

Canadian  
Forces  
College

Collège  
des  
Forces  
Canadiennes



## China Is Rising and the World Should Be Prepared

Major Dany Gonthier

JCSP 47

Master of Defence Studies

### Disclaimer

Opinions expressed remain those of the author and do not represent Department of National Defence or Canadian Forces policy. This paper may not be used without written permission.

© Her Majesty the Queen in Right of Canada, as represented by the Minister of National Defence, 2021.

PCEMI 47

Maîtrise en études de la défense

### Avertissement

Les opinions exprimées n'engagent que leurs auteurs et ne reflètent aucunement des politiques du Ministère de la Défense nationale ou des Forces canadiennes. Ce papier ne peut être reproduit sans autorisation écrite.

© Sa Majesté la Reine du Chef du Canada, représentée par le ministre de la Défense nationale, 2021.

CANADIAN FORCES COLLEGE – COLLÈGE DES FORCES CANADIENNES

JCSP 47 – PCEMI 47

2020 – 2021

MASTER OF DEFENCE STUDIES – MAÎTRISE EN ÉTUDES DE LA DÉFENSE

**CHINA IS RISING AND THE WORLD SHOULD BE PREPARED**

By Major D. Gonthier

*“This paper was written by a candidate attending the Canadian Forces College in fulfillment of one of the requirements of the Course of Studies. The paper is a scholastic document, and thus contains facts and opinions which the author alone considered appropriate and correct for the subject. It does not necessarily reflect the policy or the opinion of any agency, including the Government of Canada and the Canadian Department of National Defence. This paper may not be released, quoted or copied, except with the express permission of the Canadian Department of National Defence.”*

*« La présente étude a été rédigée par un stagiaire du Collège des Forces canadiennes pour satisfaire à l'une des exigences du cours. L'étude est un document qui se rapporte au cours et contient donc des faits et des opinions que seul l'auteur considère appropriés et convenables au sujet. Elle ne reflète pas nécessairement la politique ou l'opinion d'un organisme quelconque, y compris le gouvernement du Canada et le ministère de la Défense nationale du Canada. Il est défendu de diffuser, de citer ou de reproduire cette étude sans la permission expresse du ministère de la Défense nationale. »*

## TABLE OF CONTENTS

Table of Contents	i
Acknowledgments	iii
List of Figures	iv
List of Tables	v
List of Abbreviations	vi
Note on Terminology	viii
Abstract	ix
INTRODUCTION	1
Chapter	
1. IS CHINA A SECURITY CHALLENGE THAT JEOPARDIZES THE WORLD ORDER?	5
Introduction	
The shift in global leadership	
Working towards the world's common good?	
Three warfares concept	
Academic sphere	
Conclusion	
2. CHINA'S MASSIVE ECONOMY	17
Introduction	
Numbers matter	
China is pushing the limits of existing rules	
The creation of new institutions to counter balance the prevailing hegemony	
The Belt and Road Initiative (BRI)	
Coercion and inducement	
Conclusion	
3. TRYING TO DISSECT THE PEOPLE'S LIBERATION ARMY (PLA)	45
Introduction	
Military budget: numbers do not lie	

A 40,000 feet overview of the PLA's core capabilities and modernization	
Space domain	
Potential for escalation and risk of war	
Conclusion	
4. CYBERSPACE: A PROFITABLE AND COVERT AVENUE FOR CHINA	80
Introduction	
Cyber espionage and cyber theft	
Cyberwarfare	
The difficulty of imposing international law in cyberspace	
Conclusion	
CONCLUSION	98
Bibliography	102

## ACKNOWLEDGEMENTS

First of all thanks to the RMC Writing Center and in particular Dr. Randy Wakelam which has not only read every single word of this essay, but also offered much-needed corrections and comments in order to make this essay more readable. My essay would not have been ready in time without his continuous inputs. Merci encore pour ton aide et ta patience tout au long de mon processus d'écriture.

All my appreciation goes towards my assigned academics, Dr. Walter Dorn, for having offered me "carte blanche" in the writing of this essay. His review and comments on my "final version" were instrumental to add perspective to my argumentation. Merci beaucoup pour votre soutien et votre support dans le cadre de cet exercice intellectuel.

Last but not least, my eternal gratitude is directed to my spouse. Je te remercie pour ta patience, ton support inconditionnel, mais aussi pour avoir gentiment écouté toutes mes plaintes durant ce processus d'écriture qui a pris, ma foi, beaucoup plus de temps que je n'aurais jamais pu imaginer. Je t'aime de tout mon cœur.

## LIST OF FIGURES

Figure 1.1: Two dimensional matrix of conflict types	13
Figure 2.1: The world's largest economies in terms of gross domestic product (GDP) at current prices, 1980-2025	19
Figure 2.2: Share of world GDP based on purchasing power parity (PPP), percent of world, 1980-2025	20
Figure 2.3: Real GDP growth, annual percentage change, 1980-2025	21
Figure 2.4: One Road One Belt global infrastructure network of railroads, ports, and pipelines	33
Figure 3.1: Comparison of China's military expenditures as a percentage of its GDP, selected years between 1979 and 2017	47
Figure 3.2: Military expenditures for the Asia and Oceania region at current prices and exchange rates for the year 2019	51
Figure 3.3: China's defense budget estimates by force in \$US million, 2020 to 2026	53
Figure 3.4: Global nuclear weapon stockpiles, 2019	76

## LIST OF TABLES

Table 3.1: PLA's conventional armed theater ballistic and cruise missiles, 1996 to 2017 (estimated)	55
Table 3.2: PLAAF and PLAN combat aircraft inventory, 1996 to 2015	57
Table 3.3: PLA's airborne early warning (AEW) aircraft, interceptors, and surface-to-air (SAM) launchers, 1996 to 2015	59
Table 3.4: PLAN destroyers and frigates, 1996 to 2015	60
Table 3.5: PLAN attack submarines (diesel and nuclear), anti-submarine warfare helicopters, and maritime patrol aircraft (MPA), 1996 to 2015	62
Table 3.6: U.S. and China satellites placed in orbit, 1997 to 2014	65

## LIST OF ABBREVIATIONS

A2/AD	Anti-access/area denial
ADB	Asian Development Bank
AEW	Airborne early warning
AIIB	Asian Infrastructure Investment Bank
ASAT	Anti-satellite
ASEAN	Association of Southeast Asian Nations
BRI	Belt and Road Initiative (formerly referred to as the One Belt One Road (OBOR))
BRICS	Brazil, Russia, India, China, and South Africa
C2	Command and Control
CAF	Canadian Armed Forces
CCP	Chinese Communist Party
CSIS	Canadian Security Intelligence Service
DND	Department of National Defence
DoD	Department of Defense
EW	Electronic warfare
GDP	Global domestic product
GFW	Great Firewall of China
GGE	Group of Governmental Experts
HGV	Hypersonic glide vehicle
IADS	Integrated air defense system
ICBM	Intercontinental ballistic missile
IMF	International Monetary Fund
IP	Intellectual Property
IRBM	Intermediate-range ballistic missile
ISR	Intelligence, Surveillance, and Reconnaissance
MOFCOM	China's Ministry of Commerce



MPA	Maritime patrol aircrafts
MRBM	Medium-range ballistic missile
NATO	North Atlantic Treaty Organization
OBOR	One Belt One Road (now known as the Belt and Road Initiative (BRI))
ODI	Overseas direct investment
PLA	People's Liberation Army
PLAA	People's Liberation Army Army
PLAAF	People's Liberation Army Air Force
PLAN	People's Liberation Army Navy
PPP	Purchasing power parity
PRC	People's Republic of China
R&D	Research and Development
SAM	Surface-to-air missile
SIPRI	Stockholm International Peace Research Institute
SOE	State-owned enterprise
SSF	Strategic Support Force
UN	United Nations
UNSC	United Nations Security Council
U.S.	United States
USAF	United States Air Force
USCC	US-China Security and Economic Review Committee
USSR	Union of Soviet Socialist Republics
WTO	World Trade Organization

## NOTE ON TERMINOLOGY

The term Western democracies used throughout this essay means the loose collection of countries that are either allies or share values – such as but not limited to freedom and human rights – with each other and includes countries such as Canada, the United States, the United Kingdom, etc., understanding the fact that the specific list of countries varies over time. Similarly, the terms China and the People Republic's of China (PRC) have been used interchangeably. Even though there are nuances between the two and that in some instances the terms Chinese Communist Party (CCP) or Communist Party of China (CPC) could be more appropriate, the author has decided to opt for standardized terminology, which should simplify the task of the reader, already complicated by the fact that the author's first language is not exactly English.

## ABSTRACT

China is a security challenge to both Western democracies and the world order that could redefine the U.S. hegemony established since the end of the Cold War. In order to substantiate the thesis, this essay is separated into four distinct chapters. The first chapter highlights the fact that the shift in global leadership towards China does not serve the world's common good. It also shows that the PRC has many tactics in its bag to ensure that no one will interfere in its internal affairs, which is not necessarily reciprocal. The second chapter demonstrates that China's massive economy, one that can sustain a pandemic, helps the country in counterbalancing the U.S. hegemony through the creation of new institutions. It also underlines that the Belt and Road Initiative, or short of it its strategy of coercion and inducement, will ensure the rise of the PRC to the status of a superpower in the years to come, once it becomes the largest economy in the world by all conceivable measures. The third chapter examines China's considerable military budget that allows the country to pursue an aggressive build-up and modernization. It also proves that the space domain would become vital in the conduct of a potential conflict or a war with the U.S. and its Western allies, which would have catastrophic consequences for all parties involved. The fourth and last chapter shows that the cyber domain has allowed the country to save both time and money through cyber espionage and cyber theft. It also exposes that cyberwarfare is a concept that the PRC is constantly refining, and where it is difficult to impose international law on which all states would agree upon. The Western democracies, and in particular Canada, need to better understand the aspirations and strategic goals of China in order to be better prepared for the inevitable rise of China. Understanding is key in particular given what is at stake and as such there should be additional research conducted to better understand the country's strategic thinking in a view to improve the chances of cooperation, vice confrontation.

*China is a big country and other countries are small countries, and that's just a fact.*

— Yang Jiechi, Former China's Foreign Minister, at a 2010 ASEAN meeting

## INTRODUCTION

The end of the Cold War has seen the United States (U.S.) victorious in its quest to remain a global superpower, an envious position that they have enjoyed for more than three decades now. While the U.S. and its Western allies have embarked on several conflicts and wars around the world to defend and safeguard their interests, China, a resilient and persevering country with thousands of years of history, quietly rose on the world stage. It is only in recent years that China became more and more assertive on the world stage. A “clash” occurred with the U.S. over economic and trade disparities that coincidentally occurred amid an uncontrollable pandemic in which China is both the source of and potentially the major benefiter from COVID-19 given that it is one of the few countries that is expecting to record positive Gross domestic product (GDP) growth in the year 2020.<sup>1</sup> One of the reasons for this escalating world power competition is because the People's Republic of China (PRC) has “vivid memories of its imperial past and the aspirations of great-power status that come with them.”<sup>2</sup>

It is not surprising that other “observers talk of China's long view, of its patient, secret plan to dominate the world, consistently executed since 1949, if not before,” which contrasts with the U.S. and Western democracies that tend to think in a much shorter

---

<sup>1</sup> Frederick Kempe, "Op-Ed: The U.S.-China clash has entered perilous new territory," *CBCNews*, 26 July 2020; International Monetary Fund, “Real Gross domestic product (GDP) growth, annual percentage change,” last accessed on 14 Dec 2020,

[https://www.imf.org/external/datamapper/NGDP\\_RPCH@WEOWORLD/CHN/USA](https://www.imf.org/external/datamapper/NGDP_RPCH@WEOWORLD/CHN/USA).

<sup>2</sup> Vali Nasr, “Iran among the Ruins: Tehran's Advantage in a Turbulent Middle East,” *Foreign Affairs*, Vol. 97, No. 2, 2018, <https://search-proquest-com.cfc.idm.oclc.org/docview/2009156035?accountid=9867>.

horizon, i.e. re-election period.<sup>3</sup> China, on the other hand, does not operate under the same construct and as such has the luxury to plan on the long term. Furthermore, the country is not, for the most part, at the mercy of political dissidence from an opposing party or popular movement, given that the Chinese Communist Party (CCP) has firm control over the media and the internet within its borders. In fact China has, since the 1990s, developed a “strong and stable periphery policy” that enables its expansion on the world stage. The PRC’s effort is culminating in a “charm offensive” to differentiate its foreign policy from the U.S. hegemony in world affairs, where the former underlined the importance of “multilateralism” and “economic cooperation,”<sup>4</sup> that is arguably contrasting with the “America First” strategy of former U.S. President Donald J. Trump.

China is not only a risk from a military perspective, but also from an economic and technological point of view, and for its counterintelligence capabilities.<sup>5</sup> The U.S. is currently the sole military superpower but although the gap is slowly closing with China, it is unlikely that a World War III will occur against the American military armada, at least for a foreseeable future. That being said, the world has seen an emergence of warfare that consists of less than the full spectrum of conflict, and China is at the centre of this phenomenon. In the light of China’s rise on the world stage, the underlying thesis advanced in this essay is that China is a security challenge to both Western democracies and the world order that could redefine the U.S. hegemony established since the end of the Cold War.

---

<sup>3</sup> Fareed Zakaria, “The New China Scare,” *Foreign Affairs*, Vol. 99 No. 1, 2020, 68, <https://search-proquest-com.cfc.idm.oclc.org/docview/2331238045/CC58DEC112A94419PQ/5?accountid=9867>.

<sup>4</sup> Marc Lanteigne, *Chinese Foreign Policy: An Introduction*, London: Taylor & Francis Group, 2015, 57.

<sup>5</sup> Adam Schiff, “The U.S. Intelligence Community Is Not Prepared for the China Threat,” *Foreign Affairs*, 2020, <https://www.foreignaffairs.com/articles/united-states/2020-09-30/us-intelligence-community-not-prepared-china-threat>.

Hegemony can be defined as “the dominance of one group over another, often supported by legitimating norms and ideas,” which in this case can serve as differentiating the U.S. with its values of democracies and freedom of speech versus China with its authoritarian rules and inclination towards repression, as discussed later in this essay.<sup>6</sup> To substantiate the thesis, the first chapter of this essay provides evidence that China is a security challenge to the world order, given a shifting global leadership and the fact that the country is allegedly not working towards the worlds’ common good. The chapter also highlights China’s use of the three warfares concept and also its involvement in the academic sphere, both of which act as instruments of its foreign policies that diverge from typical Western democracies' practices.

The second chapter explores China’s massive economic growth. It then demonstrates that besides pushing the limits of existing rules, the country is creating new international institutions that are attracting many countries and consequently counterbalancing the U.S. as the largest economy in the world. The chapter also discusses the Belt and Road Initiative (BRI) that is central to China’s attractiveness on the global stage and its tactics of coercion and inducement that do not go unnoticed.

The third chapter shows the extent of China’s military budget and provides a brief overview of the People’s Liberation Army’s core capabilities and modernization. The chapter also explores the space domain that is vital to modern armed forces, and the potential for escalation and risk of war that might not be as a remote possibility as one may think, given increased tensions and competition between China and the U.S. on the world stage.

---

<sup>6</sup> Ben Rosamond, “Hegemony,” *Encyclopedia Britannica*, 2020, <https://www.britannica.com/topic/hegemony>.

The fourth and last chapter on cyberspace demonstrates China's involvement in cyber espionage and cyber theft that has been advantageous to the rise of the country on the world's affairs. The chapter also serves to highlight China's cyberwarfare capability, an evolving type of warfare that proves difficult to regulate from an international law perspective.

*Don't debate... Once debate begins, things become complicated.*

— Deng Xiaoping, Former Chinese  
communist leader

## **CHAPTER 1 - IS CHINA A SECURITY CHALLENGE THAT JEOPARDIZES THE WORLD ORDER?**

### **Introduction**

The promotion of democracy and the preservation of the world order is an everyday battle that requires constant involvement from world powers, but was recently at risk given that the leading superpower embraced an “America First” strategy under the former Trump administration to the detriment of the international community. The U.S. is a witness to the resurgence of authoritarian states, which poses a security challenge to Western democracies. A concern is that China, with its growing economic, military, and diplomatic power and influence is currently rising which could reverse the current level of civil liberties and human rights around the globe.<sup>7</sup> One can only hope that China does not win the race to become a superpower, given its past actions on the world stage. For instance, China’s problematic behaviours that have worldwide repercussions can be broadly painted in these words, which paraphrases the views of many different authors:

For some, the problem is that China has enjoyed remarkable economic growth in the last several decades, apparently without the benefit of ‘the rule of law’ and clear and enforceable property rights. . . . For others, the problem is political in nature. China has resisted the third wave of democratization, and remains officially a socialist state, albeit a unique twenty-first century version of a socialist state that has endorsed a market economy and rule of law. . . . For still others, the main problem is human rights. Not only does China have a poor record on civil and political rights. Critics fear that unlike Japan, which during its economically powerful years did not attempt to challenge the Western powers, China is likely to take advantage of its growing economic and geopolitical influence to defend and advocate, even in the face of Western opposition,

---

<sup>7</sup> Adam Schiff, “The U.S. Intelligence Community Is Not Prepared for the China Threat,” *Foreign Affairs*, 2020, <https://www.foreignaffairs.com/articles/united-states/2020-09-30/us-intelligence-community-not-prepared-china-threat>.



rights policies and a normative vision of the world at odds with current rights policies based on secular liberalism. . . . [While for the rests] the problem is that China is an outlaw regime that undermines geopolitical stability through the sales of ballistic missiles to rogue states, contributes to the proliferation of weapons of mass destruction, and threatens US hegemony and military superiority.<sup>8</sup>

If one thing is for sure is that China does not make unanimity on the world stage and the situation is not about to change, given that the PRC sees itself as both a victim and a potential target. For example, the *Financial Times* reports that a Chinese coursebook teaches that “[e]nemy forces abroad do not want to see China rise and many of them see our country as a potential threat and rival, so they use a thousand ploys and a hundred strategies to frustrate and repress us.”<sup>9</sup> A state that sees itself as a circled victim can prove dangerous or short of that, unpredictable. China’s true intentions and final means are unknown to Western democracies. Furthermore, it is impossible to predict what a Cold War 2.0, or even a Chinese hegemony, would look like. There is no indication that China aspires to replace the U.S. as the hegemony but these are nonetheless important questions, in particular given the return of great power competition to a level that is unseen since the end of the Cold War.

The PRC has witnessed the collapse of the Union of Soviet Socialist Republics (USSR) that brought “confusion and economic collapse” and consequently propelled the U.S. as the sole superpower, sees itself in a world order that is “inherently undesirable and strategically destabilising,” and fears that it will become the “West’s next target.”<sup>10</sup>

---

<sup>8</sup> Randall Peerenboom, “Introduction: two opposing views of China,” in *China Modernizes: Threat to the West or Model for the Rest?*, Oxford: Oxford University Press, 2008, 3-4.

<sup>9</sup> James Kynge, Lucy Hornby and Jamil Anderlini, “Inside China’s secret ‘magic weapon’ for Worldwide Influence,” *Financial Times*, 2017, <https://www.ft.com/content/fb2b3934-b004-11e7-beba-5521c713abf4>.

<sup>10</sup> Nigel Inkster, “China’s Cyber Power,” Milton: Taylor & Francis Group, 2017, 144.

No one can predict the future but the world is at a critical point in time in which China can take advantage of the fact that the U.S. had vastly withdrawn from the world stage and international affairs under the former Trump administration, which consequently helped shift the balance of global leadership away from the U.S. and its Western allies. Given that the PRC has both the victim syndrome and continues to see itself as a future target of the Western democracies, the country can take advantage of its rising influence to re-shape the world order to its benefit. This chapter discusses the decline of U.S. hegemony that helps shift global leadership toward China. After examining if the PRC is working towards the world's common good, the country's three warfares concept is expanded upon. Finally, the chapter looks at the academic sphere in which China is interfering.

### **The shift in global leadership**

It has been argued that the “temporary U.S. hegemony of the post-Cold War era has vanished, and bipolarity is set to return.”<sup>11</sup> Competition is inevitable amongst states but the U.S. hegemony seems to have benefited only certain regions of the world, in particular the West. The question for the latter is what happens when the world's superpower decides that it does not play the game anymore? The election of President Trump to the White House contributed to a loss in credibility, essential to international relationships, even though this is (gradually) being restored under the Biden presidency. When combined with both an economically fast-growing and a politically involved China, this is unlikely to be favorable to U.S. interests. The U.S. is in great part

---

<sup>11</sup> Rose Gideon, “WHO WILL RUN THE WORLD?,” *Foreign Affairs*, Vol 98. Iss. 1, 2019, 8, <https://search-proquest-com.cfc.idm.oclc.org/magazines/who-will-run-world/docview/2161593697/se-2?accountid=9867>.

responsible for a shift in global leadership towards China, which is allowing the PRC to fill the void and therefore influence and re-shape the world order on its terms and based on their values. For example:

Under the Trump administration, the United States is stepping away from the global order it helped build in the wake of World War II. Since assuming office in January 2017, Trump has withdrawn the United States from the Trans-Pacific Partnership trade agreement, ended US commitment to the Paris climate agreement, and made clear his contempt for the World Trade Organization. In sharp contrast, Xi has positioned China as the new champion of globalization, seizing leadership of the global climate change agenda, committing billions to its Belt and Road Initiative, and forging a mega-regional trade pact of its own.<sup>12</sup>

The withdrawal of the U.S. from international organizations, or short of it its disapproval at the international level, created a void that is tipping the leadership balance away from Western democracies. President Biden might reverse the trend but some harm has been done in a short period of four years under Trump.

Another way in which the PRC is increasing its influence on the world stage is by “ensuring greater diplomatic allegiance of recipient countries [primarily of states aid and development funding], access to natural resources and the opening of markets for Chinese investment,” a tactic that was repeatedly used in “South Asia, Africa, Latin America, the Caribbean, and throughout the Pacific.”<sup>13</sup> Given the success of the manoeuvres, it is unlikely to cease in the coming decades and as such one can only hope that China, as the emerging power, will bring common good to the rest of the world.

---

<sup>12</sup> Theresa Lou, “Chinese Global Governance Leadership is Only a Win-Win for China,” *Georgetown Security Studies Review*, Georgetown University Center for Security Studies, 2017.

<sup>13</sup> Canada, Department of National Defence, “The Future Security Environment: 2013-2040,” Ottawa: Chief of Force Development, 2014, 8.

## **Working towards the worlds' common good?**

To determine if China is working for the world's common good, one may examine its behaviours from both an internal perspective and its external relationships in international affairs. It can be argued that China mismanaged the 1989 student-led protests to claim democratic reform in the country, now known as the Tiananmen Square massacre. The seven-week protest led to a brutal military action with tanks and assault rifles which brought a death toll estimated between several hundred and more than a thousand, but the real human toll will never be known given that official numbers were never published.<sup>14</sup> Even though time has passed since the massacre, the fundamental reasons that caused the protest are still present today. For instance, "land seizures, labor disputes, wide-scale corruption, cultural and religious repression, and environmental degradation have led to hundreds of thousands of localized protests annually throughout China since 2010," and the response so far from the PRC has not been in favour of the protesters, given that the former seems to favour answering the turmoil with "repression, censorship, and, occasionally, limited accommodation."<sup>15</sup> Did the situation improve more than three decades after the Tiananmen Square massacre?

One can doubt that improvements occur given the current situation in the country, in particular with the repression in Hong Kong. For instance peaceful protests of 2019 in the city, over the introduction of a bill providing China with extradition power, made the news worldwide when they took a turn for the worst. The saga unfortunately continued and culminated in October 2019 when "Hong-Kong experience[d] one of its most violent

---

<sup>14</sup> Yasmin Ibrahim, "Tank Man, Media Memory and Yellow Duck Patrol," Vol. 4, Iss. 5, 2016, 582, <https://doi-org.cfc.idm.oclc.org/10.1080/21670811.2015.1063076>.

<sup>15</sup> United States, U.S.-China Economic and Security Review Commission, "2014 Annual Report to Congress," 2014, 347.

and chaotic days.”<sup>16</sup> The most recent development at the time of writing has been the arrest of 53 people, including a U.S. lawyer, for the alleged subversion of state power because they have been “holding primaries for pro-democracy candidates for the Hong-Kong election.”<sup>17</sup> The PRC is not the symbol of human rights and civil liberties in its own country, but can it act as its defender on the global stage?

China, as a permanent member of the United Nations Security Council (UNSC), enjoys the use of the veto power that can preclude the intervention of the organization and consequently of the international community in a country’s internal affairs. It is true that China has not used its veto to the extent that of the USSR/Russia or even the U.S., but this can be most likely explained by the Cold War period between the two countries. That being said, “new trends in the usage of the veto by the different permanent members have emerged” since the end of the Cold War and “China, which has historically used the veto the least, has become increasingly active on this front and cast 13 of its [total] 16 vetoes since 1997.”<sup>18</sup> Despite the fact that the PRC has been a consistent supporter of the UN over the years and is still to this date the country with the least recorded use of the veto, “China has regularly used its veto in the un [sic] Security Council to shield other authoritarian countries from international demands to protect human rights and to block interventions that would force governments to end abuses.”<sup>19</sup> In such a way, the PRC is a

---

<sup>16</sup> Editorial, “The Hong-Kong protests explained in 100 and 500 words,” *BBC News*, 28 November 2019, <https://www.bbc.com/news/world-asia-china-49317695>.

<sup>17</sup> Helen Davidson, “Dozens of Hong Kong pro-democracy figures arrested in sweeping crackdown,” *The Guardian*, 6 Jan 2021, last accessed 28 January 2021, <https://www.theguardian.com/world/2021/jan/06/dozens-of-hong-kong-pro-democracy-figures-arrested-in-sweeping-crackdown>.

<sup>18</sup> United Nations Security Council, United Nations Security Council Working Methods, “The Veto,” last modified on 16 Dec 2020, <https://www.securitycouncilreport.org/un-security-council-working-methods/the-veto.php?print=true>.

<sup>19</sup> Jessica Chen Weiss, “A World Safe for Autocracy? China's Rise and the Future of Global Politics,” *Foreign Affairs*, Vol. 98, Iss. 4, 2019, 95, <https://search-proquest->

threat to the U.S. hegemony, to the Western democracies, and to the international order that is not in the interest of the global good. For example, China is already shaping a new world order by exporting its authoritarian laws and policies to not only monitor, but also control public opinion. The PRC “held training sessions with government officials and members of the media from over 30 countries on methods to monitor and control public opinion.”<sup>20</sup> The same author reports that following such engagements with the Chinese officials, at least three countries – Tanzania, Uganda, and Vietnam – have implemented more restraining laws on media and cybersecurity. But China does not stop at exporting its laws and policies to foreign countries, it also makes sure to spread its value of authoritarianism through other ways discussed below.

### **Three warfares concept**

The PRC is pursuing the advancement of its “three warfares” concept that includes “psychological warfare, public opinion warfare, and legal warfare,” where:

Psychological warfare uses propaganda, deception, threats, and coercion to affect the adversary’s decision-making, while also countering adversary psychological operations. Public opinion warfare disseminates information for public consumption to guide and influence public opinion and gain support from domestic and international audiences. Legal warfare uses international and domestic laws to gain international support, manage political repercussions, and sway target audiences.<sup>21</sup>

The three warfares concept is coordinated through several actors, such as the United Front Work Department, the Propaganda Ministry, the State Council Information Office, the People’s Liberation Army (PLA), and the Ministry of State Security.<sup>22</sup> The

---

[com.cfc.idm.oclc.org/magazines/world-safe-autocracy-chinas-rise-future-global/docview/2253186643/se-2?accountid=9867](https://com.cfc.idm.oclc.org/magazines/world-safe-autocracy-chinas-rise-future-global/docview/2253186643/se-2?accountid=9867).

<sup>20</sup> Paul Scharre, “Killer Apps,” *Foreign Affairs*, Vol. 98, Iss. 3, 2019, 139, <https://search-proquest-com.cfc.idm.oclc.org/magazines/killer-apps/docview/2227830287/se-2?accountid=9867>.

<sup>21</sup> United States, Office of the Secretary of Defense, “2020 Annual Report to Congress: Military and Security Development Involving the People’s Republic of China,” 2020, 130.

<sup>22</sup> *Ibid.*

primary targets of the PRC range from “cultural institutions, state- and municipal-level government offices, media organizations, educational institutions, businesses, think tanks, and policy communities.”<sup>23</sup> Such a range of targets enables China to advantageously influence the narrative concerning its internal policies at home, and its foreign relations abroad. When influencing and controlling the narrative is not enough, China involves itself in a country’s affairs to ensure compliance. Does, then, the argument that the PRC is practicing a non-interventionist policy toward foreign countries hold? This argument is doubtful given that:

Government officials regularly lecture their trading partners in other developing states on the need to open their markets, establish rule of law, battle corruption, and promote good governance, . . . [not forgetting that] [t]he government has also sought to influence others through aid programs and foreign investment.<sup>24</sup>

Once again the reduced involvement of the U.S. from international affairs under the Trump presidency has created a void that China is filling. When influence does not work, the PRC is ready to embark on a myriad of activities that consist of less than the full spectrum of conflict, given the inherent risks associated with a military confrontation with the U.S. and its Western allies. China is engaged in activities beneath the full spectrum of conflict threshold commonly referred to as the “Grey Zone Conflict” or “Grey Space Conflict,” which includes everything that is “short of war but long of peace,” or more precisely any:

activity that is coercive and aggressive in nature and that is deliberately designed to remain below the threshold of conventional military conflict and open inter-state war, while at the same time falling outside the

---

<sup>23</sup> Adam Schiff, “The U.S. Intelligence Community Is Not Prepared for the China Threat,” *Foreign Affairs*, 2020, <https://www.foreignaffairs.com/articles/united-states/2020-09-30/us-intelligence-community-not-prepared-china-threat>.

<sup>24</sup> Randall Peerenboom, “Introduction: two opposing views of China,” in *China Modernizes: Threat to the West or Model for the Rest?*, Oxford: Oxford University Press, 2008, 9.

established norms of societal discourse of nations and peoples that underpin the existing rules-based global order.<sup>25</sup>

China has not only been involved in the “Grey Zone,” but also varies its approach as part of its three warfares concept. For instance as shown in Figure 1.1 below, one can establish that China is active in all the quadrant and boxes, except for the “Regular/Conventional Warfare,” with cyber attacks, information operations, Intellectual Property (IP) theft, foreign investments, legal proceedings, and trade competition, noting that a vast majority of these activities will be discussed as part of this essay.

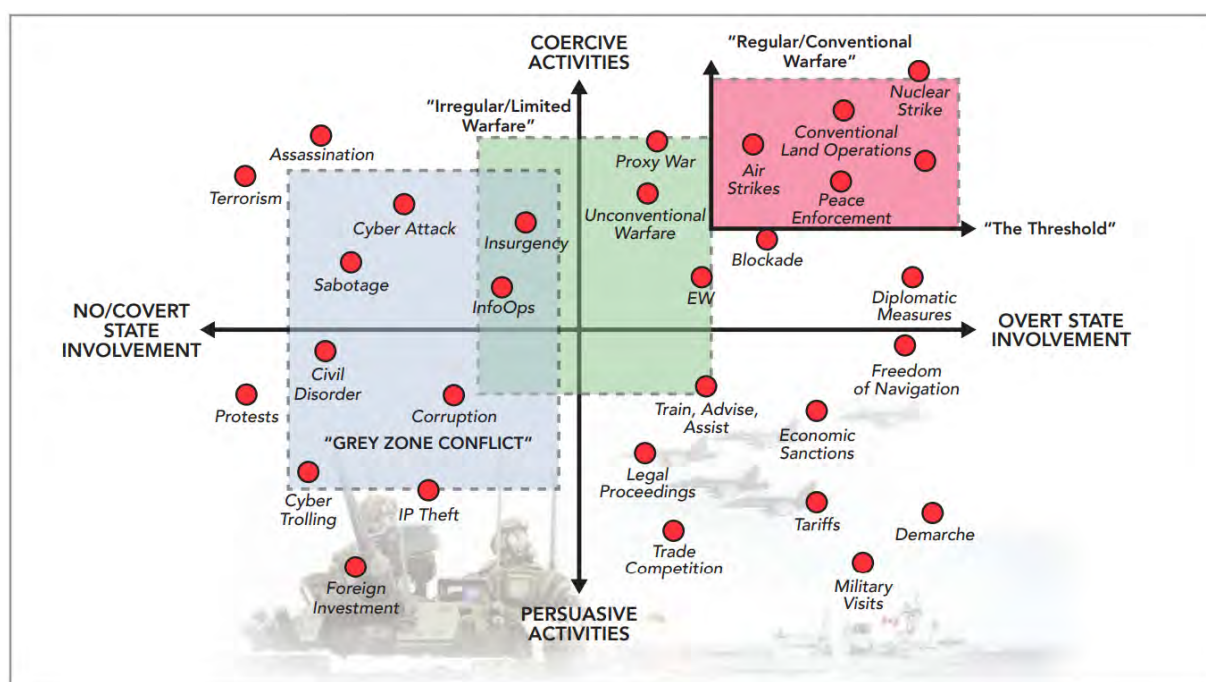


Figure 1.1: Two dimensional matrix of conflict types

Source: Canada, Department of National Defence, Pan-Domain Force Employment Concept: Prevailing in an Uncertain World, 2020, 36.

The three warfares concept covers all quadrants above, which ensure a wide-ranging approach. In all cases the covert spectrum, which conceals the sponsor, seems to

<sup>25</sup> Canada, Department of National Defence, “Beyond the Horizon: A Strategy for Canada's Special Operations Forces in an Evolving Security Environment,” Ottawa: Canadian Special Operations Forces Command, 2020, 9.



be at the center of China's tactics. Even the sacred cow of the Western democracies that is the academic freedom has not been spared by China in its quest for global power.

### **Academic sphere**

The involvement of China in the academic sphere abroad takes the form of Confucius Institutes, a Chinese not-for-profit educational organization that partnership with colleges and universities around the world. Despite what their name and purpose could imply, these Confucius Institutes are not necessarily generous gestures and commendable acts. For instance:

[s]ince 2004, Beijing has funded several hundred Confucius Institutes, which teach Mandarin, around the world . . . [but the] [c]oncerns that the institutes infringe on academic freedom have led universities to close a number of them and academics to call for greater transparency in their operations.”<sup>26</sup>

China does not hesitate to use the academic sphere, including think tanks, to support its interests. There have been cases where the PRC used Chinese students and academic institutions such as the Confucius Institutes to promote its positive narrative, organize events in support of its internal/external policies – such as the Belt and Road Initiative (BRI) or its claims in the South China Sea – and initiate protests or lodge complaints against academic institutions that do not share the same views or values.<sup>27</sup> This is not to say that other countries do not practice similar tactics, but the scale seems to be wider and the threshold seems to be lower for the Chinese authorities to take action. China is known to exert influence on other states or organizations, in particular when the

---

<sup>26</sup> Jessica Chen Weiss, “A World Safe for Autocracy? China's Rise and the Future of Global Politics,” *Foreign Affairs*, Vol. 98, Iss. 4, 2019, 99, <https://search-proquest-com.cfc.idm.oclc.org/magazines/world-safe-autocracy-chinas-rise-future-global/docview/2253186643/se-2?accountid=9867>.

<sup>27</sup> United States, Office of the Secretary of Defense, “2020 Annual Report to Congress: Military and Security Development Involving the People's Republic of China,” 2020, 131.

narrative is not favorable to their interests, and these efforts can be supported through educational programs. Thus, the PRC “provides scholarships to students from developing countries for study in China . . . [and has also in the past] entered into numerous bilateral and multilateral agreements to promote exchanges and provide technical development assistance.”<sup>28</sup> But one should keep in mind that these scholarships and agreements do not come with the implied freedom of expression that is an intrinsic part of the educational system, a value that is also at the centre of Western democracies.

Even a country like Canada, which is only a middle power, has not been sheltered from such involvements in its academic sphere. For example, a former director of the Canadian Security Intelligence Service (CSIS) has stated that the PRC has organized “demonstrations against the Canadian government in respect to some of Canada's policies concerning China.”<sup>29</sup> Academic sphere and freedom of expression come hand-to-hand, and no country is spared given that both Chinese and Australian “academics have noted that pro-Beijing militancy is on the rise.”<sup>30</sup> It seems that the only way to avoid repercussions such as demonstrations in favour of the PRC is to avoid interfering in the country's internal affairs. But now that China is firmly involved in this sacred sphere, it can intervene when and where needed to shape a favourable narrative at the heart of the Western democracies.

## Conclusion

---

<sup>28</sup> Randall Peerenboom, “Introduction: two opposing views of China,” in *China Modernizes: Threat to the West or Model for the Rest?*, Oxford: Oxford University Press, 2008, 9.

<sup>29</sup> “Some politicians under foreign sway: CSIS.” *CBC News*, 23 June 2010.

<sup>30</sup> James Kynge, Lucy Hornby and Jamil Anderlini, “Inside China’s secret ‘magic weapon’ for Worldwide Influence,” *Financial Times*, 2017, <https://www.ft.com/content/fb2b3934-b004-11e7-beba-5521c713abf4>.

Even though China is becoming more and more influential on the world stage, as we have seen in this chapter the true intentions and aspirations of the PRC are unclear, do not exactly align with the notions of democracies and human rights, and do not serve the world's common good. The fact that "China is now close to meeting all the measures of what defines a global great power: political, economic, and military might with a global reach," is not reassuring either.<sup>31</sup> The shift in global leadership, the use of the "three warfares" concept, and the implication of China in the academic sphere worldwide can be explained by the fact that the PRC is continually working towards shaping the narrative and, ultimately, the world order to its benefit.<sup>32</sup> As we will see in the next chapter, economic power has become its trademark. Economic power can be an effective soft-power, and one that has been closely tied to China's foreign policies for the last couple of decades.

---

<sup>31</sup> Anne-Marie Brady, "China as a Polar Great Power," Cambridge: Washington, D.C; New York, NY: Woodrow Wilson Center Press, 2017, 241.

<sup>32</sup> Andrea Charron, "Responding to the Hardening the SHIELD: A Credible Deterrent and Capable Defense for North America," *North American And Arctic Defence and Security Network*, Centre for Defence and Security Studies, 2020, 3.

*The hunger of a dragon is slow to wake, but hard to sate.*

— Ursula K. Le Guin

## CHAPTER 2 - CHINA'S MASSIVE ECONOMY

### Introduction

In a globalized world, many factors are intertwined and play a role in the balance of power on the world stage, and money is no stranger to power. Today more than ever, “[m]ilitary ‘hard power’ is seen to be of decreasing utility in world politics, while economic and cultural ‘soft power’ becomes more important.”<sup>33</sup> The influence of a state can be measured in terms of its economic power, a concept that jeopardizes the U.S. hegemony given that “[g]lobal economic power has clearly shifted to Asia, with China leading the way.”<sup>34</sup> Even though China has millennia of history and was once thriving, the country became a relatively poor and closed country in the last two centuries, but it is not the case anymore. It is true that China’s gross domestic product (GDP) has decreased between the nineteenth century and 1950 as a “result of civil war, mismanagement, corruption, and foreign disaster” but following reforms in the late 1970s China has seen a “spectacular rise that has . . . lifted half a billion people out of poverty.”<sup>35</sup> On the other hand, the U.S. economy has relatively weakened and its share of the world’s economy has shrunk by half since the end of World War II, from 50 percent to 25 percent, even though it still remains the largest in the world in absolute terms.<sup>36</sup> This chapter first looks

---

<sup>33</sup> Jon R. Lindsay, Tai Ming Cheung, and Derek S. Reveron, *China and Cybersecurity: Espionage, Strategy, and Politics in the Digital Domain*, New York: Oxford University Press, 2015, 335.

<sup>34</sup> Anne-Marie Brady, “China as a Polar Great Power,” Cambridge: Washington, D.C.; New York, NY: Woodrow Wilson Center Press, 2017, 256.

<sup>35</sup> Eliot A. Cohen, “China,” in *The Big Stick: The Limits of Soft Power and the Necessity of Military Force*, New York: Basic Books, 2016, 101.

<sup>36</sup> Adam S. Posen, “The Post-American World Economy: Globalization in the Trump Era,” *Foreign Affairs*, Vol. 97 Iss. 2, 2018, 30, <https://search-proquest-com.cfc.idm.oclc.org/magazines/post-american-world-economy-globalization-trump/docview/2009156007/se-2?accountid=9867/>.

at China's economic growth by the numbers. It then examines the fact that the PRC pushes the limits of existing rules. The third section addressed China's creation of new international institutions that counterbalance the U.S. economy and hegemony. Finally, the chapter explores the BRI, which has a central place in the PRC's foreign policies. The fifth and last section concludes by discussing China's dual strategy of coercion and inducement.

### **Numbers matter**

China has not always been one of the worlds' major economies, but instead "as one of the poorest agricultural countries under a centralized and closed economic system, and is now the second-largest economy in the world."<sup>37</sup> China's economy ranks at number two in terms of GDP at current prices, only behind the U.S. as seen in Figure 2.1.

---

<sup>37</sup> Inyeop Lee, "Can North Korea Follow China's Path? A Comparative Study of the Nexus between National Security and Economic Reforms," *Pacific Focus*, Vol. 34, Iss. 1, 2019, 112, <https://doi-org.cfc.idm.oclc.org/10.1111/pafo.12135>.

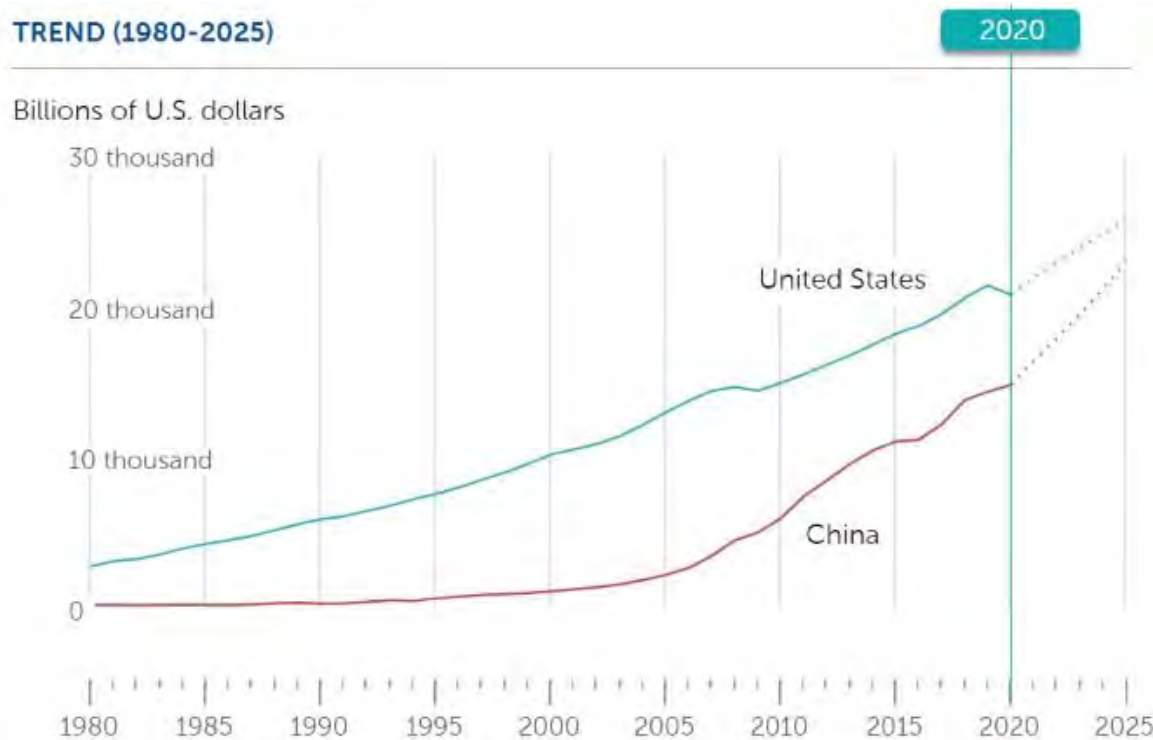


Figure 2.1: The world's largest economies in terms of Gross domestic product (GDP) at current prices, 1980-2025

Source: Adapted from the International Monetary Fund, IMF DATAMAPPER, last accessed on 17 Dec 2020, <https://www.imf.org/external/datamapper/PPPSH@WEO/OEMDC/ADVEC/CHN/USA>.

That being said the gap has been shrinking since the year 2005, and will continue to do so for the years to come. For instance, the country recently achieved unmatched economic growth that has averaged 9.5% per year from 1978 to 2010, with a growth rate of about 8% to 9% since 2010 despite the impacts from the recession.<sup>38</sup> Figure 2.2 shows that China actually surpassed the U.S. as the largest economy in 2017, at least in terms of GDP based on purchasing power parity (PPP).

<sup>38</sup> *Ibid.*

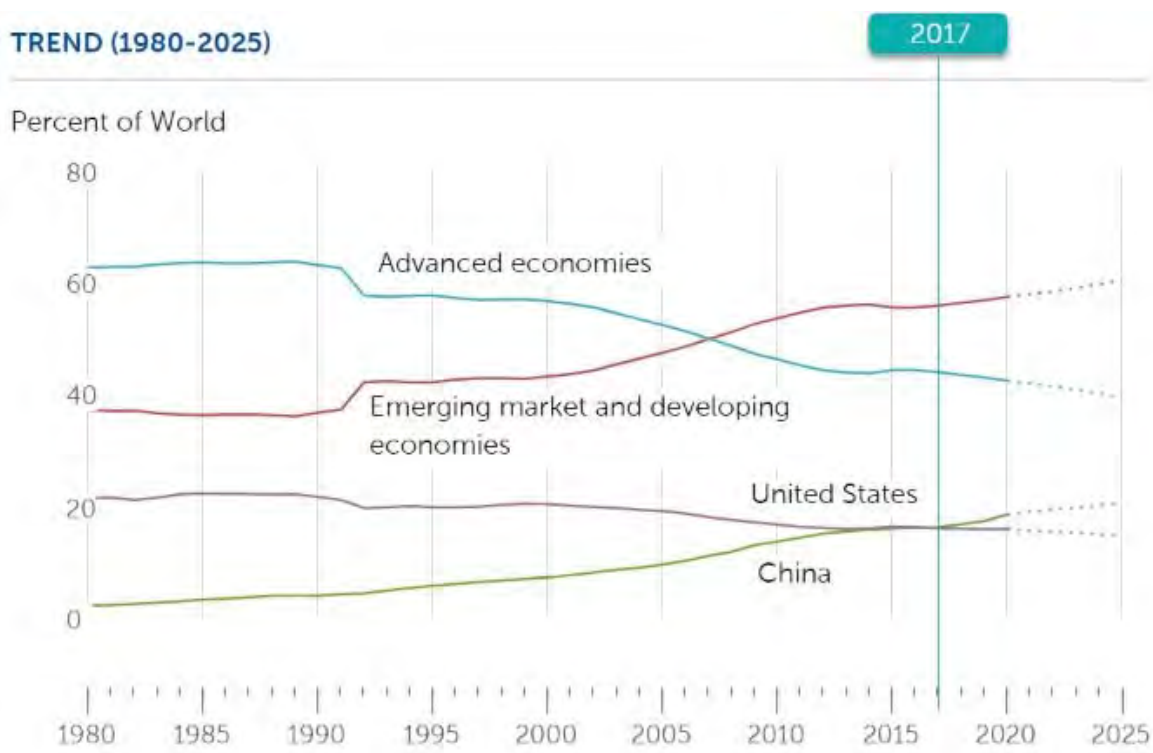


Figure 2.2: Share of world GDP based on Purchasing power parity (PPP), percent of world, 1980-2025

Source: Adapted from the International Monetary Fund, IMF DATAMAPPER, last accessed on 17 Dec 2020, <https://www.imf.org/external/datamapper/PPPSH@WEO/OEMDC/ADVEC/CHN/USA>.

As one can see, the gap is expected to grow and it is only a matter of time before the Chinese economy becomes, no matter how measured, the largest in the world. China was, at the time of writing, one of the few countries that should see a positive growth of its GDP in 2020 (1.9%), which contrasts with the U.S. (-4.3%), and the rest of the world (-4.4%). As shown in Figure 2.3, China should reach a forecasted growth rate that will reach 8.2% in 2021, and of at least 5% per year from 2022 to 2025.

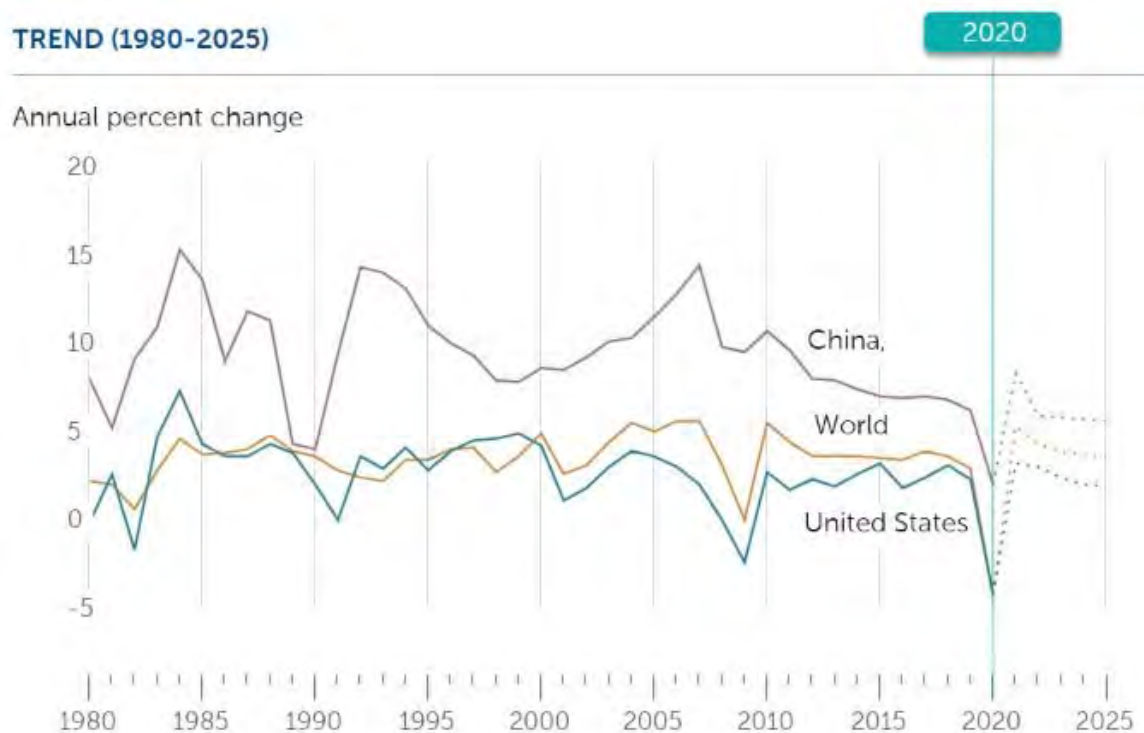


Figure 2.3: Real GDP growth, annual percentage change, 1980-2025

Source: Adapted from the International Monetary Fund, IMF DATAMAPPER, last accessed on 17 Dec 2020, [https://www.imf.org/external/datamapper/NGDP\\_RPCH@WEO/WEOWORLD/CHN/USA](https://www.imf.org/external/datamapper/NGDP_RPCH@WEO/WEOWORLD/CHN/USA).

Once again, this contrasts with the U.S. and the rest of the world, which are trending to achieve less growth compared to that of China until at least 2025. China recorded positive GDP growth even during the 2008 global recession, where it has seen a 9.7% increase – even though exact figures are sometimes doubted by some economists – while the U.S. (-2.5%) and the rest of the world (0.1%) have seen contractions of their respective GDP. The PRC is then likely to continue expanding its economic power at a faster rate than the U.S. and the rest of the world, even during recessions. The situation could be exacerbated even more by the current COVID-19 pandemic if it brings yet another worldwide recession that would have long-lasting effects on the economies of developed countries, without necessarily having the same consequences for China.



To continue to increase its economic power, China is investing its capital using two different methods, either in “investments, mergers and acquisitions, and/or lending by China’s policy banks.”<sup>39</sup> China’s Ministry of Commerce (MOFCOM), the organization that reports the country’s overseas direct investment (ODI), has indicated that China’s investment has surpassed the \$200 billion mark in 2014.<sup>40</sup> Besides this type of investment, China is also heavily lending through the intermediate of two main banks: “a state-funded and state-owned policy bank”, known as the Export-Import Bank of China and the China Development Bank, respectively.<sup>41</sup> Both of these organizations operate “under the direct leadership of the State Council of China” and it should be noted that the China Development Bank is “the largest development finance institution in the world.”<sup>42</sup> That being said, it should be noted that despite commensurable economic growth and large overseas investments and lending, there are obstacles to China's continuous economic development.

For instance, the PRC can still be considered to be amid economical reforms and transitions that bring obstacles both from a domestic perspective but also on the world stage, and these have to be resolved to facilitate its continuing economic development.<sup>43</sup> Furthermore, “[w]hile recovery in China has been faster than expected, the global economy’s long ascent back to pre-pandemic levels of activity remains prone to

---

<sup>39</sup> David Dollar, “China’s Investment in Latin America,” *Geoeconomics and Global Issues*, Brookings Institution, Washington, D.C., 2017, 1.

<sup>40</sup> *Ibid.*

<sup>41</sup> People’s Republic of China, State Council of China, “About the Export-Import Bank of China,” last accessed on 17 Dec 2020, <http://english.eximbank.gov.cn/Profile/AboutTB/Introduction/>.

<sup>42</sup> People’s Republic of China, State Council of China, “About the China Development Bank,” last accessed on 17 Dec 2020, [http://www.cdb.com.cn/English/gykh\\_512/khjj/](http://www.cdb.com.cn/English/gykh_512/khjj/).

<sup>43</sup> Marc Lanteigne, *Chinese Foreign Policy: An Introduction*, London: Taylor & Francis Group, 2015, 47.

setbacks.”<sup>44</sup> China is by no means safe from any of these setbacks but is nonetheless in an enviable position, as the world’s largest exporter since 2009, which speaks to its efficiency and effectiveness as a leading manufacturer in the world that also comes at a considerable cost to the planet’s environment.<sup>45</sup> In the meantime, Western democracies are likely to continue to be dependent on Chinese goods, perpetuating the cycle by which the country comes out as the winner. Even if setbacks are encountered by China in the years to come, one way to minimize the impacts for the country will be by pushing the limits surrounding existing rules, a tactic that is arguably bearing fruit.

### **China is pushing the limits of existing rules**

Given that the country is a communist state and that consequently a majority of firms are either centrally or provincially state-owned enterprises (SOEs), China’s direct investments in foreign countries are motivated by several different factors and influenced by the provenance of the funds, either at the central level or at the provincial level. For example:

China’s central government-controlled SOEs . . . [foreign direct investments are] motivated primarily by the desire to secure supplies of key natural resources, circumvent host country trade barriers, penetrate new markets, acquire advanced technology and management expertise, and seek strategic assets.<sup>46</sup>

A country’s seeking to ensure access to key natural resources is only a legitimate goal, is it not? One can doubt the previous sentence particularly when Chinese senior

---

<sup>44</sup> International Monetary Fund, “World Economic Outlook - October 2020: A Long and Difficult Ascent,” 2020, xv, <https://www.imf.org/-/media/Files/Publications/WEO/2020/October/English/text.ashx>.

<sup>45</sup> Jonathan Woetzel, *et al.*, “China and the World: Inside the dynamics of a changing relationship,” *McKinsey Global Institute*, 2019, 2.

<sup>46</sup> William X. Wei and Illan Alon, “Chinese outward direct investment: a study on macroeconomic determinants,” *Int. J. Business and Emerging Markets*, 2010, 352-369; quoted in Chunlai Chen, “Determinants and motives of outward foreign direct investment by China’s provincial firms,” *Transnational Corporations*, Vol. 23, Iss. 1, 2015, <https://doi.org/10.18356/6ba5ab37-en>.

PLA members have indicated in the book *Unrestricted Warfare* that “resources warfare” is all about “gaining control of scarce natural resources and being able to control or manipulate their access and market value.”<sup>47</sup> The same authors have listed eleven other types of warfare that are of interest for this essay, including financial warfare, economic aid warfare, cultural warfare, media and fabrication warfare, technological warfare, network warfare, international law warfare, and environmental warfare. The book even includes an entire chapter, “Ten Thousand Methods Combined as One: Combinations That Transcend Boundaries,” which details how all these types of warfare could be used in both peace or wartime, a concerning thought that casts doubt on China’s true intentions and aspirations on the world stage, which would appear to threaten the very fabric of the Western democracies. It is true that such a book written by senior PLA members might not in reality constitute Chinese policy or be implemented by the country at any point in time, but at the same one has to keep in mind that it could be actually used if deemed necessary.

Chinese provincial firms’ foreign direct investments have wider motives than the centrally owned SOEs. For instance, they not only aim at circumventing host country barriers and exploring/promoting new markets, but also aim “to exploit ownership advantages, such as matured technology, know-how, management skills and business and marketing networks, and the pressure of intense competition and the acceleration of industrial restructuring and upgrading at home.”<sup>48</sup> As such, one can wonder if China is

---

<sup>47</sup> Qiao Liang and Wang Xiangsui, “Unrestricted Warfare: China's Master Plan to Destroy America,” Panama City, Panama: Pan American Publishing, 2002, xii.

<sup>48</sup> William X. Wei and Illan Alon, “Chinese outward direct investment: a study on macroeconomic determinants”, *Int. J. Business and Emerging Markets*, 2010, 352-369; quoted in Chunlai Chen, “Determinants and motives of outward foreign direct investment by China's provincial firms,” *Transnational Corporations*, Vol. 23, Iss. 1, 2015, <https://doi.org/10.18356/6ba5ab37-en>.

not engaged in “technological warfare” to ensure that it will be “gaining control of or having an edge in particular vital technologies.”<sup>49</sup> In all cases, looking at Chinese economic growth, foreign investments, and lending separately might not spell out the strategic objectives that the country is pursuing. But combined with the fact that China is manipulating its currency to remain competitive and attractive on the world market, an answer is emerging.

One of the common critics of the PRC’s currency is that it is prejudicially controlled, where the renminbi (or Chinese yuan) is being artificially under-valued, causing an unfair trading advantage and guarantees that Chinese goods will continue to flood markets worldwide, because of the attractive low price.<sup>50</sup> The 2008 recession increased the tensions with the U.S. given that:

[a]s China continues to grow as a trade giant and accumulates more foreign currency and economic “persuasive” power, concerns have been raised in the US over Beijing’s respect for trade rules and the perceived advantages to China from its allegedly undervalued currency, inexpensive labour, and comparatively low level of regulation in areas such as environmental and labour laws. . . . In 2005, Beijing agreed to reform its currency policy, and since that year the value of the yuan (or renminbi) has been slowly rising in comparison to the [U.S.] dollar despite a tightening of Chinese currency regulations after 2008 in order to protect the economy from the growing financial chaos. Nevertheless, concerns remain from some US policymakers that China’s currency is still undervalued, providing Chinese goods with an unfair advantage in international markets and exacerbating an imbalance of trade (imports versus exports) between America and China.<sup>51</sup>

The low level of regulations in labour laws and in environmental practices combined with an artificially undervalued currency is a recipe for Chinese success that

---

<sup>49</sup> Qiao Liang and Wang Xiangsui, “Unrestricted Warfare: China's Master Plan to Destroy America,” Panama City, Panama: Pan American Publishing, 2002, xii.

<sup>50</sup> Marc Lanteigne, *Chinese Foreign Policy: An Introduction*, London: Taylor & Francis Group, 2015, 49.

<sup>51</sup> *Ibid.*, 144.

will continue to favour their goods and might explain, to a certain extent, the reason why the country is one of the few to record positive GDP growth in 2020, that reach 2.3% while the rest of the world regressed by 3.3%.<sup>52</sup>

Author David Dollar argues that China's investments in the world are different from prevailing norms and practices in three different ways.<sup>53</sup> First of all, China tends to invest in poorly governed countries. For instance, large sums have been invested in countries such as the Democratic Republic of Congo, Angola, Venezuela, and Ecuador that have demonstrated poor governance. This can be in part explained by the fact that China's investments come from SOEs that "do not feel the same pressure as private firms to earn good returns on their investments . . . [given that they] are often part of state-to-state deals and they may feel insulated from the local economic environment."<sup>54</sup> Even though there is no clear correlation between investment locations and poor governance, this tendency nonetheless separates China from other countries.

Second, the PRC is usually not inclined to follow environmental standards which bring concerns for the advocates of the environment.<sup>55</sup> Author David Dollar argues that China has been reluctant to adhere to international environmental standards, even though the country invests massively in mines and infrastructures and that these ventures usually bring a fair amount of risks to the environment and associated ecosystems. The PRC, on the other hand, indicates that it simply follows the host country's laws and regulations but the issue is that such laws and regulations are either weak or inexistent in countries that

---

<sup>52</sup> International Monetary Fund, "Real Gross domestic product (GDP) growth, annual percentage change," last accessed on 14 April 2021, [https://www.imf.org/external/datamapper/NGDP\\_RPCH@WEO/WEOWORLD/CHN](https://www.imf.org/external/datamapper/NGDP_RPCH@WEO/WEOWORLD/CHN).

<sup>53</sup> David Dollar, "China as a Global Investor," *Asia Working Group Paper*, Brookings Institution, Washington, D.C., 2016, 4-14.

<sup>54</sup> *Ibid.*, 7.

<sup>55</sup> *Ibid.*, 11.

have poor governance to begin with. To make matter worse, environmental standards are both time consuming and expensive to follow and as a result, China is seen as a “more flexible and less bureaucratic” country that can complete projects faster and in turn make the endeavour profitable sooner than a project that would follow the procedures of the World Bank.<sup>56</sup> China is taking advantage of poor governance and low environmental standards to become more attractive to developing countries that might not have both the time to implement rigorous environmental standards or the capacity to enforce them given that they do not have the required governmental structures in place.

Third, the PRC restricts foreign investments in many of its own sectors compared to other developing and/or developed countries, where the latter tend to be very open to investments from other countries.<sup>57</sup> The same author highlights the fact that even though China is indeed open and actually a destination for foreign investments, not all sectors are open. For example, “most but not all of [the] manufacturing [sector]” is open to foreign investments, while other sectors such as “mining, construction, and most modern services” remain for the most part closed. This is a problem given that China can avoid competition in many sectors of its economy, and even though it can result in a less competitive environment for the country, there is no demonstrated downside on China's economic growth so far. Furthermore, once a monopoly is firmly installed in the country, the PRC can develop its operations in foreign countries given that it has one step ahead of its competitors. For instance:

China's four state-owned commercial banks operate in a domestic market in which foreign investors have been restricted to about one percent of the market. The four banks are now among the largest in the world and are expanding overseas. China's monopoly credit card company, Union Pay,

---

<sup>56</sup> *Ibid.*

<sup>57</sup> *Ibid.*, 14.

is similarly a world leader based on its protected domestic market. A similar strategy applies in mining and telecommunications.<sup>58</sup>

The fact that the PRC is protecting some sectors from foreign investments could be understandable if it was to safeguard them from being completely dethroned by foreign companies. Instead, China has implemented practices at home that are discriminatory to foreign states and companies, and such practices serve as a springboard to advance Chinese SOEs around the world with an unfair advantage. China's tactics are becoming familiar and are even noted in *The Future Security Environment: 2013-2040* published by the Department of National Defence (DND), where it is stated that:

Chinese growth has been predicated on the partial transition from a command to market economy, the inflow and outflow of foreign direct investment, demand for Chinese manufactures, the maintenance of large foreign currency reserves, and the controlled valuation of Chinese currency.<sup>59</sup>

Thus, the PRC will and should remain on the radar of the Western democracies for decades to come.

To bring some perspective, the above arguments on China's foreign investments do not exist in absolute terms. As one will notice the author David Dollar has been carefully identifying prevalent standards that are, in some cases, at odds with those of other developing and/or developed countries. Nonetheless, one has to be careful given that:

China's rapid economic growth also has political dimensions. China has a central role in the Asian Pacific Economic Council and the UN Security Council and growing influence in the WTO. For decades, China has promoted a polycentric view of world power . . . [and the country's]

---

<sup>58</sup> *Ibid.*

<sup>59</sup> Canada, Department of National Defence, "The Future Security Environment: 2013-2040," Ottawa: Chief of Force Development, 2014, 8.

economic ties make it a major stakeholder in international institutions and its industrial growth is a model for developing countries.<sup>60</sup>

With the PRC seen as a model by developing countries, one can ask the impact that it could have not only on the economic development and prosperity at home, but also in the engagements on the world stage of these developing countries. It appears that China is pushing the limits of existing rules and it is doubtful that, if other countries start emulating the PRC, the end result will be the same. One has to keep in mind that “China has embraced globalization to become the top trading partner for more than two-thirds of the world’s nations,”<sup>61</sup> an achievement that is arguably well outside the scope of all developing countries. And if pushing the limits of existing rules that the Western democracies are bound to was not enough, China is going even further by creating its own set of institutions that have implications for the U.S. hegemony and economy that has prevailed since the end of the Cold War.

### **The creation of new institutions to counterbalance the prevailing hegemony**

An example of a new institution that counterbalances, to a certain extent at least, the weight of the U.S. hegemony or that of the Western democracies in international affairs is the Asian Infrastructure Investment Bank (AIIB), which began operations in January 2016 and, as of December 2020, included 103 approved members worldwide.<sup>62</sup> The AIIB is an initiative of China’s President Xi Jinping and many authors have argued that the organization emerged as a response to the influence of the U.S. in organizations

---

<sup>60</sup> Jerry Harris, “Emerging Third World Powers China, India and Brazil.” *Race & Class*, Vol. 46, no. 3, 2005, 15.

<sup>61</sup> Kurt M. Campbell and Jake Sullivan, “Competition without Catastrophe: How America can both Challenge and Coexist with China,” *Foreign Affairs*, Vol. 98 Iss. 5, 2019, 99, <https://search-proquest-com.cfc.idm.oclc.org/magazines/competition-without-catastrophe-how-america-can/docview/2275085122/se-2?accountid=9867>.

<sup>62</sup> Asian Infrastructure Investment Bank, “Introduction,” last accessed on 22 Dec 2020, <https://www.aiib.org/en/about-aiib/index.html>.



such as the International Monetary Fund (IMF), the World Bank, and the Asian Development Bank (ADB).<sup>63</sup> For instance, the AIIB's is set to go much beyond the Asian region, stretching to parts of Europe, South America and Africa, which has raised "concern about China using its economic incentives to leverage its own political-strategic agenda" given that "[s]ubstantial economic benefits are not devoid of political expectations."<sup>64</sup> As of end December 2020, China possessed 300,035 votes in the AIIB, which translate into more than one-quarter of the total vote percentage at 26.59%, the largest of all members by a wide margin from the second most influential members of the organization, India, with 85,904 votes or 7.61% of the total.<sup>65</sup> The AIIB is a multilateral organization, but the PRC has more voting power, which comes with the decisional power, than the other five largest voting countries in the organization (Russia (5.99%), Germany (4.17%), Korea (3.51%), and Australia (3.47%)) combined. As such the organization, even if it is multilateral, rests more on China than anything else, despite not providing the latter with a controlling share. Even if the PRC has no final say in the AIIB investments, as we will see the organization seems to be promoting a different set of values than those of the Western democracies.

The AIIB has proclaimed that it will operate under the utmost values of "transparency and accountability," but the U.S. has indicated that the organization "could undermine the existing system by offering investment without imposing the anticorruption and environmental standards used by existing groups."<sup>66</sup> Not abiding by

---

<sup>63</sup> Will Kenton, "Asian Infrastructure Investment Bank (AIIB)," *Investopedia*, last accessed on 22 Dec 2020, <https://www.investopedia.com/terms/a/asian-infrastructure-investment-bank-aiib.asp/>.

<sup>64</sup> Huong Le Thu, "China's dual strategy of coercion and inducement towards ASEAN," *The Pacific Review*, Vol 32, No. 1, 2019, 31, <https://doi-org.cfc.idm.oclc.org/10.1080/09512748.2017.1417325>.

<sup>65</sup> Asian Infrastructure Investment Bank, "About," last accessed on 22 Dec 2020, <https://www.aiib.org/en/about-aiib/governance/members-of-bank/index.html>.

<sup>66</sup> Evan A. Feigenbaum, "China and the World," *Carnegie Endowment for International Peace*, 2016.

the same standards as the IMF, the World Bank, or the ADB in terms of anti-corruption standards means that continual injection of funds in poorly governed countries contributes to sustain the vicious circle of governmental corruption, bribery, and misappropriation of funds, more often than not at the expense of the local population of developing countries. Many in Washington think that the AIIB has “a deeper purpose: to construct an alternative set of China-oriented international institutions free from both U.S. dominance and the liberal values espoused by the United States and other industrialized democracies” and that the bank is tainted by a geopolitical aspiration that is “the first step in an effort by Beijing to construct a Sinocentric world order.”<sup>67</sup> China has now a powerful economy, the first by certain standards. Efforts to restrain it could lead to an alternative set of international organizations that do not have the current hegemony and the U.S. economic influence at the top of its priorities.

One has to remember that “China is now an indispensable part of the global economy, and its economic policies will reverberate well beyond its borders or even the frontiers of the Pacific Rim.”<sup>68</sup> The PRC has understood this new reality and it does not hide its cards anymore. There is no doubt that China has joined existing organizations in which they have become more and more active, but it does not end here. For example, the creation of the AIIB:

was not the first time China decided to start its own club rather than play by the West’s rules. In the aftermath of the financial crisis and Great Recession of 2008, China organized the BRICS—Brazil, Russia, India, China, and South Africa—as a group of rapidly expanding economies capable of making decisions and taking actions without supervision from the United States or the G7. After Vladimir Putin sent Russian troops into Ukraine in 2014, the United States and European Union disinvited him to

---

<sup>67</sup> *Ibid.*

<sup>68</sup> Marc Lanteigne, *Chinese Foreign Policy: An Introduction*, London: Taylor & Francis Group, 2015, 69.

what was supposed to have been a G8 meeting and declared him “isolated.” A month later, Xi Jinping and other leaders of the BRICS welcomed him with open arms at their summit.<sup>69</sup>

China has and continues to expand its influences by nations competing with existing organizations, or by the creation of parallel structures, such as a “development bank” and a “contingency reserve fund” which both contribute to a diversified approach.<sup>70</sup> In fact, China is either present or working at an alternative set of organizations that will support a country’s aspiration and perceived legitimate place on the world stage. To further help in this situation, the BRI will arguably play a central role.

### **The Belt and Road Initiative**

China’s latest strategy to help reshape the world order has taken the form of the BRI that will set the conditions for a “community of shared future for mankind.”<sup>71</sup> The BRI is an array of projects that ranges from a vast “network of roads, railways, maritime ports, power grids, oil and gas pipelines, and associated infrastructure projects,” as shown by Figure 2.4 below.<sup>72</sup>

---

<sup>69</sup> Graham T. Allison, “Destined for War: Can America and China Escape Thucydides's Trap?,” Boston: Houghton Mifflin Harcourt, 2017, 37.

<sup>70</sup> Evan A. Feigenbaum, “China and the World,” *Carnegie Endowment for International Peace*, 2016.

<sup>71</sup> Liza Tobin, “Xi’s Vision for Transforming Global Governance: A Strategic Challenge for Washington and its Allies,” *Texas National Security Review*, Vol. 2, Iss. 1, 2018, <https://tnsr.org/2018/11/xis-vision-for-transforming-global-governance-a-strategic-challenge-for-washington-and-its-allies/>.

<sup>72</sup> COSCO Shipping, “RAIL TRANSPORT: ‘ONE BELT ONE ROAD’ INITIATIVE,” 2021, <https://cosco.ee/services/rail-transport/>.



Figure 2.4: One Road One Belt global infrastructure network of railroads, ports, and pipelines

Source: Mercator Institute for China Studies, “Mapping the Belt and Road initiative: this is where we stand,” 2018, <https://merics.org/en/analysis/mapping-belt-and-road-initiative-where-we-stand>.

One has to look further than the individual projects themselves given the impact the BRI will have once combined, and see it as a tool “to shape international rules and norms” and a means to “influence the global economic order.”<sup>73</sup> The BRI spanned over 78 countries in which China has confirmed investments that will surpass the \$1 trillion mark, funded either itself or through “low-cost loans to the participating countries.”<sup>74</sup> The initiative will help the PRC to continue deepening its economic penetration beyond its frontiers and the immediate Asia region, which will further intensify the world’s dependency on China. The BRI can be “defined as a new global system of alternative

<sup>73</sup> Wenjuan Nie, “Xi Jinping’s Foreign Policy Dilemma: One Belt, One Road or the South China Sea?,” *Contemporary Southeast Asia*, Vol. 38, Iss. 3, 2016, 423, <https://search-proquest-com.cfc.idm.oclc.org/docview/1857702983?accountid=9867>.

<sup>74</sup> Shobhit Seth, “One Belt One Road (OBOR),” *Investopedia*, last accessed on 23 Dec 2020, [One Belt One Road \(OBOR\) Definition \(investopedia.com\)](https://www.investopedia.com/one-belt-one-road-obor-definition/).

economic, political, and security ‘interdependencies’ with China at the center” and it is not surprising that Chinese leadership defines the overall endeavour “as a national strategy . . . with economic, political, diplomatic, and military elements . . . , not a mere series of initiatives.”<sup>75</sup> The projects that are part of the BRI, once considered globally, provide insight into the impact that they will generate on the global market and consequently, the world stage.

For instance, the BRI “increases Beijing’s control of critical global supply chains and its ability to redirect the flow of international trade . . . [by developing] new sea lines of communication and expand China’s strategic port access around the world.”<sup>76</sup> China, through its SOEs, has stakes in at least 49 overseas ports but what is more concerning is that in some countries (notably Djibouti, Namibia, Pakistan, Sri Lanka, and Greece), Chinese “port investments have been followed by regular PLA Navy deployments and strengthened military agreements . . . [where] financial investments have been turned into geostrategic returns.”<sup>77</sup> In the light of this information, one can doubt that the BRI is, in reality, working towards a “community of shared future for mankind” as mentioned by Xi Jinping in a speech at the 19<sup>th</sup> National Congress of the Communist Party of China in 2017.<sup>78</sup> One has to remember that the initiative is considered a *national strategy* by Chinese leaders. The BRI spans dozens of countries and as such will be a determining piece of China’s economic prosperity, continuing economic growth for decades to come, and helping the force projection of Chinese armed forces outside of its borders.

---

<sup>75</sup> Paul Nantulya, “Implications for Africa from China’s One Belt One Road Strategy,” *Africa Center for Strategic Studies*, 2019.

<sup>76</sup> *Ibid.*

<sup>77</sup> *Ibid.*

<sup>78</sup> People’s Republic of China, Congress of the Communist Party of China, “Secure a Decisive Victory in Building a Moderately Prosperous Society in All Respects and Strive for the Great Success of Socialism with Chinese Characteristics for a New Era,” 2017, 6.

The fact that China is extending its influence through the BRI, combined with a U.S. declining influence – and arguably credibility given how former President Trump ended his presidency – has created a void in the world affairs that favours China in all aspects, and will continue helping the PRC to close the gap with the U.S. hegemony. The quasi-absence of the U.S. on the world stage during the mandate of Donald J. Trump increases the chance for a return of a bi-polar world which, keeping in mind that the U.S./China relationship is not as harmonious as it could be, could resemble a Cold War 2.0. For example, the article *The Belt and Road Initiative: China's New Grand Strategy?* provides some perspective in the matter through the identification of the BRI major end goals:

The first view holds that BRI is driven by Beijing's geopolitical goals to break perceived U.S. "encirclement" in the Asia-Pacific and constrain the rise of India. A second view emphasizes the economic underpinnings of the initiative. Here, BRI is seen as a direct outgrowth of China's economic travails after the global financial crisis, notably its long-standing desire to redress economic imbalances between its coastal and interior provinces and to find outlets for excess production capacity. . . . Finally, others have pointed to BRI as an outgrowth of Beijing's increasing desire to augment its growing economic and strategic influence with a "soft power" narrative that presents China as an alternative leader to the global hegemony of the United States.<sup>79</sup>

---

<sup>79</sup> Ashley J. Tellis, "Protecting American Primacy in the Indo-Pacific," testimony before the U.S. Senate Armed Services Committee, 2017; Jayant Prasad, "One Belt and Many Roads: China's Initiative and India's Response," *Delhi Policy Group*, Issue Brief, 2015; Francis Fukuyama, "One Belt, One Road: Exporting the Chinese Model to Eurasia," *The Australian*, 2016, <http://www.theaustralian.com.au/news/world/one-belt-one-road-exporting-the-chinese-model-to-eurasia/news-story/269016e0dd63ccca4da306b5869b9e1c>; David Shambaugh, "China's Soft-Power Push: The Search for Respect," *Foreign Affairs*, Vol. 94, Iss. 4, 2015, 99-100, <https://search-proquest-com.cfc.idm.oclc.org/docview/1691576736/fulltext/EE38A9F3FAE7480EPQ/13?accountid=9867>, quoted in Michael Clarke, "The Belt and Road Initiative: China's New Grand Strategy?," *Asia Policy*, No 24, 2017, 7-8, [https://www.researchgate.net/publication/319100054\\_The\\_Belt\\_and\\_Road\\_Initiative\\_China's\\_New\\_Grand\\_Strategy](https://www.researchgate.net/publication/319100054_The_Belt_and_Road_Initiative_China's_New_Grand_Strategy).

In all cases it seems that the BRI is tainted with political aspirations and given that the endeavour is aimed beyond China's frontiers and the Asia region, it has the potential to affect U.S. influence globally and overturn the current hegemony in the decades to come, particularly if China continues to grow its economy at a higher pace than any other country in the world. Significant financial investments in poor countries or unstable regions, such as the Middle East, can also prove beneficial for the PRC and drastically decrease U.S. and Western democracies' foreign influences in critical parts of the world.

To make matters worse China is not in the same position as the USSR was in the last years of the Cold War, and as such the U.S. cannot effectively implement a "containment policy" given that the PRC has developed "close and strong economic relations with all of its neighbors."<sup>80</sup> China will be deploying "trillions of dollars" as part of the BRI from Asia to Africa and Latin America, and consequently most Asian countries will certainly "avoid taking sides in any geopolitical struggle between the US and China."<sup>81</sup> Even though the BRI might prove financially beneficial to many countries in need of foreign investment to ensure their development and prosperity, political aspects and foreign policy considerations are to be taken seriously. For instance, the projects do not come without conditions in that:

[t]he Belt and Road Initiative represents an attempt to use China's enormous financial reserves to create new markets for Chinese goods, services, and unskilled labor. That's why the use of Chinese labor to build Belt and Road infrastructure is so often part of the deal. Recipients of

---

<sup>80</sup> Kishore Mahbubani, "2029, the Great Asian Renaissance," *Politique Étrangère*, No. 1, 2019, 178-179.

<sup>81</sup> *Ibid.*

Chinese investments are effectively financing Beijing's efforts to manage its internal economic problems.<sup>82</sup>

Economic development and the perspective of prosperity can be strong incentives for developing countries to work with China as part of the BRI but one of the issues is that such cooperation comes with strings attached, such as the use of Chinese labor as a condition, which provides a direct benefit to the PRC. If unable to attract developing countries to the BRI, China has more than one trick in its bag and its strategy of coercion and inducement is at play in all parts of the world.

### **Coercion and inducements**

If there is something that the former U.S. President Trump has shown the world it is that economics is closely tied to politics. China's approach is no exception and its dual strategy of coercion and inducement can be qualified as "sophisticated." China's tactic of coercion – which is "intimidation for undesirable behaviour or creating psychological imagination of such" – and inducement – that is "providing incentives for preferred behaviour or psychological imagination of such" – has created a power gap in the Asia region that is easily exploited by the country to advance its national objectives, being favourable resolutions towards China concerning the disputes in the South China Sea or the reunification of Taiwan, to name a few.<sup>83</sup> It should be noted that the dual strategy, even though effective, rests on a fragile structure and needs to be constantly adapted to remain effective. For example:

---

<sup>82</sup> Ethan B. Kapstein and Jacob N. Shapiro, "Catching China by the Belt (and Road)," *Foreign Policy*, No. 232, 2019, 15, <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=135982898&site=ehost-live&scope=site>.

<sup>83</sup> Huong Le Thu, "China's dual strategy of coercion and inducement towards ASEAN," *The Pacific Review*, Vol 32, No. 1, 2019, 22 and 33, <https://doi-org.cfc.idm.oclc.org/10.1080/09512748.2017.1417325>.



repetitive coercion would invite a more consolidated response, while repetitive inducement, on the other hand, is costly and likely not to be efficient. The proportion of coercion and inducement also needs to be varied depending on individual needs as well as tailoring to a larger group. If all feel coerced, and hence threatened, they are likely to consolidate a joint effort and unity against a larger coercer. The varied sense of inducement, on the other hand, is a more effective divider.<sup>84</sup>

Despite being theoretically fragile, China's dual strategy is arguably effective, as long as the PRC plays its cards carefully. Realistically, however, the country's global influence, which continues to expand given that it is fueled by its growing economy, will allow China to continue its strategy unabated. Furthermore, the fact that the strategy is diversified and covers a wide range of activities and behaviours makes it difficult to counter. On one hand, China offers the possibility of having "access to the vast riches of its markets" but on the other hand, the country penalizes "nations that criticise it by imposing punishments including ultra-high tariffs, denial of market access, predatory economics and even imprisonment of foreign citizens among other coercive tactics."<sup>85</sup> Thus, the dual strategy is not only effective in China's periphery of East Asia but also has repercussions globally.

The PRC has not only developed its diplomatic posts around the world which now surpasses the U.S. in terms of numbers, but the country has also "persistently expanding its influence in multilateral finance, global climate and trade institutions, and other key rule-setting bodies."<sup>86</sup> The fact that China does not necessarily share the same set of values that Western democracies promote is leading to the erosion of the world order in

---

<sup>84</sup> *Ibid.*, 33.

<sup>85</sup> Yan C. Bennett, "China's actions have driven the evolution of the Quad," *The Strategist*, Australian Strategic Policy Institute, 2020.

<sup>86</sup> Hal Brands and Jake Sullivan, "China's Two Paths to Global Domination," *Foreign Policy*, Iss. 237, 2020, 50, <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=144680072&site=ehost-live&scope=site>.

many regions and it does not look like that the trend is about to reverse, but rather quite the opposite. There are of course inevitable differences in states' interests and competition on the global stage is inevitable, but the "differences in national interests are becoming more stark as China's national power grows and as the Chinese Communist Party uses that power more coercively [both] domestically and internationally."<sup>87</sup> A deviation from China's established norms and behaviours in international affairs is invariably sanctioned as part of the country's dual strategy. One has to align with China or suffer the consequences, where for instance:

Many nations are dealing with a coercive, powerful Chinese government that uses its economic weight to pressure them, all because they've acted in their national interests. Norway suffered Chinese economic coercion over the Nobel prize that affected its smoked salmon exports. South Korea suffered boycotts of consumer goods when it installed a US missile defence system for its own security against North Korea. Japan faced down Chinese government threats on critical mineral exports. And we've seen testing of Australian thermal coal exports for radiation (!) as one of the 'technical difficulties' coinciding with Chinese government displeasure. Even the US National Basketball Association and the world's airlines have been subjected to coercion, in the NBA's case because an official had the nerve to support pro-democracy protesters in Hong Kong. The airlines incurred disfavour over their naming of Taiwan on flight boards. It's not tone or management of the relationship that's causing Chinese coercion. It's a clash of interests and values.<sup>88</sup>

Coercion and inducement are fundamental aspects of China's foreign policy and there is considerable pressure to retract comments or behaviours that are damaging to the country's narrative, whether perceived or real. How can developing countries oppose or resist such a strategy when developed countries and powerful organizations such as the

---

<sup>87</sup> Michael Shoebridge, "How to deal with the increasing risk of doing business with China," *The Strategist*, Australian Strategic Policy Institute, 2020.

<sup>88</sup> *Ibid.*

NBA cannot? There is no doubt that China remains an appealing option for many developing countries. For example:

China's 'no strings attached' giving, along with its emphasis on solidarity among developing countries, . . . and 'win-win' relationships, appeals to recipient governments that often resent the conditionality typical of foreign aid from Western countries and lending institutions.<sup>89</sup>

The issue is, as we have seen in the chapter, that China's strategy cannot be qualified as "no strings attached" nor is it a "win-win" relationship, given that it comes with conditions that can pose problems for certain countries, and that they "present a myriad of challenges to Africa's sovereignty [where] [v]ital minerals and assets have been used as collateral in exchange."<sup>90</sup> But why would China change its behaviours when it is working to its advantage?

A publication from the Australian Strategic Policy Institute, an independent and non-partisan think tank, reports that over the past ten years, from 2010 to most of the year 2020, China has been involved in "152 cases of coercive diplomacy affecting 27 countries as well as the European Union."<sup>91</sup> It also indicates that the targets were both foreign governments, in 100 instances, and foreign companies which have seen 52 occurrences. Canada has received its share given that it has seen the second higher number of recorded cases with 10, only behind only Australia (17 cases), and just ahead of the U.S. (9 cases) during the period. The specific tactics employed by the PRC are two-fold: economic measures such as trade restrictions or sanctions, investment

---

<sup>89</sup> United States, U.S.-China Economic and Security Review Commission, "2014 Annual Report to Congress," 2014, 237.

<sup>90</sup> Ashley Jones-Quaidoo, "No Strings Attached? China's Debt-Trap Diplomacy in Africa," *Georgetown Security Studies Review*, Georgetown University Center for Security Studies, 2018.

<sup>91</sup> Fergus Hanson, Emilia Currey, and Tracy Beattie, "The Chinese Communist Party's Coercive Diplomacy," *Australian Strategic Policy Institute*, International Cyber Policy Centre, Policy Brief, Report No. 36, 2020, 3.

restrictions, tourism restrictions and popular boycotts; or non-economic measures that ranged from arbitrary detention and execution, restrictions on official travel, pressure on specific companies, to state-issued threats.<sup>92</sup> China's effort to suppress undesired behaviours from governments and companies focused on a wide range of issues, such as its territorial claims, 5G technology by Huawei, human rights of Xinjiang minorities, the Dalai Lama, and allegations that China is concealing information over the COVID-19 pandemic.<sup>93</sup> In the light of these examples, one can conclude that the PRC has accentuated its strategy in the last couple of years, which is exactly what the report has found out. The only way to stop China would be a global effort from the international community led by the U.S. but the most recent American election has profoundly polarized the nation, and President Biden will require time to rebuild both at home and abroad. Nonetheless, an international effort led by the U.S. hegemony might be the only hope to end China's dual strategy. But is the U.S. still in a position to exercise such influence on the world stage?

In his testimony to the Senate Foreign Relations Committee, Aaron L. Friedberg, professor of politics and international affairs at Princeton University, highlighted the fact that the U.S. needs to stay involved in East Asia given that if there is no coordinated response, China might "be able to successfully pursue a divide and conquer strategy: intimidating some of its neighbors into acquiescence while isolating and demoralizing others."<sup>94</sup> One can but wonder if this is not what the PRC has been doing on the world

---

<sup>92</sup> *Ibid.*, 7 and 11.

<sup>93</sup> *Ibid.*, 3.

<sup>94</sup> United States, United States Senate Committee on Foreign Relations, "China's Recent Assertiveness: Implications for the Future of US-China Relations," Testimony of Aaron L. Friedberg, 2014, 4-5.

stage, given that President Xi Jinping has praised a “new type of major power relations” with the U.S. while increasing the country’s dual strategy in the last decade especially against U.S. allies.<sup>95</sup> It is then without surprise that China’s coercion has sharply increased in recent years, where the year 2018 recorded between 20 to 30 incidents, the year 2019 close to 60, and the first eight months of the year 2020 recoded 34 incidents, more than any year between 2010 and 2017.<sup>96</sup>

The involvement of the U.S., which has been the prevailing hegemony for three decades, is more than ever needed to counterbalance China’s growing influence on the world stage and its increasing assertiveness towards foreign governments and businesses. The game is far from being over but “[t]here is growing concern . . . [that] the United States may lack the resources, the focus, and perhaps the resolve necessary to sustain a position of leadership” to successfully contain the PRC.<sup>97</sup> Both the time and variety factors play against Western democracies and “[w]hen parties are slow to recognize reality or determined to resist, China is ready to use the carrots and sticks of its economic power – buying, selling, sanctioning, investing, bribing, and stealing as needed until they fall into line.”<sup>98</sup> China could rise peacefully but has instead chosen a dual strategy of coercion and inducement that has so far proved effective.

## Conclusion

---

<sup>95</sup> Dingding Chen, “Defining a ‘New Type of Major Power Relations,’” *The Diplomat*, 2014.

<sup>96</sup> Fergus Hanson, Emilia Currey, and Tracy Beattie, “The Chinese Communist Party’s Coercive Diplomacy,” *Australian Strategic Policy Institute*, International Cyber Policy Centre, Policy Brief, Report No. 36, 2020, 5.

<sup>97</sup> United States, United States Senate Committee on Foreign Relations, “China’s Recent Assertiveness: Implications for the Future of US-China Relations,” Testimony of Aaron L. Friedberg, 2014, 6.

<sup>98</sup> Graham T. Allison, “Destined for War: Can America and China Escape Thucydides's Trap?,” Boston: Houghton Mifflin Harcourt, 2017, 35.

China's economic growth will continue at a lesser rhythm than what was recorded in recent years but nonetheless with indicators that are higher than what the U.S. and other Western democracies can expect. The fact that China has seen positive economic growth despite the on-going pandemic, when a vast majority of other states are accumulating major budgetary deficits linked to COVID-19, will reduce further the gap between the two largest economies. While Western democracies will take years to overcome the accumulated debts associated with the pandemic, China is expected to record positive economic growth, and consequently continue to expand its influence on the world stage. It should be noted that the PRC has "time is on its side" which will eventually move "the overall balance of power in its favour" and as such the country's "main priority is to avoid a further escalation of tensions with the US while the country is in a position of relative weakness."<sup>99</sup> In the meantime, China is pushing the limits of existing rules and does not hesitate to create its own institutions that are not only working in Chinese interests but also counterbalance the prevailing hegemony. The lesson for Western democracies is that access, or inversely threats to constrain access, to China's market is a powerful instrument that can induce a change in behaviours that in the end, will once again benefit the PRC.<sup>100</sup> Furthermore, the country does not seem to offer a chance to behave "in any way different from China's definition of what the right behaviour should be" and as such its current "assertive approach will likely continue."<sup>101</sup> The BRI should remain China's preferred method of economic penetration that will

---

<sup>99</sup> Minxin Pei, "Stabilising US-China relations after Trump," *The Strategist*, Australian Strategic Policy Institute, 2020.

<sup>100</sup> Peter Jennings, "China's wolf-warrior tactics are here to stay," *The Strategist*, Australian Strategic Policy Institute, 2020.

<sup>101</sup> *Ibid.*

continue to further world co-dependency on the country, already the worldwide number one exporter. China's dual strategy of coercion and inducement will continue to be refined given the success it has seen on the world stage. But it does not stop here, given that the PRC's financial and economical influence on the global stage will offer "significant opportunity to fund the enhancement of its military instrument of power," which is the subject of the next chapter.<sup>102</sup>

---

<sup>102</sup> Canada, Department of National Defence, "The Future Security Environment: 2013-2040," Ottawa: Chief of Force Development, 2014, 9.

*The inferior can defeat the superior.*

— General Fu Quanyou, Chief of Staff of  
the People's Liberation Army

## **CHAPTER 3 - TRYING TO DISSECT THE PEOPLE'S LIBERATION ARMY**

### **Introduction**

Deng Xiaoping, a former PRC leader, chose the economy in order to further China's expansion, which has benefited other sectors such as military modernization. Indeed, "Deng . . . viewed economic development as a higher priority and a necessary condition for subsequent military modernization."<sup>103</sup> The U.S. and its Western allies have been caught up in costly wars in both Iraq and Afghanistan, while the PLA has been able to slowly but surely modernize its military equipment and organization. To provide an order of magnitude the U.S. alone has spent, since 2002, over 17 trillion dollars in fighting terrorism in the Middle East whereas "China has invested in the capabilities it needs to defend its interests," both at home and abroad, expanding its reach well beyond its territorial borders.<sup>104</sup> In fact, "China worries the rest of the world not only because of the scale of its military build-up, but also because of the lack of information about how it might use its new forces and even who is really in charge of them."<sup>105</sup>

The purpose of this chapter is to try to dissect the PLA, which will be done first by looking at its military budget. The chapter also provides a brief overview of China's core capabilities and modernization over the past two to three decades as well as explains

---

<sup>103</sup> Stuart Harris, "China's Foreign Policy," Cambridge: Polity Press, 2014, 74, quoted in S. Thivierge, "China's Motives With the Belt and Road Initiative" Joint Command and Staff Program course paper, Canadian Forces College, 2019, 3.

<sup>104</sup> Anne-Marie Brady, "China as a Polar Great Power," Cambridge: Washington, D.C; New York, NY: Woodrow Wilson Center Press, 2017, 243.

<sup>105</sup> "The Dragon's New Teeth; China's Military Rise," *The Economist*, Vol. 403, Iss. 8779, 2012, <https://search-proquest-com.cfc.idm.oclc.org/magazines/dragons-new-teeth-chinas-military-rise/docview/992961918/se-2?accountid=9867>.



the PRC interests in the space domain. The chapter will then examine the potential of escalation and risk of war with China, amid increased tensions and competition with the U.S. on the world stage.

### **Military budget: numbers do not lie**

The “emerging military superpower” that is China is a classical example where economic growth is used to fuel military development, and in this case it has “generated sufficient financial resources to sustain the overhaul and modernization” of the People’s Liberation Army (PLA) capabilities.<sup>106</sup> A strong economy helps the country’s overall “rejuvenation” and one is forced to admit that its armed forces have made significant progress in the last decades, which can be explained by the fact that “China is striving to narrow the gap between its military and the world’s leading militaries, and make up the deficiencies in the military’s capabilities in modern warfare.”<sup>107</sup> Military build-up and modernization start with a budget, where numbers can inform the discussion and offer an order of magnitude for comparison. To that effect, Figure 3.1 below compares the PRC’s official data (in red) with the Stockholm International Peace Research Institute (SIPRI) estimates, an authoritative independent international institute dedicated to research since 1966, (in blue).

---

<sup>106</sup> Fumitaka Furuoka, Mikio Oishi, and Mohd Aminul Karim, “Military Expenditure and Economic Development in China: An Empirical Inquiry,” *Defence and Peace Economics*, Vol 27, No. 1, 2016, 155, <https://doi-org.cfc.idm.oclc.org/10.1080/10242694.2014.898383>.

<sup>107</sup> People's Republic of China, The State Council Information Office of the People's Republic of China, “China's National Defense in the New Era White Paper,” First Edition, 2019, 36.

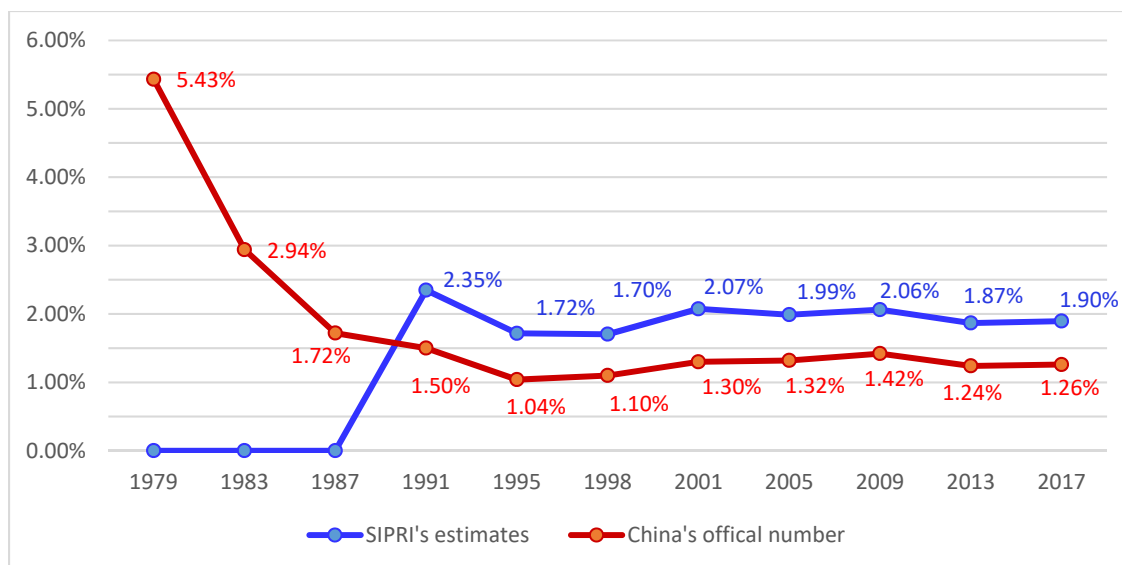


Figure 3.1: Comparison of China's military expenditures as a percentage of its GDP, selected years between 1979 and 2017

Sources: People's Republic of China, The State Council Information Office of the People's Republic of China, "China's National Defense in the New Era White Paper," First Edition, 2019, 36; SIPRI Military Expenditures Database 1949-2019, <https://www.sipri.org/databases/milex>.

Before moving into specifics, two notes are necessary for the reader. First, SIPRI estimates are not available for China before the year 1989, hence the apparent low expenditures for the years 1979, 1983, and 1987. Second, even if SIPRI estimates are provided starting in 1989, that specific year was not included in the figure for both ease of comparison and to show the exact variance per year, starting in 1991, given that it is the first year after 1989 that is included in the PRC's White Paper, thus providing some kind of transparency since then.

The comparison between China's official data and the SIPRI estimates clearly shows that there is a gap between the two sets of data where the former is consistently lower than the latter, but is it material enough to be worrisome in the grand scheme of things? The answer is absolutely. The largest difference during the period is 0.85% in 1991 while the smallest one of 0.60% in 1998. The average difference over the entire period is established at 0.68%. Based on China's GDP of US \$12.27 trillion in 2017, the

0.68% average difference adds up to \$83.5 billion.<sup>108</sup> To put the difference in perspective, the Department of National Defence (DND) / Canadian Armed Forces (CAF) Departmental Results Report for the fiscal year 2016-17 indicated total actual spending of CAD \$18.6 billion, or US \$14.5 billion with a rate of exchange of 0.78, which means that the PLA's average difference of \$83.5 billion is about six times more than the yearly budget of DND/CAF for that year.<sup>109</sup> How come SIPRI reports estimated military expenditures of US \$228.5 billion for the year 2017, while China reports military expenditures of only US \$154.6 billion, or 1.26% of its GDP? The answer is more complicated than it appears. First of all, one has to admit that:

[d]ue to the vast size of China's national economy, even a smaller GDP share nonetheless yields huge nominal budgets. As of 2018, China's nominal defence budget is second only to the US military expenditure, and far surpasses the aggregate EU, Indian, Russian, and Japanese defence budgets.<sup>110</sup>

Second and to partially explain the variance between SIPRI and China's figures, the PLA reported military expenditures "suffer from three distinct problems: lack of transparency, known omissions and unreliability."<sup>111</sup> For example, the most striking omission in the reported figures is that there is no amount provided for research and development (R&D), but also of note is the fact that foreign weapons procurement cost is

---

<sup>108</sup> International Monetary Fund, "GDP current prices for the year 2017," last accessed on 27 January 2021, <https://www.imf.org/external/datamapper/NGDPD@WEO/CHN/USA>.

<sup>109</sup> Canada, Department of National Defence, "2016-17 Departmental Results Report," 2017, 3; Canada, Bank of Canada, "Currency Converter: CAD to USD for 7 July 2017, [https://www.bankofcanada.ca/rates/exchange/currency-converter/?lookupPage=lookup\\_currency\\_converter\\_2017.php&startRange=2011-01-27&rangeType=range&selectToFrom=to&convert=1.00&seriesFrom=Canadian+dollar&seriesTo=%5B%5D=FXUSDCAD&rangeValue=&dFrom=2017-01-02&dTo=2017-12-29&submit\\_button=Convert](https://www.bankofcanada.ca/rates/exchange/currency-converter/?lookupPage=lookup_currency_converter_2017.php&startRange=2011-01-27&rangeType=range&selectToFrom=to&convert=1.00&seriesFrom=Canadian+dollar&seriesTo=%5B%5D=FXUSDCAD&rangeValue=&dFrom=2017-01-02&dTo=2017-12-29&submit_button=Convert).

<sup>110</sup> Sarah Kirchberger and Johannes Mohr, "China's defence industry," in *The Economics of the Global Defence Industry*, 2019, 38.

<sup>111</sup> Frederico Bartels, "The Known Unknowns of China's Defence Budget," Barton: Newstex, 2020.

absent.<sup>112</sup> This is in direct contradiction with *China's National Defense in the New Era White Paper* which indicates that its military expenditures are divided into three sectors that are “personnel, training and sustainment, and equipment” and that is supposed to include the cost of “R&D, testing, [and] procurement.”<sup>113</sup> As we will see in the next chapter, China’s R&D expenditures as a percentage of its military expenditures are arguably lower than that of other Western democracies’ armed forces given its involvement in cyberespionage and cyber theft, but should nonetheless be included in order to be “open and transparent,” as claimed by the country.<sup>114</sup>

Third, the fact that the PRC is not including the cost of foreign weapons procurement is of concern. For instance, China is the world’s fifth main importers of major arms, with a global share of 4.3%, and based on a SIPRI global arms trade value of at least US \$95 billion for the year 2017, the cost of foreign weapons procurement is of approximately \$4.1 billion.<sup>115</sup> But the exact value could be quite larger given that SIPRI indicates that “[t]he number of states reporting their arms exports and imports to the United Nations Register of Conventional Arms” remains low.<sup>116</sup>

Finally and as seen in the previous chapter, China is famous for devaluing its currency which has an impact on the country’s total military expenditures by making them lower than they are in reality. This is important given that conversion to US dollars is necessary for comparison purposes, and artificially under-evaluating the renminbi consequently lowers the overall value of China's actual military expenditures. Thus,

---

<sup>112</sup> *Ibid.*

<sup>113</sup> People's Republic of China, The State Council Information Office of the People's Republic of China, “China's National Defense in the New Era White Paper,” First Edition, 2019, 36.

<sup>114</sup> *Ibid.*, 41.

<sup>115</sup> SIPRI Yearbook 2020: Armaments, Disarmament and International Security Summary, *SIPRI*, Oxford University Press, 2020, 13.

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

“[t]he West and its academic community must find a way to overcome all of these challenges if we are to get a clear understanding of PLA military expenditures . . . [and] fully understand what the CCP is doing internationally and how the PLA is evolving.”<sup>117</sup>

Despite the fact that China’s figures are not exactly transparent, a clear increase in its overall budget is evident, but the PLA is not the only military organization that has seen increases in overall budget. For example, the U.S. has also increased its expenditures for the second straight year at \$731.8 billion in 2019, which is close to three times what China has spent during the same year.<sup>118</sup> Furthermore and from a global perspective, “[t]he growth in total global military spending in 2019 was the fifth consecutive annual increase and the largest of the decade 2010-19,” not forgetting that this type of expenditures has increased in almost all regions of the world.<sup>119</sup> Is this only portraying a militarization of the world where the PLA is just following the trend at an accelerated pace? One can doubt that China is only following this trend after examining Figure 3.2 where the country, which is still the world’s second military in terms of expenditures for the year 2019, dedicates more resources than all the countries of the Asia and Oceania region combined, with \$261.1 billion compared to \$255.5 billion.<sup>120</sup>

---

<sup>117</sup> Frederico Bartels, “The Known Unknowns of China’s Defence Budget,” Barton: Newstex, 2020.

<sup>118</sup> SIPRI Yearbook 2020: Armaments, Disarmament and International Security Summary, *SIPRI*, Oxford University Press, 2020, 10.

<sup>119</sup> *Ibid.*

<sup>120</sup> SIPRI Military Expenditures Database 1949-2019, *SIPRI*, 2020, <https://www.sipri.org/sites/default/files/SIPRI-Milex-data-1949-2019.xlsx>.

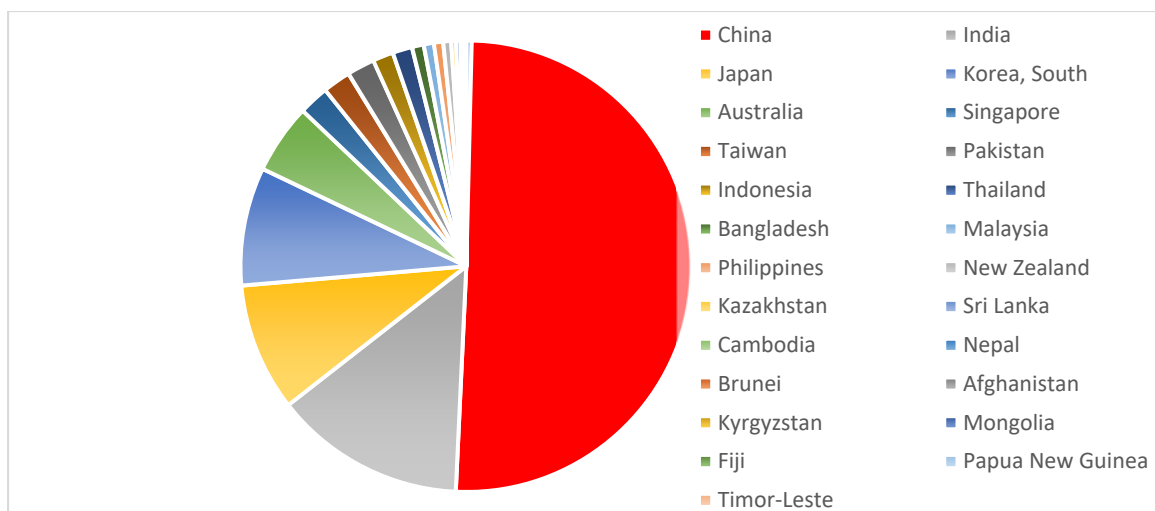


Figure 3.2: Military expenditures for the Asia and Oceania region at current prices and exchange rates for the year 2019

Source: SIPRI Military Expenditures Database 1949-2019, *SIPRI*, 2020,  
<https://www.sipri.org/sites/default/files/SIPRI-Milex-data-1949-2019.xlsx>.

China is investing more in its military than all other countries combined in the region and even though there is still quite a difference between the American and Chinese military budgets, the gap is nonetheless closing and the PRC has advanced its militarization with “latecomer advantage,” given that:

China has not had to invest in costly R&D of new technologies to the same degree as the United States. Rather, China has routinely adopted the best and most effective platforms found in foreign militaries through direct purchase, retrofits, or theft of intellectual property. By doing so, China has been able to focus on expediting its military modernization at a small fraction of the original cost.<sup>121</sup>

To go one step further, the increasing military expenditures of the PLA did not have a negative influence on the country’s economic development, quite the opposite, which is also in line with the findings from Chapter Two of this essay.<sup>122</sup> As such, one

<sup>121</sup> United States, Defense Intelligence Agency, “China Military Power: Modernizing a Force to Fight and Win,” 2019, 21.

<sup>122</sup> Fumitaka Furuoka, Mikio Oishi, and Mohd Aminul Karim, “Military Expenditure and Economic Development in China: An Empirical Inquiry,” *Defence and Peace Economics*, Vol 27, No. 1, 2016, 155, <https://doi-org.cfc.idm.oclc.org/10.1080/10242694.2014.898383>.

can expect that the country will continue to invest in its military modernization for years to come. The net result is that China's military expenditures will continue to ensure the procurement of "extremely costly weapon systems" such as "nuclear-powered submarines, aircraft carriers, and stealth fighters" to supplement existing capabilities that are in most cases far behind in terms of number than of the U.S. armed forces.<sup>123</sup>

There is a consensus on the fact that the PRC is rapidly modernizing its military capabilities, but "there is disagreement about what the true spending figure is [keeping in mind that] China's defence budget has almost certainly experienced double digit growth for two decades."<sup>124</sup> Figure 3.3 provides an estimate of the future PLA's expenditures until 2026 and as one can see, the country is expected to continue increasing its overall budget which should reach \$345.8 billion in 2026, meaning sustained yearly increases fluctuating between 5.5% and 8.2% during the forecasted period.

---

<sup>123</sup> Sarah Kirchberger and Johannes Mohr, "China's defence industry," in *The Economics of the Global Defence Industry*, 2019, 39, <https://ebookcentral.proquest.com/lib/cfvlibrary-ebooks/reader.action?docID=5975454>.

<sup>124</sup> "The Dragon's New Teeth; China's Military Rise," *The Economist*, Vol. 403, Iss. 8779, 2012, <https://search-proquest-com.cfc.idm.oclc.org/magazines/dragons-new-teeth-chinas-military-rise/docview/992961918/se-2?accountid=9867>.

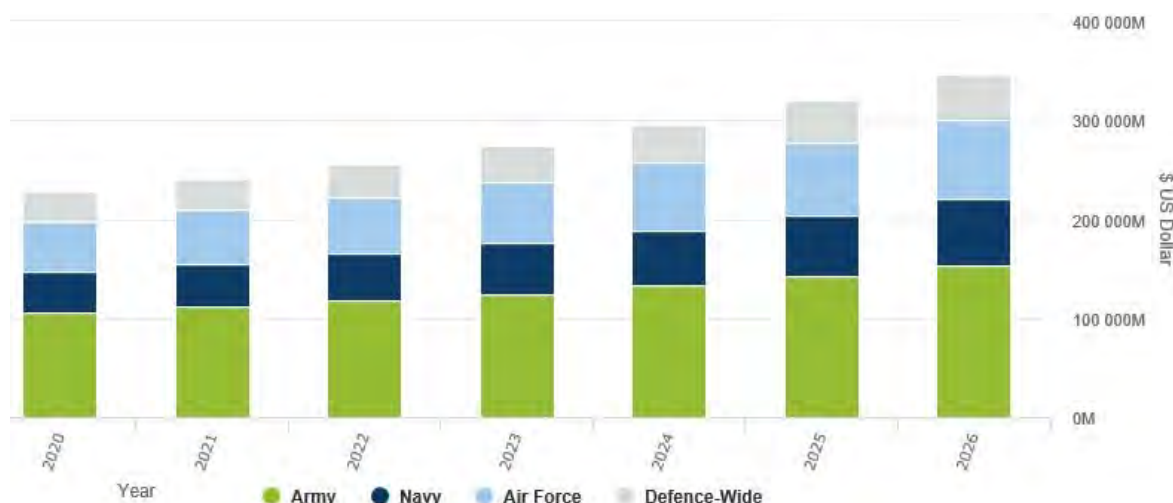


Figure 3.3: China's defense budget estimates by environment in \$US million, 2020 to 2026

Source: Adapted from Jane's Defence Budget, "China: Defence Budget by Force," last accessed on 15 September 2020, [https://customer-janes-com.cfc.idm.oclc.org/DefenceBudgets/Guided?view=chart&f=COUNTRY\(China\)&pg=1&template](https://customer-janes-com.cfc.idm.oclc.org/DefenceBudgets/Guided?view=chart&f=COUNTRY(China)&pg=1&template).

It should be noted here that Jane's figures are more conservative than those of SIPRI, where for instance there is an 18% difference in the estimated military expenditures between the two for the year 2019, i.e. \$214.4 billion for Jane's compared to \$261.1 billion for SIPRI as seen in Figure 3.3. If one thing is clear is that "how much the Chinese spend on defense remains obscure, and deliberately so."<sup>125</sup> Despite the lack of transparency in China's military budget that also affects the state of its current capabilities, we will now have a brief overview of the PLA's core capabilities and modernization to not only see what that money can buy, but also to draw overarching conclusions on China's military build-up.

#### **A 40,000 overview of the PLA's core capabilities and modernization**

The PRC is determined "to narrow the gap between its military and the world's leading militaries, and make up the deficiencies in the military's capabilities in modern

<sup>125</sup> Eliot A. Cohen, "China," in *The Big Stick: The Limits of Soft Power and the Necessity of Military Force*, New York: Basic Books, 2016, 101.



warfare.”<sup>126</sup> More specifically, President Xi Jinping affirmed in 2017 that China will modernize both its national defense and armed forces “across the board in terms of theory, organizational structure, service personnel, and weaponry” by 2035, and that by 2050 the PLA will be “fully transformed into world-class forces.”<sup>127</sup> Despite substantial improvements since the 1990s, the year 2015 marked the commencement of “the most substantial PLA reforms in at least 30 years . . . to make the PLA a leaner, more lethal force capable of conducting the types of joint operations that it believes it must master to compete with the U.S. military.”<sup>128</sup> It has been argued that “America and China are now competing superpowers, and that China’s growing military forces are developing to the point where they will be able to challenge the United States.”<sup>129</sup> The PRC focuses “on developing a new generation of military technologies to surpass those of the US and change the nature of warfare to China’s advantage.”<sup>130</sup> Similar to its official armed forces budget, the capabilities of the country lack transparency, but several open sources can help in identifying the PLA’s growing military capabilities.

The PLA Army (PLAA) has the world’s largest ground forces, being composed of approximately 915,000 active troops organized in various combat formations.<sup>131</sup> Even though the army had basically “no modern tanks in 1990,” it now has close to 6,000 main

---

<sup>126</sup> People's Republic of China, The State Council Information Office of the People's Republic of China, “China's National Defense in the New Era White Paper,” First Edition, 2019, 36.

<sup>127</sup> People’s Republic of China, Congress of the Communist Party of China, “Secure a Decisive Victory in Building a Moderately Prosperous Society in All Respects and Strive for the Great Success of Socialism with Chinese Characteristics for a New Era,” 2017, 48.

<sup>128</sup> United States, Defense Intelligence Agency, “China Military Power: Modernizing a Force to Fight and Win,” 2019, 5.

<sup>129</sup> Anthony H. Cordesman, “China's New 2019 Defense White Paper: An Open Strategic Challenge to the United States, but One Which Does Not Have to Lead to Conflict,” *Center for Strategic and International Studies*, 2019, 1.

<sup>130</sup> Gabriel Dominguez, “Annual Defence Report 2019: Asia Pacific,” *Jane’s Defence Weekly*, 2019, [https://customer-janes-com.cfc.idm.oclc.org/DefenceWeekly/Display/FG\\_2550132-JDW](https://customer-janes-com.cfc.idm.oclc.org/DefenceWeekly/Display/FG_2550132-JDW).

<sup>131</sup> United States, Office of the Secretary of Defense, “2020 Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China, 2020, 40.

battle tanks in its inventory, not forgetting complementary artillery pieces, which the PLAA has approximately 9,000 in inventory, ranging from self-propelled to towed, and multiple rocket launcher.<sup>132</sup> In terms of ballistic and cruise missiles, an important conclusion that can be drawn from Table 3.1 is that China “has dramatically expanded the number and improved the quality of its conventional ballistic and cruise missile forces over the past 15 years.”<sup>133</sup>

Missile Type	Range (km)	Warhead (kg)	Number in Inventory			
			1996	2003	2010	2017
SRBMs	280-800	500-800	Small number	335	1,050-1,150	~1,200
MRBMs	800-2,500	50-?	0	0	36-72	108-274
IRBMs	5000	500	0	0	0	Possible
Cruise missiles	1,500-3,300	400	0	0	200-500	450-1,250

Table 3.1: PLA’s conventional armed theater ballistic and cruise missiles, 1996 to 2017 (estimated)

Source: Adapted from Eric Heginbotham, *et al.*, “The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power 1996-2017,” Santa Monica, CA: 2015, 48.

Despite important uncertainties in terms of the number of missiles in China’s inventory, it is nonetheless clear that the PLA went from both a small inventory and a limited range, to now approximately over 2,500 missiles with sufficient range to strike bases as far as Japan and Guam, a U.S. island that includes Naval, Air Force, and National Guard elements. Medium-range ballistic missiles (MRBMs) and cruise missiles appeared in about 2010 and saw the possible addition of intermediate-range ballistic missiles (IRBMs) in 2017. This past year it was assessed that the inventory of these types of missiles is in the vicinity of 72, which were all dual-capable, that is conventional and

<sup>132</sup> Eliot A. Cohen, “China,” in *The Big Stick: The Limits of Soft Power and the Necessity of Military Force*, New York: Basic Books, 2016, 102; International Institute for Strategic Studies, “Chapter Six: Asia,” in *The Military Balance 2020: The Annual Assessment of Global Military Capabilities and Defence Economics*, Vol. 120, No. 1, 2020, 260.

<sup>133</sup> Eric Heginbotham, *et al.*, “The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power 1996-2017,” Santa Monica, CA: 2015, 47.

nuclear.<sup>134</sup> China's largest military parade so far, which marked the 70th anniversary of the founding of the PRC, occurred on 1 October 2019. For the occasion, the country displayed the DF-41, an intercontinental ballistic missile (ICBM) which can most likely "carry a 2,500 kg payload to an estimated range of 12,000–15,000 km," not forgetting that it "can carry up to 10 multiple independently targetable re-entry vehicles (MIRVs) that could be warheads, decoys, or countermeasures."<sup>135</sup> Also of interest was the DF-17, another ballistic missile, which "payload is a hypersonic glide vehicle (HGV): an arrangement not known to be fielded by any other country."<sup>136</sup> In simple terms, the HGV is a missile that "travels at a minimum of five times the speed sound and with complex, unpredictable flight patterns" for which there is currently no defense.<sup>137</sup> China's missile force has reached a level of maturity that is now threatening the U.S. and its Western allies. For example, it is now assessed that "the US ability to deter a Chinese attack is in question" while China, with its "massive missile force," can accurately reach U.S. regional and homeland targets.<sup>138</sup> Such reach is of concern in the eventuality of a conflict with the U.S. or the West.

Table 3.2 shows that the PLA Air Force (PLAAF) and PLA Navy (PLAN) combat aircraft inventory saw a significant decrease in number, from 5,499 in 1996 to 1,782 in 2015.

---

<sup>134</sup> International Institute for Strategic Studies, "Chapter Six: Asia," in *The Military Balance 2020: The Annual Assessment of Global Military Capabilities and Defence Economics*, Vol. 120, No. 1, 2020, 259.

<sup>135</sup> Gabriel Dominguez, "Annual Defence Report 2019: Asia Pacific," *Jane's Defence Weekly*, 2019, [https://customer-janes-com.cfc.idm.oclc.org/DefenceWeekly/Display/FG\\_2550132-JDW](https://customer-janes-com.cfc.idm.oclc.org/DefenceWeekly/Display/FG_2550132-JDW).

<sup>136</sup> *Ibid.*

<sup>137</sup> Henry III. Obering and Rebeccah L. Heinrichs, "Missile Defense for Great Power Conflict: Outmaneuvering the China Threat," *Strategic Studies Quarterly*, Vol. 13, no. 4, 2019, 41, <https://search-proquest-com.cfc.idm.oclc.org/trade-journals/missile-defense-great-power-conflict/docview/2393080233/se-2?accountid=9867>.

<sup>138</sup> *Ibid.*, 39.

<b>Aircraft</b>	<b>1996</b>	<b>2003</b>	<b>2010</b>	<b>2015</b>
<b>Air superiority aircraft</b>				
2nd generation	3,700	550	0	0
3rd generation	700	932	948	550
4th generation	24	158	383	736
<b>Strike and bomber aircraft</b>				
Bomber	575	228	152	136
Strike	500	330	150	120
Fighter-bomber	0	18	156	240
<b>Total</b>	<b>5,499</b>	<b>2,216</b>	<b>1,789</b>	<b>1,782</b>

Table 3.2: PLAAF and PLAN combat aircraft inventory, 1996 to 2015

Source: Adapted from Eric Heginbotham, *et al.*, “The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power 1996-2017,” Santa Monica, CA: 2015, 76.

The reduction came as part of the divestment of older generation platforms and concurrent replacement with more advanced aircraft of 4<sup>th</sup> generation that now represent the vast majority of its forces. Not depicted in the table is the fact that the PLA now has an indigenously produced 5<sup>th</sup> generation fighter, the J-20, that entered service in the PLAAF in February 2018.<sup>139</sup> The same reduction trend can be observed for strike and bomber aircraft platforms, but once again H-5s were divested and replaced with JH-7s which now constitute the main platform in which China can project air power.<sup>140</sup> The PLAAF has improved its capabilities to a point where the Chinese’s domestic aerospace sector is now in a posture to supply the necessary capabilities not only to conduct operations within its borders, but also to project air power outside of the country’s limit, although this is being achieved gradually.<sup>141</sup>

<sup>139</sup> Jane’s World’s Air Forces, “Aircraft - Fixed-Wing - Military - CAC J-20,” in *All the World’s Aircraft: Development & Production*, last updated 3 Feb 2021, <https://customer-janes-com.cfc.idm.oclc.org/Janes/Display/jawa5448-jawa>.

<sup>140</sup> International Institute for Strategic Studies, “Chapter Six: Asia,” in *The Military Balance 2020: The Annual Assessment of Global Military Capabilities and Defence Economics*, Vol. 120, No. 1, 2020, 265.

<sup>141</sup> Craig Caffrey and Sean O’Connor, “China focuses on strategic airlift to support power projection,” *Jane’s Intelligence Review*, 2018, [https://customer-janes-com.cfc.idm.oclc.org/IntelligenceReview/Display/FG\\_1205576-JIR](https://customer-janes-com.cfc.idm.oclc.org/IntelligenceReview/Display/FG_1205576-JIR)

Vast developments of Chinese armed forces in domains such as strategic airlift, long-range striking capabilities, airborne surveillance, and unmanned platforms help the country project forces outside of its borders. The PLAAF “has shifted steadily from a force focused on homeland air defense to one capable of power projection, including long-range precision strikes against both land and maritime targets,” even though “[t]he production of advanced combat aircraft engines remains one of the greatest challenges to Chinese fighter design” of its 5<sup>th</sup> generation platforms.<sup>142</sup>

However, increasing the military budget will help the country continue to develop its indigenous capabilities that can now rival the U.S. and its Western allies. Furthermore, the continuous development of PLAAF platforms is happening at the same time as a gradual reduction in the size of the U.S. Air Force (USAF), which could potentially erode the air superiority that the U.S. has been accustomed to since the end of the Cold War. For instance, the USAF has “reached a critical level” where it now has less than 50 percent of fighter aircraft and less than 43 percent of the bombers they had in 1991.<sup>143</sup> The largest military in the world could indeed count on the support of its Western allies, but the fact remains that the gap with China is closing. The PRC also has the financial means to continue expanding its capabilities and modernization to a degree that the USSR could not towards the end of the Cold War.

One can see in Table 3.3 that “China embarked on an ambitious program to modernize its obsolete air defense network” and put in place an airborne early warning (AEW) capability, mainly 4<sup>th</sup> generation airborne interceptors aircraft and advanced

---

<sup>142</sup> The Heritage Foundation, “2020 Index of U.S. Military Strength,” Washington: DC, 2020, 239.

<sup>143</sup> John A. Tirpak, “Desert Storm’s Unheeded Lessons,” *Air Force Magazine*, 2020, <https://www.airforcemag.com/article/desert-storms-unheeded-lessons/>.

surface-to-air missile (SAM) launchers with a range of up to 400 km, all of which are essential to a robust integrated air defense system (IADS).<sup>144</sup>

<b>Asset Type</b>	<b>1996</b>	<b>2003</b>	<b>2010</b>	<b>2015</b>
<b>AEW aircraft</b>	0	0	8	8+
<b>Interceptor aircraft</b>				
2nd generation	3,700	550	0	0
3rd generation	700	932	948	550
4th generation	24	158	383	901
<b>SAM launchers</b>				
Range (km): 35-100	532+	532+	356+	356+
101-200	0	32	160	160+
201-400	0	0	0	16

Table 3.3: PLA's airborne early warning (AEW) aircraft, interceptors, and surface-to-air (SAM) launchers, 1996 to 2015

Source: Adapted from Eric Heginbotham, *et al.*, “The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power 1996-2017,” Santa Monica, CA: 2015, 101.

In the last two decades, “the PLA has turned its air defense network from a flimsy distraction into a robust network that can successfully safeguard its airspace against all but the most advanced technology and tactics,” which would arguably complicate incursions in the vicinity of or within China’s borders.<sup>145</sup> In fact, the PLAAF now has a variety of aircraft to ensure AEW, command and control (C2), and EW which are considered “state-of-the-art radars and electronic surveillance systems.”<sup>146</sup> China’s SAM systems are deployed in a dense and overlapping belt, which is not only heavily “protecting the nation’s economic center of gravity,” but also “[k]ey industrial and military centers.”<sup>147</sup> These capabilities would further complicate a potential conflict with China given that incursions within the country’s frontiers would be easily detected.

<sup>144</sup> Eric Heginbotham, *et al.*, “The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power 1996-2017,” Santa Monica, CA: 2015, 98.

<sup>145</sup> *Ibid.*, 130.

<sup>146</sup> The Heritage Foundation, “2020 Index of U.S. Military Strength,” Washington: DC, 2020, 239.

<sup>147</sup> *Ibid.*

The PLAN has seen an increase in the overall number of destroyers and frigates between 1996 and 2010, followed by a slight decrease as of 2015, as shown in Table 3.4.

Ship Class	1996	2003	2010	2015	2020
<b>Destroyers</b>	18	21	28	23	28
<b>Frigates</b>	39	49	52	50	52

Table 3.4: PLAN destroyers and frigates, 1996 to 2015

Sources: Adapted from Eric Heginbotham, *et al.*, “The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power 1996-2017,” Santa Monica, CA: 2015, 177-178; International Institute for Strategic Studies, “Chapter Six: Asia,” in *The Military Balance 2020: The Annual Assessment of Global Military Capabilities and Defence Economics*, Vol. 120, No. 1, 2020, 261-263.

Notwithstanding the decrease, its current inventory in 2020 has increased back to the level they were in 2010 with the addition of an aircraft carrier and a cruiser for a total of 82 major surface combatants, along with 209 patrol and coastal combatants, ranging from corvettes to mine warfare vessels, amphibious ships/craft, and logistics and support ships.<sup>148</sup> Not specifically depicted in the table is the fact that the PLAN amphibious ships/craft have seen a considerable increase from only 54 in 1996 to 89 in 2015, and now sits at 116 in 2020, showing that China considers them, along with other naval platforms, essential to the development of its armed forces and potentially for Taiwan question, a subject that will be discussed later in this chapter.<sup>149</sup> It is evident that the PLAN has also added “dozens of improved destroyers, frigates and submarines, and several new missile systems, the quality and capabilities of these new weapons systems are also noticeably superior to the aging equipment they have replaced.”<sup>150</sup> In terms of

<sup>148</sup> International Institute for Strategic Studies, “Chapter Six: Asia,” in *The Military Balance 2020: The Annual Assessment of Global Military Capabilities and Defence Economics*, Vol. 120, No. 1, 2020, 261-263.

<sup>149</sup> *Ibid.*, 263.

<sup>150</sup> James Char and Richard A. Bitzinger, “A New Direction in the People's Liberation Army's Emergent Strategic Thinking, Roles and Missions,” *The China Quarterly*, Vol. 232, 2017, 849, <https://search-proquest-com.cfc.idm.oclc.org/scholarly-journals/new-direction-peoples-liberation-armys-emergent/docview/1973449786/se-2?accountid=9867>.

number, China's naval shipbuilding program has "put more vessels to sea between 2014 and 2018 than the total number of ships in the German, Indian, Spanish, and British navies combined."<sup>151</sup>

Not only is the overall number of ships/craft on the rise, but it also comes with "increasingly sophisticated and capable multi-role" platforms that provide the flexibility necessary to conduct a myriad of different types of missions.<sup>152</sup> There is also a Chinese classified program, named the "912 Project," that is currently building "large, smart and relatively low-cost unmanned submarines that can roam the world's oceans to perform a wide range of missions, from reconnaissance to mine placement to even suicide attacks against enemy vessels."<sup>153</sup> Of note is that these unmanned submarines could be in service in the 2020s and be of the same dimension as current submarines employed by Navies of the world.<sup>154</sup> The deployment of such capability would be of concern to any nation aiming to enforce freedom of navigation operations in the South China Sea, or even to project maritime power anywhere in the world, and as such one can hope that the U.S. or its Western allies are also quietly developing this kind of capability.

Despite a rapidly growing fleet, China's ability to put in service a blue water navy – that is extended fleet operations on the high seas across the full-spectrum of operations – that would be capable of deploying outside of the Eastern Asia region

---

<sup>151</sup> Hal Brands and Jake Sullivan, "China's Two Paths to Global Domination," *Foreign Policy*, No. 237, 2020, 46-47, <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=144680072&site=ehost-live&scope=site>.

<sup>152</sup> The Heritage Foundation, "2020 Index of U.S. Military Strength," Washington: DC, 2020, 238.

<sup>153</sup> Stephen Chen, "China Military Develops Robotic Submarines to Launch a New Era of Sea Power," *South China Morning Post*, 23 July 2018, quoted in Sarah Kirchberger and Johannes Mohr, "China's defence industry," in *The Economics of the Global Defence Industry*, 2019, 60, <https://ebookcentral.proquest.com/lib/cfvlibrary-ebooks/reader.action?docID=5975454>.

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



remains to be determined.<sup>155</sup> However, a direct confrontation with the PLAN in the South China Sea or the Taiwan Strait would be perilous and should be carefully planned and executed in the light of the above.

Table 3.5 shows both the PLAN numbers of attack submarines as well as anti-submarine warfare helicopters and maritime patrol aircraft on strength from 1996 to 2015.

Platform Types	1996	2003	2010	2015
<b>Attack submarines</b>				
<b>Diesel</b>	75	61	54	56
<b>Nuclear</b>	5	5	6	5
<b>Aircraft Type</b>				
<b>Helicopters</b>	43	22	60	71
<b>Maritime patrol aircraft</b>	135	58	28	6

Table 3.5: PLAN attack submarines (diesel and nuclear), anti-submarine warfare helicopters, and maritime patrol aircraft (MPA), 1996 to 2015

Source: Adapted from Eric Heginbotham, *et al.*, “The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power 1996-2017,” Santa Monica, CA: 2015, 181.

Diesel attack submarines have seen an overall decrease during the period, from 75 to 56, which is still in line with 2020 inventory that sits at 55.<sup>156</sup> The number of nuclear attack submarines has remained fairly constant, and current inventory is assessed at four by *The Military Balance 2020*. In terms of anti-submarine helicopters, their number increased from 43 to 71 between 1996 and 2015 but was associated with a reduction of maritime patrol aircraft (MPA) from 135 to only six. The total number of anti-submarine helicopters that are now in service in 2020 is 28 where for the MPA it is at least 18,

<sup>155</sup> William T. Johnsen, “Land Power in the Age of Joint Interdependence: Toward a Theory of Land Power for the Twenty-First Century,” *Defense & Security Analysis*, Vol 35, No. 3, 2019, 229, <https://doi-org.cfc.idm.oclc.org/10.1080/14751798.2019.1640417>.

<sup>156</sup> International Institute for Strategic Studies, “Chapter Six: Asia,” in *The Military Balance 2020: The Annual Assessment of Global Military Capabilities and Defence Economics*, Vol. 120, No. 1, 2020, 261.

which tends to demonstrate that these capabilities are still important to the PLAN. In any case:

[t]he PLA considers information the critical enabler for these maritime-focused digital-age operations, and as a result, China invests heavily in the development and proliferation of intelligence, surveillance, and reconnaissance equipment, force structure, and a universal network that processes information across all of its operational domains. These domains include C2, comprehensive support, multidimensional protection, joint firepower strike, and battlefield maneuver.<sup>157</sup>

In simple words, changes in the overall inventory of attack submarines, anti-submarine helicopters, and MPA means that the capabilities that are in service have seen improvements, being in terms of additional technology added to existing platforms of simply in the divestment of these platforms and the concurrent replacement with more recent and more capable assets.

The above was only a brief overview of China's armaments and arsenal and is by no means an exhaustive list. If one thing is sure is that the modernization which occurred in the last two to three decades will likely continue given sustained investment in the PLA in the years to come, fed by a strong economy that can sustain recessions or even a pandemic. In view of the above, three observations can be drawn from a strategic perspective with regards to the current and future PLA state of affairs. To begin, the Chinese military apparatus "has made tremendous strides" since the 1990s that favour China in the long run against the U.S., in particular given recent improvements of "ballistic missiles, fighter aircraft, and attack submarines, [which] have come extraordinarily quickly by any reasonable historical standard."<sup>158</sup> Likewise, PLA power

---

<sup>157</sup> United States, Defense Intelligence Agency, "China Military Power: Modernizing a Force to Fight and Win," 2019, 24.

<sup>158</sup> Eric Heginbotham, *et al.*, "The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power 1996-2017," Santa Monica, CA: 2015, xxx.

projection abilities have been improving and limitations due to the range of jet fighters and diesel submarines are being mitigated by the development of air-to-air refueling and the use of nuclear submarines.<sup>159</sup> Finally, the PLA is not about to equal “the U.S. military in terms of aggregate capabilities,” but there is no need to do so to challenge U.S. dominance in China’s periphery, not forgetting that proximity plays against the U.S. and conversely provides major advantages to the PLA in terms of logistics and support to operations in a given conflict close to the PRC’s borders.<sup>160</sup> The U.S. Department of Defense (DoD) assesses that China’s armed forces are about to field some of the world’s most advanced weapon systems and that in some areas, the PLA actually leads the world.<sup>161</sup> It is not surprising, then, that “[a]s a result of China’s comprehensive and rapid military modernization, the regional balance of power between China, on the one hand, and the United States and its allies and associates on the other, is shifting in China’s direction.”<sup>162</sup>

There is no doubt that the PLA has still some long way to go. Shortcomings such as corruption, C2 construct, the development of a technology base, and the fact that the PLA is a conscript force limited by a two-year military service which impacts the training and education of its members, will not be easy to overcome.<sup>163</sup> But the fact remains that China “perceives further modernization of the PLA as an imperative for continued stability and security of its growing interests.”<sup>164</sup> In any case, the continuous

---

<sup>159</sup> *Ibid.*

<sup>160</sup> *Ibid.*

<sup>161</sup> United States, Defense Intelligence Agency, “China Military Power: Modernizing a Force to Fight and Win,” 2019, V.

<sup>162</sup> United States, U.S.-China Economic and Security Review Commission, “2014 Annual Report to Congress,” 2014, 330.

<sup>163</sup> United States, Defense Intelligence Agency, “China Military Power: Modernizing a Force to Fight and Win,” 2019, 52 and 61.

<sup>164</sup> *Ibid.*, 52.

modernization of the PLA will allow them the opportunity to “challenge U.S. dominance of the global commons more resolutely” in the years to come.<sup>165</sup> To help in this matter, the space domain might become a critical piece for the PRC.

### Space domain

China began its space program in the 1950s.<sup>166</sup> Despite a modest beginning, the program matured and it looks like space has taken a more preponderant role in the country’s rise to superpower, which makes sense given the strategic importance of this domain in current and future operations. Table 3.6 highlights the number of satellites that both the U.S. and China have placed in orbit since the end of the 1990s.

Country	1997-2002	2003-2008	2009-2014
United States	349	142	253
China	33	54	111
Ratio	10.6:1	2.6:1	2.3:1

Table 3.6: U.S. and China satellites placed in orbit, 1997 to 2014

Source: Eric Heginbotham, *et al.*, “The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power 1996-2017,” Santa Monica, CA: 2015, 229.

Even though the number of satellites placed into orbit has been relatively small for the period from 1997 to 2002, where the ratio was 10.6 American satellites for one Chinese satellite (or 10.6:1), the period from 2003 to 2008 saw a radical change in ratio, which was reduced to 2.6:1. The trend continued further for the period from 2009 to 2014 and also for the period from 2015 to 2020 where, for either government or military purposes, China has placed into orbit 156 satellites and the U.S. 211, a ratio of only 1.4:1.<sup>167</sup> This

<sup>165</sup> Ashley J. Tellis, “The Return of US-China Strategic Competition” (Advance Chapter), in *Strategic Asia 2020- US-China Competition for Global Influence*, The National Bureau of Asian Research, 2019, 15.

<sup>166</sup> Ajey Lele, “China: A Growing Military Space Power,” *Astropolitics*, Vol. 3, No. 1, 2005, 68, <https://www-tandfonline-com.cfc.idm.oclc.org/doi/full/10.1080/14777620590933593>.

<sup>167</sup> Union of Concerned Scientists (UCS) Satellite Database, last updated on 1 Aug 2020, <https://www.ucsusa.org/media/11492>.

might not look important given that the U.S. is still the leader in this field, but space is a crucial domain without such the world as we know it today would be a very different place.

For example, the *Royal Canadian Air Force Doctrine Note 17/01: Space Power* underscores the fact that Canadians, and arguably most citizens of the world, are “largely unaware of the important role space systems play in daily life.”<sup>168</sup> More specifically, losing access to the space environment would mean that every “nation’s economic engine would shut down” given that “[i]ndustries that rely on space services to operate; namely transportation and aviation, banking and finance, and practically every form of logistics, and communications would be shut down,” sending the world we know today “back to 1950’s where every activity relied on line of sight communications, wires, hard copy, Morse code, and manual labour.”<sup>169</sup> The situation would not be much better from a military perspective where: “communications would be severely impacted,” including secure means such as “cryptographic;” navigation would be back to using map and compass; “precision-strike capability would be severely degraded;” Intelligence, Surveillance and Reconnaissance (ISR) essential to any military operations “would be limited to air-breathing assets thereby impacting planning and targeting as well as battle damage assessment;” and “a useful Common Operating Picture would be reduced to models and symbols on a map,” therefore impacting information required for decision making that would instead become days old.<sup>170</sup>

---

<sup>168</sup> Canada, Department of National Defence, “Annex A: A Day Without Space,” in *Royal Canadian Air Force Doctrine Note 17/01: Space Power*, 2017, 2.

<sup>169</sup> *Ibid.*

<sup>170</sup> *Ibid.*

Officially, China's space policy "adheres to the principle of exploration and utilization of outer space for peaceful purposes."<sup>171</sup> Unofficially, however, "the Chinese space programme has had a definite military orientation" since its inception.<sup>172</sup> This is understandable given that the "space domain holds the key to controlling the land, sea, and air domains as well as dominance in informationized warfare."<sup>173</sup> Military space technology is a force enabler for any country and is vital to the conduct of hostilities, and China knows it. For instance:

[a]s one Chinese assessment notes, space capabilities provided 70 percent of battlefield communications, over 80 percent of battlefield reconnaissance and surveillance, and 100 percent of meteorological information for American operations in Kosovo. Moreover, 98 percent of precision munitions relied on space for guidance information.<sup>174</sup>

The U.S. and its Western allies do rely on the space domain for imagery, intelligence, communications, and navigation, and it is not surprising that the PRC is "developing the capabilities to deny the United States information at the time of their choosing."<sup>175</sup> Space control has been and will continue to be in play in the outcome of conflicts in the future. This is the reason that "China has an aggressive space and counter-space programme that is just one element of their comprehensive anti-access strategy to degrade, disrupt, deny or destroy our ability to exploit our information-enabled military operations."<sup>176</sup> Of concern is that more than a decade ago, in 2007, the PRC successfully

---

<sup>171</sup> People's Republic of China, The State Council of the People's Republic of China, "China's Space Activities in 2016 White Paper," 2016.

<sup>172</sup> Ajey Lele, "China: A Growing Military Space Power," *Astropolitics*, Vol. 3, No. 1, 2005, 67, <https://www-tandfonline-com.cfc.idm.oclc.org/doi/full/10.1080/14777620590933593>.

<sup>173</sup> Sam Rouleau, "China's Military Space Strategy: A Dialectical Materialism Perspective," *Space & Defense*, Vol. 11, No. 1, 10, 2019, [https://www.usafa.edu/app/uploads/Space-Defense\\_Vol11\\_1.pdf](https://www.usafa.edu/app/uploads/Space-Defense_Vol11_1.pdf).

<sup>174</sup> The Heritage Foundation, "2020 Index of U.S. Military Strength," Washington: DC, 2020, 247.

<sup>175</sup> Sanjay Poduval, "Chinese Military Space Capabilities," *Maritime Affairs*, New Delhi: India, Vol 7, No. 2, 2011, 96, <https://www-tandfonline-com.cfc.idm.oclc.org/doi/full/10.1080/09733159.2011.641381>.

<sup>176</sup> *Ibid.*, 99.

conducted a “kinetic anti-satellite (ASAT) intercept,” an exploit that has not been repeated nor emulated by any other country at the time of writing of this essay.<sup>177</sup> One might think that the threat is only in space and that a more robust programme is the key to an effective defense, but the reality is not that simple. As a matter of fact, it is assessed that many nations, including China, are currently “developing much more potent, ground-based electronic warfare [EW] systems to disrupt satellite operations,” although it is impossible to confirm the magnitude of the threat from open sources information.<sup>178</sup> Once again the PRC publicly “opposes the weaponization of or an arms race in outer space.”<sup>179</sup> However, the PLA has tested ASAT not only “against low-Earth orbit systems, but is also believed to have tested a system designed to attack targets at geosynchronous orbit (GEO), approximately 22,000 miles above the Earth,” which constitutes a “major threat” given that several vital satellites are in that orbit, including missile early warning systems.<sup>180</sup>

With all that said China still lags far behind the U.S. in space both in terms of assets and technology, but an event such as the successful kinetic ASAT test raise questions about the American dominance in that environment, not forgetting that it ultimately erodes the power that was once enjoyed by the sole superpower.<sup>181</sup> Author Roger G. Harrison reinforced this view back in 2013 by arguing that:

We [the U.S.] are still by far the dominant player in space, but our relative position is eroding as others, and in particular the Chinese, become more

---

<sup>177</sup> Roger G. Harrison, “Unpacking the Three C's: Congested, Competitive, and Contested Space,” *Astropolitics*, Vol 11, No. 3, 2013, 129-130, <https://www.tandfonline.com/doi/abs/10.1080/14777622.2013.838820>.

<sup>178</sup> *Ibid.*

<sup>179</sup> People’s Republic of China, The State Council of the People’s Republic of China, “China’s Space Activities in 2016 White Paper,” 2016.

<sup>180</sup> The Heritage Foundation, “2020 Index of U.S. Military Strength,” Washington: DC, 2020, 241.

<sup>181</sup> Ajey Lele, “China: A Growing Military Space Power,” *Astropolitics*, Vol. 3, No. 1, 2005, 74, <https://www-tandfonline-com.cfc.idm.oclc.org/doi/full/10.1080/14777620590933593>.

capable. We recognize the vulnerability of our satellites, but are uncertain how a new generation of satellites (and the services they provide to the warfighter) can be made more survivable if the environment grows hostile.<sup>182</sup>

What has been an advantage for the U.S. and by extension its Western allies for many years is slowly turning into a key vulnerability. Furthermore, China's capabilities are difficult to assess, like the rest of the PLA in terms of budget and capabilities. There is little doubt that space will remain a contested domain in which the PRC will continue to strengthen its capabilities. It is important given that "[a]s China's space power grows, they will have the opportunity to directly affect international law and try to craft an international law system that is more conducive to their goals," which is also in line with their actions and behaviors as seen in Chapter Two.<sup>183</sup> The PRC has shown that their proficiency in any given domain is inversely proportional to their willingness to follow established rules or laws, at least within the region of Asia. For example, the more advanced and capable China's space technology becomes, "the less interest they have shown in discussing rules of the road," and this kind of behaviors "will have nothing but negative consequences, but there is little we, [the U.S., its Western allies] or the international community, can do to prevent it."<sup>184</sup> The U.S. advantage in space is declining. Future investments from the country to find and fix satellites' vulnerabilities will be the key to success, but cyclical austerity measures in the country and the West

---

<sup>182</sup> Roger G. Harrison, "Unpacking the Three C's: Congested, Competitive, and Contested Space," *Astropolitics*, Vol 11, No. 3, 2013, 131, <https://www.tandfonline.com/doi/abs/10.1080/14777622.2013.838820>.

<sup>183</sup> Sam Rouleau, "China's Military Space Strategy: A Dialectical Materialism Perspective," *Space & Defense*, Vol. 11, No. 1, 15, 2019, [https://www.usafa.edu/app/uploads/Space-Defense\\_Vol11\\_1.pdf](https://www.usafa.edu/app/uploads/Space-Defense_Vol11_1.pdf).

<sup>184</sup> Roger G. Harrison, "Unpacking the Three C's: Congested, Competitive, and Contested Space," *Astropolitics*, Vol 11, No. 3, 2013, 130, <https://www.tandfonline.com/doi/abs/10.1080/14777622.2013.838820>.



might preclude them to do so. All in all the space domain is an important one, in particular if a conflict occurs with China in the years to come.

### **Potential of escalation and risk of war**

One must admit that an all-out war between China and the U.S., involving or not its Western allies, is a relatively remote possibility, in particular given the ramifications that such conflict would have on all parties involved, exacerbated by the fact that the PRC has been the world's largest exporter for the last decade. In this case, "[t]he global community is highly interconnected politically, economically and culturally through the media, the Internet, trade and the proliferation of diasporas, and so there are tremendous incentives for governments not to destabilise the system through aggressive action."<sup>185</sup>

The Economist Intelligence Unit echos in the same direction, indicating that "[a]n outright, large-scale military clash involving China and the US is [only] a risk in 2020-24, but not within our core forecast," even though they added in a subsequent report that "the risk of an accidental confrontation – sparked, for instance, by a collision [in the South China Sea] or diplomatic miscalculation [over Taiwan] – is elevated."<sup>186</sup>

All things considered, the PRC "has shown a clear tendency to avoid military solutions wherever possible."<sup>187</sup> The development and modernization of armed forces can be seen as purely offensive in nature, but there is no indication that it is the case for China and it may only reflect the country's need to prepare for future eventuality and

---

<sup>185</sup> Elizabeth Quintana, Joanne Mackowski and Adam Smith, "Cross-Domain Operations and Interoperability," *Royal United Services Institute*, 2012, 2, [https://rusi.org/sites/default/files/201206\\_op\\_cross-domain\\_operations\\_and\\_interoperability.pdf](https://rusi.org/sites/default/files/201206_op_cross-domain_operations_and_interoperability.pdf).

<sup>186</sup> Economist Intelligence Unit, "China: August 2020 Country Report," 2020, 5, [http://www.eiu.com.cfc.idm.oclc.org/FileHandler.ashx?issue\\_id=920013075&mode=pdf](http://www.eiu.com.cfc.idm.oclc.org/FileHandler.ashx?issue_id=920013075&mode=pdf); Economist Intelligence Unit, "China: January 2021 Country Report," 2020, 25, [http://www.eiu.com.cfc.idm.oclc.org/FileHandler.ashx?issue\\_id=820619265&mode=pdf](http://www.eiu.com.cfc.idm.oclc.org/FileHandler.ashx?issue_id=820619265&mode=pdf).

<sup>187</sup> Kishore Mahbubani, "2029, the Great Asian Renaissance," *Politique Étrangère*, Spring Issue, No. 1, 2019, 183.

“sustain the country’s vision for peaceful development.”<sup>188</sup> That being said official narratives from the PRC do not mean that the country’s military build-up will not be used for offensive actions, in particular given that China does acknowledge increased competition in a 2019 White Paper:

International strategic competition is on the rise. The US has adjusted its national security and defense strategies, and adopted unilateral policies. . . . NATO has continued its enlargement, stepped up military deployment in Central and Eastern Europe, and conducted frequent military exercises. Russia is strengthening its nuclear and non-nuclear capabilities for strategic containment, and striving to safeguard its strategic security space and interests. The European Union (EU) is accelerating its security and defense integration to be more independent in its own security.<sup>189</sup>

In the light of this assessment, it is unlikely that the country is considering the world as a safe place, which can in part explain its continuous and ambitious military modernization. The year 2019 actually marked the moment where “the PRC recognized that its armed forces should take a more active role in advancing its foreign policy, highlighting the increasingly global character that Beijing ascribes to its military power.”<sup>190</sup> As seen in Chapter Two, China has begun to establish naval networks well beyond its borders in Asia (Sri Lanka), Africa (Djibouti, and Namibia), the Middle East (Pakistan), and even Europe (Greece) that were subsequently used for the PLAN deployments, which improves the country’s ability for force projection.

---

<sup>188</sup> Fumitaka Furuoka, Mikio Oishi, and Mohd Aminul Karim, “Military Expenditure and Economic Development in China: An Empirical Inquiry,” *Defence and Peace Economics*, Vol 27, No. 1, 2016, 142, <https://doi-org.cfc.idm.oclc.org/10.1080/10242694.2014.898383>; People's Republic of China, The State Council Information Office of the People's Republic of China, “China and the World in the New Era White Paper,” dated September 2019.

<sup>189</sup> People's Republic of China, The State Council Information Office of the People's Republic of China, “China's National Defense in the New Era White Paper,” First Edition, 2019, 2.

<sup>190</sup> United States, Office of the Secretary of Defense, “2020 Annual Report to Congress: Military and Security Development involving the People’s Republic of China,” 2020, 4.

Closer to China, questions surrounding Taiwan are far from being answered where the PRC continues to reiterate that it “must and will be reunited,” not forgetting that the country does not exclude the possibility of using force to “solve the Taiwan question.”<sup>191</sup> Taiwan is a sensitive question for China that has been volatile for quite some time, and only a spark could see the situation degenerate into a conflict.

One might think that the U.S. incontestably has and will continue to have for quite some time “an asymmetric advantage [over China] with its institutional knowledge and long history of combat experience.”<sup>192</sup> But the U.S. may, in reality, “lack the kind of combat experience needed for the type of war that is most likely to occur with China,” that being “a short, high-tech, localized, information-centered war” as opposed to a prolonged “war of annihilation.”<sup>193</sup>

It is true that the PLA does not have much combat experience and that their last war was fought more than 40 years ago. The recent technological progress of China’s armed forces does not easily convert into battlefield effectiveness, but if one thing is sure is that the PLA is now “considered by most defense analysts to be far more capable than the ground force–centric, technologically unsophisticated PLA that invaded Vietnam in 1979.”<sup>194</sup> One has also to keep in mind that China is improving the professionalization of its armed forces through the UN, where the country ranks in the top 5 contributors, with more than 2,500 troops deployed at the end of December 2020.<sup>195</sup> China indicates that

---

<sup>191</sup> Gabriel Dominguez, “Annual Defence Report 2019: Asia Pacific,” *Jane’s Defence Weekly*, 2019, [https://customer-janes-com.cfc.idm.oclc.org/DefenceWeekly/Display/FG\\_2550132-JDW](https://customer-janes-com.cfc.idm.oclc.org/DefenceWeekly/Display/FG_2550132-JDW).

<sup>192</sup> Annie Kowalewski, “Paper Tigers and Eagles: Why the United States Should Not Underestimate the PLA,” *Georgetown Security Studies Review*, Georgetown University Center for Security Studies, 2017.

<sup>193</sup> *Ibid.*

<sup>194</sup> Edmund J. Burke *et al.*, “People’s Liberation Army Operational Concepts,” Santa Monica, CA: RAND Corporation, 2020, 1-2.

<sup>195</sup> United Nations, “Peacekeeping: Troop and Police contributors by country as of 31 December 2020,” last accessed 25 February 2021, <https://peacekeeping.un.org/en/troop-and-police-contributors>.

over the past three decades, more than 40,000 PLA members participated in 25 peacekeeping missions abroad, which has provided valuable experience to its troops during peacetime.<sup>196</sup> Contribution to these peacekeeping missions might be seen as fulfilling humanitarian purposes but is in reality more geared toward acquiring operational experience in the field.<sup>197</sup> No traditional combat experience, yes, but is a traditional military confrontation on a battlefield the only way a future conflict with the U.S. and its Western allies will be fought?

A conflict with the U.S. might realistically have unexpected consequences and not necessarily be an all-out U.S. or coalition victory. For example, “[t]he Pentagon’s planners think China is intent on acquiring what is called in the jargon A2/AD, or ‘anti-access/area denial’ capabilities,” which would basically disable or even destroy armed forces assets from far away.<sup>198</sup> A salient point is that “[m]any of these disruptive A2/AD capabilities have been developed as relatively low-cost solutions to counteract costly and complex US and/or NATO systems,” and with the current and future trend of China’s military budget, one can think that there is worse to come.<sup>199</sup> The pandemic, on the other hand, will most likely affect the armed forces budget of Western states. As such and even outside the scope of a full spectrum conflict, it would still be dangerous to underestimate the PLA in particular based on this chapter’s previous discussions of core capabilities, modernization, and space domain. The U.S. Office of the Secretary of Defense has even

---

<sup>196</sup> People's Republic of China, The State Council Information Office of the People's Republic of China, “China’s Armed Forces: 30 Years of UN Peacekeeping Operations White Paper,” 2020.

<sup>197</sup> Canada, Canadian Security Intelligence Service, “China and the Age of Strategic Rivalry”, 2018, 10.

<sup>198</sup> “The Dragon's New Teeth; China's Military Rise,” *The Economist*, Vol. 403, Iss. 8779, 2012, <https://search-proquest-com.cfc.idm.oclc.org/magazines/dragons-new-teeth-chinas-military-rise/docview/992961918/se-2?accountid=9867>.

<sup>199</sup> Elizabeth Quintana, Joanne Mackowski and Adam Smith, “Cross-Domain Operations and Interoperability,” *Royal United Services Institute*, 2012, 1.

recently acknowledged the fact that “China has already achieved parity with – or even exceeded – the United States in several military modernization areas, including shipbuilding, land-based conventional ballistic and cruise missiles, and integrated air defense systems,” even though the level achieved by China in these respective fields are debatable.<sup>200</sup>

One could argue that the U.S. armed forces are only trying to justify sustained investments in their capabilities for years to come, which will arguably be under increased financial constraints due to the COVID-19, even though this remains to be seen. All in all the U.S., with the world’s largest military budget, is probably not at risk of being considerably defunded in the years to come. China’s rise, increased state competition with Russia, and to a lesser extent tense relationships with both Iran and North Korea will justify all the funding that the U.S. armed forces need to remain the number one military in the world, at least for now. But the fact remains that a:

[w]ar between the United States and China is not inevitable, but it is possible. . . . In making choices to push back against bullying, meet long-standing treaty commitments, or demand the respect their nation deserves, leaders on both sides may fall into a trap that they know exists but which they believe they can avoid. . . . On current trajectories, a disastrous war between the United States and China in the decades ahead is not just possible, but much more likely than most of us are willing to allow.<sup>201</sup>

The tensions between the two countries are not about to disappear while the risk of miscalculation is increasing given the militarization of the South China Sea and the complicated question of Taiwan. Moreover, China believes in the relative decline of the U.S., and it is a dangerous view for both countries. For instance, “China's rulers believe

---

<sup>200</sup> United States, Office of the Secretary of Defense, “2020 Annual Report to Congress: Military and Security Development Involving the People’s Republic of China,” 2020, 38.

<sup>201</sup> Graham T. Allison, “Destined for War: Can America and China Escape Thucydides's Trap?,” Boston: Houghton Mifflin Harcourt, 2017, 188.

that the past four years have shown that the United States is rapidly declining and that this deterioration has caused Washington to frantically try to suppress China's rise," even though "the idea that the United States seeks to stymie and contain China was widespread among Chinese officials long before Trump came to power."<sup>202</sup> Why is this a dangerous tangent? Because it makes China see decreased risks and consequences in taking more aggressive positions, which in turn increases the country's willingness to act more assertively, despite international community criticisms.<sup>203</sup> This evolving situation can in part explain why China has recently been imposing additional security laws in Hong-Kong, disregarding human rights in Xinjiang, intimidating its neighbours Australia, and the Philippines, initiating hostile actions over Taiwan, military confrontations with India over a disputed border, building additional partnerships with Iran and Russia, and spreading misinformation about the COVID-19.<sup>204</sup> Avoiding war is key and any rationale state would refrain from engaging in a full spectrum conflict against the number one military in the world. That said, the decline of the U.S., perceived or real, combined with a more confident China that risks less American reprisal on the world stage, might be a recipe for disaster.

Another important consideration is that the PRC is a nuclear power. Officially, "China has always stood for the complete prohibition and thorough destruction of nuclear weapons."<sup>205</sup> It is also true that the country has been an adherent to the "No First Use" policy, but at the same time "deterring aggression by credibly communicating its ability

---

<sup>202</sup> Julian Gewirtz, "China Thinks America is Losing," *Foreign Affairs*, Vol. 99, Iss. 6, 2020, <https://search-proquest-com.cfc.idm.oclc.org/magazines/china-thinks-america-is-losing/docview/2452329995/se-2?accountid=9867>.

<sup>203</sup> *Ibid.*

<sup>204</sup> *Ibid.*

<sup>205</sup> People's Republic of China, Information Office of the State Council, "China's National Defense in 2010 White Paper," 2011.

to retaliate with nuclear weapons.”<sup>206</sup> The PRC simply does not believe in massive nuclear arsenals, given the redundancy, the cost involved, and the fact that it can contribute to destabilization, but on the other hand “China does not emphasize minimizing its nuclear force, as it believes doing so would undermine the credibility of its second strike capability.”<sup>207</sup> Figure 3.4 shows the 2019 nuclear weapon stockpiles and despite having a relatively small number of warheads compared to the world’s leaders, the U.S. and Russia, China still ranks number three overall.

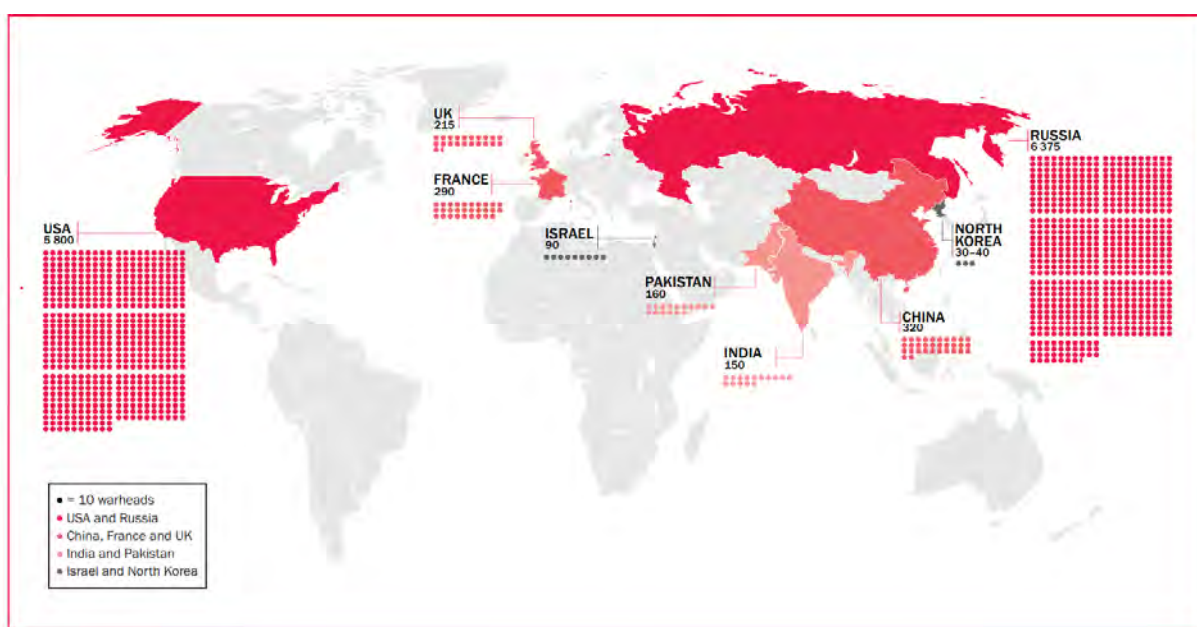


Figure 3.4: Global nuclear weapon stockpiles, 2019

Source: SIPRI Yearbook 2020: Armaments, Disarmament and International Security Summary, *SIPRI*, Oxford University Press, 2020, 14.

The question here is how many warheads are required to win over a potential adversary? Despite being both a small player and officially advocating the prohibition and destruction of the nuclear arsenal, SIPRI indicates that “China is in the middle of a

<sup>206</sup> Brian Wickizer, “Chinese Nuclear Policy, Strategy, and Force Modernization with Dr. Michael Chase,” *Georgetown University Center for Security Review*, 2016.

<sup>207</sup> *Ibid.*

significant modernization and expansion of its [nuclear] arsenal,” even though such expansion is unlikely aimed at reaching the U.S. or Russia stockpiles.<sup>208</sup> The PLA Rocket Force, which has been considered a service of its own since 31 December 2015, has land-based missiles that can reach North America given its range of 13,000 kilometres, not forgetting the ballistic missile submarine fleet that is currently being fielded and which, once in operation, will “give the PRC a ‘secure second-strike’ capability, substantially enhancing its nuclear deterrent.”<sup>209</sup> One can only hope that such capability is not about to be put in service but even outside of a nuclear war, that is arguably not on the radar of any state given the consequences of such strikes, the PRC does not need to engage in such a conflict with the U.S. to realistically discredit the current hegemony on the world stage. There is now no doubt that despite on-going challenges, “the PLA’s enhanced capabilities have nevertheless provided Beijing with new options on how to deal with contingencies both internally and externally.”<sup>210</sup>

The future is impossible to predict, but the fact remains that a war with China would still arguably have devastating effects given the progress that the country has made in military capabilities, which could play against the U.S. and its Western allies. What is a remote possibility today can be a reality tomorrow, and history has proven that fact over and over again:

It may seem almost impossible that Washington would go to war against Beijing to defend some uninhabited Japanese islands. Or against Moscow over some decrepit mining towns in Donbas, if Ukraine ever joined NATO. In early 1914, though, it seemed almost impossible that Britain

---

<sup>208</sup> SIPRI Yearbook 2020: Armaments, Disarmament and International Security Summary, *SIPRI*, Oxford University Press, 2020, 14.

<sup>209</sup> The Heritage Foundation, “2020 Index of U.S. Military Strength,” Washington: DC, 2020, 240.

<sup>210</sup> James Char and Richard A. Bitzinger, “A New Direction in the People's Liberation Army's Emergent Strategic Thinking, Roles and Missions,” *The China Quarterly*, Vol. 232, 2017, 861, <https://search-proquest-com.cfc.idm.oclc.org/scholarly-journals/new-direction-peoples-liberation-armys-emergent/docview/1973449786/se-2?accountid=9867>.



and France would go to war with Germany to defend Russia against Austria-Hungary over a dispute with Serbia. Yet by June 28, war moved straight from impossible to inevitable – without ever passing through improbable. Four years later, 10 million people had died.<sup>211</sup>

A remote possibility is not an impossible eventuality, and the rising competition and tensions between states are not helping to such a course, despite the fact that there would be catastrophic consequences for all parties involved. Nonetheless, two World Wars occurred in the 20<sup>th</sup> Century that few have been able to predict, while no one was able to ensure a peaceful resolution without direct military confrontations.

### **Conclusion**

Despite a recognized lack of transparency, the PLA's military budget is the second largest in the world and is greater than the entire defense spending of the Asia and Oceania region, and the trend is pointing to growth for the years to come. While the military budget of the U.S. armed forces is unlikely to be drastically cut down, austere measures could still have an impact on the continuous improvements of its military capabilities and modernization, something that is unlikely to have any meaningful impact on the PLA. Space is of vital importance and the U.S. predominance in the domain is slowly eroding, which will affect the capacity of the U.S. and its Western allies to conduct successful operations anywhere in the world. The potential of escalation to a limited conflict is on the rise and the risk of war cannot be completely discarded, despite an overall slim probability. The good news is that China considers "military force as a subordinate instrument in its foreign policy" where war is seen as a last resort.<sup>212</sup> On the

---

<sup>211</sup> Anatole Kaletsky, "World War One: First war was impossible, then inevitable," *Reuters*, 27 June 2014.

<sup>212</sup> Graham Allison, "China vs. America: Managing the Next Clash of Civilizations," *Foreign Affairs*, Vol. 96 Iss. 5, 2017, 89, <https://search-proquest-com.cfc.idm.oclc.org/docview/1933859570/4D711FAABBEF4FFDPQ/1?accountid=9867>.

other hand, unforeseen developments in the country's military capabilities and modernization combined with uncertainties in the true aspirations of the country raise questions concerning what the PRC would be able to achieve on a battlefield from a military perspective. Whether or not a conflict or war will occur on a battlefield, "there must be no assumption made that any potential enemy will fight in a manner that is traditional, expected, or similar to the doctrines typical of Canada or any of Canada's allies."<sup>213</sup> Many critical infrastructures around the world are vulnerable to malicious attacks from cyberspace and given that it is in China's military doctrine to exploit these vulnerabilities, it is understandable that the country has and will continue to exploit the domain, which is the subject of the next chapter.<sup>214</sup>

---

<sup>213</sup> Canada, Department of National Defence, "The Future Security Environment: 2013-2040," Ottawa: Chief of Force Development, 2014, 95.

<sup>214</sup> United States, U.S.-China Economic and Security Review Commission, "2009 Report to Congress of the U.S.-China Economic and Security Review Commission," 2009, 181, quoted in Magnus Hjortdal, "China's Use of Cyber Warfare Espionage Meets Strategic Deterrence," *Journal of Strategic Security*, Vol. 4, Iss. 2, 2011, 7, <https://search-proquest-com.cfc.idm.oclc.org/docview/1618842111?pq-origsite=summon>.

*Know your enemy and know yourself,  
and in a hundred battles you will not be defeated.*

— Sun Tzu,  
The Art of War

## **CHAPTER 4 – CYBERSPACE: A PROFITABLE AND COVERT AVENUE FOR CHINA**

### **Introduction**

The rise of technology in our everyday lives means that almost everything is connected, one way or another, to the Internet. Technology also means that millions, if not billions of electronic devices are globally accessible which therefore offer vulnerabilities that can be easily exploited via viruses, or other types of cyber attacks. These electronic devices are also often interconnected via networks, which complicates the task to protect or isolate them from one another. On the whole:

the ubiquity and reliance on cyberspace to improve the efficiency and capability of government, military, and civilian sectors lead to the Internet of Things (IOT) for day-to-day operations and in this pervasiveness of the use of Internet lies the potential for devastating cyber-attacks.<sup>215</sup>

It is not surprising then that newspapers from around the world report cyber attacks, ranging from thefts of personal data and credit card numbers to the paralysis of multinational corporations' servers, and ransomware attacks that can even affect educational institutions. In some cases, however, these are low-scale attacks perpetrated by non-state actors or criminal organizations, but those are not the primary concern of this essay. The most troubling attacks are the ones that are judiciously targeted, made by professionals, involving sophisticated techniques, and are ordered, sponsored, and/or facilitated by state actors. The repercussions of these sophisticated attacks can have

---

<sup>215</sup> Megan Manzano, *Cyberwarfare*, New York, NY: Greenhaven Publishing LLC, 2018, 23.

catastrophic effects and there is a lot at stake, from a governmental, business, and military perspectives.

Threats in cyberspace are on the rise, where the international cyber landscape is characterized by “a significant increase of the frequency, number, intensity, duration, and sophistication of cyber attacks,” a trend that is consistent with the threat assessments on North Atlantic Treaty Organization (NATO) networks.<sup>216</sup> Even the CAF has been the victim of such attacks, when several military schools were affected by ransomware in the summer of 2020.<sup>217</sup> One could argue that the use of cyber espionage, cyber theft, or cyberwarfare has its advantages for the perpetrator: low initial and sustainment costs, severe impacts on high-value targets, and difficulty in attributing the attacks. These characteristics make it the main tool for a country that has more to gain than to lose, for example a rising China. The presence of the PRC in cyberspace has been, and continues to be, an important part of its emergence as a great power on the world stage in recent years.<sup>218</sup> Cyber espionage, cyber theft, and cyberwarfare is, however, a dangerous game and there is a fine line that, if crossed, could have serious repercussions on the diplomatic, military, and economic spheres of international affairs.

Despite the implied risks, it has been noted several times in the annual reports of the congressional US-China Security and Economic Review Committee (USCC) that the PLA is a threat in cyberspace. In fact, China’s continuing development of cyberwarfare capabilities and aggressive cyberspace exploitation methods to gain sensitive information

---

<sup>216</sup> Sorin D. Ducaru, “The Cyber Dimension of Modern Hybrid Warfare and its Relevance for NATO,” *Europolicy: Continuity and Change in European Governance*, Vol. 10, No. 1, 2016, 8, <https://doaj.org/article/85bacad436c74f7d938bffb0a4908b9d>.

<sup>217</sup> Paul Waldie and Colin Freeze, “Four Canadians military schools affected by cyberattacks,” *The Globe and Mail*, 8 July 2020.

<sup>218</sup> Jon R. Lindsay, Tai Ming Cheung, and Derek S. Reveron, *China and Cybersecurity: Espionage, Strategy, and Politics in the Digital Domain*, New York: Oxford University Press, 2015, 2.

from foreign governments, federal entities, international corporations, and non-governmental organizations alike have raised eyebrows.<sup>219</sup> This chapter will examine two different facets of cyberspace in which China is active, cyber espionage and cyber theft, as well as cyberwarfare, and conclude with the difficulty of imposing international law in this emerging domain.

### **Cyber espionage and cyber theft**

The future of cyberspace will be much more Chinese than American despite the fact that the U.S. is still, for the moment at least, the world's only superpower.<sup>220</sup> There is now no doubt that China has been proliferating in cyberspace and is today one of the leading states that have successfully used it to gain significant advantages. For instance, the PRC has for much of the last decade been involved in “massive cyber-espionage campaigns designed to steal military, political, and . . . industrial secrets.”<sup>221</sup>

A 2014 report from Mandiant, a U.S. cybersecurity firm, also indicates that a Shanghai-based organization linked to the PLA, called Unit 61398, has been one of the “most prolific cyber espionage groups in terms of the sheer quantity of information stolen” which confirms that China is involved in state-sponsored activities, such as “cyber-enabled economic espionage, . . . including large-scale theft of [Intellectual Property] IP and confidential business information.”<sup>222</sup> States and businesses alike have a

---

<sup>219</sup> United States, US-China Economic and Security Review Commission, “2012 Report to Congress,” 2012, 147–169, quoted in Jon R. Lindsay, Tai Ming Cheung, and Derek S. Reveron, *China and Cybersecurity: Espionage, Strategy, and Politics in the Digital Domain*, New York: Oxford University Press, 2015, 2-3.

<sup>220</sup> Adam Segal, “When China Rules the Web: Technology in Service of the State,” *Foreign Affairs*, Vol. 97 Iss. 5, 2018, 18, <https://search-proquest-com.cfc.idm.oclc.org/docview/2094387966/CD233781DF7C4C7CPQ/1?accountid=9867>.

<sup>221</sup> *Ibid.*, 16.

<sup>222</sup> United States, U.S.-China Economic and Security Review Commission, “2014 Annual Report to Congress,” 2014, 68.

hard time defending against the different methods that are used to gain sensitive information. For example CSIS, which leads our country's national security coordination, stated in 2013 that:

The methods employed by Chinese “collectors” to steal intellectual property are as diverse as the collectors themselves. They include collection using (i) direct requests, solicitation and marketing services; (ii) acquisition of technologies and companies; (iii) targeting conferences or other open venues, scientific exchanges, exchange students; (iv) exploiting joint research and official visits; (v) gaining employment in high-tech and research firms; and (vi) targeting of travellers overseas.<sup>223</sup>

CSIS also stipulates that China makes increased use of sophisticated methods, either from the outside (cyber attacks, malware, or software such as Trojan horse) or the inside (by the employment of an individual within the targeted organization).<sup>224</sup> The employment of different tactics and their refinements complicate further the attribution, even though suspicion is in many cases directed towards the PRC. The impacts of cyber espionage and cyber theft are significant, both in economic terms and from a military perspective, which has led China to continue to close the gap with the U.S. and Western allies.

From an economic perspective, the repercussions of cyber espionage and cyber theft can be counted in billions of dollars. For a country like Canada, “cyber-espionage, cyber-sabotage, cyber-foreign-influence, and cyber-terrorism pose significant threats to Canada’s national security, its interests, as well as its economic stability.”<sup>225</sup> A well-documented example in Canada is the case of Nortel, a former multinational telecommunications and data networking equipment manufacturer, where a cybersecurity

---

<sup>223</sup> Canada, Canadian Security Intelligence Service, “The Security Dimensions of an Influential China,” 2013, 129.

<sup>224</sup> *Ibid.*

<sup>225</sup> Canada, Canadian Security Intelligence Service, “2019 Public Report,” 2019, 18.

breach led to its bankruptcy in 2009. The attacks, which started as early as the year 2000, were eventually attributed to China through IP addresses. The attackers then “downloaded technical papers, research reports, business plans, employee emails and other documents from computers under their control.”<sup>226</sup> Nortel could have potentially been able to recover from the breach when it was discovered in 2004, but the issue is that it was “constantly ignored by top executives.”<sup>227</sup> More broadly though:

cyber theft allows China to save tens of billions of dollars in research-and-development, the experimentation and testing a new weapon goes through before it reaches the battlefield . . . [while] not having to do early research and development allows them to focus on upgrades and improvements.<sup>228</sup>

The same author notes that even though additional upgrades or improvements might be necessary given that a Chinese design could be inferior to the original at the prototype stage, it has nonetheless helped the PLA modernize its armed forces at a significantly lower cost. The fact that China has been able to rapidly modernize its armed forces is in great part due to its involvement in cyber theft, not forgetting that it can also be monetized. The U.S.-China Economic and Security Review Commission echoes this same thought, indicating that both time and money were save given its “large-scale, state-sponsored theft of intellectual property and proprietary information [which has] fill[ed] knowledge gaps in its domestic defense and commercial R&D.”<sup>229</sup> Cyber theft can help in saving money, even when one is the second-largest economy in the world, but it has

---

<sup>226</sup> Canada, Canadian Security Intelligence Service, “The Security Dimensions of an Influential China: Highlights from the Conference,” 2013, 118.

<sup>227</sup> *Ibid.*

<sup>228</sup> Marcus Weisgerber, “China's Copycat Jet Raises Questions About F-35,” *Defence One*, 2015, <https://www.defenseone.com/threats/2015/09/more-questions-f-35-after-new-specs-chinas-copycat/121859/>.

<sup>229</sup> United States, U.S.-China Economic and Security Review Commission, “2014 Annual Report to Congress,” 2014, 292.

also been used to develop military capabilities that are comparable to those of the U.S. and its Western allies.

In fact cyber theft, when specifically targeted against military organizations, can provide an edge to a country that is aspiring to equal or surpass its adversaries in terms of military power. For instance, the U.S. Department of Justice noted in a recent indictment that two Chinese defendants, Li Xiaoyu and Dong Jiazhi that were former classmates at an electrical engineering college in China, did not “just hack for themselves . . . [but] were stealing information of obvious interest to the PRC Government’s Ministry of State Security.”<sup>230</sup> Specifically, the indictment indicated that:

The Defendants stole hundreds of millions of dollars worth of trade secrets, intellectual property, and other valuable business information (...) from victims including defense contractors in the US. and abroad, LI and DONG stole information regarding military satellite programs; military wireless networks and communications systems; high powered microwave and laser systems; a counter-chemical weapons system; and ship-to helicopter integration systems.<sup>231</sup>

*Reuters* also reported a case where a Chinese businessman, Su Bin, was sentenced by a U.S. court to nearly four years in prison after pleading guilty for his role in a conspiracy involving hackers from the PLA Air Force illegally accessing and stealing U.S. sensitive military information, namely plans of a transport plane (C-17 Globemaster III) and two fighter jets (F-22 Raptor and F-35 Lightning II).<sup>232</sup> China’s government officials have, of course, repeatedly denied involvement in the scheme but what states would admit to the cyber theft of military secrets? The PRC has directed attacks against foreign national and regional governments in the fields of “energy,

---

<sup>230</sup> United States, Department of Justice, “Li Xiaoyu and Dong Jiazhi Indictment,” 2020, 3.

<sup>231</sup> *Ibid.*

<sup>232</sup> Dan Whitecomb, “Chinese man to serve U.S. prison term for military hacking,” *Reuters Aerospace and Defence*, 13 July 2016, <https://www.reuters.com/article/idUSKCN0ZT2RQ>.



defense, [and] space.”<sup>233</sup> China’s tactics are constantly evolving, are now leaning on the deliberate and covert aspects amid an intelligence restructuration that has arguably the potential to be more damaging and targeted than ever before.

That being said, it should be noted that China is not the only state that is deeply involved in cyber espionage and cyber theft. For example the American whistleblower Edward Snowden, who has leaked classified records from the National Security Agency (NSA), alleged in an interview that the U.S. government itself “had hacked Chinese universities, telecommunications firms, and submarine cables.”<sup>234</sup> One of the reasons that can explain the extensive use of cyber espionage and cyber theft by states is that attribution in cyberspace is difficult to prove, which in turn means that the problem is not about to be settled. As such, one can safely “assume that China will continue to resort to cyber espionage [and cyber theft] to secure national advantage – just as most other states do,” and doing so will help the country in its rise to a global superpower.<sup>235</sup> Short of achieving the status of a superpower, the gap will certainly continue to close with the U.S. hegemony. The PRC’s “[a]ccess to foreign technology – either captured, obtained via (cyber-)espionage, or legally acquired – and an abundance of funds seems to have had the largest impact” on its technical progress.<sup>236</sup> This progress, when combined with the use of cyberwarfare, intensifies the fog of war inherently present in any conflict and becomes not only of strategic importance but also a condition to the commencement of hostilities in cyberspace, known as cyberwarfare.

---

<sup>233</sup> Steven Booth et al., “The Road Ahead: Cyber Security in 2020 and Beyond,” *FireEye Special Report*, 2019, 16.

<sup>234</sup> Jon R. Lindsay, Tai Ming Cheung, and Derek S. Reveron, *China and Cybersecurity: Espionage, Strategy, and Politics in the Digital Domain*, New York: Oxford University Press, 2015, 13.

<sup>235</sup> Nigel Inkster, “China’s Cyber Power,” Milton: Taylor & Francis Group, 2017, 148.

<sup>236</sup> Keith Hartley and Jean Belin, “China’s defence industry,” in *The Economics of the Global Defence Industry*, Milton: Taylor & Francis Group, 2019, 59.

## Cyberwarfare

In terms of military applications, cyberwarfare is becoming increasingly important for modern armed forces. For instance, John Arquilla notes that “cyberwar[fare] is less a way to achieve a winning advantage in battle than a means of covertly attacking the enemy’s homeland infrastructure without first having to defeat its land, sea, and air forces in conventional military engagements.”<sup>237</sup> The cyberspace is being rapidly affected by the development of new technologies that are intrinsically changing the character of war and how it will be fought in the future. Once developed and commercially available, new technologies are rapidly spreading around the world which in turn lowers the price and makes it attractive to state actors in search of a strategic edge. As denoted in *China’s National Defense in 2010 White Paper*, “[t]he PLA is gaining momentum in developing new and high-tech weaponry and equipment” such as “informationized weaponry,” which tends to emphasize not only the importance of cyberwarfare in the organization’s modus operandi but also the fact that the PLA is likely preparing for a high-tech war.<sup>238</sup>

When compared to China, the U.S. and arguably its Western allies are “simply not investing in or integrating these technologies into their military strategy in comparable speeds and amounts.”<sup>239</sup> The PRC has much to gain from an aggressive cyber posture and the PLA’s tacticians see cyberwarfare as a powerful instrument of deterrence which is

---

<sup>237</sup> John Arquilla, “Cyberwar Is Already Upon Us: But can it be controlled?,” *Foreign Policy*, Iss. 192, 2012, <https://foreignpolicy.com/2012/02/27/cyberwar-is-already-upon-us/>.

<sup>238</sup> People’s Republic of China, Information Office of the State Council, “China’s National Defense in 2010 White Paper,” 2011.

<sup>239</sup> Annie Kowalewski, “Paper Tigers and Eagles: Why the United States Should Not Underestimate the PLA,” *Georgetown Security Studies Review*, Georgetown University Center for Security Studies, 2017.

emanating from the strategic level.<sup>240</sup> The deterrence factor is important when one is not a superpower, given that it can discourage potential adversaries from starting hostilities. As seen in the previous chapter, China is ramping up its military modernization and cyberspace also offers the country the latitude to continue to grow its forces securely behind tightly controlled cyber barriers.

The PRC has developed its cyberspace defenses domestically, referred to as the Great Firewall of China (GFW), which also serves to prevent Chinese people from gaining full access to the internet in their home country. The GFW is only one element of China's overall strategy, and is comprised of elaborate and robust mechanisms to affect the information that is coming in, circulating into, and coming out of its cyberspace.<sup>241</sup> The GFW is an impressive defense strategy that is closely monitored and more resistant to foreign interventions or manipulations. For instance, the PLA has heavily capitalized on the creation of fiber-optic networks that could cause a maximum of damage on an adversary Information and Communications Technology (ICT) networks, while offering the luxury to retreat behind tightly controlled cyber barriers that are virtually exempt from foreign intrusion.<sup>242</sup> The PRC is also careful with the digitalization of its cyberspace and it is well known that every technological corporation that wants to conduct business in the country has to respect strict rules, and to a certain extent they "cannot survive in China without becoming a Chinese company."<sup>243</sup>

---

<sup>240</sup> James Mulvenon, "PLA Computer Network Operations: Scenarios, Doctrine, Organizations, and Capability," *Strategic Studies Institute*, US Army War College, 2009, 257, quoted in Magnus Hjortdal, "China's Use of Cyber Warfare Espionage Meets Strategic Deterrence," *Journal of Strategic Security*, Vol. 4, Iss. 2, 2011, 5, <https://search-proquest-com.cfc.idm.oclc.org/docview/161884211?pq-origsite=summon>.

<sup>241</sup> Canada, Canadian Security Intelligence Service, "The Security Dimensions of an Influential China," 2013, 115.

<sup>242</sup> Nigel Inkster, "China's Cyber Power," Milton: Taylor & Francis Group, 2017, 148-149.

<sup>243</sup> B.J. Lee, "Gotta be Chinese: To Profit in China, Companies have to Go Native from Design to Sales, Says a Top CEO Who has done it." *Newsweek*, 28 June 2004, E8.

There is no other country to date that has been able to impose such restrictions but one may think that it should be the norm, given inter-connections between electronic devices and military assets and capabilities. New technologies are often developed by commercial entities, which means that almost all states have access to them. This is a recent phenomenon that could have impacts on how Western democracies are not only conceiving and fighting conflicts, but also protecting themselves against, i.e. developing armaments that are exclusive to them or only being shared with the closest allies. What is troubling is that the U.S. DoD is aware of the issue and has stated that to maintain its technological superiority, significant changes will have to be implemented in the culture, investment, and protection of the innovation sector, which is a question of national security.<sup>244</sup> Despite being aware of the problem, there is arguably very little that has been done by the U.S. and its Western allies to reverse the trend. It should be noted that such a culture shift will not be easily implemented in Western capitalist democracies and as time continues to pass, the PRC takes advantage of the situation. As indicated in *Cyberwarfare*, a book by author Megan Manzano, “China has repeatedly attacked our [U.S.] homeland breaching our internet firewalls to a degree that is downright disastrous to our national security.”<sup>245</sup> One would have to admit that as long as the hostilities remain below the full spectrum of conflict, very little will change given that in states where capitalism prevail, modifying the worlds’ supply chain in its broadest sense would be a costly endeavour that no government or business is willing to bear.

---

<sup>244</sup> United States, Department of Defense, “Summary of the 2018 National Defense Strategy of the United States of America,” 2018, 3.

<sup>245</sup> Megan Manzano, *Cyberwarfare*, New York, NY: Greenhaven Publishing LLC, 2018, 19.

On the other hand, China is approaching its procurement differently, where its “defense authorities have sought to increase civil-military integration, with some noticeable success,” for quite some time now.<sup>246</sup> There have been some exceptions of course but these have been closely scrutinized to ensure no foreign influence or interference. For example:

Although PLA procurement regulations prohibit the acquisition of sensitive equipment from nongovernment companies, Huawei was able to circumvent these rules. It offered critical equipment that the PLA needed and that was not available elsewhere domestically. The company was also able to meet stringent military requirements over secrecy and other regulatory matters because of the former military backgrounds of its management [who were previously high-ranking officers of the PLA].<sup>247</sup>

Based on the fact that China has implemented a thoughtful and deliberate approach to its procurement of military technology, Western democracies should make it their number one priority to safeguard the integrity of their own weapon systems. Author Ryan Neuhard argues that the procurement of electronics is a matter of national security and that steps should be implemented in order to safeguard against malfeasance. He states that “[s]afeguards should include measures to deter firms from embedding malware in products, to clarify the source of content in electronics, to support electronics producers in friendly countries, and to prohibit critical sectors from buying electronics with content from China.”<sup>248</sup> There is no doubt that globalization and the fact that the current supply chain originates mostly from China is harmful to the U.S. and Western democracies, and

---

<sup>246</sup> Jon R. Lindsay, Tai Ming Cheung, and Derek S. Reveron, *China and Cybersecurity: Espionage, Strategy, and Politics in the Digital Domain*, New York: Oxford University Press, 2015, 209.

<sup>247</sup> Tai Ming Cheung, “Fortifying China: The Struggle to Build a Modern Defense Economy,” Ithaca: Cornell University Press, 2009, 216.

<sup>248</sup> Ryan Neuhard, “Flawed by Design: Electronics with Pre-Installed Malware,” *Georgetown Security Studies Review*, Georgetown University Center for Security Studies, 2018.

a solution should be implemented sooner than later so as not to run the risk of losing a conflict even before it starts.

High-ranking Chinese officers are promoting both the use of viruses and cyber attacks that can surprise or paralyze an adversary.<sup>249</sup> This can be a good option when one enters the realm of military conflicts, where pre-emptively neutralizing your adversary's vital communication or infrastructure systems could mean victory before the launch of a missile or even the firing of a single shot on the battlefield. The fact that now “virtually all digital and electronic military systems can be attacked via cyberspace” will continue to influence the trend towards the militarization of cyberspace.<sup>250</sup> Furthermore, the damage from a large-scale cyber attack on a technologically dependent adversary such as the U.S. and its Western allies could lead to the paralysis of both its government and military forces, given that:

For the government, a cyber-attack across every essential means and aspects of daily living including but not limited to destruction of financial data, records and transactions, forms of travel, communication means, and national power grid create chaos and confusion resulting in psychological shock that will in turn sap the will and resilience of the citizens. For the military, the irony is that the more modern and advanced a military is with its concomitant reliance on technology and network centric warfare, the more vulnerable it is to a potential cyber Pearl Harbor attack that will render its technological superiority over its adversary impotent.<sup>251</sup>

---

<sup>249</sup> Tai Ming Cheung, “Dragon on the Horizon: China's Defence Industrial Renaissance,” *Journal of Strategic Studies* 32, No. 1, 2009, 35, quoted in Magnus Hjortdal, “China's Use of Cyber Warfare Espionage Meets Strategic Deterrence,” *Journal of Strategic Security*, Vol. 4, Iss. 2, 2011, 6, <https://search-proquest-com.cfc.idm.oclc.org/docview/1618842111?pq-origsite=summon>.

<sup>250</sup> Magnus Hjortdal, “China's Use of Cyber Warfare Espionage Meets Strategic Deterrence,” *Journal of Strategic Security*, Vol. 4, Iss. 2, 2011, 5, <https://search-proquest-com.cfc.idm.oclc.org/docview/1618842111?pq-origsite=summon>.

<sup>251</sup> Megan Manzano, *Cyberwarfare*, New York, NY: Greenhaven Publishing LLC, 2018, 25.

Such an attack could render ineffective both the government and the military apparatus and given that they are dependent on one another to ensure a coordinated response, the potential consequences could be catastrophic for the world.

At the end of 2015, China had achieved “a critical milestone in the history” of the PLA that has improved its overall effectiveness, namely the creation of the Strategic Support Force (SSF).<sup>252</sup> The SSF, which has amalgamated information, space, cyberspace, intelligence, surveillance, and reconnaissance support into a single branch that is on the same level as the main services (Army, Navy, and Air Force), demonstrates that the PLA now considers cyberspace as a key function that is fundamental to its ability to conduct warfare, which is in line with changes implemented by the U.S. armed forces in recent years. With the SSF, the PLA focuses on creating:

an overwhelming defensive and offensive Chinese cyber capability [that] can stop the threat of foreign influence and intervention via the threat of use, such as attacks on critical infrastructure, or by undermining an opponent’s ability to organize by striking before an opponent can attack.<sup>253</sup>

China sees cyberspace in terms of both a defense and an offense capability that can be weaponized, and cyber attacks have been launched during peacetime operations. As such, there is no indication that the PLA will refrain from using this capability in future “informationized wars.”

The authors of *What is Hybrid Warfare?* argue that while “the West is largely stuck in an instrumentalist, technicist, battle-centric and kinetic understanding of war, its

---

<sup>252</sup> Elsa B. Kania and John K. Costello, “The Strategic Support Force and the Future of Chinese Information Operations,” *Cyber Defense Review*, 2018, 105.

<sup>253</sup> Annie Kowalewski, “Paper Tigers and Eagles: Why the United States Should Not Underestimate the PLA,” *Georgetown Security Studies Review*, Georgetown University Center for Security Studies, 2017.

opponents have been busy redefining war.”<sup>254</sup> For instance, the U.S. DoD has recently indicated that emerging new technologies, such as “advanced computing, ‘big data’ analytics, artificial intelligence, autonomy, [and] robotics (...) [are] the very technologies that ensure we will be able to fight and win the wars of the future.”<sup>255</sup> It is hard to believe that the next world war will be entirely fought in cyberspace but the fact remains that cyberwarfare is gaining traction and as such should remain a consideration for any country that is going to be involved in future conflicts. For example author Nigel Inkster mentions that:

China will attempt to exploit the full potential of the cyber domain in enabling and enhancing military capabilities . . . [and that if it] does engage in hostilities, it will deploy the full spectrum of capabilities from the outset – meaning that cyber attacks would be a key component of any major assault.<sup>256</sup>

There is then now little doubt that future conflicts between state actors will rely on technology. Given the continual risks of cyber attacks, Canada has indicated that the CAF will assume a more forceful posture in cyberspace by strengthening its defenses and conducting cyber offensive operations to counter presumed adversaries through officially sanctioned missions.<sup>257</sup> The decision to publicly announce cyber offensive operations might be to act as a deterrent but as opposed to nuclear weapons, cyber attacks such as viruses are relatively easy to develop and once deployed against a target, it can easily replicate themselves while navigating through networks and electronic devices connected to one another. It is then close to impossible to properly control a virus even for the

---

<sup>254</sup> Erik Reichborn-Kjennerud and Patrick Cullen, “What is Hybrid Warfare?,” *Norwegian Institute for International Affairs*, 2016, 1.

<sup>255</sup> United States, Department of Defense, “Summary of the 2018 National Defense Strategy of the United States of America,” 2018, 3.

<sup>256</sup> Nigel Inkster, “China's Cyber Power,” Milton: Taylor & Francis Group, 2017, 148.

<sup>257</sup> Canada, Department of National Defence, “Canada’s Defence Policy - Strong, Secure, Engaged,” Ottawa: Minister of National Defence, 2017, 15.



perpetrator and, as such, the potential deterrence factor on any given adversary is very limited, if any. In theory cyber deterrence is possible, but given the fact that a “cyber non-proliferation” cannot be realistically implemented, improvements in cybersecurity and a proactive defense posture are arguably the best deterrence. The only hope for effective cyber deterrence would be the establishment of international laws to govern cyberspace. Canada has even indicated that its “[c]yber operations will be subject to all applicable domestic law, international law, and proven checks and balances such as rules of engagement, targeting and collateral damage assessments.”<sup>258</sup> That being said, the issue is that such laws are not in place and could actually never see the light of day given the difficulty to coordinate and enforce such international laws.

### **The difficulty of imposing international law in cyberspace**

One of the difficulties of cyberspace, and consequently cyberwarfare, is that there is no overarching organization that has been able to either have states agree upon or, even better, bind countries to apply international law in these particular fields. How to define an attack or an act of war in the cyber domain, its proportional and internationally recognized response is not clearly established, which challenges global consensus across states.<sup>259</sup> Even though many rules exist for conventional warfare, they are not readily applicable to cyberspace and as such “Beijing has resisted U.S. efforts to apply international law, especially the laws of armed conflict, to cyberspace.”<sup>260</sup> As we have seen, there is much to gain from cyberspace and, understandably, China will not back

---

<sup>258</sup> *Ibid.*

<sup>259</sup> Canada, Department of National Defence, “The Future Security Environment: 2013-2040,” Ottawa: Chief of Force Development, 2014, 117.

<sup>260</sup> Adam Segal, “When China Rules the Web: Technology in Service of the State,” *Foreign Affairs*, Vol. 97 Iss. 5, 2018, 16, <https://search-proquest-com.cfc.idm.oclc.org/docview/2094387966/CD233781DF7C4C7CPQ/1?accountid=9867>.

down in the face of U.S. efforts to disrupt its rise to superpower status. The UN, as the only universal global organization able to safeguard peace and preserve world order, has not achieved better results than the U.S. given that it has yet to convince the members of the UNSC to apply international law in cyberspace. For instance, “as new security risks emerge around cyber technologies and artificial intelligence, the Council is mute.”<sup>261</sup> Is it true that the Group of Governmental Experts (GGE), established by the UN General Assembly in 2004, have affirmed in two consecutive reports that “international law applies in cyberspace,” but the issue is that the GGE also admits at the same time that “there is a realistic limit to what can be agreed upon by States.”<sup>262</sup> As such and with no formal rules surrounding the use of cyberspace, there are increasing risks of escalation or even miscalculation that could have serious impacts and repercussions, even if such incidents do not lead to an open, full-spectrum conflict between states. The reality is that as long as a majority of the UNSC five permanent members will not agree on rules and how they would be enforced, very little progress can be made in establishing international law in cyberspace. In the meantime, the PRC will continue to operate in the cyber “Wild West” unabated.

There is some hope in the progress that has been made by the NATO Cooperative Cyber Defence Centre for Excellence, which based on the efforts of international law practitioners and scholars, has led to the publication of the *Tallinn Manual on the International Law Applicable to Cyber Warfare* in 2013. The issue of the *Tallinn*

---

<sup>261</sup> David M. Malone and Adam Day, “Taking Measure of the UN's Legacy at Seventy-Five,” *Ethics & International Affairs*, Vol. 34, No. 3, 2020, 286-287, <https://www.cambridge.org/core/article/taking-measure-of-the-uns-legacy-at-seventyfive/2E678D08B50C990EB7824E5B2550A163>.

<sup>262</sup> United Nations, “Informal Multi-stakeholder Cyber Dialogue Summary report,” 2020, [https://eu-iss.s3.eu-central-1.amazonaws.com/horizon/assets/X5Hf8NIU/informal-ms-dialogue-series\\_summary-report\\_final.pdf](https://eu-iss.s3.eu-central-1.amazonaws.com/horizon/assets/X5Hf8NIU/informal-ms-dialogue-series_summary-report_final.pdf).

*Manual*, however, was that it only covered the use of cyber operations in full-spectrum armed conflicts where, as seen in this chapter, the use of cyberwarfare can occur well below this threshold. To remediate the situation, another initiative was launched and resulted in the *Tallinn Manual 2.0 on the International Law Applicable to Cyber Operations* that was published in 2017.<sup>263</sup> Author Megan Manzano states that the new version “is to date the most detailed study of how existing international laws can govern cyber operations.”<sup>264</sup> Once again the issue, as explained by the same author, is that the manual is only a reference and does not bind states to follow any of the rules that were written down as part of the *Tallinn Manual 2.0*. International law does not necessarily translate well in a complex and ever-evolving domain such as cyberspace and consequently, a binding treaty is far from being signed by a majority of states despite the risks involved in the use of cyberwarfare by states. For example, “Chinese policymakers, like their counterparts around the world, are increasingly wary of the risk of cyberattacks on governmental and private networks that could disrupt critical services, hurt economic growth, and even cause physical destruction,” including in China.<sup>265</sup> What is most striking is that the PRC continues to publicly advocate for cyber sovereignty on one hand, but on the other hand has “blamed the lack of meaningful exchanges on cyberspace issues on the ‘Cold War mentality’ of other countries,” not forgetting that the China “continues to question applicability of international law to cyberspace,” in particular “due to

---

<sup>263</sup> Michael N. Schmitt, “Tallinn Manual 2.0 on the International Law Applicable to Cyber Operations,” 2<sup>nd</sup> Ed., Cambridge: Cambridge University Press, 2017, 1.

<sup>264</sup> Megan Manzano, *Cyberwarfare*, New York, NY: Greenhaven Publishing LLC, 2018, 26.

<sup>265</sup> Adam Segal, “When China Rules the Web: Technology in Service of the State,” *Foreign Affairs*, Vol. 97 Iss. 5, 2018, 11, <https://search-proquest-com.cfc.idm.oclc.org/docview/2094387966/CD233781DF7C4C7CPQ/1?accountid=9867>.

difficulties distinguishing between civilian and military objects in that realm.”<sup>266</sup> States acknowledge the risks but there is no solution in sight from international organizations, at least not until a majority of states agree upon the applicability of international law in the cyber domain.

## Conclusion

As we have seen in this chapter, China uses cyber espionage and cyber theft to gain substantial advantages against the U.S. and Western democracies and the trend is not about to reverse anytime soon. The PLA is also preparing for cyberwarfare where “[t]he victors in cyberspace will not be the states with the best technology, but those who effectively leverage information to confuse, deceive, and control the adversary.”<sup>267</sup> The fact that the international community has not been able to impose international law in cyberspace will allow China to continue its behaviours and actions unconstrained. To link back to Chapter One of this essay, “China views the cyberspace domain as a platform providing opportunities for influence operations, and the PLA likely seeks to use online influence activities to support its overall ‘three warfares’ concept and to undermine an adversary’s resolve in a contingency or conflict.”<sup>268</sup> The cyberspace is intrinsically linked to the advancement of Chinese interests on the world stage and as long its use stays unregulated, it will act as both a force enabler and force multiplier for the PRC.

---

<sup>266</sup> Helena Legarda, “China Global Security Tracker, No. 6,” *International Institute for Strategic Studies*, 2020.

<sup>267</sup> Sebastien J. Bae, “Cyber Warfare: Chinese and Russian Lessons for US Cyber Doctrine,” *Georgetown Security Studies Review*, Georgetown University Center for Security Studies, 2015.

<sup>268</sup> United States, Office of the Secretary of Defense, “2020 Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China, 2020, 130.

Let China sleep; when she wakes, she will shake the world.

— Napoleon, 1817

## CONCLUSION

China's actions and behaviors on the world stage have so far provided mixed results concerning the future of international relationships and the global world order. There are also many uncertainties in terms of PRC aspirations for the future, and what kind of player it will become once it achieves the status of a superpower, even though the past and present can suggest to what is coming. If one thing is sure it is that "China as a great power is considerably different from like powers of the past" and that it will have repercussions worldwide.<sup>269</sup> The underlying thesis advanced in this essay is that China is a security challenge to both Western democracies and the world order that could redefine the U.S. hegemony established since the end of the Cold War.

Chapter One highlighted that the withdrawal of the U.S. from international organizations under former President Trump, or short of it its open disapproval, created a void that is tipping the balance of power away from Western democracies. This is concerning given that the PRC is not the symbol of human rights and civil liberties, and as such the country is a threat to the U.S. hegemony and the international order that is not in the interest of the common global good. The first chapter also showed that China is engaged in activities beneath the full spectrum of conflict threshold which includes everything that is "short of war but long of peace," not forgetting interferences in the academic sphere worldwide.

---

<sup>269</sup> Marc Lanteigne, *Chinese Foreign Policy: An Introduction*, London: Taylor & Francis Group, 2015, 53.

Chapter Two demonstrated that China's massive economy has been able to withstand a pandemic, as opposed to the U.S. or the Western democracies, and such continuous economic growth will allow the country to inject funds in poorly governed countries which contributes to sustain the vicious circle of governmental corruption, bribery, and misappropriation of funds, more often than not at the expense of the local population of developing countries. The second chapter also underlined the fact that Chinese financial investments are turned into geostrategic instruments, that the BRI is tainted with political aspirations while the U.S. seems to be lacking the resources, focus, and even perhaps the resolve at the international level to successfully contain China.

Chapter Three examined the PLA military budget and despite deliberate lack of transparency, omissions and unreliability, the country is developing the capabilities that will provide them the opportunity to challenge the U.S. more resolutely in the years to come, which is already occurring in the Asia region. One has to keep in mind that there is no need for the PLA to equal the U.S. armed forces to challenge American dominance in China's periphery, not forgetting that proximity to its own borders procure the country with a major advantage in terms of logistics and support to operations. The third chapter also proved that despite avoidable, the consequences and the end result of a war with China cannot be underestimated, in particular if it is "a short, high-tech, localized, information-centered war" as opposed to a prolonged "war of annihilation."<sup>270</sup>

Chapter Four showed that China is likely to continue to use the cyber domain for espionage and theft, as most other states do, but at a pace and scale that is above average given its aspirations to become a global superpower. The fourth chapter exposed the fact

---

<sup>270</sup> Annie Kowalewski, "Paper Tigers and Eagles: Why the United States Should Not Underestimate the PLA," *Georgetown Security Studies Review*, Georgetown University Center for Security Studies, 2017.

that safeguards should be in place and “include measures to deter firms from embedding malware in products, to clarify the source of content in electronics, to support electronics producers in friendly countries, and to prohibit critical sectors from buying electronics with content from China.”<sup>271</sup> There is little doubt that the U.S. and its Western allies still have technological advantages over China, but one has to remember that “[t]he victors in cyberspace will not be the states with the best technology, but those who effectively leverage information to confuse, deceive, and control the adversary.”<sup>272</sup>

China’s “vision for peaceful development” and its promise of a “win-win” future for all has been supplanted with repressive actions at home and more assertive behaviours on the world stage, economical predatory practices, extensive military build-up, and belligerent use of the cyber domain, which is not exactly *peaceful*.<sup>273</sup> It is only a matter of time before the PRC can more overtly rival the U.S. and there is little doubt that the question is when, not if.

Outside the scope of this essay but worth briefly discussing is the fact that Canada has benefitted from the U.S. hegemony, but the rise of China will have real impacts on our day-to-day lives. For example:

There are few nations more globalized than Canada or whose citizens are more dependent upon on the integrity of the global system for their prosperity and security. We are among the world’s most connected societies. We are among the world’s most proudly and successfully plural societies, with deep personal ties and family roots extending around the world. And we are among the world’s most active states in the

---

<sup>271</sup> Ryan Neuhard, “Flawed by Design: Electronics with Pre-Installed Malware,” *Georgetown Security Studies Review*, Georgetown University Center for Security Studies, 2018.

<sup>272</sup> Sebastien J. Bae, “Cyber Warfare: Chinese and Russian Lessons for US Cyber Doctrine,” *Georgetown Security Studies Review*, Georgetown University Center for Security Studies, 2015.

<sup>273</sup> People's Republic of China, The State Council Information Office of the People's Republic of China, “China and the World in the New Era White Paper,” dated September 2019; United States, U.S.-China Economic and Security Review Commission, “2014 Annual Report to Congress,” 2014, 237.

international community. . . . [T]he global system . . . is essential to Canadians' way of life.<sup>274</sup>

Democracy, human rights, and freedom of speech are only a few considerations where a new world order with China at the center, or even the return of a bi-polar world, could be problematic for Canadians. There is room for the rise of China on the world stage but the fact that there are profound dichotomies in values between the West and the PRC requires a careful approach in dealing with a rising Dragon. A democratic state is not irreconcilable with an authoritarian regime such as China, but it remains to be seen if the PRC and the Western democracies will continue to opt for cooperation or if it will be more on the confrontation side.

In all cases the Western democracies, and in particular Canada, need to better understand the aspirations and strategic goals of China in order to be better prepared for the inevitable rise of China. Understanding is key in particular given what is at stake and as such there should be additional research conducted to better understand the country's strategic thinking in a view to improve the chances of cooperation, vice confrontation.

---

<sup>274</sup> Canada, Department of National Defence, "Canada in a New Maritime World: Leadmark 2050," Ottawa: Commander of the Royal Canadian Navy, 2016, iii-iv.



## BIBLIOGRAPHY

- “The Dragon's New Teeth; China's Military Rise.” *The Economist*. Vol. 403 No. 8779, 2012. <https://search-proquest-com.cfc.idm.oclc.org/magazines/dragons-new-teeth-chinas-military-rise/docview/992961918/se-2?accountid=9867>.
- Acton, James M. “Target:?” *Foreign Policy*. No. 206  
2014. <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=96042231&site=ehost-live&scope=site>.
- Agarwal, Manmohan. “China, India and the US: Shifting Economic Power.” *China Report* 47, No. 3, 2011. <https://doi-org.cfc.idm.oclc.org/10.1177/000944551104700301>.
- Allison, Graham. “China vs. America: Managing the Next Clash of Civilizations.” *Foreign Affairs*, Vol. 96 Iss. 5, 2017. <https://search-proquest-com.cfc.idm.oclc.org/docview/1933859570/4D711FAABBEF4FFDPQ/1?accountid=9867>.
- Allison, Graham T. *Destined for War: Can America and China Escape Thucydides's Trap?*. Boston: Houghton Mifflin Harcourt, 2017. [http://cfc.summon.serialssolutions.com/2.0.0/link/0/eLvHCXMwbV3JCslwEB1cLp7ctW70B9Q2SU17FsWLFxFEL1KzHD0Uxd93JtTdWxaSkEBm5g15LwCcTYLxl02QUjOIEx3oCI0y56kRlpTKZlwxGdrUscnE-iA363ifayYRNUZZNaGnjDrDu-8MtyNUTDHOR1ePUL0YBaSYv8s5Di6zlhNSdHHEVCESjDDk7FVB\\_J7r7jw6-Ued0xfKRVz3zc0sa1A2xD2oQ8GcG9D5yNb5z2drTagSWsTwUPsYcvq3NGuBt1xs56sxznjMMzJHhGEJuuU2lBDimy74NjwJFYeKUUEaG8eaTitKEbsKqU8e1H\\_H9419qHCyPG4JMEASpfsaoZuPyN3SnfaA2dK](http://cfc.summon.serialssolutions.com/2.0.0/link/0/eLvHCXMwbV3JCslwEB1cLp7ctW70B9Q2SU17FsWLFxFEL1KzHD0Uxd93JtTdWxaSkEBm5g15LwCcTYLxl02QUjOIEx3oCI0y56kRlpTKZlwxGdrUscnE-iA363ifayYRNUZZNaGnjDrDu-8MtyNUTDHOR1ePUL0YBaSYv8s5Di6zlhNSdHHEVCESjDDk7FVB_J7r7jw6-Ued0xfKRVz3zc0sa1A2xD2oQ8GcG9D5yNb5z2drTagSWsTwUPsYcvq3NGuBt1xs56sxznjMMzJHhGEJuuU2lBDimy74NjwJFYeKUUEaG8eaTitKEbsKqU8e1H_H9419qHCyPG4JMEASpfsaoZuPyN3SnfaA2dK).
- Allison, Graham. “The Thucydides Trap.” *Foreign Policy* No. 224, 2017. <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=123126463&site=ehost-live&scope=site>.
- Arquilla, John, “Cyberwar Is Already Upon Us: But can it be controlled?,” *Foreign Policy* Iss. 192, 2012. <https://foreignpolicy.com/2012/02/27/cyberwar-is-already-upon-us/>.
- Asian Infrastructure Investment Bank, “About.” last accessed on 22 Dec 2020. <https://www.aiib.org/en/about-aiib/governance/members-of-bank/index.html>.
- Asian Infrastructure Investment Bank, “Introduction.” last accessed on 22 Dec 2020. <https://www.aiib.org/en/about-aiib/index.html>.
- Bae, Sebastien J. “Cyber Warfare: Chinese and Russian Lessons for US Cyber Doctrine.” *Georgetown Security Studies Review*. Georgetown University Center for Security Studies, 2015.

Barker, Ken. "Cyberattack: What Goes Around Comes Around." *Canadian Global Affairs Institute*. The School of Public Policy, 2019.

Bartels, Frederico. "The Known Unknowns of China's Defence Budget." Barton: Newstex, 2020. [http://cfc.summon.serialssolutions.com.cfc.idm.oclc.org/2.0.0/link/0/eLvHCX MwY2AwNtlz0EUrE9KSEy2BbrZMSwVVceZplqnGFibA8jnRwtLELA28rdvH3c Q3yjl1yISurgQtDUGGt2wUhJcdKfkJ4NGzfWBIQ2oZ2dqbmJfUKgLukeKNN8K vVSDmYEVWHmZAtM8q5OrX0AQRIELrj\\_cBBhSYFYlpyXrZabkwndBox3LSJF rBB14wlOTFGAj8kIMTKI5Igx6wJSgABo6y1MozOPTxQr5aOrgi7MfNcwsVkhJT QNIb4Wk0pT01BJRBg031xBnD12Y\\_fHA1AAa3k\\_MS80vLY5HuMBYjIE3EbRA Pq8EvJEUrYJBwTDNwJzJ0DzZPBXYRALWSMBmCLDlkmppYZqSkmSWmCzJ oEjQXCKi1EgzcBmBuqSg4xBNZBhYSopKU2UZmIGhKweNCgBEjqdE](http://cfc.summon.serialssolutions.com.cfc.idm.oclc.org/2.0.0/link/0/eLvHCX MwY2AwNtlz0EUrE9KSEy2BbrZMSwVVceZplqnGFibA8jnRwtLELA28rdvH3c Q3yjl1yISurgQtDUGGt2wUhJcdKfkJ4NGzfWBIQ2oZ2dqbmJfUKgLukeKNN8K vVSDmYEVWHmZAtM8q5OrX0AQRIELrj_cBBhSYFYlpyXrZabkwndBox3LSJF rBB14wlOTFGAj8kIMTKI5Igx6wJSgABo6y1MozOPTxQr5aOrgi7MfNcwsVkhJT QNIb4Wk0pT01BJRBg031xBnD12Y_fHA1AAa3k_MS80vLY5HuMBYjIE3EbRA Pq8EvJEUrYJBwTDNwJzJ0DzZPBXYRALWSMBmCLDlkmppYZqSkmSWmCzJ oEjQXCKi1EgzcBmBuqSg4xBNZBhYSopKU2UZmIGhKweNCgBEjqdE).

Bennett, Yan C. "China's actions have driven the evolution of the Quad." *The Strategist*. Australian Strategic Policy Institute, 2020.

Brady, Anne-Marie. *China as a Polar Great Power*. Cambridge: Washington, D.C; New York, NY: Woodrow Wilson Center Press, 2017.

Brands, Hal and Jake Sullivan. "China's Two Paths to Global Domination." *Foreign Policy* No. 237, 2020. <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=144680072&site=ehost-live&scope=site>.

Braw, Elisabeth. "The Manufacturer's Dilemma." *Foreign Policy* No. 232, 2019. <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=135982901&site=ehost-live&scope=site>.

Burke, Edmund J. *et al. People's Liberation Army Operational Concepts*. Santa Monica, CA: RAND Corporation, 2020.

Caffrey, Craig and Sean O'Connor. "China focuses on strategic airlift to support power projection." *Jane's Intelligence Review*, 2018. [https://customer-janes-com.cfc.idm.oclc.org/IntelligenceReview/Display/FG\\_1205576-JIR](https://customer-janes-com.cfc.idm.oclc.org/IntelligenceReview/Display/FG_1205576-JIR)

Campbell, Kurt M. and Jake Sullivan. "Competition without Catastrophe: How America can both Challenge and Coexist with China." *Foreign Affairs*, Vol. 98 Iss. 5, 2019. <https://search-proquest-com.cfc.idm.oclc.org/magazines/competition-without-catastrophe-how-america-can/docview/2275085122/se-2?accountid=9867>.

Canada. Bank of Canada. "Currency Converter: CAD to USD for 7 July 2017." [https://www.bankofcanada.ca/rates/exchange/currency-converter/?lookupPage=lookup\\_currency\\_converter\\_2017.php&startRange=2011-01-27&rangeType=range&selectToFrom=to&convert=1.00&seriesFrom=Canadian+dollar&seriesTo%5B%5D=FXUSDCAD&rangeValue=&dFrom=2017-01-02&dTo=2017-12-29&submit\\_button=Convert](https://www.bankofcanada.ca/rates/exchange/currency-converter/?lookupPage=lookup_currency_converter_2017.php&startRange=2011-01-27&rangeType=range&selectToFrom=to&convert=1.00&seriesFrom=Canadian+dollar&seriesTo%5B%5D=FXUSDCAD&rangeValue=&dFrom=2017-01-02&dTo=2017-12-29&submit_button=Convert).

- Canada. Canadian Security Intelligence Service. "2019 Public Report." 2019.
- Canada. Canadian Security Intelligence Service. "China and the Age of Strategic Rivalry." 2018.
- Canada. Canadian Security Intelligence Service. "The Security Dimensions of an Influential China." 2013.
- Canada. Communications Security Establishment. "About." last modified on 19 Aug 2020. [About the Cyber Centre - Canadian Centre for Cyber Security.](#)
- Canada. Department of National Defence. "2016-17 Departmental Results Report." Ottawa: Minister of National Defence. 2017.
- Canada. Department of National Defence. "Annex A: A Day Without Space." In *Royal Canadian Air Force Doctrine Note 17/01: Space Power*. Ottawa: Commander of the Royal Canadian Air Force. 2017.
- Canada. Department of National Defence. "Beyond the Horizon: A Strategy for Canada's Special Operations Forces in an Evolving Security Environment." Ottawa: Canadian Special Operations Forces Command. 2020.
- Canada. Department of National Defence. "Canada's Defence Policy - Strong, Secure, Engaged." Ottawa: Minister of National Defence. 2017.
- Canada. Department of National Defence. "Canada in a New Maritime World: Leadmark 2050." Ottawa: Commander of the Royal Canadian Navy. 2016
- Canada. Department of National Defence. "The Future Security Environment: 2013-2040." Ottawa: Chief of Force Development, 2014.
- Char, James and Richard A. Bitzinger. "A New Direction in the People's Liberation Army's Emergent Strategic Thinking, Roles and Missions." *The China Quarterly*, Vol. 232, 2017. <https://search-proquest-com.cfc.idm.oclc.org/scholarly-journals/new-direction-peoples-liberation-armys-emergent/docview/1973449786/se-2?accountid=9867>.
- Charron, Andrea. "Responding to the Hardening the SHIELD: A Credible Deterrent and Capable Defense for North America." *North American And Arctic Defence and Security Network*. Centre for Defence and Security Studies, 2020.
- Chen Weiss, Jessica. "A World Safe for Autocracy? China's Rise and the Future of Global Politics." *Foreign Affairs*, Vol. 98, Iss. 4, 2019. <https://search-proquest-com.cfc.idm.oclc.org/magazines/world-safe-autocracy-chinas-rise-future-global/docview/2253186643/se-2?accountid=9867>.

- Chen, Chunlai. "Determinants and motives of outward foreign direct investment by China's provincial firms." *Transnational Corporations*, Vol. 23, Iss. 1, 2015.  
<https://doi.org/10.18356/6ba5ab37-en>.
- Chen, Dingding. "Defining a 'New Type of Major Power Relations.'" *The Diplomat*, 2014.
- Cheng, Dean. *Cyber Dragon: Inside China's Information Warfare and Cyber Operations*. Santa Barbara, CA: Praeger, 2016.
- Cheung, Tai Ming. "Fortifying China: The Struggle to Build a Modern Defense Economy." Ithaca: Cornell University Press, 2009.
- Clarke, Michael. "The Belt and Road Initiative: China's New Grand Strategy?." *Asia Policy*, No. 24, 2017.  
[https://www.researchgate.net/publication/319100054\\_The\\_Belt\\_and\\_Road\\_Initiative\\_China's\\_New\\_Grand\\_Strategy](https://www.researchgate.net/publication/319100054_The_Belt_and_Road_Initiative_China's_New_Grand_Strategy).
- Cohen, Eliot A. *The Big Stick: The Limits of Soft Power and the Necessity of Military Force*. New York: Basic Books, 2016. [http://cfc.summon.serialssolutions.com/2.0.0/link/0/eLvHCXMwbV1JS0MxE B60XgoebF1aN3Ly1po0y3s5i8XL8yCC6KVkeyLCEX568N87E2Jdj9kXkpnJN8XALmY89kvmVAbHYIM2islpQu89rUx1jk0161RPGU0mWoeqpumvi-cSQSNCW2Y01PG2OPez4I7AyrOJV0fEOJ6U3NizL\\_74hyXGiutipLNnha0yDlx-A3xLljZFapsgnhptEUsWtfmk4enJJbwOp2wb9iPb2pnuQNbibAII9hI3RgOfnjv2PoZ2xgmTeba7t\\_ZGbt2uHZY2bK7sI3rgPmnR0Z8zM97MF1e3l5czbCIVfHcrET-31zuw6B76dIEWBLS2zZFsWitCpVwCkVViL4VUYUg4hRGf8sf\\_hd5BENU\\_cWZcAyD1\\_4tneRx nubZ\\_AdfhnF3](http://cfc.summon.serialssolutions.com/2.0.0/link/0/eLvHCXMwbV1JS0MxE B60XgoebF1aN3Ly1po0y3s5i8XL8yCC6KVkeyLCEX568N87E2Jdj9kXkpnJN8XALmY89kvmVAbHYIM2islpQu89rUx1jk0161RPGU0mWoeqpumvi-cSQSNCW2Y01PG2OPez4I7AyrOJV0fEOJ6U3NizL_74hyXGiutipLNnha0yDlx-A3xLljZFapsgnhptEUsWtfmk4enJJbwOp2wb9iPb2pnuQNbibAII9hI3RgOfnjv2PoZ2xgmTeba7t_ZGbt2uHZY2bK7sI3rgPmnR0Z8zM97MF1e3l5czbCIVfHcrET-31zuw6B76dIEWBLS2zZFsWitCpVwCkVViL4VUYUg4hRGf8sf_hd5BENU_cWZcAyD1_4tneRx nubZ_AdfhnF3).
- Commin, G. and E. Filiol. "Unrestricted Warfare Versus Western Traditional Warfare: A Comparative Study." *Journal of Information Warfare* Vol. 14, No. 1, 2015. <https://search-proquest-com.cfc.idm.oclc.org/scholarly-journals/unrestricted-warfare-versus-western-traditional/docview/1967364863/se-2?accountid=9867>.
- Cordesman, Anthony H. "China's New 2019 Defense White Paper: An Open Strategic Challenge to the United States, but One Which Does Not Have to Lead to Conflict." *Center for Strategic and International Studies*, 2019.
- Dawson, Michael. "NORAD: Remaining Relevant." *The School of Public Policy Publications* Vol. 12, No. 40, 2019.
- Dobson, Wendy. *Living with China: A Middle Power Finds its Way*. London; Toronto; Buffalo: University of Toronto Press, 2019.
- Dollar, David. "China as a Global Investor." *Asia Working Group Paper*. Brookings Institution, Washington, D.C., 2016.

- Dollar, David. "China's Investment in Latin America," *Geoeconomics and Global Issues*. Brookings Institution, Washington, D.C., 2017.
- Dominguez, Gabriel. "Annual Defence Report 2019: Asia Pacific." *Jane's Defence Weekly*, 2019. [https://customer-janes-com.cfc.idm.oclc.org/DefenceWeekly/Display/FG\\_2550132-JDW](https://customer-janes-com.cfc.idm.oclc.org/DefenceWeekly/Display/FG_2550132-JDW).
- Drezner, Daniel W. "Bad Debts: Assessing China's Financial Influence in Great Power Politics." *International Security* Vol. 34, No. 2, 2009. <https://doi-org.cfc.idm.oclc.org/10.1162/isec.2009.34.2.7>.
- Ducaru, Sorin, D. "The Cyber Dimension of Modern Hybrid Warfare and its Relevance for NATO." *Europolity: Continuity and Change in European Governance*, Vol. 10, No. 1, 2016. <https://doaj.org/article/85bacad436c74f7d938bffb0a4908b9d>.
- Economist Intelligence Unit. "China: August 2020 Country Report." 2020. [http://www.eiu.com.cfc.idm.oclc.org/FileHandler.ashx?issue\\_id=920013075&mode=pdf](http://www.eiu.com.cfc.idm.oclc.org/FileHandler.ashx?issue_id=920013075&mode=pdf)
- Economist Intelligence Unit. "China: January 2021 Country Report." 2020. [http://www.eiu.com.cfc.idm.oclc.org/FileHandler.ashx?issue\\_id=820619265&mode=pdf](http://www.eiu.com.cfc.idm.oclc.org/FileHandler.ashx?issue_id=820619265&mode=pdf).
- Farah, Douglas and Kathryn Babineau. "Extra-Regional Actors in Latin America: The United States is Not the Only Game in Town." *Prism: A Journal of the Center for Complex Operations* 8, No. 1, 2019. <https://search-proquest-com.cfc.idm.oclc.org/docview/2196351868?accountid=9867>.
- Feigenbaum, Evan A. "China and the World." *Carnegie Endowment for International Peace*. 2016.
- Fingar, Thomas and Jean C. Oi. "China's Challenges: Now it Gets Much Harder." Vol. 43, No. 1, 2020. <https://doi-org.cfc.idm.oclc.org/10.1080/0163660X.2020.1734304>.
- Fravel, M. Taylor. *Active Defense: China's Military Strategy since 1949*. Princeton: Princeton University Press, 2019. <http://ebookcentral.proquest.com/lib/cfvlibrary-ebooks/detail.action?docID=5725460>.
- Fukuyama, Francis. "One Belt, One Road: Exporting the Chinese Model to Eurasia." *The Australian*, 2016. <http://www.theaustralian.com.au/news/world/one-belt-one-road-exporting-the-chinese-model-to-eurasia/news-story/269016e0dd63ccca4da306b5869b9e1c>
- Furuoka, Fumitaka, Mikio Oishi, and Mohd Aminul Karim. "Military Expenditure and Economic Development in China: An Empirical Inquiry." *Defence and Peace Economics*, Vol. 27, No. 1, 2016. <https://doi-org.cfc.idm.oclc.org/10.1080/10242694.2014.898383>.

- Gewirtz, Julian. "China Thinks America is Losing." *Foreign Affairs*, Vol. 99, Iss. 6, 2020. <https://search-proquest-com.cfc.idm.oclc.org/magazines/china-thinks-america-is-losing/docview/2452329995/se-2?accountid=9867>.
- Gideon, Rose. "WHO WILL RUN THE WORLD?." *Foreign Affairs*, Vol 98, Iss. 1, 2019. <https://search-proquest-com.cfc.idm.oclc.org/magazines/who-will-run-world/docview/2161593697/se-2?accountid=9867>.
- Hanson, Fergus, Emilia Currey, and Tracy Beattie. "The Chinese Communist Party's Coercive Diplomacy." *Australian Strategic Policy Institute*, International Cyber Policy Centre, Policy Brief, Report No. 36, 2020.
- Harris, Jerry. "Emerging Third World Powers China, India and Brazil." *Race & Class*, Vol. 46, No. 3, 2005. <https://doi-org.cfc.idm.oclc.org/10.1177/0306396805050014>.
- Harris, Stuart, *China's Foreign Policy*. Cambridge: Polity Press, 2014.
- Harrison, Roger G. "Unpacking the Three C's: Congested, Competitive, and Contested Space." *Astropolitics*, Vol 11, No. 3, 2013. <https://www.tandfonline.com/doi/abs/10.1080/14777622.2013.838820>.
- Hartley, Keith and Jean Belin. "China's defence industry." In *The Economics of the Global Defence Industry*, Milton: Taylor & Francis Group, 2019.
- Hathaway, Oona A. and Scott J. Shapiro. "After Hegemony." *Foreign Policy* No. 237, 2020. <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=144680070&site=ehost-live&scope=site>.
- Heginbotham, Eric, *et al.* "The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power 1996-2017." Santa Monica, CA: 2015.
- Hjortdal, Magnus. "China's Use of Cyber Warfare Espionage Meets Strategic Deterrence." *Journal of Strategic Security*, Vol. 4, Iss. 2, 2011. <https://search-proquest-com.cfc.idm.oclc.org/docview/1618842111?pq-origsite=summon>.
- Ibrahim, Yasmin. "Tank Man, Media Memory and Yellow Duck Patrol." Vol. 4, Iss. 5, 2016. <https://doi-org.cfc.idm.oclc.org/10.1080/21670811.2015.1063076>.
- Inkster, Nigel, *China's Cyber Power*. Milton: Taylor & Francis Group, 2017.
- International Institute for Strategic Studies. "Chapter Six: Asia." In *The Military Balance 2020: The Annual Assessment of Global Military Capabilities and Defence Economics*, Vol. 120, No. 1, 2020.
- International Monetary Fund. "Real Gross domestic product (GDP) growth, annual percentage change." Last accessed on 14 Dec 2020. [https://www.imf.org/external/datamapper/NGDP\\_RPCH@WEO/WEOWORLD/CHN/USA](https://www.imf.org/external/datamapper/NGDP_RPCH@WEO/WEOWORLD/CHN/USA).

- International Monetary Fund. "World Economic Outlook - October 2020: A Long and Difficult Ascent," 2020. <https://www.imf.org/-/media/Files/Publications/WEO/2020/October/English/text.ashx>.
- International Monetary Fund. "GDP current prices for the year 2017." Last accessed on 27 January 2021. <https://www.imf.org/external/datamapper/NGDPD@WEO/CHN/USA>.
- Jane's World's Air Forces. "Aircraft - Fixed-Wing - Military - CAC J-20." In *All the World's Aircraft: Development & Production*. Last updated 3 Feb 2021. <https://customer-janes-com.cfc.idm.oclc.org/Janes/Display/jawa5448-jawa>.
- Jennings, Peter. "China's wolf-warrior tactics are here to stay." *The Strategist*, Australian Strategic Policy Institute, 2020.
- Johnsen, William T. "Land Power in the Age of Joint Interdependence: Toward a Theory of Land Power for the Twenty-First Century." *Defense & Security Analysis*, Vol. 35, No. 3, 2019. <https://doi-org.cfc.idm.oclc.org/10.1080/14751798.2019.1640417>.
- Johnson, Keith. "China's Thirst." *Foreign Policy* No. 211, 2015. <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=101858902&site=ehost-live&scope=site>.
- Jones-Quaidoo, Ashley. "No Strings Attached? China's Debt-Trap Diplomacy in Africa." *Georgetown Security Studies Review*. Georgetown University Center for Security Studies, 2018.
- Juneau, Thomas. "The Enduring Constraints on Iran's Power After the Nuclear Deal." *Political Science Quarterly* Vol. 134, No. 1, 2019. <http://search.ebscohost.com/login.aspx?direct=true&db=poh&AN=135474068&site=ehost-live&scope=site>.
- Kania, Elsa B. and John K. Costello. "The Strategic Support Force and the Future of Chinese Information Operations." *Cyber Defense Review*, 2018.
- Kapstein, Ethan B. and Jacob N. Shapiro. "Catching China by the Belt (and Road)." *Foreign Policy*, No. 232, 2019. <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=135982898&site=ehost-live&scope=site>.
- Kenton, Will. "Asian Infrastructure Investment Bank (AIIB)." *Investopedia*. Last accessed on 22 Dec 2020. <https://www.investopedia.com/terms/a/asian-infrastructure-investment-bank-aiib.asp/>.
- Kilcullen, David. *The Dragons and the Snakes: How the Rest Learned to Fight the West*. Oxford: Oxford University Press, 2020. [http://cfc.summon.serialssolutions.com/2.0.0/link/0/eLvHCXMwtV1RS8MwED7c9uKbouKmjj75Mipdk6ztgw\\_bnCgyBnYb6MtImkRE7WDO\\_--](http://cfc.summon.serialssolutions.com/2.0.0/link/0/eLvHCXMwtV1RS8MwED7c9uKbouKmjj75Mipdk6ztgw_bnCgyBnYb6MtImkRE7WDO_--)



[laxtaEPHBh4YmlJK7Sy53yd0XAOJfeW5NJxgUc8X6RKPOJJwGmnMW-aFMEhUkPBRZNhmdPgeP0\\_DJXuVo2\\_5V8NiGojeJtH8QfvITbMB3HAJY4iDAsmYfl1Ur\\_5sNfzGhMEWUZJzyNxsZ-PD6nhjw7bQa255vAfhebQvgh9TC3ile9tzeLJ5VfEaTPO6jFZevclWw6clobBwKdGIuDfT4h3xNttcqdRdxAlOkQu-rCa3hcDRaFpMW7Rn0Me1RHZqIqEOpb-uRuW29VBrU4PuElO3gjXY9KZCQyp7Vsg2L5TFb8-cH0FIImEeQQ9lR6BB3kp5Pz00F-OshPZ8fPY1jeTubjOze\\_V8LlaOwQ6motuNAe9\\_rSDwZZejAfKC4YEcoTgvSpHggTcon2KZEeZwKNLqQ-UkQGBOk7gWa6TtUpOELKhCnNNKOURsZ7VWogZCiJgVilURvaSmlq\\_bnOngqVbXAK-lbZ0Xgej7uyUuj8\\_skZ7NsxcQ7N7eZLXUAj0Uk3F1UXGvN79g2Phgs0.](#)

Kirchberger, Sarah and Johannes Mohr. "China's defence industry." In *The Economics of the Global Defence Industry*, 2019.

Kowalewski, Annie. "Paper Tigers and Eagles: Why the United States Should Not Underestimate the PLA." *Georgetown Security Studies Review*. Georgetown University Center for Security Studies, 2017.

Kynge, James, Lucy Hornby and Jamil Anderlini. "Inside China's secret 'magic weapon' for Worldwide Influence." *Financial Times*, 2017, <https://www.ft.com/content/fb2b3934-b004-11e7-beba-5521c713abf4>.

Lanteigne, Marc, "Chinese Foreign Policy: An Introduction." London: Taylor & Francis Group, 2015.

Le Thu, Huong. "China's dual strategy of coercion and inducement towards ASEAN." *The Pacific Review*, Vol 32, No. 1, 2019. <https://doi-org.cfc.idm.oclc.org/10.1080/09512748.2017.1417325>.

Lee, Inyeop. "Can North Korea Follow China's Path? A Comparative Study of the Nexus between National Security and Economic Reforms." *Pacific Focus*, Vol. 34, Iss. 1, 2019. <https://doi-org.cfc.idm.oclc.org/10.1111/pafo.12135>.

Legarda, Helena. "China Global Security Tracker, No. 6." *International Institute for Strategic Studies*, 2020.

Lele, Ajey. "China: A Growing Military Space Power." *Astropolitics*, Vol. 3, No. 1, 2005. <https://www-tandfonline-com.cfc.idm.oclc.org/doi/full/10.1080/14777620590933593>.

Liang, Qiao and Wang Xiangsui. "Unrestricted Warfare: China's Master Plan to Destroy America." Panama City, Panama: Pan American Publishing, 2002.

Lindsay, Jon R., Tai Ming Cheung, and Derek S. Reveron. *China and Cybersecurity: Espionage, Strategy, and Politics in the Digital Domain*. New York: Oxford University Press, 2015.



- Lou, Theresa. "Chinese Global Governance Leadership is Only a Win-Win for China." *Georgetown Security Studies Review*. Georgetown University Center for Security Studies, 2017.
- Mahbubani, Kishore. "2029, the Great Asian Renaissance." *Politique Étrangère*, No. 1, 2019.
- Malone, David M. and Adam Day, "Taking Measure of the UN's Legacy at Seventy-Five," *Ethics & International Affairs*, Vol. 34, No. 3, 2020. <https://www.cambridge.org/core/article/taking-measure-of-the-uns-legacy-at-seventyfive/2E678D08B50C990EB7824E5B2550A163>.
- Manzano, Megan. *Cyberwarfare*. Vol. First edition. New York: Greenhaven Publishing LLC, 2018. <http://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=1681258&site=ehost-live&scope=site>.
- Mulvenon, James. "PLA Computer Network Operations: Scenarios, Doctrine, Organizations, and Capability." *Strategic Studies Institute*. US Army War College, 2009.
- Nantulya, Paul. "Implications for Africa from China's One Belt One Road Strategy." *Africa Center for Strategic Studies*, 2019.
- Nasr, Vali. "Iran among the Ruins: Tehran's Advantage in a Turbulent Middle East." *Foreign Affairs*, Vol. 97, No. 2, 2018. <https://search-proquest-com.cfc.idm.oclc.org/docview/2009156035?accountid=9867>.
- Nathan, Andrew J. "The Return of Bipolarity in World Politics: China, the United States, and Geostructural Realism." *Foreign Affairs*, Vol. 97, No. 3, 2018. <http://search.ebscohost.com/login.aspx?direct=true&db=mth&AN=128950382&site=ehost-live&scope=site>.
- Neuhard, Ryan. "Flawed by Design: Electronics with Pre-Installed Malware." *Georgetown Security Studies Review*. Georgetown University Center for Security Studies, 2018.
- Nie, Wenjuan. "Xi Jinping's Foreign Policy Dilemma: One Belt, One Road or the South China Sea?." *Contemporary Southeast Asia*, Vol. 38, Iss. 3, 2016. <https://search-proquest-com.cfc.idm.oclc.org/docview/1857702983?accountid=9867>.
- Obering, Henry III. and Rebecca L. Heinrichs, "Missile Defense for Great Power Conflict: Outmaneuvering the China Threat," *Strategic Studies Quarterly*, Vol. 13, no. 4, 2019. <https://search-proquest-com.cfc.idm.oclc.org/trade-journals/missile-defense-great-power-conflict/docview/2393080233/se-2?accountid=9867>.

- Peerenboom, Randall. "Introduction: two opposing views of China." In *China Modernizes: Threat to the West or Model for the Rest?*. Oxford: Oxford University Press, 2008.
- Pei, Minxin. "Stabilising US-China relations after Trump," *The Strategist*, Australian Strategic Policy Institute, 2020.
- People's Republic of China. Congress of the Communist Party of China. "Secure a Decisive Victory in Building a Moderately Prosperous Society in All Respects and Strive for the Great Success of Socialism with Chinese Characteristics for a New Era," 2017.
- People's Republic of China. Information Office of the State Council. "China's National Defense in 2010 White Paper," 2011.
- People's Republic of China. The State Council of the People's Republic of China. "China's Space Activities in 2016 White Paper," 2016.
- People's Republic of China. The State Council Information Office of the People's Republic of China. "China's National Defense in the New Era White Paper," First Edition, 2019.
- People's Republic of China. The State Council Information Office of the People's Republic of China. "China and the World in the New Era White Paper," dated September 2019.
- People's Republic of China. The State Council Information Office of the People's Republic of China. "China's Armed Forces: 30 Years of UN Peacekeeping Operations White Paper," 2020.
- Pettis, Michael. "Why Trade Wars are Inevitable." *Foreign Policy*, No. 234, 2019. <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=139206049&site=ehost-live&scope=site>.
- Pillsbury, Michael and National Defense Univ Washington DC Inst for National Strategic Studies. *China Debates the Future Security Environment*, 2000. [http://cfc.summon.serialssolutions.com/cfc.idm.oclc.org/2.0.0/link/0/eLvHCXMwdV1Lb8IwDLZ4XJAmjedgwJQ\\_UFqaljZHBFRcuMA4bBeUp7RLkUb3\\_3FCYWParpYSOVbsfLH82QA0nATer5jANDN4k2ksuEq4iFM-Q6xvcLkOhObMscmizXuy3aRvFbhOlrfNflgoNOMG\\_vq-O8uTLsnP1yZ8v5xG6WxhXoR6miGssOtrube\\_94kP-eCSyJjy6PLU9Nbng2hZUdN6Gp7u0G7nVn7WhWZafobR0sg54bqQ1wUBgYSBBgEYy1\\_id7MpZc2T1zU7rwiHbvS7WnlXngP6a6-JwU5r24IHbGva8cFw31QcilNaSBTRhhiJKMWnE0AMxABkpKJ\\_GA-j-udfzP\\_IhNC7EcZswGEGt-PzSY6hKI1-cqc6OyXnc](http://cfc.summon.serialssolutions.com/cfc.idm.oclc.org/2.0.0/link/0/eLvHCXMwdV1Lb8IwDLZ4XJAmjedgwJQ_UFqaljZHBFRcuMA4bBeUp7RLkUb3_3FCYWParpYSOVbsfLH82QA0nATer5jANDN4k2ksuEq4iFM-Q6xvcLkOhObMscmizXuy3aRvFbhOlrfNflgoNOMG_vq-O8uTLsnP1yZ8v5xG6WxhXoR6miGssOtrube_94kP-eCSyJjy6PLU9Nbng2hZUdN6Gp7u0G7nVn7WhWZafobR0sg54bqQ1wUBgYSBBgEYy1_id7MpZc2T1zU7rwiHbvS7WnlXngP6a6-JwU5r24IHbGva8cFw31QcilNaSBTRhhiJKMWnE0AMxABkpKJ_GA-j-udfzP_IhNC7EcZswGEGt-PzSY6hKI1-cqc6OyXnc).

- Poduval, Sanjay. "Chinese Military Space Capabilities." *Maritime Affairs*. New Delhi: India, Vol 7, No. 2, 2011. <https://www-tandfonline-com.cfc.idm.oclc.org/doi/full/10.1080/09733159.2011.641381>.
- Posen, Adam S. "The Post-American World Economy: Globalization in the Trump Era." *Foreign Affairs*, Vol. 97 Iss. 2, 2018. <https://search-proquest-com.cfc.idm.oclc.org/magazines/post-american-world-economy-globalization-trump/docview/2009156007/se-2?accountid=9867/>.
- Prasad, Jayant. "One Belt and Many Roads: China's Initiative and India's Response." *Delhi Policy Group*, Issue Brief, 2015.
- Qiao, Liang and Xiangsui Wang. *Unrestricted Warfare: China's Master Plan to Destroy America*. Panama City, Panama: Pan American Publishing, 2002.
- Quintana, Elizabeth, Joanne Mackowski and Adam Smith. "Cross-Domain Operations and Interoperability." *Royal United Services Institute*, 2012. [https://rusi.org/sites/default/files/201206\\_op\\_cross-domain\\_operations\\_and\\_interoperability.pdf](https://rusi.org/sites/default/files/201206_op_cross-domain_operations_and_interoperability.pdf).
- Raska, Michael and Richard A. Bitzinger. "Strategic Contours of China's Arms Transfers: SSQ." *Strategic Studies Quarterly*, Vol. 14, no. 1, 2020. <https://search-proquest-com.cfc.idm.oclc.org/trade-journals/strategic-contours-chinas-arms-transfers/docview/2393076731/se-2?accountid=9867>.
- Reichborn-Kjennerud, Erik and Patrick Cullen. "What is Hybrid Warfare?." *Norwegian Institute for International Affairs*, 2016. <http://www.jstor.org/stable/resrep07978>.
- Robertson, Peter E. and Adrian Sin. "Measuring Hard Power: China's Economic Growth and Military Capacity." *Defence and Peace Economics*, Vol. 28, No. 1, 2017. <https://doi-org.cfc.idm.oclc.org/10.1080/10242694.2015.1033895>.
- Rosamond, Ben. "Hegemony," *Encyclopedia Britannica*, 2020, <https://www.britannica.com/topic/hegemony>.
- Rose, Gideon. "Who Will Run the World?" *Foreign Affairs*, Vol. 98, No. 1, 2019. <http://search.ebscohost.com/login.aspx?direct=true&db=mth&AN=133503983&site=ehost-live&scope=site>.
- Rouleau, Sam. "China's Military Space Strategy: A Dialectical Materialism Perspective." *Space & Defense*, Vol. 11, No. 1, 2019. [https://www.usafa.edu/app/uploads/Space-Defense\\_Vol11\\_1.pdf](https://www.usafa.edu/app/uploads/Space-Defense_Vol11_1.pdf).
- Rudolph, Jennifer. *The China Questions: Critical Insights into a Rising Power*. Cambridge, Massachusetts: Harvard University Press, 2018. <http://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=1679660&site=ehost-live&scope=site>.

- Scharre, Paul, "Killer Apps." *Foreign Affairs*, Vol. 98, Iss. 3, 2019. <https://search-proquest-com.cfc.idm.oclc.org/magazines/killer-apps/docview/2227830287/se-2?accountid=9867>.
- Schell, Orville. "The Ugly End of Chimerica." *Foreign Policy* No. 236, 2020. <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=142727540&site=ehost-live&scope=site>.
- Schiff, Adam. "The U.S. Intelligence Community Is Not Prepared for the China Threat." *Foreign Affairs*, 2020. <https://www.foreignaffairs.com/articles/united-states/2020-09-30/us-intelligence-community-not-prepared-china-threat>.
- Schmitt, Michael N. *Tallinn Manual 2.0 on the International Law Applicable to Cyber Operations*. 2<sup>nd</sup> Ed. Cambridge: Cambridge University Press, 2017.
- Segal, Adam. "When China Rules the Web: Technology in Service of the State." *Foreign Affairs*, Vol. 97 Iss. 5, 2018. <https://search-proquest-com.cfc.idm.oclc.org/docview/2094387966/CD233781DF7C4C7CPQ/1?accountid=9867>.
- Shambaugh, David. "China's Soft-Power Push: The Search for Respect." *Foreign Affairs*, Vol. 94, Iss. 4, 2015. <https://search-proquest-com.cfc.idm.oclc.org/docview/1691576736/fulltext/EE38A9F3FAE7480EPQ/13?accountid=9867>.
- Sharma, Ruchir. "The Comeback Nation: U.S. Economic Supremacy has Repeatedly Proved Declinists Wrong." *Foreign Affairs*, Vol. 99, No. 3, 2020. <http://search.ebscohost.com/login.aspx?direct=true&db=mth&AN=142781660&site=ehost-live&scope=site>.
- Shoebridge, Michael. "How to deal with the increasing risk of doing business with China." *The Strategist*, Australian Strategic Policy Institute, 2020. <https://search-proquest-com.cfc.idm.oclc.org/blogs,-podcasts,-websites/how-deal-with-increasing-risk-doing-business/docview/2403149491/se-2?accountid=9867>.
- SIPRI Military Expenditures Database 1949-2019. *SIPRI*, 2020. <https://www.sipri.org/sites/default/files/SIPRI-Milex-data-1949-2019.xlsx>.
- SIPRI Yearbook 2020: Armaments, Disarmament and International Security Summary. *SIPRI*. Oxford University Press, 2020.
- Standish, Reid. "A Silk Road Marriage." *Foreign Policy* No. 226, 2017. <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=124766700&site=ehost-live&scope=site>.
- Steven Booth et al. "The Road Ahead: Cyber Security in 2020 and Beyond." *FireEye Special Report*, 2019.

- Tai, Ming Cheung. *Fortifying China: The Struggle to Build a Modern Defense Economy*. Ithaca: Cornell University Press, 2009. <http://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=671379&site=ehost-live&scope=site>.
- Tan-Mullins, May. "Dancing to China's Tune: Understanding the Impacts of a Rising China through the Political-Ecology Framework." *Journal of Current Chinese Affairs*, Vol. 46, No. 3, 2017.
- Tellis, Ashley J. "Protecting American Primacy in the Indo-Pacific." Testimony before the U.S. Senate Armed Services Committee, 2017.
- Tellis, Ashley J. "The Return of US-China Strategic Competition" (Advance Chapter). In *Strategic Asia 2020- US-China Competition for Global Influence*, The National Bureau of Asian Research, 2019.
- The Heritage Foundation. "2020 Index of U.S. Military Strength." Washington: DC, 2020.
- Thivierge, S. "China's Motives With the Belt and Road Initiative" Joint Command and Staff Program course paper, Canadian Forces College, 2019.
- Tirpak, John A. "Desert Storm's Unheeded Lessons." *Air Force Magazine*, 2020. <https://www.airforcemag.com/article/desert-storms-unheeded-lessons/>.
- Tobin, Liza. "Xi's Vision for Transforming Global Governance: A Strategic Challenge for Washington and its Allies." *Texas National Security Review*, Vol. 2, Iss. 1, 2018. <https://tnsr.org/2018/11/xis-vision-for-transforming-global-governance-a-strategic-challenge-for-washington-and-its-allies/>.
- Tunsjo, Oystein. "Another Long Peace?(Return of Bipolarity between U.S. and China)." *The National Interest* No. 158, 2018. [http://cfc.summon.serialssolutions.com.cfc.idm.oclc.org/2.0.0/link/0/eLvHCXMwpV3NT8IwFG9ELiYmKCJ-kulBT8NtXbf2RMAAkgBR0INelm5tiQc35ePAf2-7D2REExIP66UvTbP3-vravt\\_vAQctuqFv-AQhhCkPzBb2LWE7lFH5WRy7HGHIEGlxmswevLmjAX5NkwsVNCZVd-YIY9fNokDdmt\\_J4FnRsckdtvH5pas6Uuq9NS2qUQBFVW1J2nyx1R4-jtawkkmNQoxtnST8e7-64nh\\_6ZQAY6YSiKD-zj5WKOkN2sZ\\_zfYAlDI-aa2ZWMwh2OFhGVQStpCldqMpKloal\\_tdlkE1d2GorTLnjkC5GcbYLa0fhRNNOVbeqICXTvv5\\_kFPCyzoE5O4RlcCGRRxkzrMdgJkSZW4wiIOQoHgGDNGDIstRtnyuTIFILm1CmUEpN4jPZKQBj8E-VYn44TwG7LEToBlcYBjYLSNyUFsQChF0ZZQHXCXSETfITcK3-t6e4J0KV3DKhi9nMw92-11SxmCtjJvMPoV6ru4XQeJgTqqZCIppPaeCt9dzmemiKR4hCriixcmNcZSr15OJTLYo05NFi5v0o9WwLmXOWJ8MtnCAZL8DufLrgl6AgDauWWmlNhvO9sWwH5tM36Iz5tA](http://cfc.summon.serialssolutions.com.cfc.idm.oclc.org/2.0.0/link/0/eLvHCXMwpV3NT8IwFG9ELiYmKCJ-kulBT8NtXbf2RMAAkgBR0INelm5tiQc35ePAf2-7D2REExIP66UvTbP3-vravt_vAQctuqFv-AQhhCkPzBb2LWE7lFH5WRy7HGHIEGlxmswevLmjAX5NkwsVNCZVd-YIY9fNokDdmt_J4FnRsckdtvH5pas6Uuq9NS2qUQBFVW1J2nyx1R4-jtawkkmNQoxtnST8e7-64nh_6ZQAY6YSiKD-zj5WKOkN2sZ_zfYAlDI-aa2ZWMwh2OFhGVQStpCldqMpKloal_tdlkE1d2GorTLnjkC5GcbYLa0fhRNNOVbeqICXTvv5_kFPCyzoE5O4RlcCGRRxkzrMdgJkSZW4wiIOQoHgGDNGDIstRtnyuTIFILm1CmUEpN4jPZKQBj8E-VYn44TwG7LEToBlcYBjYLSNyUFsQChF0ZZQHXCXSETfITcK3-t6e4J0KV3DKhi9nMw92-11SxmCtjJvMPoV6ru4XQeJgTqqZCIppPaeCt9dzmemiKR4hCriixcmNcZSr15OJTLYo05NFi5v0o9WwLmXOWJ8MtnCAZL8DufLrgl6AgDauWWmlNhvO9sWwH5tM36Iz5tA).

Union of Concerned Scientists (UCS) Satellite Database, last updated on 1 Aug 2020.  
<https://www.ucsusa.org/media/11492>.

United Nations. “Informal Multi-stakeholder Cyber Dialogue Summary report.” 2020.  
[https://eu-iss.s3.eu-central-1.amazonaws.com/horizon/assets/X5Hf8NIU/informal-ms-dialogue-series\\_summary-report\\_final.pdf](https://eu-iss.s3.eu-central-1.amazonaws.com/horizon/assets/X5Hf8NIU/informal-ms-dialogue-series_summary-report_final.pdf).

United Nations. “Peacekeeping: Troop and Police contributors by country as of 31 December 2020.” last accessed 25 February 2021.  
<https://peacekeeping.un.org/en/troop-and-police-contributors>.

United Nations Security Council. United Nations Security Council Working Methods. “The Veto.” last modified on 16 Dec 2020.  
<https://www.securitycouncilreport.org/un-security-council-working-methods/the-veto.php?print=true>.

United States. Defense Intelligence Agency. “China Military Power: Modernizing a Force to Fight and Win.” 2019.

United States. Department of Defense. “Summary of the 2018 National Defense Strategy of the United States of America.” 2018.

United States. Department of Justice. “Li Xiaoyu and Dong Jiazhi Indictment.” 2020.

United States. Office of the Secretary of Defense. “2020 Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China.” 2020.

United States. U.S.-China Economic and Security Review Commission. “2009 Report to Congress of the U.S.-China Economic and Security Review Commission.” 2009.

United States. US-China Economic and Security Review Commission. “2012 Report to Congress.” 2012.

United States. U.S.-China Economic and Security Review Commission. “2014 Annual Report to Congress.” 2014.

United States. United States Senate Committee on Foreign Relations. “China’s Recent Assertiveness: Implications for the Future of US-China Relations.” Testimony of Aaron L. Friedberg. 2014.

Wei, William X. and Illan Alon. “Chinese outward direct investment: a study on macroeconomic determinants.” *Int. J. Business and Emerging Markets*, 2010.

Weisgerber, Marcus. “China’s Copycat Jet Raises Questions About F-35,” *Defence One*, 2015. <https://www.defenseone.com/threats/2015/09/more-questions-f-35-after-new-specs-chinas-copycat/121859/>.

- Weiss, Jessica Chen. "A World Safe for Autocracy? China's Rise and the Future of Global Politics." *Foreign Affairs*, Vol. 98, No. 4, 2019. <http://search.ebscohost.com/login.aspx?direct=true&db=mth&AN=136923448&site=ehost-live&scope=site>.
- Westad, Odd Arne. "The Sources of Chinese Conduct: Are Washington and Beijing Fighting a New Cold War?" *Foreign Affairs*, Vol. 98, No. 5, 2019. <http://search.ebscohost.com/login.aspx?direct=true&db=mth&AN=138044714&site=ehost-live&scope=site>.
- Wickizer, Brian. "Chinese Nuclear Policy, Strategy, and Force Modernization with Dr. Michael Chase." *Georgetown University Center for Security Review*, 2016.
- Woetzel, Jonathan, *et al.* "China and the World: Inside the dynamics of a changing relationship." *McKinsey Global Institute*, 2019.
- Zakaria, Fareed. "The New China Scare." *Foreign Affairs*, Vol. 99 No. 1, 2020. <https://search-proquest-com.cfc.idm.oclc.org/docview/2331238045/CC58DEC112A94419PQ/5?accountid=9867>.
- Zeng, Jinghan and Shaun Breslin. "China's 'new Type of Great Power Relations': A G2 with Chinese Characteristics?" *International Affairs*, Vol. 92, No. 4, 2016. <https://doi-org.cfc.idm.oclc.org/10.1111/1468-2346.12656>.
- Zhu, Jiejun. "Is the AIIB a China-Controlled Bank? China's Evolving Multilateralism in Three Dimensions (3D)." *Global Policy* Vol. 10, No. 4, 2019. <https://doi-org.cfc.idm.oclc.org/10.1111/1758-5899.12763>.