667</sup> Nienaber, Michael, and Michelle Martin. "Germany, China to Sign Deals to Deepen Cooperation in Financial Sector: Document." Reuters. Thomson Reuters, January 16, 2019. <https://www.reuters.com/article/us-germany-china-banks-idUSKCN1PA28T>.



multilateralism in the international political arena.<sup>668</sup>

## 1. Joint Investment Project

Merkel clearly stated that China was deemed to be a partner in advanced technologies and digital economy development in her opening remarks to the world's largest annual IT fair in 2015.<sup>669</sup> She also made a similar appeal to the Chinese for more cooperation in data security during her state visit to Shenzhen, China's hub for pioneering technology in May 2018. Although she also spoke 'critically' about China's security law, intellectual properties, and human rights, German-Chinese economic and technological ties have remained intact. Even after Scholz took office in December 2021, Germany's position remained the same. Scholz had his first conversation with Chinese President Xi Jinping in late December 2021. Without mentioning Chinese human rights and Hong Kong's controversial election, the new chancellor expressed his willingness to deepen German economic ties and partnership with China.<sup>670</sup>

Germany and China have been working closely on joint technological projects. In October 2014, the states reached a deal of \$18.1 billion to promote technology and investment.<sup>671</sup> One year later, Sigmar Gabriel, the former Economy and Energy Minister and Vice Chancellor, met with his Chinese counterpart, Wei Miao, during his visit to Beijing. During the meeting, Gabriel and Miao signed an agreement on 'intelligent manufacturing and digital networking of production processes', marking the strengthening connection between Germany's 'Industry 4.0' strategic industrial development program and the "Made in China 2025" initiative in the private sector.<sup>672</sup>

## 2. Private Investment and Acquisition

Apart from the investment deals signed between the two governments, the increase in Chinese private investments and acquisition projects in Germany may also indicate the state's active cooperation with the Chinese, especially after the launch of the Made in China 2025 Initiative.<sup>673</sup> Interestingly, the number of deals made by the Chinese the US is far more than

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<sup>668</sup> Lu, Zhenhua, and Kinling Lo. "China, Germany 'Agree to Uphold Global Multilateral Order' in Berlin Talks." South China Morning Post. South China Morning Post, June 3, 2019. <https://www.scmp.com/news/china/diplomacy/article/3012954/china-germany-agree-uphold-global-multilateral-order-berlin>.

<sup>669</sup> Song, Wei. Germany seeks co-op with China in high-tech area. China Daily, March 16, 2015. [https://www.chinadaily.com.cn/world/2015-03/16/content\\_19818132.htm](https://www.chinadaily.com.cn/world/2015-03/16/content_19818132.htm).

<sup>670</sup> Burchard, "Scholz tells Xi he wants to 'deepen' economic ties with China"

<sup>671</sup> Abe, Tetsuya. "China, Germany Agree on \$18 Billion in Investment, Tech Collaborations." Nikkei Asia. Nikkei Asia, October 11, 2014. <https://asia.nikkei.com/Politics/China-Germany-agree-on-18-billion-in-investment-tech-collaborations>.

<sup>672</sup> Zimmermann, Nils. "German-Chinese Industry 4.0 Cooperation Entails Risks." DW.COM. Deutsche Welle, July 15, 2015. <https://www.dw.com/en/german-chinese-industry-40-cooperation-entails-risks/a-18585690>.

<sup>673</sup> Scissors, David. China Global Investment Tracker - American Enterprise Institute. American Enterprise Institute. Accessed May 30, 2022. <https://www.aei.org/china-global-investment-tracker/>.



that in Germany. In other words, the extent of interdependence between the US and China should be larger than that between Germany and China. Nonetheless, Berlin holds a much unfavorable view on decoupling from China. This comparison may imply a state's cooperation with other states may not always be shaped by economic gains or interdependence. Rather, national security threat is the major concern. This will be further discussed in the final chapter.

### 3. Trade and Production

Germany, as well as the whole Europe, have become one of the key suppliers of Chinese military technologies. Although the EU imposed an embargo after the June Fourth Incident in 1989, EU arms manufacturers could still apply for licenses to export to China, which translated to a total profit of €3 billion (\$4.1 billion) from 2002 to 2012. Due to the lenient military export control policy, German gears could sometimes be found on Chinese vessels. For example, a Chinese Jiangwei-class frigate was suspected to be running on diesel engines produced by MTU, a major German arms producer. Another Chinese Jiangkai-class vessel was also accused of using engines produced by SEMT Pielstick, a French engine producer acquired by Germany's MAN Diesel and Turbo. MAN later revealed to the *Agence France-Presse* that 250 engines had been supplied to the Chinese according to German export laws.<sup>674</sup> The Chinese government also allegedly approached the Germans for supplying jet engines in 2018.

Obviously, Germany has not been very harsh on controlling military supplies to China. The German's eagerness in cooperating with China, especially on military and technology, is evidence that China is not treated as a de facto national security threat by Germany. Not only do the German government continue to work with China, especially on investment and trade, in face of the American's decoupling policy, but Berlin has also not suspended its cooperation with China even if they may help enhance China's military technology and PLA's modernization as featured in the MIC2025. Therefore, judging from the German-Chinese economic ties, Germany might not see China as a national threat in military and economy. Instead, China, as well as the US, are competitors and partners.<sup>675</sup>

In addition to partnering with China, Germany also attempts to get ahead of its competitors through policies that will be discussed in the next section. Although Berlin's China policies may seem inconsistent in the sense that it is attempting to concurrently cooperate and compete

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<sup>674</sup> Hancock, Tom. "European Companies Are Supplying China with Billions in Weapons and Military Technology." Business Insider. Business Insider, April 30, 2014. <https://www.businessinsider.com/european-companies-are-supplying-china-with-billions-in-weapons-and-military-technology-2014-4>.

<sup>675</sup> Schult, Christoph, and Gerald Traufetter. "Germany Rethinks Position on Beijing: Government in Berlin Classifies China as a 'Systemic Rival.'" DER SPIEGEL. DER SPIEGEL, February 4, 2022. <https://www.spiegel.de/international/world/germany-rethinks-position-on-beijing-government-in-berlin-classifies-china-as-a-systemic-rival-a-57cf368a-79e9-41f2-8121-73654f3c6c7c>.

with China, it is a reflection that these policies are at best strategic ambiguity,<sup>676</sup> and at worst a dilemma.<sup>677</sup>

## GERMAN DILEMMATIC TECH POLICY TOWARDS CHINA

The German government published its first cybersecurity strategy for Germany (in German, *Cyber-Sicherheitsstrategie für Deutschland*) in 2016.<sup>678</sup> The major goals of the strategy are to assimilate artificial technologies in its domestic economic development, protecting freedom and human rights in cyberspace, and cooperating with Europe and other states.<sup>679</sup> Without specifically mentioning China in the strategy, the German government has taken a few measures to safeguard its cybersecurity and economic security. Nonetheless, given the narrow-scope technology denial policy against China as well as Berlin's deference to the US, this should not be understood as an indication that Germany is targeting China only or taking the American's side in the US-Sino strategic rivalry on the technological front.

As Merkel told the Reuters in 2021, Germany has been too naïve when engaging China, as China has become a rising power despite malpractices like industrial espionage and unfair competition policies. While criticizing China, Merkel still considered partnering with China and the EU a viable option. She further elaborated that Europe is not comparable with the US and China in technological areas, for instance, quantum computing and artificial intelligence,<sup>680</sup> but the western democracies should still formulate ethical standards for the latest technologies for greater international influence and maintaining the lead.

Merkel's response may imply that 1) Germany views both China and the US as Europe's competitors, which echoes France's appeal for 'strategic autonomy'; 2) human rights may not necessarily explain Germany's technology policy on China; and, 3) Germany simply wants to protect its own cybersecurity and fundamental national security. These features can be reflected in the Germany's overall technology policy on China.

### 1. Reducing Dependence on China

In a bid to avoid its supply chain from being affected by the US-Chinese technological rivalry,

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<sup>676</sup> Barkin, Noah. "Germany's Strategic Gray Zone with China." Germany's Strategic Gray Zone With China. Carnegie Endowment for International Peace, March 25, 2020. <https://carnegieendowment.org/2020/03/25/germany-s-strategic-gray-zone-with-china-pub-81360>.

<sup>677</sup> Crawford, Alan. "Germany's Growing Dilemma Over China Puts Hamburg in Spotlight." Bloomberg.com. Bloomberg, October 24, 2021. <https://www.bloomberg.com/news/features/2021-10-23/germany-s-growing-dilemma-over-china-puts-hamburg-in-spotlight>.

<sup>678</sup> "Cyber-Sicherheitsstrategie Für Deutschland: 2016." BMI. Bundesministerium des Innern, 2016. <https://www.bmi.bund.de/cybersicherheitsstrategie/>.

<sup>679</sup> Ibid.

<sup>680</sup> Rinke, Andreas. "Exclusive Germany May Have Been Naive on China at First, Merkel Says." Reuters. Thomson Reuters, November 17, 2021. <https://www.reuters.com/world/europe/exclusive-germany-may-have-been-naive-china-first-merkel-says-2021-11-17/>.

Germany has made attempt to reduce its reliance on Chinese technologies and supplies by different means. However, as opposed to the US' policy of decoupling from China because of the strategic rivalry between the two states, Germany aims to ensure that its economic interests remain intact amidst the US-China rivalry.

One of German government's ways to reduce imports from China and the US is to attract foreign corporations from Europe and other states to set up production lines in Germany. In September 2021, Economy Minister Peter Altmaier hosted talks with 50 representatives from various semiconductor producers to offer incentives for them to invest in Germany, in hope to preserve the state's 'technological sovereignty'<sup>681</sup>. The German government was reported to have indicated its interest in inviting Taiwan's TSMC and Intel to open factories in Germany.

<sup>682</sup>

Berlin has also worked with Brussels through the framework of the European Initiative 'Important Projects of Common European Interest' (IPCEI) to boost investment and production of semiconductors, and has allocated around €3 billion to attempt to bring semiconductor production back to Germany.<sup>683</sup>

Judging from the above-mentioned policy goals, the German government, unlike the US, is not worried about the rise of China and the related security threats and does not aim to contain China through excluding the Chinese from its supply chain. Instead, it would like to act as a bystander in the US-China strategic rivalry for its own economic growth.

## 2. Inconsistent Investment Restriction

Other than attracting foreign investment for domestic production capability, Germany's attitude on policies restricting Chinese investment can be considered ambiguous.

Although the German government has blocked Chinese-led acquisition deals, many German companies were still successfully acquired by the Chinese. In October 2016, the German government withdrew its approval for Fujian Grand Chip Investment Fund LP's takeover of Aixtron, a chip equipment producer, because of national security concerns over the deal<sup>684</sup> and

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<sup>681</sup> Noyan, Oliver. "Germany to Invest Billions to Bring Semiconductor Production Back to Europe." [www.euractiv.com](https://www.euractiv.com/section/digital/news/germany-to-invest-billions-to-bring-semiconductor-production-back-to-europe/). EURACTIV, September 3, 2021. <https://www.euractiv.com/section/digital/news/germany-to-invest-billions-to-bring-semiconductor-production-back-to-europe/>.

<sup>682</sup> Cheng, Ting-Fang, and Lauly Li. "TSMC Eyes Germany as Possible Location for First Europe Chip Plant." *Nikkei Asia*. Nikkei Asia, July 26, 2021. <https://asia.nikkei.com/Business/Tech/Semiconductors/TSMC-eyes-Germany-as-possible-location-for-first-Europe-chip-plant>. ; "Intel Announces Initial Investment of over €33 Billion for R&D and..." Intel Announces Initial Investment of Over €33 Billion for R&D and Manufacturing in EU. Intel Corporation, March 15, 2022. <https://www.intel.com/content/www/us/en/newsroom/news/eu-news-2022-release.html>.

<sup>683</sup> Noyan, "Germany to invest billions to bring semiconductor production back to Europe"

<sup>684</sup> Sheahan, Maria, and Caroline Copley. "Germany Stalls Chinese Takeover of Aixtron, Citing Security Worries."

the US Department of Commerce Bureau of Industry and Security's withdrawal of its approval for the same buyer to acquire Aixtron's US division.<sup>685</sup> In the same month, the Germans also turned down a Chinese request for taking over Ledvance, a light bulb unit affiliated with Osram that owns a chip production plant for its LED lights in Malaysia.<sup>686</sup> Two months later, the Chinese buyer gave up on the deal because of strong political opposition within Germany. The deal block may be attributed to potential national security concerns, as chips, a dual-use goods, may be used to facilitate China's military expansion.<sup>687</sup>

In 2018, the German government again rejected the Chinese by blocking Emst, a Chinese military communications systems manufacturer, from buying IMST, a German firm renowned for mobile and satellite communication technologies, citing 'public order and security' reasons. As Bild reported, Emst is owned by the China Aerospace Science and Technology Corporation, an affiliate of the SASAC.<sup>688</sup> In addition to the bidder's military link to the Chinese government, the deal was blocked as IMST is also capable of producing 5G technologies that would be crucial to China's 5G telecommunication expansion to Europe.<sup>689</sup> Within the same year, Merkel's cabinet also vetoed a bid by Yantai Taihai Group for a machine tool producer, Leifeld Metal Spinning AG, owing to Berlin's concerns over the impact of the deal on MIC2025.<sup>690</sup>

The German government investigated several other acquisition deals, including a probe by the Federal Ministry for Economic Affairs and Climate Action into a bid for Cotesa by China Iron & Steel Research Institute, the state-own aircraft manufacturer for China's Comac, in December 2017.<sup>691</sup> Despite the investigation, the company was still finally sold to China's Advanced Technology & Materials (AT&M), a subsidiary of the China Iron & Steel Research Institute, in 2018.<sup>692</sup>

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Reuters. Thomson Reuters, October 24, 2016. <https://www.reuters.com/article/us-aixtron-m-a-fujian-germany-idUSKCN12O13G>.

<sup>685</sup> Schuetze, Arno, Alexander Huebner, Jens Hack, and Julie Zhu. "Chinese Bidders Walk Away from Osram Takeover: Sources." Edited by David Clarke and Greg Mahlich. Reuters. Thomson Reuters, December 13, 2016. <https://www.reuters.com/article/us-osram-licht-m-a-china-idUSKBN1421RR>.

<sup>686</sup> Bellon, Tina, Gernot Heller, and Jens Hack. "Germany Stalls Osram Unit Sale to Chinese Buyers: Wirtschaftswoche." Edited by Maria Sheahan and Alexandra Hudson. Reuters. Thomson Reuters, October 27, 2016. <https://www.reuters.com/article/us-osram-licht-m-a-idUSKCN12R1PW>.

<sup>687</sup> Schuetze, Huebner, Hack and Zhu, "Chinese Bidders Walk Away from Osram Takeover: Sources."

<sup>688</sup> Bianchi, Andrea. "Berlin Blocks Chinese Acquisition of German High-Tech Satellite Firm." *www.euractiv.com*. EURACTIV, December 10, 2020. <https://www.euractiv.com/section/defence-and-security/news/berlin-blocks-chinese-acquisition-of-german-high-tech-satellite-firm/>.

<sup>689</sup> Ibid.

<sup>690</sup> Thomas, Andrea. "Germany Vetoes Chinese Purchase of Business Citing Security Grounds." *The Wall Street Journal*. Dow Jones & Company, July 27, 2018. <https://www.wsj.com/articles/germany-vetoes-chinese-purchase-of-leifeld-metal-spinning-1532624172>.

<sup>691</sup> "Germany Launches Probe of Foreign Bid for Aerospace Supplier COTESA." Reuters. Thomson Reuters, December 22, 2017. <https://www.reuters.com/article/germany-china-ma-cotesa-idUSS8N1OK002>.

<sup>692</sup> Steitz, Christoph. "China's AT&M Seals Takeover of German Aerospace Supplier COTESA: Handelsblatt."

To systematically deter the national security threat brought by the Chinese's access to German advanced technologies for military expansion, Germany also revised the Foreign Trade and Payments Act (in German, *Außenwirtschaftsgesetz, AWG*) in November 2019 to allow the government to review or block foreign purchases of more than 10% of the shares of a company in the "critical technology" sector, including robotics, artificial intelligence, semi-conductors, biotechnology, and quantum technology.<sup>693</sup>

Despite Berlin's awareness of the potential risks brought by Chinese investment, as manifested by the cases described above, numerous technological firms in Germany were still successfully acquired by Chinese companies.<sup>694</sup> Some reports suggested that Germany's acceptance of the Chinese's acquisition offer was mainly driven by its economic concerns, especially over employment, and its belief in the importance of free trade.<sup>695</sup> Seemingly, economic benefits and security concerns are of equal importance in Germany's planning of China-related policies.

Indeed, the German dilemma may be explained by the state's absence of direct security rivalry with, and security threat from, China. Without security threat, the Germans may not have much to be concerned about its relative gains from China. In the meantime, owing to the fact that Germany enjoys absolute gains from its economic ties with China, it cannot easily choose between absolute gains and relative gains, and thus is trapped in the dilemma.

### 3. Incoherent Anti-Espionage Actions

Unlike the US and its tough responses to China's espionage activities, Germany's attitude and responses to Chinese espionage actions seems to be equivocal, or even self-contradicting.

Indeed, Berlin was in a dilemma on whether to ban the use of Chinese technologies to avoid the national security concerns derived from the potential risk of Chinese espionage. Merkel's government was reportedly stuck between toughening its policy on Chinese telecommunication companies and preventing China's retaliatory actions against German corporations with investments in China.<sup>696</sup> On the one hand, in 2019, Horst Seehofer, German

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Edited by Mark Potter. Reuters. Thomson Reuters, May 17, 2018. <https://www.reuters.com/article/us-cotesa-m-a-at-m-idUSKCN1H2IS>.

<sup>693</sup> "Germany Aims to Protect Tech Firms from Foreign Takeovers." The Local Germany. The Local Germany, November 28, 2019. <https://www.thelocal.de/20191128/germany-aims-to-protect-tech-firms-from-foreign-takeovers/>.

<sup>694</sup> Wan-Hsin, Liu. "Germany Particularly Attractive for Chinese Investors." Kiel Institute. Kiel Institute For The World Economy, March 9, 2021. <https://www.ifw-kiel.de/publications/media-information/2021/germany-particularly-attractive-for-chinese-investors/>.

<sup>695</sup> Nicholson, Esme, and Soraya Sarhaddi Nelson. "Chinese Companies Get Tech-Savvy Gobbling up Germany's Factories." NPR. NPR, October 3, 2018. <https://www.npr.org/2018/10/03/639636532/chinese-companies-get-tech-savvy-gobbling-up-germanys-factories>.

<sup>696</sup> Lau, Stuart. "Germany Leaves Door Open for Huawei on 5G, Sparking Criticism." South China Morning Post. South China Morning Post, October 16, 2019. <https://www.scmp.com/news/china/diplomacy/article/3033254/germanys-proposal-5g-network-security-leaves->

Interior Minister, mentioned that China could pose threats to German infrastructure, such as energy supply and 5G telecommunication.<sup>697</sup> On the other hand, in 2022, Seehofer warned that 5G construction would be delayed if Huawei was excluded.<sup>698</sup> At the same time, German government officials also expressed their concerns over China's 'hybrid threats', including Chinese-led investment acquisition. It can be seen that the German government has been making contradicting statements and reports on its stance on Chinese technologies, leading to inconsistencies and ambiguities in Germany's anti-espionage effort.

Given the ambiguity in its attitude and policy goal, Berlin, like Paris, has adopted a less explicit approach against the use Chinese technologies. In October 2019, the German regulator BNetzA tightened regulations on 5G network by requiring operators to ensure information is not shared with foreign governments. The agency also emphasized that the law is not targeting any specific vendor. In other words, Huawei may not have been excluded even if the framework is in effect.<sup>699</sup> Similar issues can also be found in the 'IT Security Law 2.0', which aims to restrict the role of untrusted 5G suppliers. Telecommunication corporations signing contracts on critical 5G components are required to file a notice to the government, which is entitled to block the contracts.<sup>700</sup> Analysis considered the new regulations as equivalent to a ban on Huawei,<sup>701</sup> but, in theory, Huawei has not been explicitly expelled from the German telecommunication market if Berlin does not block any deals and contracts involving the Chinese telecom company. Similar to the French's approach in minimizing the potential risk from using Chinese technologies, the Germans would attempt to remain ambiguous in its policies by not following the US in explicitly banning the use of Huawei.

The German's seemingly inconsistent policies on, and attitude towards, the use of Chinese technologies may be explained by the absence of security threat. Without any direct security rivalry with China, Germany does not consider China as a direct security threat. As the realist predicted, Berlin's concerns over relative gains from China would be much lower than their concerns over absolute gains from its economic cooperation with China. Therefore, Germany

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[door-open-chinas.](#)

<sup>697</sup> "German Intel Warns against Giving Data to Chinese Tech Firms." AP NEWS. Associated Press, July 9, 2020. <https://apnews.com/article/china-technology-germany-europe-48ee7ff615ce6f5fa05047782abd11a4>.

<sup>698</sup> Staudenmaier, Rebecca. "Germany's Seehofer Warns of 5G Delays If Huawei Is Excluded: DW: 18.01.2020." DW.COM. Deutsche Welle, January 18, 2020. <https://www.dw.com/en/germanys-seehofer-warns-of-5g-delays-if-huawei-is-excluded/a-52050565#:~:text=Germany%20resists%20calls%20for%20ban,or%20sabotage%20their%20internet%20networks>.

<sup>699</sup> Hummel, Tassilo. "New German Telecom Rules Don't Exclude Huawei." Reuters. Thomson Reuters, October 15, 2019. <https://www.reuters.com/article/us-germany-telecoms-5g-idUKKBN1WU1XU>.

<sup>700</sup> Cerulus, Laurens. "Germany Falls in Line with EU on Huawei." POLITICO. POLITICO, April 23, 2021. <https://www.politico.eu/article/germany-europe-huawei-5g-data-privacy-cybersecurity/>.

<sup>701</sup> Thomas, Beryl. "What Germany's New Cyber Security Law Means for Huawei, Europe, and NATO." ECFR, February 5, 2021. <https://ecfr.eu/article/what-germanys-new-cyber-security-law-means-for-huawei-europe-and-nato/>.



decided to maintain its relations with China by not directly expelling Huawei from its market, while refraining from instigating direct confrontations against China.

## US-GERMAN DISPUTES

Differences in American and German policies on denying China's access to high-end technology can be easily spotted through the examples mentioned in the previous sections. These differences can be attributed to incongruities in the two states' perception of the potential security threat brought by China. While China could threaten the US' global dominance and endanger its allies, Berlin only deemed China as a competitor in the technology aspects instead of a tremendous threat to its national security. In consequence, divergence developed between Germany and the US.

In March 2019, the US pressured Germany by threatening not to share intelligence if the Germans opted for Huawei.<sup>702</sup> Yet, the German government defied the US' pressure on excluding Huawei in October 2019,<sup>703</sup> escalating into a diplomatic rift one month later when German Economy Minister Peter Altmaier made a comparison between China's and the US' spying action. Altmaier reasoned that Germany has never boycotted the US for its alleged scrutiny of its NATO allies in 2013, so Huawei should not be banned for doing similar things. The remark also served as a riposte to the US' concerns over Huawei. Richard Grenell, the US ambassador to Berlin, rebutted the claim,<sup>704</sup> and the Trump administration followed up with another warning to Germany in early 2020.<sup>705</sup> Yet, no matter how hard the US pressured Germany to explicitly ban Huawei, Berlin has not followed the US', France', and the UK's suit. Germany's deference of the US' appeal hinted the rift between the allies, as they do not share a similar threat perception and national security concerns.

## SUMMARY

The discussion in this chapter demonstrated that Germany is less prone to adopt technology policies on China that are similar in toughness to those of the US, because the two states do not share the same national security threat. From the German's perspective, China is only a state that has always been contravening international rules and norms regarding human rights

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<sup>702</sup> Atwood, Kylie, and Nicole Gaouette. "US Warns Germany That Using Huawei Tech Will Come at a Cost." CNN. Cable News Network, March 12, 2019. <https://www.cnn.com/2019/03/11/politics/us-germany-huawei-letter/index.html>.

<sup>703</sup> Taylor, Chloe. "Germany Set to Allow Huawei into 5G Networks, Defying Pressure from the US." CNBC. CNBC, October 16, 2019. <https://www.cnbc.com/2019/10/16/germany-to-allow-huawei-into-5g-networks-defying-pressure-from-the-us.html>.

<sup>704</sup> "Huawei Affair: German 'Insult' on Spying Angers US." BBC News. BBC, November 26, 2019. <https://www.bbc.com/news/world-europe-50557876>.

<sup>705</sup> Koranyi, Balazs, and Elizabeth Howcroft. "United States Cautions Britain over Huawei." Reuters. Thomson Reuters, January 23, 2020. <https://www.reuters.com/article/us-britain-huawei-tech-idUSKBN1ZM0XI>.

and market competition instead of one that is a direct security rival. Therefore, Merkel has taken a cautious approach when considering whether to restrict Huawei in a bid to avoid economic losses incurred by the Chinese's countermeasures, resulting in the German's ambiguous, or even self-contradicting, technology policies on China.

The same logic can be applied to Germany's response to the Russian annexation of Ukraine. Berlin abandoned its Nord Stream 2 project with the Russians only after Russia has been sanctioned. German President Frank-Walter Steinmeier later admitted that Germany had made a mistake for not objecting the natural gas project, because the government, unlike its allies, had not perceived Russia as a security threat.<sup>706</sup> However, his statement only came after the outbreak of the Ukrainian war, as, by then, Russia has clearly become a threat to the European states, thus prompting the German government to finally terminate the project,<sup>707</sup> and boost its military and defence ability.<sup>708</sup> In the meantime, Germany also plans to stop importing Russian energy by mid-2024.<sup>709</sup> Comparing the German's response to buying natural gas from Russia before and after the war broke out, it is obvious that the existence of national security threat is a decisive factor in whether Germany, or a state, would depend on or decouple from another.

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<sup>706</sup> Gehrke, Laurenz. "Mistake' Not to Object to Nord Stream 2, Says German President." POLITICO. POLITICO, April 4, 2022. <https://www.politico.eu/article/german-president-admits-having-been-mistaken-on-nord-stream-2/>.

<sup>707</sup> Chambers, Madeline, and Sarah Marsh. "Germany Freezes Nord Stream 2 Gas Project as Ukraine Crisis Deepens." Reuters. Thomson Reuters, February 22, 2022. <https://www.reuters.com/business/energy/germanys-scholz-halts-nord-stream-2-certification-2022-02-22/>.

<sup>708</sup> Marsh, Sarah, and Maria Sheahan. "Germany to Increase Defence Spending in Response to 'Putin's War' - Scholz." Reuters. Thomson Reuters, February 27, 2022. <https://www.reuters.com/business/aerospace-defense/germany-hike-defense-spending-scholz-says-further-policy-shift-2022-02-27/>.

<sup>709</sup> Delfs, Arne. "Germany to Wean Itself Off Russian Oil, Gas in Next 2 Years." Bloomberg.com. Bloomberg, March 25, 2022. <https://www.bloomberg.com/news/articles/2022-03-25/germany-targets-end-to-russian-gas-imports-by-middle-of-2024>.



## 9. DISCUSSION AND CONCLUSION

According to the balance of threat theory, the absence or presence of direct security conflicts and the geographical proximity would determine states' threat perceptions and their willingness to take balancing actions, which include technological denials to countries seen as threat to their national security.<sup>710</sup> Therefore, Japan, the US ally closest to, and with direct security rivalry with, China, is more likely to work with the US to counterbalance China. Conversely, as the UK, France, and Germany are far from China and do not have any security rivalry with China, they are not motivated to contain China, let alone work with the US. In addition to reviewing the importance of the balance of threat theory in explaining allies' cooperation with the US, this chapter will also attempt to explore some other useful theoretical implications on economic interdependence and relative gains for further research.

### DIFFERENCES IN THE US' AND ALLIES' THREAT PERCEPTION OF CHINA

Both the US and Japan have been trimming down their economic cooperation with, and dependence on, China because of their national security concern. The former, as a power in relative decline, considers China, the rising power, as its strategic rival for global dominance and a source of security threat due to the Chinese's security rivalry with its allies. Meanwhile, Japan, as a regional power in the Pacific, has always been threatened by its economically and militarily emerging neighbour, China.

Over in Europe, the UK's policies on China have become slightly tougher after 2020 because of China's repression of the Anti-ELAB Movement and the implementation of the NSL in Hong Kong. However, UK, being remote from the Pacific region, does not have any direct security rivalry with China. Thus, it does not consider China as a major security threat, and its concerns about relative gains from China will be much lower than the US. To preserve the absolute gains from its economic ties with China, the UK chooses to maintain its economic relations with China rather than working closely with the US, which also explains the inconsistencies between the policies of the UK and the US, the latter of which has been viewing China as a strategic rival and security threat.

At the same time, Germany and France are also reluctant to cooperate with the US, but for a different reason. In the eyes of these two states, China is a revisionist power attempting to change the current rule-based international order. Despite clashes with China on human rights issues and the South China Sea territorial disputes, Germany and France do not deem China

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<sup>710</sup> Walt, Stephen M. "Conclusion: Alliance Formation and the Balance of World Power." In *The Origins of Alliance*, 262–86. Cornell University Press, 1987. <http://www.jstor.org/stable/10.7591/j.ctt32b5fc.12>.

as a great national security threat as do the US and Japan. As such, their policies are the least consistent with those of the US.

A summary on the states' threat perception of, and direct national security threat posed by, China is displayed in Table 1 below. The differences in these two areas between the states can be translated into discrepancies in their implementation of unilateral policies and bilateral cooperation with the US. These discrepancies will be further discussed in the following sections.

*Table 3 Threat Perception on China and Direct Security Rivalry between US, Japan, UK, France, and Germany (Source: Author's database)*

	US	Japan	UK	France	Germany
Seeing China as a direct security threat	Yes	Yes	No	No	No
Having Direct Security Rivalry with China	Yes. <ul style="list-style-type: none"> <li>• Global Dominance</li> <li>• Dragged into conflicts with China because of allies 'conflicts with China</li> </ul>	Yes. <ul style="list-style-type: none"> <li>• Dominance within the Northeast Asia</li> <li>• Territorial disputes</li> </ul>	No	No	No
Disputes with China	<ul style="list-style-type: none"> <li>• Chinese human rights issues</li> <li>• Rule-based international order, e.g., Chinese assertiveness in the South China Sea (this issue has difference significance for US/Japan and UK/France/Germany. For US and Japan, it is a security issue. For the other three, it is about rule-based international order)</li> </ul>				

#### POTENTIAL NEOCLASSICAL REALIST AND CONSTRUCTIVIST EXPLANATIONS TO ALLIES' RESPONSES

Although the above table demonstrates that states' direct national security rivalry with China correlates with the strength of their balancing effort against China, directly jumping to the conclusion that the balancing of threat theory is the only explanation to the casual mechanism behind may be undesirable. Therefore, it would be appropriate to discuss whether other theoretical approaches could offer alternative explanations.

Some constructivists argue that states' identities, rather than perceived threat or the balance of power, have a profound impact on their behaviours and interactions.<sup>711</sup> For an instance, David Kang, argued that the realist paradigm originated from the European context and it is not

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<sup>711</sup> Finnemore, Martha, and Kathryn Sikkink. "Taking stock: the constructivist research program in international relations and comparative politics." *Annual review of political science* 4, no. 1 (2001): 391-416.

applicable to the Asia Pacific context.<sup>712</sup> This is because Asian states “have a very different political economy, history, culture and demographics” from Europe.<sup>713</sup> In other words, whether the realist balancing theories can explain Asian states’ interactions with the rising China needs to be critically examined. In his further elaboration, Kang also predicted that Asian states, particularly Japan, would not counterbalance China as their experiences with China’s traditional hierarchic tribute system would motivate them to choose to be subordinate to China. In the meantime, China would also act like its imperial predecessors by not pursuing imperial or revisionist intention. Kang’s has been proven to be wrong by developments in East Asian international politics.

Firstly, it cannot explain China’s behaviour in the post-millennial era. As described in the thesis, China has become more assertive in handling territorial disputes. In consequence, China has become a threat to other Asian states, such as Japan. Accordingly, Japan’s tough technology denial policies have proven that Kang’s prediction is invalid. Japan has been adopting the toughest measures among U.S. allies to counterbalance China’s threat in technological, military, and economic aspects. The results, to a large extent, contravene Kang’s prediction that Japan would kowtow to China because of the impact of the imperial tribute system. Therefore, a state’s cultural identity, as Kang and other constructivist suggest, is not capable of explaining the Japanese balancing against China.

Secondly, Kang’s theory cannot explain variations among U.S. allies’ responses to the rise of China. If state identity determines their behaviour, U.S. allies should share the same identity as the democratic allies to the US and they should adopt the same responses to China’s rise. Yet, they pursue different policies to counterbalance China’s threat. Therefore, constructivist approaches cannot explain variations among US allies’ technological denials policies against China.

In addition to the constructivist school, some neoclassical realists believe states’ foreign policy are shaped by both relative distribution of power among states and domestic level variables.<sup>714</sup> In particular, domestic politics, such as the influences of interest groups and lobby groups affect a state’s foreign policy.<sup>715</sup> For an instance, JBF, the most influential lobby group in Japan,

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<sup>712</sup> Kang, David C. “Getting Asia Wrong: The Need for New Analytical Frameworks.” *International Security* 27, no. 4 (2003): 57–85. <http://www.jstor.org/stable/4137604>.

<sup>713</sup> Kang, p.58, 2003

<sup>714</sup> Taliaferro, Jeffrey W., Steven E. Lobell, and Norrin M. Ripsman. “Introduction: Neoclassical Realism, the State, and Foreign Policy.” Chapter. In *Neoclassical Realism, the State, and Foreign Policy*, edited by Steven E. Lobell, Norrin M. Ripsman, and Jeffrey W. Taliaferro, 1–41. Cambridge: Cambridge University Press, 2009. doi:10.1017/CBO9780511811869.001.

<sup>715</sup> Ripsman, Norrin M. “Neoclassical Realism and Domestic Interest Groups.” Chapter. In *Neoclassical Realism, the State, and Foreign Policy*, edited by Steven E. Lobell, Norrin M. Ripsman, and Jeffrey W. Taliaferro, 170–93.

has been calling for a better Japan-Chinese relation for long time.<sup>716</sup> Yet, its impact on the Japanese technological policies against China is minimum.<sup>717</sup> JBC indeed expressed its concerns for the impact of Economic Security Bill on small and medium-sized enterprises.<sup>718</sup> Takayuki Kobayashi (小林鷹之), Minister of State for Economic Security, did not respond to these demands. Instead, Kobayashi requested the business' understanding of the bill because of the Japanese national security concerns.<sup>719</sup> The Approval of the economic security bill challenges the notion that domestic politics, such as business lobbies and interest groups, are powerful enough to determine states' foreign policy in the age of great power strategic competition.

Constructivist and neoclassical realist approaches cannot explain the variations among US allies' technological denial measures against China. Realist balance of threat theory is the only and the most appropriate approach for this study.

#### IMPACT OF THREAT PERCEPTION AND DIRECT SECURITY RIVALRY

As defined in the theoretical chapter, the degree of cooperation between the US and its allies can be observed from:

1. Number of actions aimed at denying China's access to technology taken by each state
2. Rationale of introducing restriction policies
3. Consistency in unilateral policy scope
4. Time lag in policy adoption/implementation between the US and its allies

This section intends to compare the US and its allies' unilateral policies on deterring China's access to their state-of-the-art technologies. The more the US and its allies share the same views, objectives, and threat perception of China, the more similar their policies are in the four domains mentioned above.

*Figure 2 Percentage of Individual States' Actions in Denying Chinese Access to Advanced*

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Cambridge: Cambridge University Press, 2009. doi:10.1017/CBO9780511811869.006.

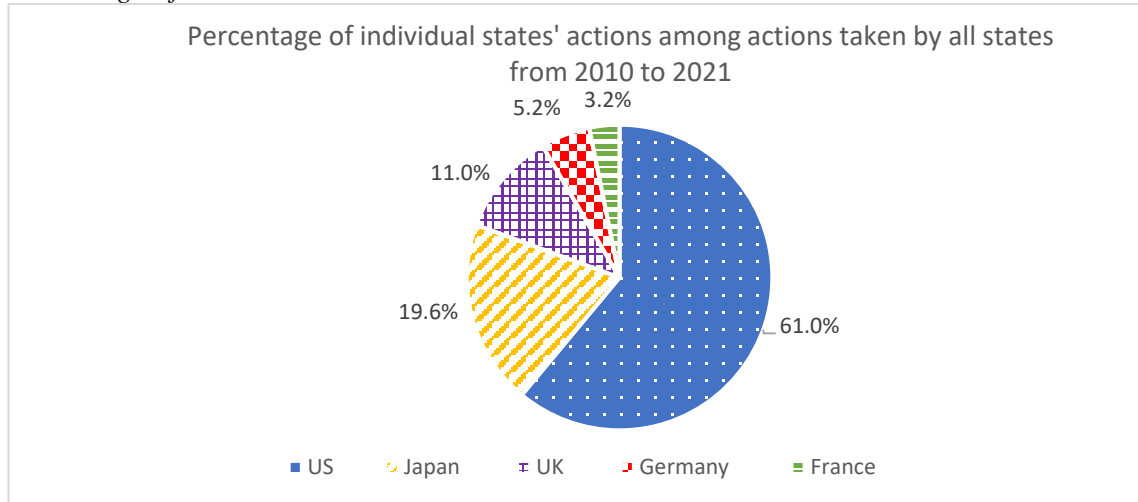
<sup>716</sup> Japan's business lobby head wants to foster ties with China, South Korea. South China Morning Post, July 20, 2018. <https://www.scmp.com/news/asia/article/1524787/japans-business-lobby-head-wants-foster-ties-china-south-korea>; A powerful faction in Japan strives to keep China sweet. The Economist, May 1, 2021. <https://www.economist.com/asia/2021/05/01/a-powerful-faction-in-japan-strives-to-keep-china-sweet>.

<sup>717</sup> 国の関与強化に理解求める 経済安保相、経団連に。日本経済新聞社, February 7, 2022. <https://www.nikkei.com/article/DGXZQOUA075QK0X00C22A2000000/>.

<sup>718</sup> 高橋 史弥. “経済安全保障推進法が成立。あの政党は賛成だった？ 反対だった？ 議論を振り返る（ハフポスト日本版）。” だった？ 反対だった？ 議論を振り返る（ハフポスト日本版）。ハフポスト日本版, May 11, 2022. <https://news.yahoo.co.jp/articles/a479f6967f9e718ad85cc80f9374b665fe2b89ad>.

<sup>719</sup> 経済安保法案めぐり 経団連など "企業側の負担に配慮を": NHK. 日本放送協会, March 22, 2022. <https://www3.nhk.or.jp/news/html/20220314/k10013530251000.html>.

*Technologies from 2010 to 2021*



The pie chart in Figure 1 confirms that the greater the security threat perceived by a state, the more likely it would act to deny China from accessing its advanced technology. As previously proposed, the US is the state most threatened by China, followed by Japan, the UK, Germany, and France. Therefore, the US is the state that is making the most effort to guard itself against China.

Figure 1 also shows that the US accounted for over 60% of the actions taken by the five states between 2010 and 2021, with Japan in the distant second at around 20%. Of the Europeans, the UK leads with 11%. Germany and France, due to the lack of direct national security rivalry with China, account for less than 10% combined.

In addition to each state’s individual percentage of all actions taken, variations in the states’ policies may also be explained by whether national security rivalry with China exists. Table 2 below indicates the policy scope and implementation dates of comparable policies introduced by each of the state studied in this research. While states may have introduced policies in the same area, implementation details often differ, as elaborated in the footnotes.

*Table 4 Dates of Implementation of, Or Decision to Adopt, New Policies Denying China's Access to Technology by the US, Japan, the UK, France, and Germany (Source: Author’s Database)*

New Policy Denying China's Access to Key Technologies	US	Japan	UK	France	Germany
Export Control	May-2019	May-2019	Dec-2021 <sup>720</sup>	No	No

<sup>720</sup> Unlike the ‘presumably denial’ clause of the US, China, as one of the military end-user destinations, can still apply for exemption on certain types of items.

Merging and Acquisition (M&A) Restriction Policy	Aug-2018	May-2020	Apr-2022	Apr-2020	Jan-2021
Blocking M&A Deals due to security concerns	Dec-2016	No	July-2021 <sup>721</sup>	No	Aug-2018
Disclosure requirements on listed corporates' capital source	Dec-2021	No	No	No	No
New Ministry/agency managing economic security	Apr-2022 <sup>722</sup>	Nov-2021 <sup>723</sup>	Oct-2016 <sup>724</sup> July-2020 <sup>725</sup>	No	No
Investigation programmes targeting China/ China's espionage	Nov-2018	Mar-2021	No	No	No
Reducing supply from China	Sep-2019	Jun-2020	No	No	No <sup>726</sup>
Visa Restriction on Chinese Students/Researcher	Oct-2019	Oct-2021	No	No	No
Excluding Chinese-5G Suppliers	Jun-2018	Dec-2018	Jul-2020	July-2020 <sup>727</sup>	No <sup>728</sup>

In general, the US and Japan have been adopting the most similar policies for denying China's access to their technologies. The exact method used might differ, but the two states are able to work closely together to contain the rise of the common rival.

With reference to the policy rationales, the US and Japan have consistently highlighted the threat China poses to their national security. Yet, for the European allies, their justification is a blend of safeguarding human rights, national security, and economic interests from technological development. As discussed in the previous chapters, Germany, the UK, and France would like to reduce the impact of the Sino-US strategic rivalry on their technological

<sup>721</sup> The UK Prime Minister, Boris Johnson, ordered an investigation on the acquisition deal of Newport Wafer Fab in July 2021. No further details on the investigation can be found.

<sup>722</sup> The Bureau of Cyberspace and Digital Policy under the State Department was founded on 4 April 2022. (<https://www.state.gov/establishment-of-the-bureau-of-cyberspace-and-digital-policy/>)

<sup>723</sup> The Ministry of Economic Security was founded in November 2021. The ministry is responsible for the overall Japanese economic security in all domains.

<sup>724</sup> The National Cyber Security Centre, formed in October 2016, is formerly the CESG – the Information Security arm of GCHQ.

<sup>725</sup> The establishment of the Advanced Research & Invention Agency (ARIA) was proposed in July 2020. The agency will be responsible for advising research institutes to address espionage risk in projects.

<sup>726</sup> According to the Germany Supply Chain Act, suppliers not complying with human rights standards and environmental will be excluded. The act, which is in effect in 2021, is approved in 2021.

<sup>727</sup> France only warned network operators licenses cannot be renewed if they use Huawei, but the French also told the public that the government will adopt Eriksson and Nokia without clearly stating that Huawei will be banned in July 2020.

<sup>728</sup> Berlin does not clearly exclude any Chinese 5G network providers

development and innovation. Simultaneously, they noticed the economic loss caused by China's espionage of economic secrets, so they all tried to deter China's malpractice through stricter anti-espionage actions.

Regarding the overall scope of unilateral policy, as shown in Table 4, the US has implemented policies in different domains, including export control, merging and acquisition (M&A) restriction, M&A deals blockage, disclosure requirements on listed corporations' capital source, reducing dependence on China's supply, excluding Chinese 5G suppliers, and visa restriction on Chinese researchers. Japan's policies are highly consistent with those of the US, and are much wider in scope in comparison to the UK, France, and Germany. In general, the five states in this study have not adopted consistent policies in terms of the policy scope, and the time of implementation or adoption of those policies also differs.

In addition to some of the structured policy, states' awareness of the risks related to the Chinese's acquisition bids can be inferred from the percentage of transactions that were challenged by the authorities. Table 4 shows an overview of Chinese acquisitions in the five states between 2005 and 2021. As expected, the US is most stringent on Chinese acquisitions, with 15% of the bids being challenged by the authorities. This is followed by Japan and France (10%). Britain and Germany are the least likely to deny acquisition deals made by Chinese buyers.

*Table 5 Review of Chinese Acquisition Deals in the US, Japan, The UK, France, And Germany Between 2005 And 2021 (Source: China Global Investment Tracker)*

State	Challenged Acquisitions	Successful Acquisitions	Total Acquisition offers made by China	Challenged Transaction Rate
UK	13	130	143	9%
France	5	44	49	10%
Germany	6	76	82	7%
Japan	3	28	31	10%
US	52	302	354	15%
Total	79	580	659	12%

The rejection rate of acquisition deals proposed by Chinese companies in the five states is also related to the time when states started to consider China as a threat. As can be seen from Table 4, the rejection rate hiked in the US after 2016, when the Obama government became aware of the national security threat from China. For Germany and France, the rate of challenged transactions had remained steady throughout these 15 years. Clearly, the rejection rate is a good indicator of how much a state views China as a national security threat.

*Table 6 Year-by-year rejection rate of Chinese acquisition deals in the US, Japan, the UK,*

*France, and Germany from 2005 to 2021 (Source: China Global Investment Tracker)*

Percentage of Challenged Transactions	USA	Japan	UK	Germany	France
2005	50.0%	NA	0.0%	NA	NA
2006	NA	0.0%	0.0%	NA	0.0%
2007	0.0%	NA	50.0%	0.0%	50.0%
2008	38.5%	NA	0.0%	50.0%	0.0%
2009	12.5%	100.0%	0.0%	NA	NA
2010	26.7%	NA	0.0%	NA	NA
2011	10.0%	0.0%	0.0%	0.0%	33.3%
2012	6.7%	NA	11.1%	0.0%	0.0%
2013	8.3%	0.0%	0.0%	0.0%	33.3%
2014	3.0%	NA	0.0%	0.0%	0.0%
2015	2.3%	0.0%	6.3%	14.3%	0.0%
2016	12.5%	0.0%	18.5%	5.6%	0.0%
2017	23.8%	0.0%	0.0%	0.0%	0.0%
2018	15.6%	33.3%	7.1%	11.1%	0.0%
2019	13.3%	0.0%	37.5%	25.0%	0.0%
2020	58.3%	25.0%	20.0%	0.0%	33.3%
2021	20.0%	0.0%	0.0%	0.0%	0.0%
Total	14.7%	9.7%	9.1%	7.3%	10.2%

*NA: No acquisition deal was made by the Chinese in that year.*

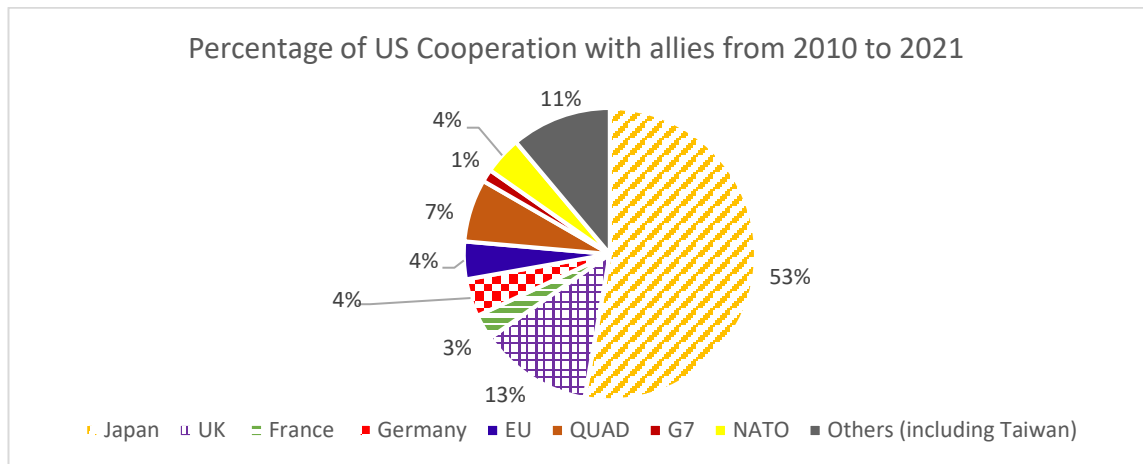
As discussed in previous chapters, differences in the scope of the policies and time of implementation by the states can also be explained by the differences in the level of direct national security and geopolitical rivalry perceived by the states. Since Japan, like the US, is plagued by direct national security conflicts with China, it generally adopts policies shortly after the US has done so, and much earlier than the UK, Germany, and France, all of which do not have much direct national security rivalry with China. For the same reason, policies implemented by France and Germany came much later and are only partially similar to those of the US, Japan, and the UK, especially on the abandoning the use of Chinese 5G telecommunications, export control of strategic articles, and M&A regulations.

Comparison between unilateral policies implemented by the states for denying China's access to technology can also reflect the differences in their level of bilateral cooperation with the US.

*Figure 3 Percentage of Individual Allies' Cooperation Among All the US*



### *Bilateral/Multilateral Cooperation*



As discussed earlier, Japan’s policy scope is roughly the same as the US’, and cooperation is found in many areas, including strategic materials supply chain, but not in blocking of M&A. The time lag between the Japanese’s and the American’s policy implementation date is also the shortest. Both of these indicate that Japan is the state most willing to cooperate with the US. As evident from Figure 2, cooperation between the US and Japan accounted for over half of all US bilateral/multilateral cooperation between 2010 and 2021. Of the European allies, cooperation with the UK accounted for 13%, and cooperation with France, 10%. Germany is the least likely of the four allies to cooperate with the US, accounting for less than 5% of all the US’ cooperation with allies.

Figure 3 also shows US’ cooperation with multilateral organizations, such as QUAD, G7, EU, and NATO. However, such cooperation is much limited not just in quantity but also quality. For instance, the EU has been working with the US through the Clean Network Initiative and the EU-US Trade and Technology Council, but apart from these two projects, there are no further proposal, discussion, or execution in terms of policies for denying China’s access to technology or reducing their dependence on China.

Apart from cooperation in general, interactions on certain critical issues, especially on the national security threat posed by Huawei and other Chinese 5G gear suppliers, can also be a reflection of the allies’ relation with the US.

Japan is the only ally that has yet to make a decision on banning the use of Huawei in its domestic 5G network construction. Yet, as shown in Table 5, it is also the only ally that has not disputed the US’ decision to ban Huawei. This shows the Japanese’s willingness to align with the Americans, and signals the closeness of Japan to the US as compared to the European allies.

In short, the allies' threat perception of, and security rivalry with, China drive them to give more weight to their relative gains in national security over absolute gains from cooperating with China. The above findings may also bring about some key empirical and theoretical implications on current international relations and cooperation, which will be further discussed in the following section.

#### IMPLICATIONS FOR INTER-STATE RIVALRY

In this section, findings from the current study will be applied to deduce the situation of future international relations. Theoretically speaking, economic interdependence may not be as good an explanation for the allies' reluctance to cooperate with the US as the existence of shared direct national security threat is. Based on the importance of national security threat to states' responses to the alliance, Walt's view on states' tendency to balance threat may be justifiable. From an empirical perspective, international cooperation may be altered, or reduced, because of changes of the international power order. Japan's position as an important ally of the US may be further solidified because of its commitment to the US alliance, shared security threat with the US, as well as its determination in counterbalancing China militarily. For the Europeans, the EU's effort in pursuing strategic autonomy may not be as fruitful as they would have wished.

#### ECONOMIC INTERDEPENDENCE IS NOT ALWAYS THE ANSWER

Realists and liberalists have long been debating on whether economic interdependence would prevent war as states focus on conducting interstate cooperation.

Realists, like Mearsheimer, argued that 'self-help' is required for security, power, and survival under the anarchic system, in which there is no ruling body or 'world government' superior to the sovereign states. Meanwhile, due to information asymmetry, states can never understand the intention of other states, which are also equipped with offensive weapons. Therefore, states do not have the incentive to trust their security competitors for cooperation. Rather, states constantly compete to become the most powerful among their counterparts. For this reason, cooperation, albeit possible, is still constrained by the security competition mentality.<sup>729</sup>

However, this prediction could be inaccurate for a few reasons. Mearsheimer later admitted that his assumption may be flawed in the modern era with defensive technologies thriving and prevalent. Keohane and Martin,<sup>730</sup> both institutionalists, proposed a few examples to counter the assumption that states are concerned about relative gains in everlasting competition to be

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<sup>729</sup> Mearsheimer, John J. "The False Promise of International Institutions." *International Security* 19, no. 3 (1994): 5–49. <https://doi.org/10.2307/2539078>.

<sup>730</sup> Keohane, Robert O., and Lisa L. Martin. "The Promise of Institutional Theory." *International Security* 20, no. 1 (1995): 39–51. <https://doi.org/10.2307/2539214>.

the most powerful. From their perspective, some states, such as contemporary Britain and Switzerland, have not actually sought power superiority as Mearsheimer suggested. Therefore, states are not necessarily engaged in security competition with others, let alone having a relative gain mindset. They also mentioned the role of international organizations, such as NATO, in preventing another great world war.<sup>731</sup>

Keohane and Nye also provided an explanation on how cooperation, in the economic aspect, can help maintain world peace. If states have become reliant on each other in terms of trade and economics, the cost of terminating economic ties and waging war against others would be higher. Therefore, states would become more reluctant to use military coercion to resolve conflicts.<sup>732</sup> To sum up, liberalists would agree that institutions are beneficial to states by fostering cooperation with each other. World peace can also be maintained. The liberal institutionalists also consider institutions as a useful tool to ‘reduce transaction costs, make commitments more credible, establish focal points for coordination, and in general facilitate the operation of reciprocity’<sup>733</sup>. In addition to the advantages of institutions, Keohane and Nye also made another deduction on states’ concerns over relative gains under the assumption that security and political economy are in sheer demarcation. States would care about relative gains when it comes to security issues in lieu of economic cooperation, and vice versa.<sup>734</sup>

Mearsheimer later noted that the boundary between security and political economy may be blurred.<sup>735</sup> Another defect of the liberal institutionalist view is that issues detrimental to cooperation, especially cheating and the relative gain mindset, are not addressed.<sup>736</sup>

Although the two sides have fierce debates on the impact of economic interdependence on world peace, this research can draw a conclusion by comparing states’ behaviour vis-à-vis, and their economic dependence on, China. Based on the assumption of economic liberalism, states whose economy depends on China will be less likely to contain the rise of China in various areas. In other words, if the current research reveals a power that is economically dependent on China tries to contain China, and vice versa, the liberalist hypothesis may require further testing in future research. This section, therefore, intends to compare the foreign direct investment and trade between the five chosen states and China to observe if the degree of economic interdependence is correlated with the soundness of interstate relations.

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<sup>731</sup> Ibid.

<sup>732</sup> Nye, Joseph S. Review of Power and Interdependence Revisited, by Robert O. Keohane. *International Organization* 41, no. 4 (1987): 725–53. <http://www.jstor.org/stable/2706764>.

<sup>733</sup> Keohane and Martin, “The Promise of institutionalist Theory”

<sup>734</sup> Ibid.

<sup>735</sup> Mearsheimer, “The False Promise of International Institutions”

<sup>736</sup> Ibid.

Assuming each of the state's balance of payment consists of a current account and a capital account. The former records trade of goods and services of a state, while the latter is a record of a state's net flow of investment. The bilateral trade and foreign direct investment (FDI) between China and each of the state studied can then be viewed as indicators for the degree of interdependence between China and the respective state. As a comparative study, this section would only compare how much the US, Japan, the UK, France, and Germany depend on China's economy. The greater the amount of FDI and trade of a state, the higher a state's economic dependence on China.

As shown in the Figures 3, 4, 5, and 6 below, between 2000 and 2019, China's import partner share to Japan has been the highest among the five states, meaning that the Japanese has been the most reliant on import from China. In the meantime, Japan has also been the most reliant on revenue from exporting to China, as the export to China as a percentage of Japan's total export has been second to none in the recent two decades. As for investment, Japan has been the largest source of FDI to China among the five states since 2014. If economic interdependence is the crucial factor in determining Japan-Chinese cooperation, Japan should not have adopted policies to restrict its export of technology to China, let alone considering China as its greatest security threat.

Besides, given that China's share in Germany's and France's total import and export is the lowest among the five states, Germany and France are not as reliant on trade with China. The same goes for FDI, in which inflow from and outflow to China as a percentage of the total for Germany and France are the lowest. Accordingly, they should be the most willing to decouple from or contain China, since they are less reliant on China compared to Japan and the US. Yet, in reality, Germany and France have been working closely with China.

*Figure 4 China's Share as Import Partner of the US, Japan, The UK, Germany, And France*

from 2000 to 2019 (Source: The World Integrated Trade Solution (WITS))

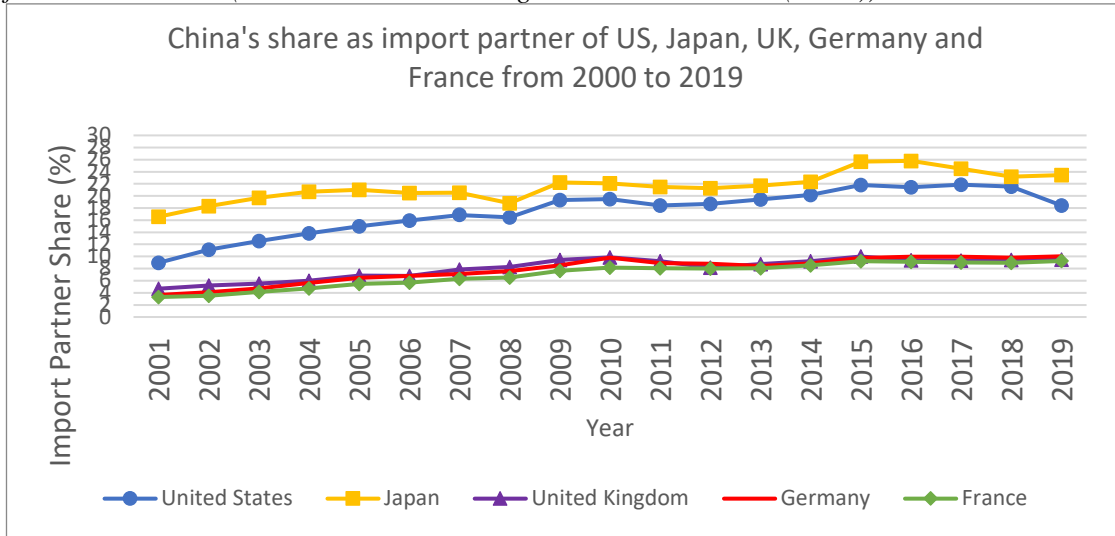
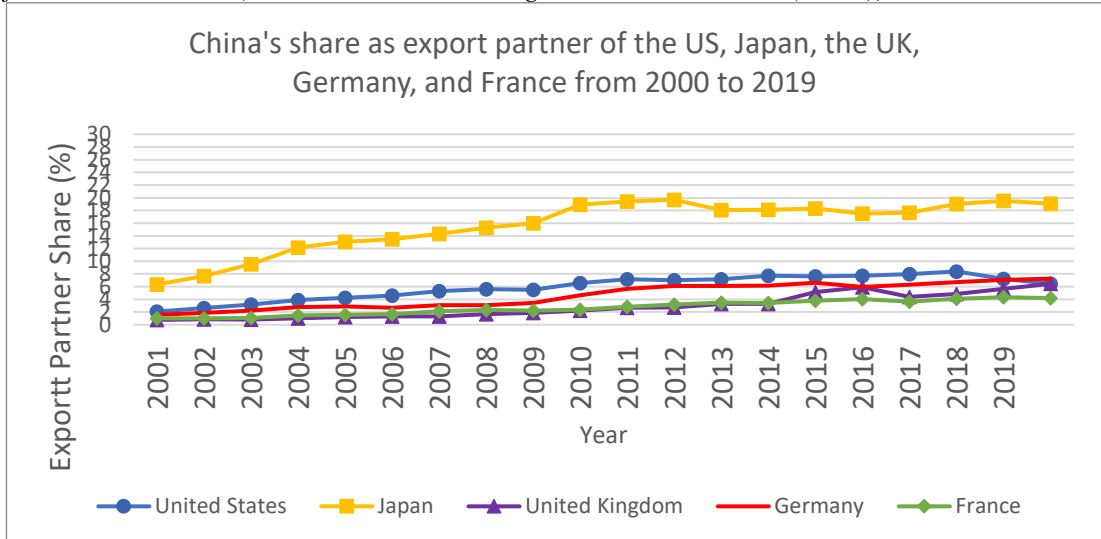
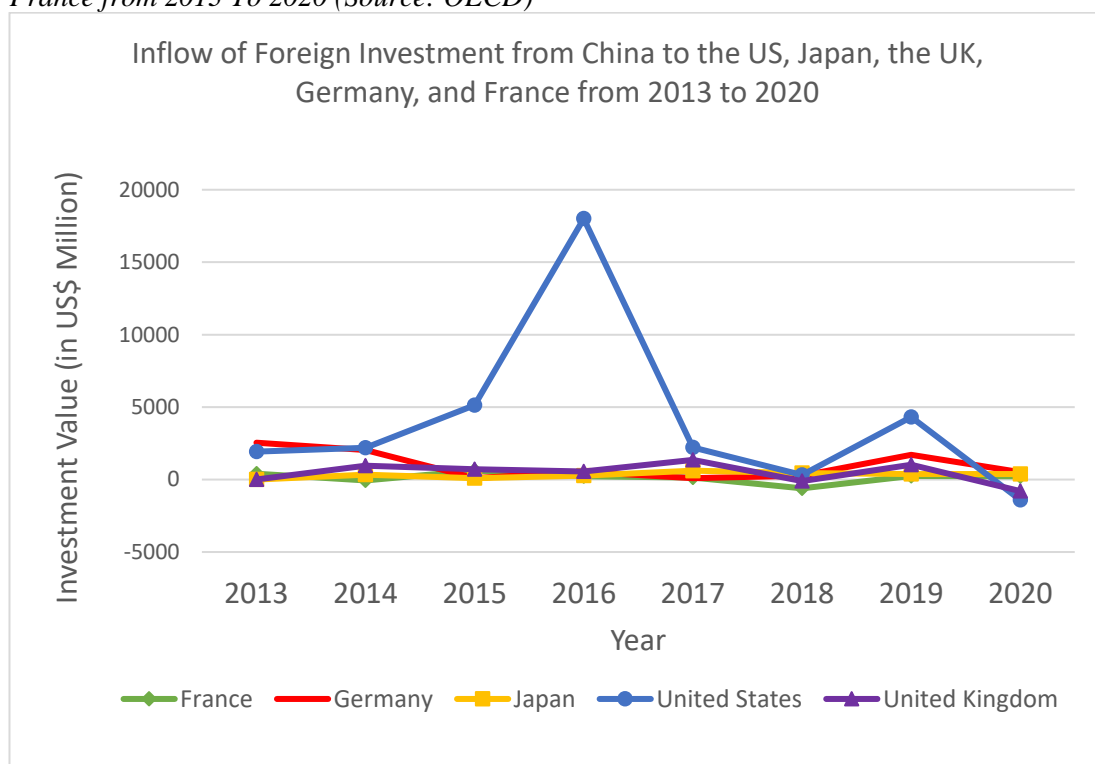


Figure 5 China's Share as Export Partner of the US, Japan, The UK, Germany, And France from 2000 To 2019 (Source: The World Integrated Trade Solution (WITS))



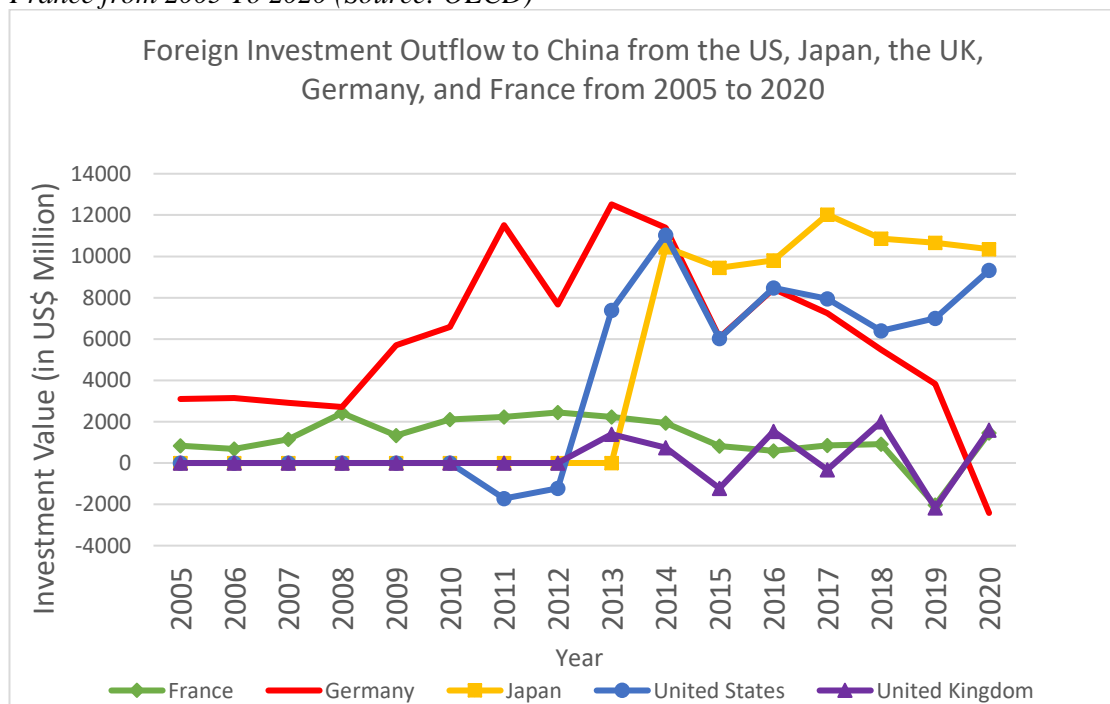
Remarks: FDI outflow from the UK to China in 2005 is not available

Figure 6 Inflow of Foreign Investment from China to the US, Japan, The UK, Germany, And France from 2013 To 2020 (Source: OECD)



Remarks: FDI outflow from the UK and Japan to China in 2013 are not available. FTI inflow of the US, France, and Germany have only been available since 2013

Figure 7 Outflow of Foreign Investment to China from the US, Japan, The UK, Germany, And France from 2005 To 2020 (Source: OECD)



Considering the economic dependence of Japan, Germany, and France on China as presented above, their responses to the US' appeal for containing China are not consistent with the hypothesis made by the economic liberalists. On the contrary, as discussed in the previous empirical chapters, national security threat is necessary and sufficient for altering states' cooperation with the US. Further verification of the liberalist theory may be required.

Furthermore, this research may be able to provide further insights into Vries' quantitative findings on interdependence. Based on a cautious quantitative test, Vries proposed that interstate interdependence would create cooperation and conflict simultaneously<sup>737</sup>. Yet, his research did not focus on explaining the mechanism behind. Findings from this research may be able to provide an explanation. In retrospect, interstate interdependence can simultaneously facilitate both conflict and cooperation.

#### SHARED THREAT STRENGTHENS ALLIANCE

As mentioned previously, cooperation between the US and its allies, in fact, international cooperation in general, have dwindled since 2010, and the US wishes to seek a remedy to the status quo. Security threat and direct national security rivalry would drive states to forgo absolute gains for relative security, leading to them choosing to closely cooperate with the US. The current study indicates that shared threat, to a substantial extent, determined the cooperation between the US and its allies. Japan has been taking China as a tremendous security threat as they have numerous direct security rivalries, which include territorial disputes, Taiwan Strait issue, and rise in China's military power. With the shared threats of China's rise and assertiveness, Japan has similar concerns over the relative gains concerns about China as the US, and accordingly, becomes more willing to collaborate, or bandwagon, with the US when the US calls for alliance cooperation. These can be observed from the relative harmonious US-Japan interaction and consistency in their technology denial policies.

On the contrary, the UK, France, and Germany do not see China as a serious threat, as they do not have any direct security rivalries with China. Their concerns over relative gains are, hence, less significant than their absolute gains from their economic ties with China. Without the comparable security threats of China's assertiveness and emergence, these states are less responsive to the US' appeal for containing China. Instead, the European states deem the tough approach taken by the US towards China as unconstructive. These can be observed from their dispute on and division over the banning of Chinese 5G telecommunication equipment and incoherence in their technological policies on China.

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<sup>737</sup> Vries, Michiel S. de. "Interdependence, Cooperation and Conflict: An Empirical Analysis." *Journal of Peace Research* 27, no. 4 (1990): 429–44. <http://www.jstor.org/stable/424266>.

Indeed, shared fear have been discussed in contentious politics. As Blaydes proposed, protestors may develop a ‘linked-fate’ as they suffer from the same repression from the state<sup>738</sup>. This echoes with Nugent’s view that state repression of protestors would help the protestors identify in-group members based on their similarities and the socio-organizational environment in which they are surviving. This identity linkage further shapes protestors’ shared preferences<sup>739</sup>. Although Blaydes and Nugent are studying state repression of protesters in the Middle East, their theories justifying the importance of shared experience of repression and threat can be applied to the current research. By replacing the unitary actor, that is, protestors or interests’ groups, with states, then, national security threat and ‘repression from an adversary’ shared among the states would motivate states to work closely together. In other words, the US should portray and frame China as a common security threat between the Americans and the Europeans for stronger cooperation against China.

The theory can be tested by referencing the Russo-Ukrainian War. Before the war broke out, Germany did not allow arms export to other states. Yet, the war changed Germany’s policy on arms export. The same also applies to the French.<sup>740</sup> Some non-NATO European states, especially Sweden and Finland, are motivated to consider becoming a member of the alliance due to the de facto security threat posed by the Russians.<sup>741</sup> Therefore, shared fear and threat are fundamental to the formation of alliance. These also echo with Walt’s balance of threat theory, as will be discussed in the next section.

Following the same logic of the importance of shared threat for a strong alliance, the US may try to further highlight the Chinese’s aid to the Russians in the Ukrainian War as a threat to both the Europeans and the US. There are no details of China’s aid to the Russians, but since the Europeans are already considering Russia as an aggregating threat, if the Chinese government really decides to financially support the Russians, or even send drones and weapons to Russia, as some US officials worried,<sup>742</sup> the US may take advantage of the situation by relating to China’s role in facilitating Russia’s invasion to instigate the Europeans’ feeling of threat from, and mistrust towards, China.

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<sup>738</sup> Blaydes, Lisa. *State of Repression: Iraq under Saddam Hussein*, 46-47. Princeton University Press, 2018. <https://doi.org/10.2307/j.ctvc77jfl.7>.

<sup>739</sup> Nugent, Elizabeth R. *After Repression: How Polarization Derails Democratic Transition*, 15-17. Princeton University Press, 2020. <https://doi.org/10.2307/j.ctvxrpx35.7>.

<sup>740</sup> Barnes, Joe, Justin Huggler, and Dominic Penna. Exclusive: France and Germany evaded arms embargo to sell weapons to Russia. *The Telegraph*, April 22, 2022. <https://www.telegraph.co.uk/world-news/2022/04/22/exclusive-france-germany-evaded-arms-embargo-sell-weapons-russia/>.

<sup>741</sup> Bremmer, Ian. “Why Finland and Sweden Seem Likely to Join NATO.” *Time*. Time, April 23, 2022. <https://time.com/6169708/finland-sweden-nato-expansion/>.

<sup>742</sup> “China Has Already Decided to Send Economic Aid to Russia in Ukraine Conflict, US Officials Fear.” *The Guardian*. Guardian News and Media, March 15, 2022. <https://www.theguardian.com/world/2022/mar/15/china-has-already-decided-to-send-economic-aid-to-russia-in-ukraine-conflict-us-officials-fear>.



The role of the US in the UN may provide it with another leverage vis-à-vis the European states. The western camp has reached a consensus on approving the condemnation on Russian for unprovoked military action on Ukraine and vetoing a resolution for humanitarian access to Ukraine drafted by the Russians, but China refused to follow suit. China's support for the Russians and its behaviour may imply differences between China plus Russia and the western camp, implying that China may not necessarily be a defender of the rule-based international order for collective security. If the US can take up the role as a benign world leader in the war, it may be able to yield support from the Europeans.

In a nutshell, threat, specifically national security threat, plays an indispensable role in shaping states' decision on interstate cooperation. Different from the constructivists, this theory does not consider ideational factors as the key to cooperation. Instead, this theory emphasizes that ideational factors are artificially created from the shared national security threat, and triggering shared common national security threat is ultimately the crux for alliance formation. The way for a state to create a shared threat for stronger alliance, though, is out of the scope of this study, but definitely worthy of further exploration.

#### BALANCE OF THREAT OR BALANCE OF POWER?

As discussed in the previous section, with their rivalry in national security interests with China, the US and Japan would be more committed to their alliance even if they gain economic benefits from China. In contrast, although Germany and France have also noticed the rise of China, these two European states tend not to closely work with the US to balance or contain China. Instead, they have constantly demonstrated their willingness to maintain a relative friendly relation with China. To be specific, Germany and France would like to abandon the use of Huawei, but they have never explicitly sanctioned or excluded Huawei. In view of the divergence in Japan's, Germany's, and France's response to Huawei, states are more inclined to balance their threat more than balance their power.

In Walt's opinion, threat is determined by aggregate power, geographic proximity from the threat, offensive capabilities, together with offensive intentions.<sup>743</sup> Given the threat, states would form alliance to counterbalance the threat.

The current research shows that offensive capabilities, aggregate power, and geographic proximity are the three factors shaping states' threat perception of China, itself a security threat. Japan, compared to Germany, France, and the UK, is geographically closer to China, so it tends to consider China, with its rising aggregate and offensive power, as a threat. In the

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<sup>743</sup> Walt, Stephen M. "Conclusion: Alliance Formation and the Balance of World Power." In *The Origins of Alliance*, 262–86. Cornell University Press, 1987. <http://www.jstor.org/stable/10.7591/j.ctt32b5fc.12>.

meantime, the US considers China as a threat because of the narrowing power parity. So, power shapes the US perception of China. The US' and Japan's experience exemplifies that power, and geography are the two key components of a threatening state.

China has been emerging for more than a decade, but to the Europeans, because there is no direct national security threat, they tend to maintain a friendlier relation with China. For instance, France and Germany have expressed their opinion that the hard-lined approach taken by the US against China's military emergence is not constructive.

As Walt proposed, states tend to balance the threat instead power so that the state can reduce the cost of balancing.<sup>744</sup> Though this research confirmed the importance of security threat in shaping the US' relation with its allies, the allies may not only consider the cost of power-balancing and threat-balancing, but also whether the security threat is great enough to motivate them to counterbalance the rising power at the expense of absolute gains for relative gains. The national security threat posed by China to the European allies are not as significant as that to the US and Japan. Therefore, Germany, France, and the UK are less likely to follow in the US' footsteps and adopt strict measures to deny China's access to sophisticated technologies.

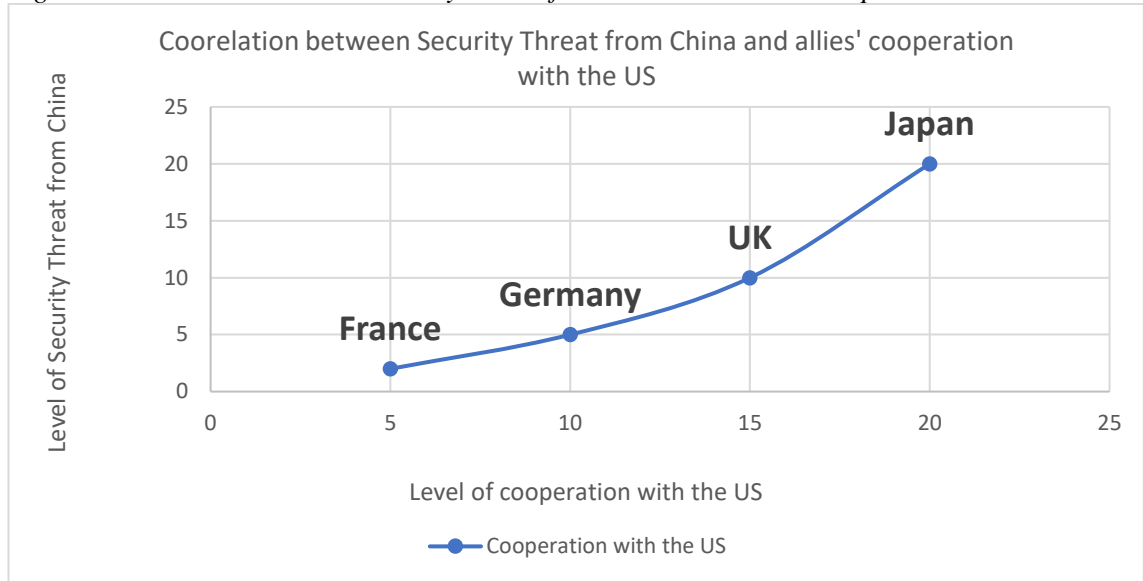
## CONCLUSION

The existence of national security threat from a rising power would affect the interstate relations between the dominant power in relative decline and its allies as shown in Figure 9 below. Values of point representing each state are assigned according to earlier discussion on 1) national security threat from China and 2) policy scope and strength in denying China's access to their advanced technology.

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<sup>744</sup> Walt, Stephen M. "Alliance Formation and the Balance of World Power." *International Security* 9, no. 4 (1985): 3–43. <https://doi.org/10.2307/2538540>.

Figure 8 Correlation between Security Threat from China and allies' cooperation with the US



Remark: Graph not drawn to scale. Values assigned are arbitrary.

As depicted in the graph, the greater the threat from the rising power (China), the more likely the state would cooperate with its allies as a dominant power in relative decline. Since the intention of this research is to investigate the policies developed by the five states on China's rise in technology and interstate interactions, the variables derived may not be comprehensive. Further research involving more cases should be conducted to identify other variables, if any, and their effect on interstate cooperation.

Lastly, although some scholars proposed that economic interdependence may deter interstate rivalry, findings and discussion from the current research have proven that it is neither necessary nor significant in shaping interstate cooperation between the dominant power and its allies.

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