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POWER TRANSITION THEORY AND THE RISE OF CHINA

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ABSTRACT

This paper seeks to understand the current and future trends in the U.S.-China relationship using Power Transition Theory. Power Transition Theory argues that the international system is inherently hierarchical, with one Dominant Power able to determine the rules, norms, and institutions that guide state behavior in the international system, which all other less-powerful states must acquiesce to. However, exogenous dynamic forces can upend this hierarchical equilibrium by providing a dissatisfied, non-Dominant state with the material capacity necessary to challenge the existing order. This phenomenon is what is referred to as a "power transition," and historical analyses have shown that such power transitions frequently result in devastating interstate conflict.

After outlining the core tenets of Power Transition Theory, this paper shows that current aspects of the U.S.-China relationship are conducive to a power transition: China has the material capability and desire to challenge the U.S.-led order. In an effort to prevent either a direct conflict between the U.S. and China or some sort of second "cold war," this paper then offers policy recommendations to U.S. policymakers. It argues that the strategy most conducive to long-term U.S. interests is one based on 19th-century Great Britain's policy vis-à-vis the then-rising U.S., which saw Great Britain recognize and try to account for, rather than outwardly prevent, the rise of a new great power. In the U.S.-Sino context, a similar policy would effectively call for the U.S. to amplify, rather than resist, China's efforts to remake the international system, while also tacitly recognizing Chinese sovereignty over the Southeast Asian region.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

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Chapter 1 Introduction

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

–Napoleon Bonaparte[1]

"It's just as Napoleon said. When China wakes it will shake the world. And the Americans can't bear it. We've woken up and we're recovering our might." –Chinese General Xu Guangyu[2]

The United States (U.S.), and the liberal international community more broadly, finds itself at a strategic and existential crossroads. From the end of World War II through to today, U.S. predominance in global economic and political affairs has been the defining trait of the geopolitical order. The U.S. took full advantage of this near-hegemonic moment by helping to establish a series of rules-based economic, diplomatic, and military institutions that have helped promote increasing levels of economic integration and more broadly shared prosperity, drastically reduced the prevalence of interstate conflict, and ensured that the international system was not defined solely by a Hobbesian anarchy in which the dominant do as they will while the weak suffer what they must. In bringing about these ends, the U.S. relied on its economic dynamism and technological advantages, its stable and productive political system, and the attractiveness of its values and culture as a means of maintaining broad influence and order.

Nonetheless, the era often referred to as *Pax Americana* is coming to an end. U.S. democracy, once a model for other nations to imitate and aspire to, is defined more by its dysfunction and decay rather than its ability to compromise, develop strategic goals, and solve

[1] Fish, Isaac Stone. 2016. "Crouching Tiger, Sleeping Giant." Foreign Policy. http://foreignpolicy.com/2016/01/19/china_shakes_the_world_cliche/ (March 15, 2018)
[2] Ibid.

basic problems. The U.S. economy, likewise once a model to be followed, was left railing after the 2008 financial crisis, and has come to be defined, at least in the minds of the American electorate, by high levels of economic inequality, low growth, and a lack of opportunity for the average American. U.S. foreign policy, struggling to regain its footing after drawn out, and largely unsuccessful, conflicts in Iraq and Afghanistan, has proven itself unable to deal with the geopolitical crises of the modern era, especially the Syrian civil war and subsequent refugee crisis, Russian efforts to undermine Ukrainian sovereignty, which have now expanded into the realm of the West and its electoral systems, a nuclear North Korea, and a conflict-plagued Middle East that includes a U.S.-backed civil war in Yemen.

Perhaps most importantly, the U.S. public, driven in part by these internal trends, as well as by a thriving white ethnic nationalism, a seeming inability to tell real news from fake, and a lack of trust in conventional political leaders and institutions, elected a U.S. president who has implemented policies that are disengaging the U.S. from the geopolitical stage and are bringing into question the U.S.'s commitment to its allies and humanitarian values, resulting in the degradation of U.S. prestige and increased skepticism regarding its ability to serve as the gatekeeper of the current order. The same forces that fueled Trump's rise have manifested themselves in the politics of other Western countries: the United Kingdom, France, and Germany each have their own separate and reemerging nationalist movements that threaten to end the European project and throw the western world into a period of democratic tumult.

In the midst of U.S. decline, the People's Republic of China (herein referred to as China), armed with a large population, soon-to-be unmatched economic capabilities, a desire to lead in technological innovation, rapidly enhanced military capabilities, and a vision of international reemergence is challenging the U.S.-led order, seeking to remake it in its own

image. Over the last decade, China has worked to create new multilateral economic and trade institutions that exclude the U.S., has blatantly ignored international law regarding its claims of sovereignty in the South China Sea, and has undertaken domestic influence operations inside key U.S. allies, particularly New Zealand and Australia. China is driven to do this not only because of its growing material capacity, but also because of a broad cultural desire to avenge the so-called "Century of Humiliation" and to return China to its rightful spot as the "Middle Kingdom," the English translation of the Chinese characters for China, 中国.

The rise of China, and how the U.S. chooses to manage that rise, will be the two key forces determining the direction of the international system over the next half-century. It is very likely that, if present trends continue, China could be the preeminent power determining the course of global affairs, which brings with it enormous implications for the global economy, democracy and human rights, and the potential stability of the global system. It is also very likely that China and the United States, driven by the escalatory and emotional pressures of great power competition, could find themselves either in a mutually devastating third world war, that would see the global economy contract, cities destroyed, and potentially millions of lives lost, or a second cold war that could limit U.S.-Chinese cooperation, stall or halt institutional growth, and yet still ultimately break out into a direct conflict

From the perspective of the U.S., all three of these outcomes are antithetical to U.S. economic and security interests, and should dutifully be avoided.

This paper's ultimate goal is to develop foreign policy recommendations for the U.S. that are designed to accomplish such a goal. It does so from a perspective informed and guided by Kenneth Organski's Power Transition Theory, which posits that "rising" and "dominant" global

powers face pressures and incentives to enter into a direct military conflict so as to determine who will emerge as the next global leader.

This paper first provides an overview of the theoretical tenets that make up Power Transition Theory. It then applies each of these tenets to the case of the U.S. and China, in an effort to determine whether the present competition between the U.S. and China can be effectively characterized as a "power transition." Given that the U.S. and China are indeed found to be undergoing a power transition, it then examines the four possible outcomes that could result from such a transition, and offers foreign policy recommendations to U.S. policymakers based on these potential outcomes.

Chapter 2

Power Transition Theory

> *"I am not a man who believes that we Germans bled and conquered thirty years ago [to be] pushed aside when great international decisions are made. If that were to happen, the place of Germany as a world power would be gone for ever. I am not prepared to let that happen."- German Kaiser Wilhelm II, 1900.*[3]

In an effort to judge and assess the future trajectory of the U.S.-China relationship, a number of questions need be asked and investigated: What exactly is a "power transition?" In what contexts and under what circumstances do such power transitions occur? What external and internal forces drive rising states to challenge the international order?

Kenneth Organski's "Power Transition Theory" (PTT), adapted from his seminal work *World Politics*, offers answers to each of these questions, and has ultimately come to serve as the primary model through which great power competition is broadly understood and interpreted (Organski 1968). This chapter seeks to outline the tenets and metrics of PTT, so that they can be applied to the context surrounding the U.S.-Sino relationship in an effort to determine whether it is conducive to a power transition. It first provides a broad overview of the theoretical foundations of PTT, and then outlines the three forces that PTT posits as determining the nature and timing of power transitions.

[3] Alpha History. 2014. "Quotations-The Road To War." http://alphahistory.com/worldwar1/quotations-road-to-war/ (March 25, 2018)

The Behavior of States in the International System: Structural Forces

Power Transition Theory, and subsequent extensions of it made by other scholars, argue that two key forces determine the behavior of states in the international system, one structural and one dynamic. Structurally, PTT:

> *"[E]nvisions global politics as composed of a hierarchy of nations with varying degrees of cooperation and competition. It specifies the relative roles of nations within this hierarchy, the system of governing rules, and then outlines how powerful countries attempt to manage global politics" (Tammen, Kugler and Lemke 2017).*

In other words, PTT posits that there is one structurally Dominant Power which, given its relative position in the international hierarchy, is able to exert outsized influence over the direction of the international system, allowing for its interests, values and norms to be accounted for and manifested through and within it. Given the central role it plays in present conceptions of the international order, Dominant Powers are generally considered to be satisfied, and are seemingly willing to internalize some amount of costs to keep the international order, as it is arranged, in place.

As mentioned in the introduction, the U.S. following the end of World War II, and especially after the fall of the Soviet Union, is an adequate example of a Dominant Power: its economic and diplomatic preeminence allowed it to develop institutions, rules, and norms that were conducive to its world view and interests, such as the Bretton Woods Institutions, the Nuclear Non-Proliferation Treaty, the North Atlantic Treaty Organization, and bilateral military alliances that formed the foundation of global security. It likewise gave the U.S. substantial leeway in determining when and who could break these same rules and norms: although the U.S.

stridently defended Kuwaiti sovereignty when Saddam Hussein invaded it in the 1990's, it was quick to unilaterally violate Iraqi sovereignty a decade later, with or without the blessing of the international community and its institutions.

Along with a Dominant Power, PTT posits secondly that there is a set of Great, Middle, and Small powers who, at least relative to the Dominant Power, are unable to exert their influence to the extent they otherwise would. Depending on a state's internal conception of its own interests, and how those interests align with the interests and policies of the Dominant Power, this set of states is divided into those considered to be *satisfied* and *dissatisfied* with the current international order. As with the Dominant Power, these satisfied and dissatisfied powers are likewise willing to internalize some amount of cost to either uphold or challenge the rules governing the current international order.

PTT posits that the level of satisfaction or dissatisfaction of any individual state is "based on the varying commitment of national elites to the existing *status quo*, which include the broad acceptance of international rules and norms" (Tammen, Kugler and Lemke 2017). Thus, this precept of PTT provides the first contextual requirement necessary to induce a power transition between any two states: the state need be dissatisfied with the *structure* of the international system, rather than satisfied.

The Behavior of States in the International System: Dynamic Forces

Along with the structural and hierarchical forces that underlie PTT, it also accounts for dynamic forces that can potentially alter the current distribution of power within this hierarchy, or which states are defined as Dominant, Great, Middle, and Small Powers. To determine when a

state moves categorically from a Middle Power to a Great Power, or from a Great Power to a Dominant power, Power Transition Theory primarily "focuses on differential growth rates across nations," given that it is these differential rates that allow for the development of differential levels of economic, political, and cultural power that can, in turn, be exerted on the global stage:

> *On any given day, some countries are gaining power, some are losing power, and some are standing still. It is this phenomenon, the relative change in power that produces new relationships among nations (Tammen, Kugler and Lemke 2017).*

This provides the second requirement for the existence of a power transition between any two states: the Rising Power must be experiencing substantive gains in its material capacity, particularly relative to the Dominant power, so as to enable it to actively challenge the existing order.

However, while raw measures of Gross Domestic Product (GDP) remain "the most useful tool when forecasting for future performance," PTT nonetheless posits that pure material capacity is insufficient to induce the dynamic forces necessary for a power transition to take place: a state's political system must also be efficient enough to translate material economic inputs, such as a resource endowment or large population, into usable resources (Tammen, Kugler and Lemke 2017). In other words, although a country may have a large economic base, that says little about whether governmental institutions are designed in a manner conducive to translating that economic base into substantive power.

Thus, in short, the foundations of Organski's PTT have outlined a geopolitical framework that can help identify when a power transition will take place:

1. Individual states hold positions within the geopolitical hierarchy, which are determined by their current levels of economic performance, and the ability of their political system to translate economic capacity into exercisable, material outputs.
2. In accordance with this hierarchy, one state is considered "Dominant," and is able to exercise influence over the direction of the international system. States that are rising in material power can conceivably challenge the current Dominant Power, which ultimately depends not only on their relative material advantage or disadvantage, but also whether they are *satisfied* or *dissatisfied* with the current rules, norms, and institutions of the international order that the "dominant" power upholds.

Outlining Power Transition Theory

Although PTT provides the theoretical foundation necessary to understand power transitions as a concept, it does not necessarily provide the metrics by which these three foundations, material capacity, political efficiency, and satisfaction, can be judged. Utilizing prior literature, this section seeks to outline and deepen PTT by developing this set of metrics, which will be subsequently applied to the case of the U.S. and China.

Measuring Material Capacity

The "power" in Power Transition Theory is defined primarily as a state's given level of economic growth, measured using a country's current level of gross domestic product (GDP) as

a proxy. The focus on GDP as a proxy for national power could easily be seen as problematic, given that there are numerous instances were a dominant national power struggled to translate that power into effective geopolitical gains (i.e. supposed U.S. military failures in Vietnam and Iraq). Indeed, the Composite Indicator of National Capabilities (CINC) was developed as a more nuanced and comprehensive overview of national power meant to supplant simple measures of GDP, and identifies military expenditures and personnel, energy consumption, iron and steel production capabilities, and population as each determinant of national power (Tammen, Kugler and Lemke 2017).

Nonetheless, previous conceptions of PTT posit that GDP is an appropriate measurement of national power (Organski and Kugler, 1980). This is both because economic capacity is fungible, allowing states to "allocate different portions of domestic product to security, growth, health, education, infrastructure, or other priorities as needed," and because "the overall relationship between GDP and the CINC measure is high among developed societies," although that relationship fails to hold for developing states (Tammen, Kugler and Lemke 2017).

While this paper does not challenge the status of GDP as an appropriate proxy for power, it nonetheless takes issue with both GDP and CINC for failing to effectively account for the specific factors that impact *long-run* economic capacity.

The case for identifying forces that impact long-run economic capacity is straightforward. Power transitions do not occur at one instance in time: they occur over several sequential years, if not decades, as dynamic growth rates gradually accumulate and give any state the capacity to challenge or suppress another. While relative comparisons of current levels of GDP growth are sufficient in identifying whether a power transition is likely to occur *now*, they are not sufficient

in determining whether a power transition will occur *in the future*, and thus fail to effectively account for the forces that could determine the existence of a power transition over the long-run.

To be sure, the determinants of long-run growth that are identified herein are already accounted for in projections of long-run GDP, meaning that any individual using projected levels of GDP as a proxy for national power could accurately identify the likelihood of a power transition. Despite this fact, this paper still takes the view that the determinants of long-run growth are important enough to the foundation of power transitions that they deserve to be identified in their own right: any individual seeking to judge the likelihood of a power transition should be armed with all of the tools necessary to do so, including long-run economic determinants. Herein, in accordance with prior economic literature, those determinants are identified.

What determines long-run economic growth?

The literature concerning the long-run determinants of economic growth is both comprehensive and diverse, and far beyond the scope of this paper to examine in its entirety. For the sake of identifying, at a basic level, these forces, The Federal Reserve Bank of St. Louis offers a comprehensive overview of previous literature that is satisfactory for the goals of this paper. They identify three main factors that drive long-run economic growth (Chien 2015):

1. Accumulation of capital stock
2. Increases in labor inputs, such as workers or hours worked
3. Technological advancement

While each of these factors are self-explanatory, they will be briefly explained for the sake of clarity. A state's given level of economic growth is first determined by the raw amount of those inputs it has that are required to produce economic outputs, represented in this model as capital stock (industrial machines, factories, etc.) and the level of labor inputs, or individuals who can interact with and amplify that capital. The degree of amplification between labor and capital stock is then determined by the level of productivity of a given state, represented here as technological advancement. For example, a more efficient and advanced communications system could allow the amount of output produced by a given level of capital and labor stock to increase.

However, of these 3 forces, the Federal Reserve further argues that "It has been shown, both theoretically and empirically, that technological progress is the main driver of long-run growth," given that increases in capital stock and labor inputs are necessarily subject to the law of diminishing returns, meaning that their impact will be gradually lessened over time, while technological progress is the force that is responsible for increasing the absolute returns of these same factors (Chien 2015).

The critical role that technological progress plays in determining a state's long-run economic capacity, and in-turn that state's ability to challenge the existing order, is seen not only through an economic lens, but also a historical one: one of the key factors that allowed the United Kingdom (U.K.) to dominate the 19th century, both economically and geopolitically, was the fact that it led on that era's technological frontier, the first Industrial Revolution. The U.K.'s technological dominance enabled it to "[develop] a dominant navy, [become] the financial and trading center of the world, and [expand] its imperial reach (colonial control) to every continent" (Lai 2011, 11).

Nonetheless, "technological progress" is an inexact and broad term unconducive to quantitative measurement or qualitative comparison between two states, a necessary requirement for the goals of this paper. The National Bureau of Economic Research (NBER) has produced research both examining the determinants of technological progress in the long-run and providing a way to measure them, which it defines as a state's "National Innovative Capacity" (NIC).

The NBER's research argues that a state's NIC is determined by two mutually-interacting factors: whether the state has a "common innovation infrastructure," or a public sector devoted to promoting behaviors that favor long-run innovation; and whether the industrial sector is designed in a way that incentivizes the promotion and adoption of innovations. Generally, and in accordance with the empirical assumptions of the study's authors, these two factors can be broken down into four distinct forces that can be used to compare the long-run NIC of the U.S. and China, or any two state's facing the potential of a power transition:

1. The country's aggregate level of technological sophistication.
2. The size of the country's available pool of scientists and engineers.
3. The level of higher-education investment by the country.
4. Public and private R&D spending.

Thus, interpreting the amount of power that can be potentially exerted by a given state over the long-run, and thus the likelihood of a power transition, is dependent on two factors:

1. The state's current level of GDP.
2. The state's level of technological progress, which determines long-run productivity and thus long-run GDP levels.

Moreover, as already mentioned in the preceding chapter, PTT also relies on measures of a state's given level of political efficiency to determine state power, given that merely having raw economic capacity does not guarantee that a state also has the institutions necessary to effectively translate that economic capacity into exercisable resources. Organski and Kugler (1980), in their initial development of PTT, outlined methods to measure the political efficiency of a given state, which were subsequently added to by later scholars (Kugler and Tammen 2012), and defined as a state's relative political capacity, extraction and allocation. In comparing the political capacity of the U.S. and China, this paper will use these previously developed quantitative methods, which will be outlined in more detail in the subsequent section.

Measuring Levels of Satisfaction

As PTT posits, the level of a given power's dissatisfaction with the status quo enforced by the dominant power determines whether a state endowed with an appropriate level of power will challenge the international order. The central role that levels of satisfaction play in PTT is clear: being dissatisfied with the international status quo implies that an actor would receive some amount of benefit from changing the status quo, meaning it would be willing to internalize some level of cost, potentially including direct or indirect conflict, so as to make the international order more reflective of its own internal interests.

Measuring a given state's level of satisfaction is less straightforward. As Tammen, Kugler and Lemke (2017) put it, "the development of measures of satisfaction has become a cottage industry that is yet to reach a commonly accepted single measure." Previous literature

has identified several different metrics by which satisfaction can be ascertained. Each of these will be reviewed herein.

The first subset of satisfaction measurements relies on statistical concepts known as "Tau B" to measure the similarity of any two state's alliance commitments, with alliance commitments serving as a proxy for the similarity of those two state's foreign policy interests (Bueno de Mesquita 1975). The focus on alliance commitments posited that satisfied states would form strategic alliances with other satisfied states, and vice versa for dissatisfied states.

In the context of PTT, a state's alliance portfolio could be compared to that of the Dominant Power to ascertain whether it shares the foreign policy interests and goals of that Dominant Power, and thus whether it is effectively satisfied or dissatisfied with the order it presides over. While there are numerous problems with this measurement technique, given that two states could enter into an alliance for reasons beyond foreign policy congruency and alliance systems can become entrenched and unreflective of current conditions with the passage of time, it is nonetheless broadly judged as one appropriately approximate measure for judging a state's level of satisfaction (Tammen, Kugler and Lemke 2017).

The second set of satisfaction measurement techniques is similar to the first: a state's level of military arms buildup, and the level of arms transfers to other states (Tammen, Kugler and Lemke 2017). Both of these measurement techniques are meant to reflect that a state is preparing for a potential conflict with the Dominant Power, both because they are increasing their own military readiness as well as that of their allies.

The third set of measurement techniques, which are distinct from each other yet interconnected and mutually reinforcing, deals with the nature of a state's behavior towards international institutions and its expressed and internalized attitudes as it relates to a global

redistribution of power (Johnston 2003). Given the central role that international institutions of governance hold in PTT, a state that actively participates in international institutions, follows the rules and norms associated with those institutions, does not seek to alter those same rules and norms, and does not express an outright desire to alter the global distribution of power can effectively be considered a satisfied power that does not hold an inherent desire to overturn the existing order.

Thus, an examination of PTT and other prior literature has identified those forces that determine a state's given level of power, as well as those forces that determine the extent to which a state is satisfied or dissatisfied with the existing international order. This paper will now turn away from theory toward qualitative and quantitative application, by examining whether the context of the U.S.-Sino relationship seemingly makes it conducive for a power transition.

Chapter 3

Assessing the U.S.-Sino Power Transition

The previous chapter dealt with and outlined the theoretical foundations of Power Transition Theory. It highlighted that the potential for a power transition increases when a dissatisfied Rising Power reaches near-power-parity with a Dominant Power. It outlined methods through which the relative power of Rising and Dominant Powers can be assessed, particularly over the long run, as well as methods to assess a Rising Power's level of satisfaction.

This chapter will now turn to applying each of these insights to the U.S.-China relationship, with the goal of identifying whether it can reasonably be conceived as a power transition. Given that a state's level of power is primarily determined by its economy, this section will first examine recent trends in the Chinese economy, while also comparing the U.S. and China on each of the aforementioned determinants of long-run economic growth. It will then briefly assess the ability of both the Chinese and U.S. government to translate the resources it is endowed with and holds into policy initiatives, using the quantitative, empirical measurement techniques already developed in prior literature. It will then turn towards assessing China's purported level of dissatisfaction vis-à-vis the current international order. Lastly, it will close by identifying the extent to which the U.S., especially under the presidency of Donald Trump, has seemingly shown an unwillingness to uphold the international order, regardless of whether China chooses to challenge it or not, a factor that is not necessarily accounted for in PTT, but could presumably have large implications for the potential outcomes of the U.S.-Sino power transition.

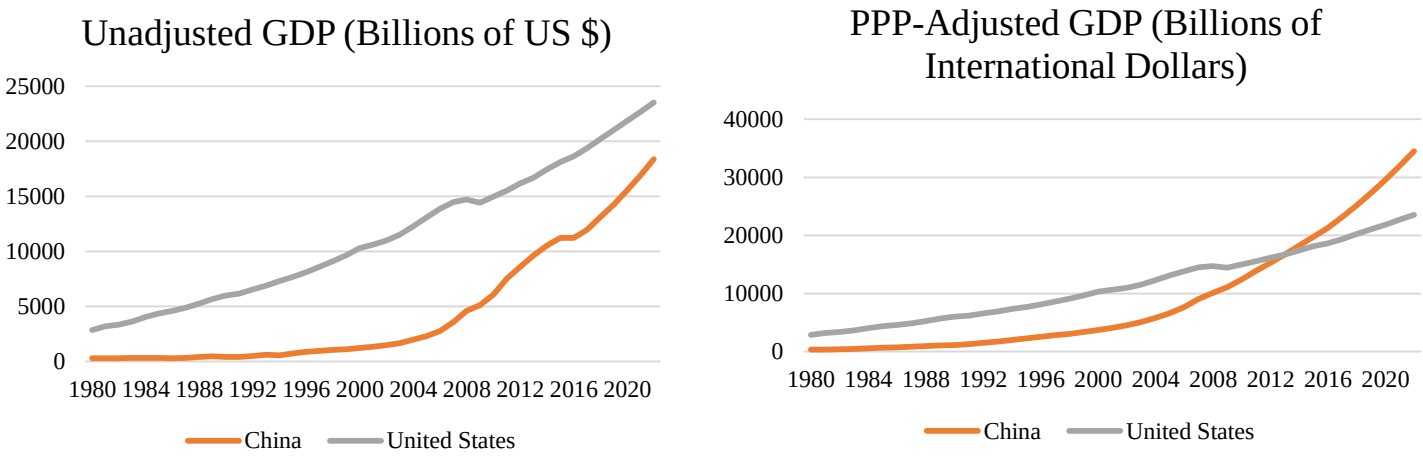
The goal of this section is *not* to empirically prove that China will or will not overtake the U.S. in the international system, nor that China and the U.S. will go to war. Rather, it is meant to apply the theoretical framework provided by PTT to surmise whether the U.S.-Sino context appears conducive to a power transition, a question that, given the potential outcomes of power transitions, is essential for U.S. policymakers to answer and be aware of.

China's Relative Economic Rise

Ever since Deng Xiaoping implemented his infamous "Opening Up and Reform" policy in 1978, which instituted various domestic economic reforms meant to promote competition and partially open up the Chinese economy to trade with the outside world, China has undergone three decades of enormous, sustained economic growth. According to official government statistics, between 1978 and 2005 China's gross domestic product (GDP) grew by 9.6%, while its GDP per capita grew by 8.5%, resulting in an unprecedented 600 million Chinese being lifted out of absolute poverty (International Monetary Fund 2014, hereafter IMF; Naughton 2007, chap. 6).

Moreover, since 2005, due in part to its success in limiting its exposure to the global recession of 2008-2009, China's GDP growth has continued to remain high, only recently slowing to 6.8% in 2017 (IMF 2018). Nonetheless, the IMF estimates that China's GDP, measured using purchasing power parity (PPP), a system that former Federal Reserve member Stanley Fischer argues is "the best yardstick… in comparing the size of national economies, especially for the purposes of assessing comparative military potential," (Allison 2017, 11) had grown to $18.23 trillion by 2014, slightly larger than the US's own $17.43 trillion (IMF 2018).

By 2017, the PPP-GDP gap between China and the US had expanded to $4 trillion, and is estimated to continue on this path in the near future, growing to nearly $11 trillion by 2022 (IMF



2018). Even using unadjusted GDP measurements, China's economic growth is still drastic and notable, and estimated to overtake the U.S. economy over the next two decades (see Figures 2 and 3, with data provided by the International Monetary Fund's DataMapper project).

The sheer size of this economic shift is made even more poignant when measured as a percentage of global economic growth: in 1980, China's share of global growth measured using PPP was 2.33%, while the US's share was 21.81%. By 2017, this had shifted to 18.26% for China, and 15.29% for the United States, respectively, a historically unprecedented shift in global economic power (IMF 2018). China has become the primary trading partner of most global actors,

Figure 1 U.S. and Chinese Nominal and PPP-adjusted GDP

Source: International Monetary Fund DataMapper

including key U.S. allies not located in the Southeast Asian region, such as the European Union (EU), which saw its imports from China rise from 2.4% in 1990 to 14.5% in 2009, nearly 4 percentage points more than the U.S. (Vlčková 2010).

In short, the growth China has experienced over the last four decades, measured as total GDP growth, per capita GDP growth, share of global growth, and share of global trade, particularly as those measures compare to the U.S., highlights that it is indeed an economic power nearly on par with the U.S. However, given that PTT does not deal exclusively with current levels of GDP, but rather relies on future estimates of GDP growth to judge future relative power indifferences that are critical to determining whether or not a power transition will occur, examining current relative indifferences between the U.S. and Chinese economies is unsatisfactory. In the following section, each of the metrics outlined in the prior chapter that purportedly determine long-run economic growth will be applied to China and the U.S.. These are:

1. Aggregate Level of Technological Sophistication
2. Available pool of scientists and engineers
3. Investments in higher education institutions
4. Public and Private R&D

Aggregate Level of Technological Sophistication

The level of technological sophistication in any given country is difficult to quantify. Nonetheless, many economists have successfully done so, and have conveniently applied these

measurements to both the U.S. and China in a manner that makes them comparable, in accordance with the goals of this section.

Some of these studies have found that, over time, China's measure of technological sophistication has remained stagnant and expected given its income level, or actually declined in relative terms, particularly as it compares to the U.S. (Vlčková 2010; Schott 2008; Kemeny 2011). These conclusions largely support the hypothesis that "China does not seem to threaten the technological position of the developed countries [especially the U.S.]…yet" (Vlčková 2010). Although other authors have reached opposing conclusions (Hausmann et. al 2007), the broad consensus in the economic community is that the U.S. has an empirically overwhelming technological advantage vis-à-vis China that will surely limit China's ability to drastically overtake the U.S. economy over the next few decades.

Nonetheless, there are a number of recent developments that, while not empirically proving that China is catching up to the U.S. in terms of technological capacity and sophistication, nonetheless adds qualitative support to the argument that it is making significant ground. For example, in the technological domain of supercomputers, which a 2015 White House report stated "have been and remain essential to economic competitiveness, scientific discovery, and national security" (Kalil & Miller 2015), with a separate report claiming that "they play an important role in areas such as quantum mechanics, national defense, weapon design, weather forecasting, oil and gas exploration, and climate research" (Hall 2017), China has gone from being a country with little-to-no supercomputing power in 2001 to the country with the most: In a 2017 report, China was found to have the most supercomputers at 202, compared to the U.S.'s 143, with average aggregate performance measures that again surpass the U.S. (Hall 2017).

China also has the world's first and second fastest supercomputer, the Sunway TaihuLight and the Tianhe-2, while the U.S. has only the fifth fastest, the Titan (Hall 2017). Moreover, and perhaps speaking more clearly to the fact of China's rise as a technological superpower, the TaihuLight was built using only Chinese-produced microprocessors, while all past Chinese supercomputers have relied heavily on U.S.-produced microprocessors (Thibodeau 2016).

Or consider other technologically-relevant domains. In September of 2017, China launched the first quantum communication satellite, a technology that would enable "a new and super secure way to communicate or exchange data" (Yiu 2018). In September 2016, China completed the development of a 500 meter Aperture Spherical Telescope, making it the largest radio telescope ever constructed, surpassing the Arecibo Observatory in Puerto Rico (Hersher 2016). In 2017, China began operating the largest solar farm ever developed in Huainan, China, which contains 120,000 solar panels that cover the physical area of 160 football fields and can partially power 15,000 homes (Rathi 2017). More broadly in the field of clean energy, China accounts for 46% of all new solar technology deployed on an annual basis, far higher than both the U.S. (19.6%) and the European Union (7.5%), and likewise accounts for 60% of annual solar cell manufacturing capacity (Harder 2017).

Lastly, and perhaps most importantly, China has made it a top public priority to become a global artificial intelligence (AI) superpower. A 2017 report by the consulting firms Accenture Research and Frontier Economics estimated that AI has the potential to increase productivity growth in China by 27% over the next few decades, which would in-turn increase its annual growth rates from 6.3% to 7.9%, implying that if China is indeed able to garner an advantage in

the domain, they will be relatively well-positioned economically vis-à-vis the U.S. (Purdy and Daugherty 2017).

In July 2017, China's State Council released its "Next Generation Artificial Intelligence Development Plan," which, among other things calls for China to become "the world's primary AI innovation center" with an AI-based industrial sector valued at over 1 trillion RMB, in an effort to lay "an important foundation for becoming a leading innovation-style nation and economic power" (New America 2017). This was followed up shortly by an announcement that it would spend over $2 billion to develop an "AI industrial park" in a remote district outside of Beijing (Cyranoski 2018). Moreover, China filed 8,000 AI patents from 2010 to 2015, which represents a 190% growth rate that "outpaces other leading markets significantly" (Daugherty 2017).

Along with these public commitments by its government, China also has a domestic situation that is particularly conducive to developing a complex and competitive AI infrastructure: their large population, coupled with more limited restrictions on how the data its firms and government collected can be utilized, will, and already has, resulted in a relative advantage at developing and implementing AI technologies, particularly at the local level (Knight 2017).

As well as with its successes in each of these particular domains, the Chinese Communist Party (CCP) has framed Chinese technological dominance as crucial to the hopes, ambitions, and success of the Chinese people, evidenced by the rhetoric surrounding the "Made in China 2025" plan, as well as in public pronouncements by CCP leaders, such as this one made by Premier Li Keqiang at the CCP's 19th Party Congress:

"In the global race of scientific and technological innovation, China has shifted place, from following others to keeping pace and even leading the pack in more areas" (Jing & Soo, 2017).

- Premier Le Keqiang

Again, there are serious limits on China's ability to be the dominant innovative hub it hopes to be, especially as it relates to empirical measures that do not place too much weight on eye-catching technological initiatives. In the field of AI alone, China still struggles to attract and retain leaders and lags in the number of patents filed, although both of those trends are changing rapidly (Cyranoski 2018). Nonetheless, China's improvements in its technological sophistication show that it will be a serious economic competitor to the U.S. over the near future.

Scientists, Engineers, and Investment in Higher Education

The second and third variables determinant of the long-run technological capacity of a state is the available pool of scientists and engineers and the level of investment in higher education. Unlike with measurements of its technological sophistication, China already leads the U.S. in this domain, and will continue to dominate well into the future.

Dominance in this domain starts with China's K-12 education system. In the Organisation for Economic Cooperation and Development (OECD)'s 2015 Programme for International Students Assessment (PISA) test, Chinese students from four provinces ranked 10th and 6th in science and mathematics, respectively, while those from the U.S. ranked 25th and 37th (OECD 2016, 5). Moreover, a Stanford University study found that engineering and computer science students in China "were roughly three years ahead of U.S. students in critical-thinking

skills" compared to their U.S. counterparts, although this gap was closed by half after two years in college (Parker 2016).

China's educational advantages continue into the higher education system, long thought of as giving a consistent advantage to the U.S. The 2018 *U.S. News & World Report* on the best global universities for engineering ranked Beijing's Tsinghua University first, with the U.S.'s Massachusetts Institute of Technology third (U.S. News & World Report 2018). In total, including Tsinghua and MIT, China had three universities in the top ten, while the U.S. only had two. Moreover, even though the U.S. university system continues to lead in most other fields, a report by The World Economic Forum found that China graduated 4.7 million students in the Science, Technology, Engineering and Mathematics (STEM) fields in 2016, representing 40 percent of Chinese graduates, compared to the U.S.'s 568,000, which represent only 20 percent of its total (World Economic Forum 2016).

Likewise, "in every year of the Obama administration, Chinese universities awarded more Ph.D.'s than American universities" (Allison 2017, 16). This trend in educational improvement and dominance is both long-running, with the number of Science and Engineering degrees awarded in China growing by 350% between 2000 and 2014 (National Science Foundation 2018, hereafter NSF) and likely to continue, as estimates project China's graduate population to increase by 300% by 2030, compared to a 30% increase in the U.S. and Europe (Schleicher 2016).

Regardless of these gains, the U.S. has still historically been the top destination for international students studying abroad, speaking to the inherent advantages in its education system. But, according to Allan Goodman, the president of the Institute of International Education, China has recently moved up to the third slot with 397,635 international students

enrolled in Chinese universities (Ministry of Education 2016) and "is on track to overtake the U.K. and capture" the second slot by the end of 2018 (LeVine 2018). Despite the fact that a significant number of Chinese choose to study in the United States, China's Ministry of Education reported that its effort to attract these students back to China after they graduate is largely succeeding: by 2016, 82% of international students returned to China after graduating, up from only 33% in 2006 (Maslen 2017).

Public and Private R&D

The last variable of concern is the level of public and private research and development (R&D). Past and future trends in Chinese R&D spending reflect both the rapid growth in the Chinese economy and its long-run trajectory for economic dominance: over the period of 2000-2015, China's R&D spending (measured using PPP) increased eightfold, from less than $50 billion to over $400 billion, "accounting for nearly one-third of the global increase" and knocking the U.S. down to 26% of global spending from 37% (NSF 2018, 14). In pure, unadjusted R&D spending, China is estimated to overtake the U.S. by 2019, and spend $100 billion more by 2024 (OECD 2014).

Moreover, China's publication of science and engineering research, which the NSF argues is "one of the tangible measures of research activity" has increased fourfold since 2003, from less than 100,000 to over 400,000 today, overtaking the United States (NSF 2018, 19). In other measures, such as the number of patents filed and the amount of foreign venture capital attracted, China has also either overtaken or drastically caught up to the U.S.: between 2013 and

2016, venture capital investment in Chinese firms increased from $3 billion to $34 billion, increasing its global share from 5% to 27%.

The point of this section was two-fold. First, it identified that any conventional measure of economic power shows that China is clearly gaining on, if it did not already surpass, the U.S., dimming the prospects that China will not, in some substantive way, challenge the U.S.-led order if it is indeed found to be dissatisfied. Second, it applied the determinants of long-run growth outlined in the previous chapter to the U.S.-Chinese context, clearly highlighting that, although the U.S. certainly has, and possibly will maintain, a technological advantage that will limit any drastic shift in economic power over the next several decades, China is certainly catching up and making several large investments in key fields.

Thus, on the first measure crucial to power transition theory, that being both short-run and long-run economic growth, China can be clearly classified as a legitimate challenger vis-à-vis the U.S. The second measure of power, that being political efficiency of both countries, will be examined in the following section.

Assessing U.S. and Chinese political efficiency

As with assessing the technological sophistication of any country, assessing the efficiency of a country's political system is a notoriously fraught task, but nonetheless crucial in identifying whether a country has the institutions necessary to translate economic potential into economic output. Organski and Kugler (1980) sought to solve this issue by developing a variable meant to measure "political performance." Since then, several scholars have sought to refine this measurement system by breaking political performance down into three variables: relative

political extraction (RPE), relative political reach (RPR), and relative political allocation (RPA), which are collectively meant to represent the ability of a state to extract resources from economic actors and allocate them to meet government goals (Kugler and Tammen 2012).

Along with refining the system for measuring political effectiveness, Kugler and Tammen (2012) have also conveniently applied this refined measurement system to the U.S. and China, allowing the two to be compared. Their results, shown in Figure 2 below specifically as it relates to measurements of RPE, show that, around the year 2000, the U.S. lost its relative advantage vis-à-vis China in its ability to extract resources from the population, although this advantage is minimal. While the graph below only compares the U.S. and China on the RPE metric, the other measures of political efficiency reflect a similarly small and inconsequential difference.

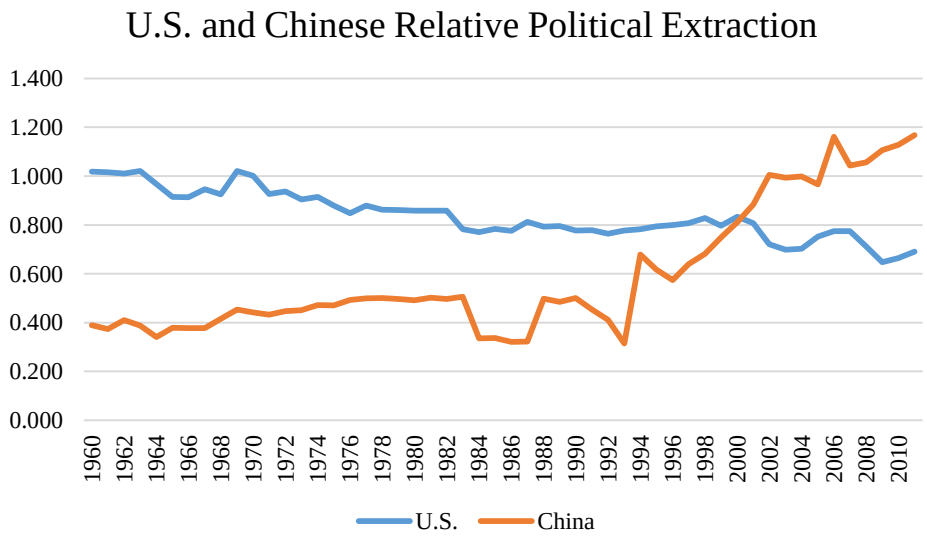


Figure 2 U.S. and Chinese Relative Political Extraction

Source: Relative Political Capacity Dataset (Arbetman-Rabinowitz et. al)

Thus, the variable of political efficiency can largely be viewed as inconsequential for the sake of this paper: both the U.S. and Chinese political systems show themselves to be relatively comparable on the measure that it is unlikely to significantly impact the likelihood or outcome of a power transition, which will ultimately be determined by raw material capacity, or differential economic growth rates. The next section will now move to probe the extent to which China will exercise its newfound power, or whether it can be characterized as a *satisfied* or *dissatisfied* power.

Assessing Chinese Satisfaction

In an effort to answer the question of whether China can be judged as "satisfied" or "dissatisfied," this section seeks to apply the previously-determined metrics of state satisfaction to the case of China. For the sake of clarity, those metrics again are:

1. Comparisons of the state and trends of the U.S. and Chinese alliance systems, with similar alliance systems supporting the conclusion that China is satisfied, and vice versa.
2. An examination of recent trends surrounding the Chinese military and arm sales, with increasing military capabilities (relative to the U.S.) and arms sales highlighting that China is interested in, planning on, or preparing for a direct military conflict.
3. An overview of Chinese behavior and attitude towards international institutions and the international system more broadly.

Development's in China's alliance system

Over the last several decades, Chinese foreign policy has drifted away from its principles of general non-interference in the affairs of sovereign states towards one that seeks to gradually expand China's sphere of influence. Some, though not all, of those states China has developed close economic and military relationships with are not considered to be close allies or partners with the U.S. China's geopolitical sphere of influence also extends beyond Southeast Asia and the Pacific, with many of China's closets partners located in Africa, Latin America, Central Asia, the Middle East, and Europe. China's newfound focus on increasing its influence is seen in three separate domains: trends in foreign aid, infrastructure investments, and military relationships and arms sales.

Foreign Aid and Investment

Over the past 15 years, China has drastically increased the amount of foreign aid it gives to a select group of states, from $1.3 billion in 2000 to an average of over $10 billion over the period of 2011-2014 (AidData.org 2018). As Table 1, which compares the 15 countries receiving the most aid from China over the years 2000 to 2014 to the amount of aid those same states received from the U.S., the China and U.S. aid portfolios look substantively different.

Table 1: The Top 15 Recipients of Chinese Aid

Country	China	U.S.
Cuba	$6.7 billion	$0.191 billion
Cote d'Ivoire	$4.0 billion	$0.849 billion
Ethiopia	$3.7 billion	$8.319 billion

Zimbabwe	$3.6 billion	$1.735 billion
Cameroon	$3.4 billion	$0.283 billion
Nigeria	$3.1 billion	$4.306 billion
Tanzania	$3.0 billion	$4.371 billion
Cambodia	$3.0 billion	$1.051 billion
Sri Lanka	$2.8 billion	$0.787 billion
Ghana	$2.5 billion	$1.956 billion
Mozambique	$2.4 billion	$3.551 billion
Pakistan	$2.4 billion	$15.088 billion
Congo	$2.1 billion	$.096 billion
Kenya	$1.6 billion	$7.016 billion
Kyrgyzstan	$1.6 billion	$0.915 billion

Source: AidData.org

Highlighting the extent to which this increase in aid is tied directly to China's political concerns, rather than simply material and commercial interests, an analysis by AidData, which compiled the foreign aid data referenced above, found that China's aid lending to African countries is tied fundamentally to the political symmetry between China and the receiving country: African countries that tended to vote with China at the United Nations received 86% more in official aid grants than those countries that did not (Dreher et. al 2015).

China's level of outward investment, which is qualitatively different than the aid it gives out because it is non-concessional, meaning it is given in the form of a loan to be paid back, have increased in a comparable manner. From 2006 to 2016, Chinese foreign direct investment (FDI), both "private" and state-led, increased from nearly $24 billion to $217 billion (OECD 2018).

Over that same time period, U.S. FDI has remained relatively stagnant, only increasing from $232 billion to $300 billion.

Both increases in aid and FDI are part of a larger foreign policy pivot made by China to increase overseas investment and lending by Chinese state-run banks, characterized by the Chinese as part of their broad "Going Out" economic policy (Wang 2016). China's One Belt One Road (OBOR) initiative is the culmination of this policy, and represents China's desire to use economic tools in an effort to create a more pro-China view of economic statecraft and geopolitical sphere of influence.

OBOR, which the Chinese government formerly calls The Silk Road Economic Belt and the 21st-Century Maritime Silk Road, is an international infrastructure investment project that seeks to promote better trade ties and integration along a route mirroring the Han's Dynasty's Silk Road. The project, initially announced by President Xi Jinping in 2013, calls for Chinese Policy and State-Owned banks to lend capital directly to states stretching from Southeast Asia to northern Europe for projects related to energy and transportation "such as a gas pipeline from the Bay of Bengal through Myanmar to south-west China and a rail link between Beijing and Duisburg, a transport hub in Germany" (The Economist 2016). Sixty countries are estimated to be participating in OBOR, with official Chinese figures stating that OBOR-related deals will total well over 900, cumulatively worth $890 billion. Chinese officials state that it plans to spend $4 trillion on OBOR projects in the near-term future (Economist 2016).

OBOR, and increases in China's foreign aid and investments more broadly, are not merely a commercial initiative: it represents a fundamental challenge to an era where global economic activities were primarily organized and facilitated by the U.S. As *The Economist* wrote in 2016:

> *"OBOR matters because it is a challenge to the United States and its traditional way of thinking about world trade. In that view, there are two main trading blocs, the trans-Atlantic one and the trans-Pacific one, with Europe in the first, Asia in the second and America the focal point of each. Two proposed regional trade deals, the Trans-Pacific Partnership and the Transatlantic Trade and Investment Partnership, embody this approach. But OBOR treats Asia and Europe as a single space, and China, not the United States, it its focal point" (The Economist 2016).*

China's military investments and changing military alliances

Over the last several decades, Chinese military spending has increased exponentially, from 42 billion RMB in 1989 to over 1400 billion RMB today, or around $220 billion (See Figure 5). While these trends seemingly reflect the behavior of a dissatisfied state, prior PTT literature argues that increases in military spending must be *relative* to the Dominant Power for a given Rising Power to be considered dissatisfied. Given that the U.S. still spends substantially more on its national defense, with a budget of nearly $700 billion, absolute trends in military spending are alone insufficient to characterize China as dissatisfied.

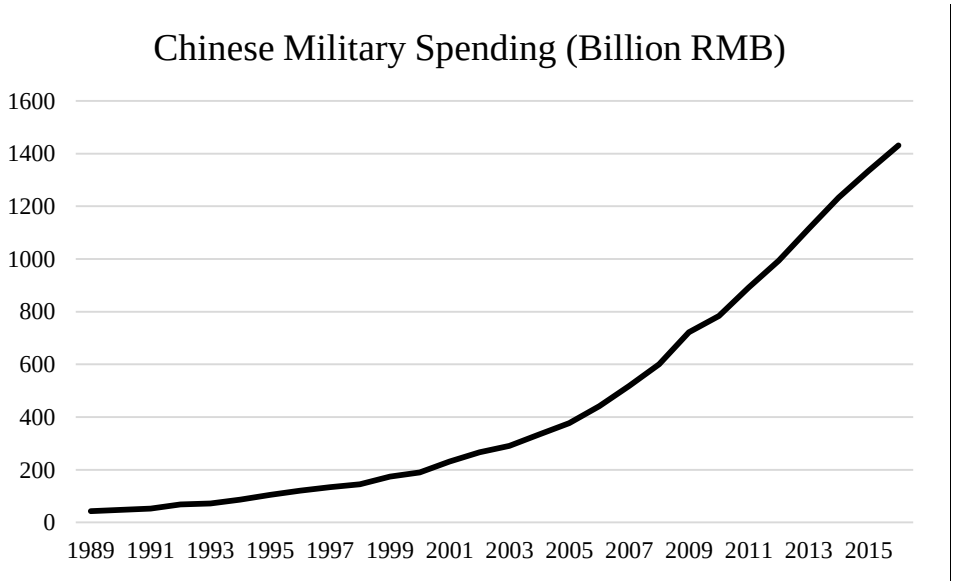


Figure 3 Chinese Military Spending
Source: World Bank

Nonetheless, this theoretical view about relative military spending is not necessarily born out in reality: China's increases in military spending, and the nature of its military activity more broadly, have been clearly intended to allow China to stand up to any U.S. provocation, something that would be difficult to reconcile with the view that China is a satisfied power.

China's heightened focus on military capacity initially began in 1996 following a dispute between the U.S. and China over the Taiwan Strait that reflected poorly on China's odds in a military confrontation over Taiwan. Since then, China's military spending has increased by an average of 11% annually, with the modernization effort largely focused on "optimized capabilities for conflict across the Taiwan Strait and developing air and naval forces, conventionally armed ballistic missiles, and counter-space and cyber capabilities" (Heginbotham 2016).

In some respects, the investment has paid off, and would allow China to participate in a sustained and substantial confrontation with the U.S. The Rand Corporation's U.S.-China

Military Scorecard, a report that compares U.S. and Chinese military capabilities along 18 dimensions for the years 1996, 2003, 2010 and 2017, specifically as they relate to a hypothetical confrontation over Taiwan and the South China Sea's Spratly Islands, found that in 8 of the 18 domains, China had reached "Approximate Parity" with the United States, while in 2 of the domains, China had an outright advantage (Heginbotham 2016). This compares, most notably, to Chinese capabilities in 2010, which saw China with an "Approximate Parity" in only 7 domains, and an absolute advantage in none.

The report notes that, although China continues to lag in many domains, this should not be the key indicator used to judge Chinese capabilities or long-term intentions in the region:

> *"The PLA is not close to catching up to the U.S. military in terms of aggregate capabilities, but it does not need to catch up to the United States to dominate its immediate periphery. The advantages conferred by proximity severely complicate U.S. military tasks while providing major advantages to the PLA" (Heginbotham 2016).*

More recently, in 2015 and 2016, President Xi Jinping undertook a dramatic effort to reorganize the institutional structure of the People's Liberation Army (PLA). This move grew out of a long-held view in the Chinese military establishment that "the Chinese military is markedly unprepared for modern warfare, as the PLA structure has not been conducive to commanding joint force operations. Xi's grand military reform at least partially aims to address this deficiency" (Li 2016, 11). Although the details of this effort are beyond the scope or purpose of this paper, the fact that these reforms were implemented *now*, while they were

unable to be implemented in the past, speaks to the fact that Chinese political institutions take military power seriously.

China's military buildup and reorganization has been framed not merely as a national security issue, but a geopolitical and cultural issue: Xi Jinping has made an effort to tie improvements to the Chinese military to the reassertion of China's international standing, known in official lingo as the "Chinese Dream," a policy that will be examined in detail in the subsequent section. As China's military doctrine white paper, titled "Chinese Military Strategy," states:

> *"The Chinese Dream is to make the country strong. China's armed forces take their dream of making the military strong as part of the Chinese Dream. Without a strong military, a country can be neither safe nor strong. In the new historical period, aiming at the CPC's goal of building a strong military in the new situation, China's armed forces will unswervingly adhere to the principle of the CPC's absolute leadership, uphold combat effectiveness as the sole and fundamental standard, carry on their glorious traditions, and work to build themselves into a people's military that follows the CPC's commands, can fight and win, and boasts a fine style of work" (The State council Information Office of the People's Republic of China 2015).*

China's expansive military priorities are also reflected in its increased focus on military diplomacy, or non-combat military-to-military exchanges such as joint military exercises, port calls, and senior-level meetings and military dialogues. China launched its first known joint-

military exercise in 2002 with Kyrgyzstan, and has participated in a total of 349 such exercises with over 56 countries since 2003, most notably with Russia, Pakistan, the U.S., and Thailand, although it has never participated in a combat exercise with the U.S. (ChinaPower 2017).

China has likewise gradually increased the amount and type of "port calls" that it makes, defined as when a Chinese vessel enters foreign ports "to conduct a range of activities including functional maintenance, diplomatic exchanges, and humanitarian operations" (ChinaPower 2017). For example, Chinese fleets have performed 26 escort missions in the Gulf of Aden (located around Djibouti) since 2003 and the *Peace Ark*, a Chinese hospital ship, has visited 34 total countries and treated over 120,000 patients over the same time period (ChinaPower 2017). While joint-military exercises and port calls have increased over time, the number of senior-level meetings has remained high, with 167 meetings occurring annually since 2003 (ChinaPower 2017).

Moreover, in 2016, China formally announced that it had established its first overseas military base in Djibouti, estimated to be nearly 250,000 square feet in size and capable of holding 10,000 Chinese troops (Singh 2017). China's interest in building such a logistical base was previously thought to be primarily for commercial interests, although this view changed after China launched several infrastructure projects in the country "including a new port, two new airports, and the Ethiopia-Djibouti railway" that framed China's interests as "clearly political [and] intended to bolster China's military and diplomatic presence in the western Indian Ocean," especially given that the U.S., Japan, and France also have military bases located in Djibouti. In exchange for using the port as a logistical hub, Djibouti requested that China "assist in the development of [its] military capabilities, including boats and airplanes, as well as the establishment of a civilian maritime complex," which China quickly obliged to.

While measures of military spending alone are not sufficient to judge China's level of satisfaction, what is clear is that China's recent efforts to expand its military capabilities in certain domains, reorganize its military apparatus, and increase its overseas military engagement are all made in an effort to both improve China's ability to defend its national interest in a conflict in close proximity to China and to extend the sphere of its militaries influence beyond its own backyard. This conclusion can be seen as meeting the requirements of classifying China as a dissatisfied power.

China and International Institutions

China's recent behavior toward international institutions, rules, and norms has been notably two-faced. On the one hand, it has increased its participation in various multilateral institutions that already exist, partially fulfilling the Western hopes that a materially-empowered China would be a "responsible stakeholder" that would protect and uphold existing institutions once it became fully integrated into them and it subsequently realized the broad public benefit they provided. However, at the same time that China is taking a leading role in some, it is outwardly challenging others, or seeking to create institutions separate from those that already exist in certain domains. Each of these Chinese faces will be examined herein.

China's Growing Participation in the Existing International System

China's increasing willingness to participate in and help lead U.S.-led international institutions is perhaps best represented by its behavior toward the United Nations. Figure 6 below shows the share of the United Nations regular budget that the U.S. and China account for,

with China increasing its share from a mere 0.75% in the 1990's to nearly 8% in 2018 (United Nations 2018). In 2019, China's share is expected to rise to 10.81%, which would make it the second-largest contributor to the United Nations, overtaking Japan, whose share is expected to drop to 8.718% (The Japan Times 2017).

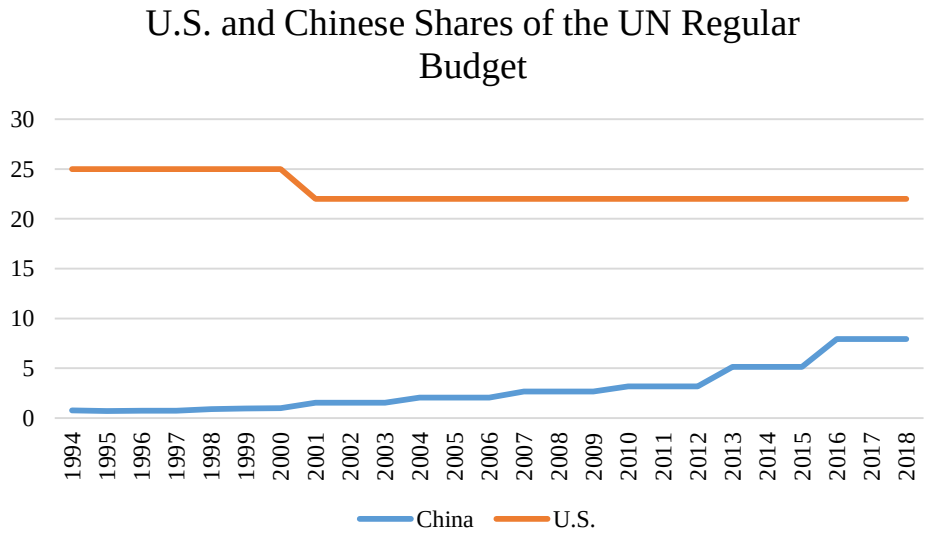


Figure 4 U.S. and Chinese Shares of the UN Regular Budget
Source: United Nations

Along with contributing more to the general budget, China has also emerged as the second-largest contributor to the UN peacekeeping budget: In 1990, China only contributed five soldiers to ongoing peacekeeping operations, a number that rose to 3,084 by 2015, making it the single-greatest contributor of peacekeepers (ChinaPower 2016). Moreover, in 2017, China established a standby force of 8,000 permanent peacekeepers, and committed to a 10-year, $1 billion China-UN peace and development fund that would further enhance China's role in peacekeeping operations. (ChinaPower 2016).

Many of the countries that China sends its peacekeepers to, most notably Cambodia, the Democratic Republic of Congo, and Sudan, also have a geographic and commercial interest for

China, calling into question the idea that China's participation in peacekeeping efforts is for anything other than its own economic interest. Nonetheless, even if China is merely participating with its own interest in mind, it is still doing so *through pre-existing, U.S.-led institutions,* and not seeking to develop its own set of institutions that it can use to reach these goals. This is not necessarily the behavior of a dissatisfied Rising Power: its participation in the UN peacekeeping gives further legitimacy to an institution that the U.S. has substantial authority in.

This gradual increase in Chinese participation in the UN is likewise mirrored in other international institutions, particularly after the 1989 Tiananmen Square incident, which badly damaged China's standing in the international community. After 1989, China "comprehensively expanded and deepened its engagement in a diversity of international organizations, but also… tried to play a more and more active and leading role in many organizations" partially in an effort to combat the "'China Threat' claim [that] rapidly gained momentum in some Western and neighboring countries" due to China's rapidly growing economy (Xie 2011). Indeed, by 2003, China had joined a total of 41 international institutions, bringing it to near-parity with the number of institutions the U.S. had participated in, up from only 70% of the U.S. total in 1996 (Xie 2011).

The most notable of these institutions was the World Trade Organization (WTO), which China was awarded membership to in 2001 after a long and hard-sought campaign that was met with substantial levels of resistance across the West. A Chinese textbook published in 2001, under a section titled "A General Introduction on International Organizations," highlighted China's strategic interest in participating in those institutions that already existed, despite the fact that they may be led by state's and individuals without China's interests at heart:

> *"As a great power in the world, China has gradually become an important force in the international society, therefore we must intimately cooperate and coordinate with the United Nations and other international organizations, and play an active role in these organizations. Only by doing so, China can do more contribution to the international society" (Ye and Wang 2001, 32).*

China's Institutional Expansion

Although China has, in many respects, become a "responsible stakeholder" given its high participation rate in U.S.-aligned international institutions and its growing support for UN peacekeeping efforts, in many ways it has actively sought to challenge the preeminence of other international institutions, blatantly ignored international law, and sought to uproot certain norms, all actions of a dissatisfied Rising Power. Chinese actions in the South and East China Seas are the most infamous example of these efforts, with China claiming sovereignty over large swaths of maritime territory, using military and other extrajudicial means to defend those claims, and ignoring UN-sanctioned court rulings that do not recognize its sovereignty.

China's Bluster in the South China Sea

The current dispute between China and various other regional powers in the Southeast Asian region over these territorial claims in the South China Sea (SCS) and the East China Sea (ECS) has a long historical precedent. China's claims of sovereignty over a large swath of the 1.4 square mile region are based on the so-called "Nine Dash Line," an arbitrary demarcation pronounced as official Chinese policy by the nationalist Kuomintang government in 1947

(Council on Foreign Relations 2018). Nearly 30 years later, long after the Chinese civil war between Mao Zedong's Communist Party and the Kuomintang government saw the latter exiled to Taiwan, China began to enforce its claim of historical sovereignty by occupying the SCS's Paracel Islands, capturing a garrison of South Vietnamese troops, and building a military installation on the islands, which to this day continues to hold 1000 People's Liberation Army (PLA) troops.

Over the next few decades, China would continue to harden the legal definition of its claims by passing the Law on the Territorial Sea and Contiguous Zone in 1992, which attempted to legitimize its Nine Dash Line claim by referencing historical claims made by the Xia dynasty 3000 years ago, and also increased its military confrontations in the region: Chinese vessels sunk three Vietnamese ships in 1988, engaged in a 90-minute maritime battle with a Philippine gunboat in 1996, and lost one Chinese pilot after a Chinese F-8 interceptor collided with a U.S. Navy surveillance aircraft over the SCS in 2001 (Council on Foreign Relations 2018). Over the following years, China signed several bilateral and multilateral agreements, most notably with the Association of Southeast Asian Nations (ASEAN) and Japan, regarding proper conduct in the SCS and joint energy development measures in the ECS, respectively.

After 2010, tensions again begin to escalate between China and Japan, Vietnam, and the Philippines after China began building artificial islands in the SCS that would improve its strategic position, provoking several military confrontations between China and the various regional actors, pushing the Philippines to begin referring to parts of the SCS as the West Philippine Sea in 2011 (Council on Foreign Relations 2018). In 2013, China's Ministry of Defense announced that it had established an Air Defense Identification Zone over the disputed

East China Sea, which requires it to take military action against aircraft that do not identify themselves flying over the zone.

In response to China's increasingly strident claims, the United States began to increase support for its allies in the region, signing a new defense treaty with the Philippines, lifting a weapons embargo with Vietnam in 2014, and undertaking more Freedom of Navigation operations over disputed territories. In 2013, the Philippines initiated an international arbitration dispute with the United Nations Convention on the Law of the Sea (UNCLOS) over China's SCS claims of sovereignty, which China refused to participate in, marking the first time any country has filed a formal claim with UNCLOS over a dispute. In 2016, the Permanent Court of Arbitration in The Hague ruled that China's Nine Dash Line has no legal precedent, and that the islands China has built in the region will not be recognized as sovereign territory. In response, China's foreign ministry stated that China "neither accepts nor recognizes" the ruling, leaving the status quo in the regional disputes in place (CFR 2018). China continues to build artificial islands and conduct military operations in the SCS to this day.

There is no doubt that both China's military maneuvering in the South and East China Seas, particularly its building of artificial islands in an effort to extend China's territorial sovereignty in the SCS and its establishment of an Air Identification Zone in the ECS, as well its rebuke of the UNCLOS ruling, both represent fundamentally revisionary behavior that extend China's sovereignty and challenge international norms, in the case of the former actions, and serve as a direct rebuke of the international institutions that determine the outcome of maritime dispute, in the case of the latter.

The AIIB

Other initiatives similarly reflect China's growing desire to challenge and rebuke the current international order. Along with the wide-reaching OBOR, which was already mentioned as representing a challenge to the western-conception of the global trade and investment order, over the same time period it also sought to establish another multilateral institution that represents a similar challenge as OBOR: the Asian Infrastructure Investment Bank (AIIB).

The AIIB is a lending institution launched in 2015 with 57 sovereign members and $100 billion in endowed capital, enough to match the lending conducted currently by other regional lending institutions, most notably the Asian Development Bank and the World Bank (Greenwood 2016). Despite the pointed opposition from the Obama administration at the time, the AIIB managed to attract a number of close U.S.-allies to join as members, most notably the United Kingdom, Germany, France, Saudi Arabia and Israel. Both the desire to create the AIIB and China's success in attracting U.S.-allies to join it in the face of U.S. opposition speak to the desire for China to revise the global economic order and its ability to act on that desire.

Interfering in the Affairs of Sovereign States

According to remarks made by the current Director of National Intelligence Dan Coats, in 2016 China will spend over $8 billion conducting influence operations in 68 different countries, representing a large increase in China's desire to interfere in the affairs of sovereign states and highlighting that, in every domain possible, China is attempting to "undermine American influence and bolster its own reach" (Pandey 2016).

Along with this general increase in influence operations, recent news reports out of Australia highlight the degree to which these efforts are all-encompassing. Australian intelligence services concluded that Australian businesspeople with close ties to China have been

donating to Australian political parties in an effort to make their foreign policy agenda more China-friendly (Kurlantzick 2017). Indeed, a study conducted by Melbourne Law School's Dollars and Democracy Database found that, over the course of 2000 to 2016, nearly 80 percent of all foreign political donations came from China (Gomes 2017).

Moreover, Chinese security forces have reportedly undertaken covert efforts to monitor Chinese nationals and students living in Australia, with one Chinese student stating that "It's an open secret that our telephone is tapped…we are followed everywhere" (McKenzie et. al 2017). Lastly, China has sought to create partnerships between Chinese state-owned media outlets and Chinese-language outlets already in Australia, as well as establishing "Confucius Institutes" on university campuses. Highlighting the extent to which these influence operations could potentially extend beyond Australia, and are likely occurring around the world, U.S. lawmakers are considering requiring Confucius Institutes to register as foreign agents so their activities are more restricted and come under greater formal scrutiny (Reuters 2018)

The Chinese Dream

Lastly, China's low level of satisfaction with existing institutions can be seen in the nature of its rhetoric, particularly under now-President Xi Jinping. At the 19th National Congress of the Chinese Communist Party, President Xi Jinping proclaimed that China has now "crossed the threshold into a new era." In particular, China's "international standing has risen as never before. Our Party, our country, our people, our forces, and our nation have changed in ways without precedent. The Chinese nation, with an entirely new posture, now stands tall and firm in the East" (Jinping, 2017). With this new posture comes new responsibilities for and expectations of the Chinese people "to strive with one heart to realize the Chinese Dream of national

rejuvenation. It will be an era that sees China moving close to center stage and making greater contributions to mankind" (Jinping, 2017).

The "Chinese Dream" has come to define this new posture, and is meant to signify the hopes and ambitions of the Chinese people. This newfound dream, which has been integrated into most aspects of China's propaganda efforts, is inexorably tied up with the sense that China's historic march toward greatness was only derailed by imperial western powers during a period known in China as the "Century of Humiliation." Given that this, combined with the Chinese Dream, is often used publicly in a way to express dissatisfaction with the existing distribution of power, it deserves to be discussed in full.

The Century of Humiliation refers to the historical period between 1839 and the end of World War II in 1945. This period is defined by a number of significant events, including the First Opium war between China and the British Empire, the subsequent Treaty of Nanjing that China saw as inherently unequal and disrespectful, the Second Opium War, and the two Sino-Japanese wars.

China felt that the outcomes of these conflicts was grossly unjust, and had trouble reconciling them with its own historic national identity as the center of the universe (中国, China's own name for itself, literally translates to "Middle Kingdom.") The lessons from the Century of Humiliation "are taught and discussed in all schools in China, and Chinese children grow up with a sense of responsibility to never allow such events to happen again" (Ding & Xu, 2015). As a result, the Century of Humiliation has come to "comprise the foundation of Chinese nationalism" and China's guiding foreign policy principles including "to rectify that humiliation. On this point, all Chinese citizens are united" (Ding & Xu, 2015).

More recently, each of the sentiments referred to here were echoed in an op-ed published in a state run media outlet, under the byline Xuanyan, which means "manifesto" in Chinese:

> *"The drawbacks of capitalism-led political and economic systems are emerging; the global governance system is experiencing profound changes and a new international order is taking shape. The historic opportunity is an all-round one, which refers to not only economic development but also the speeding up of science, technology and industrial revolution, the growing influence of Chinese culture and the increasing acknowledgement to the Chinese wisdom and Chinese approach. We are more confident, and more competent, than any time in history to grasp this opportunity" (Xinhua 2018*

In conclusion, an effort to determine China's level of satisfaction has largely concluded that China's behavior is representative of a power dissatisfied with the geopolitical status quo, although there were some findings that contradicted this in slight ways. On the one hand, China's participation and support for U.S.-led international institutions such as the United Nations is reflective not of a belligerent, Rising Power, but rather a state that wants to see the current distribution of power maintained by upholding and participating in those rules and norms that govern international relations. On the other hand, China's actions in the South China Sea, its efforts to create new regional economic institutions that leave out the U.S., its activities in sovereign states, and its own rhetoric all highlight that China can and is willing to challenge U.S.-led institutions and norms where it desires.

This potential dissatisfaction, combined with China's growing material power, both fulfill the fundamental tenets of Power Transition Theory: China has both the ability, and in many respects the desire, to challenge the U.S.-led order. Nonetheless, there is one more contextual variable that should be examined: recent trends in U.S. orientation toward the international system.

U.S. Disengagement from the Global Order

Perhaps because it is so unlikely and unexpected, basic conceptions of Power Transition Theory generally fail to factor in the likelihood that a Dominant Power will find itself unwilling to defend the international order that it had therein helped create. Given that the international system had been designed with their own national interests in mind, Dominant Powers are typically supposed to uphold that system in a rational pursuit of upholding its own interests. However unlikely, that is exactly the position the U.S. has found itself in of recent. Any comprehensive account of a potential power transition between the U.S. and China must necessarily account for this recent behavior, which is the goal of this section.

Following his victory in the 2016 presidential election, newly-elected President Donald Trump undertook a number of actions that either disengaged the U.S. from the geopolitical order it helped create, or at least sowed doubts about its willingness to lead it. Throughout his presidency, President Trump has threatened to pull the U.S. out of the Joint Comprehensive Plan of Action (JCPOA), colloquially referred to as the Iran Nuclear Deal, which U.S. allies and adversaries alike spent large amounts of time and political capital negotiating. Similarly, President Trump did manage to pull the U.S. out of the Trans-Pacific Partnership, a free-trade

agreement between the U.S. and other major Pacific economies that was negotiated over the course of a decade, and the Paris Climate Accords, both of which were key foreign policy victories and achievements of the Obama administration.

Speaking to the extent to which these moves are seen as reflective of the U.S.'s unwillingness to lead the international system, China was quick to further along its own regional trade deal that would've effectively competed with the TPP, known as the Regional Comprehensive Economic Partnership (RCEP), while the 11 other countries who had participated in the TPP negotiations successfully renegotiated the deal in the absence of the U.S. (Peterson 2018). There are countless other actions that could be listed here, including President Trump's recent imposition of tariffs on steel and aluminum imports, his efforts to renegotiate NAFTA and build a wall along the U.S.-Mexico border, his calling into question the U.S.'s commitment to NATO and other close allies, his statement that he wanted to ban Muslims from entering the U.S. on the campaign trail, and his consistent endorsement of authoritarian regimes and policies in foreign countries, all of which highlight the extent to which, under President Trump, the U.S. has chosen to renege on its former duty to uphold the order it helped to create.

Each of these actions, as well as many of President Trump's own domestic blunders, have also resulted in the weakening of one of America's key assets: its cultural power, or the power associated with its values and institutions. For example, according to a Pew Research Center poll conducted in the spring of 2017, significant majorities abroad disapproved of President Trump's policy proposals to withdraw the U.S. from JCPOA, to impose tighter restrictions on travel from Muslim-majority countries, to withdraw the U.S. from the Paris Climate Accords and the Trans-Pacific Partnership, and to build a wall along the U.S.-Mexico border (Wike et. al 2017).

These negative views of President Trump, according to the same survey, have correspondingly resulted in substantially more negative views of the U.S. as a whole: the favorable-unfavorable gap in the perceptions of the U.S. declined from 38% at the end of President Obama's tenure to 10% by the beginning of the Trump administration, with 62% of respondents describing President Trump as "dangerous," and only 26% describing him as "well-qualified to be president" (Wike et. al 2017). It should be noted, however, that negative views about the Trump administration are not unique to President Trump: by the end of the George W. Bush administration, in the midst of the 2008 financial crisis and after failed U.S. military efforts in Iraq and Afghanistan, European respondents expressing "confidence in the U.S. president to do the right thing regarding world affairs" mirrored their current reactions to President Trump.

The loss of respect that the U.S. has experienced under Trump is perhaps best summarized in remarks made by French President Emmanuel Macron at the World Economic Forum's annual meeting in Davos, Switzerland: "Obviously, and fortunately, you [referring to World Economic Forum CEO Klaus Schwab] didn't invite anybody skeptical with global warming this year" (Buncombe 2018).

In short, under President Trump's leadership, the U.S. has lost much of the national prestige and respect it had regained under the Obama administration, has pulled the U.S. out of international institutions that would have and will have drastic implications for the future of the international order, and has called into question the U.S.'s ability or willingness to defend and uphold its allies. These developments have implications for a potential power transition between the U.S. and China, which will be investigated in the following chapter.

Chapter 4

Likely Outcomes of the U.S.-Sino Power Transition

"It was the rise of Athens and the fear that this instilled in Sparta that made war inevitable." -Thucydides[4]

This paper has argued in its totality that a power transition between the U.S. and China is likely and to be expected. With regard to the first tenet of Power Transition Theory, China's rapid economic growth since 1978, its relative advantages on some of the factors that determine long-run economic growth, and the fact that neither the U.S. or China have a particularly advantageous political system support the conclusion that China has the *ability* to challenge the U.S.-led order. With regard to the second, the growing differences in the U.S. and Chinese alliance systems, China's military buildup and reorganization, and China's behavior toward international institutions largely support the conclusion that China is dissatisfied with the current distribution of power and thus has the *desire* to challenge the U.S.-led order. Lastly, although PTT does not necessarily account for this possibility, the U.S. has shown recently that it does not necessarily have the internal political support necessary to sustain its presidency over the international order, which, if continued, has implication for the outcome of the U.S.-Sino power transition.

Now that it has been established that the context surrounding the U.S.-China relationship is conducive to a power transition, this chapter will seek to identify its potential and likely outcomes. The analysis conducted herein will argue that there are four potential outcomes given

[4] Allison, Graham. 2017. Destined for War: Can America and China Escape Thucydides's Trap? Houghton Mifflin Harcourt.

such conditions: a third world war between the U.S. and China, a prolonged second cold war that could see either the U.S. or China come out victorious, prolonged U.S. disengagement that allows China to become the Dominant Power without a hot or cold conflict, or a U.S.-led international resurgence that sees China's advantages relative to the U.S. wane away over time, and prevents any potential power transition from manifesting itself in reality.

The Third World War

One of the core tenets of Power Transition Theory is that when a dissatisfied power rises to near-power parity with a Dominant Power, the potential for a conflict to break out between the two increases, given that both the Rising and Dominant Powers face incentives to engage in a preemptive strike against the other. This aspect of PTT has come to be known as "Thucydides's Trap," originating from the Athenian historian Thucydides's "History of the Peloponnesian War," which sought to explain why the then-Rising Power in Athens and the then-Dominant Power in Sparta engaged in a conflict that neither wished to enter nor ultimately benefited from (Allison 2016). His analysis has come to be summarized by the quote provided at the beginning of this chapter: "It was the rise of Athens and the fear that this instilled in Sparta that made war inevitable."

The theory that two great powers facing the potential for a power transition are likely to enter into a direct conflict with each other has been supported by empirical applications of it to history. Harvard professor Graham Allison's "Thucydides's Trap" Project has identified 16 power transitions that have occurred since the 15th century, and found that, of those 16, only four did not result in direct conflict between the Dominant and Rising Powers (Allison 2016, 235).

Although the forces that ultimately determined each of these distinct outcomes were both idiosyncratic and dependent on the forces guiding global affairs at the time, making them difficult to intrinsically compare, Allison argues that they each share at least one common factor, that being the "rising power" and the "ruling power" syndrome:

> *"The first highlights a rising state's enhanced sense of itself, its interests, and its entitlement to recognition and respect. The second is essentially the mirror image of the first, the established power exhibiting an enlarged sense of fear and insecurity as it faces intimations of 'decline'" (Allison 2017, 44).*

Along with the historical precedent of power transitions ending in direct military conflict, the fact that the behavior of the U.S. and China respectively fit the description associated with Allison's aforementioned "syndromes" adds support to the conclusion that the U.S. and China could easily break out into direct conflict. China, empowered by its economic rise and long cultural history, does appear to hold an enhanced sense of itself given recent public pronouncements that frame China as a great and international power, as well as an enhanced sense of its own interests and abilities, given its blatant willingness to ignore international law over disputes in the South China Sea, its desire to build institutions outside of the U.S.'s scope of influence, and its efforts to interfere in the affairs of sovereign states.

The U.S., on the other hand, especially under President Trump, has shown that it does indeed fear China's rise and is insecure about its declining global power. This can be seen, for example, in the recent moves by President Trump to impose tariffs on China, renewed support for initiatives that would strengthen the Committee on Foreign Investment in the United States' (CFIUS) ability to reject Chinese investments due to national security concerns, and efforts to

curb the influence the Communist Party is able to exercise on college campuses and inside U.S. allies such as Australia and New Zealand.

Thus, this paper judges that the foundations of PTT applied to China, combined with the historical evidence regarding the outcomes of previous power transitions, imply that there is indeed a high likelihood that the U.S. and China enter into conflict.

To be sure, it is unclear what the catalyst or outcome of such a conflict would be: it could be due to an escalating trade or cyber war, a military standoff in the South China Sea or over Taiwan and Hong Kong gone awry, the purposeful actions of a U.S. or Chinese president seeking to gain the support of a divided public, or any number of other escalatory scenarios. Moreover, it is beyond the scope of this paper to attempt to identify what the potential outcomes of a direct military conflict would be: the determinants of such a factor are too idiosyncratic, nuanced, and dependent on the nature of unforeseeable events to outline here. What is known, however, and what this paper seeks to stress in this section, is that a war is both possible and would be detrimental to both countries, and the global community more broadly.

However, there are a number of factors unique to the U.S.-Sino power transition context that could ultimately drive both countries to realize that engaging in such a conflict is wrongheaded and in neither's interest. First, and perhaps most importantly, is the fact that both countries have a large stockpile of nuclear weapons which would make the cost of a direct conflict that utilized such weapons so costly that neither would dare start it. This factor was also present in the U.S.-Soviet power transition context, and ultimately was one of the factors contributing to the "cold" nature of the standoff.

Second, the global economy, and especially the Chinese and U.S. economies, are integrated to such an extent that a large, global conflict would likely result in economic costs that

are also too high to bear for either country. Indeed, a 2016 study by the RAND Corporation estimated that a direct conflict between the U.S. and China would result in a 25-35% reduction in Chinese GDP and a 5-10% reduction in U.S. GDP, reductions larger than those associated with the 2008 recession and on par with the Great Depression (Gompert, Cevallos and Garafola 2016). However, the same study argues that improvements in Chinese military capabilities, particularly its Anti-Aerial Anti-Denial capabilities, do potentially make a direct conflict more likely given that "each side could regard preemptive attack on the other's forces as a way to gain a major early and sustainable edge in losses and thus in capabilities to prevail" (Gompert, Cevallos & Garafola 2016).

Nonetheless, these two facts, the presence of nuclear weapons and the extent of economic integration, are indeed factors that make war less likely, yet do not alter the forces that make the U.S.-Sino power transition possible in the first place. Thus, if the U.S. and China do not find themselves in a war, because the costs associated with engaging in such a war are too high, what other potential outcomes could result? Potentially, a Second Cold War.

The Second Cold War

Less devastating than a direct conflict between the United States and China, but perhaps significantly more likely, is an outcome were neither China nor the U.S. see a preemptive or retaliatory military conflict as in their own sovereign interest, yet both still have a desire to jockey over who can determine the direction of the international order. Under such circumstances, the most likely outcome is a Second Cold War, in which both states see it as in their interest to shore up and expand their "spheres of influence" in an effort to simultaneously

gain a relative advantage over the other and to ensure that the other does not gain a relative advantage over it.

Quite clearly, the possibility of such an outcome is reinforced by the fact that the only other proper great power competition that the post-World War II world saw was one of this very nature between the United States and the Soviet Union. In that competition, which was sparked by the end of World War II and reinforced by the partial-military-parity that was achieved with the USSR's acquisition of a nuclear weapon, both states utilized every tool other than bullets to resolve the competition's outcome, engaging in several proxy wars, interfering in the foreign affairs of sovereign states, and undertaking a massive economic and military buildup in an effort to give themselves an advantage in the global balance of power (Haas 2016). In this instance, the ever-looming shadow of nuclear weapons pushed both states to engage in arms treaties and transparency initiatives, as well as to adopt formal and informal rules and norms, mostly related to each's respective sphere of influences, that ultimately reduced the likelihood of a third, and much more catastrophic, world war breaking out (Haas 2016).

Along with the presence of nuclear weapons, the similarities between the U.S.-Sino power dynamic and the U.S.-Soviet power dynamic can appear, at first, striking. The Rising Power, governed by an authoritarian one-party state that still carries with it many command-and-control economic elements, seeks to overtake the U.S.'s place in the current world order, and potentially has the capability to do so given its rising economic, military, and ideological influence. The Dominant Power, governed democratically with a free-market economic system, seeks to ensure that the existing world order it helped create remains intact, partially buttressed by its supposed scientific and ideological preeminence. Again, both powers are armed with

nuclear weapons that could effectively end the human race, and both are also separated by vast geographical distances.

It should likewise be noted those aspects in which the U.S.-Soviet and U.S.-Sino power competition differ. The existence of greater levels of economic integration at the present drastically increases the cost of direct conflict for either state, perhaps lowering both the U.S.'s and China's willingness to bear or challenge any direct confrontation. Likewise, international institutions are more deeply embedded into the mechanisms that guide and determine outcomes in international relations, thus increasing the cost on the Chinese of challenging this system, given that the opportunity costs of challenging and replacing institutions and norms is relatively higher.

From this perspective, it is very easy to understand how the modern U.S-Sino power dynamic could echo the U.S.-USSR power dynamic that did not result in a direct conflict between the two states, but resulted in the creation of two different and competing spheres of influence, several close calls, and the eventual collapse of one at the benefit of the other. Predicting whether or not one or the other state will collapse in the end is a fools game: the internal problems and contradictions of both make each just as likely.

While this long-term outcome is unknowable, what is knowable is that such a Second Cold War would not be in the U.S.'s interest to engage in: it would be highly costly, given the opportunity cost of peaceful coexistence, and could result in the creation of international institutions and norms that exclude the U.S., something that would be particularly devastating if China's economic trajectory is not derailed and if the U.S. does not resolve many of its structural political problems. Moreover, this would prevent the U.S. and China from cooperating broadly on issues in which both have a mutual and similar interest, such as climate change, nuclear

nonproliferation, rogue regimes that pose a threat to global stability such as Russia, North Korea, and Iran, and creating a unified international system of governance for economic technologies that will become deeply embedded in our societies over the next half-century, particularly A.I., automation, and the "Internet of Things."

Continuing U.S. Disengagement

The third potential outcome of the U.S.-Sino power transition assumes that the current trends in the U.S. political system are not ephemeral or fleeting, and will substantively manifest themselves in U.S. foreign policy over the long-run. In this scenario, the U.S. gradually chooses to cede global leadership to China, but does so on its own accord and without a direct or indirect conflict occurring. As an example, if the Paris Climate Accords come to represent the primary institution where global environmental policy will be negotiated and implemented, and the U.S. fails to reenter the Accords beyond the current term of President Trump, China could easily take the global environmental mantle, setting the direction of environmental regulation and the pace of implementation.

Other than direct conflict, this outcome is perhaps most devastating to U.S. interests. China would be able to determine the direction of the global economic and political order in accordance with its own interests and values, which often times, as in the case of censorship and surveillance, clash with U.S. values. The U.S. would be left isolated both politically and economically, unable to influence global affairs, and generally a shell of its former self.

A U.S.-led International Resurgence

The last possible outcome of the U.S.-China power transition assumes that China loses its ability or desire to challenge the U.S.-led order, given some unforeseen event that current trends do not portend.

Under this outcome, China would likely halt efforts to challenge, undermine, or replace existing international institutions: it would simply not have the relative means or credibility to do so in a manner that attracts U.S. allies away from the U.S.-led order, and would thus face substantial opportunity costs associated with continuing to resist joining or acknowledging those institutions or norms that the United States continues to support and reinforce.

This scenario could be catalyzed by a number of factors, some already mentioned. For example, China's economy could begin to struggle or collapse, severely limiting the material capacity that allowed it to challenge the U.S.-led order in the first place. Or, on the other hand, Chinese citizens could reject either the legitimacy of the Communist Party or the "Chinese Dream" entirely, in a manner that disincentives Chinese leadership from making international dominance a core aspect of its domestic political agenda. Or, perhaps the U.S. manages to solve its increasing levels of polarization and divisions, and enables it to effectively overtake China in overall capability.

This scenario, although relatively unlikely, is most beneficial for U.S. interests: it would give the U.S. a central role in future systems of international governance, allowing its values and interests to be enshrined in it, would limit the likelihood of conflict between the U.S. and China, and it would allow the U.S. and China to cooperate on a number of issues in its mutual interest.

Chapter 5

Recommendations for U.S.-Foreign Policy

Three of the four potential outcomes for the U.S.-Sino power transition are unconducive to U.S. interests: the first could result in the total destruction of either or both countries, and the assured destruction of the global economy, the second has the potential to create an international environment where the U.S. and China enter into a "cold" conflict that focuses their geopolitical capital and strategy toward containing the other, rather than other issues of actual importance, while the third would see complete U.S. abandonment of its leadership position, without either a hot or cold confrontation.

Thus, in the final act of this paper, this chapter seeks to outline recommendations for U.S. foreign policymakers with the ultimate objective of identifying a strategy by which *each* of these three antithetical outcomes can be prevented from manifesting themselves in reality. This comprehensive foreign policy recommendation, modeled off of 19th-century Great Britain's foreign policy vis-à-vis the then-rising U.S., is referred to as "The Second Great Rapprochement."

The Second Great Rapprochement

Any foreign policy recommendation that would seek to prevent the U.S.-Sino power transition from breaking out either into an outright military conflict or a prolonged "cold" conflict should necessarily seek to alter those forces that determine the existence of a power transition in the first place. Given that U.S. policymakers are unable to substantively alter the

long-term power trajectory of China, this necessarily leaves those policymakers with two other options. First, they could seek to make domestic economic and political reforms that enhance U.S. power, to the degree that China is deterred from challenging the U.S.-led order. Of course, such a policy route could easily backfire, given that, unless the U.S. were to drastically overtake China in power capabilities, it would not alter the fundamental conditions of U.S.-China power parity, and could even induce China to more rapidly challenge the U.S. Thus, this policy option, although still available to policymakers, should not be considered and is not done so in this paper.

The second option relates to altering China's *level of satisfaction:* If China is satisfied with the existing international order to a certain degree, which again it has already evinced given its broad participation in certain international institutions, it could view it as in its own interests not to challenge that order, but rather to integrate itself deeper within it.

Indeed, history does offer a model for how a Dominant Power can successfully accommodate a rising geopolitical foe, in a manner that raises the Rising Power's level of satisfaction and promotes greater ties between the two: the late 19th- and early 20th-century "Great Rapprochement" between the rising industrial force of the United States and the waning Great Britain (Allison 2017, 271-273). In making this policy decision, the United Kingdom, who had been the dominant geopolitical power given the prominent and central role it played in the first industrial revolution, ultimately decided that the demands of the rising, and revisionary, United States were not directly antithetical to its own interests. The United Kingdom concluded, rightfully, that were it to acquiesce to various revisionary American demands, particularly over Venezuela, Alaska, and the Panama Canal, and were it to recognize the "Roosevelt Doctrine" which largely viewed the Americas as within the U.S.'s sphere of influence, its core interests

would not be compromised, and a subsequently empowered and emboldened U.S., separated from the U.K. by the Atlantic Ocean, would never see it as in its own interest to directly attack the U.K.

As a result of this "Great Rapprochement" that limited opportunities for friction between the U.S. and the U.K., the United States was allowed to rise relatively peacefully, the U.K. was able to refocus its efforts at countering a rising Germany in continental Europe, and the U.S. ultimately decided that it would assist the U.K. in both World War I and World War II when it supplied it with finances, arms, and soldiers prior to itself entering. This ultimately allowed the United States to flourish, both politically and economically, and laid the foundation for the "Special Relationship" that remains to this day.

The U.S.-U.K. power transition shows that the United States and China need not be mere slaves to structural machinations of history and power, and that war between the two countries is not indeed "inevitable" as Thucydides initially surmised. What could a similarly constructed "Second Great Rapprochement" look like in the U.S.-Sino context?

First, it would identify those institutions that China is seeking to establish as a replacement to those led by the United States, and seek to join and amplify them, and in so doing institutionalize them within the broader international system. As mentioned, such institutions could potentially include the Asian Infrastructure Investment Bank, which the United States initially was opposed to; some sort of Pacific regional free trade agreement that includes the United States, China, and the other relevant regional powers; and the One Belt One Road Initiative, which the U.S. could seek to augment and promote. In institutionalizing each of these three initiatives, the United States would ensure that China does not manage to create institutional spheres of influence that both augment its power and exclude the United States,

while also recognizing that it is the natural behavior of a Rising Power to want to exert greater influence over the geopolitical order. Beyond simply amplifying the policy initiatives that China has already sought to develop, the U.S. could work to ensure that China has both greater formal and informal power in existing U.S. institutions, such as the IMF, the World Bank, and the United Nations, so that it no longer feels it needs to go around these institutions, but rather can go through them.

Second, a policy in this mold would seek to limit those domains which could prove problematic for the U.S.-Sino relationship, without sacrificing influence within those domains that are within core U.S. interests. The most relevant of these domains is in the Southeast Asian region. As in the case of the U.S.-U.K. Grand Rapprochement, the U.S. could effectively cede hegemonic sovereignty in the Southeast Asian region to the Chinese, which would ultimately mean that contentious issues of Chinese sovereignty, particularly over the South China Sea, Taiwan, and Hong Kong, would all be avoided, taking away one of the key domains where the U.S. and China are likely to go to war. While the United States has many economic interests in the South China Sea, and an ideological interest in upholding the sovereignty of Taiwan and Hong Kong, the latter are only nominal U.S. interests and unrelated to its core interests, while with regard to the former it is easy to imagine the Chinese making a compromise that maintains U.S. economic interests in the region. Again, the aim of these latter sets of policies is to limit those domains where the U.S. and China could potentially escalate into war that do not directly contradict U.S. interests.

To reiterate, a Second Great Rapprochement would accomplish two core objectives:

1. It would limit those domains were the United States and China could potentially see an escalatory conflict develop.

2. It would ensure that institutional spheres of influence China may create along its rise are institutionalized within the existing international order, and do not exclude and marginalize the United States in any hypothetical future world order.

By disengaging the United States and China from great power competition, these initiatives would accomplish two periphery objectives as well:

3. Given that the pressures of great power competition would be reduced, the U.S. and China would be incentivized, to a greater degree, to cooperate on issues of mutual importance and concern, such as North Korea, climate change, global terrorism, and writing the economic rules regarding automation and AI.
4. Given that the U.S. would be removed from great power competition pressures, the U.S. could focus on implementing those domestic reforms which would regardless create an international context more conducive to China's revisionary rise were they not dealt with.

Chapter 4 Conclusion

This paper has shown that the U.S. and China do indeed find themselves at a strategic crossroads. China's economic growth over the preceding three decades has endowed with it the ability to exert substantial amounts of influence on the global stage, which it has indeed chosen to wield: China's growing alliance systems, its revamped military capabilities, its desire to create new international institutions outside of the existing order, and its efforts to challenge existing international rules are all reflective of the behavior of a Rising Power.

In the past, when a state has risen to near-power-parity with a Dominant Power, which in this case is the U.S., the results have usually ended in war. This poses trouble for the U.S., China, and the international community more broadly. Even if the U.S. and China avoid direct military conflict, there is also the possibility of a prolonged cold war, that sees cooperation between the two countries limited and mutual animosity grow, or a world where the U.S. chooses to continue the trend of disengagement that it is currently on under President Trump. These two outcomes are likewise antithetical to U.S. interests: they could result in the U.S. being potentially left out of the order China's manages to create, which regardless will reflect Chinese, rather than American, values.

These three outcomes should be dutifully avoided. To do so, foreign policymakers should consider adopting a policy qualitatively similar to that implemented by 19th-century Great Britain vis-à-vis the then-rising U.S., which saw Great Britain recognize that maintaining its dominance over domains close to U.S. interests, such as the Americas, was not worth the potential of a conflict or heightened friction between the two. The U.S. could adopt a similar policy, one that

seeks to integrate Chinese-led institutions into the existing international system, rather than allowing them to develop their own separate order, while also recognizing that China is unlikely to give up its interests in the South China Sea, and that continued resistance to these revisionary tactics is only likely to increase tensions and heighten the likelihood of war.

This is by no means a perfect nor comprehensive policy agenda. But it does represent an effort to stop, reassess the state of the current situation, and rethink what the U.S. is trying to accomplish through its foreign policy. U.S. policymakers will need to seriously rethink U.S. goals if history is not to be repeated, and the U.S. and China are able to manage this power transition to the mutual benefit of both parties.

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