

The Inevitable War?

**A Monograph
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Abstract

The Inevitable War? by MAJ Richard K. Showalter, United States Army, 78 pages.

China and the United States have been competitors on a global scale since Deng Xiaoping changed China's trading policies in 1976. The policies resulted in increased tensions between the two nations over time. This monograph uses Commercial Liberalism and Power Transition Theory to describe conditions in two historical case studies that led to peace or war. These lessons are applied to today's relationship between China and the United States in order to extrapolate the trends that may lead to war between them. The United States and Britain (1865-1945) dyad show the peaceful transition between a great power and a dominant power. The United States and Japan (1853-1941) dyad show the conditions when two great powers go to war. Both case studies involve a significant trading relationship between the dyads.

The current conditions with China and the United States show that the relationship between the two nations will continue to be peaceful because of the decrease in trade share between them. Additionally, China is satisfied because they continue to derive acceptable benefits from the global order. A significant, short-term growth in their military power projection systems would be an indicator they are not satisfied with the global order.

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INTRODUCTION

Background and Significance

Existing since 771 B.C., China is an ancient civilization that evolved into a ‘civilization state’ as opposed to what Americans see and think of as a nation.¹ A civilization state, as Martin Jacques describes, is a nation that has a common history, culture, language, and identification within the world that not many other nations have. This condition requires a different method of interaction than nations that have representation in several distinct ethnic groups, languages, histories, or origins.² Because they have common themes that unite them as a people, themes such as race, language, and culture, the Chinese have a stronger ability to cope with changes in their political sphere. “Melting pot” countries like the United States have highly diversified populations, which require different³ methodologies for reaching consensus. Jacques, in his book *When China Rules the World*, discusses the advantages and disadvantages a homogenous China has over other nations. This affords a country that is so large in population to have the potential to be a formidable force as it gains economic, political, and military power within the world.

This research examines information that help contextualize the nature of China’s growth and how this will affect United States’ relations with China. The information includes areas of trade, energy usage, and military statistics. This data set will help investigate two theories that will describe the conditions which war is likely.

For the last three years, China’s gross domestic product (GDP) has grown by 9% or more, a trend, which if it continues, means that China could become the global hegemon in

¹ Martin Jacques, *When China Rules the World: The End of the Western World and the Birth of a New Global Order* (New York: Penguin Press HC, The, 2009), 13. China must be considered as a whole; from its culture, history and its size. Jaques argues that this is a different way of thinking about a country than that of the traditional nation state.

² *Ibid.*, 194-232.

³ Difference refers to the how a melting pot country reaches conclusions and decisions versus a society that is more homogenous in terms of race and culture.

economic power.⁴ Goldman Sachs projects that by 2027 the Chinese economy will overtake the United States' economy.⁵ The Chinese economy began its ascent in 1976, when Deng Xiaoping became its de facto leader. However, if one considers a comparison in the purchasing power parity of GDP per capita, there is a sharp contrast between the United States (\$47,400) and China (\$7,400). The US holds a \$40,000 lead over China, which demonstrates a difference in the effectiveness of each nation's population in their contribution to their GDP. Chinese GDP per capita has risen steadily for the last three years.⁶

“Power...is an important mean to other goals”⁷ in order to derive benefit from the international system. Such goals help a country achieve benefits in other areas, which can be used as favorable terms for the trade of resources and development of trade partnerships around the world. A powerful economic nation can continue to grow in other areas such as military prowess and technological advances, which gives the nation even more power on the global stage. One of the greatest fears nations have is that a loss of power within the global community may result in a decrease of their ability to gain benefit. This fear of losing power, and the desire to regain it, may lead a country to use war in an effort to maintain or regain its power. Additionally, the potential for conflict arises because the cost or availability of resources a country is reliant upon for power is controlled by another country.

Oil is such a critical resource and it is projected to become a scarcer commodity. Currently, China is third in the world in the amount of oil it consumes, using an estimated 8.2

⁴ Central Intelligence Agency, “The World Factbook,” www.cia.gov, <https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html> (accessed April 10, 2011).

⁵ Martin Jacques, *When China Rules the World: The End of the Western World and the Birth of a New Global Order* (New York: Penguin Press HC, The, 2009), 13. Other estimates predict various times, ranging between this decade and the next.

⁶ Central Intelligence Agency, “The World Factbook,” www.cia.gov, <https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html> (accessed April 10, 2011).

⁷ A.F.K. Organski, *World Politics*, 2nd ed. (New York: Alfred A. Knopf, 1968), 66.

million barrels of oil a day.⁸ China's oil requirements are expected to increase as its industrial capacity multiplies and its population requires more cars. The need for oil affects the economies and defense budgets of all world nations, to include the United States.

This paper first examines two prominent theories, the Power Transition Theory and Commercial Liberalism, that could help illustrate the prospect of war between the US and China should China overtake the US economically. The methodology section summarizes how two qualitative case studies are applied to the US/Chinese economic scenario in order to examine those prospects. The first case study looks at the US and the UK from the 1860s to 1945; the second at the US and Japan from the late 1800s to 1941. Lessons learned from the US/UK and US/Japan case studies allow for an evaluation of the possibility of war between China and the US in the future.

Commercial Liberalism and the Power Transition Theory are two theories that help to describe and explain the conditions in which China or the United States would be compelled to initiate a war. The Power Transition Theory argues that, "peace is preserved best when there is an imbalance of national capabilities, ... the aggressor will come from a small group of dissatisfied strong countries...[and that] the weaker...power...is most likely to be the aggressor."⁹ A second theory, Commercial Liberalism, also known as economic interdependence, suggests that the more that two nations trade with one another, the less likely they are to engage in war or conflict with one another. Using these two theories and the two historical case studies, this monograph informs a strategic decision maker on the conditions of a prophesized engagement between the global hegemon (the US) and the rising challenger (China).

⁸ Central Intelligence Agency, "The World Factbook," www.cia.gov, <https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html> (accessed April 10, 2011).

⁹ A.F.K. Organski and Jacek Kugler, *The War Ledger* (Chicago: University of Chicago Press, 1980), 19.

Two case studies highlight the key aspects of the Power Transition Theory and economic interdependence. The first case study is the Anglo-United States from the 1860s to the conclusion of World War II. This case study indicates that war is not necessary between two countries when a challenger (the United States) replaces the current dominant power (Britain), and it illustrates how war is avoided. The second case study focuses on Japan and the United States from the late 1800s through 1941. During this time, Japan was seeking resources from neighboring lands in order to achieve autarchy, or resource independence, while increasing regional control of the western Pacific. This case study highlights Japan's desire to wage war in response to an embargo of trade resources initiated by the United States, and second, it explains the US/Japan interactions within the context of Power Transition Theory and the causes for war. These case studies emphasize the relative power among the actors involved and demonstrate how the power either led or diverted the powers from war.

Research Question

What are the conditions that could exist in the United States and China that would lead to war?

Hypotheses

H₁: As a nation's interdependence increases, the potential for war between that nation and other great powers decreases.

H₂: As a challenger nation approaches power parity with another nation, war is more likely if the challenger is dissatisfied with the hierarchy of the world order.

Limitations

This monograph presents a hypothetical perspective of what China may become using data and literature that its people, media, and government maintain about Chinese policies and

strategies. Predictions on conditions of how China will evolve using empirical data are provided; however, the annual rate of change within the global community affects the preconditions for war and conclusions drawn from this study, and will therefore require updating as conditions and relationships change and evolve. Countries refine their strategies and opinions based on what other nations say and do. The validity of the conclusions drawn from this research may only last for a short period time depending on the decisions and reactions of nations to other world events. Finally, this monograph was written from a Western prospective.

THEORY

This section describes the field of international relations theory that addresses Power Transition Theory and Commercial Liberalism. Next, a general description of each theory will follow along with the relevant variables of each theory. Finally, it reviews several journal articles that highlight the applicability of these theories using historical case studies.

Realism

According to Dunne and Schmidt, realism is the dominant theory of international relations because “it provides the most powerful explanation for the state of war which is the regular condition of the life of the international system.”¹⁰ Modern realism as a theory began in the late 1930s in order to better explain the causes of war, which was not adequately provided by the liberalist theory. The focus of realism is on the human interests, peace from strength of arms in a nation, and the methodology leading to engaging in conflict.¹¹ Realist theory holds that the structure of the world is chaotic and one of anarchy where the individual state is the master of its domain. Additionally, military power helps to guarantee the state’s survival within this world.

¹⁰ Tim Dunne and Brian C. Schmidt, “Realism,” in *The Globalization of World Politics: An Introduction to International Relations*, 4th ed. (Oxford: Oxford University Press, 2008), 91.

¹¹ *Ibid.*, 92.

Therefore, because institutions cannot rescue states in times of distress, states must become self-reliant if they are to survive. Through the matching or overmatching of military power, a state is able to keep its security within the world. The school of realism is further sorted into subcategories.

Structural Realism is a subcategory of realism, attributed to Kenneth Waltz¹², that is differentiated from other areas of realism by its focus on security, competition, and inter-state conflict brought about by a lack of authority in the international system. “Waltz defined the structure of the international system in terms of three elements – organizing principle, differentiation of units, and distribution of capabilities.”¹³ The element of organizing principle uses anarchy and hierarchy as its subunits. Anarchy describes the chaotic and unpredictable nature of the world, whereas hierarchy describes the order of the system. The unit examined in the theory is the state. The distribution of capabilities, in this case power, is the critical area of study for determining conflict within the world. Power helps to define the number of powers, to qualify their level of power within the world, and to determine the world order.

Power Transition Theory

In 1958, in his first edition of *World Politics*, A.F.K. Organski developed the Power Transition Theory. In the second edition of *World Politics*, published in 1968, Organski updated his work based on ten years of experience and changes to the world dynamics. Finally, in 1980, Organski and Jacek Kugler co-authored a book called *The War Ledger* that summarizes their joint definition derived from the second edition of *World Politics*.

¹² *Ibid.*, 98

¹³ *Ibid.*

In *World Politics*, 2nd edition, Organski theorizes that the nation state is “the dominant form of the political organization.”¹⁴ The significance is that a political organization has the ability to determine their method for gaining power¹⁵ through the people, the political engine, or both. The nation is a mechanism that provides its people with an identity based on their culture and the political process a citizen navigates to attain recognition as a citizen within the nation. Borders agreed to by other nations define the size of a nation, and the scope of its authority. Symbols establish cohesion among citizens of a nation and foster pride within the nation, and become an extension of the nation within the world. Finally, a nation is bound together by a common history, language, and various elements of economic, cultural, religious, and political ideologies.¹⁶

Each nation has taken a decidedly different path to become what it is today. Organski theorized that there are four stages to political development: “(1) the politics of primitive unification, (2) the politics of industrialization, (3) the politics of national welfare, and (4) the politics of abundance.”¹⁷ The first stage is the foundation of a government and its bureaucracy that provides the necessities for the people, creates unity, and establishes an economy that can support growth. The basis for the chosen type of government varies on what people will support, and depends on what guiding ideologies they turn to especially in times of crisis. The second stage is characterized by the politics of industrialization, and focuses on economic and government improvement and advancing industrialization. The third stage, which is conceptual in Organski’s theory, focuses on “the promotion of economic and social welfare to the masses.”¹⁸

¹⁴ A.F.K. Organski, *World Politics*, 2nd edition (New York: Alfred A. Knopf, 1968), 15.

¹⁵ *Ibid.*, 122. Power – the ability to influence the behavior of others in accordance with one’s own ends, and as such it is not a thing but a part of a relationship.

¹⁶ *Ibid.*, 22-31.

¹⁷ *Ibid.*, 41.

¹⁸ *Ibid.*, 54.

The fourth stage is the nation's ability to cope with and apply technology for the continuing growth of the nation. When Organski wrote *World Politics*, he did not believe that any nations were at the fourth stage of evolution; however, there is evidence that the United States is within this stage of national growth and China is emerging out of stage two.

It is crucial that a nation's leader have an understanding of these national growth stages in order to guide his nation through the process. It is also important that the leader appreciate the relationships his nation has with others in this process. Considering the application or sharing of power, this growth process can help leaders conceptualize the realm of possibility and provide insight on the potential power available to a nation that continues to evolve. This potential power is the reason that China is a great concern to other powerful nations. China will soon enter into stage three, and will apply technology to facilitate stage three more quickly than other nations in order to arrive at stage four faster. In terms of GDP, China already has surpassed other advanced nations who are further along in the process of national growth.

Based on a nation's common principles – political, territorial, economic, language, culture, religious, political ideology, and common history – a nation will determine evolving national goals. Organski stated that “national goals are intangible,”¹⁹ meaning they are words that have importance, but the means to achieve national goals are not easy or obvious, nor singular in approach. Goals are ideas that are objectives or targets to achieve – similar to when the wind changes in archery, the archer's aim point changes based on external and internal forces. National leaders should clearly align their national goals with national interest, while also understanding the goals of rival nations – or those nations with whom the nation would be competing for resources.

¹⁹ *Ibid.*, 61.

Organski described two types of goals – competitive and absolute. Competitive goals are set in relationship to other nations (i.e., resources) whereas absolute goals are set based on the internal dynamic of the nation (i.e., national literacy improvement). Nations with competitive goals can never rest, but nations with absolute goals can rest only once they have achieved their goal. Absolute goals can be misconstrued by other nations as being in direct competition with other nations (i.e., standard of living). National goals have an associated timeline for achievement. A nation's culture influences this timeline. For instance, Asian nations tend to embrace the process of growth and allow more time for goals to be realized, while nations like the United States tend to push for tighter deadlines because of because of cultural they lack patience and wish to see results sooner. Other influential factors in a nation's perception of a time horizon are the age of a nation, its available technology, and religion.

The government and its structure have a significant role in the development of national goals and agendas. Democratic nations generally take longer to determine goals and political objectives and even longer to decide on how to act on the objectives. This is because of the democratic structure of government in which consideration is given to the wants and needs of the populace. In totalitarian nations, goals and agenda tend to be set and developed relatively quickly because of the limited amount of people involved in the decision making. One must also consider that goals and agendas can change or call for refinement, which prolongs the action process and may lead to undesired results.

Power Transition Theory has been used by theorists to predict why nations go to war and for what reasons. *The War Ledger* takes a comprehensive approach to explaining the establishment of power, suppositions on how war occurs, the cost of war, and the recovery from it.

Description of Power Transition Theory

In their book *The War Ledger*, Organski and Kugler describe the Power Transition Theory as:

At the very apex of the pyramid is the most powerful nation in the world, currently the United States, previously England...Just below the apex of the pyramid are the great powers. The difference between them and the dominant nation is to be found not only in their different abilities to influence the behavior of others, but also in the differential benefits they receive from the international order to which they belong. Great powers are, as their name indicates, very powerful nations, but they are less powerful than the dominant nation...As we have seen...the powerful and dissatisfied nations are usually those that have grown to full power after the existing international order was fully established and the benefits already allocated. These parvenus had no share in the creation of the international order, and the dominant nation and its supporters are not usually willing to grant the newcomers more than a small part of the advantages they receive...The challengers for their part, are seeking to establish a new place for themselves in international society, a place to which they feel their increasing power entitles them. Often these nations have grown rapidly in power and expect to continue to grow. They have reason to believe that they can rival or surpass in power the dominant nation. And they are unwilling to accept a subordinate position in international affairs when dominance would give them much greater benefits and privileges.²⁰

Power

“The study of power is essential to an understanding of international affairs...Mere possession of resources does not guarantee power. To confer power, these resources must be used, and they must be used in such a way as to influence other nations, for power is the ability to determine the behavior of others...There is power aspect to every relationship.”²¹ By studying the distinctions between nations, and using the categories that assemble a nation, one could begin to appreciate the power relationships within the world. Once leaders understand these differences,

²⁰ A.F.K. Organski and Jacek Kugler, *The War Ledger* (Chicago: University of Chicago Press, 1980), 19-20.

²¹ A.F.K. Organski, *World Politics*, 2nd ed. (New York: Alfred A. Knopf, 1968), 102-4.

they can begin to apply their power within the context of the nation. Organski theorized that there were four ways to apply power: persuasion, rewards, punishment, and force.²²

Leaders achieve power by manipulating different methods, which are categorized into two different spheres: national and social.²³ The national sphere contains six elements: geography, resources, populations, economic development, political development, and national morale. The social sphere includes the further refinement, growth, and application of three elements within a nation: economic, industrial, and political responsibility.

Variables

Based on the research thus far, several key variables within Power Transition Theory surface should be addressed within the context of the case studies. The variables are: gross domestic product (GDP), the military, the population, resources available, industrialization, the government and technological advancement. In *The War Ledger*, the term gross national product (GNP) was used because it accounts for the economic and industrial strength of a nation. The Bureau of Economic Affairs (BEA) states that GNP²⁴ was replaced with GDP after 1991 because GNP relies on both external and internal sources of national labor income and includes property sold abroad. The GDP²⁵ focuses on labor and property sold that originated internally to the nation. The scope of the GNP is too broad for the purposes of this monograph; therefore, GDP is

²² *Ibid.*, 111-4.

²³ *Ibid.*, 124-89.

²⁴ United States Department of Commerce, "Bureau of Economic Analysis," www.bea.gov, http://www.bea.gov/glossary/glossary.cfm?key_word=GNP&letter=G#GNP (accessed April 10, 2011).

²⁵ Gross Domestic Product – The "value of all final goods and services produced within a nation in a given year." The CIA World Fact book shows these figures for all nations using US Dollars to show a common reference for analysis and comparison according to: Central Intelligence Agency, "The World Factbook," www.cia.gov, <https://www.cia.gov/library/publications/the-world-factbook/docs/notesanddefs.html#G> (accessed April 10, 2011). Purchasing Power Parity (PPP) - "is the sum value of all goods and services produced in the country valued at prices prevailing in the United States." Central Intelligence Agency, "The World Factbook," www.cia.gov, <https://www.cia.gov/library/publications/the-world-factbook/docs/notesanddefs.html#G> (accessed April 10, 2011).

used during this study. The military provides the ability of a nation to project power and force its will upon another nation using one or more of the applications of power mentioned earlier. The subcomponents of this variable are a government's military spending, size of its military, and its technological sophistication. Resources are those things a nation has available to use that allow it to exploit and expand its power. Some of the key resources considered are oil, aluminum, and steel. Population accounts for the nation's ability to employ people in industry, trade, and the military, which results in the subcomponents of size and growth. Industrialization is the ability of a nation to produce goods and acclimate to the expansion of industry. The subcomponents of this are environmental (i.e., pollution) and social concerns (i.e., employment). The government variable illustrates the efficiency with which a government can control its people for the purposes of trade, industrialization, and military power. Different forms of government have advantages and disadvantages in their relationships with other governments. Finally, technological advancement is a nation's ability to rapidly turn a scientific discovery into use. Some of the factors impacting this variable are education, specifically in mathematics and sciences, and the amount of money put into research and development. Holistically, these variables demonstrate how a nation weighs its strengths as it considers conflict with another nation.

Arguments within Power Transition Theory

Disputes within the Power Transition Theory have centered on how to apply the theory within the context of today's environment. The fundamental arguments of these debates have revolved around the tenants of the Power Transition Theory, specifically, the power of the state and the status quo within the hierarchal relationships, both globally and regionally. There have been other theories that maintain an alternate point of view to the Realist Theory cause for war, such as the Balance of Power Theory.

Organski and Kugler's definition of national power is "the ability of one nation to control the behavior of another for its own ends."²⁶ Organski and Kugler define the elements of power by using quantitative data gathered from "measuring the resources that generate power."²⁷ The indicators to these measurements are "economic, technological, political, military, and democratic capabilities,"²⁸ which ultimately yield to the measurement of GNP.²⁹ Kugler and Organski go on to demonstrate how the use of GNP aligns with the individual measurements of economic, technological, political, military, and democratic capabilities and assert that GNP is the best quantitative measurement of power. In 1988, Henk Houweling and Jan Siccama decided to explore alternate measurements of power. Instead of using Organski and Kugler's measurement criteria, they applied the data of relevant power derived from Doran and Parsons, which measured data from 40 sources of size and development. Size equated to levels -- iron and steel production, population, and size of the armed forces. Development data categorized and measured energy usage and urbanization.³⁰ This allowed them to correlate the Power Transition Theory model more strongly to the historical data and undermine the support given to a competing theory of conflict, Balance of Power.³¹ Additionally, Houweling and Siccama , pioneered a clear method to identify potential rivals in contrast to the data that Organski and Kugler had discounted. For example, Organski and Kugler asserted that the United States was not a rival to any of the great powers until after 1945. Houweling and Siccama state that the United States' quest for the

²⁶ Cited in A.F.K. Organski and Jacek Kugler, *The War Ledger* (Chicago: University of Chicago Press, 1980), 5 from A.F.K. Organski, *World Politics* (New York: Alfred A. Knopf, 1968), 104.

²⁷ *Ibid.*, 30.

²⁸ *Ibid.*, 31.

²⁹ *Ibid.*, 33-4.

³⁰ Henk Houwelling and Jan G. Siccama, "Power Transitions as a Cause of War," *The Journal of Conflict Resolution* 32, no. 1 (Mar., 1988): 96-97, <http://www.jstor.org/stable/174089> (accessed May 08, 2010).

³¹ Balance of Power theory states that when great powers or their alliances have nearly the same levels of power with another great power or their alliance, peace will be maintained.

dominant power began in 1902, and it was at this point where the US became a rival with the UK. They introduce the idea that contendership³² and threat perception are not always the same thing; although a nation may grow in size or population, its power does not necessarily increase or pose a threat.

Nine years later, Indra de Soysa, John R. Oneal, and Yong-Hee Park attempted to refine Houweling and Siccama's work and updated the measurement of power. They stated that using the Correlates of War Project Data from Singer and Small³³ rather than the GDP demonstrates the significance of the Power Transition Theory. Additionally, they advocated the idea that all contenders need consideration, not just those that are great powers. Concluding, "...[S]upport for the Power Transition Theory depends on both the measure of power and the set of cases chosen for analysis."³⁴

David Rapkin and William Thompson, two professors of political science, offer additional thoughts on the measurement of power and attempt to update the Power Transition Theory model by applying the Challenger Theory model in a real world context. The Challenger

³² Organski and Kugler define a contender in two ways. "Contenders alone are strong enough to determine the direction the politics of the world order to take." A nation becomes a contender when they reach approximately 80% of the dominant nation's capabilities. A.F.K. Organski and Jacek Kugler, *The War Ledger* (Chicago: University of Chicago Press, 1980), 5 from A.F.K. Organski, *World Politics* (New York: Alfred A. Knopf, 1968), 43-4. Houweling and Siccama use Organski and Kugler's definition of contender in their article. Henk Houwelling and Jan G. Siccama, "Power Transitions as a Cause of War," *The Journal of Conflict Resolution* 32, no. 1 (Mar., 1988): 95, <http://www.jstor.org/stable/174089> (accessed May 08, 2010).

³³ "The Correlates of War Project was founded in 1963 by J. David Singer, a political scientist at the University of Michigan. The original and continuing goal of the project has been the systematic accumulation of scientific knowledge about war. Joined by historian Melvin Small, the project began its work by assembling a more accurate data set on the incidence and extent of inter-state and extra-systemic war in the post-Napoleonic period. To do this scientifically Singer and Small found they needed to operationally resolve a number of difficult issues such as what is a "state" and what precisely is a "war." Building upon the work of other pioneers such as Pitirim Sorokin, Lewis Frye Richardson, and Quincy Wright, Singer and Small published *The Wages of War* in 1972, a work that established a standard definition of war that has guided the research of hundreds of scholars since its publication." Paul Diehl, "Project History," Correlates of War Project, <http://www.correlatesofwar.org/> (accessed April 25, 2011).

³⁴ Indra de Soysa, "Testing Power-Transition Theory Using Alternative Measures of National Capabilities," *The Journal of Conflict Resolution* 41, no. 4 (Aug., 1997): 509-28, <http://www.jstor.org/stable/174421> (accessed May 8, 2010).

Theory model, developed by Thompson, weighs qualitative data more than quantitative data, and requires a more extensive analysis of the relative power. The analyst must consider levels of satisfaction nations have with each other or with the global hierarchy. The essence of the model lies within the types of global or regional activities states use to achieve satisfaction through their hierarchal role, as well as the security within the global and regional systems. The Challenger Theory model, using the tenants of the Power Transition Theory, has five variables: proximity, similarity, strategic orientation, innovation, and threat/frustration.³⁵ Proximity addresses the distance and the number of real or perceived threats, with closer threats being more compelling. Similarity refers to the tensions caused by differences in culture, language and political-economic institutions between states. Strategic orientation focuses on the intention of the state when building a power base. The perception of the threat and the level of frustration with this threat is the last variable of the Challenger Theory model. Challengers are viewed through different lenses of culture and strategic aims, which causes varying levels of frustration depending on the number of Challengers.

The Challenger Theory model analyzes a longer span of history and focuses on how economies develop game-changing technologies, causing other states to react and change their status quo. Because of this change in technology, efficiencies are generated using measurements of power; therefore, Rapkin and Thompson advocate for the quantitative measurement of GDP per capita as a more precise gauge of the development of technology. This requires some skill in analysis because a country's mass has the unique power to overcome another country's technology simply through the ability to produce products more quickly.

One of the salient points of Rapkin and Thompson's research is that it blends the relationship of economic interdependence and satisfaction with the relationship of economic

³⁵ David Rapkin and William R. Thompson, "Power Transition, Challenge and the (Re)Emergence of China." *International Interactions* 29, no. 4 (October 2003): 315-342. Political Science Complete, EBSCOhost (accessed April 10, 2011).

dependency to security. This hybrid version of the Power Transition Theory allows one to appreciate Commercial Liberalism as an influence within the Power Transition Theory. Because the economy affects security, a state can achieve freedom of innovation from its economic strength and, therefore satisfaction based on their standard of living and role within the world.

Steve Chan³⁶ is also an advocate for using qualitative forms of power measurement. He points out that the element of a large population is not as powerful a measurement as it once was and can skew the analysis of power when using the Power Transition Theory model. He advocates the use of the Correlates of War Project (COW) data; however, he suggests that population and certain measures of industrialization should be minimized. Instead, emphasis on qualitative measurements of information technology and investment on human capital deserve weight. Additionally, he stresses the quality of a nation's military as factor in power measurement contention and asserts that military spending is an important measurement of quantity. He argues that because of China's population, a power transition between the US and China occurred in the 1970s, but he also argues that because military expenditure is disregarded in the original Power Transition Theory model, the transition cannot be argued. Chan points out that the US spends more money on defense than 20 of the top states combined, showing a seven to one spending ratio on defense between China and the US. He shows that the US is one of the only countries in the world that has the power to extend its global reach anywhere and sustain it.

Soft Power, using quantitative measurements of certain categories and then deducing its contribution, is another measurement advocated by Chan as a qualitative measurement of power that should be considered when assessing a nation's ability to project power. Finally, he explores a new area of information technology that was not considered by Orkanski and Kugler. Chan asserts that China and other developing nations are lagging behind the United States' population

³⁶ Chan is a Department Chair and Professor of Political Science at the University of Colorado, Boulder.

in the development of their human capital in the areas of information technology. Chan concurs with Organski and Kugler that GDP and GDP adjusted for purchasing power parity are still valid measurements of power. This quantitative measurement of power may not be losing its relevancy.³⁷

The measurement of satisfaction is the other area of debate within the model of Power Transition Theory. Organski defined satisfaction as the level of contentment a nation is willing to accept and cope with regarding the rules and systems established by the dominant power.³⁸ In his article “The Continuation of History: Power Transition Theory and the End of the Cold War,” Douglas Lemke argues that the element of satisfaction within the theory is what sets it apart from other realism theories.³⁹ Lemke asserts that a researcher should examine a nation’s relative growth of its military or the level of involvement in alliances as a means to determine satisfaction.

Ronald Tammen and Jacek Kugler offer a predictive look at the Power Transition Theory. They attempt to frame the role of US policy in the world based on their study variables of power, hierarchy, satisfaction, and probability for war or peace. A state’s desire to follow the dominant power’s rules and norms, using shared institutions, leads to stability and thus satisfaction. Global peace is maintained when there is a clear, dominant power. In their analysis, the idea of integration did not occur until post World War II when there was one dominant nation that could be the conduit for peace. Nations who desired to integrate were given a higher status and greater opportunity within the world and could prosper. The dominant nation set prices of

³⁷ Steve Chan, “Is There a Power Transition between the U.S. and China? The Different Faces of National Power,” *Asian Survey* 45, no. 5 (Sep. - Oct., 2005): 687-701, <http://www.jstor.org/stable/4497125> (accessed May 8, 2010).

³⁸ A.F.K. Organski, *World Politics*, 2nd ed. (New York: Alfred A. Knopf, 1968), 363-71 (paraphrased).

³⁹ Douglas Lemke, “The Continuation of History: Power Transition Theory and the End of the Cold War,” *Journal of Peace Research* 34, no. 1 (Feb., 1997): 24, <http://www.jstor.org/stable/424828> (accessed May 13, 2009).

goods, captured the cost of integration, and drew more benefit from the system of integration, which established why the dominant nation wants to maintain the status quo and set rules. These rules preserve the dominant nation's interests and benefits from the system, while also fostering the dynamic of economic dependency.

Tammen and Kugler⁴⁰ believe that arms races or a military buildup, directed at a rival state are the elements that convey a state's dissatisfaction. Policy may also be another indicator of the level of satisfaction one nation has with another. The level of satisfaction the hierarchal relationships in the nation may be the driving force to economic success, which may lead to the growth of power in other areas. Success economically may lead to other areas of power growth. Ultimately, a nation cannot affect a change in the global hierarchy without first achieving parity as a contender. Another way a nation may achieve change within the global hierarchy is to use its membership within a trade or security alliance as a mechanism for achieving parity.

Liberalism

Liberalism is a school of international relations theory. While Liberalism is not a polar opposite of Realism, Liberalists believe in the use of institutions and ideas as a means to manage conflict. The Liberalist school believes nations have the right to free trade, the rule of law, peace, and security. Liberalists put their trust in the institutions as a mechanism to protect these rights. Examples of Liberalist institutions are the League of Nations and the United Nations. States use these organizations to address problems with other states in areas of conflict and trade.⁴¹

⁴⁰ Ronald L. Tammen, and Jacek Kugler, "Power Transition and China-US Conflicts." *Chinese Journal of International Politics*, Vol. 1, 2006, 35-55.
<http://cjip.oxfordjournals.org/content/1/1/35.full.pdf+html?sid=a1752b1d-7fd3-4adf-8f61-9179ef65e279>
(accessed September 29, 2010).

⁴¹ Tim Dunne, "Liberalism," in *The Globalization of World Politics: An Introduction to International Relations*, 4th ed., (Oxford: Oxford University Press, 2008), 109-121.

Commercial Liberalism

Description of Economic Interdependence

Economic interdependence is an increased reliance between two nations as a result of an increase in trade between the two nations. When economic interdependence is achieved, it is more likely that peace will be sustained because of the reliance of both nations on each other. This statement can lead the reader to consider a number of different scenarios that may stray from this notion. For example, “if one partner depends on a trading relationship much more heavily than another partner, the cost associated with attenuating or severing the relationship is far lower for the latter than the former state.”⁴² Another idea relates to how different forms of governments trade with each other and their implications. There are more implications, but what is important to understand is that trade and conflict are so intricately entwined that even slight changes can make it difficult to predict conflict.

Commercial Liberalism encourages free trade and a capitalist economy that advances peace and prosperity and lies in the realm of the neo-Liberalism school of thought. Examples of this form of Liberalism can be observed in global financial institutions, major trading states, and multinational corporations.⁴³ The United States and other states use this theory as a way to develop their trading agendas.

Commercial Liberalism is a liberalist theory that offers an explanation for why states engage in conflict with each other. The premise behind Commercial Liberalism is that the more interdependent on trade that one state is with another, the more likely it is the state will not

⁴² Edward Deering Mansfield and Brian M. Pollins, eds., *Economic Interdependence and International Conflict: New Perspectives on an Enduring Debate* (Michigan Studies in International Political Economy) (Ann Arbor: University of Michigan Press, 2003), 3.

⁴³ Steven L. Lamy, “Contemporary Mainstream Approaches: Neo-realism and Neo-liberalism,” in *The Globalization of World Politics: An Introduction to International Relations*, 4th ed., (Oxford: Oxford University Press, 2008), 131.

engage in conflict, more specifically, war. The cost of going to war is far more expensive than engaging in trade. Furthermore, the population, organizations and industry would be disrupted and potentially upset if they lost access to trade. Therefore, these groups will try to influence political leaders not to cause conflict that might affect trade.⁴⁴

Commercial Liberalism dates back at least to Montesquieu, a French philosopher from 1689-1755, who professed “all other countries benefit by commerce, and should seek to trade with as many other nations as possible.”⁴⁵ Next, Richard Cobden, a British politician and businessman, in the 1850s stated, “free trade ‘unites’ states, making each equally anxious for the prosperity and happiness of both.”⁴⁶ Later in 1909, Sir Norman Angell, a British politician, wrote a book called *The Great Illusion*, which theorized that war was pointless because countries had intertwined their economies and would have too much to lose by going to war. Leaders of their respective countries needed to understand this concept and keep their countries from going to war.⁴⁷ Modern scholars continued to improve this theory throughout the twentieth century and modified it to modern-day conditions.

⁴⁴ Edward D. Mansfield and Brian M. Pollins, *Economic Interdependence and International Conflict: New Perspectives On an Enduring Debate* (Michigan Studies in International Political Economy) (Ann Arbor: University of Michigan Press, 2003), 3.

⁴⁵ Hilary Bok, "Baron de Montesquieu, Charles-Louis de Secondat," *The Stanford Encyclopedia of Philosophy* (Spring 2010 Edition), Edward N. Zalta (ed.), <http://plato.stanford.edu/archives/spr2010/entries/montesquieu/>.

⁴⁶ Dale C. Copeland, “Economic Interdependence and War: A Theory of Trade Expectations,” *International Security* 20, no. 4 (Spring 1996): 6-7, <http://mtholyoke.edu/acad/intrel/copeland.htm> (accessed November 22, 2010).

⁴⁷ *Ibid.*

Critique

Organski stated “[t]here is no question that growing international economic interdependence is the most corrosive force at work on the nation-state system, but as long as that system is strong, nations will continue to be economic as well as political units.”⁴⁸

Economic Interdependence Theory includes a spectrum of theories that range from the Liberals to the Realists who advocated for or against the use of this theory’s application as a means to predict conflict. The first Liberal argument at the nation-state level “is that the economic exchange and military conquest are substitute means of acquiring the resources needed to promote political security and economic growth.”⁴⁹ A nation will acquire resources through trade or by using a form of conflict. As nations trade with each other, they have less need for conflict. A second argument made by Mansfield and Pollins proposes that as trade increases, so does the communication between nations, which creates a dialog that creates a peaceful state between the nations. A third Liberal argument for why conflict is not likely is that “consumer openness generates efficiency gains that, in turn, render private traders and consumers dependant on foreign markets.”⁵⁰ If the political leaders cause a conflict that disrupts the trade for the businessmen, then the consumer will no longer receive their products. The consumer and the business person apply political pressure on their leaders to end the conflict or risk losing their elected positions. The extent of dependence by a nation on a resource could increase or decrease the speed at which conflict develops.

Realists argue that a reason for conflict is that the consumer or the business person will acquire varying levels of power with unequal benefit from the trade relationship. This unequal

⁴⁸ A.F.K. Organski, *World Politics*, 2nd ed. (New York: Alfred A. Knopf, 1968), 24.

⁴⁹ Edward D. Mansfield and Brian M. Pollins, *Economic Interdependence and International Conflict: New Perspectives On an Enduring Debate* (Michigan Studies in International Political Economy) (Ann Arbor: University of Michigan Press, 2003), 2.

⁵⁰ *Ibid.*, 3.

balance of power induces the conflict, and the level of dependency affects whether a nation will resort to conflict more quickly than a nation who depends on trade.⁵¹ A second Realist argument against economic interdependence is the desire of a nation for autarchy, or self-sufficiency, using military conquest to capture the resources it needs. The idea is that autarchy reduces a nation's vulnerability and increases control over its future growth.⁵² A third Realist position, asserted by Kenneth Waltz, states that because of close contact between trading partners, conflict may be more likely because "heightened interdependence may actually stimulate belligerence."⁵³ This conflict can result because of unforeseen economic issues that did not exist before trading began. Finally, Realists assert that, although nations are highly involved in trading between one another, their national interests may be more influential than trade relationships and thus resort to conflict rather than negotiation to resolve a dispute. An example of this is illustrated in the issues that led to World War I.

Variables in Economic Interdependence

The variables within this theory are both qualitative and quantitative and must be considered together or otherwise they become simply statistics. The variables are the governance, interdependence, supply and demand, labor, and the state or entity conducting the trade. The types of governance that are addressed are democratic and non-democratic.

Each national government has a unique style and pace for handling trade. The dependence on trade is determined by the qualities of demand versus the desire to trade. Some

⁵¹ Albert O. Hirschman, Gilpin, Jack Levy, and John Mearsheimer in Edward D. Mansfield and Brian M. Pollins, *Economic Interdependence and International Conflict: New Perspectives On an Enduring Debate* (Michigan Studies in International Political Economy) (Ann Arbor: University of Michigan Press, 2003), 3.

⁵² *Ibid.*, 4.

⁵³ Edward D. Mansfield and Brian M. Pollins, *Economic Interdependence and International Conflict: New Perspectives On an Enduring Debate* (Michigan Studies in International Political Economy) (Ann Arbor: University of Michigan Press, 2003), 4.

nations need to conduct trade in order to acquire resources, while other nations need the economic benefit of trade. Supply and demand have an impact on the availability of a resource. For example, scarce amounts of a resource could cause war between nations who require the resource and cannot find another alternative. The size and education of a country's labor force can drive the cost of products for trade and affect the home nation's economy (i.e. low-cost labor in Mexico versus high-cost of labor in the United States.) Finally, who conducts the trade is made up of either state, corporation, or individual entities, all of whom have different goals and methods available to them to conduct trade using their relative power.

Recent Research on Commercial Liberalism

Dr. Katherine Barbieri, a professor in the Department of Political Science at the University of South Carolina, examined whether economic interdependence was a path for peace or a source of conflict. She developed four hypotheses to test for the potential of militarized conflict using pre- World War II data. These hypotheses were based on symmetry, salience, interdependence, and a combination of the additive effect of salience and symmetry on trade. When she tested her data on salience, she found that, "salient trading relationships are more conflict-prone than other types of relationships, contradicting the liberal argument."⁵⁴ Regarding symmetry, Barbieri found "the balance of dependence is more important for fostering peace than the extent of trade ties. States with a similar degree of dependence are less likely to engage in disputes."⁵⁵ On interdependence, she found, "rather than inhibiting conflict, high levels of interdependence increase the likelihood that dyads engage in militarized disputes."⁵⁶ Finally, considering a combination of salience and symmetry she found that when symmetry and salience

⁵⁴ Katherine Barbieri, "Economic Interdependence and War: A Path to Peace or Source of Interstate Conflict," *Journal of Peace Research* 30, no. 1 (February, 1996): 39, <http://www.jstor.org/stable/425132> (accessed July 12, 2010).

⁵⁵ *Ibid.*, 40, <http://www.jstor.org/stable/425132> (accessed July 12, 2010).

⁵⁶ *Ibid.*

increase simultaneously, there is higher likelihood for conflict. Barbieri cautions that her data in these areas is at extreme ends of the range of the study. The important lesson from this study illustrates that trading nations must have symmetry with a low to moderate amount of salience within their trading arrangements in order for conflict to be avoided.

Dale Copeland, an Assistant Professor at the University of Virginia, developed an alternative hypothesis about the study of conflict, trade and economics. In his article “Economic Interdependence and War: A Theory of Trade Expectations,” he blended both a realist and liberalist perspective that introduced a new variable to this area of study. Simply put, if nations have an expectation for trade, there will not be conflict because, “the total of the benefits and potential costs of trade versus autarchy reveals the true level of dependence a state faces, for if trade is completely severed, the state not only loses the gains from trade but also suffers the costs of adjusting its economy to the new situation.”⁵⁷ Therefore, nations will go to war in order to maintain the status of their economy unless they can find a reasonable alternative to the change in trade conditions. This theory is more important to nations that depend highly on trade than those nations with a low dependence. For example, when a nation does not have enough oil to sustain its economy and becomes highly dependent on trade to fill this need, it will go to war with the nation that puts this trade in jeopardy, seek alternate methods of trade, or fail. As Copeland illustrates, this situation was relevant to pre- World War II in the Axis Powers. Nations desire autarchic conditions because they allow them to have a better chance to gain national security. Achieving autarchy without conflict is not a likely condition because of the global distribution of raw materials. Therefore, nations must trade and use the expectation of trade relations to negotiate and foster relationships with other nations.

⁵⁷ Dale C. Copeland, “Economic Interdependence and War: A Theory of Trade Expectations,” *International Security* 20, no. 4 (Spring 1996): 5-37, <http://mtholyoke.edu/acad/intrel/copeland.htm> (accessed November 22, 2010).

The variables in Copeland's hypothesis were dependence on trade and expectations of trade. If both dependence and expectations are high, then no war occurs. If dependence is high and expectations are low, then war is more probable. If dependence and expectations are low, then war does not occur.

Zeev Maoz, a professor of Political Science at University of California-Davis, wrote an article titled "The Effects of Strategic and Economic Interdependence on International Conflict Across Levels of Analysis."⁵⁸ This article analyzed the level of dependence and interdependence of dyads based on a network analysis. Maoz defined dependence as, "an actor *i* is dependent on another actor *j* when a change in *j* causes a meaningful change in *i*, and if *i* incurs some cost once the tie with *j* is broken."⁵⁹ Maoz asserts that interdependence "implies reciprocal dependence—a change in *j* affects changes in *i* and a change in *i* affects changes in *j*, and both actors bear some cost for disrupting this relationship."⁶⁰ Through a node analysis, one can determine the level of interdependence or dependence. Additionally, Maoz illustrates the impact of pacts or alliances on security or trade on nations. Pacts introduce an opportunity cost of security based on the level of trade and security between one or more nations within the pact. Maoz's study of nations took place from 1870-2001, and had a subgroup that focused on 1946-2001. The results of this study found, "Both strategic and economic interdependence consistently dampen the propensity for MID [Militarized Interstate Disputes] initiation, MID, and war involvement."⁶¹ Maoz's interpretation of the data shows that the Liberalist point of view is accurate, and the Realist paradigm is less so. The data demonstrates a decreasing probability of conflict because of strategic and economic interdependence. The important clarifier is probability. Humans can be

⁵⁸ Zeev Maoz, "The Effects of Strategic and Economic Interdependence On International Conflict Across Levels of Analysis," *American Journal of Political Science* 53, no. 1 (January 2009): 223-40.

⁵⁹ *Ibid.*, 226.

⁶⁰ *Ibid.*

⁶¹ *Ibid.*, 234.

irrational actors and may not always consider the best interest of their nations. Another key area of interest is a nodal analysis on what trade and security constructs a nation creates in order to function.

Barbieri and Jack Levy, a professor at Rutgers University, discussed the impact war has on trade. As part of the economic interdependence theory, one must assume that war impedes trade. Barbieri and Levy's study analyzed seven dyads from the period of 1870 to 1990 in times of peace and war and studied the amount of trade both before and after conflict. They determined that trade begins to decrease when nations approach conflict, then once conflict is resolved, trade increases dramatically. In some cases, trade volume is higher post-conflict than before the conflict began. Analysis of the amount of illegal or smuggled trade that occurs before and during the conflict is a variable that is difficult to analyze.⁶² This study, taken in context with the other mentioned previously, demonstrates that as trade declines, there is a higher probability for war. Additionally, political leaders need to begin to prepare post conflict plans for the potential increase in trade that will help both countries recover faster.

Economic Interdependence is Liberalist theory applied by a number of different researchers to predict conflict and under which conditions it occurs. This theory is based on probability and trends, and although conditions may present a high potential for conflict, war does not always occur. The analyst can apply this theory to predict conflict, but because of the variables they observe, Commercial Liberalism should not be the sole source examining or explaining conflict. A comprehensive narrative describing and explaining conflict between states requires a blend of ideas and sources of information in order to properly establish the context for the possibility of conflict.

⁶² Katherine Barbieri and Jack S. Levy, "Sleeping with the Enemy: The Impact of War on Trade," *Journal of Peace Research* 36, no. 4 (July, 1999): 463-79, <http://www.jstor.org/stable/42599> (accessed October 12, 2010).

The research conducted using Commercial liberalism has demonstrated the theory has merit for explaining the potential for war between two nations through their trade relations. The research using Power Transition Theory has also demonstrated the ability to describe the conditions when war can occur by examining a state's sources of power and satisfaction with the global hierarchy. These two theories applied to two historical case studies will give insights into the prospects of war between the United States and China.

METHODOLOGY

Research Methodology

This research examines how trade relations, relative economic power, and satisfaction with the world order affect the relationship between two countries and leads to the propensity for conflict or peace. The objective of the case studies is to use historical events to determine a future outcome using the principles of Commercial Liberalism and Power Transition Theory. Each case study chosen had some unique bearing on the future anticipated conditions between the US and China. This paper concludes by describing and explaining the future conditions, based on tendencies and potential of the actors(see Figure 1).

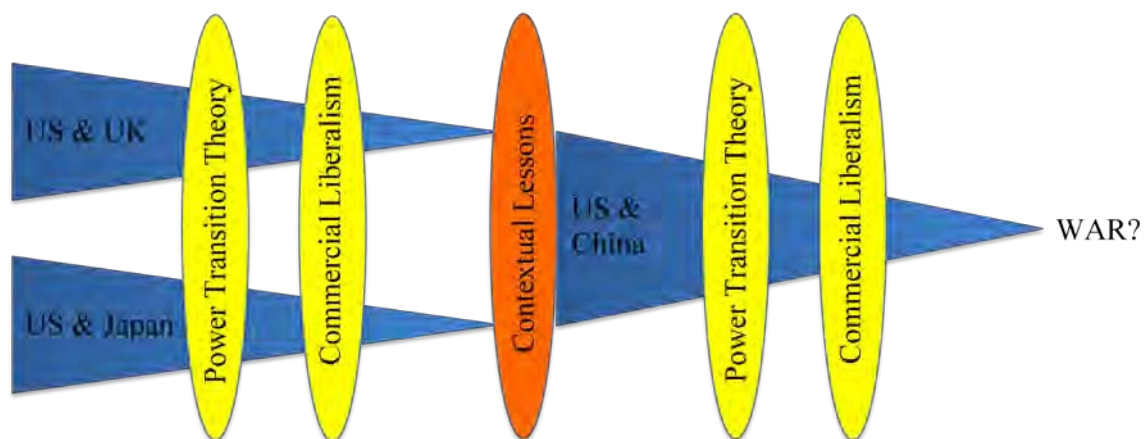


Figure 1: Graphical Representation of Research Methodology

Qualitative measurements interpret feelings or perceptions, while quantitative approach analyzes data in context of relationships. Authors of both theories use qualitative and quantitative data to help in further the study of their particular theory. For example, Barbieri uses quantitative data to prove her variables of trade share, salience, symmetry and interdependence and how they affect the potential for war.⁶³ Organski and Kugler use a qualitative measurement of a nation's satisfaction (or status quo⁶⁴) with its position in the global order.⁶⁵ Additionally they use quantitative data of gross national product to show a nation's power.⁶⁶

This paper utilizes two qualitative, historical case studies to help make a prediction on whether a war between the United States and The People's Republic of China. Both case studies involve the United States because of how they have shaped world politics during the twentieth century and will have a continuing impact on the twenty-first century as the dominant power. The first case study considers the relationship between the United States and Great Britain. It is an example of a peaceful transition of a great power becoming a challenging power (the US) and the dominant power (British) gracefully transferring the reins of power because the UK did not have the means to maintain its position and became dependent on the US for security and resources. The second case study examines the dynamic between two great powers who were both trying to control the Pacific Rim. Japan was a growing nation who had a high dependence on raw materials for manufacturing and trading. The US was trying to control the behavior of the Japanese through trade controls. Both of these case studies emphasize conditions that can be applied to the current

⁶³ Katherine Barbieri, "Economic Interdependence and War: A Path to Peace or Source of Interstate Conflict," *Journal of Peace Research* 30, no. 1 (Feb., 1996): 36-7, <http://www.jstor.org/stable/425132> (accessed July 12, 2010).

⁶⁴ Douglas Lemke, "The Continuation of History: Power Transition Theory and the End of the Cold War," *Journal of Peace Research* 34, no. 1 (February, 1997): 23-36, <http://www.jstor.org/stable/424828> (accessed May 13, 2009).

⁶⁵ A.F.K. Organski and Jacek Kugler, *The War Ledger* (Chicago: University of Chicago Press, 1980), 23 and 39-40.

⁶⁶ *Ibid.*, 33-5.

relationship between China and the United States. The description of current and future conditions can help shape strategic and operational choices facing decision-makers regarding US interaction with China.

Operationalized Variable Description

The dependant variable is war or militarized interstate disputes (MID).⁶⁷ MID occurs if a nation engages in hostile action using its military to engage the other nation. Most nations desire to live in a state of peace. Therefore, this research describes the propensity for the likelihood of war to occur between two nations.

There are three independent variables in this study that determine whether a MID has a higher propensity to occur. The variables are interdependence, relative power and satisfaction.⁶⁸ These three variables have an intricate relationship that should not be broken into parts, but instead taken in context together to provide a clear picture of why the result did or could occur.

Interdependence is a variable derived from Commercial Liberalism theory. Barbieri states that there is not a consensus on how this variable should be measured. As a response, she uses

$$\text{trade share } (TradeShare_i = \frac{DyadicTrade_{ij}}{TotalTrade_i}),$$

$$\text{salience } (Salience_{ij} = \sqrt{TradeShare_i * TradeShare_j}) \text{ and}$$

$$\text{symmetry } (Symmetry_{ij} = 1 - |TradeShare_i - TradeShare_j|) \text{ to evaluate a nation's}$$

interdependence on trade ($Interdependence_{ij} = Salience_{ij} * Symmetry_{ij}$).⁶⁹ As the *TradeShare* total approaches 1.0, the likelihood of MID increases. This indicates the level of dependence two

⁶⁷ Alan Bryman and Emma Bell, *Business Research Methods*, 2 ed. (Oxford: Oxford University Press, USA, 2007), 727. Bryman and Bell define a dependant variable as “a variable that is causally influenced by another variable.”

⁶⁸ *Ibid.*, 728.

⁶⁹ Katherine Barbieri, “Economic Interdependence and War: A Path to Peace or Source of Interstate Conflict,” *Journal of Peace Research* 30, no. 1 (Feb., 1996): 36-7, <http://www.jstor.org/stable/425132> (accessed July 12, 2010).

nations have on each other for trade. *Salience* represents the importance of the trade relationship between nations. *Symmetry* measures the equality of the trade relationship. Barbieri believes that nations who have symmetry in their trade relationships reflect a lower propensity for MID. Finally, *Interdependence* is derived from the product of salience and symmetry, which represents the interaction between the two variables in their economic linkages.

Relative power is the second variable used to predict the likelihood of MID occurring. This variable represents one the main arguments from the Power Transition Theory. The main measurement for this variable is in the GDP adjusted for Purchasing Power Parity (PPP). Purchasing Power Parity adjusts the raw GDP to reflect the currency exchange rates and notes it in US Dollars. Organiski and Kugler used GNP adjusted for PPP in their research; however, GDP (PPP) is the new standard measurement. Gross National Product took into account a nation's internal value of all goods and services produced minus foreign workers' contribution and income earned by citizens abroad, while the GDP takes into account only the internal value of goods and services produced by a nation. GDP (PPP) provides a more accurate capture of a nation's true economic capability. As economic capability increases, a nation has additional options to invest in areas that strengthen the nation and allow for advantage over a rival. De Soysa *et al.* state that both the Composite Index of National Capabilities (CINC) and GDP (PPP) are acceptable measurements of relative power.⁷⁰ A nation's primary energy expenditure is equivalent to GDP (PPP) because this measurement includes the allocation resources directed at achieving the state's

⁷⁰ Indre de Soysa, "Testing Power-Transition Theory Using Alternative Measures of National Capabilities," *The Journal of Conflict Resolution* 41, no. 4 (Aug., 1997): 525-26, <http://www.jstor.org/stable/174421> (accessed May 8, 2010). The CINC score consist of an equally weighted average of iron and steel production, military expenditures, military personnel, primary energy consumption, total population, and urban population. "This measure is generally computed by summing all observations on each of the 6 capability components for a given year, converting each state's absolute component to a share of the international system, and then averaging across the 6 components." Paul Diehl, "Project History," Correlates of War Project, <http://www.correlatesofwar.org/> (accessed April 25, 2011).

goals.⁷¹ In order to maintain the same degree of measurement across each case study in this research, the measurement of primary energy expenditure was used because GDP (PPP) data was not readily available for all periods.

Satisfaction is the last independent variable in this study. Measurement of satisfaction with a nation's position in the global hierarchy is the second half of the Power Transition Theory. Satisfaction can be measured in the tone of the rhetoric (positive or negative) toward another nation, which is observed in national leaders or public documents. The level of integration of a nation within the world order measures another form of satisfaction. A nation that integrates into the world system is likely to be satisfied with the benefits it derives from the world system. A nation could also be powerless to affect change on the world order and must accept its status by integrating into the world order. Finally, a nation's level of satisfaction can be determined by the size and growth of its military. Nations dissatisfied with their place in the world order desire to build greater sources of power in order to derive further benefit from the global system. Satisfaction can be treated as either a qualitative or a quantitative variable. In this monograph satisfaction is measured primarily as a quantitative variable. The growth and expenditure by a state on their military serves as an indication of satisfaction because it demonstrates a nation's willingness to change the global order through the influence of its military. Lemke, Tammen, and Kugler asserted that using the military growth and expenditures was an acceptable form of

⁷¹ GDP is the "value of all final goods and services produced within a nation in a given year." "The World Factbook," www.cia.gov, "The World Factbook," www.cia.gov, <https://www.cia.gov/library/publications/the-world-factbook/geos/us.html> (accessed April 10, 2011). Purchasing Power Parity adjusts the GDP value so that equivalency in exchange rates is achieved. Since all goods and services require energy, either directly or indirectly, then the measurement of primary energy expenditure should have a major bearing or equivalency to GDP. The primary energy expenditure consist of the conversion to one thousand metric coal-ton equivalents by taking into account the use of coal, petroleum, electricity derived from hydroelectric, nuclear and geothermal, and natural gas. This places an equal footing of energy expenditure since the inception of the COW project. Paul Diehl, "Available Data Sets: National Material Capabilities (v4.0)," Correlates of War Project, <http://www.correlatesofwar.org/> (accessed April 25, 2011). Additionally, there is no need for adjustment due to currency exchange rates.

interpreting a nation's satisfaction.⁷² A nation who keeps a large standing and capable military must balance their decisions with internal economic needs and their satisfaction with the global hierarchy.

Range of Cases

There is a wide array of cases that demonstrate both Commercial Liberalism and the Economic Interdependence Theory. Organski and Kugler use cases originating in the 1860s through periods of war and peace to 1970. Data before 1860 is not reliable or available. The major powers considered were Italy (1870-1970), France (1860-1970), Austria-Hungary (1860-1918), Germany(1860-1970), United Kingdom (1860-1970), Russia/USSR (1860-1970), Japan (1860-1970), United States (1860-1970) and China (1860-1970).⁷³ They put each of these great powers within a context of test periods based on the inception of war and excluded World War I and II periods because of the nature of the war. The time-periods were the 1860-1880 (Franco – Prussian War), 1880-1900, 1900-1913 (Russo-Japanese War and World War I), 1920-1939 (World War II), 1945-1955, and 1955-1975.⁷⁴ Some scholarly authors, attempting to continue to progress the body of work that Organski and Kugler presented from *The War Ledger*, use new data or a different methodology to study the data that technology allowed us to conduct. The evolution in the study of Power Transition Theory, arguably, is occurring now between the United States and China, with an end date to be determined.

⁷² See Douglas Lemke, “The Continuation of History: Power Transition Theory and the End of the Cold War,” *Journal of Peace Research* 34, no. 1 (Feb., 1997): 24, <http://www.jstor.org/stable/424828> (accessed May 13, 2009) and Ronald L. Tammen, and Jacek Kugler, “Power Transition and China–US Conflicts.” *Chinese Journal of International Politics*, Vol. 1, 2006, 35–55. <http://cjip.oxfordjournals.org/content/1/1/35.full.pdf+html?sid=a1752b1d-7fd3-4adf-8f61-9179ef65e279> (accessed September 29, 2010).

⁷³ A.F.K. Organski and Jacek Kugler, *The War Ledger* (Chicago: University of Chicago Press, 1980), 42-3.

⁷⁴ *Ibid.*, 49.

There are a large number of Commercial Liberalism cases to study; a researcher only needs to examine any great power and study its trade relationships. Barbieri and Levy researched seven different cases between states from the late 1800s to modern day. Maoz used time periods to study the effect trade has on the incidence of war. The first period spanned from 1870 to 2001, and second period included 1946-2001. Copeland focused on one nation and their trade relationships from pre-World War I to Post World War II using the variable of trade expectations. There are various methodologies to study the effect Commercial Liberalism has on trade and conflict depending on the researcher's objectives.

The measure of interdependence is the variable that represents Commercial Liberalism in the case studies. Interdependence encompasses the level of integration a nation has within hierarchal structures, the amount of trade, the availability of the resources, and the other factors that would require a nation to alter its level of dependence based on its needs and goals. Additionally this variable includes the relationship between the trading nations. The interdependence variable allows for the assessment of the level at which a nation depends on another nation for resources, and the relationship they have with each other.

The two variables from Power Transition Theory used in the case study analysis are relative power and a nation's satisfaction with the world order. Relative power allows a nation to acquire resources and capabilities and to continue to build power in other areas. While this could be a circular argument on which area of power is most prominent, this research will focus on the economic aspects. Second, a nation's satisfaction within the world order gives a nation incentive to build power or follow certain courses of action. Satisfaction gives a nation motivation to achieve or to pursue goals. These variables are the essence of Power Transition Theory and are used in the case study analysis to demonstrate the potential for war to occur.

Graphical Analysis

Description

Table 1 displays the format used to provide information from the case studies using the three variables from the two theories. The variables are located in the first column. Across the top of the table is each of the three case studies. A “+” sign indicates that both countries have a positive relationship in variable. A “-“ sign indicates that both countries have a negative relationship. A “<” symbol shows a decreasing variable and a “>” symbol shows an increasing variable. The result row will indicate if war occurred or if peace was maintained

Table 1: Graphical Analysis Construct

	US vs. Britain	US vs. Japan	US vs. China
Interdependence			
Relative Capability			
Satisfaction Within World Order			
Result			

CASE STUDY

United States and Britain 1865-1945 (Case Study 1)

Narrative of Case Study 1

This case examines the relationship between the United States and Great Britain from the end of the United States Civil War and to the end of World War II. During this time, both nations desired to grow within their sphere of power and influence; both nations shared a history and culture with one another and acted like maturing siblings. Through various policies and alliances, both nations forged a friendship that allowed them to confront common enemies, and deepen their alliance. During this period, the United States continued to grow economically, which allowed it

to invest in its military and support industries. It was able to rapidly build military forces and wield them where needed in order to return the world back to a state that allowed the US to derive the most benefits from the global order. At the conclusion of this case study, the United States acquired the position of the dominant power because Great Britain was exhausted by two world wars and because the British and the allies – excluding the Russians – consented. This consent was based in part on the Atlantic Charter in 1940 that allowed both nations to achieve a consensus and vision of the world in post World War II. This consent allowed the nations to put their faith in one supreme military leader, General Dwight Eisenhower, who led them to victory in Europe. There was a change in the international monetary standard, which had been based on the British Sterling. The Sterling was replaced by the US Dollar, which was a sign to the world that the United States had replaced Great Britain as a new world leader.

Great Britain rose to power and developed one of the world's largest economies because of its industrialization, navy's control of the sea and the ability to trade for its imports and exports.⁷⁵ Through naval and economic power alone, no other nation could compare to that of Britain in the 1870s. This posture allowed Britain to "never let the sun set on their empire." However, Britain was limited by the size of the population and the land it had available to develop and extract resources, which is an advantage the United States has over Britain. This difference in size of land and population allowed the US to steadily grow its economic and industrial bases.

In this period, the United States and Great Britain shared a number of experiences that helped grow their relationship to what it became in the 1940's. First, they shared a common language, which allowed for communication that is less open for misinterpretation and reliance on another to translate. They both shared a common culture and history that had only recently

⁷⁵ Zhiqun Zhu, *US-China Relations in the 21st Century: Power Transition and Peace* (Politics in Asia) (New York: Routledge, 2006), 55.

began to diverge. Other than a few feuds of words between each other, they shared the same enemies in World Wars I and II.

The United States and Britain had different interests within the world. The United States enacted the Monroe Doctrine in 1823 in which President James Monroe dictated that there would be no further European Colonization in the Western Hemisphere. In 1895, Britain put this to the test over a boundary dispute with Venezuela and its British Guiana colony. The US applied the Monroe Doctrine to the dispute.⁷⁶ Perhaps through shared experiences, trade, and other tangibles of peaceful interaction, they were able to settle the dispute through a treaty in 1897. Britain's focus was on maintaining her colonies in the East and its stronghold within European affairs, a position for which Britain needed the US to help.

At the turn of the century, the United States desired a naval fleet that could rival other nations in the world, particularly Japan and Great Britain. This was the arms race of the day in relation to what the nuclear arms race was for the next generations of the 1950s through the 1980s. Theodore Roosevelt created the Great White Fleet and sailed it around the world, making a spectacle in every port and demonstrated the United States' new power in the world.⁷⁷ The Great White fleet gave a signal to the rest of the world that the US was a force that could not be bullied, had teeth behind its diplomacy, and the wealth and industrial might to manufacture additional military power as needed. In 1906, the US Navy became the second largest according to *Jane's Fighting Ships*.⁷⁸ The US had never held this position and was the point at which the US entered the window for power parity with Britain.

⁷⁶ *Ibid.*, 58.

⁷⁷ Henry J. Hendrix, *Theodore Roosevelt's Naval Diplomacy: The U.S. Navy and the Birth of the American Century* (Annapolis, Md.: Naval Institute Press, 2009), xiii-xvii. Hendrix discusses in detail how developing a naval capability allowed the United States to establish itself as a world power and enable it to conduct more effective diplomacy.

⁷⁸ Kelley L. Ross, "Dreadnought (2004)," www.johndclare.net, http://www.johndclare.net/causes_WWI2_Dreadnought.htm (accessed April 26, 2011).

Trade between Britain and the US was essential to the mutual benefit of both nations, as well as others. Cooperation would only allow both nations to prosper. In World War I and World War II, the supply of military equipment and other resources was essential to Britain's survival. Franklin Roosevelt coined the phrase that the US would be "the arsenal of democracy" as it developed a national policy toward trade throughout the 1930s known as the Neutrality Acts. This progressive policy and legislation promoted a system that allowed nations to pay cash for goods, but required the buyer to arrange for transport through the buyer's means. This legislation helped Britain and China, but also helped Japan, which was an enemy to the US. The Neutrality Acts eventually led to the Lend Lease Act in 1941, which allowed the US to give a significant amount of war material to Britain, China, and the Soviet Union. In times of war, the US did not withhold trade from those who faced a common enemy.

Throughout the inter-war years, Britain and the US exchanged rhetoric with each other that set the stage for the impending power transfer and allowed the British to feel at ease with falling from the position as the dominant power to that of a great power. This confirmation of peace between the US and Britain began in 1901 when Theodore Roosevelt declared that the US was not "in danger" of war with Britain and ended in 1905 when the US claimed it had nothing to fear from the British.⁷⁹ Later that year, the British Prime Minister reciprocated the sentiment, saying that Britain desired to grow a relationship with the US. The rhetoric continued throughout the first half of the 20th Century, and words were supported by deeds. The Kellogg-Briand Pact allowed the British to remove its military garrisons from Canada and the West Indies, demonstrating to the US that the British no longer considered the option of war and would grant its power and influence in the Western Hemisphere to the US.⁸⁰

⁷⁹ Zhiqun Zhu, *US-China Relations in the 21st Century: Power Transition and Peace* (Politics in Asia) (New York: Routledge, 2006), 68.

⁸⁰ Martin Folly, *The United States and World War II*. (Edinburgh: Edinburgh University Press, 2002), 3.

The Bretton Woods Conference in July of 1944 was the solidifying event establishing the United States as the dominant power in the world. The outcome of the conference led to a change in the global currency from the British pound sterling to the American dollar. Additionally, it allowed for global free trade by setting standards for tariffs and negotiated ways to settle post war debt that would not cripple nations' economies. The change in the symbol of economic trade, the dominant currency, designated the US as the new world leader and Britain's willingness to follow. Additionally, benefits from its position in the world hierarchy did not change for the British.

Case Study 1 in Terms of Theory Application

Considering the UK/US case in its entirety, the Power Transition Theory is the best means to describe why a peaceful power transition occurred in the mid 1940s. The United States achieved parity in military, economic, and political capacities and eventually surpassed Great Britain as the dominant power. Additionally both nations were satisfied that they had a common vision of the future dynamic and the roles they would share. A peaceful transition of power positions occurred because the communities shared a common vision, culture, history and interest. Commercial Liberalism does have applicability within this case study; however, it explains only one dimension of trade and does not address the political aspect nor the people's desire for war between the US and Britain.

As the United States climbed out of the Great Depression in the 1930s and Europe began to posture for World War II, noticeable gaps in economic, political, and military capabilities increased as the US pulled ahead of its competitors. Because of the Great Depression and its smaller population, Britain entered World War II in an economically weakened state. The United States was a British trading partner and created policies, such as the Neutrality Acts of the 1930s, which benefit both Britain and the US. This trading alliance allowed the US to expand its military industrial complex at the cost of the British treasury, thereby allowing the US to generate future

capacity for the United States military. Additionally, the US foreign military sales allowed the US to reinvest the sales revenue into their own military and industry capability. As Britain stalled economically to fund the war, the growth of its military and political power grew stagnant, allowing for the United States to outpace Britain in total power during World War II.

In 1941, Winston Churchill and Franklin Roosevelt met in Ship Harbour, Newfoundland to discuss the outcomes and their future vision after the World War II was over. The agreements centered on forms of government, free trade, and terms to conclude the war. In military terms, this was similar to a change of command. This common agreement and shared vision allowed both parties to be satisfied and develop a mutual trust to defeat common enemies. Without this road map, the potential for greater tension within the alliance would loom over the relationship. Additionally, the terms set forth within the agreement were not too far from the propensity of where both countries wanted to go in the future. This conference resulted in the United States becoming one of the key leaders in the world and established a path for achieving its role as the dominant power.⁸¹

Dale Copeland's hybrid theory of Commercial Liberalism has applicability in this case study. Both nations expected trade to occur between them, and it could be argued that if the US severed or limited trade with Britain in order to maintain neutrality within the world, Britain would have held a deep resentment for the US and could have triggered some form of warfare. Additionally, Britain did not have the money to buy military equipment and other materials to sustain its war effort with Germany and deeply relied on the US to "lend" them the equipment. Since the end of the American Civil War, trade between Britain and the US steadily increased and through a shared history, language, and culture, the two never really had deep disputes that interrupted trade, allowing relationships with one another to improve.

⁸¹ *Ibid.*, 24.

Summary of Results

The Correlates of War (COW) project data can further demonstrate these variables in a quantitative fashion. On the surface, the relationship between the British and the United States suggests that both nations had a high level of interdependence; however, the methodology Barbieri uses to measure interdependence does not indicate a high level of interdependence when using the COW data. The measurement for interdependence actually declined during the interwar years (see figure 4). The low level of interdependence would allow for the possibility of war, but perhaps, because of the perceived interdependence through rhetoric, policies, and treaties were enough to allow for the possibility of a state of war to exist between these nations. Additionally, trade share for both the US and the British converged, indicating a decrease in dependency on trade and distribution of trade to other nations (see Figure 3). Second, the United States clearly demonstrated its power in industry. The primary energy expenditure (see Figure 3) for the United States steadily increased until the Great Depression, and continued to climb again while the British did not fluctuate much throughout the same period, indicating the British had peaked in their capability to produce (see Figure 5). Neither nation increased the size of their military except during both WW I and WW II, where both nations fought on the same side. This demonstrates both nations were satisfied with the global hierarchy and did not need the military power to influence or deter the other (see Figures 6 and 7). The ration of military expense to energy expense was not unexpected (see Figure 8). The British were engaged in World War I and II before the the United States, therefore starting their build up sooner. Since the US had more capacity to use energy than the British, the growth of the military expense had a more significant impact on the choices the British had to make in order to solve internal and external problems.

Table 2 shows the summary of this case study's variables. The interdependence measurement decreased throughout the time period studied because over time, the US was able to distribute its trade among different trading partners, which reduced its dependence on the British.

The relative capability of the United States showed continuous growth, while the British were stagnant. This demonstrated the tremendous potential the US retained while the British had reached their peak potential. Finally, the satisfaction between these rivals remained at the status quo because they both fought on the same side during both World Wars against a common enemy. The rise in both military expenditure and military size is due to the common enemy they both faced. The result of this case study was a peaceful, position exchange of the dominant power in respect to this dyad.

Table 2 - US – UK Qualitative Case Study Analysis

	US vs. Britain	US vs. Japan	US vs. China
Interdependence	<		
Relative Capability	US > UK		
Satisfaction With World Order	>		
Result	No War		

United States and Japan 1853-1941 (Case Study 2)

Narrative of Case Study 2

This case study begins at the end of the Tokugawa era and concludes with Japan's decision to attack the United States on December 7, 1941. During this time, Japan maintained its culture and way of life; however, growing Western Powers demanded trade with Japan. Japan ultimately modernized its entire way of living and conformed to the West's style of government, military structure, and economic systems. As it modernized its systems, Japan's need and reliance for raw materials increased. The requirement to export goods affected Japan's ability to modernize and grow in power. Therefore, a dependency developed between Japan and the nations with which it conducted trade. As it grew in power, Japan sought recognition of its status and accomplishments. It attained status through the exploits of its navy and army, but received little

or no recognition from its global rivals. Japan realized it had to capitalize on opportunities within the East Asian and Pacific region so it could continue to grow and earn global recognition as a great power. Ultimately, because its diplomatic and economic systems could not resolve its problems, Japan settled with a military solution, led them into a number of wars during this period. The result of this period was a change in the world's dominant power from Great Britain to the United States, as well as the defeat of Japan and the Axis powers by the Allies.

Commodore Perry's arrival in Japan in 1853 surprised the Japanese and was the catalyst for the rise of the Japanese empire. At the time of Perry's visit, Japan was an agrarian society, run by the Shogunate and had not yet industrialized. Japan wanted to remain isolated from other nations to safeguard their culture and way of life. Commodore Perry made demands upon Japan to open their nation for trade or face a threat of war that Perry would pursue on behalf of the United States' President, Millard Fillmore. Perry gave them some time to consider the demand. He returned in 1854 to conclude the treaty with a larger fleet, prepared to engage Japan if the treaty was not signed. However, the Shogun signed the treaty and opened the port of Nagasaki for trade with the US.

Commodore Perry's visit and threat set off an alarm that resonated with the Japanese elite. This movement eventually overthrew the Shogun in 1868 and started the Meiji Restoration. The Meiji Restoration, or what some authors call a reformation, was initiated by the Emperor Meiji. Meiji desired to restore the power and prestige of Japan so the nation would never have terms dictated to it and could protect its culture. Emperor Meiji began to seek out everything that was western. The Government was modeled off the Imperial Germany and Austria-Hungary. This style of government, as Alan Levine argues, offered the Japanese a great deal of freedom and placed them ahead of most other nation in the world in terms of their capacity to govern.⁸²

⁸² Alan J. Levine, *The Pacific War: Japan Versus the Allies* (Westport, CT: Praeger Publishers, 1995), 4.

Additionally, Germany and Austria-Hungary contributed to Japan's construct of a modern standing army. France was Japan's model for its economic affairs, the British helped with naval and industrial development, and the Japanese sought out the Americans for their educational system. Together these elements created a disjointed system that tried to blend the best of everything in the West, but when placed in the Japanese culture, these systems were without context and subsequently redefined Japan and its political construct.

Japan's initial engine for generating trade revenue during the Meiji Restoration was from silk, coal, and copper. This allowed Japan to earn the money they needed to begin to industrialize their nation. Japan's first important export industry was textiles, but heavy shipbuilding became increasingly important. Because Japan was a resource poor nation, this industrialization increased the need for raw materials, which could be made into products demanded by Japan or exported to other nations. The revenue initially allowed a continuous reinvestment into the economy. The revenue increased the capability and capacity of Japanese industries, and also the demand for raw materials. This cycle of growth and the increased demand of external resources from trade created increasing concerns with Japan to secure sources of supply. In , The US embargo of raw materials caused problems for Japanese industry and became one of the reasons for the start of World War II.

As Japan's military power grew out of their new industrial might, it sought to colonize. Japan's attempt to secure Korea and Taiwan, beginning in the late 1890s, forced Russia, France, and Germany to issue an ultimatum for Japan to cease its expansionism. This caused the Japanese to side with Great Britain and other English speaking, Western powers. Japan and Great Britain signed a peace agreement in 1902 that kept the British and their allies from involving themselves in the Japanese-Russo War. A partnership began that would witness the Japanese fight with the British in World War I, opportunistically trying to gain status and power from victory.

The partnership dissolved during the inter war years at the Washington Conference in 1921-2 because it limited the number of Japanese capital ships to 60% of those of US and the UK.⁸³

In 1905, Russo-Japanese War was fought over disputed territory in Manchuria and Korea. Japan sought to establish its power within the region and maintain its new colonial possessions. Russia desired a warm water port in the Pacific near Vladivostok. The real significance of this war was the crushing defeat of the Russian Navy by the unsuspected underdog, Japan. Admiral Heihachiro Togo destroyed Russia's Navy at the battle of Tsushima, which caused an increase in prestige for Japan and a corresponding decrease in Russian stature. Japan had expected political concessions, indemnity, and world recognition for its victory. Instead, Japan was upset at the Portsmouth Naval Yard Peace Negotiations when Russia did not submit to the Japanese demands.⁸⁴ From these negotiations, Russia was able to "save face," and the United States increased its power and influence because of its ability to broker the deal. The Japanese left without all of their demands met.⁸⁵ Japan acquired the southern half of the island of Sakhalin and in 1910 annexed Korea and served as its protectorate.

Because of the treaty they signed in 1902, Japan fought on Britain's side during World War I. Germany's defeat and Japan's position on the winning side, allowed Japan the opportunity to acquire German colonies in the Pacific. These colonies were the Marianas, Caroline, and Marshall Islands. In addition Japan acquired German possessions within China. Both Japan and the United States sought after trade with China. Free trade in China was part of the motivation behind Roosevelt's desire to broker the deal that ended the Japanese-Russo War. Japan wanted exclusive trade in China and America wanted an "Open Door" so that all could

⁸³ Peter Calvocoressi and Guy Wint, *Total War: The Story of World War II* (New York: Pantheon Books, 1972), 591-6.

⁸⁴ Henry J. Hendrix, *Theodore Roosevelt's Naval Diplomacy: The U.S. Navy and the Birth of the American Century* (Annapolis, Md.: Naval Institute Press, 2009), 123-4.

⁸⁵ *Ibid.*, 128-9.

trade. In 1915, Japan made the Twenty-One Demands on China, which tried to further Japan's expansionist role within China. Through the assistance of the United States, Japan's demands were reduced to thirteen, which prevented Japan from taking an advisory role within China's government. However, Japan did acquire natural resources from China. This deal was achieved at a cost that resulted in an increase in Chinese resentment toward Japan, and portrayal of Japan as a regional bully.

Throughout the 1920s the Chinese people resented the demands and concessions given to the Japanese. Japan developed Manchuria and sought to maximize its ability to extract resources to feed its industrial machine. The 1920s also saw the maturation of the Japanese government and the incorporation of more westernized practices. However, with the onset of the Great Depression, the Army became increasingly dissatisfied with its declining status in Japanese society and felt their Western form of government was to blame. Additionally, modernization brought on the new class of businessmen that were at odds with the Japanese society, resulting in four distinct factions: the government, the businessmen, the army, and the navy, each with its own agenda and vision for the future of Japan. Dissatisfaction grew out of the military, which became anti-business and anti-government. The military wanted Japan to receive its due recognition and status within the world. This is what Levine coined "the Imperial Way."⁸⁶

In September of 1931, Japan continued sought to expand its role and possession of China. The Japanese Army, known as the Kwantung, had been stationed in Manchuria since the 1905 because of the Sino-Japanese agreement authorized Japan to protect the South Manchurian Railroad. The Kwantung, reacting to a railroad bombing in Mukden, acted on their own initiative and quickly seized Manchuria. Calvocoressi and Wint suggest that Japan had an established war plan based on the quick and decisive actions in the province. The Japanese government did not

⁸⁶ Alan J. Levine, *The Pacific War: Japan Versus the Allies* (Westport, CT: Praeger Publishers, 1995), 9.

consent nor try to stop the Kwantung from their actions. This was the first test for the newly formed League of Nations to intervene for peace against one of the world's great powers. Japan felt that the League of Nations was not treating them in accordance with their status as a colonial power and gave too much status to the agrarian nation of China, essentially treating them as equals. This ultimately led Japan to withdraw from the League of Nations in 1933, an event which illustrates Japanese perception that the world had not recognized its status within the global hierarchy as a great power. Over the next several years, there was a lull in the fighting in northern China. The political discourse between China, the United States, Britain, Japan and other nations tried to maneuver Japan out of China but to no avail. China prepared to battle Japan for Manchuria, but China was distracted with its own internal struggles between the Nationalists, led by Chiang Kai-shek, and the Communists, led by Mao se Tung.⁸⁷

In July of 1937, Japan continued its operations within China because of the skirmish at the Marco Polo Bridge between Japanese and Chinese soldiers. Again the Army, particularly the junior officers, resumed this conflict without consent of the Japanese government or the Japanese generals. The Chinese Nationalist and Communists began to form a loose alliance in order to fight the Japanese. The war took on a such a savage character that other nations, particularly the British and the United States, came to detest Japanese actions in China. The US and Britain desired China open for free trade to all; however, Japan continued to isolate China from trading with other nations. Japan instituted aggressive business practices within the region by underbidding or dumping excess goods into markets. This upset the balance of trade in some areas, which caused the European powers to detest the Japanese business practices, but to fear

⁸⁷ Peter Calvocoressi and Guy Wint, *Total War: The Story of World War II* (New York: Pantheon Books, 1972), 623-26.

Japanese repercussions if they objected too loudly. Japan quickly became a bully within the region because it believed that it had to sell its exports or starve.⁸⁸

In 1938, Japan sent an expeditionary force to into Russia, north of Manchuria, to see how Russia would react. General Zhukov repelled the Japanese invaders. Japan had been secretly working with Germany since 1936 when Japan signed the Anti-Comintern Pact that stated they would resist communism and not provide any aid to Russia should a war between either parties occur. Since the Japanese attack in Russia failed, Japan felt Germany would eventually defeat Russia. Japan's analysis was that Germany would be the next dominant power to overtake Britain's position. Japan saw an opportunity to be on the winning side again, which allowed Japan to potentially reap the spoils of victory and the recognition and satisfaction it felt it deserved. Japan refocused its efforts in Manchuria and looked for other areas for conquest. As war broke out in Europe, Japan saw an opportunity in the Pacific as the European powers were distracted at home. Japan sought to keep the war in China as its own private affair and demanded that Britain close the Burma Road supplying China. Because of immigration and trade policies and the naval arms race in the Pacific, Japan's perception of the US at this time was one of "the insensitive Great power [that was] blocking Japan's progress."⁸⁹ From 1938 until November 1941, the US implemented various policies and political tools to get Japan to leave China and allow normalized trade in China. However, Japan refused to have its actions dictated by a perceived lesser and weaker nation, and drafted plans and prepared its military for war in the Pacific with its rival.

⁸⁸ *Ibid.*, 659-60.

⁸⁹ *Ibid.*, 678.

Case Study 2 in Terms of Theory Application

From the time Commodore Perry first arrived in Japan, until the start of World War II, Japan sought opportunities that brought security for its culture and way of life. Japan realized it had to assimilate to different methods and functions that existed in the West such as building governmental capacity, modernizing its industry, increasing its trade and building its military capacity. Increasing capacity in these four areas would allow Japan to become a colonial power and become more like the other great powers in the world. Japan felt it had to acquire colonies for two reasons; first, to gain power, prestige, and respect of other nations, and second, to acquire sources of raw materials so that it did not have to rely on trade as a means to support the inputs for its industry. This led Japan to pursue autarchy, which allowed it to grow its military-industrial complex and achieve regional dominance without relying on others. An autarchic position is counter to Commercial Liberalism.

Japan was caught in a voracious cycle of needing to feed its industrial complex because it was a resource poor country. Japan pursued colonies or trade agreements that met its demand for raw materials, but nearly every time they tried to imitate the other great powers by acquiring colonies or conducting battles over disputed land, the outcome was in favor of the existing great power (i.e. Russia) or the great power protector (i.e. U.S. and British supporting China). Japan felt it was consistently slighted during its post hostility negotiations and thus never felt satisfied. Japan had to be on guard and increased its military capability, particularly its naval power. This dissatisfaction with its treatment in diplomatic matters led to the dissolution of the Washington Naval Treaty in 1936, which had earlier set limits for the amount and tonnage of the British, US, Japanese, French, and Italian navies. The authors of the treaty reasoned that Japan only had one ocean to control while the British had three and the United States had two; therefore Japan did not need as large a navy as the US and British.

Japan's dissatisfaction with its status in the world's hierarchal structure and desire for security for its economy and way of life ultimately led to the attack on its chief rival, the US, in the Pacific. Copeland's hybrid theory on Commercial Liberalism can be used to describe why Japan went to war, but it only presents one perspective. The passion of the Japanese people and the military's discontent with its treatment by the world's political order was the other dimension and cause for war. Given this, the Power Transition Theory gives a complete explanation for the cause of war. In December of 1940, United States' President Franklin Roosevelt began a form of economic warfare with Japan when he declared an embargo on scrap iron and war materials destined for Japan. Later in July of 1941, he froze Japanese assets and added an embargo of steel and oil.⁹⁰ This economic warfare challenged the security of Japan, which, if lost, would allow other nations to dictate Japan's behavior. Japan did not feel this was acceptable and it contradicted its way of life. Therefore, Japanese satisfaction with its status in the global hierarchy was low and fueled its desire to do something to increase its status and regain security. The lack of security motivated an increase in military spending and size, which allowed Japan to conduct the attack on the United States on December 7, 1941. Although, on the surface, Commercial Liberalism supplies a reasonable explanation for why war occurred, the Power Transition Theory offers a more comprehensive explanation in this case study.

⁹⁰ Peter Calvocoressi and Guy Wint, *Total War: The Story of World War II* (New York: Pantheon Books, 1972), 686-87.

Conclusions and Observations

Table 3: US – Japan Qualitative Case Study Analysis

	US vs. Britain	US vs. Japan	US vs. China
Interdependence	<	>	
Relative Capability	US > UK	US > Japan	
Satisfaction With World Order	>	< Japan	
Result	No War	War	

The first case study illustrated that the both the US and Britain maintained a perception of interdependence with each other in regards to trade matters. There was never a threat from either country that trade would be disrupted or withheld. Both countries continuously spoke positively about each other and fought on the same side during both World Wars. Britain's economic power declined during this time because of their involvement in two World Wars. However, Britain was supported by the United States in order to maintain its position as a great power. The agreements made at the Atlantic Conference and the reinforcing rhetoric spoken by leaders of both nations maintained the satisfaction of both nations within the world order. This ensured a status quo existed in which both nations would benefit from the future world conditions. The United States did not undermine Britain by changing the rules of engagement, nor did it compromise the benefits it derived from setting the rules. Because each of the variables represented a positive relationship between both nations, there was no war and a peaceful transfer of power.

However, the United States and Japan case study resulted in war because of the dissatisfaction Japan had with its place in the world hierarchical structure and its declining trade opportunities. In this case study, Japan increased its manufacturing capability, and increased its demand for raw materials to support its industry. Japan was highly dependent on the United States and other nations for trade of these raw materials. Initially, the trade relationship was of mutual benefit, but the United States gradually became independent and found other sources for

goods it received from Japan, and found other markets in which to sell its goods. This rift grew to a point that the United States tried to leverage Japan dependency on trade in order to affect Japan's behavior towards China. The trade share (see Figure 8) between Japan and the United States never converged showing Japan maintained a higher dependence on trade with the United States than the United States had with Japan. Japan was not satisfied with its status and used war as leverage to try change its position and derive greater benefit. In this case study, relative capability was threatened by the dependence Japan had on its trade. Japan was not able to convert its captured colonies into acceptable resource bases that allowed it to increase its production. This is displayed in its primary energy expenditures in Figure 11.

The COW project data lends quantitative evidence to this assertion. Figure 9 depicts a low interdependence value. While Japan was dependent on raw materials from the United States, the United States was not dependent on trade with Japan, and therefore, there was no interdependence. Additionally, during this time, Japan tried to increase its capability to build power through acquisition of colonies, but was not able to convert them into meaningful contributions to its industry as evidenced through the primary energy expenditure (see Figure 11) There is a shallow, steady rise; however, it was no match for the United States nor could it hope to catch up with its limited raw materials available to the nation. Finally, there is evidence of dissatisfaction based on the growth of the Japanese military in 1932 that coincides with Japan's initial attack in China and another increase in 1938 in both military size and spending that coincides with the Japan's second attack on China and US (see Figure 12 & 13). Japan mobilized more forces ahead of the US, but its capability was not as great as that of the United States unless it could acquire a new base of support for raw materials and manpower.

These case studies have relevant lessons that the United States can apply to its relationship with China in the areas of interdependence of trade, economics capability, and the effect on satisfaction. Table 3 shows the analysis of the case study variables. The Japanese displayed higher dependence on trade with the US than the US had with Japan. Japan was unable

to find other trading partners in order to decrease its dependence on the US trade. The US used Japanese dependence to manipulate Japan to disengage in its war with China, but this led to further Japanese dissatisfaction with its place in the world. The US embargoed resources meant for Japan, thus threatening its economic security. The Japanese were not able to acquire enough resources that allowed it to compete with the relative power of the United States, which steadily grew over that of the Japanese. While the Japanese were able to outspend and increase the size of their military, they were not able to sustain its growth. The sharp increase in military spending and the resulting growth of its military displays Japanese dissatisfaction with its position in the global hierarchy. This case study resulted in four years of war between the US and Japanese due to Japan's dependence on trade with the US and its dissatisfaction with the global hierarchy.

CHINA FROM 1970 TO 2025

Narrative 1970 to 2025

In 1972, US President Richard Nixon visited Chairman Mao Zedong. This visit signaled China's emergence from isolation and the beginning of China's growth. China put its faith in the established Western economic system, hoping to bring prosperity to the nation.⁹¹ From the US perspective, this relationship was important because of the relationship China had with the USSR. If the USSR were in a stronger position, a position that set the benefits for global trade, then China would have naturally sided with the USSR. The US relationship with mainland China began in the early 1970s and was nurtured through each succession of US presidential leaders.

China began economic reforms with the introduction of Deng Xiaoping's ideas. In 1971, a large majority of China's population lived in poverty. Deng's ideas were the means to bring the Chinese nation out of poverty by opening up the Chinese industry through world trade.⁹² Deng

⁹¹ Martin Jacques, *When China Rules the World: The End of the Western World and the Birth of a New Global Order* (New York: Penguin Press HC, The, 2009), 346-7.

⁹² *Ibid.*, 162.

pronounced this as the “Open Door” for other nations to invest in China, which required a change in China’s laws to permit foreign investors to collaborate with Chinese companies. Additionally, there were changes to Chinese business practices and new freedoms for businesses to act in their best interest. Deng opened additional arable land in rural provinces that allowed for agricultural growth. Some of the first land made available came from Deng’s home province of Szechuan, and expanded out when the program proved successful. This growth in agriculture allowed China to balance its foreign trade of food in 1980.⁹³

Deng developed a formula that allowed the co-existence of a Communist form of government and an open market, which he described as “One China, Two Systems.”⁹⁴ This philosophy allowed China to integrate into global markets and grow its economy, while bringing a significant portion of the population out of poverty. This started the growth of the middle class in China. Deng wanted China to have a stable relationship with the US such that “China would have a peaceful and relatively trouble-free external environment that would allow it to concentrate its efforts and resources on its economic development.”⁹⁵

Under Chairman Jiang Zemin, China regained control of Hong Kong in 1997 from the British. Because of historical and cultural ties, China felt that Hong Kong belonged to them. Many analysts thought China might change how Hong Kong functioned, but nothing changed. It was more important that China controlled Hong Kong than the form or function of the government. This demonstrates the “one China, two systems” mentality that Jaques correlates to a Confucianism saying of “harmony with difference.”⁹⁶ Additionally, China perceives Hong

⁹³ Marshall Green, John H. Holdridge, and William N Stokes, *War and Peace with China: First-Hand Experiences in the Foreign Service of the United States* (Bethesda, MD.: University Press of America, 1994), 194-95.

⁹⁴ *Ibid.*

⁹⁵ Martin Jacques, *When China Rules the World: The End of the Western World and the Birth of a New Global Order* (New York: Penguin Press HC, The, 2009), 347.

⁹⁶ *Ibid.*, 294-5.

Kong as a tributary to the middle kingdom and did not see an advantage to changing what the British had established. This was further proof of China's willingness to integrate into the western system of trade.

China also worked to further trade regionally. The Association of Southeast Asian Nations (ASEAN), another trading group that China has been associated with, allows China to achieve more trade within the region. ASEAN is an economic and political organization that represents the collective interests of ten nations. In 1997, due to the Asian Economic Crisis, ASEAN reached out to include three more nations in order to resolve the crisis. ASEAN Plus Three includes China, Japan, and South Korea. China's interaction with the bloc allowed it to open free trading areas and significantly increase its exports to other nations within the region. This contributed to China's growth and influence in the region. Interaction in the region has been in accordance with China's policy of "participate actively, demonstrate restraint, offer reassurance, open markets, foster interdependence, create common interests, and reduce conflict."⁹⁷

In 2001, China was accepted into the World Trading Organization (WTO). The WTO "deals with the rules of trade between nations at a global or near-global level,"⁹⁸ a place where nations can negotiate and settle trade disputes. China's joining the WTO was a catalyst for maintaining its double-digit GDP growth rates. China had a significant amount of foreign investment and trade; however, becoming a member of the WTO allowed China to open to foreign investment and trade. The world was able to acquire resources from a nation with a large population of cheap labor and manufacturing capacity. China gained access to the world's

⁹⁷ *Ibid.*, 283.

⁹⁸ World Trade Organization, "What Is the World Trading Organization," World Trade Organization, http://www.wto.org/english/thewto_e/whatis_e/tif_e/fact1_e.htm (accessed April 6, 2011).

markets to sell their exports and acquired resources to enhance their nation. This was the key hurdle that China addressed to integrate into the world economy.⁹⁹

China already assume a role as a challenger to the US by by threatening to overtake the US economically.

China continues to grow its population but because it restricts families to one child, it could develop problems with its population. The issue will be how to support their aging population with their significantly less working population. Additionally their one child per family policy caused an imbalanced ratio of male to female that could impact their politics.¹⁰⁰ China's population growth could cause migration of its people to other parts of the world where they seek work in order to send money home. China already has a remittance inflow of \$25.7 billion per year from workers abroad.¹⁰¹

China holds \$1.95 trillion dollars in foreign exchange reserves and \$798 billion dollars in US Treasuries as of 2008, the most of any nation in the world. China could demand higher interest rates which could impact the United States ability to receive further loans leading to a decrease in the value of the US dollar. This devaluation could lead to both an increase in inflation and interest rates in the US,¹⁰² which could affect the United States' recovery from the 2010-11 recession. However, China is also at risk of losing capital if the value of the US dollar falls because of the amount of debt and US cash reserves it reportedly maintains. Additionally, China has increased its rhetoric to emphasize the importance its currency, the renminbi, and

⁹⁹ Martin Jacques, *When China Rules the World: The End of the Western World and the Birth of a New Global Order* (New York: Penguin Press HC, The, 2009), 191.

¹⁰⁰ Joint Futures Group (J59). 2010. *The Joint Operational Environment*. Norfolk, VA: United States Joint Forces Command (February 18, 2010). http://www.jfcom.mil/newslink/storyarchive/2010/JOE_2010_o.pdf (accessed March 5, 2011), 15. Chinese society places more value on having a male child than it does a female child.

¹⁰¹ *Ibid.*, 17.

¹⁰² Joint Futures Group (J59). 2010. *The Joint Operational Environment*. Norfolk, VA: United States Joint Forces Command (February 18, 2010). http://www.jfcom.mil/newslink/storyarchive/2010/JOE_2010_o.pdf (accessed March 5, 2011), 19.

advocates for its use to become a global currency just as the US dollar and Euro have.¹⁰³ Chinese policy has not allowed the renminbi to leave the China for they fear that the open market could cause the increase in Chinese exports. By adding the renminbi as a global currency, the value of the US dollar could be affected, which would establish that the Chinese have achieved status within the world.¹⁰⁴ Other nations have objected to the tactics the US and China used to change the value of their currencies, tactics which these nations argue have hurt their economies.¹⁰⁵

Oil and other energy alternatives will be another factor as China begins to grow. As the middle class and the number of elites in China increase, they will demand things that are commensurate with life styles of other developed nations like cars. The US has approximately 250 million cars and the Chinese have approximately 40 million cars.¹⁰⁶ The amount of gas required to fuel these cars will begin to rival the United States, which could increase the strain on the global oil markets. China does not have the oil reserves to support its demand for oil and has invested in Africa and the Middle East to meet their shortfalls. This demand for oil will cause a vulnerability to their economy. Currently, China imports 80% of its oil through the Straights of Malacca, a narrow, strategic shipping lane between Malaysia and Indonesia.¹⁰⁷ China will need to seek out energy alternatives to ease its demand for oil. One could begin to draw comparisons of China with the Japan of the 1930s.

¹⁰³ Heda Bayron, "China Pushing For Yuan to Be Global Currency," VOANews.com, <http://www.voanews.com/english/news/asia/China-Pushing-for-Yuan-to-be-Global-Currency-But-Business-Leaders-Say-Not-Yet-114475409.html> (accessed April 6, 2011).

¹⁰⁴ Joint Futures Group (J59). 2010. *The Joint Operational Environment*. Norfolk, VA: United States Joint Forces Command (February 18, 2010). http://www.jfcom.mil/newslink/storyarchive/2010/JOE_2010_o.pdf (accessed March 5, 2011), 20.

¹⁰⁵ Jim Randle, "Brazil Says Us, China Both Cause Currency Problems," VOANews.com, <http://www.voanews.com/english/news/asia/China-Pushing-for-Yuan-to-be-Global-Currency-But-Business-Leaders-Say-Not-Yet-114475409.html> (accessed April 6, 2011).

¹⁰⁶ Joint Futures Group (J59). 2010. *The Joint Operational Environment*. Norfolk, VA: United States Joint Forces Command (February 18, 2010). http://www.jfcom.mil/newslink/storyarchive/2010/JOE_2010_o.pdf (accessed March 5, 2011), 24.

¹⁰⁷ *Ibid.*, 41.

China's military continues to grow and modernize. China continues to invest in equipment that it sees as primarily defensive in nature because such forces deny a rival from operating in areas that the Chinese consider theirs, i.e. the China Sea, Taiwan. They have invested and demonstrated their ability to engage satellites and are developing a new stealth airplane, the Chengdu J-20.¹⁰⁸ Additionally they have increased their naval capability, more specifically their submarines. Other areas of interest are in the cyber domain. The Chinese are also increasing their ability to deliver nuclear weapons and as the Director of National Intelligence, James Clapper asserted, China could be the next serious threat to the US instead of Russia.¹⁰⁹ Its military will look to take advantages in areas where it can compete asymmetrically; however, it will most likely not have the ability to project its military power outside of the region nor will it seek a direct engagement unless provoked. China's military will continue to study the strengths and weaknesses of the United States and other Western Nations by attending colleges and universities.¹¹⁰

Application of Case Studies

The raw data from the *CIA World Fact Book*¹¹¹ was used to calculate the measure of independence given the formulas in the methodology, which yields the following in Table 4. The

¹⁰⁸ Peter Enav, Robert Burns, Snjezana Vukic and Stojanovic, "China's New Stealth Fighter May Use Us Technology," FoxNews.com, <http://www.foxnews.com/world/2011/01/23/chinas-new-stealth-fighter-use-technology/> (accessed April 6, 2011).

¹⁰⁹ Eli Lake, "China Deemed Biggest Threat to U.S.," *Washington Times*, March 10, 2011. <http://www.washingtontimes.com/news/2011/mar/10/china-deemed-biggest-threat-to-us/> (accessed April 6, 2011).

¹¹⁰ Joint Futures Group (J59). 2010. *The Joint Operational Environment*. Norfolk, VA: United States Joint Forces Command (February 18, 2010). http://www.jfcom.mil/newslink/storyarchive/2010/JOE_2010_o.pdf (accessed March 5, 2011), 40.

¹¹¹ The United States data derived from Central Intelligence Agency, "The World Factbook," www.cia.gov, <https://www.cia.gov/library/publications/the-world-factbook/geos/us.html> (accessed April 10, 2011) and the China Data derived from Central Intelligence Agency, "The World Factbook," www.cia.gov, <https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html> (accessed April 10, 2011).

trade salience is low, indicating that the trade relationship is not important to either nation. The symmetry is high, indicating that there is not an imbalance in the trade relationship. A lower number would indicate dependence in the relationship. Finally, the Interdependence calculation shows that there is not trade interdependence based on the high symmetry and low salience of the import and export trade data.

Table 4: Interdependence 2009 (China & US)

	Trade Share	Salience	Symmetry	Interdependence
US	0.1415			
China	0.1454			
Combined		0.1434	0.9961	0.1428

For a longer historical look at the trade relationship between the US, the data from the Correlates of War project¹¹² was used. Using the period of 1988 to 2006, this data shows a similar relationship. Initially, the Chinese trade share steadily increased, meaning the Chinese had a greater dependency on trade with the US until a spike in 1997, when China regained control of Hong Kong in July. The Chinese, at that time, had more than 35% of their trade with the United States. Since then, there has been a steady decline in the amount of trade share with the US. Conversely, the United States has seen a steady increase in their trade share with the Chinese, which seems to have leveled out at around 14%. The converging of trade shows a trend that China and the US will eventually converge to a point where dependence on trade will be the same, similar to the US and British case study (see Figure 16). Additionally, this indicates that China is diversifying their trading partners and integrating with other nations, which could lead to

¹¹² J. David Singer and Melvin Small, “National Material Capabilities (v4.0),” Correlates of War Project, <http://www.correlatesofwar.org/> (accessed April 10, 2011).

a peaceful power transition. The salience of the trade from 1988 to 2006 shows a slow, but steady increase in importance rising from 0.05 to .17. However, the trade relationship, according to Barbieri's study, would still be classified as not important to either country. The symmetry of the trade relationship resembles a 'V' because of the addition of Hong Kong in 1997 but ends in 2006 trending to level out near 1. This shows that there is not an over emphasis in the trading relationship compared to the rest of their trading with other nations. Finally, the interdependence score is low, starting out at .048 and ending in 2006 at .156. This indicates that there is little interdependence in the trade relationship between the two nations (See Figure 17).

The second variable of relative power uses GDP (PPP) to show the data over the last three years based on the data in the *Guardian* (see Figure 2)¹¹³. The United States remained stagnant for the last three years, while the Chinese have shown a steady increase. China has grown their GDP (PPP) 9.1% from 2008 to 2009 and 10.3% from 2009 to 2010. Consider the average (9.7%) of these two growth rates and extrapolate GDP (PPP) into the future, China reaches parity in 2016 and quickly accelerates past the US, given a US growth rate of 2.7%. China has demonstrated that they have been able to sustain at least a 7% or higher growth in their GDP since 1991. This additional revenue could allow China to continue to increase their investment into their military or social sectors and begin to change the global rules so that they can continue to gain increased benefit from the world structure. Another option for the Chinese is to maintain the status quo as they continue to gain significant benefit from the current global rule set.

¹¹³ There are a number of analyst who are have different opinions on when China will overtake the United States as the nation with the largest GDP(PPP). Recently, the International Monetary Fund predicted that China would overtake the US in 2016. Brett Arends, "IMF Bombshell: Age of America Nears End," MarketWatch: The Wall Street Journal Digital Network, April 25, 2011. <http://www.marketwatch.com/Story/story/print?guid=25965F12-6D1A-11E0-8CAB-00212804637C> (accessed April 28, 2011).

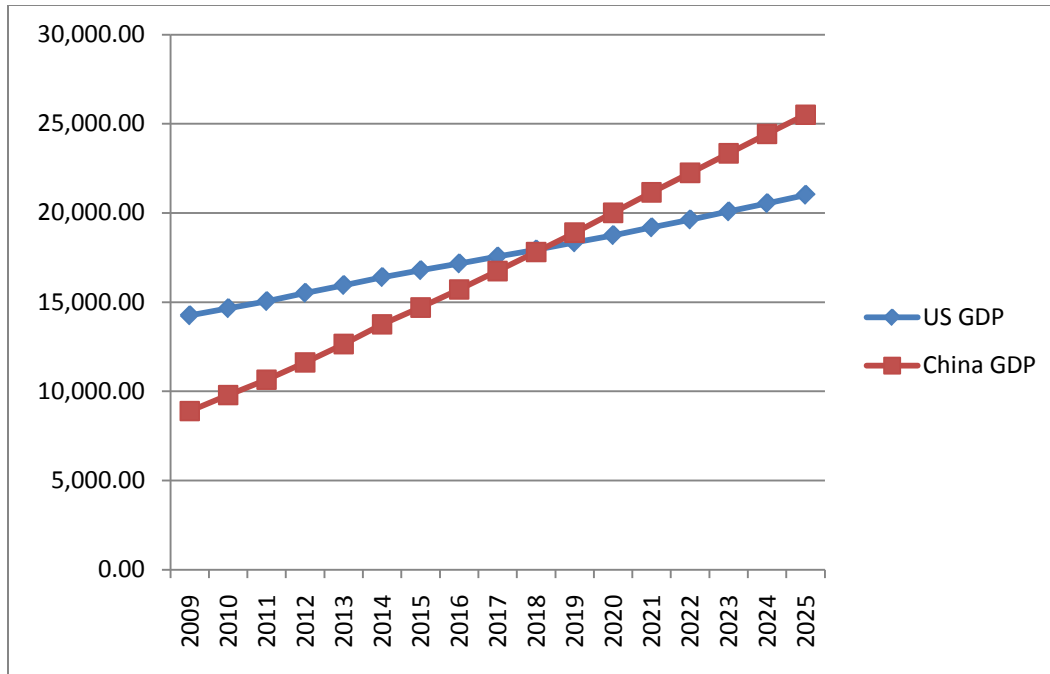


Figure 2 China and US GDP (\$bn, PPP)¹¹⁴

The primary energy expenditure data derived from the COW project correlates to a nation’s ability to industrialize (see Figure 18). Additionally, it shows a trend on the expansion or decline of its industrial power. In the case of the Chinese, the expenditure is steeply rising, suggesting a large scale industrialization and an increase in its power to produce goods for export that will lead to increased economic power or the ability to produce domestic goods and military equipment that will lead to an increase in its relative power. The United States on the other hand is beginning to peak and level off suggesting that the United States has realized its potential in relative power. The *CIA World Factbook* shows that 76.7% of the United States GDP (PPP) is based off of the service industry. Thus, if the United States wanted or needed to industrialize, the

¹¹⁴ Larry Elliott, “Gdp Projections from Pwc: How China, India and Brazil Will Overtake the West by 2050,” *Guardian* (London), January 7, 2011. <http://www.guardian.co.uk/news/datablog/2011/jan/07/gdp-projections-china-us-uk-brazil#data> (accessed April 10, 2011). Data from this projection was derived from the World bank data at <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG> and constructed by PwC <http://www.pwc.com/us/en/index.jhtml?WT.ac=pwc-logo>

capability exists, although at a time disadvantageous to the Chinese. This is a limitation of the COW measurements.

The last variable is satisfaction measured by the growth and size of the Chinese military. Today, China is clearly the challenger to the US using the Power Transition Theory model. According to the COW project data, the size of China’s military decreased at the same rate that the United States military has; however, the Chinese maintain an advantage in size (see Figure 19). The Chinese steadily increased their military spending until 2005 when they reduced their military spending.¹¹⁵ The United States on the other hand has nearly doubled its military spending from 1998 (\$2.7 billion) to 2007 (\$5.5 billion) (see Figure 20). This increase in spending is due to the events of September 11, 2001 and the corresponding reaction the United States took in Afghanistan and Iraq and not necessarily an effort to deter other great powers. Together these two variables indicate that China is satisfied, for now, with the hierarchical order of the world.

Table 5 - US - China Qualitative Case Study Analysis

	US vs. Britain	US vs. Japan	US vs. China
Interdependence	<	>	>
Relative Capability	US > UK	US > Japan	US > China(+)
Satisfaction With World Order	+	< Japan	+
Result	No War	War	No War

Table 6 depicts the analysis of this case study’s variables. China and the United States’ trade share are converging, trending to a level where both nations will have the same level of trade dependence. This shows that both nations are seeking other trading partners and becoming less reliant on each other. The relative capability of the US is currently higher than China,

¹¹⁵ The COW data (v4.0) shows this decrease in spending. The researcher has not found an acceptable reason for the shift in spending.

however as evident in its primary power expenditure, China is quickly gaining on the US where the US is nearly stagnant in its growth. This is indicative the fact that the US may have realized its potential. The question becomes then how relevant is the service sector (where the US maintains a large portion of its workforce) in time of war and how quickly can the US convert this workforce into industrial or military might? China and the US are satisfied with the world order. China has not sharply invested money into the growth of its military, which has declined in numbers during this course of this case study. On the other hand, the US has doubled its military spending because it is engaged in two wars. The outcome of the case study is peace and no power transition yet.

The United States and China are trending in the right direction. Both nations are diversifying their trading partners so that one nation is not more dependent on the other for trade. China and the US are interdependent on each other in terms of import and export trade. Case study one demonstrated that as two nations became equally dependent on each other, they were able to live in peace. The second case study demonstrated that if one nation is not able to diversify its trading with other nations that leads to a balancing of trade dependence, then the potential for war increases. However, there are issues with trading of currency and state loans that were briefly addressed in this paper that could disrupt the world markets and lower the economic power of both nations.

China's economic power is increasing as evidenced by the growth of its primary energy expenditure. The United States has stagnated, perhaps indicating that it has reached its upper limit potential for relative capability. As China gains more capacity, it gains choices on how to use this capability. The choices China makes can either modify, maintain, or establish new international policy on trade benefits derived from the system. The influence of trade groups on the global order will have a potentially negative affect trade of resources for those nations not in the trade group. This could adversely affect the satisfaction a nation has with the global hierarchy. In both case studies, the capability to produce power was influenced by their level of satisfaction. A

satisfied nation (Britain) built and directed its power toward threats. A dissatisfied nation (Japan) attempted to build power quickly in attempts to overwhelm another nation and engage in war.

Both the US and China demonstrate that they are satisfied with the global hierarchy through their military growth and expenditure. On the surface, if one were to examine Figure 20, the initial reaction would be that the US is dissatisfied and China is deterred. However the United States is engaged in two wars with other nations and China has chosen to invest its money in other areas where it can gain an advantage. If China begins to invest in military technology or equipment that allows it to protect land forces, then the US should take notice that China is dissatisfied with the global hierarchy and wishes to change the distribution of benefits derived from the global system. If China continues to invest in defensive military equipment and technology then that indicates it is solidifying its regional position.

The probability of war with China is low based on these three variables that have been examined within the context of these three case studies. The interdependence variable showed, based on its import and export trade relationships, that there is a low level of interdependence between China and the United States. While the impact of revenue from trade would affect both nations if trade stopped today, both economies would be able to recover. The relative power capability of China is rising. The United States still has the edge over the Chinese in industrialization and GDP (PPP), but the data suggests that within this decade or the next, the Chinese will pass the United States as the next dominant economic power. This economic power will give the Chinese flexibility to chart their own direction. If they remain satisfied with the global hierarchy, they will not rush to increase their military power and pursue other methods, perhaps in soft power areas such as culture, education, and investments to gain prestige and influence over other nations. Thus, their potential for becoming the next dominant power lies within their economic power. Their economic power will enable them to increase the capability of their military that will allow them to project power in the world. The Power Transition Theory will be the best prophet of war between China and the US because of the satisfaction either nation

will have with the global hierarchy. A dissatisfied power will be motivated to change the hierarchy and will do overt things that will demonstrate their dissatisfaction, such as increasing the capability of their military. The analyst will need to be mindful of these actions and try to interpret them within the context of the nation's position within the global hierarchy.

Appendix

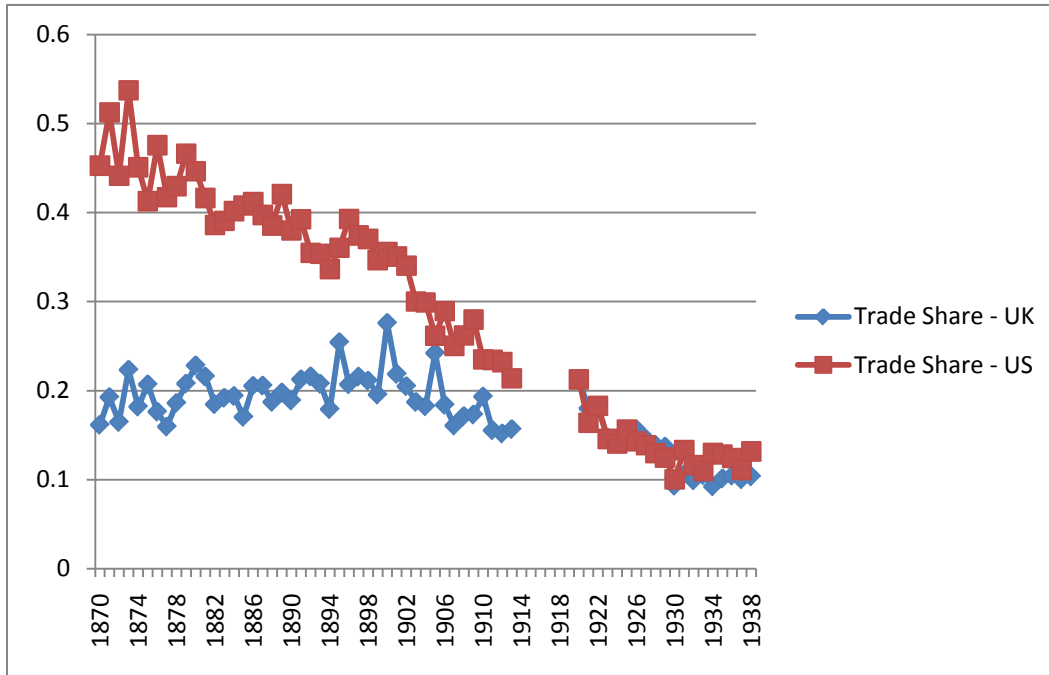


Figure 3 US - UK Trade Share 1870 - 1938¹¹⁶

¹¹⁶ J. David Singer and Melvin Small, "National Material Capabilities (v4.0)," Correlates of War Project, <http://www.correlatesofwar.org/> (accessed April 10, 2011).

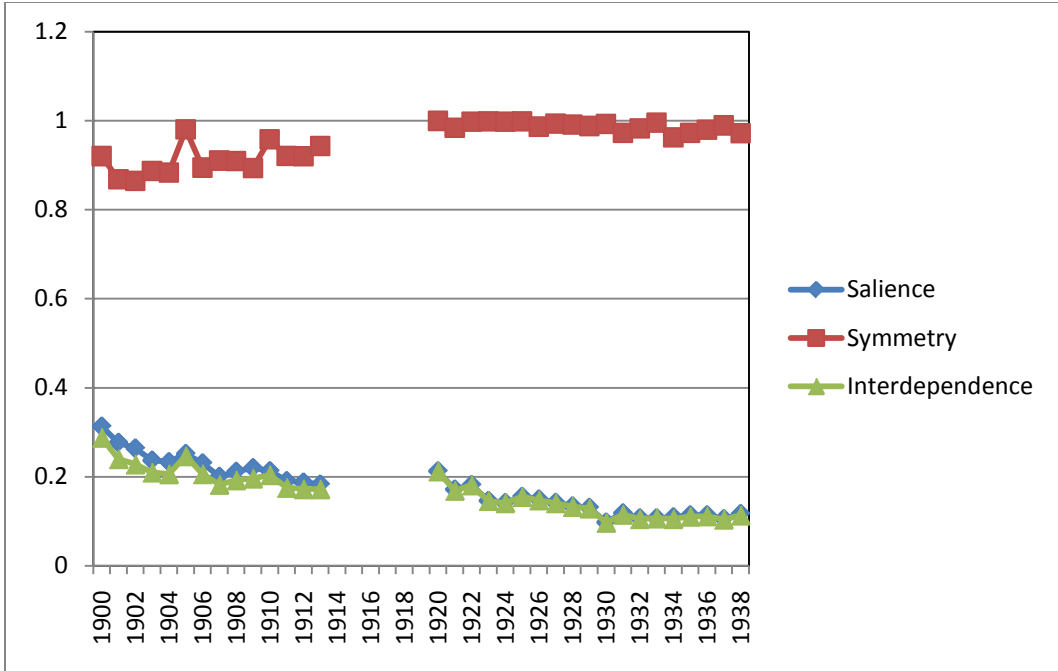


Figure 4 US - UK Salience, Symmetry & Interdependence Analysis 1900-1938¹¹⁷

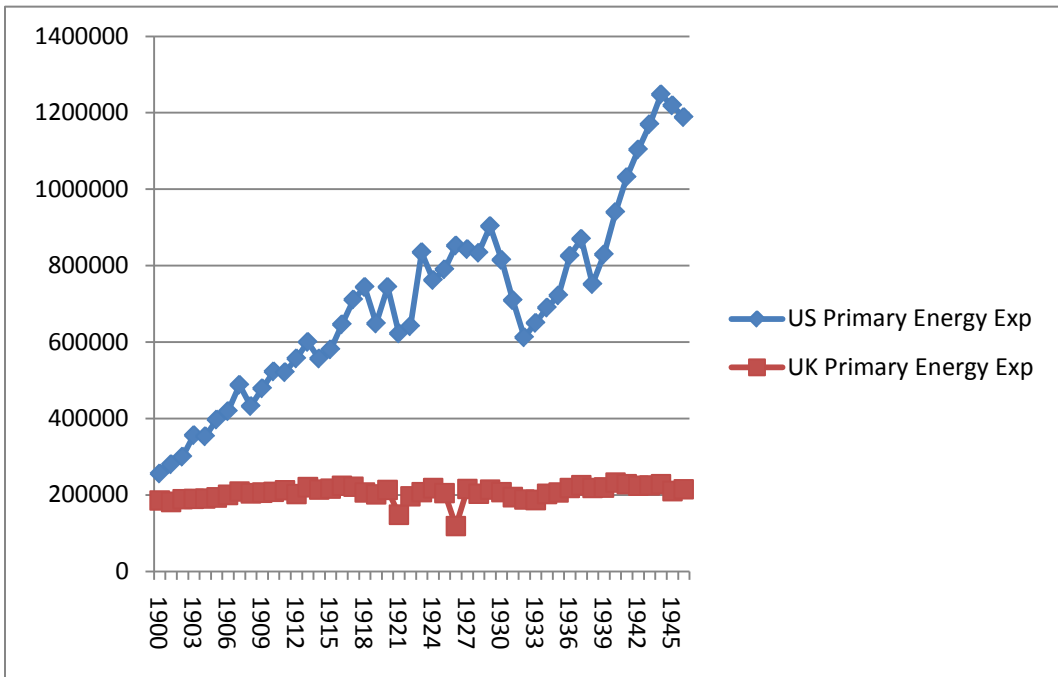


Figure 5 US - UK Primary Energy Expenditure 1900-1945¹¹⁸

¹¹⁷ *Ibid.*

¹¹⁸ *Ibid.*

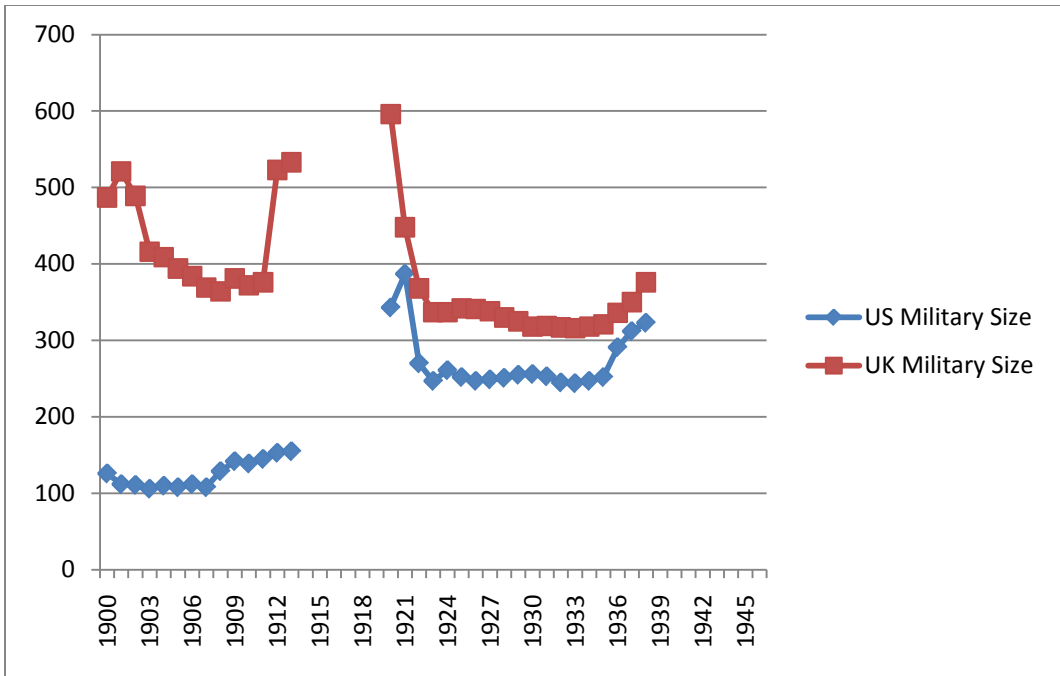


Figure 6 US - UK Military Size 1900 - 1945¹¹⁹

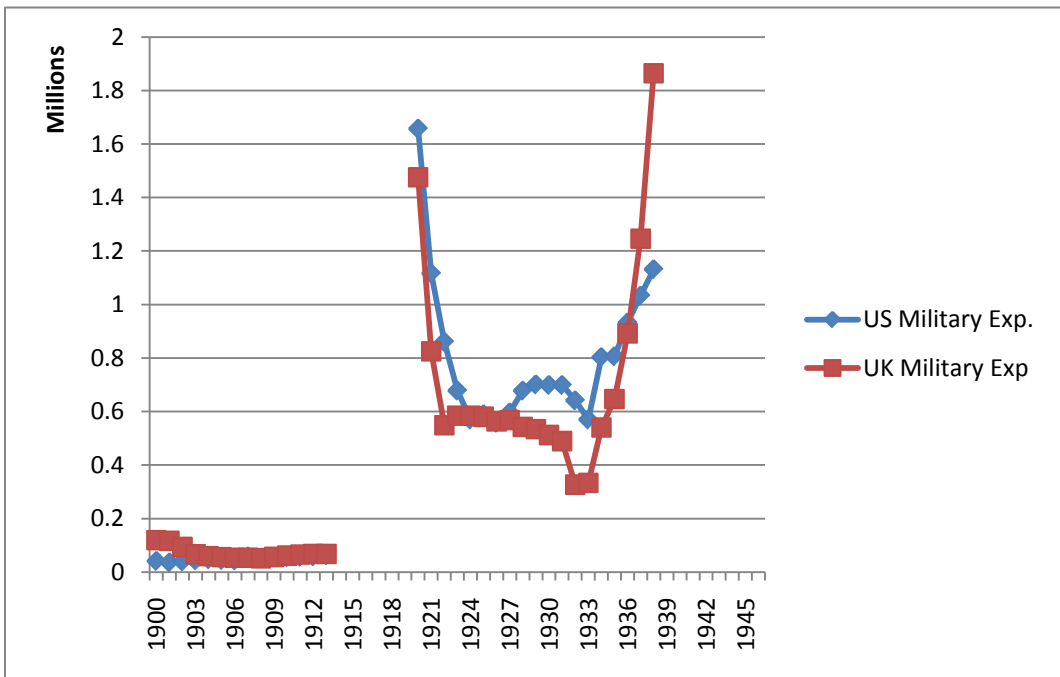


Figure 7 US - UK Military Expenditures 1900 - 1945¹²⁰

¹¹⁹ *Ibid.*

¹²⁰ *Ibid.*

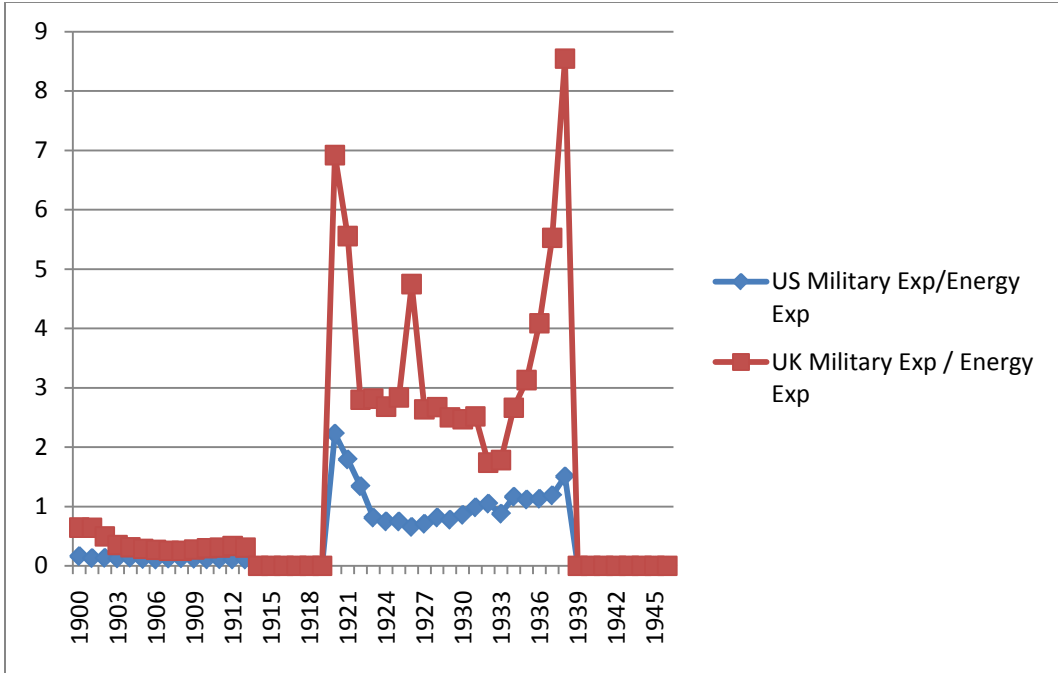


Figure 8 US - UK Ratio of Military Expenditures to Energy Expenditures 1900 - 1945¹²¹

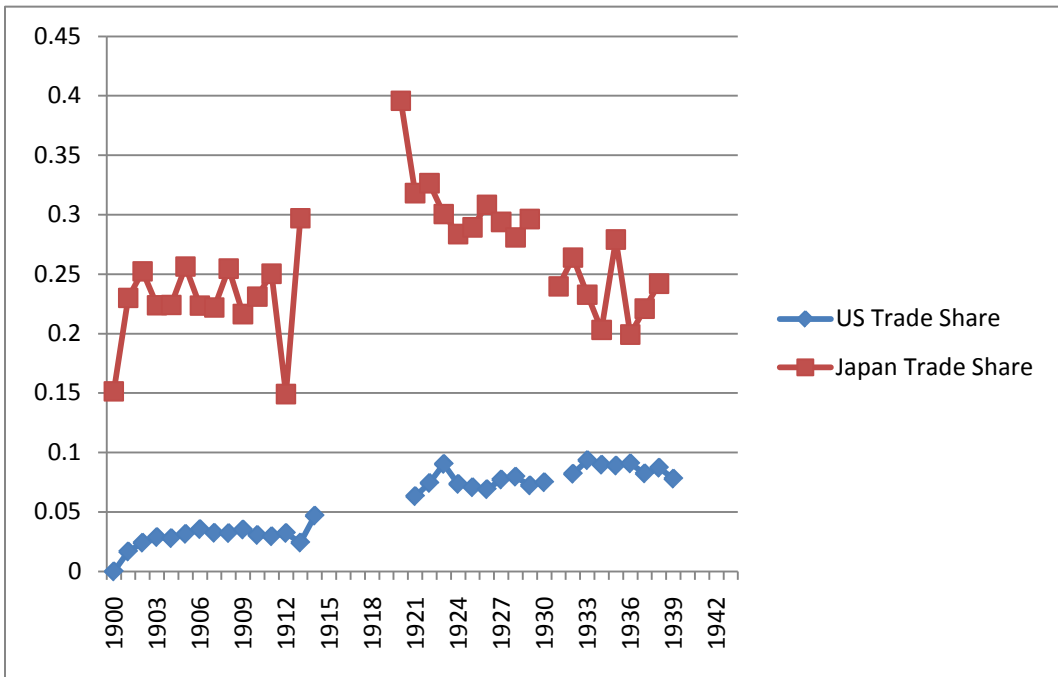


Figure 9 US - Japan Trade Share 1900 - 1942¹²²

¹²¹ *Ibid.*

¹²² *Ibid.*

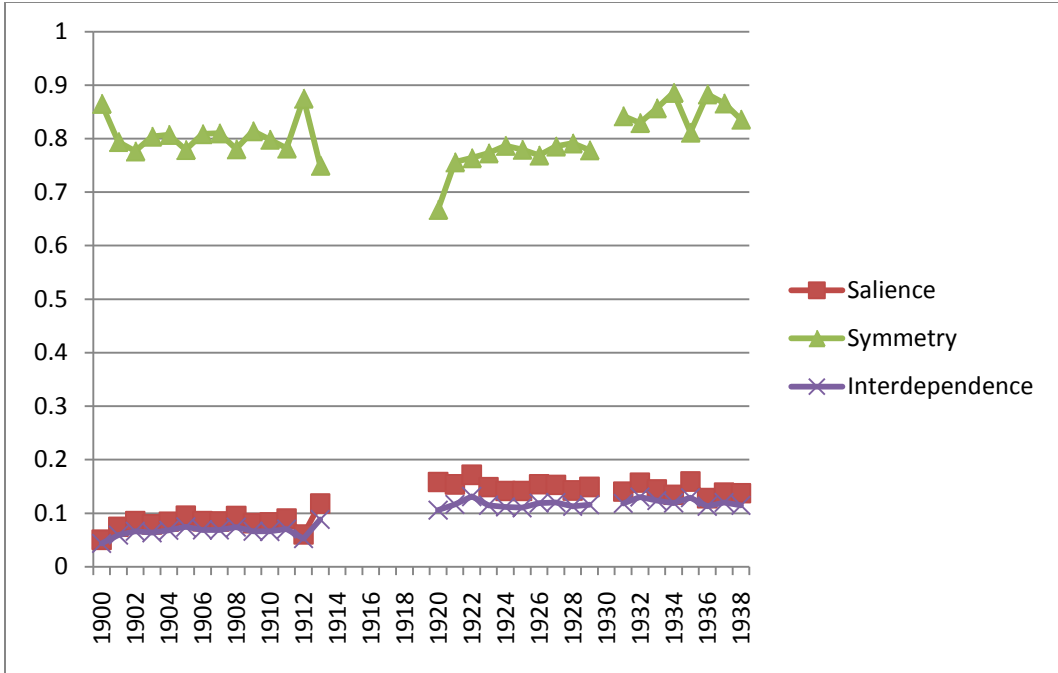


Figure 10 US - Japan Saliency, Symmetry, and Interdependence 1900 - 1938¹²³

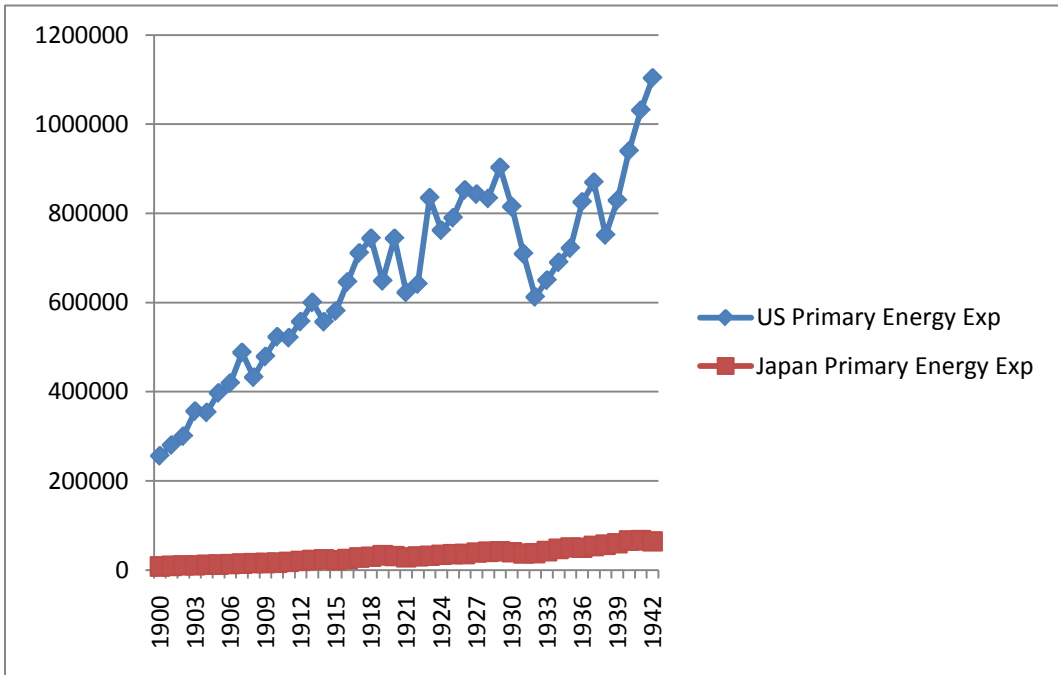


Figure 11 US - Japan Primary Energy Expenditure¹²⁴

¹²³ *Ibid.*

¹²⁴ *Ibid.*

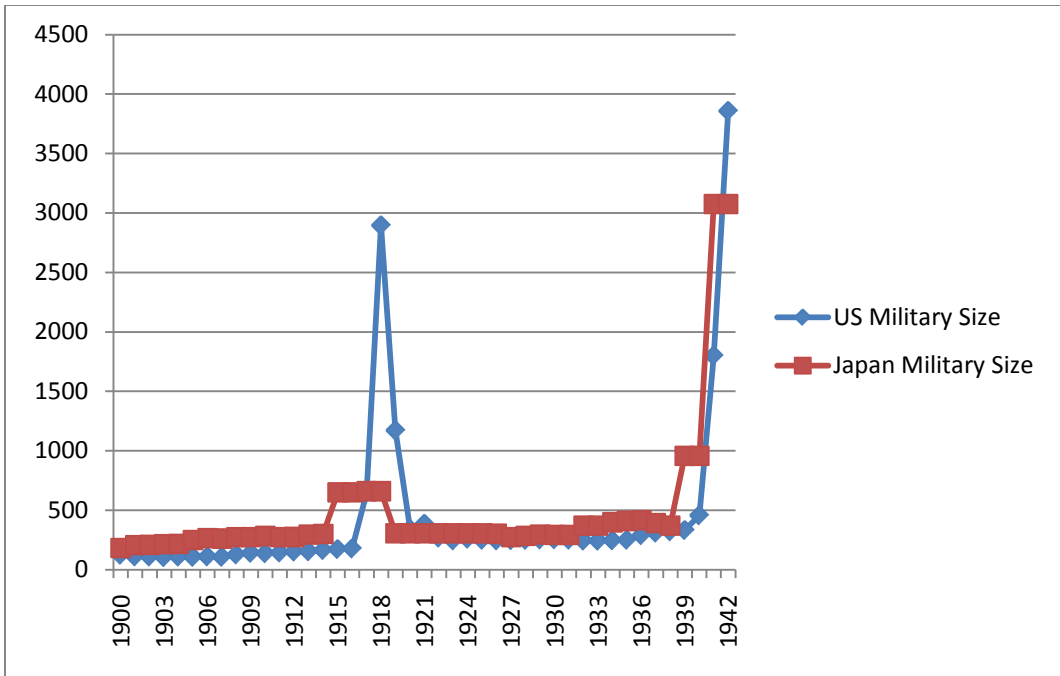


Figure 12 US - Japan Military Size¹²⁵

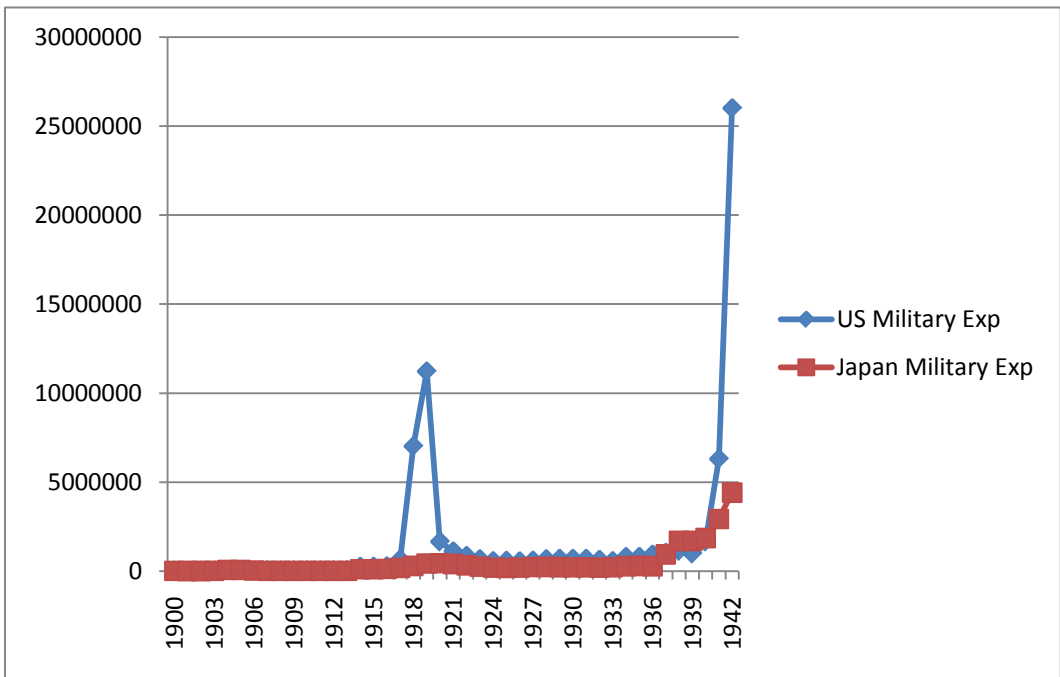


Figure 13 US - Japan Military Expenditure¹²⁶

¹²⁵ *Ibid.*

¹²⁶ *Ibid.*

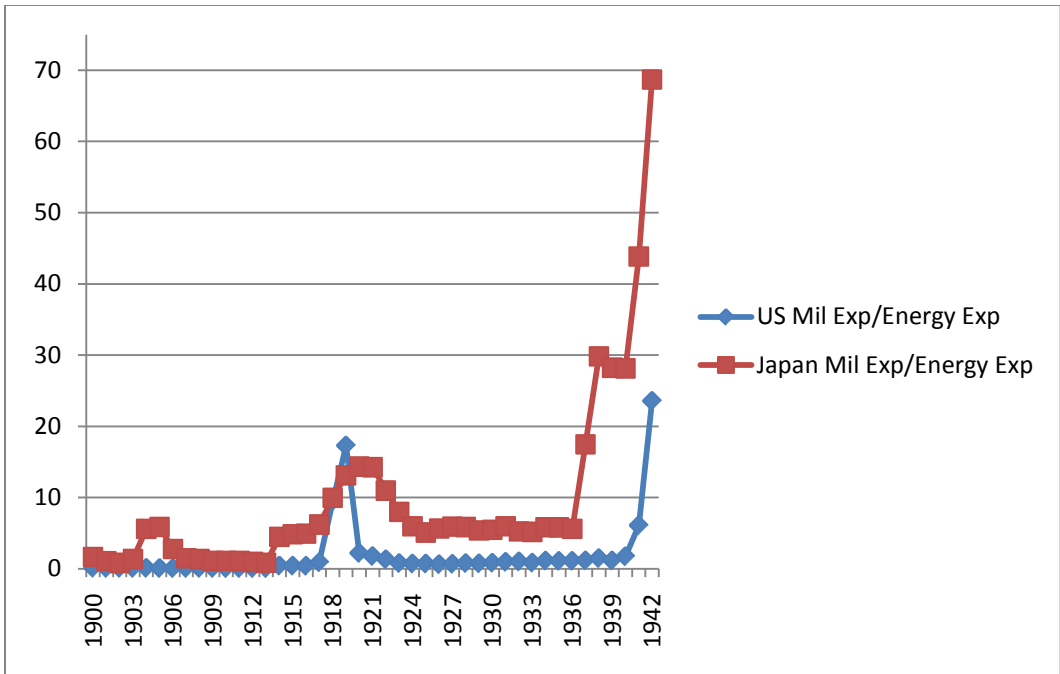


Figure 14 US - Japan Ratio of Military Expenditure to Primary Energy Expenditure¹²⁷

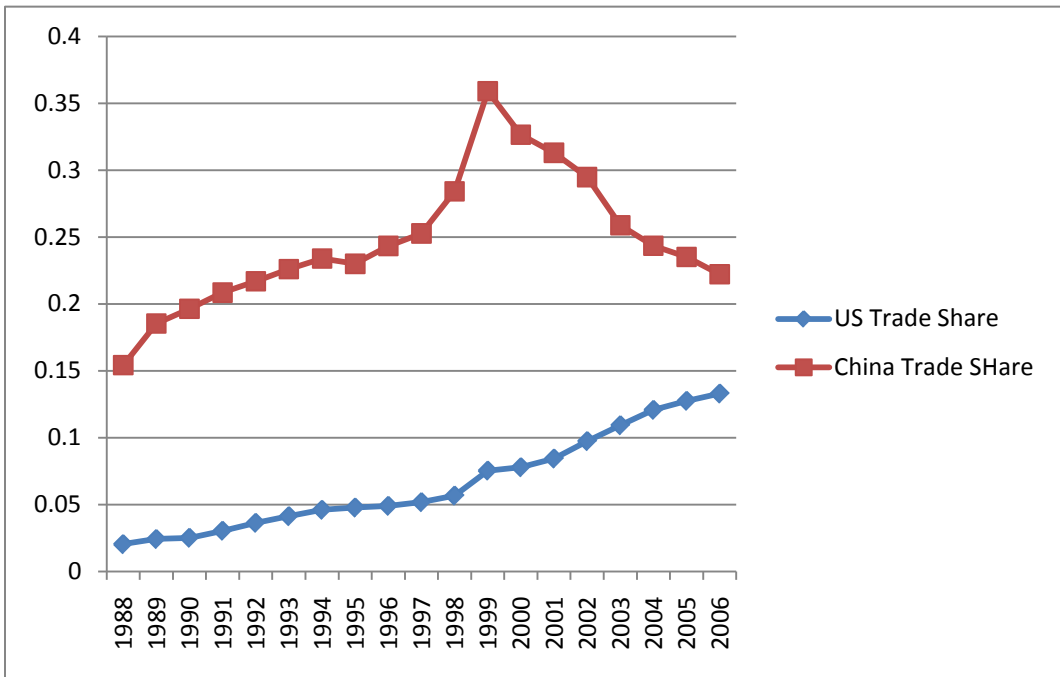


Figure 15 US - China Trade Share 1988 - 2006¹²⁸

¹²⁷ *Ibid.*

¹²⁸ *Ibid.*

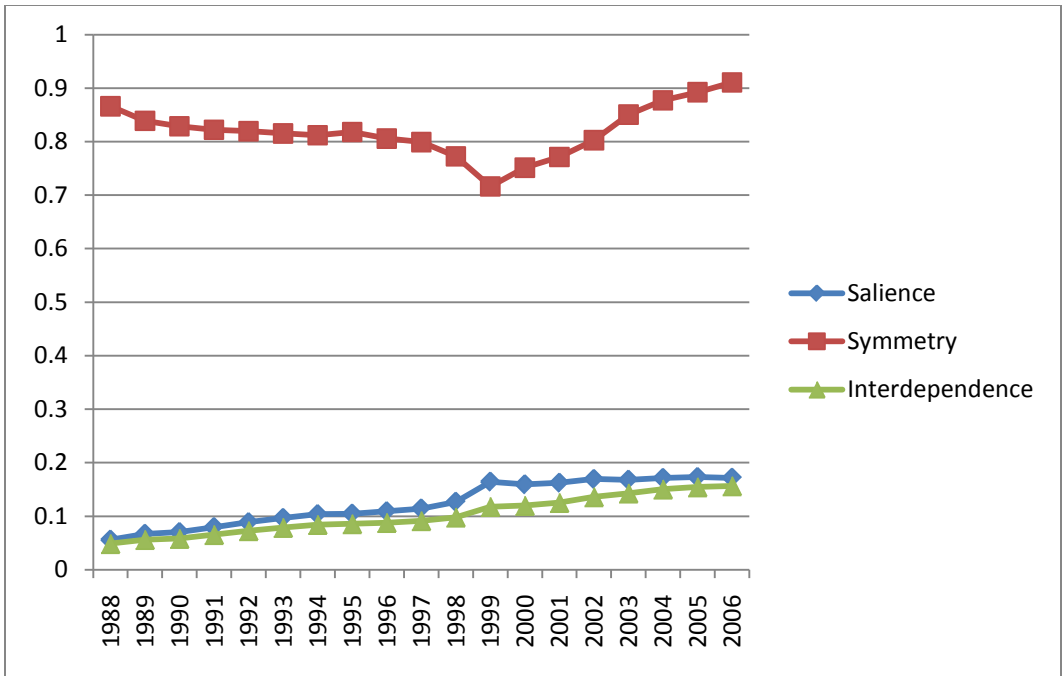


Figure 16 US - China Saliency, Symmetry & Interdependence Analysis 1988-2006¹²⁹

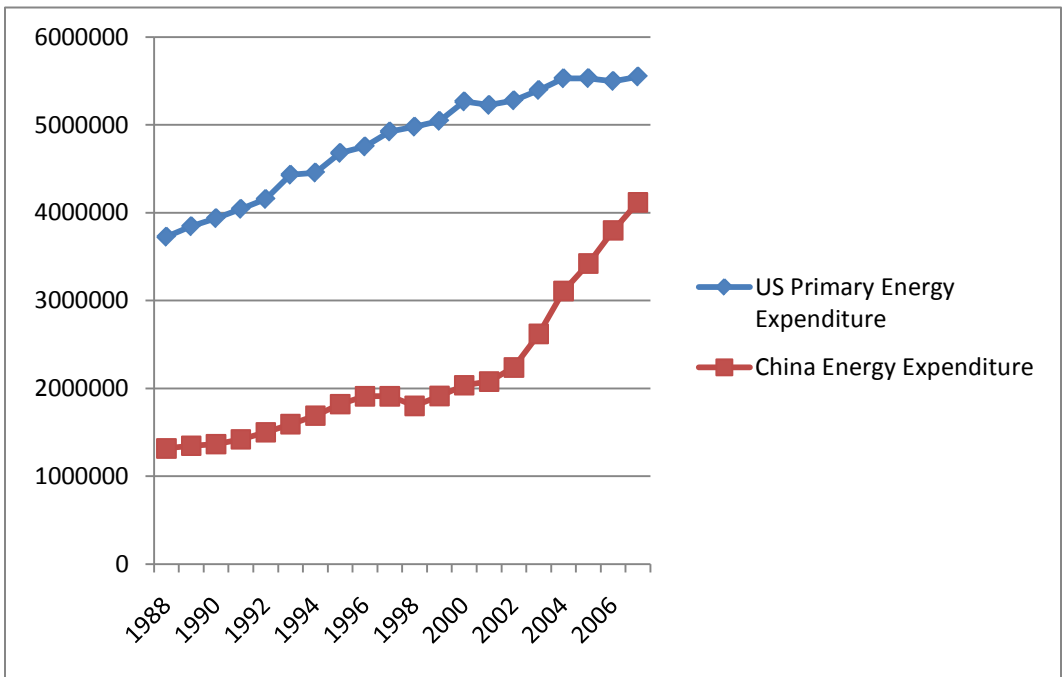


Figure 17 US - China Primary Energy Expenditure 1988 - 2006¹³⁰

¹²⁹ *Ibid.*

¹³⁰ *Ibid.*

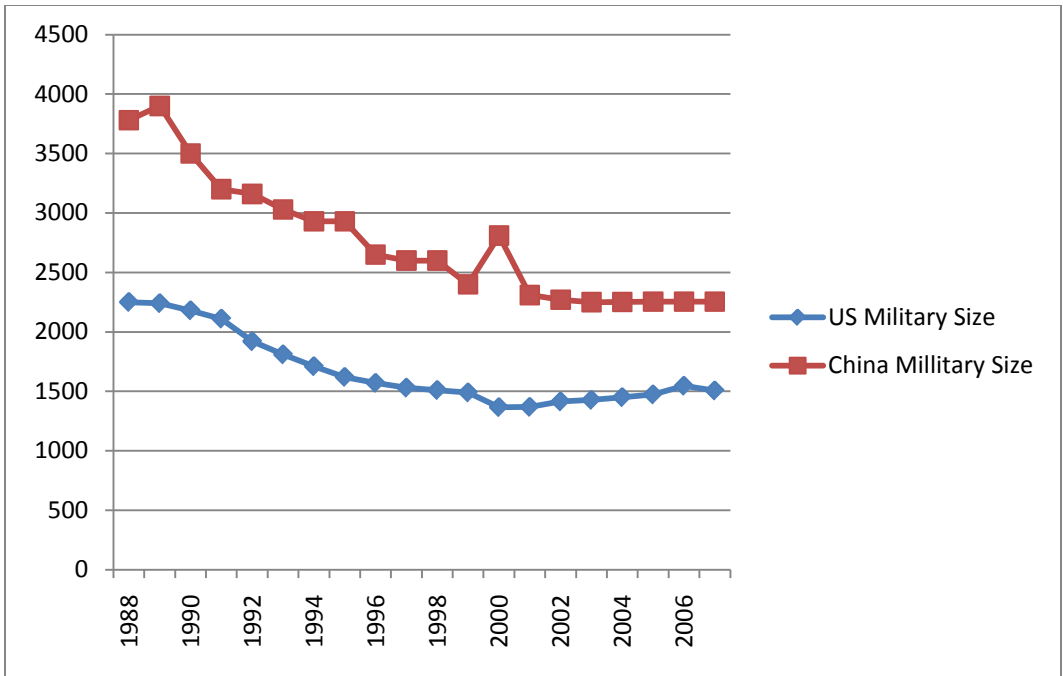


Figure 18 US - China Military Size 1988 - 2007¹³¹

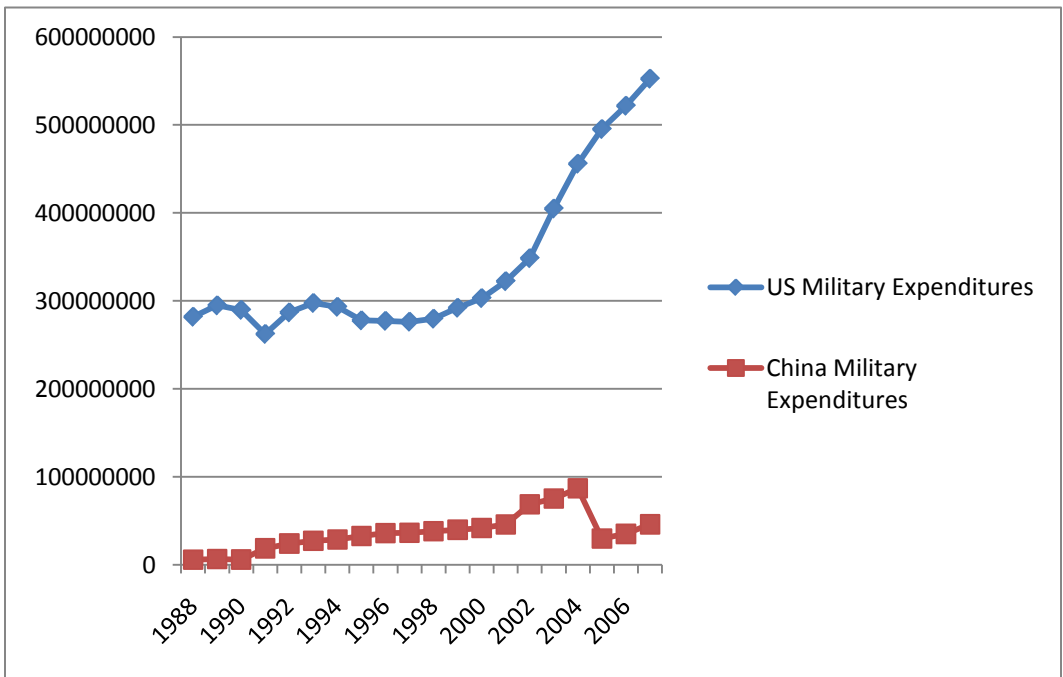


Figure 19 - US - China Military Expenditure¹³²

¹³¹ *Ibid.*

¹³² *Ibid.*

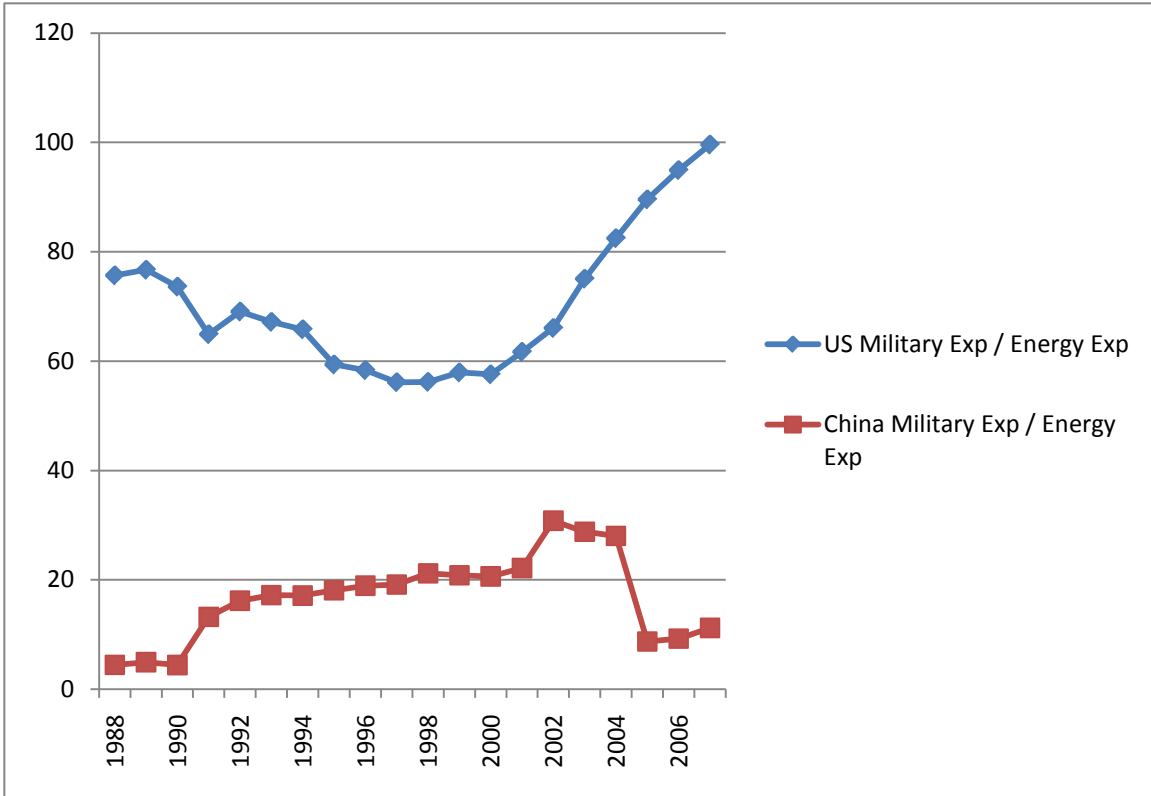


Figure 20 US - China Ratio of Military Expenditure to Primary Energy Expenditure¹³³

¹³³ *Ibid.*

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