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# Are Means Determinative: An Examination of the Influence of Relative Economic and Military Strength on Grand Strategy Choice

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A Dissertation Submitted to The Graduate School at the University of Missouri-St. Louis in partial fulfillment of the requirements for the degree Doctor of Political Science

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#### **ABSTRACT:**

This study will use three types of multivariate regression analysis to examine the relationship between Grand Strategy Choice and Relative Military and Economic Power. Understanding the effects of the relative distribution of available means on a nation's choice of grand strategy is important, because if they are significant, it may be possible to predict the behavior of great powers, based on an examination of their available means.

The first model uses a logit analysis to look at the effect of a series of lagged independent variables on whether a great power adopts a Pro or Anti Status Quo posture. The second model uses a time series multivariate OLS regression model to analyze the effect of the same independent variables on the Risk of Major War which a great power assumes the following year. The third model combines the first two models by using a robust multinomial logit analysis to examine the effect of the lagged independent variables on the odds of a great power adopting each of the four overarching Grand Strategies the following year.

Taken together the results of the three models indicate that both relative military and economic strength as well as structural variables (including: nation age, government type, primary economic system and others) were statistically significant predictors of grand strategy choice. However, the relationship between the variables and strategy choice is highly complex. For example, in the case of the United States, detailed analysis of the data demonstrates that internal variables work primarily to limit the acceptable strategy choices, while specific strategies are then chosen from the acceptable options based on a country's strategic position at the time. This interaction is then further complicated during periods of great societal stress, during which policy may shift from the predicted approach for a period of time before snapping back to the predicted approach after several years. In addition, the three statistical models also provide some statistical evidence in support of democratic peace theory, Jervis' security dilemma (including the idea of offense - defense balance),<sup>1</sup> as well as Organski and Kugler's theory of great power conflict.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> Jervis, Robert. 1986. "From Balance to Concert: A Study of International Security Cooperation." *Cooperation Under Anarchy*. Eds. Kenneth Oye, New Jersey: Princeton University Press. pg. 78

<sup>&</sup>lt;sup>2</sup> Organski, A.F.K. and Jacek Kugler. 1980. The War Ledger. Chicago: University of Chicago Press. Kindle Edition

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### **Preface:**

Isaac Newton famously wrote "[i]f I have seen further it is by standing on the shoulders of Giants"<sup>3</sup> and while this is true of all researchers and to some extent all research, it is particularly true in this case as the goal of this work is to create a more stable and sound platform upon the shoulders of those giants for future researchers to stand and see yet further. It should come as no surprise then that this work owes its existence to the hard work of many people both theorists and researchers from a wide variety of disciplines. There are far too many to be able to mention each by name. I am eternally grateful to each of them.

However, there are a few people who have played a major role in directing and supporting this project who must be acknowledged. The first is my advisor, Kenneth Thomas, a true friend and mentor, who among a great many other things, was the one who first suggested I consider grand strategy as a topic for my dissertation. I would also like to thank the rest of my committee: David Kimball, David Robertson and Brian Fogarty for all their help not only with this project, but throughout my time as a graduate student, without their guidance I would never have made it this far. I would also like to thank both the Graduate School and the Department of Political Science at the University of Missouri Saint Louis for their generous financial support. Finally, I would like to thank my family, and in particular, my parents, for their unwavering support and infinite patience.

<sup>&</sup>lt;sup>3</sup> Newton, Isaac. (15 February 1676). Letter to <u>Robert Hooke</u>.

# Chapter 1 Introduction:

In 2013 when the research for this project began, the probability of a modern great power conflict seemed unbelievably remote, and the United States seemed set to dominate as the world's only superpower for at least another decade. However, the last few years have seen a dizzying array of challenges, including the Russian occupation of Crimea, the diplomatic struggle over the South China Sea, the fraying of the European Union and the continued spread of radicalism and terrorism around the world. This series of challenges is only made more disturbing by the increasing unwillingness by the U.S. to bear additional burdens to preserve the current world order and the increasing power of nationalist movements around the world. All of this means that it is increasingly likely that we will see a multipolar world soon, and with it will likely come a return of great power politics, and inevitably, great power conflict. Thus, the need to study and understand the way states formulate their overall strategies for dealing with one another is of greater importance than it has been at any time since the 1930's. In particular, it is important to remember that the failure to understand and predict the strategies of other great powers has played a major role in the lead up to some of the most destructive conflicts humanity has ever seen, including, but by no means limited to World War I and World War II.

It is to better understand what motivates a great power to choose a specific overall strategy (what is commonly referred to as a grand strategy) that is at the heart of this research project. The term grand strategy is a nebulous one with many different uses, but for the purposes of this paper we will be construing it to mean the way a nation uses its combined military, economic and political power, in both peacetime and war, to attain what B.H. Liddell Heart called "a better peace."<sup>4</sup> Furthermore, most scholars in the field see a nation's choice of grand strategy as a balancing act between a nation's desire for security, its desire for prosperity, and the limited means available to secure these ends.<sup>5</sup> In considering grand strategy, it is important to remember that the means which can be employed run the gamut from economic investment and trade, to multinational treaties, to 'general' (i.e. unlimited) war.

In studying grand strategy, the emphasis has, so far, been on what factors (internal or external) have led to the adoption of specific grand strategies by specific administrations and examining whether these strategies have been successful in achieving their immediate stated goals, especially with respect to prosecuting a major war or staving off national decline. However, while a country's grand strategy may fluctuate swiftly during these transformational periods, in less turbulent times a nation's grand strategy may be relatively consistent for long periods of time with only minor variations in approach, and thus behave in a highly path dependent manner (North, 1990)<sup>6</sup>. This is because implementing grand strategy often requires making decisions with significant sunk costs and creating economic, political, military and social institutions to support the nation's goals. To put it another way, if grand strategy is, as many scholars argue, a question of balancing means and ends, it should surprise no one that the means available to confront any specific crisis are likely to have been determined by decisions made long before, except in cases where a nation makes significant efforts to reorient itself.

<sup>&</sup>lt;sup>4</sup> Hart, Basil Henry Liddell. 1974. Strategy, 2<sup>nd</sup> rev. ed. New York: Plume, pg. 353.

<sup>&</sup>lt;sup>5</sup> Kennedy, Paul. 1991. *Grand Strategies in War and Peace*. New Haven: Yale. Pg. 2-7.

<sup>&</sup>lt;sup>6</sup> North, Douglas C. 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.

be applied, is a political question of the first order. Yet it is also a choice which must respect significant constraints in terms of the means available at the time and may entail considerable sunk costs for the future, thus limiting a nation's ability to freely choose.

My central question is: do relative military and economic power determine strategy choice, and if so, how is a country's choice of grand strategy affected by the relative distribution of means (military, economic, etc.) available at the time when the decision is made? The reason why understanding the effects of the relative distribution of available means on a nation's choice of grand strategy is so important, is that if they have a significant effect, it may be possible to gain insight into the behavior of a country, not only in the present but also in the future, based on an examination of its available means. This insight could in turn impact the way we assess everything from a revolutionary government's potential to turn into a rogue state, to the policies we recommend to encourage a poor country's economic development, to how likely a state is to respect international law and abide by treaties.

Even more importantly, when it comes to avoiding a future great power war, a better understanding of the factors leading to a nation's choice of grand strategy can help us determine which situations are most likely to lead to the rise of a revisionist state and how to prevent them. Eventually, this could allow resources and attention to be focused on those states at high risk of becoming a danger to other states in the international system, as well as providing the specific policy changes needed to redirect those states into becoming productive members of the international community. Furthermore, whether such a model succeeds or fails can tell us a great deal about the potential validity of the realist theories of grand strategy and about the importance of the tested factors in determining the behavior of states. This will in turn improve our understanding not only of grand strategy, but of international relations in general, by exposing which factors underpin a country's choice of grand strategy.

This study used three types of multivariate regression analysis to examine the relationship between Grand Strategy Choice and Relative Military and Economic Power, while controlling for other factors. My main hypothesis ( $H_1$ ) was that as Relative Economic Power increases, countries will have a higher probability of choosing Pro Status Quo strategies (Interventionism and Legalism). My second hypothesis ( $H_2$ ) was that as Relative Military Power increases, countries are more likely to choose High Risk strategies (namely Interventionism or Revisionism). These hypotheses were tested not only in terms of the Accepted Risk of War and whether a country chooses to be Pro or Anti Status Quo, but also by examining the effects on each of the four primary Grand Strategies individually.

The first model used a robust logit analysis to look at the effect of a series of lagged independent variables on whether a great power adopts a Pro or Anti Status Quo posture. The second model used a time series multivariate OLS regression model to analyze the effect of the same independent variables on the Risk of Major War which a great power assumes the following year. Finally, the third model combined the first two models by using a robust multinomial logit analysis to examine the effect of the lagged independent variables on the odds of a great power adopting each of the four overarching Grand Strategies the following year.

Overall, if proponents of realist models of grand strategy are correct, then after controlling for other factors, positional variables such as: Relative Numbers of Military Personnel, Relative Military Spending, Relative GDP, Relative GDP per Capita and Homeland Vulnerability, should have a statistically and substantively significant effect on Grand Strategy Choice. On the other hand, if proponents of constructivist models of Grand Strategy Choice are correct, then institutional and societal variables like Government Type, Economic System, Nation Age and Polity2 Score will be statistically and substantively significant.

To minimize the potential complexity of the system being examined, it was decided to use data only from great powers and to focus exclusively on their strategy for dealing with other great powers. This eliminates potential multi-level issues where the strategies of lesser states could be influenced by the wishes of more powerful 'patron' states. Furthermore, the potential for a major war which could threaten the survival of a great power means that one would expect the grand strategies chosen by a great power, with respect to other such powers, to be as carefully thought out and rational as possible. Finally, great powers have some of the best developed bureaucracies and thus offer the most complete data available for the longest possible duration. In this study, data from all the great powers in existence from 1892 to 2012 was used with the exception of China since its economic and military data is too unreliable to be incorporated at this time.

Analysis of the data indicates that while both structural and positional variables were statistically significant predictors of grand strategy choice, the relationship between the variables and strategy choice is highly complex. Furthermore, analysis of the data indicates that internal variables may work to limit the acceptable strategy choices, while specific strategies are chosen from the acceptable options based on a country's strategic position at the time. This interaction can be further complicated during periods of great societal stress, which can result in periods where policy shifts from the predicted approach before snapping back to the predicted approach after several years.

In addition, the three statistical models also have significant implications for some related political science theories including democratic peace theory, Jervis' security dilemma including the idea of offense - defense balance, <sup>7</sup> Organski and Kugler's theory of great power conflict, <sup>8</sup> and Mearsheimer's offensive realism.<sup>9</sup> Starting with democratic peace theory, both Model 2 and Model 3 provide statistically significant evidence linking democracies with greater odds of adopting lower risk and more pro status quo grand strategies. Moving on to Jervis's concept of offense / defense balance, all three statistical models provided evidence that force structure, and not just size or funding, had a statistically and substantively significant impact on grand strategy choice. With the positive relationship between increased Military Expenditures per Personnel and the greater likelihood of perusing high risk and anti-status quo strategies indicating that the more capital intensive a military is, the greater the willingness to risk a major war. In addition, Model 3 showed a significant relationship between Homeland Vulnerability and the odds a nation will pursue a Legalist Grand Strategy, providing some additional evidence for Jervis' security dilemma. Next, Looking at Organski and Kugler's theory of great power conflict, both Model 2 and Model 3 supported their conclusions, both showing a positive relationship between relative economic power and the pursuit of high risk grand strategies. This was further supported by the fact that all three models found a statistically significant negative relationship between a great power's age and the odds of adopting a high risk, anti-status quo strategy the following year. Taken together this provides significant support for Organski and

<sup>&</sup>lt;sup>7</sup> Jervis, Robert. 1986. "From Balance to Concert: A Study of International Security Cooperation." *Cooperation Under Anarchy.* Eds. Kenneth Oye, New Jersey: Princeton University Press. pg. 78

<sup>&</sup>lt;sup>8</sup> Organski, A.F.K. and Jacek Kugler. 1980. The War Ledger. Chicago: University of Chicago Press. Kindle Edition

<sup>&</sup>lt;sup>9</sup>Mearsheimer, John J. (2003). The Tragedy of Great Power Politics. NewYork: W.W. Norton and Company. Kindle Edition location 177.

Kugler's argument that rising powers are most likely to start a great power conflict. Finally, the model provides mixed results with respect to Mearshimer's theory of offensive realism, for while the models did not find a clear relationship between overall relative military power and choosing high risk strategies (Revisionist or Interventionist), Model 2 and 3 did find a positive relationship between relative economic power and the likelihood of adopting a high-risk strategy the following year, all other factors being equal.

This will all be covered in greater detail in the following chapters, beginning with a review of the current state of the literature in Chapter 2, from its beginnings following World War II to the present day, along with a discussion of the current divide between realist and constructivist theories of grand strategy choice. Next, Chapter 3 will discuss the research methodology adopted by this study including the main hypothesis to be tested, the meaning and construction of the dependent and independent variables to be tested and the techniques which will be used to test the two hypotheses. This will be followed by a more detailed discussion of the data, its sources and organization in Chapter 4. Chapter 5 will give the statistically significant results of the three models in table form as well as some discussion of the statistically significant results to provide some context. Chapter 6 will then take Model 3's predictions for the United States and compare them to a timeline of important U.S. foreign policy events, showing how the complex results of model 3 work together in a real world historical example. Chapter 7 will show the Model 3 predictions for the remaining great powers in the study, along with some brief analysis. Finally, Chapter 8 will discuss the overall results of the three models with respect to the two hypotheses, as well the implications for some related theories and future research.

### Chapter 2 Literature Review

This chapter will discuss the current state of the grand strategy literature from its beginnings following World War II to the present day with an examination of the current divide between realist and constructivist theories of grand strategy choice. It will also examine some of the many contributions made to the field of grand strategy research from other areas of political science research. Finally, it will conclude with a discussion of some of the ways quantitative analysis techniques have been used to examine questions in areas closely related to grand strategy choice and for which the models presented in this paper may help shed some additional light.

The field of grand strategy is a highly fractured one, almost entirely lacking in formalized models, and even common definitions. Historically, while some scholars of grand strategy trace the origins of their field to Clausewitz's *On War*, others, including Paul Kennedy (1991) and Williamson Murry (2011), see Clausewitz as being too focused on the battlefield, and instead argue that the modern study of grand strategy begins with works like Edward Mead Earle's *Makers of Modern Strategy* (1943) and Basil Liddell Hart's *Strategy (1974)*.<sup>10</sup> Earle's 1943 collection, *Makers of Modern Strategy*, is important because, according to Paul Kennedy (1991), Earle was the first to expand the definition of grand strategy to include all of a nation's resources, in peacetime as well as in wartime.<sup>11</sup> Earle's view of grand strategy can be most clearly seen in his introduction to *Makers of Modern Strategy*, in which he wrote:

<sup>&</sup>lt;sup>10</sup> See: Kennedy, Paul. 1991. *Grand Strategies in War and Peace*. New Haven: Yale. p. 1-4. and: Murry, Williamson, Richard Hart Sinnreich, and James Lacy. 2011. *The Shaping of Grand Strategy: Policy, Diplomacy and, War.* Cambridge: Cambridge University Press. pp. 5-7

<sup>&</sup>lt;sup>11</sup> Kennedy, Paul. 1991. Grand Strategies in War and Peace. New Haven: Yale. p.2

In the present-day world, then, strategy is the art of controlling and utilizing the resources of a nation—or a coalition of nations—including its armed forces, to the end that its vital interests shall be effectively promoted and secured against enemies, actual, potential, or merely presumed. The highest type of strategy—sometimes called grand strategy—is that which so integrates the policies and armaments of the nation that the resort to war is either rendered unnecessary or is undertaken with the maximum chance of victory.<sup>12</sup>

In 1974 B.H. Liddell Hart, took the next important step towards the modern conception of grand strategy in his book *Strategy*, which examines the successful strategies employed in wars extending from those of the ancient Greeks through that of the Arab-Israeli war of 1948-49.<sup>13</sup> His primary contribution to the study of grand strategy was that he was the first to articulate the idea that the central problem in grand strategy is how to balance a nation's desired ends with its available means, as well as being the first to argue that the desired end of war is not simply military victory, but creating and sustaining a more favorable peace.<sup>14</sup> When taken together, Hart and Earle form the conceptual basis for the modern realist approach to understanding grand strategy formation.

Other important contributions to the field of grand strategy have been made by theorists looking at other areas of international relations, including the structure of international relations, game theory, trade, international political economy and national security. These include Kenneth Waltz's *Theory of International Politics* (1979), which argues that in the absence of any power capable of enforcing commitments between states, nations operate in an anarchic or 'self-help' system and as result, he concludes that the most stable international system would consist of the

<sup>&</sup>lt;sup>12</sup> Earle, Edward Mead. 1973. Makers of Modern Strategy: Military Thought from Machiavelli to Hitler. Princeton: Princeton University Press. P. viii

<sup>&</sup>lt;sup>13</sup> Hart, Basil Henry Liddell. 1974. Strategy, 2<sup>nd</sup> rev. ed. New York: Plume

<sup>&</sup>lt;sup>14</sup> Ibid, p.322, 353 and 357

fewest number of major powers with the greatest possible concentration of power in comparison to other states in the system.<sup>15</sup> This conclusion is challenged by several of the authors included in Kenneth Oye's *Cooperation under Anarchy* (1986), in which game theoretic methods are used to examine various conditions under which the fundamentally anarchic nature of international relations may be overcome.<sup>16</sup> One example with significant implications for grand strategy is Robert Jervis's chapter "From Balance to Concert: A Study of International Security Cooperation" which concludes that in periods following a conflict with a potential hegemon, "Anarchy and the security dilemma do not prevent a relatively high level of cooperation in the form of a concert system."<sup>17</sup>

Another important work examining interstate cooperation is Stephen Walt's *The Origins* of Alliances (1990), which argues for a "Balance of threat" approach, concluding that:

[S]tates balance against the states that pose the greatest threat, and the latter need not be the most powerful states in the system. Just as national power is produced by several different components (e.g., military and economic capability, national resources and population), the level of threat that a state poses to others is the product of several interrelated components. Whereas balance of power theory predicts that states will react to imbalances of power, balance of threat theory predicts that when there is an imbalance of threat (i.e., when one state or coalition appears especially dangerous), states will form alliances or increase their internal efforts in order to reduce their vulnerability.<sup>18</sup>

This is important because it helps to explain the alliance behavior of smaller states and the logic

behind the pursuit of both revisionist and interventionist grand strategies by larger states

<sup>&</sup>lt;sup>15</sup> Waltz, Kenneth N. 2010. *Theory of International Politics*. Long Grove: Waveland Press. pp.106-210

<sup>&</sup>lt;sup>16</sup> Oye, Kenneth. A. 1986. *Cooperation Under Anarchy*. New Jersey: Princeton University Press. pp. 1-2

<sup>&</sup>lt;sup>17</sup> Jervis, Robert. 1986. "From Balance to Concert: A Study of International Security Cooperation." *Cooperation Under Anarchy*. Eds. Kenneth Oye, New Jersey: Princeton University Press. pg. 78

<sup>&</sup>lt;sup>18</sup> Walt, Stephen M. 1990. *The Origins of Alliances*. Kindle Edition. Ithaca: Cornell University Press. Kindle Edition, Location 6995-7000

(especially the interventionist policy of containment as adopted by the U.S.).<sup>19</sup> Another work contributing to our understanding of state behavior is *Power and the Purse: Economic Statecraft, Interdependence and National Security* edited by Blanchard et al (2000) in which authors examine the relationship between international trade and national security.<sup>20</sup> One chapter with implications for grand strategy formation is "Trade Expectations and the Outbreak of Peace" by Dale C. Copeland, who attempts to explain the period of détente (1970-1974) and the end of the cold war (1985-1991) by focusing on the effect a country's expectation of future trade may have on their adoption of a peaceful versus aggressive strategy.<sup>21</sup> Together the above works lay out some of the implications for strategy choice arising from relative state power, international norms, trade, and multinational cooperation.

Furthermore, the problem of relating means to ends is a common one in international relations literature, especially in the closely related field of hegemony and hegemonic decline, which has focused on the ability of the most powerful states in the international system to maintain their economic, military and strategic superiority. Examples of this kind of research include: Krasner's "State Power and the Structure of International Trade" (1976) which uses a combination of historical analysis and empirical data to conclude that "hegemony leads to a more open trading structure...."<sup>22</sup> Gilpin's *US Power and the Multinational Corporation* (1975) which

<sup>&</sup>lt;sup>19</sup> Walt, Stephen M. 1990. *The Origins of Alliances*. Kindle Edition. Ithaca: Cornell University Press. Kindle Edition, Location 531-805.

<sup>&</sup>lt;sup>20</sup> Blanchard, Jean-Marc, Edward D. Mansfield and Norrin M. Ripsman. 2000. *Power and the Purse: Economic Statecraft, Interdependence and National Security.* London: Frank Cass.

<sup>&</sup>lt;sup>21</sup> Copeland, Dale C. 2000. "Trade Expectations and the Outbreak of Peace: Détente 1970—74 and The End of The Cold War 1985—91." *Power and the Purse: Economic Statecraft, Interdependence and National Security.* Eds. Blanchard, Jean-Marc, Edward D. Mansfield and Norrin M. Ripsman. London: Frank Cass.

<sup>&</sup>lt;sup>22</sup> Krasner, Stephen D. 1976. "State Power and the Structure of International Trade." World Politics, Vol.28, No.3 (April 1976), pp. 335

argues that foreign direct investment (while providing some important initial advantages to the investing country) can, over time, cause the 'periphery' to develop at the cost of the international system's 'core' countries, which can cause dependency on the periphery and increase international tensions, among other effects.<sup>23</sup> And Ikenberry's "The Future of the Liberal World Order" (2011) which argues that the increasing power of what were once countries in the 'periphery' marks not the failure of the western system of free trade but its ultimate success with more and more nations developing by buying into the system lead by the 'core' nations (in particular the United States).<sup>24</sup>

Examining the current literature on grand strategy, most authors follow one of two primary approaches: 'realist' approaches, and what Colin Dueck terms in *Reluctant Crusaders* (2006) as "constructivist" approaches.<sup>25</sup> The realist approach views grand strategy as being primarily determined by forces originating outside of the state, while the constructivist approach views the most important factors as arising from within the state. Authors in each of these traditions have primarily relied on historical sources, including written reports and memoirs, as well as later analysis of the historical record and have incorporated theories from other areas of political science including international relations, political economy, and others. However, within each of these overarching traditions there are significant differences between authors over which factors, or combination of factors, are most important and about how much weight to give

<sup>&</sup>lt;sup>23</sup>Gilpin, Robert. 1975 U.S. Power and The Multinational Corporation: The Political Economy of Foreign Direct Investment. New York: Basic Books, Inc. pp.76-78

<sup>&</sup>lt;sup>24</sup> Ikenberry, John G. 2011. "The Future of the Liberal World Order." *Foreign Affairs. Vol. 90, No. 3* (May/June 2011), pp. 56-68

<sup>&</sup>lt;sup>25</sup> Dueck, Colin. 2006. *Reluctant Crusaders: Power, Culture, and Change in American Grand Strategy.* Princeton: Princeton University Press, Kindle Edition, Loc. 117.

to the factors put forward by the other school. There have also been hybrid approaches, such as those based on Peter Gourevitch's 1978 paper "The Second Image Reversed" which argues:

The international system is not only a consequence of domestic politics and structures but a cause of them. Economic relations and military pressures constrain an entire range of domestic behaviors, from policy decisions to political forms. International relations and domestic politics are so interrelated that they should be analyzed simultaneously, as wholes.<sup>26</sup>

Examples of the realist approach to analyzing grand strategy include studies by John Hattendorf (1991) "Alliance, Encirclement, and Attrition",<sup>27</sup> Michael Howard (1991) "British Grand Strategy in World War I,<sup>28</sup> and Eliot Cohen (1991) "Churchill and Coalition Strategy in World War II,"<sup>29</sup> each of which analyzed the grand strategies of coalition building and encirclement used with great success by Great Brittan in the War of Spanish Succession (Hattendorf), World War I (Howard) and World War II (Cohen), using historical case studies.

Other studies have focused on using the realist approach to try to understand the reasons why some grand strategies have failed spectacularly, due to an inability to balance means with ends. These include Dale Copeland's (2012) study: "Economic Interdependence and the Grand Strategies of Germany and Japan, 1925-1941" which examined the effect of declining trade expectations and high trade dependence on the grand strategy of Germany and Japan leading up

<sup>&</sup>lt;sup>26</sup> Gourevitch, Peter. 1978. "The Second Image Reversed: The International Sources of Domestic Politics." *International Organization*. Vol. 32, No. 4 (Autumn, 1978), pp.881-912.

<sup>&</sup>lt;sup>27</sup> Hattendorf, John B. 1991. "Alliance Encirclement and Attrition: British Grand Strategy in the War of Spanish Succession, 1702-1713." *Grand Strategies in War and Peace*. Ed. Paul Kennedy. New Haven: Yale University Press. pp. 11-29.

<sup>&</sup>lt;sup>28</sup> Howard, Michael. 1991 "British Grand Strategy in World War I." *Grand Strategies in War and Peace*. Ed. Paul Kennedy. New Haven: Yale University Press. pp. 31-41.

<sup>&</sup>lt;sup>29</sup> Cohen, Eliot A. 1991. "Churchill and Coalition Strategy in World War II." *Grand Strategies in War and Peace*. Ed. Paul Kennedy. New Haven: Yale University Press. pp. 43-67.

to World War II, and argues that the collapse of future trade expectations post 1929 lead to the adoption of more expansionistic and aggressive policies by both states.<sup>30</sup> Steven Lobell's "Britain's Grand Strategy during the 1930s From Balance of Power to Components of Power" (2012) argues using historical sources that the failed British grand strategy of the interwar years was the result of an attempt by the British to use component level power balancing, as opposed to traditional overall power balancing, in an attempt to deal with the combination of limited resources and a highly competitive security environment.<sup>31</sup> Similarly, Norrin M. Ripsman and Jack S. Levy (2012) also use historical sources in "British Grand Strategy and the Rise of Germany, 1933-1936" to conclude that the failure of Britain to prevent the rise of Nazi Germany was the result of a well-intentioned, but failed, attempt to balance a number of threats to the British empire (including the rise of the Japanese navy in the east as well as Germany in Europe) while strictly limiting military spending to preserve the Empire's long term economic viability.<sup>32</sup> Furthermore, the problem of balancing ends and means was by no means limited to the allies. Per Tsuyoshi Kawaski's case study "The Rising Sun Was No Jackal" (2012), the primary Japanese motivation behind joining the Tripartite Pact was primarily to balance against rising U.S. power in the Pacific, and not bandwagoning on German success in Europe.<sup>33</sup> Other works have

<sup>&</sup>lt;sup>30</sup> Copeland, Dale C. 2012. "Economic Interdependence and the Grand Strategies of Germany and Japan, 1925-1941." *The Challenge of Grand Strategy.* Eds. Jeffrey W. Taliaferro, Norrin M. Ripsman and Steven E. Lobell. Cambridge: Cambridge University Press. pp. 120-146

<sup>&</sup>lt;sup>31</sup> Lobell, Steven E. 2012. "Britain's Grand Strategy during the 1930's From Balance of Power to Components of Power." *The Challenge of Grand Strategy.* Eds. Jeffrey W. Taliaferro, Norrin M. Ripsman and Steven E. Lobell. Cambridge: Cambridge University Press. pp. 147-170.

<sup>&</sup>lt;sup>32</sup> Ripsman, Norrin M. and Jack S. Levy. 2012 "British Grand Strategy and the Rise of Germany, 1933-1936." *The Challenge of Grand Strategy*. Eds. Jeffrey W. Taliaferro, Norrin M. Ripsman and Steven E. Lobell. Cambridge: Cambridge University Press. pp. 171-192.

<sup>&</sup>lt;sup>33</sup> Kawasaki, Tsuyoshi. 2012. "The Rising Sun Was No Jackal: Japanese Grand Strategy, the Tripartite Pact and Alliance Formation Theory." *The Challenge of Grand Strategy*. Eds. Jeffrey W. Taliaferro, Norrin M. Ripsman and Steven E. Lobell. Cambridge: Cambridge University Press. pp. 224-245.

examined the relationship between military as well as economic factors and grand strategy, including: Paul Kennedy's *The Rise and Fall of the Great Powers* (1989), which uses some 500 years of the historical record to examine "the *interaction* between economics and strategy" and concluding that in the long run a nation's economic power and military power are heavily interconnected, but that the relationship is not necessarily deterministic and may lag significantly.<sup>34</sup> As well as *Shaped by War and Trade* by Ira Katznelson and Martin Shefter (2002), which includes several chapters on ways that military and economic power has effected the development of the United States.<sup>35</sup> For example, Martin Schefter's chapter "War, Trade, and U.S. Party Politics" uses the historical record to examine some of the ways external forces have affected the development of party politics in the United States.<sup>36</sup>

However, constructivist scholars have a very different view of the primary motivators of grand strategy, focusing instead on internal factors such as ideology and institutional effects. Examples include two articles on the importance of ideology in explaining Soviet grand strategy, one by Condoleezza Rice (1991)<sup>37</sup> and another by Mark L. Hass (2012)<sup>38</sup>, both of which argue

<sup>&</sup>lt;sup>34</sup> Kennedy, Paul. 1989. *The Rise and Fall of the Great Powers: Economic Changes and Military Conflict from 1500 to 2000.* New York: Vintage Books. Kindle Edition. Loc. 330

<sup>&</sup>lt;sup>35</sup> Katznelson, Ira and Martin Shefter. 2002, *Shaped by War and Trade: International Influences on American Political Development*. Princeton: Princeton University Press.

<sup>&</sup>lt;sup>36</sup> Martin Shefter. 2002. "War, Trade, and U.S. Party Politics" *Shaped by War and Trade: International Influences on American Political Development*. Eds. Katznelson, Ira and Martin Shefter. Princeton: Princeton University Press. pp. 113.

<sup>&</sup>lt;sup>37</sup> Rice, Condoleezza. 1991. "The Evolution of Soviet Grand Strategy." *Grand Strategies in War and Peace*. Ed. Paul Kennedy. New Haven: Yale University Press. pp. 145-164.

<sup>&</sup>lt;sup>38</sup> Haas, Mark L. 2012. "Soviet Grand Strategy in the Interwar Years, Ideology as Realpolitik." *The Challenge of Grand Strategy.* Eds. Jeffrey W. Taliaferro, Norrin M. Ripsman and Steven E. Lobell. Cambridge: Cambridge University Press. pp. 278-307.

that communist ideology heavily influenced Soviet grand strategy during the period leading up to World War II and throughout the Cold War. Other constructivist studies include Arther Ferrill's (1991) study attributing the decline of the Roman Empire to an unwillingness on the part of Roman citizens to make the necessary sacrifices in terms of both taxation and military service required to maintain the empire;<sup>39</sup> and a study by Dennis Showalter (1991) arguing that the German lack of an effective grand strategy was largely a result of the professionalization and separation of the German military and diplomatic services, with the resulting compartmentalization of their areas of responsibility leading to lack of communication and an inability to balance military means to political ends.<sup>40</sup>

Ultimately, the realist and constructivist approaches are not necessarily mutually exclusive, and a number of studies have used hybrid approaches. One example is a study by Peter Jackson (2012) which argues that both external factors (shifting balance of power in Europe, lack of British engagement) and internal factors (war weariness, etc.) were equally important in explaining changes in French grand strategy leading up to World War II.<sup>41</sup> Another is J.H. Elliott's (1991) study on the decline of Imperial Spain, which argues that it was a

<sup>&</sup>lt;sup>39</sup> Ferrill, Arther. 1991. "The Grand Strategy of the Roman Empire." *Grand Strategies in War and Peace*. Ed. Paul Kennedy. New Haven: Yale University Press. pp. 71-85.

<sup>&</sup>lt;sup>40</sup> Showalter, Dennis E. 1991. "Total War for Limited Objectives: An Interpretation of German Grand Strategy." *Grand Strategies in War and Peace*. Ed. Paul Kennedy. New Haven: Yale University Press. pp. 105-123.

<sup>&</sup>lt;sup>41</sup> Jackson, Peter. 2012. "Deterrence, Coercion, and Enmeshment: French Grand Strategy and the German Problem after World War I." *The Challenge of Grand Strategy.* Eds. Jeffrey W. Taliaferro, Norrin M. Ripsman and Steven E. Lobell. Cambridge: Cambridge University Press. pp. 37-64.

combination of domestic factors (fear of decline) along with a changing external balance of power that caused Olivares to attempt a high risk grand strategy which ultimately failed.<sup>42</sup>

There have also been a few attempts to create overall models of grand strategy formation. Examples include: The Tragedy of Great Power Politics (2003) by John Mearsheimer, who contends that as a result of the anarchic nature of the international system great powers are forced to seek ways "to maximize their share of world power" what he calls "offensive realism."<sup>43</sup> Steven E. Lobell's book, *The Challenge of Hegemony* (2005), argues that the recursive interaction between the external economic / security environment, and the specific domestic coalitions which the external environment empowers, determines the grand strategy chosen by a declining hegemon and how effectively that hegemon will be able to stave off decline.<sup>44</sup> Kevin Narizny's (2007) book, *The Political Economy of Grand Strategy*, argues that the grand strategy adopted by a state is driven at its most fundamental level by the preferences of domestic groups (arising primarily from individual economic interests), preferences which are then constrained by various international and domestic factors, and finally, are aggregated by national leaders.<sup>45</sup> Narizny's work takes a similar view of grand strategy to that of Peter Trubowitz who in *Politics and Strategy* argues for an "executive choice" model of grand strategy formation, where a nation's grand strategy is primarily determined by two variables:

<sup>&</sup>lt;sup>42</sup> Elliott, J.H. 1991. "Managing Decline: Olivares and the Grand Strategy of Imperial Spain." *Grand Strategies in War and Peace*. Ed. Paul Kennedy. New Haven: Yale University Press. pp. 87-104.

<sup>&</sup>lt;sup>43</sup>Mearsheimer, John J. (2003). The Tragedy of Great Power Politics. NewYork: W.W. Norton and Company. Kindle Edition location 177.

<sup>&</sup>lt;sup>44</sup> Lobell, Steven E. 2005. *The Challenge of Hegemony: grand strategy, trade, and domestic politics.* Ann Arbor: University of Michigan Press. pp. 1–2.

<sup>&</sup>lt;sup>45</sup> Narizny, Kevin. 2007. *The Political Economy of Grand Strategy*. Ithaca: Cornell University Press. pp. 16-30.

"geopolitical slack" which is based on how secure a country's position is against external threats and "party pressure" which represents domestic incentives and is a combination of several internal factors.<sup>46</sup> Finally, in *Reluctant Crusaders*, Colin Dueck (2006) argues that grand strategy is driven primarily by international concerns, but is constrained to only a subset of the possible strategy choices by a nations 'strategic culture' due to the need for public buy in.<sup>47</sup>

However, each of these prior studies has significant limitations. The primary problem with Lobell's book is that it focuses exclusively on the period of decline at the end of a nation's time as a great power. This ignores both the role of long term structural and institutional effects, which may be a result of the way the hegemon rose to power in the first place, making it more a theory about the causes of eventual decline, not about the way states formulate grand strategies. With respect to Narizny's work, it is focused primarily on times of peace, uses an approach based primarily on domestic political factors, and has never been tested using quantitative methods. Both Trubowitz and Dueck base their work on a detailed analysis of a single democratic state and as with Narizny, the relative importance of the external versus internal factors is not clear. Finally, none of the previous models, including Mearshimer's have ever been quantitatively tested. These issues mean there is still a need for a more formal model of grand strategy selection which can be quantitatively verified and objectively applied.

While uncommon, the use of statistical analysis techniques to examine important questions in international relations is by no means unique to this study. In particular, there are two previous studies which have used quantitative methodologies to examine theories with

<sup>&</sup>lt;sup>46</sup> Trubowitz, Peter. 2011. *Politics and Strategy: Partisan Ambition and American Statecraft*. Princeton: Princeton University Press. Kindle Edition Location 758-775.

<sup>&</sup>lt;sup>47</sup> Dueck, Colin. 2006. *Reluctant Crusaders: Power, Culture, and Change in American Grand Strategy.* Princeton: Princeton University Press, Kindle Edition, pp. 13-35

significant implications for understanding grand strategy formation and for which the model results presented in this study may help to shed some additional light. The first is "democratic peace theory" as examined by James Lee Ray in *Democracy and International Conflict* (1995).<sup>48</sup> In *Democracy and International Conflict* Ray uses a combination of theoretical, statistical and historical analysis to examine regime change as well as the question of whether democracies have ever gone to war with one another. Of particular interest to this study is Ray's conclusion that so far, he has not been able to find any examples of major wars waged by fully implemented democracies against each other.<sup>49</sup> If the democratic peace theory is accurate, then one would expect democracies to prefer low risk and pro status quo strategies. A conclusion upon which which the quantitative models used in this study may be able to shed some light, and one which if accurate would lend weight to constructivist theories of grand strategy formation. The second study is Organski and Kugler's *The War Ledger* (1980), which examines the effects of changes in the international distribution of national power on the risk a major (or hegemonic) war will occur.<sup>50</sup> In *The War Ledger* Organski and Kugler conclude that:

The dominant nation and the challenger are very likely to wage war on one another whenever the challenger overtakes in power the dominant nation. It is this shift that destabilizes the system and begins the slide toward war. The speed with which a challenger overtakes the dominant nation is also important: the faster one country overtakes the other, the greater the risk of war. These are necessary but not sufficient conditions.... Fighting begins, then, as a result of differential rates of growth between the contenders; and it subsequently assumes the proportions of a world war because of the obligations the major powers in each coalition have toward their respective leaders.<sup>51</sup>

<sup>&</sup>lt;sup>48</sup> Ray, James Lee. 1995. *Democracy and International Conflict: An Evaluation of the Democratic Peace Proposition.* Columbia: University of South Carolina Press.

<sup>&</sup>lt;sup>49</sup>Ibid. at. pp. 124-125

<sup>&</sup>lt;sup>50</sup> Organski, A.F.K. and Jacek Kugler. 1980. The War Ledger. Chicago: University of Chicago Press. Kindle Edition

<sup>&</sup>lt;sup>51</sup> Ibid. at Loc. 3082

To reach this conclusion, Organski and Kugler examine a great deal of historical empirical data on the political, economic and military facets of national power, using a variety of statistical analysis techniques.<sup>52</sup> While the models in this study are not specifically set up to test their hypotheses, if Organski and Kugler's conclusions are accurate than one would expect that states which have only recently achieved great power status, and which have above average military and economic power, would be more likely to adopt revisionist strategies. Another theory closely related to the field of grand strategy which this study's quantitative models may be able to provide some insight into, although one which has not as of yet been statistically tested, is the "security dilemma" presented by Robert Jervis, who uses a combination of game theory and historical record to argue that actions taken by a state intending to increase its security may in many cases decrease it by increasing the apparent threat of that state to its neighbors, causing them to respond in kind.<sup>53</sup> Of particular importance to this study is Jervis's concept of an offensive-defensive balance and the idea that the prevailing military technology of the time may have a significant impact on how a state can go about increasing its security.<sup>54</sup> It is this concept of offense-defense balance which is incorporated into the Relative Military Expenditures Per Personnel, and was added to the thee models in the study to help to separate the effect of overall Relative Military Strength from the potential effects of having different types of military forces at a nations disposal.

52 Ibid.

<sup>&</sup>lt;sup>53</sup> Jervis, Robert. 1978. "Cooperation Under the Security Dilemma." *World Politics*, Vol.30, No.2 (January 1978). pp. 167-214

<sup>&</sup>lt;sup>54</sup> Jervis, Robert. 1978. "Cooperation Under the Security Dilemma." *World Politics*, Vol.30, No.2 (January 1978). pp. 186-214

This chapter has examined the current state of the field of grand strategy research. In addition, it is clear just how much the field depends on contributions from the whole spectrum of political science research, which may not be surprising given the overarching nature of grand strategy research. This chapter also shows the theoretical roots of the variables tested by the three models and makes it clear that this is by no means the first attempt to use quantitative techniques to shed light on aspects of grand strategy choice.

### Chapter 3: Research Methodology

This chapter will discuss the research methodology adopted by this study including the main hypothesis to be tested, the meaning and construction of the dependent and independent variables to be tested and the techniques which will be used to test the two hypotheses. This study will use three types of multivariate regression analysis to examine the relationship between grand strategy choice and relative military and economic power, while controlling for other factors. My main hypothesis  $(H_1)$  is that as relative economic power increases, countries will have a higher probability of choosing pro status quo strategies (Interventionism and Legalism). This hypothesis is based on the idea that states which are winning (here doing well economically) under the current world order will be less likely to challenge the status quo. My second hypothesis  $(H_2)$  is that as relative military power increases, countries are more likely to choose high risk strategies (namely Interventionism or Revisionism). This is in line with offensive realism and the idea that more militarized states will be inclined to pursue higher risk strategies to achieve their goals. These hypotheses will be tested not only in terms of the accepted risk of war and whether a country chooses to be pro or anti status quo, but also by examining the effects on each of the four primary grand strategies individually. This leads to two null hypotheses: the first (HN1) is that there will be no exhibited relationship between relative economic power and the odds a state will be pro rather than anti-status quo. The second null hypotheses (*HN2*) is that increases in relative military power will exhibit no relationship to the risk of war a nation assumes.

This study uses three different models with different regression techniques to analyze the effect of relative economic and military power on grand strategy choice. The first model uses a time series logit analysis to look at the effect of a series of lagged independent variables on

whether a power adopts a pro or anti-status quo posture. The second model uses a time series multivariate OLS regression model to analyze the effect of the same independent variables on the risk of major war which a great power assumes the following year. The third model combines the first two models by using a multinomial logit analysis with robust standard errors to examine the effect of the lagged independent variables on the odds of a nation adopting each of the four overarching grand strategies the following year.

The dependent variable for the first model, whether a country is Anti-status Quo, is a dummy variable coded 1 if a nation is attempting to dramatically change its place in the current world order (ex. going from minor to major power, or going from major power to hegemon) at the expense of another power, or if a nation makes significant efforts to isolate itself from the current world order. The dependent variable for the second model is the Probability of a Major War, and was generated from a time series multivariate logit analysis using a dummy dependent variable coded 1 for years a country was involved in a major war, and independent lagged dummy variables coded 1 for years a country used the following strategies: Voluntary War, Binding, Blackmail / Subversion, Bloodletting, Internal Balancing, External Balancing, Buck passing / Retrenchment, Appeasement and Bandwagoning. Finally, the third dependent variable, Grand Strategy, was coded based on the following table; using the first two dependent variables, with the cut off for high risk being the acceptance of a non-trivial (1% or higher) probability of a major war occurring the following year, based on the combination of sub strategies chosen.<sup>55</sup> The Grand Strategy variable represents a simplified version of Trubowitz's typography of grand strategies found in his book *Politics and Strategy*, with his eleven listed strategies condensed

<sup>&</sup>lt;sup>55</sup> The coding of the independent variables is described in greater detail in the data section.

down to four overarching strategies. These in turn reflect the structure Trubowitz used to categorize his strategies, and was done in order to vastly simplify the number of possible combinations which would be addressed in the multinomial logit analysis in model three.<sup>56</sup>

Table 1: Grand Strategy Chosen				
	Anti Status Quo	Pro Status Quo		
High Risk	Revisionist	Interventionist		
Low Risk	Isolationist / Neutral	Legalist		

With respect to the independent variables, all three models use lagged versions of the following variables: relative military expenditure, relative military personnel, relative GDP, relative GDP per capita, nation age, homeland vulnerability, government type, economic system, and polity 2 score. These variables were either taken directly or derived from publicly available data provided by the Correlates of War Project<sup>57</sup> (which aggregates the data from a number of peer reviewed papers to promote quantitative political science research), the Polity IV Project

<sup>&</sup>lt;sup>56</sup> Trubowitz, Peter. 2011. *Politics and Strategy: Partisan Ambition and American Statecraft*. Princeton: Princeton University Press. Kindle Edition, Figure 2.1 Loc. 460

<sup>&</sup>lt;sup>57</sup> Sarkees, Meredith Reid and Frank Wayman (2010). Resort to War: 1816 - 2007. Washington DC: CQ Press

from the Center of Systemic Peace<sup>58</sup> (a nonprofit NGO which tracks the behavior of 167 countries), and the Organization for Economic Cooperation and Development<sup>59</sup>. Each of the sub strategy variables was coded based on the historical record.

These measures were chosen based on a care full review of the literature to best capture the concepts of economic and military strength found in the literature while still being sufficiently complete to allow for statistically significant results. These are by no means the only way to quantify these concepts, and other potential measures were considered, such as years great power, exports, and others. However, many of these potential variables were dropped for lack of data or after correlational analysis indicated significant overlap with other variables. Furthermore, it was decided that instead of using the numerical values for the economic and military power variables, that it would be more appropriate to use a 'relative' measure which took each great power's raw score for that year and divided it by the sample average of all of the great powers combined for that year. In addition to creating more meaningful measures for the concept of relative power, using these variables helps to reduce serial autocorrelation problems as well as any potential problems arising from differences in the way the underlying military and economic variables may have been measured over time. Finally, when appropriate, robust regression techniques were used to address potential problems with heteroscedasticity, auto correlation and others.

In order to minimize the potential complexity of the system being examined, it was decided to use data only from great powers and to focus exclusively on their strategy for dealing

<sup>&</sup>lt;sup>58</sup> http://www.systemicpeace.org/inscrdata.html

<sup>&</sup>lt;sup>59</sup> Derived from Maddison, Angus (2006) *The World Economy: Volume 1: A Millennial Perspective and Volume 2 Historical Statistics.* OECD Development Centre

with other great powers. This eliminates potential multi-level issues where the strategies of lesser states could be limited or affected by the wishes of more powerful 'patron' states. Furthermore, the potential for a major war which could threaten the survival of a great power means that one would expect the grand strategies chosen by a great power with respect to other such powers to be as carefully thought out and rational as possible. Finally, great powers have some of the best developed bureaucracies and thus offer the most complete data available for the longest possible duration. In this case data from all of the great powers in existence from 1892 to 2012 was used with the exception of China since its economic and military data is too unreliable to be incorporated at this time.

This chapter gave a detailed examination of the methods by which this study will go about examining the relationship between relative economic and military power and grand strategy choice. Overall, if proponents of realist models of grand strategy are correct then external variables: such as relative numbers of military personnel, relative military spending, relative GDP, relative GDP per capita and homeland vulnerability, should have a statistically and substantively significant effect on grand strategy choice in the three models, after controlling for other variables. On the other hand, if proponents of constructivist models of grand strategy choice are correct, then institutional and societal variables like government type, economic system, nation age and polity2 score will be statistically and substantively significant.

### Chapter 4 Detailed Discussion of Data:

This chapter examines in detail the data which was collected for the study and the way this data was collected and organized. The first step in the process was data collection and determining how large a sample of countries would be compared and for what duration. As stated previously, given the complexity of multi-level models, it was decided to begin by only looking at Great Powers, states which have the most freedom in developing their own strategies and which do not have to worry about how their chosen strategy will be modified by the interests of a more powerful backer state. The next major limitation to the sample was data availability, this limited both how far back the study could go and which countries could be included. Luckily there was sufficient data to include all of the major powers (which the exception of modern China, for which the data was considered too unreliable), as far back as at least 1892, the date which was chosen to be the beginning of the study. This date corresponds to the U.S. first achieving the status of a first rank power, as evidenced by European powers upgrading their diplomatic missions to the status of full ambassadors.<sup>60</sup>

The next step in the process was the creation of the dependent variables for the three models. This began by coding the following sub strategy variables: Voluntary war, Binding, Blackmail / Subversion, Bloodletting, Internal Balancing, External Balancing, Buckpassing / Retrenchment, Appeasement and Bandwagoning, as well as whether or not a nation's foreign policy was Pro or Anti-status quo in nature. These strategies were coded based on the foreign policy actions of each of the great powers during the period examined and are a modified and

<sup>&</sup>lt;sup>60</sup> Herring, George C. 2008. *From Colony to Superpower: U.S. Foreign Relations Since* 1776. New York: Oxford University Press. Kindle Edition, Loc. 5189

condensed version of the strategies listed by Trubowitz,<sup>61</sup>with some strategies combined and others removed. For example: Trubowitz's 'Wars of Conquest' and 'Preemptive War' have been combined into 'Voluntary War.' Just to be clear, according to Trubowitz "Preemptive wars seek to forestall a shift in the balance of power by strategically attacking before an adversary does,<sup>62,</sup> a relatively broad definition. 'Imperialism' was removed because it relates primarily to relations between greater powers and lesser states, not amongst great powers themselves. Finally, 'Spheres of Influence' was dropped because it also relates heavily to the way great powers interact with lesser powers and because the desire to create spheres of influence was nearly universal among the great powers for the period examined.

With respect to coding the first dependent variable (Pro or Anti Status quo), for a nation to be coded as Anti Status quo, it must be attempting to dramatically change its place in the current world order at the expense of another great power, or make significant efforts to isolate itself from the current world order. Examples of anti-status quo behavior include not only Revisionist states like Nazi Germany, but also Isolationist states like North Korea, and even the United States in its early years. Turning to the ten sub strategy variables: a Voluntary War is one in which participation by the party in question was voluntary (even if done to help another state) and are directed either directly at another great power, or at its Allies / material interests / strategic position. Voluntary wars are not always anti-status quo and range from the Nazi invasion of Poland, to the United States entering World War 1 on behalf of the allies. Binding is when countries use negotiation and treaties to lock in relative advantage, this can include both

<sup>&</sup>lt;sup>61</sup> Trubowitz, Peter. 2011. *Politics and Strategy: Partisan Ambition and American Statecraft*. Princeton: Princeton University Press. Kindle Edition, Figure 2.1 Loc. 460

<sup>62</sup> Ibid at 379.

economic and security arrangements, and can include anything from setting up 3<sup>rd</sup> party deals to protect regional stability to setting up international organizations, as long as the primary motivation of the country being assessed is to promote its own interests. A classic example of binding is the creation of NATO which looked to check Russian influence in Europe while expanding U.S. influence there. Blackmail / Subversion is a catch all for actions short of war, whether military, political or economic, other than intelligence gathering and bloodletting, which are directed at another major power (or rising power) or its direct interests. An example of just how expansive this category can be is that it not only covers Kennedy's Naval blockade of Cuba, but also the actions taken by the U.S. in the 1930's to limit Nazi influence in South America. Bloodletting is when a power is deliberately trying to sap the military and economic strength of another power that is engaged with a 3rd party, either through supporting that 3rd party or by denying timely aid promised to the targeted power. This includes, but is by no means limited to the involvement of outside powers in proxy wars like Vietnam and Afghanistan. On the other hand, Intelligence gathering was not tracked as it is effectively a universal aspect of great power politics.

Continuing with the sub strategy variables, according to Trubowitz, Internal Balancing is when "a leader is relying on the states own resources to deter a potential aggressor or to defend against the foreign aggressor should deterrence fail,"<sup>63</sup> The most familiar example of this would be the U.S. entry into World War II following the attack on Pearl Harbor. External Balancing is when a nation tries "to check a threatening state by pooling resources with other states through

<sup>&</sup>lt;sup>63</sup> Trubowitz, Peter. 2011. *Politics and Strategy: Partisan Ambition and American Statecraft*. Princeton: Princeton University Press. Kindle Edition, Figure 2.1 Loc. 413

the formation of alliances."<sup>64</sup> Examples of this include military alliances such as NATO, which often serve other functions for such as Binding. Buckpassing / Retrenchment is when a power either refuses to act in the face of a recognized potential threat, abandons its commitments in an area (leaving a power vacuum to be filled by another power) or reduces its forces in that area to a level where it can no longer compete for preeminence in the region. An example of this are the Neutrality Acts passed by the United States Congress in the 1930's which prevented the United States from intervening to prevent the rise of Nazi Germany. Trubowitz defines Appeasement as "efforts by a leader to conciliate or 'buy off' a potential aggressor by making unilateral diplomatic and economic concessions."<sup>65</sup> The classic example of this is Chamberlin trading the Sudetenland to Hitler in return for Hitler giving up any further territorial ambitions. Finally, Bandwagoning is when "leaders willingly subordinate their states and themselves to [a] foreign power" an abbreviated version of the definition used by Trubowitz, since in cases like the post World War II British relationship with the U.S., it is not necessary that the subordinating power be subordinating itself to the challenging power.

The next step was to construct the dependent variable for the second model, Probability of a Major War. This was generated from a time series multivariate logit analysis using a dummy dependent variable coded 1 for years a country was involved in a major war (and zero otherwise), with the lagged independent dummy variables for each of the sub strategies serving as independent variables. This logit regression then was used to predict a probability of major war breaking out the following year for the combination of sub strategies a country employed that year. The third dependent variable 'Grand Strategy' was then coded using a combination of

<sup>64</sup> Ibid.

<sup>65</sup> Ibid.
the first two dependent variables. Anti-status quo countries which accepted a non-trivial risk of major war were coded as revisionist, while anti-status quo countries which employed low risk policies were coded as isolationist / neutral. Finally, pro status quo high risk nations were coded as interventionist and pro status quo low risk countries were coded as being legalist.

The final steps in collecting the data was to compile the independent variables for the three models and to create the relative power variables. The independent variables were either coded directly based on the historical record or come from one of the following three sources: Variables on Relative Military Expenditure and Relative Military Personnel, and Relative Military Expenditure per Personnel were constructed by taking data on military personnel and military expenditures from the Correlates of War Project and dividing each country by the sample average for that year.<sup>66</sup> The variables on Relative Gross Domestic Product (GDP) and Relative Per Capita GDP were created by taking OECD data on historical GDP and Per Capita GDP by Angus Maddison (2006).<sup>67</sup> Each of these relative power variables is a scale with a score of one representing a country having the sample average value, and with values usually ranging from around 0.05 (or one twentieth of the sample average) to about 3.5 or three and a half times the sample average for that year. Relative rather than absolute measures were chosen to address several major potential issues. First, using relative measures of military and economic power better captures the realist literatures emphasis on a country's relative military and economic position as determinants of strategy choice. Second, using a relative measure based on the sample average for that year, reduces statistical issues associated with potential time based

<sup>&</sup>lt;sup>66</sup> Sarkees, Meredith Reid and Frank Wayman (2010). Resort to War: 1816 - 2007. Washington DC: CQ Press

<sup>&</sup>lt;sup>67</sup> Derived from Maddison, Angus (2006) *The World Economy: Volume 1: A Millennial Perspective and Volume 2 Historical Statistics.* OECD Development Centre

inflationary effects in panel models and reduces any potential problems associated with potential changes in the way the data may have been tracked overtime.<sup>68</sup> Next, the Polity 2 Score was taken from the Polity Project.<sup>69</sup> The Polity 2 Score represents the most complete and statistically friendly measure of how autocratic versus democratic a country's government is, with a score ranging from -10 (for a fully institutionalized autocratic state) to 10 (for a fully institutionalized democratic one). Originally, separate autocratic and democratic variables were going to be used (as recommended by the Center for Systemic Peace) but there was too much correlation between them to use both in the model.

Finally, background data such as Nation Age, as well as Homeland Vulnerability, Government Type, Economic System and Years since Last Major War Ended were coded based on the historical record. Homeland Vulnerability is the number of other great powers which share a land border with the country. Government type was coded one for monarchy, two for presidential democracy, three for parliamentary democracy and four for dictatorships. Economic System was coded one for Liberal (free trading), two for Marxist and three for Mercantilist. Government type and Economic system variables were then split into a series of dummy variables when used in the models as it is a necessary step in order for the statistical models to properly interpret nominal, rather than ordinal variables. Table 2 (below) gives summary statistics for the included data.

<sup>&</sup>lt;sup>68</sup> Fox, John. 1991. *Regression Diagnostics*. Newbury Park: Sage Publications. Kindle Edition Loc. 163

<sup>&</sup>lt;sup>69</sup> Taken from Polity Project: http://www.systemicpeace.org/inscrdata.html

This chapter examined the data utilized in the study including: what it represents, from where and how it was collected, and how it was organized. While this study includes original data in the form of the coding of the various sub-strategies, one of the things that the analysis of the data makes clear is that studies such as this one cannot be realistically carried out without the hard work of many of our fellow researchers and without the cooperation of both governmental and nongovernmental organizations around the world. Furthermore, the increasing availability of this data means that we are just beginning to explore ability of quantitative analysis to shed light on important questions in the field of international relations.

Variables:	Observations:	Mean:	Min:	Max:	Std. Deviation:
Country Background Variables:					
Year	430	1933	1892	2012	29.957
Nation Age	430	106.94	1	242	75.19
<u>Sub Strategy Variables:</u>					
Anti Status Quo	430	0.37	0	1	0.48
Voluntary War	430	0.12	0	1	0.33
Binding	430	0.90	0	1	0.31
Blackmail / Subversion	430	0.40	0	1	0.49
Bloodletting	430	0.08	0	1	0.28
Internal Balancing	430	0.65	0	1	0.48
External Balancing	430	0.68	0	1	0.47
Buckpassing / Retrenchment	430	0.10	0	1	0.30
Appeasement	430	0.02	0	1	0.15
Bandwagoning	430	0.02	0	1	0.14
War and Strategy Variables:					
Obligatory War	430	0.16	0	1	0.36
Major War	430	0.27	0	1	0.45
Probability of Major War****	421	0.02	0.00	0.31	0.04
Years Since Last Major War	/30	10 51	0	46	11 67
Ended	430	10.51	0	40	11.07
Strategy (Grand Strategy	430	1.91	0	3	0.98
Chosen)			-	-	
Independent Variables Used:					
R_MilExPer* (Relative	408	1	0.09	4.05	0.72
Expenditure per Personnel)					
Expenditures)	409	1	0.04	3.46	0.60
R milper* (Relative Military					
Personnel)	408	1	0.05	3.54	0.56
R GdpMGK** (Relative GDP)	379	1	0.08	3.01	0.67
R_Gdp_PC** (Relative per	274	1	0.27	4 5 7	0.24
capita GDP)	374	T	0.27	1.57	0.34
Homeland Vulnerability	430	0.91	0	4	1.33
Polity2 score***	428	3.00	-10	10	7.43
Government Type	430	2.34	1	4	1.08
Economic System	430	2.24	1	3	0.88

# Table 2. Summary Statistics of Included Data

\*Derived from data from Sarkees, Meredith Reid and Frank Wayman (2010). Resort to War: 1816 - 2007. Washington DC: CQ Press

\*\*Derived from Maddison, Angus (2006) The World Economy: Volume 1: A Millennial Perspective and Volume 2 Historical Statistics. OECD Development Centre

\*\*\*Taken from Polity Project: http://www.systemicpeace.org/inscrdata.html

\*\*\*\* for sub strategies chosen, from xtlogit predict command

# Chapter 5 Data Analysis:

This chapter will give the statistically significant results for each of the three models used in this study in table form. In addition, it will provide some context for these results by discussing the statistically significant results of each model in detail in the text accompanying each model. Given the complexity and interactive nature of Model 3's results, its implications for the United States will be discussed in detail in chapter 6, while an overview of its predictions for the other great powers will be given in chapter 7. With respect to the testing of the hypotheses, the first and third models will test H1, while the second and third models will test H2.

## Model 1:

The first model uses a time series logit analysis to examine relationship between relative military and economic power and whether a country adopts an anti-status quo strategy the following year. The results of the logit analysis are given in Table 3 below, and looking at the model as a whole it is clear from the Wald chi2 of 61.07 and corresponding p-value of 0.00, that we can reject the null hypotheses of no improvement for the overall model. Looking at each of the independent variables, we see that Relative Military Expenditures per Personnel, Nation Age, Homeland Vulnerability, and Parliamentary Democracy are all statistically significant to the 5 percent level or better for the two-tailed test. By comparison, the effects of Relative Military Personnel, Military Expenditures, Relative Per Capita GDP and Relative GDP were not statistically significant, nor were Years Since Major War, Dictatorship, Presidential Democracy or Polity 2 Score. Unfortunately, Economic System could not be included in the model without causing convergence issues or dropping approximately one third of the observations.

	Odds Ratio	Std. Error	P >  z	Z Score
Rel. Mil. Expend. per Mil. Personnel	11.90	11.14	0.008	2.64
Relative Military Personnel	13.43	22.15	0.115	1.57
Relative Military Expenditure	1.79	1.48	0.482	0.70
Relative GDP	1.49	2.21	0.788	0.27
Relative Per Capita GDP	1.97	8.09	0.869	0.16
Nation Age	0.85	0.03	0.000	-4.78
Homeland Vulnerability	0.03	0.03	0.000	-3.79
Polity 2 Score	1.19	0.25	0.425	0.80
Years Since Major War	1.03	0.24	0.160	1.40
Government Type*				
Presidential Democracy	0.01	0.28	0.108	-1.61
Parliamentary Democracy	0.001	0.001	0.000	-3.91
Dictatorship	0.02	0.06	0.256	-1.13

**Table 3:** Model 1: Effect of Relative Economic and Military Power as well as Governmental and Economic Variables on Whether a Nation is Anti Status Quo the Following Year

Number of Observations	366
Wald chi2	61.07
Prob > chi2	0.0000

#### Notes:

\*Base Government Type was Monarchy

Data derived from:

Sarkees, Meredith Reid and Frank Wayman (2010). Resort to War: 1816 - 2007. Washington DC: CQ Press,

Maddison, Angus (2006) *The World Economy: Volume 1: A Millennial Perspective and Volume 2 Historical Statistics.* OECD Development Centre,

Polity Project: http://www.systemicpeace.org/inscrdata.html

Moving on to a closer examination of the relative power variables, we see that the effect of Relative Military Expenditures per Personnel is not only statistically significant at the 1% level for the two-tailed test, but is also substantively significant. Hence we see a one unit increase in Relative Military Expenditures per Personnel increasing the odds of a country choosing an Anti-status quo Strategy the following year by a factor of 11.9 holding all other variables constant. Thus, a great power which spends twice as much per military personnel on the military than an 'average' great power, is almost twelve times more likely to pursue an antistatus quo strategy the following year. This indicates that countries which invest considerably more per soldier in their militaries than their rivals are more likely to challenge the status quo, and is in line with realist arguments such as those by Mearsheimer, who argues that states with greater military power will attempt to use that power to improve their position in the international system, and Jervis's theory about offense-defense balance.<sup>70</sup> It may also be a result of the need for states which want to project power to invest heavily in capital intensive aspects of the military including logistics and mobility, which defensively oriented forces do not require.

The Homeland Vulnerability variable was also statistically significant at better than the .01 level, with a one unit increase in the number of great powers which share a nations boarder corresponding to a 97 percent decrease in the odds of a nation adopting an anti-status quo strategy the following year. This indicates that states which are more vulnerable to direct attack from rivals are much more likely to buy into the international system and are less likely to directly challenge the status quo than states which are operating from a secure homeland, with

<sup>&</sup>lt;sup>70</sup> Mearsheimer, John J. (2003). *The Tragedy of Great Power Politics.* NewYork: W.W. Norton and Company. Kindle Edition location 253.

perhaps the ultimate example of a vulnerable, pro status quo state, being the Austrian Hungarian Empire.

Turning now to the structural indicators, Nation Age and Parliamentary Democracy, were both statistically significant at the .01 level, or better, for the two-tailed test. Looking at Nation Age, a one year increase in a country's age corresponds to a 15% reduction in the odds of choosing an anti-status quo strategy the following year. This means that as nations age they are increasingly likely to choose to pursue pro status quo strategies. Although this tendency may be a result of pro status quo states surviving longer, it also provides support for Organski and Kugler's conclusions in *The War Ledger*.<sup>71</sup> For example, if a great power maintains its status for twenty years, its odds of choosing a pro status quo strategy increase by a factor of three. Finally, Parliamentary Democracies are 99.9 percent more likely to choose a pro status quo policy the following year than Monarchies, with all other factors being equal; indicating a strong pro status quo preference on the part of Parliamentary Democracies, providing some support for democratic peace theory. Looking at Model 1 overall, it is apparent that a mix of relative and structural variables affect whether a state follows a pro or anti status quo strategy, although the variables tested represent only a partial sample of those which may have a statistically significant effect.

<sup>&</sup>lt;sup>71</sup> Organski, A.F.K. and Jacek Kugler. 1980. The War Ledger. Chicago: University of Chicago Press. Kindle Edition Loc. 3082

#### Model 2:

The second model uses a time series ordinary least squares regression analysis with panel corrected standard errors to examine the relationship between relative military and economic power and the risk of war a country assumes the following year (here measured by the probability of major war based on the sub strategies chosen that year). The results of the OLS analysis are given in Table 4 below, and looking at the model as a whole, it is clear from the Wald chi2 of 107.00 and R-squared of 0.39, that we can reject the null of no improvement for the overall model.

Looking at each of the independent variables, we see that Relative Military Expenditures per Personnel, Relative Military Expenditure, Homeland Vulnerability, Years Since Major War, Presidential Democracy and Dictatorship were all statistically significant to the 5 percent level for the two-tailed test, while Relative Per Capita GDP was significant at the 10% level. Among the relative power variables, only the effects of Relative Military Personnel and Relative GDP were not statistically significant, while several of the structural variables, including Nation Age, Economic System, Parliamentary Democracy and Polity 2 Score were not statistically significant.

		Panel Corrected		
	Coefficient	Std. Error	P >  z	Z Score
Rel. Expend. Per Personnel	0.014	0.005	0.006	2.78
Relative Military Personnel	-0.007	0.010	0.463	-0.73
Relative Military Expenditure	-0.018	0.006	0.006	-2.76
Relative GDP	0.003	0.005	0.525	0.64
Relative Per Capita GDP	0.038	0.021	0.076	1.77
Nation Age	0.0001	0.00008	0.206	1.26
Homeland Vulnerability	0.036	0.006	0.000	6.09
Years Since Major War	-0.003	.00003	0.000	-8.48
Polity 2 Score	0.0005	0.001	0.705	0.38
Economic System**				
Marxist	-0.004	0.027	0.889	-0.14
Mercantilist	-0.001	0.010	0.931	-0.09
Government Type*				
Presidential Democracy	-0.033	0.012	0.004	-2.85
Parliamentary Democracy	-0.013	0.013	0.319	-1.00
Dictatorship	0.056	0.019	0.003	2.95

**Table 4:** Model 2; Effect of Relative Economic and Military Power as well as Governmental and Economic Variables on Risk of Major War the Following Year

Number of Observations	366
R-squared	0.39
Wald chi2	107.00
Prob > chi2	0.00

Notes:

\*Base Government Type was Monarchy, \*\*Base Economic System was Liberal

Data derived from:

Sarkees, Meredith Reid and Frank Wayman (2010). Resort to War: 1816 - 2007. Washington DC: CQ Press,

Maddison, Angus (2006) *The World Economy: Volume 1: A Millennial Perspective and Volume 2 Historical Statistics.* OECD Development Centre,

Polity Project: http://www.systemicpeace.org/inscrdata.html

Turning to a closer examination of the relative power variables, Relative Military Expenditures Per Personnel was not only statistically significant at the one percent level, but was also substantively significant, with a one unit increase in Relative Military Personnel increasing the probability of major war the following year by 1.4 percentage points holding all other variables constant. Given that a state which spends the sample average per military personnel has about a 2% chance of being involved in a major war (all else being held constant), a great power which spends 4 times the sample average per personnel (within the maximum observed) more than triples their odds of being involved in a major war the following year. Also, it is important to keep in mind that while the risk of war in any given year is generally very small (approximately 2%), these wars are cataclysmic events making countries sensitive to even small fluctuations in the odds. To put it another way, a country which spends the average per soldier for a great power that year, holding all else constant, will likely be involved in a major war every 50 years. However, a great power which spends near the sample maximum per soldier will, holding all else constant, likely be involved in a major conflict every 16.1 years. This would seem to be clear evidence in favor of a link between military power and risk taking, along the lines of Mearsheimer's 'offensive realism,' but the evidence is more complex.<sup>72</sup>

Moving on to Relative Military Expenditures, which was also significant at the one percent level, we see the exact opposite relationship to that of Relative Expenditures per Personnel, with a one unit increase in relative military expenditures decreasing the odds of being involved in a major conflict the following year by 1.8 percentage points. This result is surprising and when taken along with the effect of Relative Military Expenditures Per Personnel, is another

<sup>&</sup>lt;sup>72</sup> Mearsheimer, John J. (2003). *The Tragedy of Great Power Politics*. NewYork: W.W. Norton and Company. Kindle Edition location 177.

indication that the configuration of a nation's military may have a greater effect on a country's choice of strategies than either its size or cost alone. This provides some statistical evidence for the effect of some form of the offense – defense balance and resulting security dilemma proposed by Robert Jervis.<sup>73</sup> It is also important to note that in those cases where both Relative Military Expenditures and Relative Military Expenditures per Personnel increase, the effect of Relative Military Expenditures is likely to dominate the effect of increased Expenditures Per Personnel since Relative Military Expenditures has a larger effect per unit change (coefficient), potentially contradicting not only the conclusions of Mearshimer<sup>74</sup>, but also to some extent Organski and Kugler.<sup>75</sup>

Another statistically significant relative power variable and the only statistically significant economic variable (although only at the 10% level), was Relative Per Capita GDP. A one unit increase in Relative Per Capita GDP corresponds to a 3.8 percentage point increase in the risk of war the following year. This is more than twice the effect of the relative military power variables per unit change, but is constrained by the fact that there is far less extreme variation in Relative per Capita GDP, with a minimum value of 0.27 and maximum value of 1.57, a range of about 1.3 units. Compare this to the range of other relative power variables such as Relative Military Expenditures, which has a minimum of .04 and a maximum of 3.56, a variance of over three and a half units. Thus overall, the substantive impact of Relative per Capita GDP may be less than that of Relative Military Expenditures. Furthermore, the fact that

<sup>&</sup>lt;sup>73</sup> Jervis, Robert. (1978). "Cooperation Under the Security Dilemma." *World Politics,* Vol.30, No.2 (January 1978). pp. 186-214

<sup>&</sup>lt;sup>74</sup> Mearsheimer, John J. (2003). *The Tragedy of Great Power Politics*. NewYork: W.W. Norton and Company. Kindle Edition location 177.

 <sup>&</sup>lt;sup>75</sup> Organski, A.F.K. and Jacek Kugler. 1980. The War Ledger. Chicago: University of Chicago Press. Kindle Edition Loc.
 3082

countries with higher levels of GDP seem to be willing to shoulder greater risks than countries with lower levels of per capita GDP indicates that we may need to re-evaluate the aphorism that the most dangerous countries are those with nothing to lose. Instead it seems to be those countries whose citizens have higher per capita incomes than their rivals that seem to be most aggressive, although whether this is a result of feeling compelled to defend the status quo or to challenge it is one of the things which should become clearer when we look at model 3. This is in line with Mearsheimer's<sup>76</sup>arguments in favor of "offensive realism" since great powers with the most available resources seem to be the most combative, as well as with Organski and Kugler<sup>77</sup> argument that wars are most likely to occur when a challenger has equaled or exceeded the military and economic power of the current hegemon. Taken together, the military and economic results show a direct link between economic power and the adoption of high risk strategies, but a much more complex relationship between military power and risk taking.

Turning to the last statistically significant structural variable, Homeland Vulnerability, we see that a one unit increase in the number of other powers which a state boarders increases the probability of a major war occurring the following year by 3.6 percentage points. Thus, a country like Imperial Russia which bordered 4 other powers would increase its risk of being involved in a major war by 10.8 percentage points, or a factor of six. This argues that great

<sup>&</sup>lt;sup>76</sup> Mearsheimer, John J. (2003). *The Tragedy of Great Power Politics*. NewYork: W.W. Norton and Company. Kindle Edition location 177.

 <sup>&</sup>lt;sup>77</sup> Organski, A.F.K. and Jacek Kugler. 1980. The War Ledger. Chicago: University of Chicago Press. Kindle Edition Loc.
 3082

powers which directly border other powers may be more tightly locked into a zero sum game with their neighbors where security is concerned and thus more open to taking risks.<sup>78</sup>

Moving on to the statistically significant structural variables, beginning with Years Since Major War, which was statistically significant at the one percent level for the two tailed test, we see that each year after the end of a major war decreases the odds of being involved in another major war the next year by 0.3 percentage points. This means that the longer it has been since a country has been involved in a major conflict, the less likely they are to be involved in a major conflict the next year. The converse of this is that countries which have recently been involved in major conflicts are the ones most vulnerable to being involved in the future, creating a selfperpetuating cycle. Moving on to Presidential Democracy which was also significant at the one percent level, we see that presidential democracies are 3.3 percentage points less likely to be involved in a major war the following year than Monarchies, holding all other variables constant. This provides some statistical evidence for democratic peace theory. By comparison, we see that Dictatorships (which were also significant at the one percent level) have the opposite effect, with Dictatorships being 5.6 percentage points more likely to be involved in a major conflict the following year than Monarchies. This is the largest coefficient of any of the statistically significant variables and provides strong evidence for arguments that, among great powers at least, Dictatorships are more likely to take actions which risk starting major wars.

<sup>&</sup>lt;sup>78</sup> For a historical example see: Lynn II, John A. 2011 "The Grand Strategy of the *Grand Siècle*: Learning from the wars of Louis XIV." *The Shaping of Grand Strategy: Policy, Diplomacy and War*. Eds. Williamson Murry, Richard Hart Sinnreich and James Lacy. Cambridge: Cambridge University Press. Kindle Edition pp. 38-62

#### Model 3:

The third model uses a multinomial logit analysis with robust standard errors to examine the relationship between relative military and economic power and a nation's choice of grand strategy the following year. The statistically significant results of the multinomial logit analysis are given in Tables 5a1-5a4 below, with the full results of the analysis (organized by independent variable type) are presented in tables 5b1-5b4 in the appendix. Looking at the model as a whole it is clear from the pseudo R-squared of 0.68, that we can reject the null of no improvement for the overall model.

Beginning with the statistically significant relative military power variables (Table 5a1 below), we can see that Relative Military Expenditures per Military Personnel, Relative Military Personnel and Relative Military Expenditures, all had statistically significant effects on grand strategy choice the following year. Looking at the effects of Relative Expenditures per Personnel, we can see that, holding all other variables constant, a one-unit increase in Relative Expenditures per Personnel increases the odds of a country choosing an Interventionist rather than a Legalist strategy the following year by a factor of 7.2. While, holding all other variables constant, a one-unit increase in Relative Expenditures per Personnel increases in Relative Expenditures per Personnel increases the odds of a country choosing all other variables constant, a one-unit increase in Relative Expenditures per Personnel increases the odds of choosing a Revisionist vs. Legalist Grand Strategy by a factor of 32.5. Both of these results were significant at the 1% level or better for the two tailed test. Taken together these results indicate that the as Relative Expenditures per Military Personnel increases, countries are more likely to choose higher risk strategies such as Interventionism or Revisionism, at least compared to a Legalist approach, which is in line with the results of model 2.

	Coefficient	Z Score	<b>P</b> >   <b>z</b>	% Change
Rel. Expend. Per Personnel				
Legalist vs. <u>Interventionist</u>	-1.97	-2.095	0.036	-86.1
Legalist vs. <u>Revisionist</u>	-3.48	-3.697	0.000	-96.9
Interventionist vs. Legalist	1.97	2.095	0.036	619.1
<u>Revisionist</u> vs. Legalist	3.48	3.696	0.000	3149.9
<b>Relative Military Personnel</b>				
Legalist vs. <u>Isolationist</u>	-8.77	-3.111	0.002	-100.0
Legalist vs. <u>Interventionist</u>	-3.80	-2.433	0.015	-97.8
Legalist vs. <u>Revisionist</u>	-4.92	-3.145	0.002	-99.3
<u>Isolationist</u> vs. Legalist	8.77	3.111	0.002	643467.1
Interventionist vs. Legalist	3.80	2.433	0.015	4369.4
<u>Revisionist</u> vs. Legalist	4.92	3.061	0.002	13488.7
Relative Military Expenditure				
Legalist vs. Interventionist	2.62	2.541	0.011	1274.4
<u>Legalist</u> vs. Revisionist	1.75	1.695	0.090	474.5
Interventionist vs. <u>Legalist</u>	-2.62	-2.541	0.011	-92.7
Revisionist vs. <u>Legalist</u>	-1.75	-1.839	0.066	-82.6
Number of Observations	366			
Pseudo R-squared	0.6789			
Pseudo Log Likelihood	-145.63			
<u>Notes:</u>				
<u>Underline</u>	= more likely stra	ategy choice		
Data derived from:	Sarkees, Meredith Reid and Frank Wayman (2010). Resort to War: 1816 - 2007. Washington DC: CQ Press,			

# **Table 5a1:** Model 3; Statistically Significant Effects of Relative Military PowerVariables on Grand Strategy Choice the Following Year

For Relative Military Personnel, holding all other variables constant, a one-unit increase in Relative Military Personnel increases the odds of a country choosing an Isolationist instead of Legalist Grand Strategy the following year by a factor of 6,436. In addition, a one-unit increase in Relative Military Personnel increases the odds of a country choosing an Interventionist, as opposed to Legalist, Grand Strategy by a factor of 44.7. Finally, a one-unit increase in Relative Military Personnel also increases the odds of a country choosing a Revisionist vs. Legalist Grand Strategy by a factor of 136. All of these effects were significant at the .05 level or better for the two-tailed test. Here the power of a multinomial logit analysis versus the previous models comes to the forefront, because it can show that a one unit increase in Relative Military Personnel reduces the odds of a country choosing a legalist strategy by at least 97% compared to *any* other strategy. In contrast to the previous models, which when taken together, only predict that a one unit increase in Relative Military Personnel should correspond to an increase likelihood of choosing an isolationist grand strategy, which is accurate, but gives an incomplete picture of the variable's effects.

Moving on to Relative Military Expenditures, a one unit increase in Relative Military Expenditures increases the odds of a country choosing a Legalist as opposed to Interventionist Grand Strategy the following year by a 1,274%, holding all other variables constant. However, a one unit increase in Relative Military Expenditures increases the odds of a country choosing a Legalist vs. Revisionist Grand Strategy by 475%. Both were statistically significant at the 10% level or better. Overall, increasing Relative Military Expenditures has the opposite effect of increasing Expenditures per Personnel, which creates an interesting dynamic and one which plays out in the second model as well. Another important point to keep in mind is that the only statistically significant effects of the military power variables relate to the odds of a nation choosing whether to adopt a Legalist Grand Strategy. Thus, as Military Expenditures Per Personnel and Relative Military Personnel increase, the odds of a country adopting a Legalist Grand Strategy decrease; while as Relative Military Expenditures increases, the odds of choosing a Legalist Grand Strategy increases, indicating that the way a great power structures its military forces may have a bigger impact on strategy choice than its raw power alone.

Looking at the three Relative Military Power Variables combined (see Table 5a2 below), we see that they primarily affect the odds of a state adopting a legalist strategy, with increases in Expenditures per Personnel and Relative Military Personnel overall both corresponding to decreased odds of choosing a Legalist Grand Strategy. Only Relative Military Expenditures was positively correlated with a Legalist Grand Strategy. The interconnected nature of the Relative Military Power variables makes their analysis more complicated since a significant increase in one variable will correspond to a decrease in another variable unless a third variable is changed as well. For example, a one unit increase in Relative Military Personnel will decrease Relative Expenditures per Personnel (but not necessarily by one unit), with each of these changes having the opposite effect on the odds of a country adopting a Legalist Grand Strategy, unless Relative Military Expenditures are also increased. If Relative Military Expenditures was also increased, then Relative Expenditures Per Personnel would remain relatively static, but the increase in Relative Military Expenditures also has the opposite effect on the odds of country choosing a Legalist Grand Strategy than the increase in Relative Military Personnel. This is further complicated by the scale of the effects of each of the Relative Military Power Variables. For example, in the above scenarios, the effect of a one unit increase in Relative Military Personnel

will drown out a similar increase in either of the other variables since its effects are several times larger per unit increase.

Examining relative economic power variables (Relative GDP and Relative per Capita GDP in Table 5a2 below), we can see that the economic effects have the most impact on whether a nation choses to adopt a Revisionist Grand Strategy. For example, holding all other factors constant, a one unit increase in Relative GDP decreases the likelihood a country will choose a Legalist, as opposed to Revisionist, strategy by 98.6%. At the same time, a one unit increase in Relative Per capita GDP increases the odds a nation will choose a Revisionist vs. Isolationist strategy by 35,314%. Both of these results were significant at the .05 level or better. Taken together these results indicate that as a great power's finances improve they are more likely to choose a Revisionist Grand Strategy. This result provides some evidence that a countries ability to finance a potential conflict may be a limiting factor in choosing risky or aggressive grand strategies, in both absolute terms and in terms of its effects on internal coalitions, and is in line with the arguments of Trubowitz and others.<sup>79</sup> This finding is consistent with, but more narrow than, that of model one which found that as Per Capita GDP increases, countries are increasingly likely to adopt anti-status quo strategies the following year.

<sup>&</sup>lt;sup>79</sup> Trubowitz, Peter. 2011. *Politics and Strategy: Partisan Ambition and American Statecraft*. Princeton: Princeton University Press. Kindle Edition Location 622-671.

	<b>Coefficient</b>	Z Score	$\mathbf{P} >  \mathbf{z} $	<u>% Change</u>
<b>Relative GDP</b>				
Legalist vs. <u>Revisionist</u>	-4.25	-4.801	0.000	-98.6
<b>Relative GDP Per Capita</b>				
<u>Revisionist</u> vs. Isolationist	5.87	2.097	0.036	35313.8
Primarily Marxist Economy				
<u>Legalist</u> vs. Revisionist	9.23	2.389	0.017	1.0x10^6
Revisionist vs. <u>Legalist</u>	-9.21	-1.799	0.072	-100.0
Primarily Mercantilist Economy				
Legalist vs. Interventionist	1.62	1.890	0.059	404.8
Legalist vs. <u>Revisionist</u>	-10.78	-12.579	0.000	-100.0
Interventionist vs. <u>Legalist</u>	-1.62	-1.890	0.059	-80.2
Number of Observations	366			
Pseudo R-squared	0.6789			
Pseudo Log Likelihood	-145.63			

# Table 5a2: Model 3; Statistically Significant Effects of Economic Variables onGrand Strategy Choice the Following Year

Notes:

\*\*Base Economic System was Liberal <u>Underline</u> = more likely strategy choice

Data derived from:

Sarkees, Meredith Reid and Frank Wayman (2010). Resort to War: 1816 - 2007. Washington DC: CQ Press,

Maddison, Angus (2006) *The World Economy: Volume 1: A Millennial Perspective and Volume 2 Historical Statistics.* OECD Development Centre,

Looking at the economic system variables, we can see that holding all other factors

constant, a Primarily Marxist Economy is 10,000 times more likely to be Legalist than

Revisionist, compared to Primarily Liberal Economies. However, Primarily Mercantilist

Economies, while 405% more likely to be Legalist than Interventionist, are approximately 100%

less likely to be Legalist than Revisionist compared to primarily Liberal Economies, holding all

other factors constant. These effects were statistically significant at the 10% level or better for the two tailed test. This means that nations with a primarily Mercantilist Economy are more likely to choose a Legalist rather than Interventionist Strategy, and are even more likely to choose a Revisionist rather than Legalist Grand Strategy.

Moving on to political variables (given in Table 5a3 below), compared to Monarchies, Presidential Democracies are 270,000 times more likely to adopt a Legalist, as opposed to Revisionist, Grand Strategy, holding all other factors constant. More importantly, when compared to Monarchies, Presidential Democracies are far more likely to adopt an Isolationist Grand Strategy, for example they are 5.6 x 10^19 times more likely to choose an Isolationist as opposed to Legalist strategy, are 7.5 x 10^18 times more likely to choose an Isolationist rather than Interventionist strategy and 1.5 x 10^25 times more likely to choose an Isolationist rather than Revisionist Grand Strategy, holding all other factors constant. Taken together, this means that Presidential Democracies are far more likely to choose a low risk strategy and an Isolationist Strategy in particular, than are Monarchies. This tracks with the results of model 2 which indicated that Presidential Democracies are more likely to choose low risk strategies compared to Monarchies.

	<u>Coefficient</u>	Z Score	$\underline{\mathbf{P}} >  \mathbf{z} $	<u>% Change</u>
<b>Presidential Democracy</b>				
Legalist vs. <u>Isolationist</u>	-45.47	-3.808	0.000	-100
<u>Legalist</u> vs. Revisionist	12.49	4.327	0.000	2.7x10^7
<u>Isolationist</u> vs. Legalist	45.47	3.808	0.000	5.6x10^21
Isolationist vs. Interventionist	43.46	3.381	0.001	7.5x10^20
Isolationist vs Revisionist	57.96	4.509	0.000	1.5x10^27
Interventionist vs. <u>Isolationist</u>	-43.46	-3.381	0.001	-100.0
Revisionist vs. <u>Isolationist</u>	-57.96	-5.838	0.000	-100.0
Parliamentary Democracy				
Legalist vs. <u>Interventionist</u>	-5.31	-4.408	0.000	-99.5
Interventionist vs. Legalist	5.31	4.408	0.000	20139.7
Dictatorship				
Legalist vs. <u>Revisionist</u>	-10.68	-7.004	0.000	-100.0
<u>Revisionist</u> vs. Legalist	10.68	2.576	0.010	4.4x10^6
<u>Revisionist</u> vs. Interventionist	9.01	2.182	0.029	819109.0
Polity 2 Score				
<u>Legalist</u> vs. Revisionist	0.32	2.359	0.018	38.3
Number of Observations	366			
Pseudo R-squared	0.6789			
Pseudo Log Likelihood	-145.63			

# **Table 5a3:** Model 3; Statistically Significant Effects of Political Variables onGrand Strategy Choice the Following Year

#### Notes:

\*Base Government Type was Monarchy, <u>Underline</u> = more likely strategy choice

Data derived from:

Sarkees, Meredith Reid and Frank Wayman (2010). Resort to War: 1816 - 2007. Washington DC: CQ Press,

Polity Project: http://www.systemicpeace.org/inscrdata.html

Looking at other government forms, when compared to Monarchies, the odds of Parliamentary Democracies being Interventionist, as opposed to Legalist, increase by a factor of 202. On the other hand, for Dictatorships, the odds of being Revisionist rather than Legalist are increased by a factor of 44,000, and the odds of being Revisionist versus Interventionist are higher by a factor of 8,192, holding all other factors constant. These results are in line with those of model 2 which indicated that when compared to Monarchies, Dictatorships tended to assume a much higher Risk of Major War the following year. The last political variable, Polity 2 Score is a little different, with a one unit increase in Polity 2 Score increasing the odds of a country being Legalist as opposed to Revisionist by 38.3%, holding all other factors constant. Finally, these results were statistically significant at the .05 level or better.

	<b>Coefficient</b>	Z Score	$\mathbf{P} >  \mathbf{z} $	<u>% Change</u>
Homeland Vulnerability				
<u>Legalist</u> vs. Isolationist	10.57	2.779	0.005	3.9x10^6
<u>Legalist</u> vs. Revisionist	3.52	3.639	0.000	3281.3
Isolationist vs. <u>Legalist</u>	-10.57	-2.779	0.005	-100.0
Isolationist vs. <u>Interventionist</u>	-10.47	-3.224	0.001	-100.0
Isolationist vs <u>Revisionist</u>	-7.05	-2.171	0.030	-99.9
Interventionist vs. Isolationist	10.47	3.224	0.001	3.5x10^6
Revisionist vs. <u>Legalist</u>	-3.52	-3.703	0.000	-97.0
<u>Revisionist</u> vs. Isolationist	7.05	2.183	0.029	115436.3
Revisionist vs. Interventionist	-3.42	-5.938	0.000	-96.7
Nation Age				
<u>Legalist</u> vs. Isolationist	0.2162	1.952	0.051	24.1
<u>Legalist</u> vs. Revisionist	0.09	7.634	0.000	9.3
Isolationist vs. <u>Legalist</u>	-0.22	-1.95	0.051	-19.4
Isolationist vs. <u>Interventionist</u>	-0.22	-2.073	0.038	-19.9
Interventionist vs. Isolationist	0.22	2.073	0.038	24.8
<u>Revisionist</u> vs. Isolationist	0.13	1.956	0.050	13.6
Number of Observations	366			
Pseudo R-squared	0.6789			
Pseudo Log Likelihood	-145.63			

 Table 5a4: Model 3; Statistically Significant Effects of Other Variables on Grand

 Strategy Choice the Following Year

#### <u>Notes:</u>

\*Base Government Type was Monarchy, \*\*Base Economic System was Liberal <u>Underline</u> = more likely strategy choice

Data derived from:

Sarkees, Meredith Reid and Frank Wayman (2010). Resort to War: 1816 - 2007. Washington DC: CQ Press,

Moving on to the last two variables (in Table 5a4 above), starting with Homeland Vulnerability, we see that it had several effects which were statistically significant at the .05 level or better for the two-tailed test. First, holding all other factors constant, a one-unit increase in Homeland Vulnerability reduces the odds of a state choosing an Isolationist strategy by at least 99.9% versus the other three grand strategy choices. For example, a one-unit increase in Homeland Vulnerability increases the odds of a nation choosing a Legalist, as opposed to Isolationist Grand Strategy by a factor of 39,000; an Interventionist versus Isolationist strategy by a factor of 35,000, and the odds of a Revisionist vs. an Isolationist Grand Strategy by a factor of 1,155, holding all other variables constant. Secondly, looking at the effects of increased Homeland Vulnerability on whether a country chooses to adopt a Revisionist Grand Strategy, we see that a one-unit increase reduces the odds a country will adopt a Revisionist vs. Legalist Grand Strategy by 97% and reduces the odds of a Revisionist as opposed to Interventionist Grand Strategy by 96.7%. Taken all together, this means that as Homeland Vulnerability increases nations are more likely to choose Revisionist over Isolationist Strategies, but they are even more likely to adopt pro status quo strategies than either an Isolationist or a Revisionist Policy. This is very much in line with the results of the first two models, which indicated that as Homeland Vulnerability increases countries are more likely to adopt Pro Status-Quo Strategies and are willing to accept a higher Risk of Major War the following year.

Finally, looking at Nation Age, a one-unit increase corresponds to a 24.1% increase in the odds of being Legalist as opposed to Isolationist and a 9.3% increase in the odds of being Legalist as opposed to Revisionist, holding all other variables constant. Furthermore, a one unit increase in Nation Age increases the odds of a nation adopting an Interventionist strategy rather than Isolationist strategy by 24.8% and Revisionist instead of Isolationist by 13.6%. This means

that as great powers age they tend to be increasingly pro status quo generally and are especially less likely to become isolationist and withdraw from playing any role in the international system. These results are in line with both previous models. Furthermore, all of the above results were significant at the 5% level or better for the two-tailed test.

To get a better idea of how well the multinomial model can predict a great power's choice of grand strategy, Figure 1 (below) compares the Model's Predicted Grand Strategy Choice with the Observed Grand Strategy Choice Variable (the Dependent Variable Model 3 was attempting to predict). As we can see from the Figure 1 and the accompanying table (see below), the model successfully predicted a nations choice of grand strategy in some 310 out of 356 observed cases, or about 87% of the time.



	Predicted Grand Strategy:				
Observed:	Legalist	Isolationist	Interventionist	Revisionist	Total:
Legalist	39	0	11	6	56
Isolationist	1	28	0	3	32
Interventionist	12	0	146	2	160
Revisionist	1	5	5	97	108
Total:	53	33	162	108	356

In conclusion, while the models used in this study represent only an initial quantitative examination of the relationship between relative military and economic power and grand strategy choice, and are limited only to modern great powers, there is substantial agreement between the statistically significant effects of the three models, with the third model providing the most nuanced view of the relationship between the independent variables tested and Grand Strategy Choice. In the future, the goal would be to improve and expand these models not only to cover a wider array of potential explanations and greater sample size, but also to cover regional and lesser powers with their more complex interactions and issues.

## **Chapter 6**

## **Detailed Analysis of Model 3 Predictions for The United States: 1892-1992**

This chapter will attempt to clarify how the complex interactions of Model 3 work together in a real world historical example. Figure 2 (below), shows the Model 3 predictions based on the prior year's data for the United States for the years covered by the dataset. The United States was chosen for more in-depth analysis because it has the most complete data available (it has data for every variable for all 100 years the data set covers) and because it is the most difficult country for the model to successfully predict (Model 3 only successfully predicts the observed grand strategy for the U.S. about 78% of the time, compared to an average of 87%).



As we can see from Figure 1 above, prior to 1902 the model broadly predicts that the U.S. will adopt an Isolationist Grand Strategy. On the other hand, after 1902 the model predicts the U.S. will adopt either an Interventionist or a Legalist Grand Strategy, depending largely on

changes in the relative power variables (as the structural variables change little during this period, apart from time variables such as nation age). However, while the Model 3 predictions are broadly consistent with the way U.S. foreign policy has been described during this period,<sup>80</sup> a great deal more of the strengths and weaknesses of the model can be seen by looking at its predictions in more detail and comparing these predictions with a timeline of major U.S. foreign policy events.

The Figures below (3A-3D) give the Model 3 predictions for U.S. Grand Strategy Choice from the Year 1892 to 1992 superimposed over a timeline of 110 important U.S. foreign policy actions and events. Each of the sub figures covers a twenty-five-year period and the numbers on each figure are colored to represent the strategy choice with which they are most consistent, with bold numbers indicating a major war, and black numbers indicating either that there are multiple consistent strategies or that the event does not directly relate to another great power (and thus would not be included in the current model as it only predicts strategies relating to other great powers). Below each figure is a numbered list of the included foreign policy events and the year they occurred.

<sup>&</sup>lt;sup>80</sup> See: Herring, George C. 2008. *From Colony to Superpower: U.S. Foreign Relations Since 1776.* New York: Oxford University Press.; Kennedy, Paul. 1991. *Grand Strategies in War and Peace*. New Haven: Yale. pp.171-172.; La Faber, Walter. 2012. "The U.S. Rise to World Power, 1776-1945." and Saul, Richard. 2012. "American Policy During the Cold War." In *US Foreign Policy*, ed. Michael Cox and Doug Stokes. Oxford: Oxford University Press.



### Major U.S. Foreign Policy Actions:<sup>81</sup>

- 1. Lifting of Brazilian Blockade (1894)
- 2. Dispute over British Guiana (1894)
- 3. Spanish American War (1898)
- 4. Open Door Note I (1899)
- 5. Boxer Rebellion (1900)
- 6. Open Door Note II (1900)
- 7. Roosevelt Corollary to the Monroe Doctrine (1904)
- 8. Treaty of Portsmouth (1905)
- 9. Great White Fleet (1907)
- 10. Dollar Diplomacy (1907-1913)
- 11. Occupation of Veracruz (1914)
- 12. Punitive Expedition to Mexico (1916-1917)
- 13. National Defense Act of June 1916
- 14. U.S. Participation in World War 1 (1917-1918)

As we can see from Figure 3-A (above), Model 3 predicts that the U.S. will pursue an

Isolationist grand strategy prior to 1901, and then a shift to a more pro status quo grand strategy

(either Interventionist or Legalist) thereafter. While for the most part historical events are

consistent with the models predictions, one area which appears to be an exception is the group of

revisionist events leading up to the Spanish American War. However, it is important to note that

<sup>&</sup>lt;sup>81</sup> Events taken from: Herring, George C. 2008. *From Colony to Superpower: U.S. Foreign Relations Since 1776.* New York: Oxford University Press.

these actions, the Lifting of the Brazilian Blockade (1894), the Dispute over British Guiana (1894) and the Spanish American War (1898) all involve actions attempting to limit or remove the influence of other great powers within the Western Hemisphere, an area that has been an exception to the traditionally isolationist grand strategy of the United States going back to the creation of the Monroe Doctrine in 1823.<sup>82</sup>

Therefore, the revisionist actions taken by the United States in South and Central America in the late 1800's do not necessarily indicate that the U.S. is taking a revisionist approach to foreign policy generally, especially with respect to the other great powers in areas outside of the western hemisphere. Furthermore, the lack of any significant foreign policy events outside of the western hemisphere during this period is consistent with an overall Isolationist Grand Strategy as predicted by the model. Thus, the Monroe doctrine is perhaps best characterized as a sub strategy rather than the type of overall grand strategy that Model 3 is attempting to predict. Looking at the rest of this period, the model does a good job of predicting the shift to a more active, and pro status quo, foreign policy envisioned by American progressives beginning with President Theodore Roosevelt's administration following President McKinley's assassination in 1901.<sup>83 84</sup>

<sup>&</sup>lt;sup>82</sup> La Faber, Walter. 2012. "The U.S. Rise to World Power, 1776-1945." In US Foreign Policy, ed. Michael Cox and Doug Stokes. Oxford: Oxford University Press. pg.46

<sup>&</sup>lt;sup>83</sup> Ibid. pp. 49.

<sup>&</sup>lt;sup>84</sup> Zelizer, Julian E.2009. Arsenal of Democracy: The Politics of National Security from World War II to the War on Terrorism. New York: Basic Books. Pg. 19



# Figure 3-B Timeline of Important U.S. Foreign Policy Actions 1917-1942

# Major U.S. Foreign Policy Actions:<sup>85</sup>

- 15. Allied Intervention in Russia (1918-1919)
- 16. Washington Naval Conference (1921-1922)
- 17. Dawes Plan (1924)
- 18. Locarno Conference (1925)
- 19. Kellog-Briand Pact Outlawing War (1928)
- 20. Young Plan / BIS (1929)
- 21. Great Depression Begins (1929)
- 22. London Naval Conference (1930)
- 23. Stimson Doctrine (1932)
- 24. Roosevelt's Rejection of London Conference Agreement (1933)
- 25. Recognition of the USSR (1933)
- 26. Montevideo Conference (1933)
- 27. 1935 Neutrality Act
- 28. 1936 Neutrality Act

- 29. 1937 Neutrality Act (added Cash and Carry)
- 1939 Neutrality Act (Repeals Embargo on Arms Sales, Extends Cash and Carry)
- 31. 1940 Defense Appropriations
- 32. Destroyers for Bases (1940)
- 33. Lend-Lease (1940)
- 34. The Act of Havana (1940)
- 35. Good Neighbor Policy Expansion (1940)
- 36. Limited Embargo on Japan (1940)
- 37. Atlantic Charter (1941)
- Greer Incident, Convoy Protection and Repeal of the Neutrality Acts (1941)
- 39. Full Embargo of Japan (1941)
- 40. Attack on Pearl Harbor (U.S. in W.W. II 1941-1945)

<sup>&</sup>lt;sup>85</sup> Events taken from: Herring, George C. 2008. *From Colony to Superpower: U.S. Foreign Relations Since 1776.* New York: Oxford University Press.

Figure 3-B (Above) covers the period from 1917-1942. Overall, throughout the interwar period the model predicts that the U.S. will assume a Legalist Grand Strategy, and this prediction is consistent with most of the observed foreign policy actions and events during this period. However, there are two notable exceptions, the first is the group of Isolationist foreign policy actions spanning from 1933 to 1937, and the other is large cluster of Interventionist foreign policy actions beginning in 1940. The Isolationist events began with President Franklin Roosevelt rejecting the London Conference Agreement of 1933 and continued with the 1935-1937 Neutrality acts, before coming to an end with the passage of the 1939 Neutrality Act.

This period is interesting because, while the model predicts that the United States would adopt a more pro status quo foreign policy, it adopted an isolationist strategy instead. This adoption of an Isolationist Grand Strategy would cause the United States to avoid taking a leading role during this volatile period, something that the U.S. has been heavily criticized for, and a failure which may have help to contribute to the outbreak of World War II. <sup>86</sup> This failure may also explain the later cluster of unpredicted Interventionist actions in 1940 and 1941 as the United States attempts to reverse its Isolationist course at the last minute and prepare for the possibility of intervening in World War II. This interventionist shift defies the Model's expectations primarily because the U.S. had been left behind militarily by the other great powers, which made embarking on an Interventionist Policy far less likely. For example, in 1932, military expenditures in the United States amounted to 81% of the mean for military

<sup>&</sup>lt;sup>86</sup> See: Kennedy, Paul. 1989. *The Rise and Fall of the Great Powers: Economic Changes and Military Conflict from 1500 to 2000.* New York: Vintage Books. Kindle Edition. Loc.7160 - 7261

expenditures for great powers for that year, while by 1940 the United States spent only 21% of the mean for great powers for that year.<sup>87</sup>

Figure 3-C (Below) covers the twenty-five-year period from 1942 to 1967, and overall the Model 3 predictions follow very closely with the observed foreign policy actions for this period, with the clear majority of policy actions following the most likely predicted Grand Strategy Choice. The primary exceptions to this are the U.S. response to the Soviet-Turkish Crisis of 1946, and a series of Legalist actions taken in the middle east in the 1950's and 60's.

The Turkish Crisis of 1946 represents the end of post war cooperation between the U.S.A. and the U.S.S.R. and the beginning of the Cold War, while the legalist events in the 1950's and 60's represent efforts by the U.S. to either strengthen or mediate between governments in South America and the Middle East in an effort to avoid conflict and promote those states ability to resist communist influence without requiring direct U.S. military intervention.<sup>88</sup> Thus, while these events are primarily legalist in nature, they in no way conflict with an Interventionist Grand Strategy overall and instead represent another example of the U.S. employing a sub strategy different from the overall grand strategy the U.S. pursues. Statistically, this period represents the time frame in which the model was best able to predict U.S. Foreign policy actions, and this is not surprising as the model is primarily realist in nature and this period is the one in which U.S. politics most closely resembles the realist ideal.<sup>89</sup>

<sup>&</sup>lt;sup>87</sup> Data Derived from: Sarkees, Meredith Reid and Frank Wayman (2010). Resort to War: 1816 - 2007. Washington DC: CQ Press

<sup>&</sup>lt;sup>88</sup> Herring, George C. 2008. *From Colony to Superpower: U.S. Foreign Relations Since 1776.* New York: Oxford University Press. pp. 670-678.

<sup>&</sup>lt;sup>89</sup> Zelizer, Julian E.2009. Arsenal of Democracy: The Politics of National Security from World War II to the War on Terrorism. New York: Basic Books. Pg. 67-203



Figure 3-C Timeline of Important U.S. Foreign Policy Actions 1942-1967

### Major U.S. Foreign Policy Actions:<sup>90</sup>

- 41. Bretton Woods / World Bank / IMF (1944)
- 42. Yalta Conference (1945)
- 43. UN Charter Approved (1945)
- 44. Council of Foreign Ministers Meeting in Moscow (1945)
- 45. Soviet-Turkish Crisis (1946)
- 46. National Security Act of July 1947 (creates CIA)
- 47. Truman Doctrine / Military Aid to Greece and Turkey (1947)
- 48. Operation Rollback (1947)
- 49. The Rio Pact (1947)
- 50. The Marshall Plan (1948)
- 51. CIA intervention in Italian Elections (1948)
- 52. The Berlin Airlift (1948-1949)
- 53. The Treaty of Washington (Creates NATO, 1949)
- 54. Mutual Defense Assistance Act (1949)
- 55. Korean War (1950-1953)
- 56. Implementation of NSC 68 (1950)
- 57. Four Point Program (1950)
- 58. 'Campaign for Truth' begins (1950)

- 59. U.S.-Japan Mutual Security Treaty (1951)
- 60. New Look / NSC-162/2 (1953)
- 61. U.S.-South Korea Defense Treaty (1953)
- 62. Project Ajax (US/British led Iranian Coup, 1953)
- 63. South East Asia Treaty Organization (1954)
- 64. Nine Powers Conference (1954)
- 65. Baghdad Pact (1954)
- 66. Taiwan Straights Crisis / Formosa Resolution (1954-1955)
- 67. U.S.-Taiwan Mutual Defense Treaty (1955)
- 68. Suez Crisis (1956)
- Eisenhower Doctrine in Mideast with interventions in Jordan, Lebanon and Syria (1956-1958)
- 70. Bay of Pigs (1961)
- 71. Alliance for Progress (1961)
- 72. Cuban Missile Crisis (1962)
- 73. Tonkin Gulf Resolution / Vietnam War (1964)
- 74. US Mediation in Six Day War (1967)

<sup>&</sup>lt;sup>90</sup> Events taken from: Herring, George C. 2008. *From Colony to Superpower: U.S. Foreign Relations Since 1776.* New York: Oxford University Press.

Finally, Figure 3-D (below) covers the years between 1967 and the collapse of the Soviet Union in 1992. During this period, Model 3 predicts the United states will pursue a primarily Interventionist Grand Strategy with a Legalist Strategy being the next most likely outcome. Overall, these predictions were broadly consistent with the observed foreign policy actions. The major exception to this was the cluster of Legalist events spanning from 1968 through 1975 which collectively represent they policy of détente towards Russia and China and the attempts to limit nuclear weapons begun by President Johnson and continued under President Nixon. <sup>91</sup> This was a brief but significant shift in U.S. policy away from Interventionism and towards Legalism, which shows the limitations of the model's ability to capture non-rational influences like in this case the psychological backlash against Interventionism resulting from the U.S. experience in the Vietnam War.<sup>92</sup> However, over time these psychological stresses dissipate and in the wake of the Soviet invasion of Afghanistan, Carter returns the U.S. to the primarily Interventionist Grand Strategy predicted by the model.<sup>93</sup>

<sup>&</sup>lt;sup>91</sup> Herring, George C. 2008. *From Colony to Superpower: U.S. Foreign Relations Since* 1776. New York: Oxford University Press. pp. 760-765.

<sup>&</sup>lt;sup>92</sup> Zelizer, Julian E.2009. Arsenal of Democracy: The Politics of National Security from World War II to the War on Terrorism. New York: Basic Books. Pg. 237-272

<sup>&</sup>lt;sup>93</sup> Ibid at 850-855.


Figure 3-D Timeline of Important U.S. Foreign Policy Actions 1967-1992

## Major U.S. Foreign Policy Actions:<sup>94</sup>

- 75. Nuclear Non-Proliferation Treaty (1968)
- 76. U.S. Incursion into Cambodia (1970)
- 77. Termination of Gulf of Tonkin Resolution (1970)78. U.S. Undermining of Allende Government (1970-
- 1973)
- 79. Kissinger's Visit to Beijing (1971)
- 80. Four Power Agreement on Berlin (1971)
- 81. Nixon's Visit to China (1972)
- 82. Détente, Moscow Summit, ABM and SALT I Agreements (1972)
- U.S. Military Withdraws from South Vietnam (1973)
- 84. Yom Kippur War (1973)
- 85. Invasion of Koh Tang Island (1975)
- 86. Angola Civil War (1975)
- 87. Helsinki Summit (1975)
- 88. U.S. Support of Zaire (1977-1978)
- 89. Panama Canal Treaty (1978)
- 90. Normalization of U.S.-China Relations (1979)
- 91. Soviet Invasion of Afghanistan / U.S. aid to Afghan Rebels / Sanctions on USSR (1979)
- 92. 'Carter Doctrine' (1979)

- 93. Presidential Directive 59 (1980)
- 94. Failed Iran Hostage Rescue (1980)
- 95. 'Regan Doctrine' (1980)
- 96. US Sanctions Poland and USSR (1981)
- 97. Gulf of Sidra Incident (1981)
- 98. National Security Decision Directive 75 (1982)
- 99. CIA Operations in Support of Nicaraguan Contras (1982-1988)
- 100. U.S. Intervention in Lebanon (1982-84, 1986)
- 101. U.S. Invasion of Grenada (1983)
- 102. U.S. Military Aid to El Salvador (1984)
- 103. Massive Escalation of U.S. Aid to Afghan Rebels (1985-1989)
- 104. Iran-Contra Affair (1986)
- Reykjavik Summit on Strategic Arms Limitation (1986)
- 106. INF Treaty (1987)
- 107. Reunification of Germany (1990)
- 108. Operation Desert Storm (1991)
- 109. START Treaty (1991)
- 110. Soviet Union Collapses (1991)

<sup>&</sup>lt;sup>94</sup> Events taken from: Herring, George C. 2008. *From Colony to Superpower: U.S. Foreign Relations Since 1776.* New York: Oxford University Press.

Overall, looking the last hundred years of American foreign policy presented in this chapter, two things are clear: the first is that U.S. policy during this period is not formulated randomly and, that with some significant exceptions, it follows a rational and thus predictable approach. One based not only on relative power variables, but also structural variables and other societal influences. Furthermore, which set of factors; Rational, Relative, Structural, or Social, is driving policy will vary at any given time. We also see that for most of its recent history (with the prominent exception of the isolationist policies of the early 1930's), the United States has pursued a combination of Interventionist and Legalist Grand Strategies. This provides support for structurally limited rational models like Collen Dueck's "Strategic Culture"<sup>95</sup> and describes U.S. strategy formation during the majority of the time, when the U.S. is operating in a 'rational' policy mode. Understanding those periods where the U.S. deviates from rational policy formation will take significant future research and is beyond the scope of this paper.

<sup>&</sup>lt;sup>95</sup> Dueck, Colin. 2006. *Reluctant Crusaders: Power, Culture, and Change in American Grand Strategy*. Princeton: Princeton University Press, Kindle Edition, pp. 13-35

## Chapter 7 Overview of Remaining Model 3 Predictions:

This next chapter will provide a summary of the Model 3 predictions for Grand Strategy Choice for the remaining great powers in the data set in order of agreement between Model 3's predictions and the Observed Grand Strategy Choice Variable. Of these remaining powers, the nation whose grand strategy was most difficult for Model 3 to predict was Imperial Japan, with the model successfully predicting the observed strategy approximately 82.5% of the time, when compared to the Observed Grand Strategy Choice variable.<sup>96</sup> While the nation with the greatest agreement between Model 3's predictions and the Observed Grand Strategy was Nazi Germany with Model 3 successfully predicting Nazi Germany's Grand Strategy choice 100% of the time.

Model 3's predictions for Imperial Japan are plotted in Figure 4 (below) which covers the period during which Japan was a great power. Looking at Figure 4 we can see that from the time Imperial Japan assumes the status of a great power, until its destruction at the end of World War II, its grand strategy is torn between Isolationist and Revisionist tendencies, often alternating between the two. This conflict in strategic approach may have been the result of the continuing power struggle between the Japanese Foreign Ministry and Japanese Military for control of Imperial Japan's foreign policy.<sup>97</sup>

<sup>&</sup>lt;sup>96</sup> See Appendix Table A3 for complete list of Observed Grand Strategies and Model 3 Predictions

<sup>&</sup>lt;sup>97</sup> Nish, Ian. 1977. Japanese Foreign Policy, 1869-1942. London: Routledge and Kegan Paul.



Continuing on, Model 3 predicted 84% of the observed grand strategies for the next two great powers, Imperial Germany (Figure 5 below) and Austria Hungary (Figure 6 below); both of these powers came to an end after World War 1 although Nazi Germany (which was treated as a separate power due to the change in government) would briefly recapture great power status and is discussed later. Looking at the Model 3 predictions for Imperial Germany (Figure 5 below), we can see that the model predicts Imperial Germany will follow a revisionist grand strategy from the beginning of period covered by the data and extending until its demise at the end of World War 1, with the greatest probability of Imperial Germany following an alternate Legalist strategy occurring in 1917.





Moving on to the Model predictions for Austria-Hungary (Figure 6 above), we can see that Model 3 predicts that Austria Hungary will follow a predominantly Legalist Grand Strategy until 1914, the year Arch Duke Franz Ferdinand is assassinated, and then switch to an Interventionist Grand Strategy thereafter, which is broadly consistent with Austria-Hungary's view of their strategy during this period.<sup>98</sup> Keep in mind that while other powers viewed Austria-Hungary's invasion of Serbia as upsetting the status quo, from the Austria-Hungarian perspective, they were attempting to maintain the status quo in the Balkans.<sup>99</sup> Austria-Hungary is also interesting because while it was a monarchy it was also for much of its history the definition of a legalist state<sup>100</sup>, something which we tend to associate more with modern democracies than with monarchies.

<sup>&</sup>lt;sup>98</sup> See: Bridge, F.R. 1972. *From Sadowa to Sarajevo: The Foreign Policy of Austria-Hungary, 1866-1914.* London: Routledge. pp. 310-389

<sup>&</sup>lt;sup>99</sup> Ibid. pp. 380-389

<sup>&</sup>lt;sup>100</sup> Ibid.



Next is France (Figure 7 above ), with an 87.2% agreement between the Observed Grand Strategies and the Model 3 Predictions, we can see that except for a brief period at the beginning of the period covered by the sample, France was predicted to follow a predominantly Interventionist Grand Strategy and for the most part these predictions closely follow the Observed Grand Strategy of France during the covered period.<sup>101</sup> Although Model 3 slightly favors an Interventionist policy between 1892 to 1899, the observed policy of France was Revisionist throughout this period, only switching to Interventionist after a change in administration in 1899.<sup>102</sup> This indicates one of the constraints in relating the models predictions to real life, often even though the realities underlying a grand strategy may have changed

<sup>&</sup>lt;sup>101</sup> See: Nere, J. 1975. *The Foreign Policy of France from 1914 to 1945.* London: Routledge.

<sup>&</sup>lt;sup>102</sup> See: Mayeur, Jean-Marie and Madeleine Reberioux. 1984. *The Third Republic From its Origins to The Great War 1871-1914.* Cambridge: Cambridge University Press. and, Philippe Bernard and Henri Dubief. 1985. *The Decline of the Third Republic: 1914-1938.* Cambridge: Cambridge University Press.

(making a change likely), it often takes a change of administration for a new grand strategy to manifest.



Turning to the models predictions for the Soviet Union (given in Figure 8 above) we can see that for much of its history Soviet Russia consistently pursued a Revisionist Grand Strategy. Although Model 3 indicates that there may be some shift in strategy beginning as early as 1980 and becoming increasing likely throughout the decade. This comports well with the Observed Grand Strategies which have Soviet Russia shifting from a Revisionist to Legalist Strategy beginning in 1988 and even becoming Interventionist in 1991 right before the final collapse of the Soviet Union.<sup>103</sup> Finally, Model 3 also included some data for Imperial Russia, but there was too much missing data for the associated predictions to make a meaningful timeline.<sup>104</sup>



Figure 9 (above) gives the Model 3 predictions for the United Kingdom from the beginning of the period covered by the study and continuing until its loss of great power status towards the end of the 1940's. Throughout this period the model predicts that United Kingdom will follow an Interventionist Grand Strategy and this agrees perfectly with the Observed Grand Strategies, but with one exception: in 1937 the observed grand strategy was Legalist rather than Interventionist.<sup>105</sup> Taken together it is interesting to note that all three of democracies examined, especially Great Britain and France (both parliamentary democracies) heavily favored

<sup>&</sup>lt;sup>103</sup> See: Donaldson, Robert H., Joseph L. Nogee and Vidya Nadkarni. 2015. *The Foreign Policy of Russia: Changing Systems, Enduring Interests, 5<sup>th</sup>ed.* London: Routledge. Kindle Edition.

<sup>&</sup>lt;sup>104</sup> For the Model 3 predictions for which there was sufficient data, please see Table A3 in the appendix. In the case of Imperial Russia most of the missing data was economic.

<sup>&</sup>lt;sup>105</sup> See: Bartlett, C. J. 1989. *British Foreign Policy in the Twentieth Century*. London: Macmillian

Interventionist Grand Strategies, something borne out by both Model 3 and its associated Predictions.



Finally, the Observed Grand Strategy of the last Great Power examined in the data set, Nazi Germany, was perfectly predicted by Model 3. The Model 3 predictions for Nazi Germany are given in Table 10 (above). It is perhaps of no surprise that throughout its brief existence as a great power, Nazi Germany was predicted to follow a Revisionist Grand Strategy.<sup>106</sup> What is surprising is that Model 3 gives the probability that Nazi Germany will engage in a Revisionist Grand Strategy as nearly 100% as early as 1936 (three years before the invasion of Poland), and makes this prediction using data from 1935. This is a great example of the potential utility of a statistical model of Grand Strategy Choice not only because it could provide warning that a state is adopting a revisionist strategy in advance, but also because it can indicate that there were

<sup>&</sup>lt;sup>106</sup> Hildebrand, Klaus. 1989. *German Foreign Policy from Bismarck to Adenauer: The Limits of Statecraft*. Abindon: Routledge.

significant underlying structural and relative power factors which were pushing Germany towards adopting a Revisionist Grand Strategy.

This chapter provides the Model 3 predictions for the other great powers included in the study and in doing so demonstrates one of the primary advantages of this kind of quantitative research, namely the ability of a single model based on empirical data to be able to predict a great deal (although by no means all) of great power behavior, even though there are clear differences in the specific approaches adopted by each great power. Of particular interest to this study's overall goals is the success Model 3 has at predicting the revisionist behavior of Nazi Germany and other revisionist states.

## Chapter 8 Conclusion:

This research was intended as an initial step toward determining what role, if any, relative military and economic strength plays in grand strategy choice. More specifically it asks the question: do relative military and economic power determine strategy choice? To put it simply the answer to this question is yes, military and economic variables help determine grand strategy choice, but these are by no means the only variables which play a roll, as structural and other variables do so as well.

To answer this question this study used three statistical models, a multivariate logistic regression model (Model 1), a multivariate ordinary least squares model (Model 2) and a time series multinomial logit model (Model 3). The first hypothesis  $(H_1)$  was that as Relative Economic Power increases, countries will have a higher probability of choosing Pro Status Quo strategies (Interventionism and Legalism). This hypothesis was directly addressed by Model 1, which did not find any statistically significant link between Relative Economic Power (either in terms of Relative GDP or Relative Per Capita GDP) and whether a nation adopted a Pro or Anti Status Quo Grand Strategy the following year. However, Model 1 did find that Relative Military Expenditures Per Military Personnel had both a statistical and structurally significant effect on the odds of a nation adopting an Anti-Status Quo Grand Strategy the following year; with a one unit increase in Relative Military Expenditures per Military Personnel increasing the odds of pursuing an Anti-Status Quo Grand Strategy the following year by a factor of 11.9. Looking at the implications of this result for the other theories examined, the effect of Relative Military Expenditures per Personnel provides statistical evidence for the operation of some form of offense – defense balance and corresponding security dilemma, as proposed by Robert Jervis. In particular, Model 1 indicates a strong link between the way a great power's military is configured (with regard to high or low Expenditures per Personnel) and whether a power will pursue Pro or Anti Status Quo strategy the following year.<sup>107</sup>

Looking at the Model 1 implications for other related theories, a one unit increase in a Great Powers age corresponded to a 15% reduction in the odds of choosing an anti-status quo strategy the following year. This provides support for Organski and Kugler's conclusions in *The War Ledger*, as younger, rising powers were statistically and substantively more likely to implement Anti-status Quo Grand Strategies compared to older, more established great powers.<sup>108</sup> Finally, looking at Model 1's implications for democratic peace theory, the Model found that Parliamentary Democracies were 99.9 percent more likely to choose a pro status quo policy the following year than Monarchies, with all other factors being equal, while the evidence was less clear for Presidential Democracies. Still, this provides further statistical support for democratic peace Theory.<sup>109</sup>

Moving on to Model 2, my second hypothesis  $(H_2)$  was that as Relative Military Power increases, countries are more likely to choose High Risk strategies (namely Interventionism or Revisionism). This Hypothesis was directly tested by Model 2 which found that while the Relative Military Power variables (except for Relative Military Personnel) were statistically significant predictors of how much Risk of Major War a great power would assume the

<sup>&</sup>lt;sup>107</sup> Jervis, Robert. (1978). "Cooperation Under the Security Dilemma." *World Politics,* Vol.30, No.2 (January 1978). pp. 186-214

<sup>&</sup>lt;sup>108</sup> Organski, A.F.K. and Jacek Kugler. 1980. The War Ledger. Chicago: University of Chicago Press. Kindle Edition Loc. 3082.

<sup>&</sup>lt;sup>109</sup> Ray, James Lee. 1995. *Democracy and International Conflict: An Evaluation of the Democratic Peace Proposition.* Columbia: University of South Carolina Press.

following year; their effects were opposed. Model 2 found that increases in Relative Expenditures per Military Personnel corresponded to a greater Risk of Major War the following year, but increases in overall Relative Military Expenditures had the opposite effect, reducing the Risk of War. However, while the effects of the Relative Military Power Variables were somewhat ambiguous, the effects of the Relative Economic Power Variables were not. Both Relative Economic Power variables were statistically and substantively significant, and both linked increased Relative Economic Power to greater Risk of Major War the following year. This lead to the unexpected result that the most influential relative power variables in each model were switched from what the hypotheses predicted; with Relative Military Power influencing whether a nation will be Pro vs. Anti-Status quo and Relative Economic Power increasing the Risk of Major War a great power is prepared to accept.

Looking at Model 2's implications for other theories, starting with offensive Realism, we can see that the results are mixed. While the positive link between the Relative Economic Power variables and Risk of Major War support the theory, the negative relationship between increased Relative Military Expenditures and Risk argues against it. Far less ambiguous is Model 2's support for the effect of some sort of offense-defense balance operating in great power politics, with a clear link between higher Relative Expenditures per Military Personnel and an increased Risk of Major War the following year. Similarly, the positive relationship between increased economic power and increased Risk of Major War, provides strong support for Organski and Kugler's conclusion that hegemonic wars are likely to occur when a rising power overtakes the power of the dominant nation.<sup>110</sup> Finally, Model 2 provides strong substantive and statistically

<sup>&</sup>lt;sup>110</sup> Organski, A.F.K. and Jacek Kugler. 1980. The War Ledger. Chicago: University of Chicago Press. Kindle Edition at Loc. 3082.

significant support for democratic peace theory with both Presidential Democracies and Parliamentary Democracies being associated with reduced Risk of Major War.

Examining Model 3, we can see that the effect of Relative Military power on Grand Strategy Choice is very complex, with increases in either Relative Expenditures Per Personnel or Relative Number of Military Personnel increasing the odds that a great power will choose a non-Legalist Grand Strategy. This tendency is somewhat offset by the positive relationship between overall Relative Military Expenditures and pursuing a Legalist Grand Strategy. Furthermore, when these military variables come into conflict, the effect of the Relative Number Military Personnel is likely to dominate the other two, providing some additional evidence that force structure may have a significant impact on strategy choice, as one would expect from Jervis's offense-defense balance.<sup>111</sup>

Looking at the impact of the economic variables, we see that both show a positive relationship between greater economic strength and the adoption of a Revisionist Grand Strategy, providing some evidence for 'offensive realism' but one tempered by the positive relationship between increased Relative Military Expenditures and following a Legalist Grand Strategy the next year. On the other hand, the effects of the relative economic variables provide clear support for Organski and Kugler's theory that a rising power is more likely to adopt a Revisionist Grand Strategy. Furthermore, the type of economy within which one operates matters. For example, Mercantilist Economies have a very strong propensity for pursuing Revisionist Grand Strategies.

<sup>&</sup>lt;sup>111</sup> Jervis, Robert. 1978. "Cooperation Under the Security Dilemma." *World Politics,* Vol.30, No.2 (January 1978). pp. 186-214

Moving on to an examination of the political variables in Model 3, there is some significant support for the Democratic Peace Theory. With Presidential democracies strongly preferring Low Risk strategies (Isolationism and Legalism) when compared to Monarchies, and Parliamentary Democracies favoring Interventionist Grand Strategies over Legalist ones. Next, Dictatorship had the opposite effect, strongly favoring Revisionist Grand Strategies, when compared to Monarchies, all other factors being equal. Furthermore, as Polity 2 score increases we see an increasing preference for Legalist over Revisionist Grand Strategies.

Finally, we see that both Homeland Vulnerability and Nation Age had statistically and substantively significant effects, with both acting to increase the odds a great power will follow a Legalist Grand Strategy the following year. The link between Nation Age and Legalist Grand Strategies provides additional support for both Organski and Kugler's arguments about the role of younger powers in major wars. <sup>112</sup> While the effects of Homeland Vulnerability provides clear evidence for the existence of some form of Robert Jervis's 'Security Dilemma.'<sup>113</sup>

Examining the overall results of all of the models taken together, this study concludes that both relative military and relative economic power have significant effects on Grand Strategy Choice; however, they are far from the only variables which do so. Structural variables such as Government Type, Homeland Vulnerability, and others were also statistically significant predictors of strategy choice. In addition, the effects of relative military power in particular, were more nuanced than initially expected. Thus, Model 3 provides important evidence in favor of the

<sup>&</sup>lt;sup>112</sup> Organski, A.F.K. and Jacek Kugler. 1980. The War Ledger. Chicago: University of Chicago Press. Kindle Edition at Loc. 3082.

<sup>&</sup>lt;sup>113</sup> Jervis, Robert. 1978. "Cooperation Under the Security Dilemma." *World Politics,* Vol.30, No.2 (January 1978). pp. 186-214

hybrid theories of strategy formation such as those put forward by Trubowitz (2011), Dueck (2006), Narizny (2007) and others, while hopefully providing some clarity on the complex way realist and other factors interact. For example, in the case of the United States, detailed analysis of the data demonstrates that internal variables work primarily to limit the acceptable strategy choices, while specific strategies are then chosen from the acceptable options based on a country's strategic position at the time. This is in many ways similar to Dueck's "strategic culture" (2006), but with different underpinnings. This interaction is then further complicated during periods of great societal stress, during which policy may shift from the predicted approach for a period of time before snapping back to the predicted approach after several years. In addition, the three statistical models also provide some statistical evidence in support of democratic peace theory, Jervis' security dilemma (including the idea of offense - defense balance),<sup>114</sup> as well as Organski and Kugler's theory of great power conflict.<sup>115</sup>

With respect to future research, it may be time for us as a field to move beyond the realist vs. constructivist debate and into one focused on understanding when and where each of these factors have their greatest impact. There by beginning the process of translating all the work on grand strategy that researchers have spent years of effort accumulating into a comprehensive whole with the potential to have a real impact on the challenges we face. With respect to the future of this research, it will be important to find ways to expand both the number of countries represented in the data, and the time period covered, in order to improve the model's accuracy and generalizability. It is also critical to expand the model beyond Great Power states; of

<sup>&</sup>lt;sup>114</sup> Jervis, Robert. 1986. "From Balance to Concert: A Study of International Security Cooperation." *Cooperation Under Anarchy.* Eds. Kenneth Oye, New Jersey: Princeton University Press. pg. 78

<sup>&</sup>lt;sup>115</sup> Organski, A.F.K. and Jacek Kugler. 1980. The War Ledger. Chicago: University of Chicago Press. Kindle Edition

particular interest are second rank and regional powers due to the important role they play in many of today's most difficult international relations issues. It is also of utmost importance to find some way to capture the effects of societal stress in the model and to develop a theory to better explain its interaction with the overall rational model. Finally, future research should consider additional independent variables to better represent both the realist as well as the myriad constructivist models of grand strategy formation.

### **References:**

Bartlett, C. J. 1989. British Foreign Policy in the Twentieth Century. London: Macmillian

- Bernard, Philippe and Henri Dubief. 1985. *The Decline of the Third Republic: 1914-1938*. Cambridge: Cambridge University Press.
- Blanchard, Jean-Marc, Edward D. Mansfield and Norrin M. Ripsman. 2000. *Power and the Purse: Economic Statecraft, Interdependence and National Security.* London: Frank Cass.
- Bridge, F.R. 1972. From Sadowa to Sarajevo: The Foreign Policy of Austria-Hungary, 1866-1914. London: Routledge.
- Cohen, Eliot A. 1991. "Churchill and Coalition Strategy in World War II." Grand Strategies in War and Peace. Ed. Paul Kennedy. New Haven: Yale University Press. pp. 43-67.
- Copeland, Dale C. 2000. "Trade Expectations and the Outbreak of Peace: Détente 1970—74 and The End of The Cold War 1985—91." Power and the Purse: Economic Statecraft, Interdependence and National Security. Eds. Blanchard, Jean-Marc, Edward D. Mansfield and Norrin M. Ripsman. London: Frank Cass.
- Copeland, Dale C. 2012. "Economic Interdependence and the Grand Strategies of Germany and Japan, 1925-1941." *The Challenge of Grand Strategy*. Eds. Jeffrey W. Taliaferro, Norrin M. Ripsman and Steven E. Lobell. Cambridge: Cambridge University Press. pp. 120-146
- Cox, Michael and Doug Stokes. 2012. US Foreign Policy. Oxford: Oxford University Press. pp. 43-89.
- Donaldson, Robert H., Joseph L. Nogee and Vidya Nadkarni. 2015. *The Foreign Policy* of Russia: Changing Systems, Enduring Interests, 5<sup>th</sup>ed. London: Routledge. Kindle Edition.
- Dueck, Colin, 2006. *Reluctant Crusaders: Power, Culture, and Change in American Grand Strategy*. Princeton, Princeton University Press. pg. 10-11
- Earle, Edward Mead. 1973. *Makers of Modern Strategy: Military Thought from Machiavelli to Hitler*. Princeton: Princeton University Press. p. viii
- Elliott, J.H. 1991. "Managing Decline: Olivares and the Grand Strategy of Imperial Spain." *Grand Strategies in War and Peace*. Ed. Paul Kennedy. New Haven: Yale University Press. pp. 87-104.

- Ferrill, Arther. 1991. "The Grand Strategy of the Roman Empire." *Grand Strategies in War and Peace*. Ed. Paul Kennedy. New Haven: Yale University Press. pp. 71-85.
- Fox, John. 1991. *Regression Diagnostics*. Newbury Park: Sage Publications. Kindle Edition, Loc. 163
- Gilpin, Robert. 1975 U.S. Power and The Multinational Corporation: The Political Economy of Foreign Direct Investment. New York: Basic Books, Inc.
- Gourevitch, Peter. 1978. "The Second Image Reversed: The International Sources of Domestic Politics." *International Organization*. Vol. 32, No. 4 (Autumn, 1978), pp.881-912.
- Hart, Basil Henry Liddell. 1974. Strategy, 2<sup>nd</sup> rev. ed. New York: Plume.
- Haas, Mark L. 2012. "Soviet Grand Strategy in the Interwar Years, Ideology as Realpolitik." *The Challenge of Grand Strategy*. Eds. Jeffrey W. Taliaferro, Norrin M. Ripsman and Steven E. Lobell. Cambridge: Cambridge University Press. pp. 278-307.
- Hattendorf, John B. 1991. "Alliance Encirclement and Attrition: British Grand Strategy in the War of Spanish Succession, 1702-1713." *Grand Strategies in War and Peace*. Ed. Paul Kennedy. New Haven: Yale University Press. pp. 11-29.
- Herring, George C. 2008. From Colony to Superpower: U.S. Foreign Relations Since 1776. New York: Oxford University Press.
- Hildebrand, Klaus. 1989. German Foreign Policy from Bismarck to Adenauer: The Limits of Statecraft. Abindon: Routledge.
- Howard, Michael. 1991 "British Grand Strategy in World War I." *Grand Strategies in War and Peace*. Ed. Paul Kennedy. New Haven: Yale University Press. pp. 31-41.
- Ikenberry, John G. 2011. "The Future of the Liberal World Order." *Foreign Affairs. Vol.* 90, No. 3 (May/June 2011), pp. 56-68
- Jackson, Peter. 2012. "Deterrence, Coercion, and Enmeshment: French Grand Strategy and the German Problem after World War I." *The Challenge of Grand Strategy*. Eds. Jeffrey W. Taliaferro, Norrin M. Ripsman and Steven E. Lobell. Cambridge: Cambridge University Press. pp. 37-64.
- Jervis, Robert. 1978. "Cooperation Under the Security Dilemma." *World Politics*, Vol.30, No.2 (January 1978). pp. 186-214

- Jervis, Robert. 1986. "From Balance to Concert: A Study of International Security Cooperation." Cooperation Under Anarchy. Eds. Kenneth Oye, New Jersey: Princeton University Press. pg. 78
- Kawasaki, Tsuyoshi. 2012. "The Rising Sun Was No Jackal: Japanese Grand Strategy, the Tripartite Pact and Alliance Formation Theory." *The Challenge of Grand Strategy*. Eds. Jeffrey W. Taliaferro, Norrin M. Ripsman and Steven E. Lobell. Cambridge: Cambridge University Press. pp. 224-245.
- Kennedy, Paul. 1989. The Rise and Fall of the Great Powers: Economic Changes and Military Conflict from 1500 to 2000. New York: Vintage Books.
- Kennedy, Paul. 1991. Grand Strategies in War and Peace. New Haven: Yale.
- Krasner, Stephen D. 1976. "State Power and the Structure of International Trade." World Politics, Vol.28, No.3 (April 1976), pg. 317-247
- Katznelson, Ira and Martin Shefter. 2002, *Shaped by War and Trade: International* Influences on American Political Development. Princeton: Princeton University Press.
- Lobell, Steven E. 2005. *The Challenge of Hegemony: grand strategy, trade, and domestic politics*. Ann Arbor: University of Michigan Press. pp. 1–2.
- Lobell, Steven E. 2012. "Britain's Grand Strategy during the 1930's From Balance of Power to Components of Power." *The Challenge of Grand Strategy*. Eds. Jeffrey W. Taliaferro, Norrin M. Ripsman and Steven E. Lobell. Cambridge: Cambridge University Press. pp. 147-170.
- Mayeur, Jean-Marie and Madeleine Reberioux. 1984. *The Third Republic From its* Origins to The Great War 1871-1914. Cambridge: Cambridge University Press
- Mearsheimer, John J. (2003). *The Tragedy of Great Power Politics*. NewYork: W.W. Norton and Company. Kindle Edition location 177.
- Murry, Williamson, Richard Hart Sinnreich, and James Lacy. 2011. *The Shaping of Grand Strategy: Policy, Diplomacy and, War.* Cambridge: Cambridge University Press.
- Narizny, Kevin. 2007. *The Political Economy of Grand Strategy*. Ithaca: Cornell University Press. pp. 16-30.
- Nere, J. 1975. The Foreign Policy of France from 1914 to 1945. London: Routledge.
- Nish, Ian. 1977. *Japanese Foreign Policy*, 1869-1942. London: Routledge and Kegan Paul.

- North, Douglass C. 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge MA: Cambridge University Press.
- Oye, Kenneth. A. 1986. *Cooperation Under Anarchy*. New Jersey: Princeton University Press.
- Organski, A.F.K. and Jacek Kugler. 1980. The War Ledger. Chicago: University of Chicago Press. Pg. 21
- Ray, James Lee. 1995. *Democracy and International Conflict: An Evaluation of the Democratic Peace Proposition*. Columbia: University of South Carolina Press.
- Ripsman, Norrin M. and Jack S. Levy. 2012 "British Grand Strategy and the Rise of Germany, 1933-1936." *The Challenge of Grand Strategy*. Eds. Jeffrey W. Taliaferro, Norrin M. Ripsman and Steven E. Lobell. Cambridge: Cambridge University Press. pp. 171-192.
- Rice, Condoleezza. 1991. "The Evolution of Soviet Grand Strategy." *Grand Strategies in War and Peace*. Ed. Paul Kennedy. New Haven: Yale University Press. pp. 145-164.
- Sarkees, Meredith Reid and Frank Wayman (2010). Resort to War: 1816 2007. Washington DC: CQ Press
- Shefter, Martin. 2002. "War, Trade, and U.S. Party Politics" Shaped by War and Trade: International Influences on American Political Development. Eds. Katznelson, Ira and Martin Shefter. Princeton: Princeton University Press. pp. 113.
- Showalter, Dennis E. 1991. "Total War for Limited Objectives: An Interpretation of German Grand Strategy." Grand Strategies in War and Peace. Ed. Paul Kennedy. New Haven: Yale University Press. pp. 105-123.
- Trubowitz, Peter. 2011. *Politics and Strategy: Partisan Ambition and American Statecraft.* Princeton: Princeton University Press. Kindle Edition Location 758-775.
- Walt, Stephen M. 1990. *The Origins of Alliances*. Kindle Edition. Ithaca: Cornell University Press. Kindle Edition, Location 531-805.
- Waltz, Kenneth N. 2010. Theory of International Politics. Long Grove: Waveland Press.
- Zelizer, Julian E.2009. Arsenal of Democracy: The Politics of National Security from World War II to the War on Terrorism. New York: Basic Books.

# Appendix:

- Statistically Significant Model 3 Results Given in table A1 (below).
- Complete Model 3 results given in table A2a A2b (below).
- Complete List of Observed Grand Strategies and Model 3 Predictions given in Table A3 (below).

	<u>Coefficient</u>	Z Score	$\mathbf{P} >  \mathbf{z} $	<u>% Change</u>
Rel. Expend. Per Personnel				
Legalist vs. Interventionist	-1.97	-2.095	0.036	-86.1
Legalist vs. Revisionist	-3.48	-3.697	0.000	-96.9
Interventionist vs. Legalist	1.97	2.095	0.036	619.1
Revisionist vs. Legalist	3.48	3.696	0.000	3149.9
<b>Relative Military Personnel</b>				
Legalist vs. Isolationist	-8.77	-3.111	0.002	-100.0
Legalist vs. Interventionist	-3.80	-2.433	0.015	-97.8
Legalist vs. Revisionist	-4.92	-3.145	0.002	-99.3
Isolationist vs. Legalist	8.77	3.111	0.002	643467.1
Interventionist vs. Legalist	3.80	2.433	0.015	4369.4
Revisionist vs. Legalist	4.92	3.061	0.002	13488.7
Relative Military Expenditure				
Legalist vs. Interventionist	2.62	2.541	0.011	1274.4
Legalist vs. Revisionist	1.75	1.695	0.090	474.5
Interventionist vs. Legalist	-2.62	-2.541	0.011	-92.7
Revisionist vs. Legalist	-1.75	-1.839	0.066	-82.6
Homeland Vulnerability				
Legalist vs. Isolationist	10.57	2.779	0.005	3.9x10^6
Legalist vs. Revisionist	3.52	3.639	0.000	3281.3
Isolationist vs. Legalist	-10.57	-2.779	0.005	-100.0
Isolationist vs. Interventionist	10.47	-3.224	0.001	-100.0
Isolationist vs Revisionist	-7.05	-2.171	0.030	-99.9
Interventionist vs. Isolationist	10.47	3.224	0.001	3.5x10^6
Revisionist vs. Legalist	-3.52	-3.703	0.000	-97.0
Revisionist vs. Isolationist	7.05	2.183	0.029	115436.3
Revisionist vs. Interventionist	-3.42	-5.938	0.000	-96.7

 Table A1: Model 3; Statistically Significant Effects of Tested Variables on Grand

 Strategy Choice the Following Year

	<b>Coefficient</b>	Z Score	$\mathbf{P} >  \mathbf{z} $	<u>% Change</u>
<b>Relative GDP</b>				
Legalist vs. Revisionist	-4.25	-4.801	0.000	-98.6
<b>Relative GDP Per Capita</b>				
Revisionist vs. Isolationist	5.87	2.097	0.036	35313.8
Primarily Marxist Economy				
Legalist vs. Revisionist	9.23	2.389	0.017	1.0x10^6
Revisionist vs. Legalist	-9.21	-1.799	0.072	-100.0
Primarily Mercantilist Economy				
Legalist vs. Interventionist	1.62	1.890	0.059	404.8
Legalist vs. Revisionist	-10.78	-12.579	0.000	-100.0
Interventionist vs. Legalist	-1.62	-1.890	0.059	-80.2
<b>Presidential Democracy</b>				
Legalist vs. Isolationist	-45.47	-3.808	0.000	-100
Legalist vs. Revisionist	12.49	4.327	0.000	2.7x10^7
Isolationist vs. Legalist	45.47	3.808	0.000	5.6x10^21
Isolationist vs. Interventionist	43.46	3.381	0.001	7.5x10^20
Isolationist vs Revisionist	57.96	4.509	0.000	1.5x10^27
Interventionist vs. Isolationist	-43.46	-3.381	0.001	-100.0
Revisionist vs. Isolationist	-57.96	-5.838	0.000	-100.0
Parliamentary Democracy				
Legalist vs. Interventionist	-5.31	-4.408	0.000	-99.5
Interventionist vs. Legalist	5.31	4.408	0.000	20139.7
Dictatorship				
Legalist vs. Revisionist	-10.68	-7.004	0.000	-100.0
Revisionist vs. Legalist	10.68	2.576	0.010	4.4x10^6
Revisionist vs. Interventionist	9.01	2.182	0.029	819109.0
Polity 2 Score				
Legalist vs. Revisionist	0.32	2.359	0.018	38.3

	<u>Coefficient</u>	Z Score	$\mathbf{P} >  \mathbf{z} $	<u>% Change</u>
Nation Age				
Legalist vs. Isolationist	0.2162	1.952	0.051	24.1
Legalist vs. Revisionist	0.09	7.634	0.000	9.3
Isolationist vs. Legalist	-0.22	-1.95	0.051	-19.4
Isolationist vs. Interventionist	-0.22	-2.073	0.038	-19.9
Interventionist vs. Isolationist	0.22	2.073	0.038	24.8
Revisionist vs. Isolationist	0.13	1.956	0.050	13.6
Number of Observations	366			
Pseudo R-squared	0.6789			
Pseudo Log Likelihood	-145.63			

#### Notes:

\*Base Government Type was Monarchy, \*\*Base Economic System was Liberal

#### Data derived from:

Sarkees, Meredith Reid and Frank Wayman (2010). Resort to War: 1816 - 2007. Washington DC: CQ Press,

Maddison, Angus (2006) *The World Economy: Volume 1: A Millennial Perspective and Volume 2 Historical Statistics.* OECD Development Centre,

Polity Project: http://www.systemicpeace.org/inscrdata.html

	<u>Coefficient</u>	Z Score	$\mathbf{P} >  \mathbf{z} $	<u>% Change</u>
Rel. Expend. Per Personnel				
Legalist vs. Isolationist	-1.28	-0.465	0.642	-72.2
Legalist vs. Interventionist	-1.97	-2.095	0.036	-86.1
Legalist vs. Revisionist	-3.48	-3.697	0.000	-96.9
Isolationist vs. Legalist	1.28	0.465	0.642	260.3
Isolationist vs. Interventionist	-0.69	-0.292	0.770	-49.9
Isolationist vs Revisionist	-2.20	-0.930	0.352	-88.9
Interventionist vs. Legalist	1.97	2.095	0.036	619.1
Interventionist vs. Isolationist	0.69	0.292	0.770	99.6
Revisionist vs. Legalist	3.48	3.696	0.000	3149.9
Revisionist vs. Isolationist	2.20	0.613	0.540	802.0
Revisionist vs. Interventionist	1.51 0.900		0.368	352.0
<b>Relative Military Personnel</b>				
Legalist vs. Isolationist	-8.77	-3.111	0.002	-100.0
Legalist vs. Interventionist	-3.80	-2.433	0.015	-97.8
Legalist vs. Revisionist	-4.92	-3.145	0.002	-99.3
Isolationist vs. Legalist	8.77	3.111	0.002	643467.1
Isolationist vs. Interventionist	4.97	1.418	0.156	14299.5
Isolationist vs Revisionist	3.86	1.101	0.271	4636.1
Interventionist vs. Legalist	3.80	2.433	0.015	4369.4
Interventionist vs. Isolationist	-4.97	-1.418	0.156	-99.3
Revisionist vs. Legalist	4.92	3.061	0.002	13488.7
Revisionist vs. Isolationist	-3.86	-1.448	0.148	-97.9
Revisionist vs. Interventionist	1.11	0.543	0.587	204.0
<b>Relative Military Expenditure</b>				
Legalist vs. Isolationist	0.50	0.262	0.793	64.7
Legalist vs. Interventionist	2.62	2.541	0.011	1274.4
Legalist vs. Revisionist	1.75	1.695	0.090	474.5

 Table A2a: Model 3a; Effect of Relative Military Power on Grand Strategy

 Choice the Following Year

Isolationist vs. Legalist	-0.50	-0.262	0.793	-39.3
Isolationist vs. Interventionist	2.12	1.118	0.263	734.4
Isolationist vs Revisionist	1.25	0.659	0.510	248.8
Interventionist vs. Legalist	-2.62	-2.541	0.011	-92.7
Interventionist vs. Isolationist	-2.12	-1.118	0.263	-88.0
Revisionist vs. Legalist	-1.75	-1.839	0.066	-82.6
Revisionist vs. Isolationist	-1.25	-0.651	0.515	-71.3
Revisionist vs. Interventionist	0.87	0.678	0.498	139.2
Homeland Vulnerability				
Legalist vs. Isolationist	10.57	2.779	0.005	3.9x10^6
Legalist vs. Interventionist	0.10	0.102	0.919	10.4
Legalist vs. Revisionist	3.52	3.639	0.000	3281.3
Isolationist vs. Legalist	-10.57	-2.779	0.005	-100.0
Isolationist vs. Interventionist	10.47	-3.224	0.001	-100.0
Isolationist vs Revisionist	-7.05	-2.171	0.030	-99.9
Interventionist vs. Legalist	-0.10	-0.102	0.919	-9.4
Interventionist vs. Isolationist	10.47	3.224	0.001	3.5x10^6
Revisionist vs. Legalist	-3.52	-3.703	0.000	-97.0
Revisionist vs. Isolationist	7.05	2.183	0.029	115436.3
Revisionist vs. Interventionist	-3.42	-5.938	0.000	-96.7
Number of Observations	366			
Pseudo R-squared	0.6789			
Pseudo Log Likelihood	-145.63			

	<u>Coefficient</u>	Z Score	$\mathbf{P} >  \mathbf{z} $	<u>% Change</u>
<b>Relative GDP</b>				
Legalist vs. Isolationist	11.45	0.786	0.432	9.4x10^6
Legalist vs. Interventionist	0.98	1.107	0.268	166.4
Legalist vs. Revisionist	-4.25	-4.801	0.000	-98.6
Isolationist vs. Legalist	-11.45	-0.786	0.432	-100.0
Isolationist vs. Interventionist	-10.47	-0.688	0.491	-100.0
Isolationist vs Revisionist	-15.70	-1.032	0.302	-100.0
Interventionist vs. Legalist	-0.98	-1.107	0.268	-62.5
Interventionist vs. Isolationist	10.47	0.688	0.491	3.5x10^6
Revisionist vs. Legalist	4.25	1.005	0.315	6919.2 6.6x10^8
Revisionist vs. Isolationist	15.70	1.279	0.201	
Revisionist vs. Interventionist	5.23 1.042		0.297	18597.9
<b>Relative GDP Per Capita</b>				
Legalist vs. Isolationist	7.12	0.943	0.346	124066.0
Legalist vs. Interventionist	1.20	0.263	0.792	232.0
Legalist vs. Revisionist	1.25	0.275	0.783	250.6
Isolationist vs. Legalist	-7.12	-0.943	0.346	-99.9
Isolationist vs. Interventionist	-5.92	-1.44	0.150	-99.7
Isolationist vs Revisionist	-5.87	-1.43	0.154	-99.7
Interventionist vs. Legalist	-1.20	-0.263	0.792	-69.9
Interventionist vs. Isolationist	5.92	1.441	0.150	37303.7
Revisionist vs. Legalist	-1.25	-0.199	0.842	-71.5
Revisionist vs. Isolationist	5.87	2.097	0.036	35313.8
Revisionist vs. Interventionist	-0.05	-0.019	0.985	-5.3
Primarily Marxist Economy				
Legalist vs. Isolationist	20.95	0.978	0.328	1.2x10^11
Legalist vs. Interventionist	4.49	1.164	0.244	8815.1
Legalist vs. Revisionist	9.23	2.389	0.017	1.0x10^6

 Table A2b: Model 3b; Effect of Relative Economic Power on Grand Strategy

 Choice the Following Year

Isolationist vs. Legalist	-20.94	-0.978	0.328	-100.0
Isolationist vs. Interventionist	-16.45	-0.878	0.380	-100.0
Isolationist vs Revisionist	-11.73	-0.626	0.531	-100.0
Interventionist vs. Legalist	-4.49	-1.164	0.244	-98.9
Interventionist vs. Isolationist	16.45	0.878	0.380	1.4x10^9
Revisionist vs. Legalist	-9.21	-1.799	0.072	-100.0
Revisionist vs. Isolationist	11.73	0.508	0.612	1.2x10^7
Revisionist vs. Interventionist	-4.72	-0.645	0.519	-99.1
Primarily Mercantilist Economy				
Legalist vs. Isolationist	-13.57	-0.915	0.360	-100.0
Legalist vs. Interventionist	1.62	1.890	0.059	404.8
Legalist vs. Revisionist	-10.78	-12.579	0.000	-100.0
Isolationist vs. Legalist	13.57	0.915	0.360	7.8x10^7
Isolationist vs. Interventionist	15.19	1.057	0.290	3.9x10^8
Isolationist vs Revisionist	2.79	0.194	0.846	1530.0
Interventionist vs. Legalist	-1.62	-1.890	0.059	-80.2
Interventionist vs. Isolationist	-15.19	-1.057	0.290	-100.0
Revisionist vs. Legalist	10.78	1.211	0.226	4.8x10^6
Revisionist vs. Isolationist	-2.80	-0.143	0.887	-93.9
Revisionist vs. Interventionist	12.40	1.318	0.188	2.4x10^7
Number of Observations	366			
Pseudo R-squared	0.6789			
Pseudo Log Likelihood	-145.63			

	<u>Coefficient</u>	Z Score	$\mathbf{P} >  \mathbf{z} $	<u>% Change</u>
<b>Presidential Democracy</b>				
Legalist vs. Isolationist	-45.47	-3.808	0.000	-100
Legalist vs. Interventionist	-2.01	-0.695	0.487	-86.6
Legalist vs. Revisionist	12.49	4.327	0.000	2.7x10^7
Isolationist vs. Legalist	45.47	3.808	0.000	5.6x10^21
Isolationist vs. Interventionist	43.46	3.381	0.001	7.5x10^20
Isolationist vs Revisionist	57.96	4.509	0.000	1.5x10^27
Interventionist vs. Legalist	2.01	0.695	0.487	644.3
Interventionist vs. Isolationist	-43.46	-3.381	0.001	-100.0
Revisionist vs. Legalist	-12.49	-1.599	0.110	-100.0
Revisionist vs. Isolationist	-57.96	-5.838	0.000	-100.0
Revisionist vs. Interventionist	-14.50 -1.601		0.109	-100.0
Parliamentary Democracy				
Legalist vs. Isolationist	1.68	0.081	0.935	436.9
Legalist vs. Interventionist	-5.31	-4.408	0.000	-99.5
Legalist vs. Revisionist	-0.79	-0.653	0.514	-54.5
Isolationist vs. Legalist	-1.68	-0.081	0.935	-81.4
Isolationist vs. Interventionist	-6.99	-0.333	0.739	-99.9
Isolationist vs Revisionist	-2.47	-0.117	0.907	-91.5
Interventionist vs. Legalist	5.31	4.408	0.000	20139.7
Interventionist vs. Isolationist	6.99	0.333	0.739	108568.9
Revisionist vs. Legalist	0.79	0.228	0.820	119.6
Revisionist vs. Isolationist	2.47	0.133	0.895	1078.9
Revisionist vs. Interventionist	-4.52	-1.177	0.239	-98.9
Dictatorship				
Legalist vs. Isolationist	22.56	0.892	0.372	6.3x10^11
Legalist vs. Interventionist	-1.67	-1.097	0.272	-81.2
Legalist vs. Revisionist	-10.68	-7.004	0.000	-100.0

**Table A2c:** Model 3c; Effect of Government Variables on Grand Strategy Choice the Following Year

Isolationist vs. Legalist	-22.56	-0.892	0.372	-100.0
Isolationist vs. Interventionist	-24.23	-0.968	0.333	-100.0
Isolationist vs Revisionist	-33.24	-1.328	0.184	-100.0
Interventionist vs. Legalist	1.67	1.097	0.272	433.3
Interventionist vs. Isolationist	24.23	0.968	0.333	3.3x10^12
Revisionist vs. Legalist	10.68	2.576	0.010	4.4x10^6
Revisionist vs. Isolationist	33.24	1.397	0.163	2.7x10^16
Revisionist vs. Interventionist	9.01	2.182	0.029	819109.0
Polity 2 Score				
Legalist vs. Isolationist	2.13	0.887	0.375	743.4
Legalist vs. Interventionist	0.03	0.202	0.840	2.8
Legalist vs. Revisionist	0.32	2.359	0.018	38.3
Isolationist vs. Legalist	-2.13	-0.887	0.375	-88.1
Isolationist vs. Interventionist	-2.10	-0.874	0.382	-87.8
Isolationist vs Revisionist	-1.81	-0.751	0.453	-83.6
Interventionist vs. Legalist	-0.03	-0.202	0.840	-2.7
Interventionist vs. Isolationist	2.10	0.874	0.382	720.3
Revisionist vs. Legalist	-0.32	-0.687	0.492	-27.7
Revisionist vs. Isolationist	1.81	0.848	0.397	510.0
Revisionist vs. Interventionist	-0.30	-0.604	0.546	-25.6
Number of Observations	366			
Pseudo R-squared	0.6789			
Pseudo Log Likelihood	-145.63			

	<u>Coefficient</u>	Z Score	$\mathbf{P} >  \mathbf{z} $	<u>% Change</u>
Nation Age				
Legalist vs. Isolationist	0.2162	1.952	0.051	24.1
Legalist vs. Interventionist	-0.01	-0.476	0.634	-0.6
Legalist vs. Revisionist	0.09	7.634	0.000	9.3
Isolationist vs. Legalist	-0.22	-1.95	0.051	-19.4
Isolationist vs. Interventionist	-0.22	-2.073	0.038	-19.9
Isolationist vs Revisionist	-0.13	-1.189	0.235	-11.9
Interventionist vs. Legalist	0.01	0.476	0.634	0.6
Interventionist vs. Isolationist	0.22	2.073	0.038	24.8
Revisionist vs. Legalist	-0.09	-1.155	0.248	-8.5
Revisionist vs. Isolationist	0.13	1.956	0.050	13.6
Revisionist vs. Interventionist	-0.09	-1.277	0.202	-9.0
Years Since Last Major War				
Legalist vs. Isolationist	-0.05	-0.494	-0.494 0.621	-4.7
Legalist vs. Interventionist	0.01	0.274	0.784	0.9
Legalist vs. Revisionist	-0.03	-0.845	0.398	-2.6
Isolationist vs. Legalist	0.05	0.494	0.621	4.9
Isolationist vs. Interventionist	0.06	0.725	0.469	5.8
Isolationist vs Revisionist	0.02	0.275	0.784	2.2
Interventionist vs. Legalist	-0.01	-0.274	0.784	-0.9
Interventionist vs. Isolationist	-0.06	-0.725	0.469	-5.5
Revisionist vs. Legalist	0.03	1.325	0.185	2.7
Revisionist vs. Isolationist	-0.02	-0.220	0.826	-2.1
Revisionist vs. Interventionist	0.03	0.791	0.429	3.6
Number of Observations	366			
Pseudo R-squared	0.6789			
Pseudo Log Likelihood	-145.63			

 Table A2d: Model 3d; Effect of Other Variables on Grand Strategy Choice the Following Year

State				Model 3 Predicted
Abb.	Year	Administration	<b>Observed Grand Strategy</b>	Strategy
AUH	1892	Francis Joseph I	Legalist	
AUH	1893	Francis Joseph I	Legalist	Legalist
AUH	1894	Francis Joseph I	Legalist	Legalist
AUH	1895	Francis Joseph I	Legalist	Legalist
AUH	1896	Francis Joseph I	Legalist	Legalist
AUH	1897	Francis Joseph I	Legalist	Legalist
AUH	1898	Francis Joseph I	Legalist	Legalist
AUH	1899	Francis Joseph I	Legalist	Legalist
AUH	1900	Francis Joseph I	Legalist	Legalist
AUH	1901	Francis Joseph I	Legalist	Legalist
AUH	1902	Francis Joseph I	Legalist	Legalist
AUH	1903	Francis Joseph I	Legalist	Legalist
AUH	1904	Francis Joseph I	Legalist	Legalist
AUH	1905	Francis Joseph I	Legalist	Legalist
AUH	1906	Francis Joseph I	Legalist	Legalist
AUH	1907	Francis Joseph I	Legalist	Legalist
AUH	1908	Francis Joseph I	Revisionist	Legalist
AUH	1909	Francis Joseph I	Isolationist	Legalist
AUH	1910	Francis Joseph I	Legalist	Legalist
AUH	1911	Francis Joseph I	Legalist	Legalist
AUH	1912	Francis Joseph I	Legalist	Legalist
AUH	1913	Francis Joseph I	Interventionist	Legalist
AUH	1914	Francis Joseph I	Interventionist	Legalist
AUH	1915	Francis Joseph I	Interventionist	
AUH	1916	Francis Joseph I	Interventionist	Interventionist
AUH	1917	Charles I	Interventionist	Interventionist
AUH	1918	Charles I	Interventionist	Interventionist
FRN	1892	Marie Francois Sadi Carnot	Interventionist	
FRN	1893	Marie Francois Sadi Carnot	Interventionist	Revisionist
FRN	1894	Jean Casimir-Perier	Interventionist	
FRN	1895	Felix Faure	Revisionist	Revisionist
FRN	1896	Felix Faure	Revisionist	Interventionist
FRN	1897	Felix Faure	Revisionist	Interventionist
FRN	1898	Felix Faure	Revisionist	Interventionist
FRN	1899	Emile Loubet	Revisionist	Interventionist
FRN	1900	Emile Loubet	Interventionist	Interventionist
FRN	1901	Emile Loubet	Interventionist	Interventionist
FRN	1902	Emile Loubet	Interventionist	Interventionist
FRN	1903	Emile Loubet	Interventionist	Interventionist

## Table A3

FRN	1904	Emile Loubet	Interventionist	Interventionist
FRN	1905	Emile Loubet	Interventionist	Interventionist
FRN	1906	Armand Filieres	Interventionist	Interventionist
FRN	1907	Armand Filieres	Interventionist	Interventionist
FRN	1908	Armand Fllieres	Interventionist	Interventionist
FRN	1909	Armand Fllieres	Interventionist	Interventionist
FRN	1910	Armand Fllieres	Interventionist	Interventionist
FRN	1911	Armand Fllieres	Interventionist	Interventionist
FRN	1912	Armand Fllieres	Interventionist	Interventionist
FRN	1913	Raymond Poincare	Interventionist	Interventionist
FRN	1914	Raymond Poincare	Interventionist	Interventionist
FRN	1915	Raymond Poincare	Interventionist	Interventionist
FRN	1916	Raymond Poincare	Interventionist	Interventionist
FRN	1917	Raymond Poincare	Interventionist	Interventionist
FRN	1918	Raymond Poincare	Interventionist	Interventionist
FRN	1919	Raymond Poincare	Revisionist	Interventionist
FRN	1920	Paul Deschanel	Interventionist	Interventionist
FRN	1921	Alexandre Millerand	Interventionist	Interventionist
FRN	1922	Alexandre Millerand	Interventionist	Interventionist
FRN	1923	Alexandre Millerand	Interventionist	Interventionist
FRN	1924	Gaston Doumergue	Interventionist	Interventionist
FRN	1925	Gaston Doumergue	Interventionist	Interventionist
FRN	1926	Gaston Doumergue	Interventionist	Interventionist
FRN	1927	Gaston Doumergue	Interventionist	Interventionist
FRN	1928	Gaston Doumergue	Interventionist	Interventionist
FRN	1929	Gaston Doumergue	Interventionist	Interventionist
FRN	1930	Gaston Doumergue	Interventionist	Interventionist
FRN	1931	Paul Doumer	Interventionist	Interventionist
FRN	1932	Albert Lebrun	Interventionist	Interventionist
FRN	1933	Albert Lebrun	Interventionist	Interventionist
FRN	1934	Albert Lebrun	Interventionist	Interventionist
FRN	1935	Albert Lebrun	Interventionist	Interventionist
FRN	1936	Albert Lebrun	Interventionist	Interventionist
FRN	1937	Albert Lebrun	Interventionist	Interventionist
FRN	1938	Albert Lebrun	Interventionist	Interventionist
FRN	1939	Albert Lebrun	Interventionist	Interventionist
FRN	1940	Albert Lebrun	Interventionist	Interventionist
GMY(I)	1892	Wilhelm II	Legalist	
GMY(I)	1893	Wilhelm II	Legalist	Revisionist
GMY(I)	1894	Wilhelm II	Legalist	Revisionist
GMY(I)	1895	Wilhelm II	Legalist	Revisionist
GMY(I)	1896	Wilhelm II	Legalist	Revisionist
GMY(I)	1897	Wilhelm II	Revisionist	Revisionist

GMY(I)	1898	Wilhelm II	Revisionist	Revisionist
GMY(I)	1899	Wilhelm II	Revisionist	Revisionist
GMY(I)	1900	Wilhelm II	Revisionist	Revisionist
GMY(I)	1901	Wilhelm II	Revisionist	Revisionist
GMY(I)	1902	Wilhelm II	Revisionist	Revisionist
GMY(I)	1903	Wilhelm II	Revisionist	Revisionist
GMY(I)	1904	Wilhelm II	Revisionist	Revisionist
GMY(I)	1905	Wilhelm II	Revisionist	Revisionist
GMY(I)	1906	Wilhelm II	Revisionist	Revisionist
GMY(I)	1907	Wilhelm II	Revisionist	Revisionist
GMY(I)	1908	Wilhelm II	Revisionist	Revisionist
GMY(I)	1909	Wilhelm II	Revisionist	Revisionist
GMY(I)	1910	Wilhelm II	Revisionist	Revisionist
GMY(I)	1911	Wilhelm II	Revisionist	Revisionist
GMY(I)	1912	Wilhelm II	Revisionist	Revisionist
GMY(I)	1913	Wilhelm II	Revisionist	Revisionist
GMY(I)	1914	Wilhelm II	Revisionist	Revisionist
GMY(I)	1915	Wilhelm II	Revisionist	Revisionist
GMY(I)	1916	Wilhelm II	Revisionist	Revisionist
GMY(I)	1917	Wilhelm II	Revisionist	
GMY(I)	1918	Wilhelm II	Revisionist	Revisionist
GMY(N)	1935	Adolf Hitler	Revisionist	
GMY(N)	1936	Adolf Hitler	Revisionist	Revisionist
GMY(N)	1937	Adolf Hitler	Revisionist	Revisionist
GMY(N)	1938	Adolf Hitler	Revisionist	Revisionist
GMY(N)	1939	Adolf Hitler	Revisionist	Revisionist
GMY(N)	1940	Adolf Hitler	Revisionist	Revisionist
GMY(N)	1941	Adolf Hitler	Revisionist	Revisionist
GMY(N)	1942	Adolf Hitler	Revisionist	Revisionist
GMY(N)	1943	Adolf Hitler	Revisionist	Revisionist
GMY(N)	1944	Adolf Hitler	Revisionist	Revisionist
GMY(N)	1945	Adolf Hitler	Revisionist	Revisionist
JPN	1905	Katsura Taro	Revisionist	
JPN	1906	Saionji Kinmochi	Isolationist	Isolationist
JPN	1907	Saionji Kinmochi	Isolationist	Isolationist
JPN	1908	Saionji Kinmochi	Isolationist	Isolationist
JPN	1909	Katsura Taro	Isolationist	Isolationist
JPN	1910	Katsura Taro	Isolationist	Isolationist
JPN	1911	Katsura Taro	Isolationist	Isolationist
JPN	1912	Saionji Kinmochi	Isolationist	Isolationist
JPN	1913	Yamamoto Gonnohyoe	Isolationist	Isolationist
JPN	1914	Okuma Shigenobu	Revisionist	Isolationist
JPN	1915	Okuma Shigenobu	Revisionist	Isolationist
JPN	1916	Okuma Shigenobu	Revisionist	Isolationist
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JPN	1917	Terauchi Masatake	Revisionist	Revisionist
JPN	1918	Terauchi Masatake	Revisionist	Revisionist
JPN	1919	Hara Takashi	Isolationist	Revisionist
JPN	1920	Hara Takashi	Isolationist	Isolationist
JPN	1921	Hara Takashi	Isolationist	Isolationist
JPN	1922	Takahashi Korekiyo	Isolationist	Isolationist
JPN	1923	Kato Tomosaburo	Isolationist	Isolationist
JPN	1924	Kato Takaaki	Isolationist	Isolationist
JPN	1925	Kato Takaaki	Isolationist	Isolationist
JPN	1926	Wakatsuki Reijiro	Isolationist	Isolationist
JPN	1927	Tanaka Giichi	Isolationist	Isolationist
JPN	1928	Tanaka Giichi	Isolationist	Isolationist
JPN	1929	Tanaka Giichi	Isolationist	Isolationist
JPN	1930	Osachi Hamaguchi	Isolationist	Isolationist
JPN	1931	Wakatsuki Reijiro	Revisionist	Isolationist
JPN	1932	Saito Makoto	Isolationist	Isolationist
JPN	1933	Saito Makoto	Isolationist	Isolationist
JPN	1934	Keisuki Okada	Isolationist	Revisionist
JPN	1935	Keisuki Okada	Isolationist	Revisionist
JPN	1936	Koki Hirota	Revisionist	Revisionist
JPN	1937	Fumimaro Konoe	Revisionist	Revisionist
JPN	1938	Fumimaro Konoe	Revisionist	Revisionist
JPN	1939	Hiranuma Kiichiro	Revisionist	Revisionist
JPN	1940	Mitsumasa Yonai	Revisionist	Revisionist
JPN	1941	Fumimaro Konoe	Revisionist	Revisionist
JPN	1942	Hideki Tojo	Revisionist	Revisionist
JPN	1943	Hideki Tojo	Revisionist	Revisionist
JPN	1944	Hideki Tojo	Revisionist	Revisionist
JPN	1945	Kuniaki Koiso	Revisionist	Revisionist
RUS(I)	1892	Alexander III	Interventionist	
RUS(I)	1893	Alexander III	Interventionist	
RUS(I)	1894	Alexander III	Interventionist	
RUS(I)	1895	Nicholas II	Interventionist	
RUS(I)	1896	Nicholas II	Interventionist	
RUS(I)	1897	Nicholas II	Interventionist	
RUS(I)	1898	Nicholas II	Interventionist	
RUS(I)	1899	Nicholas II	Interventionist	
RUS(I)	1900	Nicholas II	Interventionist	
RUS(I)	1901	Nicholas II	Interventionist	Interventionist
RUS(I)	1902	Nicholas II	Interventionist	
RUS(I)	1903	Nicholas II	Interventionist	
RUS(I)	1904	Nicholas II	Interventionist	

RUS(I)	1905	Nicholas II	Interventionist	
RUS(I)	1906	Nicholas II	Interventionist	
RUS(I)	1907	Nicholas II	Interventionist	
RUS(I)	1908	Nicholas II	Interventionist	
RUS(I)	1909	Nicholas II	Interventionist	
RUS(I)	1910	Nicholas II	Interventionist	
RUS(I)	1911	Nicholas II	Interventionist	
RUS(I)	1912	Nicholas II	Interventionist	
RUS(I)	1913	Nicholas II	Interventionist	
RUS(I)	1914	Nicholas II	Interventionist	Interventionist
RUS(I)	1915	Nicholas II	Interventionist	
RUS(I)	1916	Nicholas II	Interventionist	
RUS(I)	1917	Nicholas II	Interventionist	
RUS(S)	1922	Vladimir Lenin	Revisionist	
RUS(S)	1923	Vladimir Lenin	Revisionist	
RUS(S)	1924	Joseph Stalin	Revisionist	
RUS(S)	1925	Joseph Stalin	Revisionist	
RUS(S)	1926	Joseph Stalin	Revisionist	
RUS(S)	1927	Joseph Stalin	Revisionist	
RUS(S)	1928	Joseph Stalin	Revisionist	
RUS(S)	1929	Joseph Stalin	Revisionist	Revisionist
RUS(S)	1930	Joseph Stalin	Revisionist	Revisionist
RUS(S)	1931	Joseph Stalin	Revisionist	Revisionist
RUS(S)	1932	Joseph Stalin	Revisionist	Revisionist
RUS(S)	1933	Joseph Stalin	Revisionist	Revisionist
RUS(S)	1934	Joseph Stalin	Revisionist	Revisionist
RUS(S)	1935	Joseph Stalin	Revisionist	Revisionist
RUS(S)	1936	Joseph Stalin	Revisionist	Revisionist
RUS(S)	1937	Joseph Stalin	Revisionist	Revisionist
RUS(S)	1938	Joseph Stalin	Revisionist	Revisionist
RUS(S)	1939	Joseph Stalin	Revisionist	Revisionist
RUS(S)	1940	Joseph Stalin	Revisionist	Revisionist
RUS(S)	1941	Joseph Stalin	Revisionist	Revisionist
RUS(S)	1942	Joseph Stalin	Revisionist	
RUS(S)	1943	Joseph Stalin	Revisionist	
RUS(S)	1944	Joseph Stalin	Revisionist	
RUS(S)	1945	Joseph Stalin	Revisionist	
RUS(S)	1946	Joseph Stalin	Revisionist	
RUS(S)	1947	Joseph Stalin	Revisionist	Revisionist
RUS(S)	1948	Joseph Stalin	Revisionist	Revisionist
RUS(S)	1949	Joseph Stalin	Revisionist	Revisionist
RUS(S)	1950	Joseph Stalin	Revisionist	Revisionist
RUS(S)	1951	Joseph Stalin	Revisionist	Revisionist

RUS(S)	1952	Joseph Stalin	Revisionist	Revisionist
RUS(S)	1953	Georgy Malenkov	Revisionist	Revisionist
RUS(S)	1954	Georgy Malenkov	Revisionist	Revisionist
RUS(S)	1955	Nikita Khruschev	Revisionist	Revisionist
RUS(S)	1956	Nikita Khruschev	Revisionist	Revisionist
RUS(S)	1957	Nikita Khruschev	Revisionist	Revisionist
RUS(S)	1958	Nikita Khruschev	Revisionist	Revisionist
RUS(S)	1959	Nikita Khruschev	Revisionist	Revisionist
RUS(S)	1960	Nikita Khruschev	Revisionist	Revisionist
RUS(S)	1961	Nikita Khruschev	Revisionist	Revisionist
RUS(S)	1962	Nikita Khruschev	Revisionist	Revisionist
RUS(S)	1963	Nikita Khruschev	Revisionist	Revisionist
RUS(S)	1964	Nikita Khruschev	Revisionist	Revisionist
RUS(S)	1965	Leonid Brezhnev	Revisionist	Revisionist
RUS(S)	1966	Leonid Brezhnev	Revisionist	Revisionist
RUS(S)	1967	Leonid Brezhnev	Revisionist	Revisionist
RUS(S)	1968	Leonid Brezhnev	Revisionist	Revisionist
RUS(S)	1969	Leonid Brezhnev	Revisionist	Revisionist
RUS(S)	1970	Leonid Brezhnev	Revisionist	Revisionist
RUS(S)	1971	Leonid Brezhnev	Revisionist	Revisionist
RUS(S)	1972	Leonid Brezhnev	Interventionist	Revisionist
RUS(S)	1973	Leonid Brezhnev	Revisionist	Revisionist
RUS(S)	1974	Leonid Brezhnev	Revisionist	Revisionist
RUS(S)	1975	Leonid Brezhnev	Revisionist	Revisionist
RUS(S)	1976	Leonid Brezhnev	Revisionist	Revisionist
RUS(S)	1977	Leonid Brezhnev	Revisionist	Revisionist
RUS(S)	1978	Leonid Brezhnev	Revisionist	Revisionist
RUS(S)	1979	Leonid Brezhnev	Revisionist	Revisionist
RUS(S)	1980	Leonid Brezhnev	Revisionist	Revisionist
RUS(S)	1981	Leonid Brezhnev	Revisionist	Revisionist
RUS(S)	1982	Leonid Brezhnev	Revisionist	Revisionist
RUS(S)	1983	Yuri Andropov	Revisionist	Revisionist
RUS(S)	1984	Konstantin Chernenko	Revisionist	Revisionist
RUS(S)	1985	Mikhail Gorbachev	Revisionist	Revisionist
RUS(S)	1986	Mikhail Gorbachev	Revisionist	Revisionist
RUS(S)	1987	Mikhail Gorbachev	Revisionist	Revisionist
RUS(S)	1988	Mikhail Gorbachev	Legalist	Revisionist
RUS(S)	1989	Mikhail Gorbachev	Legalist	Revisionist
RUS(S)	1990	Mikhail Gorbachev	Legalist	
RUS(S)	1991	Mikhail Gorbachev	Interventionist	Legalist
UKG	1892	William Gladstone	Interventionist	
UKG	1893	William Gladstone	Interventionist	Interventionist
UKG	1894	Archibald Primrose	Interventionist	Interventionist

UKG	1895	Archibald Primrose	Interventionist	Interventionist
UKG	1896	Robert Gascoyne-Cecil	Interventionist	Interventionist
UKG	1897	Robert Gascoyne-Cecil	Interventionist	Interventionist
UKG	1898	Robert Gascoyne-Cecil	Interventionist	Interventionist
UKG	1899	Robert Gascoyne-Cecil	Interventionist	Interventionist
UKG	1900	Robert Gascoyne-Cecil	Interventionist	Interventionist
UKG	1901	Robert Gascoyne-Cecil	Interventionist	Interventionist
UKG	1902	Robert Gascoyne-Cecil	Interventionist	Interventionist
UKG	1903	Arthor Balfour	Interventionist	Interventionist
UKG	1904	Arthor Balfour	Interventionist	Interventionist
UKG	1905	Arthor Balfour	Interventionist	Interventionist
UKG	1906	Henry Campbell-Bannerman	Interventionist	Interventionist
UKG	1907	Henry Campbell-Bannerman	Interventionist	Interventionist
UKG	1908	Herbert Asquith	Interventionist	Interventionist
UKG	1909	Herbert Asquith	Interventionist	Interventionist
UKG	1910	Herbert Asquith	Interventionist	Interventionist
UKG	1911	Herbert Asquith	Interventionist	Interventionist
UKG	1912	Herbert Asquith	Interventionist	Interventionist
UKG	1913	Herbert Asquith	Interventionist	Interventionist
UKG	1914	Herbert Asquith	Interventionist	Interventionist
UKG	1915	Herbert Asquith	Interventionist	Interventionist
UKG	1916	Herbert Asquith	Interventionist	Interventionist
UKG	1917	Loyd George	Interventionist	
UKG	1918	Loyd George	Interventionist	Interventionist
UKG	1919	Loyd George	Interventionist	Interventionist
UKG	1920	Loyd George	Interventionist	Interventionist
UKG	1921	Loyd George	Interventionist	Interventionist
UKG	1922	Loyd George	Interventionist	Interventionist
UKG	1923	Stanley Baldwin	Interventionist	Interventionist
UKG	1924	Ramsay MacDonald	Interventionist	Interventionist
UKG	1925	Stanley Baldwin	Interventionist	Interventionist
UKG	1926	Stanley Baldwin	Interventionist	Interventionist
UKG	1927	Stanley Baldwin	Interventionist	Interventionist
UKG	1928	Stanley Baldwin	Interventionist	Interventionist
UKG	1929	Ramsay MacDonald	Interventionist	Interventionist
UKG	1930	Ramsay MacDonald	Interventionist	Interventionist
UKG	1931	Ramsay MacDonald	Interventionist	Interventionist
UKG	1932	Ramsay MacDonald	Interventionist	Interventionist
UKG	1933	Ramsay MacDonald	Interventionist	Interventionist
UKG	1934	Ramsay MacDonald	Legalist	Interventionist
UKG	1935	Stanley Baldwin	Interventionist	Interventionist
UKG	1936	Stanley Baldwin	Interventionist	Interventionist
UKG	1937	Neville Chamberlain	Interventionist	Interventionist

UKG	1938	Neville Chamberlain	Interventionist	Interventionist
UKG	1939	Neville Chamberlain	Interventionist	Interventionist
UKG	1940	Winston Churchill	Interventionist	Interventionist
UKG	1941	Winston Churchill	Interventionist	Interventionist
UKG	1942	Winston Churchill	Interventionist	Interventionist
UKG	1943	Winston Churchill	Interventionist	Interventionist
UKG	1944	Winston Churchill	Interventionist	Interventionist
UKG	1945	Winston Churchill	Interventionist	Interventionist
UKG	1946	Clement Attlee	Interventionist	Interventionist
UKG	1947	Clement Attlee	Interventionist	Interventionist
UKG	1948	Clement Attlee	Interventionist	Interventionist
UKG	1949	Clement Attlee	Interventionist	Interventionist
USA	1892	Benjamin Harrison	Isolationist	
USA	1893	Grover Clevland	Isolationist	Isolationist
USA	1894	Grover Clevland	Isolationist	Isolationist
USA	1895	Grover Clevland	Isolationist	Isolationist
USA	1896	Grover Clevland	Isolationist	Isolationist
USA	1897	William McKinley	Isolationist	Isolationist
USA	1898	William McKinley	Revisionist	Isolationist
USA	1899	William McKinley	Isolationist	Isolationist
USA	1900	William McKinley	Isolationist	Isolationist
USA	1901	William McKinley	Isolationist	
USA	1902	Theodore Roosevelt	Interventionist	Interventionist
USA	1903	Theodore Roosevelt	Interventionist	Interventionist
USA	1904	Theodore Roosevelt	Interventionist	Interventionist
USA	1905	Theodore Roosevelt	Interventionist	Interventionist
USA	1906	Theodore Roosevelt	Interventionist	Interventionist
USA	1907	Theodore Roosevelt	Interventionist	Interventionist
USA	1908	Theodore Roosevelt	Interventionist	Interventionist
USA	1909	William H. Taft	Legalist	Interventionist
USA	1910	William H. Taft	Legalist	
USA	1911	William H. Taft	Legalist	
USA	1912	William H. Taft	Legalist	
USA	1913	Woodrow Wilson	Legalist	
USA	1914	Woodrow Wilson	Legalist	
USA	1915	Woodrow Wilson	Legalist	Legalist
USA	1916	Woodrow Wilson	Interventionist	Interventionist
USA	1917	Woodrow Wilson	Interventionist	Interventionist
USA	1918	Woodrow Wilson	Interventionist	Legalist
USA	1919	Woodrow Wilson	Legalist	Legalist
USA	1920	Woodrow Wilson	Legalist	Legalist
USA	1921	Warren G. Harding	Legalist	Legalist
USA	1922	Warren G. Harding	Legalist	Legalist

USA	1923	Warren G. Harding	Legalist	Legalist
USA	1924	Calvin Coolidge	Legalist	Legalist
USA	1925	Calvin Coolidge	Legalist	Legalist
USA	1926	Calvin Coolidge	Legalist	Legalist
USA	1927	Calvin Coolidge	Legalist	Legalist
USA	1928	Calvin Coolidge	Legalist	Legalist
USA	1929	Herbert Hoover	Legalist	Legalist
USA	1930	Herbert Hoover	Legalist	Legalist
USA	1931	Herbert Hoover	Legalist	Legalist
USA	1932	Herbert Hoover	Legalist	Legalist
USA	1933	Franklin D. Roosevelt	Legalist	Legalist
USA	1934	Franklin D. Roosevelt	Legalist	Legalist
USA	1935	Franklin D. Roosevelt	Legalist	Legalist
USA	1936	Franklin D. Roosevelt	Legalist	Legalist
USA	1937	Franklin D. Roosevelt	Interventionist	Legalist
USA	1938	Franklin D. Roosevelt	Interventionist	Legalist
USA	1939	Franklin D. Roosevelt	Legalist	Legalist
USA	1940	Franklin D. Roosevelt	Interventionist	Legalist
USA	1941	Franklin D. Roosevelt	Interventionist	Legalist
USA	1942	Franklin D. Roosevelt	Interventionist	Legalist
USA	1943	Franklin D. Roosevelt	Interventionist	Legalist
USA	1944	Franklin D. Roosevelt	Interventionist	Legalist
USA	1945	Harry S. Truman	Interventionist	Legalist
USA	1946	Harry S. Truman	Legalist	Legalist
USA	1947	Harry S. Truman	Legalist	Interventionist
USA	1948	Harry S. Truman	Legalist	Interventionist
USA	1949	Harry S. Truman	Interventionist	Interventionist
USA	1950	Harry S. Truman	Interventionist	Interventionist
USA	1951	Harry S. Truman	Interventionist	Interventionist
USA	1952	Harry S. Truman	Interventionist	Interventionist
USA	1953	Dwight D. Eisenhower	Interventionist	Interventionist
USA	1954	Dwight D. Eisenhower	Interventionist	Interventionist
USA	1955	Dwight D. Eisenhower	Interventionist	Interventionist
USA	1956	Dwight D. Eisenhower	Interventionist	Interventionist
USA	1957	Dwight D. Eisenhower	Interventionist	Interventionist
USA	1958	Dwight D. Eisenhower	Interventionist	Interventionist
USA	1959	Dwight D. Eisenhower	Interventionist	Interventionist
USA	1960	Dwight D. Eisenhower	Interventionist	Interventionist
USA	1961	John F Kennedy	Interventionist	Interventionist
USA	1962	John F Kennedy	Interventionist	Interventionist
USA	1963	John F Kennedy	Interventionist	Interventionist
USA	1964	Lyndon B. Johnson	Interventionist	Interventionist
USA	1965	Lyndon B. Johnson	Interventionist	Interventionist

USA	1966	Lyndon B. Johnson	Interventionist	Interventionist
USA	1967	Lyndon B. Johnson	Interventionist	Interventionist
USA	1968	Lyndon B. Johnson	Interventionist	Interventionist
USA	1969	Richard M. Nixon	Interventionist	Interventionist
USA	1970	Richard M. Nixon	Interventionist	Interventionist
USA	1971	Richard M. Nixon	Interventionist	Interventionist
USA	1972	Richard M. Nixon	Interventionist	Interventionist
USA	1973	Richard M. Nixon	Legalist	Interventionist
USA	1974	Richard M. Nixon	Legalist	Interventionist
USA	1975	Gerald R. Ford	Legalist	Interventionist
USA	1976	Gerald R. Ford	Legalist	Interventionist
USA	1977	Jimmy Carter	Legalist	Interventionist
USA	1978	Jimmy Carter	Legalist	Interventionist
USA	1979	Jimmy Carter	Legalist	Interventionist
USA	1980	Jimmy Carter	Interventionist	Interventionist
USA	1981	Ronald Reagan	Interventionist	Interventionist
USA	1982	Ronald Reagan	Interventionist	Interventionist
USA	1983	Ronald Reagan	Interventionist	Interventionist
USA	1984	Ronald Reagan	Interventionist	Interventionist
USA	1985	Ronald Reagan	Interventionist	Interventionist
USA	1986	Ronald Reagan	Interventionist	Interventionist
USA	1987	Ronald Reagan	Interventionist	Interventionist
USA	1988	Ronald Reagan	Interventionist	Interventionist
USA	1989	George Bush	Interventionist	Interventionist
USA	1990	George Bush	Interventionist	Interventionist
USA	1991	George Bush	Interventionist	Interventionist
USA	1992	George Bush	Interventionist	Interventionist
USA	1993	Bill Clinton	Interventionist	
USA	1994	Bill Clinton	Interventionist	
USA	1995	Bill Clinton	Interventionist	
USA	1996	Bill Clinton	Interventionist	
USA	1997	Bill Clinton	Interventionist	
USA	1998	Bill Clinton	Interventionist	
USA	1999	Bill Clinton	Interventionist	
USA	2000	Bill Clinton	Interventionist	
USA	2001	George W. Bush	Interventionist	
USA	2002	George W. Bush	Interventionist	
USA	2003	George W. Bush	Interventionist	
USA	2004	George W. Bush	Interventionist	
USA	2005	George W. Bush	Interventionist	
USA	2006	George W. Bush	Interventionist	
USA	2007	George W. Bush	Interventionist	
USA	2008	George W. Bush	Interventionist	

USA	2009	Barack Obama	Interventionist	
USA	2010	Barack Obama	Interventionist	
USA	2011	Barack Obama	Interventionist	
USA	2012	Barack Obama	Interventionist	