TESTING THE LIBERAL ORDER

BY

MAJOR KATHERINE A. BATTERTON

A THESIS PRESENTED TO THE FACULTY OF

THE SCHOOL OF ADVANCED AIR AND SPACE STUDIES

FOR COMPLETION OF GRADUATION REQUIREMENTS

SCHOOL OF ADVANCED AIR AND SPACE STUDIES

AIR UNIVERSITY

MAXWELL AIR FORCE BASE, ALABAMA

JUNE 2018

APPROVAL

The undersigned certify that this thesis meets master's-level standards of research, arguments, and expression.

DR. DERRICK V. FRAZIER 17 May 2018

DR. DAVID C. BENSON 17 May 2018

DISCLAIMER

The conclusions and opinions expressed in this document are those of the author. They do not reflect the official position of the U.S. Government, Department of Defense, or the United States Air Force.

ABOUT THE AUTHOR

Major Batterton is a 2005 Graduate of Bowling Green State University, where she majored in Mathematics. Her 13-year career on active duty with the Air Force has taken her to a variety of assignments and places. She has a PhD in Applied Mathematics, experience in operational flight test, and served as an assistant professor of mathematics and statistics at the United States Air Force Academy. Prior to her assignment to the School of Advanced Air and Space Studies, she served as the Director of Operations and Chief Scientist for the Studies and Analysis Squadron, Air Education and Training Command.

ACKNOWLEDGMENTS

First, I must thank my husband for his patience and understanding with the amount of time I dedicated to this thesis and the SAASS coursework. His love and support are always foundational to my success, and I am forever grateful. Next, I would like to thank my thesis advisor, Dr. Derrick Frazier, for his guidance, support, and sense of humor throughout this process. Additional thanks go to Dr. Benson for his review and approval, despite my focus on liberal theories. I am very grateful for Lt Col Eric Murphy, for his mentorship and the time he spent reviewing this thesis and providing me with very thoughtful feedback. Additionally, I owe a world of gratitude (and many Starbucks' hand crafted beverages) to my very patient friend, , for being my 24-hour R help desk, sounding board, reviewer, and moral support. My parents also deserve thanks, especially my mom, for understanding my absence at Mother's Day as I frantically worked to finish this thesis. Finally, I would like to thank my 46 SAASS classmates, for making this year incredibly enjoyable and therefore worth all the reading, writing, and lack of sleep.

ABSTRACT

In 2011, John G. Ikenberry published *Liberal Leviathan*, outlining a theory of a US-led liberal hegemonic order and important results deriving from the order's fundamental characteristics. Specifically, despite a US relative decline in power, Ikenberry posits that the liberal order is likely to endure. Given recent trends in the international environment, an important question looms. Is the existing order a liberal order, deeply embedded and durable, as Ikenberry theorizes? This thesis seeks to answer this question by investigating the current international order's governing mechanisms through empirical analyses including three analytic levels: state interactions in the international system, internal state values, and states' population values.

The results of this work provide some evidence to support Ikenberry's theory of the liberal order, especially that liberal behaviors in the order are increasing over time. However, other results bring into question the assumption of the embedded, self-reinforcing nature of the liberal order. Adding to these results are divergent regional trends and values, potentially providing opportunities for rising powers to undermine the liberal order. It seems that while states are participating in the liberal order, the future of this participation is not guaranteed. US policymakers must decide what they want the future order to look like, and develop a concrete strategy to shape and maintain such an order. An essential first step for the development of such a strategy is understanding the existing order, and this work attempts to make a small contribution to such an effort.

CONTENTS

Illustrations

Table

Figure

Chapter 1

Introduction

> *We must work to bind up the wounds of a suffering world – to build an abiding peace, a peace rooted in justice and in law.*
>
> *– Harry S. Truman, May 8, 1945*

Assumptions may exist in the West concerning the current international order, as far as how the order functions, the mechanisms that define state strategic interactions, and the breadth and depth of the order led by the United States since the end of the Second World War (WWII). John Ikenberry is an influential international relations scholar that has published broadly, promoting the idea of the existence of a liberal order, built since the end of WWII with US power and liberal values. In 2011, Ikenberry published *Liberal Leviathan*, outlining a theory of this liberal hegemonic order and important consequences which derive from the order's fundamental characteristics. Specifically, despite a US relative decline in power, Ikenberry posits that the liberal order is entrenched in the international system and will endure. He says the issue over order is not a question of the liberal, rule-based system but at most a question of which state will have primary authority over the order.[1] It may be tempting to take these theoretic conclusions for granted, but the future of the international order has meaningful implications for the US, requiring careful consideration of the existence and longevity of a US-led liberal order.

The development of the existing order was no accident. After the end of WWII, throughout the Cold War, and in the post-Cold War era, US National Security Strategies outlined concrete goals and visions for the international order.[2] Then, combining both American power and liberal governance principles, the US built an international system

1. Ikenberry, G. John. *Liberal Leviathan: the Origins, Crisis, and Transformation of the American World Order*. Princeton, NJ: Princeton Univ. Press, 2011b, 7.
2. Mazarr, Michael J, Miranda Priebe, Andrew Radin, and Astrid Stuth Cevallos. *Understanding the Current International Order*. Santa Monica, CA: RAND Corporation, 2016, 44-45.

that best served its interests through institutions like free trade agreements, the Bretton Woods agreement, the North Atlantic Treaty Organization (NATO), and the United Nations.[3] Today, however, the permanence of US power dominance is dubious and rising states like China both engage in the liberal order (e.g., participating in the World Trade Organization) while simultaneously challenging embedded rules of the order (e.g., pushing the boundaries on international law in the South China Sea). With Russia's 2014 annexation of Crimea, the international audience continues to witness powerful states pushing against the US-led order.

Given recent trends in the international environment, an important question looms. Is the existing order a liberal order, deeply embedded and durable, as Ikenberry theorizes? The answer to this question is critical because it determines if a US relative decline will unravel the order the US expended significant costs to build, or if the order can endure a US decline. This thesis seeks to answer this question by investigating the current international order's governing mechanisms through empirical analyses.

Chapter 2 includes a short overview of international relations theory, defines the international order, and derives theoretic expectations of the current order for testing. John Ikenberry's *Liberal Leviathan* serves as a foundation for this study, because of particular importance today is testing how embedded the liberal order is and the implications this has for its durability. Other liberal and realist theories are also incorporated to develop a framework suitable for empirical study.

Chapter 3 outlines the data and methods used for the analyses. This work relies solely on existing, publicly available data and considers three analytic levels: state interactions in the international system, internal state values, and states' population values. As an intermediary level, regions are considered to test the universality of the liberal values that serve as the foundation for the order. The data analyzed reflect longitudinal or panel data, and therefore the primary analysis method in this work is the construction of panel models. State interactions in the international system are the outcomes for the modeling and are chosen to reflect liberal behaviors, such as free trade and participation in international organizations. Internal state values are treated as

3. Ikenberry, 7; Mazarr et al., 45

explanatory variables and are selected as measures expected to indicate how strongly a state adheres to liberal values, generally through the treatment of its population but also by its choice of governance. Finally, individual values are an important component of the liberal tradition and are therefore also considered in this work. Population values are measured by developing attitudinal scales related to liberal values using PEW Global Attitude surveys. These scales are then included as explanatory variables in the panel models. Of particular interest, a scale including three questions, each covering one of the three liberal wellsprings (free trade, institutions, and democratic governance), was developed. The methods and results of the attitudinal scale development are presented in Chapter 4.

Chapter 5 details the results of the analyses and how these results do or do not support existing theories on the international order. Liberal behaviors in the international system, as measured by trade volume, free trade, and IGO membership, are found to be increasing between 1991 and 2012. However, the results for linking state values to state behaviors in the international system are mixed. These results bring into question the assumption that the liberal order is fully embedded and durable. Additionally, substantial evidence is found indicating differences in values and participation in the liberal order across regions. These regional differences provide an opportunity for rising powers, like China, to take advantage of lower cost avenues to undermine the existing order.

Finally, concluding remarks and implications are presented in Chapter 6. While Ikenberry proposes an optimistic outlook for the liberal order in *Liberal Leviathan*, the results of this work suggest caution is appropriate. Indeed, many of the empirical results of this study support Ikenberry's theory of the liberal order, especially that liberal behaviors in the order are increasing over time. Additionally, a relationship between states' population values, measured with attitudinal scales, and state behaviors was detected. Such results provide evidence in support of the liberal tradition. However, these results on population values are limited to available PEW survey data and are therefore not generalizable across the entire international system. Of more concern is the weak and mixed evidence found for relationships between state values and state behaviors, bringing into question the assumption of the ingrained, self-reinforcing nature of the liberal order.

Adding to the troubling results are the divergent regional trends. It seems that while states are participating in the liberal order, the future of this participation is not guaranteed. US policymakers must decide what they want the future order to look like, and develop a concrete strategy to shape and maintain such an order. Understanding the existing order, a complex and daunting undertaking this work attempts to make a small contribution to, is an important first step for the development of such a strategy.

Chapter 2

Defining the Liberal Order

The debate about the sources of international order is typically waged between those who stress the importance of power and those who stress the importance of institutions and ideas. This is a false dichotomy.

– John G. Ikenberry, 2001

Before evaluating the liberal international order, we must first understand and define order in general. However, as two international relations theorists note, "attempts to define international order produce immediate controversy."[1] While unclear definitions make the study of order a challenging task, the reason for this controversy further motivates such an undertaking. Controversy arises because there are competing theories on the fundamental nature of international relations and order. There is no single agreed upon viewpoint on international order, creating uncertainty about how the international system functions and what might happen to state relationships in the future. Therefore, this work starts with a general concept of international order and later consider the distinctions and disagreements between international relations' frameworks.

Generally, "international order refers to the settled arrangements or governance that define and guide relations between states."[2] These arrangements are not necessarily formal or agreed upon rules and laws. The arrangements may be the distribution of power in a system, the existence of cooperative institutions, or a combination of both or more mechanisms. Fundamentally, when considering the international order, we are studying the behavior and relations of states in the system, and the mechanisms that drive the behavior and system structure. While there are theoretical disagreements on the logic

1. Paul, T. V. and John A. Hall (Eds.). *International Order and the Future of World Politics*. Cambridge, UK: Cambridge University Press, 1999, 2.
2. Ikenberry, G. John (Ed.). *Power, Order, and Change in World Politics*. Cambridge, UK: Cambridge University Press, 2014, 84.

that underlies international order, there are also practical differences between orders. International orders can take on different forms. Orders can vary in geographic range (e.g., global or regional), functional scope (e.g., limited to defining hierarchical relationships to providing public goods and services for all states), institutionalization (e.g., how many formal and agreed upon rules exist), amount of hierarchy between states (e.g., well defined ordering or not), and the power distribution among states (e.g., centralized, decentralized, multipolar, bipolar).[3]

The definition of international order used for this work focuses on relations between states, where states are considered the primary actors in the international system. However, states were not always the fundamental units. Instead, other groupings, like the multiethnic empires or city-states, were the primary units of analysis in the international system."[4] In *War and Change in World Politics*, Robert Gilpin distinguishes between changes in the character of the international system (i.e., changing actor types) and changes within the system itself (i.e., changes in power distributions and the rules and rights of the system).[5] Gilpin calls the former systems change and the latter systemic change. Additionally, interaction change may occur which does not change the hierarchy of states but instead changes the rules and rights of the order.[6] This work seeks to develop a better understanding of the post-Cold War international order by studying the behavior and characteristics of states within the order from 1991 to present day. States are assumed the primary actors in the system to scope the work and study the existing power distributions, rules, and institutions that may exist. Given this approach, this work will use historical empirical analyses to assess possibilities of future systemic or interaction change.

3. Ikenberry, *Power, Order, and Change*, 86-87
4. Gilpin, Robert. *War and Change in World Politics* (Transferred to digital printing ed.). Cambridge, UK: Cambridge Univ. Press, 2002, 116.
5. Gilpin, *War and Change*, 41-42.
6. Gilpin, *War and Change*, 43.

Theoretic Models of International Order

One of the challenges in defining international order is the existence of different international relations theories that provide distinct views on the international system. There are numerous international relations' research traditions such as liberalism, realism, constructivism, feminism, Marxism, postmodernism, and their variants.[7] This wealth of diverse theories is a reflection of the complexity of the international system and "the tentative state of our knowledge."[8] Understanding the different theoretic lenses is necessary because they "are rooted in specific, explicit assumptions about how the world works" and the theories differing "paradigmatic roots" may result in very different conclusions about order.[9] In reality, international orders require a mixture of theories for explanation and depart from theoretic simplicity. However, narrowing the scope of this research to something manageable requires choosing a subset of theories on which to focus. For this research realism and liberalism are the most useful. For realists, power and its distribution is the primary characteristic that defines an order, and for liberals, norms, rules, and institutions may mediate the adverse outcomes of power and anarchy within an order.

Realism

Realism is one of the oldest international relations theories, dating back to at least the time of Thucydides and his historical account of the Peloponnesian War. In Thucydides' account of the Melian dialogue, the powerful Athenians proclaim, "...right, as the world goes, is only in question between equals in power, while the strong do what they can and the weak suffer what they must."[10] This statement demonstrates the realist perspective because realists believe the international system is anarchic with an "absence

7. Lake, David A. "Why "isms" are evil: Theory, Epistemology, and Academic Sects as Impediments to Understanding and Progress." *International Studies Quarterly 55*(2), 465–480, 2011, 466.
8. Lake, "Why "isms" are Evil," 467.
9. Jonathan Krishner in Ikenberry, *Power, Order, and Change*, 157.
10. Thucydides, Robert B. Strassler, Richard Crawley, and Victor Davis Hanson. *The Landmark Thucydides: a Comprehensive Guide to the Peloponnesian War ; with Maps, Annotations, Appendices, and Encyclopedic Index* (A newly rev. ed. of the Richard Crawley transl ed.). New York: Simon & Schuster, 1998, 352.

of a central authority that sits above states and can protect them from each other."[11] Classical realists like Hans Morgenthau believe the nature of man drives states to seek power. Neorealists like John Mearsheimer, on the other hand, believe the anarchic nature of the system creates a self-help environment causing states to fear for their survival and seek power.[12] Whether it is the structure of the international system or the nature of man, the outcomes are similar. To realists, the international system is zero-sum, so states care about relative gains creating a competitive and dangerous environment. Some realists believe states seek to maximize their power while others believe states only seek enough power for survival, distinguishing the offensive from the defensive realists. Power, to the realist, is primarily based on military, economic, and population strength.[13] Finally, realists believe states are the primary actors in the international system but are only concerned with the relative power between states and not the internal workings or nature of the state itself. However, as the realist Kenneth Waltz explains, the omission of state characteristics like culture and tradition in realist theory "does not imply their unimportance. They are omitted because we want to figure out the expected effects of structure on process and of process on structure." [14] Therefore, realists have purposefully developed a theory that ignores certain aspects of the international system, to better understand the structural components of the system which they believe are of greatest importance. The two dominant realist frameworks for order are balance of power and hegemonic.

Realist Views on Order

The two primary realist views of international order are the balance of power order and hegemonic order. The mechanisms that govern the order in these two versions are slightly different, however both orders are defined by the distribution of power (i.e., material assets and capabilities) within the system. In the balance of power order, balancing occurs due to the realist assumptions of anarchy and states' need to secure their

11. Mearsheimer, John J. *The Tragedy of Great Power Politics* (Updated edition ed.). The Norton series in world politics. New York: W.W. Norton & Company, 2014, 17.
12. Mearsheimer, *The Tragedy of Great Power Politics*, 17, 32-33.
13. Waltz, Kenneth Neal. *Theory of International Politics* (Reissued ed.). Long Grove, Ill: Waveland Press, 2010, 121.
14. Waltz, *Theory of International Politics*, 82.

survival.[15] This logic results in a balanced distribution of power among states, groups of states, or other actors in the system.[16] In *War and Change in World Politics*, Robert Gilpin develops the theory of a hegemonic order where governance occurs through rule by the most powerful state in the system.[17] The most powerful state, having the ability to control the order, will build an order that reflects its interests and provides it the greatest benefits.[18] The key distinction between these two forms of order is the source of governance and stability. In the balance of power order governance and stability come from the balanced power distribution. In the hegemonic order, on the other hand, the disequilibrium of power governs and stabilizes the order. Both orders may change or become unstable when the distribution of power changes, either due to the emergence of a disbalance (in a balance of power order) or because the most powerful state declines in power and can no longer dominate the system (in a hegemonic order).

In a hegemonic order, the lead state of the system can maintain the order due to a preponderance of power.[19] The system is stable as long as no other state would benefit from attempting to change the system.[20] However, while the hegemonic state achieves great advantages from developing an international order that serves its interests, there are also costs associated with maintaining this position. Specifically, there is a point where the costs of maintaining the order outweigh the benefits gained from doing so.[21] This change in cost-benefit ratio will strain the hegemonic state and eventually lead to a disequilibrium. The states that are gaining relative power will attempt to change the existing order if the benefits of doing so outweigh the costs. If this occurs, a new distribution of power will be created.[22] Gilpin claims that the most common means of dealing with the disequilibrium and changing the order is through hegemonic war.[23]

15. Waltz, *Theory of International Politics*, 121.
16. Ikenberry, G. John. *Liberal Leviathan: the Origins, Crisis, and Transformation of the American World Order*. Princeton, NJ: Princeton Univ. Press, 2011b, 39.
17. Ikenberry, *Power, Order, and Change*, 4.
18. David A. Lake in Ikenberry, 2014, *Power, Order, and Change*, 61.
19. Ikenberry, *After Victory*, 24.
20. Gilpin, *War and Change*, 50.
21. Gilpin, *War and Change*, 156.
22. Gilpin, *War and Change*, 186.
23. Gilpin, *War and Change*, 209.

The distribution of power in a system is often described through polarity. A "pole" is a great power state ranking high in "size of population and territory, resource endowment, economic capability, military strength, political stability and competence."[24] Identifying poles allows one to characterize the nature of the order by the number in existence (i.e., unipolar, bipolar, or multipolar). A hegemonic order would be described as unipolar whereas bipolar or multipolar systems are expected to display balance of power logic.

Liberalism

Liberalism is a newer variant of international relations theory, dating back to the Age of Enlightenment, and takes a different view of the international system compared to realists. Three "intellectual wellsprings" underpin liberalism: Adam Smith's conception of free trade and liberal economics, Kantian democratic peace theory, and liberal institutionalism based on the Lockean rights of man and the rule of law.[25] Like realists, liberals believe the international system is anarchic and states are the primary actors seeking to maximize the overall welfare of the state.[26] However, liberals view the anarchic system differently. All liberals "share a common belief: cooperation is still possible in a world of anarchy."[27] Part of why liberals believe cooperation is possible is that they do not assume the international system is zero-sum. They see gains in absolute instead of relative terms, making the system less competitive than realists believe. Furthermore, "liberal theories assume that peoples and governments have deep common interests in the establishment of a cooperative world order organized around principles of reciprocity and the rule of law."[28] Based on these foundations, liberals believe in the benefits of cooperation with institutions and economic interdependence and prefer liberal democracies. Unlike realist theories, which mainly aim at explanation, the different variants of liberalism range from normative to more explanatory theories.

24. Waltz, *Theory of International Politics*, 131.
25. Ikenberry, *Liberal Leviathan*, 62.
26. Copeland, Dale C. *Economic Interdependence and War*. Princeton, NJ: Princeton Univ. Press, 2015, 19.
27. Drezner, Daniel W. *Theories of International Politics and Zombies* (Revived edition ed.). Princeton: Princeton University Press, 2015, 50.
28. Ikenberry, *Liberal Leviathan*, 62.

The varied views and names given for liberal international orders make categorization of liberal order options more difficult compared to the framework approach of realists. However, there are some central characteristics expected of liberal orders. Unlike realists, liberal views of order assume there are means of overcoming anarchy to establish a cooperative and even peaceful international order. Drawing from the intellectual wellsprings of liberalism, T. V. Paul and John A. Hall outline three forms of liberal order. One option, which they described as "the most striking" is the possibility of perpetual peace through a republican order. The second form of order drawing from liberalism's theoretic roots is an order based on economic interdependence. The final form of liberal order is one based on liberal institutionalism. These three versions of liberal order are theoretically distinct. However, in practice a liberal order may be a combination of these three mechanisms that reinforce each other.[29] In *After Victory*, Ikenberry describes an order comprised of these three components as constitutionalism, but in his follow-on book, *Liberal Leviathan*, he calls this liberal vision of order a consent-based order. Additionally, Ikenberry theorizes that a liberal order developed by a powerful state is possible, which he calls a liberal hegemonic order. Despite the disparity in names, Ikenberry posits that any liberal order is one that "relies on shared interests and the rule of law," where lead states create public goods, and binding institutions serve as restraints on state power.[30]

Republican Order

In 1795 Immanuel Kant published *Perpetual Peace*, outlining the three requirements of a republican order that could lead to perpetual peace. First, every state must have a republican constitution. A republican constitution is required for lasting peace because when contemplating war, a republic would require the consent of the citizens who would have to carry the full costs of the war and all future wars. Given the costs involved, citizens of a republic would not engage in war.[31] Second, the international

29. Ikenberry, *Liberal Leviathan*, 66.
30. Ikenberry, *Liberal Leviathan*, 48, 66.; Ikenberry, G. John. *After Victory: Institutions, Strategic Restraint, and the Rebuilding of Order After Major Wars.* Princeton: Princeton University Press, 2001, 24.
31. Kant, Immanuel. *Perpetual Peace: a Philosophic Essay,* Translated by Benjamin Franklin Trueblood. Boston: American Peace Society, 1897, 11.

order must be "founded on a federation of free states."[32] Like a government enforces laws for the individuals in a state, this "pacific federation" would limit the effects of anarchy.[33] Finally, all citizens of the world should adhere to universal hospitality such that "remote portions of the world may come into friendly relations with one another which at last come to be regulated by public law, and thus bring the human race finally nearer and nearer to a state of world-citizenship."[34] While Kant's theory is normative, supporters of the democratic peace use the history of a "zone of peace" between liberal states and the continued proliferation of liberal governments since 1800 as an indication that the theory remains relevant and an international order of perpetual peace may exist in the future.[35] According to this theory, stability of a republican order would be established by the proliferation of republican states in the international system.

Economic Interdependence Order

The liberal theory of economic interdependence is rooted in Adam Smith's writings on free markets. Like Adam Smith's "invisible hand" creating societal benefits when individuals look out for their economic interests, liberal commercial practices between states, founded on capitalism and free trade, create economic interdependence resulting in shared benefits and cooperation.[36] Furthermore, the economic ties between states are expected to increase the potential costs of war by drawing them into "a web of mutual self-interest" and therefore limit aggressive behavior in the international system.[37] However, critics of economic interdependence theory claim economic interdependence will increase vulnerability and the likelihood of conflict. To date, numerous studies evaluating these competing views have not resulted in consensus.[38] If economic interdependence does increase stability, "the taproot of stability . . . is the creation and maintenance of a liberal economic order that allows for free economic exchange among states."[39] Therefore, an

32. Kant, *Perpetual Peace*, 14.
33. Kant, *Perpetual Peace*, 18.
34. Kant, *Perpetual Peace*, 19.
35. See Doyle, Michael W. "Kant, Liberal Legacies, and Foreign Affairs, Part 2." *Philosophy & Public Affairs 12*(4), 323–353, 1983b.
36. Oneal and Russett, "The Kantian Peace," 3; Ikenberry, *Liberal Leviathan*, 62.
37. Paul and Hall, *International Order*, 9.
38. Copeland, *Economic Interdependence and War*, 1.
39. Mearsheimer, *The Tragedy of Great Power Politics*, 16.

international system with free and voluminous trade between all states, especially where this trade reflects essential goods, would be expected to remain stable and peaceful.

Liberal Institutionalism Order

Originating in Locke's Enlightenment writings is liberal institutionalism. Supporters of an international order founded on liberal institutionalism believe institutions create obligations and expectations between states, promoting cooperation, and constraining potentially aggressive states.[40] Institutions are "persistent and connected sets of rules (formal or informal) that prescribe behavioral roles, constrain activity, and shape expectations."[41] Institutions take on many forms and states may establish them with coercion or voluntarily agreement. Furthermore, states that enter into institutions with one another may have a great disparity in power or be power equals.[42]

A variant of this form of order is called neoliberal institutionalism. Neoliberal institutionalism combines liberal institutionalism with concepts from constructivism to include a path dependency in order development. In international relations, constructivists believe a process of "signaling, interpreting, and responding" creates shared ideas between actors and groups of actors.[43] According to neoliberal institutionalists, institutions not only reflect state interests and support cooperation but further "define and reproduce the interests and actions of individuals and groups."[44] Therefore, calling on the constructivist and liberal viewpoints, institutions are social constructs that reinforce and further inform future state preferences and behavior, creating a cumulative effect in the development of a liberal international order and the states within this order. An order based on institutions and the rule of law is stable when the institutions that underlie them are durable and when the existing institutions "effectively limit the returns on power."[45] Furthermore, according to neoliberal

40. Ikenberry, *Liberal Leviathan*, 62-63.; Paul and Hall, *International Order*, 9.
41. Lake, David A. "Beyond Anarchy: The Importance of Security Institutions." *International Security 26*(1), 129–160, 2001, 131.
42. Lake, "Beyond Anarchy," 131 - 132.
43. Wendt, Alexander. "Anarchy is what States Make of it: The Social Construction of Power Politics." *International Organization 46*(2), 391–425, 1992, 405.
44. Ikenberry, *After Victory*, 15.
45. Ikenberry, *After Victory*, 47-48.

institutionalists, strong institutions sustain an order even if the hegemon that established the order declines because the rules and cooperation are robust and become internalized.[46]

Liberal Hegemonic Order

Ikenberry posits that international order governance is a mix of both power and liberal institutions and ideas.[47] In fact, Ikenberry proposes a hegemonic order distinct from the realist perspective, one with liberal characteristics, which he calls a liberal hegemonic order. In the command based order, the hegemonic state develops the rules and arrangements of the order. However, there are varying approaches that may be used to control the order. Ikenberry breaks the type of rule options available to the hegemonic state into two categories: imperial or liberal. The critical difference between these forms of command is that in the traditional realist view of imperial rule the lead state imposes the rules but operates above them. In a liberal command order, on the other hand, the lead state also follows the rules of the system.[48] In fact, following the established rules is one of the three characteristics that Ikenberry says makes a command order liberal instead of imperial. The other two are the provision of public goods for other states' cooperation and channels for other states to communicate and have influence.[49]

The United States-Led Order

The end of major wars often signifies the beginning of a new or changing international order. Modern examples of post-war settlements that resulted in a change of order include the Westphalia settlement of 1648, the Utrecht settlement of 1712, the Vienna settlement of 1815, and the Treaty of Versailles in 1919.[50] The conclusion of WWII was no different in this regard. After WWII, a bipolar power distribution emerged in which the US and the Union of Soviet Socialist Republics (USSR) were the two most powerful states. Despite being Allies during WWII, these states faced off during the Cold

46. Ikenberry, *After Victory*, 17.
47. Ikenberry, *After Victory*, 10.
48. Ikenberry, *Liberal Leviathan*, 67.
49. Ikenberry, *Liberal Leviathan*, 71-72.
50. Ikenberry, *After Victory*, 8.

War and following a balance of power logic, eastern communist states aligned with the USSR under the Warsaw Pact, and Western liberal states aligned with the US under NATO. The US also maintained alliances in East Asia through agreements such as the 1960 Treaty of Mutual Cooperation and Security with Japan. Even the United Nations reflected a Cold War balance of power logic with rival East and West blocs, despite its charter that served to promote the "economic and social advancement of all peoples."[51] Despite this Cold War competition, the US managed to push forward a system of liberal institution building, reflected in the development of the Bretton Woods system and a push for liberal norms. The development of this liberal system was a purposeful choice made by the US and outlined in its National Security Strategies, with free trade, strong alliances, multilateral cooperation and international law, and the proliferation of democracy as crucial elements of this approach.[52]

With the collapse of the Soviet Union in 1991, the distribution of power in the international system shifted once again. The US emerged as the only great power, changing the system from bipolarity to unipolarity. With its newfound position as a singular superpower, the United States continued to combine power with the promotion of an international order with characteristics consistent with the liberalism school. With the turmoil of the Soviet Union's collapse, the George H. W. Bush administration outlined five principles that would inform US policy towards the former Soviet states. These principles were: "self-determination consistent with democratic principles, recognition of existing borders, support for democracy and the rule of law, preservation of human rights and rights of national minorities, and respect for international law and obligations."[53] These principles soon became the framework for interactions with the global community at large, leading to the development of what has been termed today a liberal international order. However, the US also used its military power to enforce international norms and rules when necessary. For example, the US initiated its first Gulf War due to Iraq's

51. United Nations. "Charter of the United Nations." http://www.un.org/en/sections/un-charter/preamble/index.html
52. Mazarr, Michael J, Miranda Priebe, Andrew Radin, and Astrid Stuth Cevallos. *Understanding the Current International Order*. Santa Monica, CA: RAND Corporation, 2016, 45.
53. Department of State Office of the Historian. "The Collapse of the Soviet Union." *Milestones:1989-1992*. https://history.state.gov/milestones/1989-1992/collapse-soviet-union

infringement on Kuwaiti sovereignty and the 1999 Operation Allied Freedom was a coalition response to human rights violations by the Federal Republic of Yugoslavia. Today, the US engages in a continuing Global War on Terrorism and maintains a significant military presence around the globe demonstrating its commitment and resolve to use military force to protect its allies and interests.

As a result, the US relies on both institutions and power to build and maintain the international order.[54] While no other state or coalition of states have risen to balance militarily against US power since the collapse of the USSR, there are signs of other forms of balancing. Many IR theorists agree about a lack of hard-balancing (that involving military build-ups and coalitions) since the end of the Cold War, but some theorists point to an increase in soft-balancing (including diplomatic, economic, and institutional means) against the US by second-tier powers.[55] Therefore, today a question exists about the international order: is the mechanism that sustains this order a function of US preponderance of power, or are the liberal principles embedded such that the order operates beyond the power dynamics?

Since the end of WWII, the US has ambitiously pursued an international order reflective of its values and interests. However, as Robert Gilpin notes, there are great costs to maintaining the international status quo, and at some point, these costs will grow faster than the US's economic capacity.[56] Understanding the governing mechanisms is essential because they are also the mechanisms that determine when, if, and how the order will change. Understanding the prospects for order change is an especially pertinent question today as the US declines in relative power and policymakers must decide if the US can afford to maintain its hegemonic position, or if losing this position is acceptable. Specifically, theorists of liberalism like John Ikenberry believe the durability of the liberal order makes peace between the US and a rising power like China is possible, whereas realists like John Mearsheimer think war between the US and China is all but

54. Ikenberry, *Liberal Leviathan*, 161.
55. See, for example, Pape, Robert, A. "Soft Balancing Against the United States." *International Security 30*(1), 7–45, 2005 and Paul, T. V. "Soft Balancing in the Age of U.S. Primacy." *International Security 30*(1), 46–71, 2005.
56. Gilpin, *War and Change*, 156.

inevitable.[57] These two outlooks have serious consequences forcing policymakers to grapple with an important question: is the liberal order here to stay? The answer to this question lies in understanding the mechanisms of the existing order.

Theoretic Expectations for the United States-led Order

In an attempt to detect the current order's governing mechanisms, theories on the existing international order define testable expectations of the order. These expectations define how states would behave and what state characteristics should relate to state behavior if the theories are consistent with today's order. From these expectations, I define hypotheses to test empirically which mechanisms exist in the current international order.

In 2011, John Ikenberry wrote *Liberal Leviathan*, theorizing that today's US-led order is a liberal hegemonic order, developed with both US power preponderance and liberal practices and rules.[58] Additionally, Ikenberry posits that the existing liberal institutions and values will sustain the order even with a relative decline in US power.[59] Ikenberry outlines three primary factors that inform the expectation that the current liberal order will endure. First, in *War and Change in World Politics*, Robert Gilpin observes that war between major powers is the most common means of systemic change.[60] Ikenberry proposes that this means to change is no longer available because great power war ceases to exist.[61] Additionally, Ikenberry observes that the proliferation of liberal democracies around the world provides stability to the order.[62] Finally, Ikenberry posits that a distinctive characteristic of this liberal order is that it is remarkably integrative, where states can easily join but not easily break it apart.[63] Ikenberry acknowledges that not all states, like China and Russia, are liberal or even fully integrated in the current order. Despite this he suggests, "these states may not soon or ever fully transform into liberal states, but the expansive and integrative logic of liberal international order creates

57. Ikenberry, *Liberal Leviathan*; Mearsheimer, *The Tragedy of Great Power Politics*.
58. Ikenberry, *Liberal Leviathan*, 7.
59. Ikenberry, *Liberal Leviathan*, 7.
60. Gilpin, *War and Change*, 209.
61. Ikenberry, *Liberal Leviathan*, 1.
62. Ikenberry, *Liberal Leviathan*, 2.
63. Ikenberry, *Liberal Leviathan*, 3.

incentives for them to do so-and it forecloses opportunities to create alternative global orders."[64] This integrative and self-reinforcing view of the liberal order is a form of neoliberal institutionalism. This view is consistent with other authors who believe the creation of international regimes is more challenging than the maintenance of those regimes. As Robert Keohane explains, "cooperation is possible after hegemony not only because shared interests can lead to the creation of regimes, but also because the conditions for maintaining existing international regimes are less demanding than those required for creating them."[65] This leads to Ikenberry's conclusion that today we are faced with "a crisis of authority—a struggle over how liberal order should be governed, not a crisis over the underlying principles of liberal international order, defined as an open and loosely rule-based system."[66] Ikenberry theorizes that even with the rise of China, the liberal order will remain intact, with China negotiating its place in the liberal order.

Testing the assumption of the likelihood of future great power war is outside of the scope of this work. The most recent US National Defense Strategy, however, sheds serious doubt on the validity of this assumption.[67] Instead, this work is interested in understanding the mechanisms underlying the existing order, as a means to test Ikenberry's third factor for the durability of the liberal order. However, the second assumption about the stability gained through liberal democracy proliferation will also be addressed, by evaluating whether a democratic form of governance is related to participation in the liberal characteristics of the international order. To evaluate Ikenberry's view of the existing order outlined in *Liberal Leviathan* the theory and components of a liberal order are broken down into observable and testable outcomes.

First, if Ikenberry's theory is correct, states should display liberal behaviors within the order. Assuming a US relative decline, this decline in power should not impact the liberal components of the order. Therefore, participation in, and legitimacy of, international rules and institutions (like the UN and WTO) should remain constant or

64. Ikenberry, *Liberal Leviathan*, 3.
65. Keohane, Robert O. *After Hegemony: Cooperation and Discord in the World Political Economy.* Princeton, NJ: Princeton University Press, 1984, 50.
66. Ikenberry, *Liberal Leviathan*, 334.
67. Department of Defense. "Summary of the 2018 National Defense Strategy of The United States of America: Sharpening the American Military's Competitive Edge." 2018, 2.

increase over time. Also, there should be an increase or consistent trend in the proliferation of democratic governance. Additionally, states should be strengthening or at least maintaining their economic relationships with other states. This theoretical view of the existing order leads to the development of a hypothesis for testing:

H1: Liberal state behaviors within the international order are progressing over time.

By progressing, I mean the behaviors expected of liberal states, such as free trade, are moving towards an even more liberal condition over time. For example, if this hypothesis were true states would be increasing the amount of trade they engage in with other states from year to year. Such trends are expected to reflect increasing participation in the liberal order.

Also, because shared values and interests underlie the liberal order, a relationship between values and state actions is expected (i.e., states with more liberal values are expected to display higher levels of liberal behavior within the order). Andrew Moravcsik developed a liberal international relations theory appropriate for empirical study that proves useful for evaluating the liberal order. Moravcsik postulates that state preferences, derived from "societal ideas, interests, and institutions," impact states' strategic interactions and therefore outcomes within the international system, and such a relationship is testable through empirical observation.[68] This relationship between state values and state actions is important for testing the assumption of embedded principles within the order. If there is path-dependency where participation in the liberal order leads to more liberal interests, there should be a positive relationship between state values and state actions. Additionally, if democracies provide stability to the order, democratic governance should be related to high participation in the liberal order. Therefore, an additional hypothesis for testing is derived:

H2: A positive relationship exists between internal state values and state actions in the international order.

68. Moravcsik, Andrew. "Taking Preferences Seriously: A Liberal Theory of International Politics." *International Organization 51*(4), 513–553, 513, 545.

Doyle defined freedom of the individual as one of the foundational principles of liberalism. From this principle, Doyle derived three essential rights for people, one being the requirement that the state represents the will of the people.[69] Therefore, when measuring internal state values the individual level should also be considered. Moreover, in Moravcsik's development of a liberal international relations theory, he assumes that individuals and private groups are the fundamental actors in international politics and that states represent some subset of these actors in defining their preferences, thereby also impacting state behavior in the international system.[70] Merging this view with the liberal order, state values should reflect at least a subset of individual values from the state's population, and these values should be related to state actions within the international system. From Doyle's definition of individual freedoms and Moravcsik's liberal theory framework, an additional hypothesis for testing the liberal international order is derived:

H3: A relationship exists between the values of a state's population and state actions in the international order.

Other theorists, such as Charles A. Kupchan, agree that the US has created an international order with liberal characteristics, but disagree with Ikenberry about the longevity of this order. Instead, the US-built order is not a reflection of universal values but is "imbued with cultural and political ideals unique to American society."[71] From this perspective, while institutions and liberal values sustain the US-led order, US superiority of power is required to maintain this order. As Ikenberry explains of liberal orders, for such an order to be stable the rules and institutions must have legitimacy, and this legitimacy "resides in the sentiments and viewpoints of those who encounter the rules and institutions."[72] Therefore, if other states do not view the US created rules and institutions as legitimate, the liberal order created by the US may decline with a decline in US power. Instead of China embracing the liberal order and finding its place within this order, China and other rising powers with values distinct from the US will build and manage orders in

69. Doyle, Michael W. "Kant, Liberal Legacies, and Foreign Affairs, Part 1." *Philosophy & Public Affairs 12*(3), 205–235, 1983a, 207.
70. Moravcsik, "Taking Preferences Seriously," 516, 518.
71. Ikenberry, *Power, Order, and Change*, 8.
72. Ikenberry, *Power, Order, and Change*, 99.

their own unique and preferred way.[73] Kupchan suggests this would result in a more regionalized system.[74]

If this view of the existing order is correct, there are direct consequences for state values and behavior. This alternate theory of the existing order also places values as an important component of the order, however here the values are not expected to be universal. Instead, states other than the US and their populations would be expected not to hold US liberal values or to hold them less strongly. Therefore, values and state actions are still expected to be related for this theory, but because US liberal values are not universal, there will be a trend of states behaving less in-line with US-liberal values as US-power declines relatively. Such behaviors might be a decrease in or a slowing of the proliferation of democratic governance, interdependent economic relationships, and participation in, and legitimacy of, international institutions (especially those supported by the US). Therefore, state actions would change within regions, eventually reflecting a more regionalized order where states behave according to their region's rules and interests. From Kupchan's theory I derive two additional hypotheses for testing:

H4: Liberal state values are not universal and therefore different across regions.

H5: Liberal state actions and their temporal trends vary by region.

Finally, a prominent realist interpretation of today's international order comes from John Mearsheimer. Mearsheimer does not view the existing order as a unique post-WWII US liberal project. Instead, today's US-led international order is merely an extension of the long-term US interest in being the western regional hegemon. Examples exist throughout the history of the US of the US maneuvering to establish and maintain its status as the regional hegemon. For example, the Monroe Doctrine of 1823 kept European states out of the Americas, eventually allowing the US to dominate the region.[75] During the twentieth century the US ensured four other challengers could not rise to claim regional hegemon: Wilhelmine Germany, imperial Japan, Nazi Germany, and the USSR.[76]

73. Charles A. Kupchan in Ikenberry, *Power, Order, and Change*, 54.
74. Kupchan in Ikenberry, *Power, Order, and Change*, 57.
75. Mearsheimer, 367.
76. Mearsheimer, 367.

Therefore, according to the realist interpretation the liberal components of the US-led order are only means for ensuring the US remains in a favorable power position within the international system. Power is the mechanism that secures the order. With this realist interpretation, China's rising power directly threatens US status and security. It is possible the future system will become a bipolar system between the US and China, although Mearsheimer expects this to lead to war between the US and China.

According to the realist, the distribution of power and the outcomes of anarchy are the primary factors that matter in understanding the international system. Under this framework, liberal state values and state actions are expected to be unrelated. However, both Moravcsik and Ikenberry acknowledge that realist factors are also at play in the international system. The difference between the realist and the liberal perspective is that realist factors are sufficient for understanding the international system whereas the liberal tradition includes the importance of ideas, rules, and institutions. Therefore, models assessing the liberal order must also account for state capabilities and wealth. Table 1 summarizes all hypotheses tested in this work and the hypotheses' theoretical derivations.

In summary, this work seeks to test Ikenberry's view of the existing liberal order, and specifically the strength and existence of the liberal mechanisms that sustain such an order. The foundations of liberalism and Moravcsik's liberal theory define a framework for such a test. The framework under test is summarized in Figure 1, and is a modification of Moravcsik's two-stage model of state behavior.[77] If a liberal order exists, the liberal wellsprings are assumed to be foundations to the individual values that sustain the order. According to Moravcsik, these individual values and interests, or some subset of the population's values, are represented by the state through the states values and preferences (Hypothesis 3). Governance is included as a filter between individual values and state values because the type of governance will determine the subset of the population represented by the state in its international actions. State values, assuming this liberal theory represents the existing order, should relate to state interactions (Hypothesis 2). Additionally, according to the neoliberal institutionalist framework, state interactions

77. Moravcsik, "Taking Preferences Seriously," 545.

Table 1: Hypotheses for testing the liberal order.

Hyp.	Claim	Null	Theoretic Derivation
1	Liberal state behaviors within the international order are progressing over time.	Liberal state behaviors within the international order are staying the same or decreasing over time.	Ikenberry
2	A positive relationship exists between internal state values and state actions in the international order.	There is no relationship between internal state values and state actions in the international order.	Moravcsik
3	A relationship exists between the values of a state's population and state actions in the international order.	There is no relationship between population values and state actions in the international order.	Moravcsik
4	Liberal state values are not universal and therefore different across regions.	There are no differences between regions.	Kupchan
5	Liberal state actions and their temporal trends vary by region.	There are no differences between regions.	Kupchan

Source: Author's original work.

create a feedback loop with state preferences and values, creating the path-dependency and self-reinforcing nature of rules and institutions in the system. This feedback loop leads to a progression in the liberal order, where states are participating in the order in increasing levels (Hypothesis 1). An alternate outcome for the existing order presented by Kupchan is that US and liberal values are not universal, and other values influence population values and state values (Hypothesis 4), and therefore state behaviors in the international system (Hypothesis 5). Finally, realist factors of power and wealth define options available to states.[78] Additionally, these factors are also included in the liberal view but are not the only factors of interest as they are for the realist. Therefore, the

78. See, for example, Carr, E. H. *The Twenty Years' Crisis, 1919-1939.* London: Macmillan/Springer Nature, 2016, 103.

framework also includes realist factors related to wealth and power. This framework results in two possible mechanisms of order influencing state interactions, the first is state values and liberal institutions, and the other is power related to capabilities and wealth.

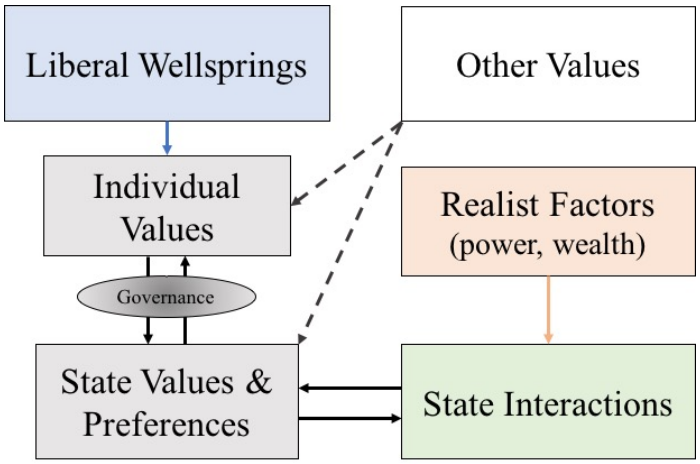

Figure 1: Theoretic framework for testing the liberal order.
Source: Adapted from Andrew Moravcsik's two-stage model.

Other Evaluations of Order

Many other authors have sought to understand and evaluate the nature of the international system and outcomes of this system. First are the foundational theoretical works from authors like Kant, Gilpin, Waltz, and Mearsheimer that develop relatively parsimonious theories relying primarily on stated assumptions, historical analyses, and the application of other existing theories. Other works expand and update these theories using logical evaluations and further historical analyses.[79] Some authors further evaluate the validity of existing theories using qualitative methods involving case studies and historical analyses, but usually only consider one feature (like institutions or power) of the system at a time.[80]

Other studies apply theoretic models to evaluate the international system using quantitative methods. However, most often these studies also only consider one feature, like economic interdependence, at a time.[81] Some studies have included a broader set of variables, allowing for the simultaneous consideration of multiple features in the international system. However, these studies primarily focus on the incidence of conflict as the outcome variable of interest instead of evaluating the underlying logic of the international order's governing mechanisms.[82] More recent studies use both qualitative and quantitative approaches to evaluate the international order with a multivariate approach. However, these studies take a more practical approach to evaluating the status

79. See, for example, Paul, "Soft Balancing"; Ikenberry, G. John. "The Rise of China and the Future of the West: Can the Liberal System Survive?" *Foreign Affairs 87*(1), 23–37, 2008; ; and Mearsheimer, John J. "The False Promise of International Institutions." *International Security 19*(3), 5–49, 1994.
80. See, for example, Ikenberry, G. John. "The Future of the Liberal World Order: Internationalism After America." *Foreign Affairs 90*(3), 56–68, 2011a; Andrews, Nathan. "Telling Tales of Conformity and Mutual Interests: The Limits of a (Neo)liberal International Order." *International Journal 66*(1), 209–223, 2010; and Lake, *Beyond Anarchy*.
81. See, for example, McKeown, Timothy J. "A Liberal Trade Order? The Long-Run Pattern of Imports to the Advanced Capitalist States." *International Studies Quarterly 35*(2), 151–171, 1991; Copeland, *Economic Interdependence*; and Oneal, John R. and Bruce Russett. "Assessing the Liberal Peace with Alternative Specifications: Trade Still Reduces Conflict." *Journal of Peace Research 36*(4), 423–442, 1999a; Brooks, Stephen G. and William C. Wohlforth. "American Primacy in Perspective." *Foreign Affairs 81*(4), 20–33, 2002; Lieber, Keir A. and Gerard Alexander. "Waiting for Balancing: Why the World Is Not Pushing Back." *International Security 30*(1), 109–139, 2005; Kinne, Brandon J. "Multilateral Trade and Militarized Conflict: Centrality, Openness, and Asymmetry in the Global Trade Network." *The Journal of Politics 74*(1), 308–322, 2012.
82. See, for example, Oneal and Russett, "The Kantian Peace" and Oneal, John R. and Bruce M. Russett. "The Classical Liberals Were Right: Democracy, Interdependence, and Conflict, 1950-1985." *International Studies Quarterly 41*(2), 267–293, 1997.

of the order and do not use the evidence collected as a means to support or refute existing theories.[83]

This work aims to quantitatively evaluate the international order to discern which governing mechanisms are present as a means of empirically testing theories on the existing order. Unlike studies assessing state behavior related to conflict initiation, this work considers other state actions in the international order, specifically trade and IGO participation. Traditionally these state behaviors are treated as indicators of conflict but not as outcomes themselves. Additionally, this work considers multiple features of the order. This will allow an assessment of the logic that underlies state actions. While many international relations scholarship evaluates state dyad relationships, this work will take a state-year and regional approach to assess the competing theory of emergent regionalized orders. Finally, while liberal theories assume values and interests are relevant factors, many studies do not consider state or state population's values. As an exception, Mazarr et al. reviewed population values, but this study primarily focused on Western states and trends in values without examining the relationship between values and other features of the system.[84] This work, therefore, adds to existing scholarship by assessing the underlying mechanisms of the international order, including a regional perspective, and using three levels of analysis including state interactions in the international system, internal state characteristics, and population values.

83. See, for example, Jones, Bruce, Thomas Wright, Jeremy Shapiro, and Robert Keane. *The State of the International Order.* Brookings Policy Paper Nr. 33. Washington, DC: Brookings, 2014 and Mazarr, Michael J., Astrid Stuty Cevallos, Miranda Priebe, Andrew Radin, Kathleen Reedy, Alexander D. Rothenberg, Julia A. Thompson, and Jordan Willcox. *Measuring the Health of the Liberal International Order.* Santa Monica, CA: RAND Corporation, 2017.
84. Mazarr et al., *The Health of the Liberal Order.*

Chapter 3

Data and Methodology

The statistician cannot evade the responsibility for understanding the process he applies or recommends.

– Sir Ronald A. Fisher, 1937

This work seeks to add to existing literature by empirically evaluating theories on the current international order. The first step is operationalizing all theoretical constructs using quantitative data. It is outside the scope of this work to collect or create new data sets, and therefore all analyses use existing and publicly available data. The primary approach for the analyses is statistical modeling. Additionally, for inclusion in the statistical models, population values are operationalized with attitudinal scales created using exploratory factor analysis of the PEW Global Attitude surveys. This chapter outlines data selection and analysis methods. Chapter 4 will cover the exploratory factor analysis methods and results in detail. Details on statistical software used for this research are in Appendix A.

Data Selection

There are three types of variables in this work. The first includes measures of state behavior within the international order related to liberal expectations. These measures are the dependent variables for all models (excluding the analysis of variance tests). While treated as dependent variables, this terminology is used to specify modeling choices and not imply causal relationships. The second includes internal state characteristics expected to distinguish states with liberal values from those that do not hold liberal values. This work incorporates two levels of internal state characteristics. First, is the state level using state-level metrics and second is the individual level, using population survey results

aggregated to the state level. These internal state measures are the explanatory variables for the study. Finally, it is common and appropriate to include state characteristics as controls in models evaluating state behavior.[1] In this work, realist factors are treated as controls because states are limited by wealth and power in what they can reasonably accomplish in the international system. Additionally, the framework developed in Chapter 2, displayed in Figure 1, acknowledges the importance and existence of these variables' influence in the international system, and therefore they must be included when assessing the liberal order and evaluating the mechanisms within the order.

Table 2 summarizes the state-year level data chosen to operationalize the theoretic concepts presented in Chapter 2, including attitudinal scales developed from the PEW Global Attitude surveys.[2] A more detailed discussion of the selection of measures follows. All analyses treat variables as continuous unless otherwise noted.

Operationalizing Liberal State Actions

The purpose of operationalizing liberal state actions is to model behaviors within the international system expected of liberal states, in alignment with the liberal tradition. All measures are therefore reflective of external state actions, i.e., how a state interacts with other states in the international system. The liberal wellsprings provide a useful foundation for selecting these variables. Specifically, liberalism and its wellsprings encourage the use of institutions, free and voluminous trade, and republican forms of governance. Governance is, however, an internal state characteristic and included in the section on internal liberal state values. Additionally, while reduced conflict initiation between democratic states is an expected outcome of the democratic peace theory, other

1. See, for example, McDonald, Patrick J. "Peace through Trade or Free Trade?" *The Journal of Conflict Resolution 48*(4), 547–572, 2004.;Oneal, John R. and Bruce Russett. "Assessing the Liberal Peace with Alternative Specifications: Trade Still Reduces Conflict." *Journal of Peace Research 36*(4), 423–442, 1999a.
2. Table 2 includes a summary of the variables used in analysis including the range of years data is available, the total number of years for which data exists, the observed minimum and maximum of the variable in our data set, the number of unique states for which data is available, and the total sample size (state-year observation) for each variable (N). Democracy and Autocracy levels are explanatory variables but treated as control variables for models testing individual values.

Table 2: Summary of variables used in analyses.

Variable	Year Range	Num Years	Observed Min, Max	Num States	N
Dependent Variables: Liberal State Actions					
Trade as % GDP	1991-2016	26	0.02, 860.8	201	4759
Customs Imports Ratio	1991-2016	26	-0.0005,0.55	157	2614
IGO Memberships	1991-2005	15	1,129	190	2787
Explanatory Variables: Liberal State Values					
Political Rights Score	1991-2017	27	1,7	190	4,706
Civil Liberties Score	1991-2017	27	1,7	194	4,995
Press Freedom Score	1993-2016	24	2,82	195	4,680
gender development index	1991-2013	23	0.45,1.096	154	2,795
gender Inequality Index	1991-2013	23	0.01, 0.828	141	2,981
Democracy Level	1991-2016	26	0,10	168	4,208
Autocracy Level	1991-2016	26	0,10	168	4,208
GINI Index	1991-2015	25	16.2,65.8	163	1,208
Female % Workforce	1991-2017	27	7.88,55.91	186	5,013
Opinion of US Scale	2002-2014	10	2.75, 7.93	60	261
Lib. Wellsprings Scale	2002-2007	2	4.09,8.40	43	69
Democracy Scale	2002-2016	3	4.29, 7.13	38	46
Control Variables: Realist State Characteristics					
Gross Domestic Product	1991-2016	26	2.2e+07,1.69e+13	203	4,955
GDP per capita Growth	1991-2016	26	-65.0,171.912	207	5,036
Nat'l Capabilities	1991-2012	22	2.4e-07,0.22	195	4,175
Major Power Status	1991-2017	27	0,1	221	5,963

Source: Author's original work.

authors have studied this relationship extensively.[3] Furthermore, this work focuses on overall state behavior in the international system and not dyadic behavior. For these reasons this work does not include conflict initiation as a variable for study but instead includes two variables related to commercial liberalism and one variable related to institutionalization.

3. See for example Oneal, John R. and Bruce M. Russett. "The Classical Liberals Were Right: Democracy, Interdependence, and Conflict, 1950-1985." *International Studies Quarterly 41*(2), 267–293, 1997.; Oneal, John R. and Bruce Russett. "Clear and Clean: The Fixed Effects of the Liberal Peace." *International Organization 55*(2), 469–485, 2001.; Tarzi, Shah M. "Democratic Peace, Illiberal Democracy, and Conflict Behavior." *International Journal on World Peace 24*(4), 35–60, 2007.

There are two possible approaches for operationalizing commercial liberalism. First, is a state's total trade (imports and exports) as a percentage of the state's gross domestic product (GDP). This measure operationalizes trade volume where higher trade levels are assumed to reflect states that value liberal commercial practices. The data for this variable come from the World Bank Trade (% of GDP).[4] Second, Patrick McDonald recommends using a measure of free trade, instead of the more traditional trade volume, as a better indicator of commercial liberalism. The operationalization of free trade recommended by McDonald is the ratio of customs collected to the value of imports.[5] States with stronger liberal values are expected to have a lower customs to imports ratio. The data for this variable derives from two World Bank indicators, customs and other import duties divided by imports of goods and services.[6]

The total number of international governmental organization (IGO) memberships a state maintains is assumed to reflect a state's acceptance of the benefit of institutions.[7] States that value rules and institutions would then have higher participation rates in IGOs. Therefore, the total number of IGO memberships a state maintains in a given year operationalizes liberal institutionalism. The data for this variable come from the Correlates of War 2 International Governmental Organizations Data Set Version 2.1.[8]

Operationalizing Liberal State Values

A key component of liberalism is freedom of the individual. From this essential feature, Doyle derives three individual rights. First, "liberalism calls for freedom from arbitrary authority," what he calls the "negative freedoms." These freedoms include "freedom of conscience, a free press and free speech, equality under the law, and the right

4. World Bank indicator NE.TRD.GNFS.ZS, The World Bank. "GDP per capita growth (annual %)." *World Bank national accounts data, and OECD National Accounts data files*
5. McDonald,"Peace through Trade or Free Trade?" 548.
6. World Bank indicators GC.TAX.IMPT.CN and NE.IMP.GNFS.CN, respectively. The World Bank. "Customs and other import duties (current LCU)." *International Monetary Fund, Government Finance Statistics Yearbook and data files*; The World Bank. "Imports of goods and services (current LCU)." *World Bank national accounts data, and OECD National Accounts data files*.
7. This work does not consider the types or regional variants of institutions, treating all international organizations equally. Further detailed research into the specific organizations state participate in, and not just how many, may be of additional use.
8. Pevehouse, Jon C., Timothy Nordstrom, and Kevin Warnke. "The COW-2 International Organizations Dataset Version 2.0." *Conflict Management and Peace Science 21*, 101–119, 2004.

to hold, and therefore to exchange, property without fear of arbitrary seizure."[9] Second, liberalism needs the positive freedoms required to promote and protect individual's freedom. "Such social and economic rights as equality of opportunity in education and rights to health care and employment, necessary for effective self-expression and participation, are thus among liberal rights."[10] Finally, liberalism requires a democratic form of government that expresses the will of its citizens. These three rights define how a liberal state would treat its citizens and scope which measures operationalize liberal state values.

Before selecting measures, a discussion on the type of variables preferred is appropriate. Including multiple measures in an index results in a more reliable and consistent estimate of a state's values compared to using single measures alone. Composite indices are preferable because they can include multiple components of liberalism. Such indies prevent a single metric from biasing the results as a single measure may reflect other state characteristics and not necessarily the state's liberal values.[11] Therefore, indices that simultaneously incorporate multiple components of liberalism have priority. However, due to limited data availability, a few individual measures are also considered.

The Freedom House computes a civil liberties and political rights score for states each year. The civil liberties score is a composite score of 15 questions covering the topics of freedom of expression and belief, associational and organizational rights, the rule of law, and personal autonomy and individual rights.[12] The political rights score is a composite score of 10 questions based on the electoral process, political pluralism and participation, and functioning of government.[13] Both of these scores range from 1 to 7, with 7 indicating the highest freedom.[14]

9. Doyle, Michael W. "Kant, Liberal Legacies, and Foreign Affairs, Part 1." *Philosophy & Public Affairs 12*(3), 205–235, 1983a.
10. Doyle, "Kant, Liberal Legacies," 207.
11. For example, women's academic attainment may be a reflection of overall educational opportunity or how the state values education in general and not an indicator of inequality in educational opportunity alone.
12. Freedom House, "Freedom in the World 2017 Complete Book," 652.
13. Freedom House, "Freedom in the World 2017 Complete Book," 652.
14. This work inverted the scales used by Freedom House, in the original data 1 is most free, and 7 is least free.

The Freedom House also computes a state's press freedom yearly. This measure is a composite score using 23 questions covering three topics related to press freedom: the legal environment, the political environment, and the economic environment. The results from the 23 questions produce a score between 0 and 100, with 0 reflecting an entirely free press.[15]

The treatment of population subgroups reflects how well a state adheres to the right of equality under the law and the "positive freedoms." Equality of freedoms under the law should cross gender and race boundaries. Women represent a demographic subgroup that exists in all states (unlike specific racial groups) and therefore may be a useful measure to compare individual freedoms and equality of opportunities across states. The International Monetary Fund (IMF) creates two measures (these measures are extensions of the United Nations Development Programme measures) that assess female development and equality. First, is the gender development index (GDI).[16] The GDI includes (as available) female life expectancy, female average years of schooling, female to male wage ratios, female participation in the economically active population, gross national income (GNI) per capita and the size of the female population.[17] This index provides a general assessment of women's development relative to their male counterparts. The IMF also publishes a gender inequality index (GII).[18] This index includes "maternal mortality ratio, adolescent fertility rate, share of female seats in national parliaments, educational attainment at secondary and tertiary levels, and labor force participation rate."[19] The GII includes measures of women's opportunity for education, healthcare, and employment (all components of the positive freedoms) as well as their representation in government (essential for the third individual right). The GII, therefore, includes measures related to all three liberal wellsprings (human rights, economic freedom, and

15. Freedom House, "Freedom of the Press 2017 Methodology, "https://freedomhouse.org/report/freedom-press-2017-methodology.
16. The International Monetary Fund. "Gender Development Index." *World Bank, Barro and Lee (2014), UNESCO Institute for Statistics, International Labor Organization, International Monetary Fund*.
17. Stotsky, Janet Gale, Sakina Shibuya, Lisa Kolovich, and Suhaib Kebhaj. *IMF Working Paper 16/21: Trends in Gender Equality and Women's Advancement.* International Monetary Fund, 2016, 57.
18. The International Monetary Fund. "Gender Inequality Index." *United Nations Department of Economic and Social Affairs, Inter-Parliamentary Union, Barro and Lee (2014), UNESCO Institute for Statistics, International Labor Organization, International Monetary Fund*.
19. Stotsky et al., *Trends in Gender Equality*, 60.

representative government) providing a useful operationalization of a state's overall liberal values. For the GDI lower values indicate lower development and for the GII lower values indicate higher equality.

Choice of governance is reflective of whether a state values democratic and representative principles or not. The Center for Systemic Peace calculates composite indices of state's institutionalized democracy and autocracy levels.[20] They calculate these scores separately because it is possible for a state to have characteristics from both forms of government simultaneously. Both scores cover differing aspects of the competitiveness and openness of executive recruitment, constraints on the chief executive, regulation and participation, and competitiveness of participation.[21] While the creators of these indices also create an overall polity index that combines the autocracy and democracy measures, such an index is not consistent with the foundational theory underlying the democracy and autocracy indices. Therefore, the Center for Systemic Peace recommends using the democracy and autocracy scales separately for testing hypotheses on the impacts of democracy or autocracy, as opposed to using the commonly implemented polity score.[22] For this research democracy level and autocracy level operationalizes liberal values related to republican peace and Doyle's third individual right, where autocracy level is used to detect states which do not hold liberal values.

Additionally, in the theoretic framework under test, governance filters the individual values to the state level values. While Moravcsik's liberal theory framework assumes the importance of individuals in determining state preferences, he also acknowledges that states may represent only a subset of the population's interests. Democracy and autocracy level are expected to control for these characteristics, where democratic states will represent a substantial subset of the population, and autocratic states represent a smaller subset of the population. Therefore, statistical models testing the relationship between population values and state behaviors include democracy and autocracy levels as control variables regardless of statistical significance. All other models

20. Marshall, Monty G., Ted R. Gurr, and Keith Jaggers, 2017. *POLITY IV Project: Dataset Users' Manual*. Center for Systemic Peace.
21. Marshall, Gurr, and Jaggers, *POLITY IV Project*, 14-16.
22. Marshall, Gurr, and Jaggers, *POLITY IV Project*, 17.

treat these variables as explanatory variables and only retain them in the model when they are statistically significant.

While composite indices are preferable, their availability is limited. Therefore, also considered are a few individual measures expected to reflect liberal values. The GINI index is a measure commonly used to assess inequality.[23] Specifically, the GINI index looks at the distribution of income (or consumption expenditure in some cases) and how well this distribution aligns with a distribution that reflects perfect equality.[24] While the GINI provides a common measure of inequality, it is only focused on economic equality and doesn't take into account inequality between population subgroups. This measure is expected to relate to liberal values through the requirement of equal opportunity in education, health care, and employment. States with great economic disparity are not expected to offer its citizens equal opportunities with respect to these rights. The GINI index theoretically ranges from 0 (perfect equality) to 100 (total inequality).

The other single measure considered is the World Bank's estimate of the percent of females in the labor force.[25] This measure operationalizes the equality of opportunity for employment for one population subgroup (females), a component of the positive freedoms.

Operationalizing Liberal Population Values

Attitudinal scales constructed using PEW Global Attitude survey data operationalize liberal values at the individual level. Chapter 4 covers the construction of these scales in detail. The analysis resulted in three scales for use in this work. One scale assesses the opinion individuals have of the US and Americans using four questions: what is your opinion of the US, does US policy include other state interests, what is your opinion of Americans, and do you admire US technology? Higher scores on this scale

23. World Bank indicator SI.POV.GINI., The World Bank. "GINI index (World Bank estimate)." *World Bank, Development Research Group. Data are based on primary household survey data obtained from government statistical agencies and World Bank country departments/.*
24. The World Bank. "GINI index metadata." http://databank.worldbank.org/data/Views/Metadata/MetadataWidget.aspx?Name=GINI%20index%20(World%20Bank%20estimate)&Code=SI.POV.GINI&Type=S&ReqType=Metadata&ddlSelectedValue=SAU&ReportID=43276&ReportType=Table.
25. World Bank indicator SL.TLF.TOTL.FE.ZS., The World Bank. "Labor force, female (% of total labor force)." *International Labour Organization, ILOSTAT, and World Bank.*

indicate negative views of the US. This scale is called the "Opinion of the US scale." Another factor established is split to create two additional scales. Splitting the factor allows for assessing trends over time as some survey years did not include all of the factor's questions.

The first scale measures views on governance and democracy using three questions: does the government benefit everyone, how important are honest 2-party elections, and how important is the media's freedom from censorship? This scale is called the "Democracy Scale." The second scale measures all three liberal wellsprings using three questions: are stronger trade ties good or bad, how important are honest 2-party elections, and is the influence of NGOs good or bad? This scale is called the "Liberal Wellsprings scale." Both the democracy and Liberal Wellsprings scales are useful operationalizations of the liberal values of interest for this research. The opinion of the US scale is not directly related to liberal values. However, because this work analyzes the US-led international order, states' opinions of the US may provide some interesting insights and the scale is therefore included in analyses.

Control Variables

Realist variables like wealth and power define what options are available to states and analyses treat them as control variables to test for relationships between liberal variables and state actions. Therefore, all models used to evaluate state behaviors in the international order include control variables related to state power and wealth.

The Correlates of War composite index of national capabilities (CINC) is a commonly used operationalization of power.[26] This index includes six measures: military expenditure, military personnel, energy consumption, iron and steel production, urban population, and total population. CINC theoretically ranges from 0 to 1, where 0 indicates a state has 0%, and 1 indicates a state has 100% of the total capabilities present in the system in a given year. If a state has a score of 1 this would mean all other states

26. Greig, J. Michael and Andrew J. Enterline. "National Material Capabilities (NMC) Data Documentation: Version 5.0." *Correlates of War Project*, 2017.

must have a score of 0 since 1 indicates a single state has all of the capabilities in the system in a given year.[27]

An additional variable used to operationalize power is an indicator of whether a state is a major power. The Correlates of War classification of major powers in the international system each year defines major power status.[28] This measure is binary, coded as 1 if a state is a major power and 0 otherwise.

Finally, a state's wealth is an important component of power that the COW CINC measure does not incorporate. Therefore, the analysis includes two common measures of national economic capacity as control variables: GDP and GDP per capita annual percentage growth (GDP PCAP).[29]

Regions

Regions are of interest for this work to assess the universality of US values and the theory that regionalized orders may emerge. Regional definitions come from Stewart-Ingersoll and Frazier, who modify Buzan and Waever's regional security complex definitions by keeping Northeast Asia and Southeast Asia separate.[30] According to these classifications, some states belong to more than one region. To test for sensitivity to regional classifications, models are re-run with the secondary regions as appropriate. Table 3 lists the regional definitions and Figure 2 displays the primary and secondary regions graphically.[31]

27. Greig and Enterline, "National Material Capabilities," 7.
28. Correlates of War. "State System Membership List, v2016." *Online*, 101–119, 2017
29. GDP comes from the World bank indicator NY.GDP.MKTP.KD measured in constant 2010 US$, and due to its scale its natural log is used for modeling. The World Bank. "GDP (constant 2010 US$)." *World Bank national accounts data, and OECD National Accounts data files*; GDP per capita annual percentage growth comes from the World Bank indicator NY.GDP.PCAP.KD.ZG, The World Bank. "GDP per capita growth (annual %)." *World Bank national accounts data, and OECD National Accounts data files*
30. Stewart-Ingersoll, Robert and Derrick Frazier. *Regional Powers and Security Orders: A Theoretical Framework*. New York, NY: Routledge, 2012.; Buzan, Barry and Ole Waever. *Regions and Powers: The Structure of International Security*. Cambridge, UK: Cambridge University Press, 2003.
31. In Table 3, states included in two regions are listed in italics in the second region. Some smaller states and territories are excluded from the list to save space, but all are classified according to geographical proximity or territorial ownership.

Table 3: Regional definitions.

Region	States
Central Africa	Burundi, Central African Republic, Chad, Republic of Congo, Democratic Republic of Congo, Gabon, Equatorial Guinea, Rwanda, Uganda,
Central Eurasia	Afghanistan, Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan
Europe	Albania, Andorra, Anguilla, Aruba, Austria, Belgium, Bermuda, Bosnia and Herzegovina, Britain, Bulgaria, Croatia, Cyprus, Czech Republic, Czechoslovakia, Denmark, Estonia, Finland, France, French Guiana, French Polynesia, Germany, Gibraltar, Greece, Guadeloupe, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Republic of Macedonia, Malta, Martinique, Monaco, Montenegro, Netherlands, Netherlands Antilles, Norway, Poland, Portugal, Romania, Saint Helena, Serbia, Slovak Republic, Slovakia, Spain, Sweden, Switzerland, Yugoslavia
Horn of Africa	Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan
Middle East	Algeria, Bahrain, Egypt, Islamic Republic of Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestinian Authority, Qatar, Saudi Arabia, Syria, Tunisia, Turkey, United Arab Emirates, Western Sahara, Yemen, *Chad*, *South Sudan*, *Sudan*
North America	American Samoa, Antigua and Barbuda, Bahamas, Barbados, Belize, Canada, Costa Rica, Cuba, Dominica, Dominican Republic, El Salvador, Greenland, Grenada, Guam, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Puerto Rico, United States
Northeast Asia	China, Japan, North Korea, South Korea, Mongolia, Taiwan, Republic of China
South America	Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname, Uruguay, Venezuela
South Asia	Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka, *Afghanistan*
Southeast Asia	Australia, Brunei Darussalam, Mynamar, Cambodia, East Timor, Fiji, Hong Kong SAR China, Indonesia, Laos, Macao SAR China, Malaysia, Marshall Islands, Federated States of Micronesia, Nauru, New Zealand, Niue, Norfolk Island, Palau, Papua New Guinea, Philippines, Samoa, Singapore, Solomon Islands, Thailand,Tonga, Tuvalu, Viet Nam, *China*
Southern Africa	Angola, Botswana, Comoros, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe, *Democratic Republic of Congo*
West Africa	Benin, Burkina Faso, Cameroon, Cape Verde, Cote d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, Togo

Source: Adapted from Stewart-Ingersoll and Frazier, 2012.

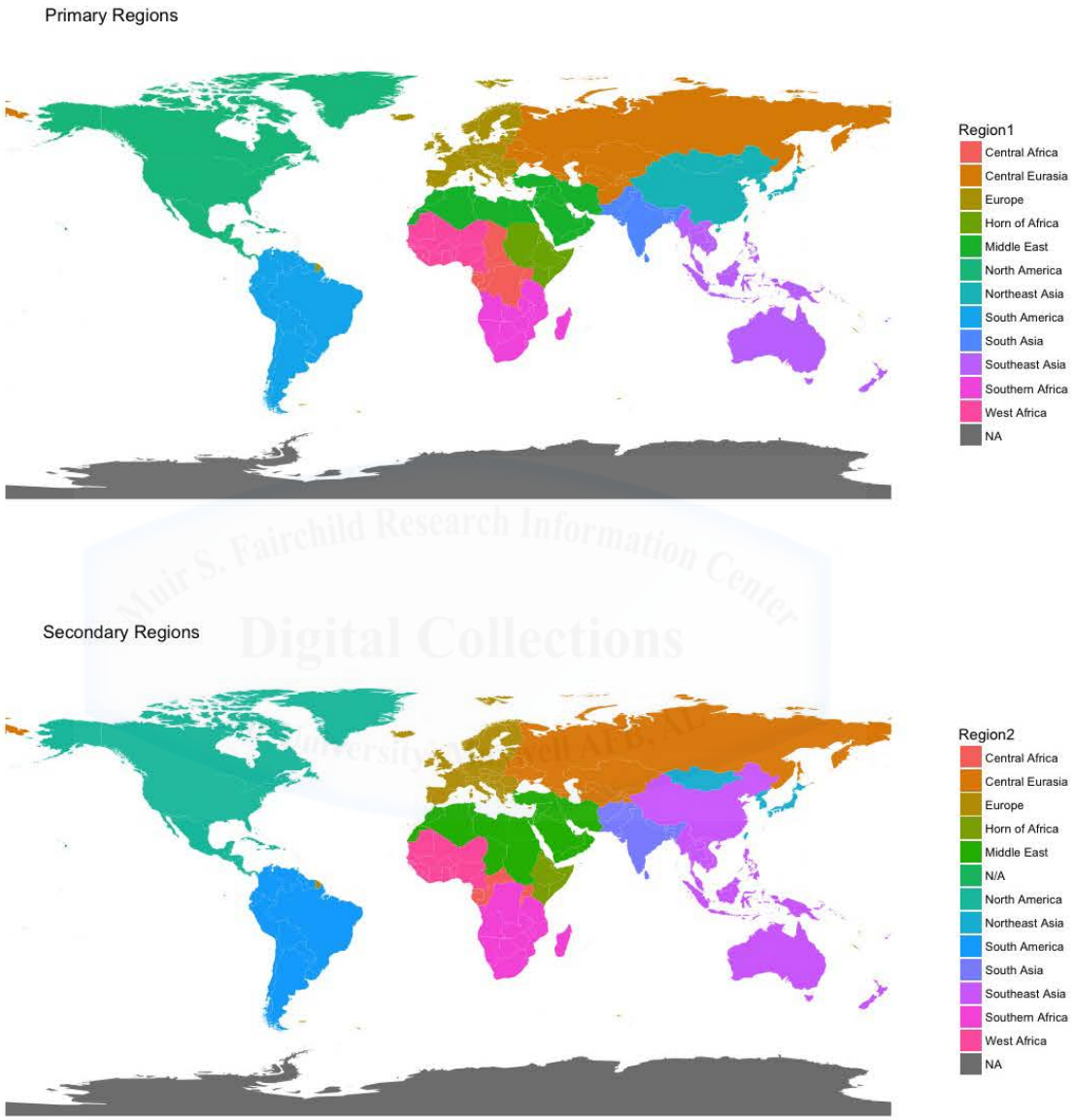

Figure 2: Map of regional definitions.
Source: Author created in R with data from Stewart-Ingersoll and Frazier, 2012.

Statistical Modeling

The primary method for testing the hypotheses outlined in Chapter 2 is statistical modeling. When selecting the most appropriate statistical model for use in analysis, one must consider both the purpose of the analysis and the structure of the data. The unit of analysis in this research is the state-year. State-year observations represent longitudinal, or panel data and the data used in this research results in fixed, unbalanced panels. The key characteristic of this data that impacts modeling choices is that the data contain repeated measures of states over time. Ordinary regression inferences assume independent observations, an assumption not met with this data. Instead, panel models allow for the appropriate modeling of longitudinal data.

When using panel models, the first step is deciding if a pooled model, fixed effects, or a random effects model is most appropriate. A pooled model is appropriate if the same coefficients apply across all states. Using a pooling test will indicate if a pooled model is appropriate. If pooling across states is not appropriate, a fixed effects or random effects model is required. According to Edward W. Frees, the data collection procedure determines the choice between fixed effects and random effects. The data used in this research, selected for all states and years available, suggests fixed effects is most appropriate.[32] However, other authors add that the important difference between the two models is if the missing variables from the model are correlated or uncorrelated with the included explanatory variables. If the missing variables are uncorrelated a random effects model, which is more efficient with respect to degrees of freedom, may be used.[33] However, this assumption seems unlikely to hold in the international system. When a choice between the random effects and fixed effects models exists, the best model is chosen using the Hausman test.[34]

32. Frees, Edward W. *Longitudinal and Panel Data: Analysis and Applications in the Social Sciences.* New York, NY: Cambridge University Press, 2004, 74.
33. Green, William H. *Econometric Analysis, International Edition.* Essex, England: Pearson Education Limited, 2012, 386.
34. Green, *Econometric Analysis*, 419.

A fixed effects model accounts for the differences between states by including a unique intercept term for each state. This model has the general form:

$$E[y_{it}] = \alpha_i + \mathbf{x}'_{it}\beta \tag{3.1}$$

where $i = \{1, \ldots, n\}$ indexes the state, t indexes the year, and α_i is the unique intercept for the i^{th} state.[35] A two-way fixed effects model is also possible that includes a unique intercept term for both state and year. This model has the general form:

$$E[y_{it}] = \alpha_i + \lambda_t + \mathbf{x}'_{it}\beta \tag{3.2}$$

which adds the λ_t term as the unique intercept for year t. The random effects model has the general form:

$$E[y_{it}] = \alpha + \mu_i + \mathbf{x}'_{it}\beta \tag{3.3}$$

where μ_i is a random element specific to the state but the model has a single intercept, α.[36] Fitting the α_i and λ_t intercepts for the one-way or two-way fixed effects models can use a large number of degrees of freedom, depending on the number of states and years. If dealing with a small sample size a fixed effects model may be impractical or infeasible. In such a situation the random effects model is used in-place of the fixed effects model. Additionally, due to the estimation of unique intercepts for each state, the fixed effects model cannot estimate time-invariant variables.[37] Therefore, if time-invariant variables are of interest in the research the random effects model is necessary.

In addition to dealing with the inability to pool across states, panel models combined with additional remedial measures alleviate the common problems that arise from longitudinal data. One of the issues that arise from using longitudinal data is the cross-sectional correlation that exists between states in a given year due to an unobserved temporal effect.[38] Including all temporal effects in the model could alleviate this problem.

35. Frees, *Longitudinal and Panel Data*, 22.
36. Green, *Econometric Analysis*, 387.
37. Frees, *Longitudinal and Panel Data*, 33.
38. Frees, *Longitudinal and Panel Data*, 43.

However, not all effects are measurable or known. Another problem that arises from longitudinal data is serial correlation, or correlation between observations of a single state due to repeated observations of the state over time.[39] Finally, heteroscedasticity, i.e., non-constant variation, may occur. Heteroscedasticity is not unique to panel models but may be more likely due to the effects of the subject, time, or both.[40]

There are several remedial measures to address the common problems associated with panel data. First, to address cross-sectional correlation, a model may incorporate a unique time intercept with the two-way fixed effects model, such as in Equation 3.2. The primary concern with this approach is the large number of degrees of freedom such a model may require, depending on the number of time intervals. An alternate method is using robust standard errors clustered on the time index. Serial correlation has three remedial options. First, using a fixed or random effects model may be sufficient to alleviate the correlation problem. If not, another remedial measure is the inclusion of a 1-residual lag term in the model. Finally, if these fixes do not remove the serial correlation robust standard errors (SE) may be used. A common approach for alleviating the effects of heteroscedasticity is transforming the dependent variable. If such a transformation does not remove all of the heteroscedasticity, robust SE may be used.

Model development for this research follows the same general steps taking into account the particular considerations for panel models. First, the specific hypothesis and the sample size for each model is considered. For testing Hypothesis 2, a positive relationship exists between internal state values and state actions in the international order, there is a large sample size and no time-invariant variables required. Therefore, fixed effects models are an option for testing this hypothesis. The Hausman test is used to determine if the random effects model can be used instead of the fixed effects model. However, using the fixed effect model does not allow inclusion of the control indicator variable on whether a state is a major power or not. Despite this shortfall, if the fixed effects model is the most appropriate for the data, it is used. Whether a state is a major power or not should be somewhat accounted for in the fixed effects model because each

39. Frees, *Longitudinal and Panel Data*, 46.
40. Frees, *Longitudinal and Panel Data*, 45.

state receives a different intercept and major power status is unique to each state. To test for sensitivity to this modeling choice the random effects model is also run and differences noted. For testing Hypothesis 1, liberal state behaviors within the international order are progressing over time, and Hypothesis 5, liberal state actions and their temporal trends vary by region, there is a large sample size, but models must include region which is a time-invariant variable. Therefore, random effects models are required for these hypotheses. Finally, for testing Hypothesis 3, a relationship exists between the values of a state's population and state actions in the international order, there is a small sample size due to the use of the attitudinal scales created with the PEW Global Attitude surveys. Given the small sample sizes, the random effects model is most appropriate. Before using a fixed or random effects model for any of these scenarios a pooling test determines if a panel model is required.

Once the choice of model form is complete, additional tests define the remedial measures required and which SE are most appropriate. First, to look for the presence of heteroscedasticity, the model residuals are plotted against the fitted values. If non-constant variance is present, a Box-Cox test determines the most appropriate transformation to apply to the dependent variable. After transforming the dependent variable as needed, tests for heteroscedasticity due to time or state effects are performed with a Lagrange Multiplier Test.[41] If the tests indicate heteroscedasticity still exists robust SE are used. Next, the residual autocorrelation is plotted to determine if a 1-residual lag is appropriate. If the lagged variable improves the autocorrelation plot, it is included in the final model. Additionally, the Wooldrige's test for unobserved individual effects is used to test for additional serial correlation not accounted for with the fixed or random effects. The Wooldridge test is used instead of alternate options because this test is appropriate for "short" panels, where there are more subjects (i.e., states) than time intervals (i.e., years), as is the case in this research.[42] If serial correlation exists robust SE are used. The Pesaran CD test is used to test for cross-sectional correlation.[43] If this test

41. Croissant, Y. and G. Millo. "Panel Data Econometrics in R: The plm Package." *Journal of Statistical Software 27*(2), 1–43, 2008, 21; Frees, *Longitudinal and Panel Data*, 45-46.
42. Croissant and Millo, "Panel Data," 26-27.
43. Croissant and Millo, "Panel Data," 30.

indicates cross-sectional correlation exists robust SE are used. Finally, for each model variance inflation factors (VIF) are calculated to evaluate the collinearity between explanatory variables. As a general rule, an analyst should use caution with VIF values greater than five and exclude variables with VIF values greater than ten. No VIF values greater than 10 existed in the models.

Three forms of robust SE were used for statistical significance tests with the modeling in this research. Choice of SE depended on the results of the tests for heteroscedasticity, serial correlation, and cross-sectional correlation. If only heteroscedasticity exists, the White 1 robust SE are used.[44] If serial correlation also exists, the Arellano robust SE are used which account for heteroscedasticity and serial correlation.[45] Finally, if cross-sectional and serial correlation exist double-clustered robust SE (clustered on year and state) are used.[46] While model tests are used to determine the most appropriate model and robust SE to use, all robust SE are calculated and differences in conclusions of significance noted in the results. Table 4 lists the specific panel models and remedial measures for Hypotheses 1 - 3 and 5. Hypothesis 4 is tested using analysis of variance, discussed in the following section.

For all models, the control variables are included regardless of statistical significance, and the explanatory variables are initially all included and selected for removal with backward p-value removal, with a p-value threshold of less than ≈ 0.05. For the removal of regions, a p-value threshold of $0.05/12 = 0.004$ is used given the multiple comparisons with 12 regions. The models testing for a relationship between population values and state behaviors also include governance as a control, consistent with the framework defined in Figure 1. Chapter 5 presents the final model results.

44. Using the "white1" SE option in the R plm package. Millo, G. "Robust Standard Error Estimators for Panel Models: A Unifying Approach." *Journal of Statistical Software 82*(3), 1–27, 2017a; Croissant and Millo, "Panel Data," 31.
45. Using the "Arellano" SE option in the R PLM package.Millo, "Robust Standard Error Estimators."; Croissant and Millo, "Panel Data," 31.
46. Millo, "Robust Standard Error Estimators."

Table 4: Summary of models used and remedial measures implemented for all hypotheses tested with Panel Models.

Dependent Variable	Model Type	Dependent Transformation	Residual Lag	Robust Standard Error
Hypotheses 1 & 5				
Trade as % of GDP	Random Effects	Square Root	1	Dbl. Clustered
Customs/Imports	Random Effects	Log	1	Dbl. Clustered
IGO Memberships	Random Effects	None	1	Dbl. Clustered
Hypothesis 2				
Trade as % of GDP	Fixed Effects	Square Root	1	Dbl. Clustered
Customs/Imports	Fixed Effects	Fourth Root	1	Arellano
IGO Memberships	Fixed Effects	None	1	Dbl. Clustered
Hypothesis 3				
Trade as % of GDP	Random Effects	Square Root	None	Arellano
Customs/Imports	Random Effects	Square Root	None	White 1
IGO Memberships		Not Tested		

Source: Author's original work.

Regional Differences

To test for regional differences in values (Hypothesis 4), ANOVA is used. ANOVA is used to test for differences in the explanatory variable's regional means, as compared to the US value when possible. The mean for each region is also calculated to show the direction and strength of any detected differences.

Limitations and Assumptions

This work has several limitations. First, the work relies entirely on empirical analyses. Further research into the findings of this research with detailed, qualitative case studies is warranted. Additionally, this work is limited to publicly available data. Especially for the population values, this limited the scope and findings. Future, more detailed work into population values and how these relate to state behaviors is warranted.

All data for this work was compiled in January 2018 and analyses are therefore limited to data available at that time. Some of the metrics used have fewer years of data available, for example, the CINC measure only has data available until 2012. This limited the timeframe for modeling.

Assumptions are necessary for research, but it is also important to make assumptions clear. A critical assumption for this work is that available metrics on states accurately operationalize state values. This assumption is supported by a more fundamental assumption, that states have singular, definable, and measurable values. In reality, state values and preferences are diverse and subject to individual, organizational, and bureaucratic processes and filters. However, the measures used are assumed to reflect the results of these processes and thereby provide an overview, or average assessment of a state's values.

Chapter 4

Measuring Individual Liberal Values

The idea of freedom is the most contagious idea in history...

– US National Security Council 68, 1950

According to Doyle, an essential component of the liberal tradition is the representation of the will of the people by the state. Therefore, states adhering to liberal values through a republican form of government should act in a manner consistent with the values of its population. For this reason, this research also seeks to assess states' population values, the relationship between these values and state behaviors in the international system, and if traditional US values are universal or not.

Measuring individual values reliably and consistently is not a trivial task. The PEW Research Center conducts a yearly Global Attitude survey of a subset of states as a means for accomplishing this task.[1] These surveys include many useful questions for assessing values. However, while single questions provide some insights, question wording and administration may cause bias and error in the responses.[2] If respondents do not understand a question the data may not measure what researchers think it is measuring. Therefore, constructing attitudinal scales with responses from multiple related questions can provide a more consistent and reliable measure of respondents' attitudes. PEW researchers also create scales composed of multiple questions to measure population values. However these scales and resulting findings are usually only for a single year and

1. Pew Research Center. Pew Global Attitudes Datasets, 2002 - 2016. http://www.pewresearch.org/download-datasets/;The World Values and European Values Surveys were also considered. However, the PEW Global Attitudes surveys include a better subset of questions repeated across years, and therefore only the PEW data are used in the final analysis.
2. Pew Research Center. "Methods in Detail," Pew Global Attitudes Dataset, 2009, 98.

not over many years.[3] This work seeks to assess values over time, and therefore, for measuring population values new attitudinal scales are created instead of using existing measures (as is done for the overall state values, like GII and press freedom score). Additionally, the results of this chapter–attitudinal scales measuring population values related to the liberal wellsprings over time–are inputs to the primary statistical models in this research. Therefore, this chapter stands separate from the previous chapter on methods to allow for a complete accounting of the methods and results of the creation of population attitudinal scales measuring liberal values.

PEW Global Attitude Surveys

The PEW Global Attitude surveys exist on a yearly basis since 2002. The datasets downloaded from the PEW website include the survey results at the individual level for years 2002 - 2016. Years 2002, 2003, 2005, 2009, and 2014 have two surveys. PEW conducted the additional surveys at a different time during the year and for different states. Regardless of the time of year a survey was conducted, this work consolidates the results into a single year. It is assumed that individual's responses to these surveys are representative of their real underlying values and attitudes. Then, with these surveys, we can establish attitudinal scales to operationalize liberal values at the individual level.

There are a few challenges with using the PEW surveys for constructing scales to assess population values over time. First, PEW only surveys a subset of states every year, and the states included vary from year to year. Second, the questions asked change from year to year and also sometimes vary based on the country or region surveyed. All of these limitations require compromises during scale development and result in a small subset of state-year observations for each scale.

An additional challenge with using the PEW Global Attitude surveys is that questions repeated across years are not always structured identically. Therefore, a first step to cleaning the PEW data was matching questions across survey years. To reduce the

3. See, for example, Wike, Richard and Katie Simmons, 2015-11-18. Global Support for Principle of Free Expression, but Opposition to Some Forms of Speech: Americans Especially Likely to Embrace Individual Liberties.

workload of matching questions, a subset of questions was selected by including only questions with keywords of interest for this research.[4] This search produced 2,351 questions across all surveys which were consolidated into a single dataset. Then, using a fuzzy text matching algorithm I computed a score of the level of similarity between questions.[5] This score was used to find similar questions. The final decision on if similar questions were appropriate as identical matches was determined manually. Questions were chosen to be comparable across years if the question was the same, even if the structure or introduction to the questions was different. However, if wording within the question was different, the questions were not labeled as the same question. Slight wording changes can have significant impacts on interpretation and an individual's responses and would, therefore, bias results if treated as identical. For example, two questions with a high similarity score follow:

Spring 2012: Please tell me whether you completely agree, mostly agree, mostly disagree, or completely disagree with the following statements. Voting gives people like me some say about how the government runs things.

Spring 2013: Please tell me whether you completely agree, mostly agree, mostly disagree, or completely disagree. Voting gives people like me an opportunity to express their opinion about how the government runs things.

Both of these questions are asking for opinions on voting. However, one uses the phrase "express their opinion," and another uses the phrase "some say." Differences in wording like this may seem trivial but could impact how a respondent interprets the

4. Because respondent results were taken from the SPSS document question wording as specified in the PEW SPSS data set was also used. There were some inconsistencies with the wording in the PEW SPSS data set and the published word document questionnaire. Questions included in the final factors were double checked against the Questionnaire word documents. Words or phrases searched for selecting questions: democracy, democratic , government , west, economy, economic , financ, trade, equal, gap, fair, China, Chinese, U.S., United States, America, election, vote, voting, elect, Human, right, free, military, war, conflict, violence, NATO, North Atlantic Treaty Organization, United Nations, non-governmental organizations, President, institutions, international organizations, World bank, international monetary fund, world trade organization, gender, women, alliance, allies, globalization, equitable, European Union, Association of Southeast Asian Nations, ASEAN ,press, US, UN, NGO, IMF, WTO, EU.
5. fuzzymatch.R code was downloaded from GitHub at https://gist.github.com/econandrew/a9930d812eb420b20358 and modified by Capt Kimberly Hale, USAF, for this work.

question. Therefore, these two questions would not be treated as the same question to avoid biasing results when making comparisons. However, the Spring 2012 question would be considered identical to the following question:

Fall 2009: I am going to read you a series of statements that will help us understand how you feel about a number of things Tell me if you agree or disagree. Voting gives people like me some say about how the government runs things.

While the Fall 2009 question has a different introduction, the wording of the question is identical. Additionally, in the actual survey questionnaire respondents were given the same response choices as the Spring 2012 question. Therefore, the Fall 2009 and Spring 2012 question would be labeled as identical and comparable across years. To make the workload involved in the consolidation of questions manageable, while evaluating questions for their similarity, they were also assessed for their usefulness in this research. This approach resulted in 274 unique questions for inclusion in the search for attitudinal scales. Each question varies on how often it is repeated in surveys, with as few as only 1 survey for a question and as many as 17.

Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) is a multivariate data analysis method that may be used to illuminate the existence of underlying attitudes in survey responses. The primary assumption underlying the use of EFA to develop attitudinal scales is the belief that a survey contains groups of related questions and an individual's attitude about the issue or value addressed by those questions will drive how the individual responds on the grouped questions. Based on this belief, the responses to the grouped questions provide insight into an individual's overall attitude on a given topic. In theory, the sum of the responses on the related questions then provides a method to operationalize the attitude or value represented, as demonstrated by Rensis Likert in his 1932 paper "A Technique for

the Measurement of Attitudes."[6] Exploratory factor analysis provides a data analytic approach for determining which questions group together as possible attitudinal scales in surveys.

The purpose of developing attitudinal scales is to assess the relationship between these scales and state actions as well as to look for trends over time and across regions. Conducting EFA on the full data set of all 274 questions and all surveys was not feasible due to missing data for questions and countries in each survey. To overcome this hurdle, the earliest survey year with a large number of states was selected to maximize sample size for the EFA. The Summer 2002 survey included 44 countries and was chosen for the EFA analysis.

When running the EFA, if a respondent has a missing data point for any of the questions included in the EFA, that respondent's entire set of data is excluded. Therefore, it is of interest to only include questions that have a reasonable amount of data in the Summer 2002 data set. The original Summer 2002 dataset has 38,263 respondents. All questions with less than 8,000 responses or not included in the original list of 274 questions were removed. This process left 8,550 observations and only 20 questions.

With this reduced data set exploratory factor analysis was run with care taken in the methods used to account for the structure of the underlying data.[7] The model resulting from this EFA did not result in scales that would translate well across years, given the non-replication of several included questions in other years. A more detailed examination of the data indicated that only 11 of the 20 chosen questions were well repeated across years. For this set of questions, a three-factor model was found to be most appropriate, and the EFA was re-run.[8] The factor loadings, which indicate the strength of

6. Likert, Rensis. "A Technique for the Measurement of Attitudes." *Archives of Psychology 22*(140), 5–55, 1932.
7. To determine the number of constructs (i.e., how many factors to include in the model), scree plot, parallel analysis, optimal coordinates, and acceleration factor methods were all considered. Additionally, the EFA was run using promax rotation and polychoric correlations. Promax rotation and polychoric correlations are appropriate for social science data when the response scales are ordinal. For a more detailed explanation see Batterton, Katherine and Kimberly Hale. "The Likert Scale: What it is and How to Use it." *Phalanx: The Magazine of National Security Analysis 50*(2), 32–39, 2017.
8. While the survey datasets include weights for each respondent to adjust for demographic representation, PEW designed the weights for the state level. The weights are not appropriate for EFA including multiple states as they do not account for population and demographic differences between

relationship between each hypothesized factor and question, are given in Table 5.[9] Both Factors 1 and 2 were assessed for model fit and found acceptable.[10] Factor 3 has a poor model fit and is composed of only two questions. As a general rule, factors with fewer than three questions are not recommended.[11] Therefore, Factor 3 is not retained for further analysis.

Table 5: Factor loadings for the final EFA model with PEW Global Attitude Surveys.

Short Question Description	Factor 1	Factor 2	Factor 3
Opinion of Americans	**0.94**	-0.15	0.00
Opinion of the US	**0.91**	-0.11	0.08
US policy includes other state interests, agree/disagree	**0.45**	0.07	0.10
US tech, good/bad	**0.39**	0.39	-0.09
NGO influence, good/bad	0.30	**0.34**	-0.08
Trade ties, good/bad	0.01	**0.39**	0.30
Media no censorship, importance in our country	0.00	**0.76**	-0.14
Honest elections with 2 parties, importance in our country	-0.04	**0.78**	-0.08
Govt benefits everyone, agree/disagree	-0.12	**0.39**	0.19
Natl govt influence, good/bad	0.18	-0.18	**0.62**
Military influence good/bad	-0.06	0.06	**0.62**

Source: Author's analysis results of PEW Global Attitude Survey data.

An important step in picking attitudinal scales from survey questions is ensuring the groupings of questions have practical meaning and are relevant to the research. The first factor appears to assess attitudes about the US and Americans. The second factor

states. Therefore, weighting of responses was not included for the EFA but was used for calculating scale values for each state-year observation.

9. This three-factor EFA used 11 questions from the Summer 2002 survey data. In Table 5, bold indicates which questions were chosen to be included with which factor. Factor loadings in the social sciences are generally expected to be low to moderate, where a minimum loading of 0.32 is recommended to retain a question in a factor. See Costello, Anna B. and Jason W. Osborne. "Best Practices in Exploratory Factor Analysis: Four Recommendations for Getting the Most from Your Analysis." *Practical Assessment Research & Evaluation 10*(7), 1–9, 2005, 4.
10. The full model fit well, although the factors have good to poor reliability as measured by Cronbach's alpha (0.73, 0.63, and 0.47, respectively). Cronbach's alpha measures internal consistency which indicates how well the factor measures what it is expected to measure. A Cronbach's alpha value of 0.6 or higher is recommended for EFA. Factors 1 and 2 were also assessed using confirmatory factor analysis and fit well. With only two questions Factor 3 does not have enough degrees of freedom for most fit statistics. Factor 1 fit statistics: Comparative Fit Index = 0.980, Tucker-Lewis Index (TLI) = 0.940, Root Mean Square Error of Approximation (RMSEA) = 0.107, Standardized Root Mean Squared Residual (SRMR) = 0.037; Factor 2 fit statistics: CFI = 0.978, TLI = 0.956, RMSEA = 0.052, SRMR = 0.025.
11. Costello, Anna B. and Jason W. Osborne. "Best Practices in Exploratory Factor Analysis: Four Recommendations for Getting the Most from Your Analysis." *Practical Assessment Research & Evaluation 10*(7), 1–9, 2005, 5.

includes questions related to institutions, trade, freedom of the media, democracy, and governance equality, and therefore seems to reflect attitudes related to the liberal wellsprings. Based on these factor descriptions, the question about US technology, while loaded equally on Factor 1 and Factor 2, fit best with Factor 1. Appendix B has a detailed description of the questions and response scales for Factors 1 and 2 . Due to the question response options, lower values of Factor 1 correspond to higher opinions of the US, and lower values of Factor 2 correspond to higher liberal values.

While scales are calculated at the individual level, they are aggregated to the state-year level for this research using the appropriate weighting provided by PEW to make the scale representative of each states' demographics.[12] Figures 3 and 4 display the state-level values for these factors across all states in 2002. These maps demonstrate the geographic disparity among the states surveyed and also demonstrate the limited number of states available for these measures. In Figure 3 we see that no states surveyed have completely positive views of the US, which would be displayed in blue. Additionally, Pakistan and Egypt appear to have the most negative opinion of the US of states surveyed in 2002. Interestingly, in Figure 4 we see Uganda's population responded with the most liberal values on the factor measuring attitudes towards the liberal wellsprings. Additionally, both Pakistan and India have populations that score the least liberal of states surveyed in 2002 with this factor. India displays an interesting disparity between its population's view of the US (not totally negative) and its liberal values (fairly illiberal). A similar disparity is seen with Turkey but in the opposite direction. Turkey's population had a fairly negative view of the US in 2002 but scored relatively more liberal on Factor 2. While these observations are not wholly consequential to the main research questions of this work, they demonstrate the value and use of these scales factors.

12. All scale values are calculated by summing each individual's response on the scale questions, resulting in each respondent's scale value. Then, to get the state-year data, each respondent's scale value is multiplied by that respondent's weight, all weighted scale values summed, and the sum divided by the total number of respondents for the state-year. PEW weights are adjusted to account for missing data.

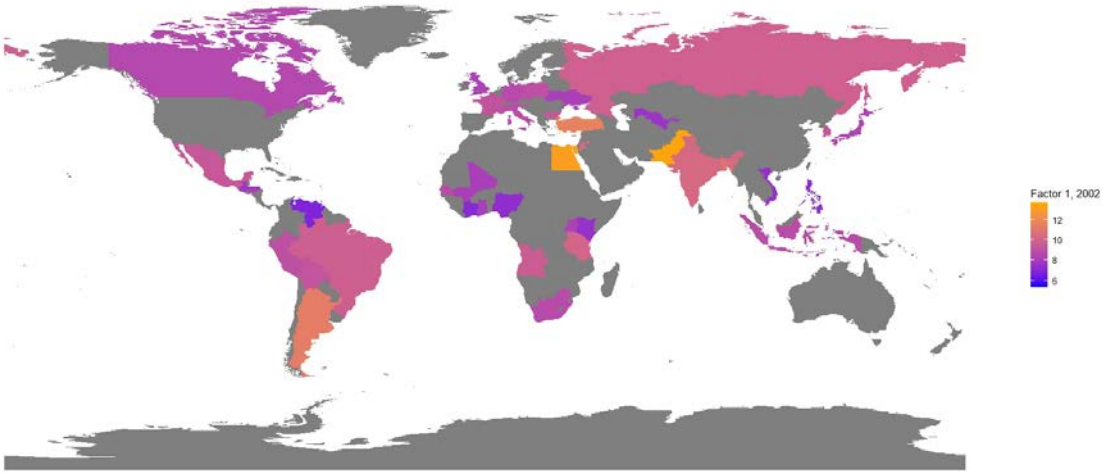

Figure 3: Map of factor one values in 2002.
Source: Author created in R with PEW Global Attitude Survey data.

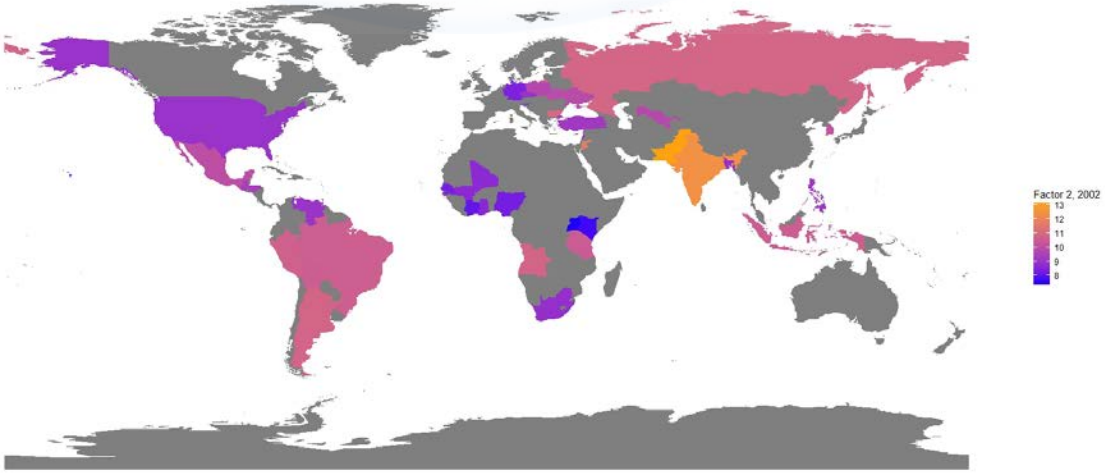

Figure 4: Map of factor two values in 2002.
Source: Author created in R with PEW Global Attitude Survey data.

Scales for Testing Hypotheses

Table 6 shows the years the PEW Global Attitude survey included each question of the two developed factors (or scales). From this table we see that Factor 1 can be constructed for 2002, 2007, and 2013 while Factor 2 cannot be constructed in later years due to the non-replication of some of the questions. However, Factor 2 best reflects the values of interest for this research. Therefore, the subsequent analysis in this research will use variations of Factor 2 including only three questions. The first variation includes a question on trade, elections, and institutions and is therefore labeled the Liberal Wellsprings scale, measurable in 2002 and 2007. The second variation contains questions on the equality of treatment by the government, elections, and media censorship and is labeled the Democracy scale, measurable in 2002 and 2015.[13]

Table 6: Available years for PEW Global Attitude Survey scales' questions.

Short Question Description	2002	2003	2007	2009	2013	2015
Factor 1						
Opinion of the US	x	x	x		x	x
US policy includes other state interests	x		x		x	
Opinion of Americans	x		x		x	
US tech, good/bad	x		x		x	
Factor 2						
Trade ties, good/bad	x		x			
Govt benefits everyone, agree/disagree	x					x
Honest 2-party elections, importance	x		x	x	x	x
Media no censorship, importance	x			x	x	x
NGO influence, good/bad	x		x			

Source: Author's analysis results of PEW Global Attitude Survey data.

13. The first variation will include: Trade ties, good/bad; Honest 2-party elections, importance; and NGO influence, good/bad. The second variation will consist of: Govt benefits everyone, agree/disagree; Honest 2-party elections, importance; Media no censorship, importance. With only three questions it is not possible to assess these scales with confirmatory factor analysis. However, the reliability as measured by Cronbach's alpha drops to 0.50 and 0.58 for variation one and variation two, respectively. While these scales are not as reliable as desired, the lack of question repetition in the PEW Global Attitude Surveys limits the analysis. Nonetheless, the questions for these scales have a robust logical tie to the research questions of interest (assessing the liberal wellsprings and democracy) and are therefore expected to provide useful insights into trends and differences in liberal state values.

The US Opinion scale, the Liberal Wellsprings scale, and the Democracy scale are plotted over time in Figures 5 to 7. In Figure 5, higher scores on this scale indicate lower opinions of the US. There is a trend for most states of more positive views of the US over time. One exception to this trend is the Middle East region, where the views of the US are fairly consistent and negative (higher values) across the years included. In Figure 6, higher scores indicate less democratic views. In this figure, it is clear that PEW greatly reduced the number of states revisited in 2015 and 2016 from the initial survey in 2002. Therefore, this scale provides limited insights into trends over time. However, for the states revisited, there is a trend towards views more aligned with US democratic values. Finally, in Figure 7, higher scores indicate less liberal views, indicating there is a progression towards increased liberal values as measured by the liberal wellsprings scale for the states with measurements in 2002 and 2007.

Figure 5: Attitudinal scale measuring opinions of the US over time.
Source: Author created in R with PEW Global Attitude Survey data.

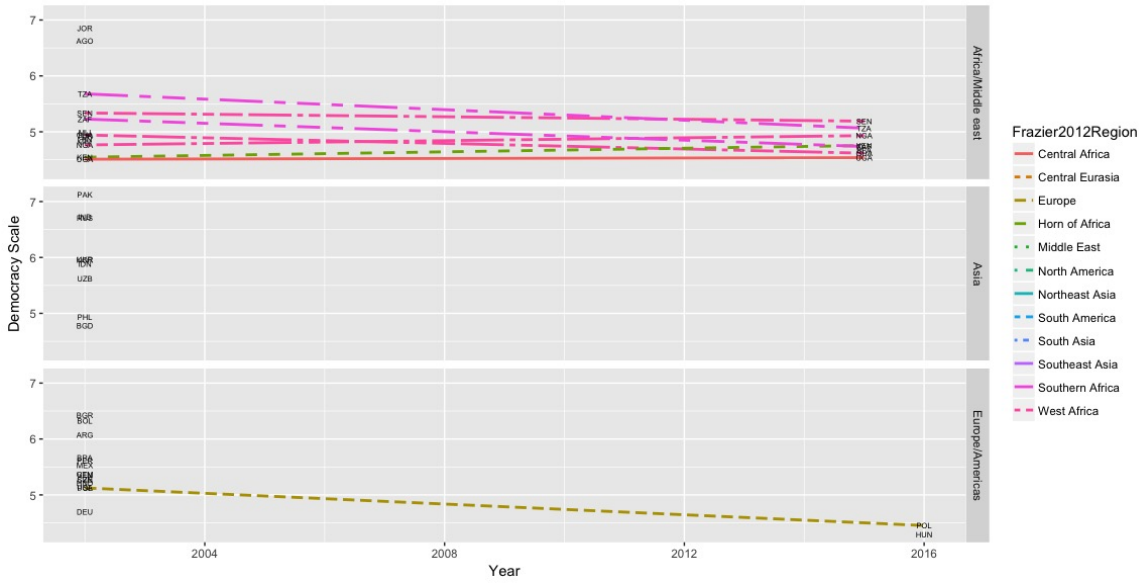

Figure 6: Attitudinal scale measuring views on governance and democracy over time.
Source: Author created in R with PEW Global Attitude Survey data.

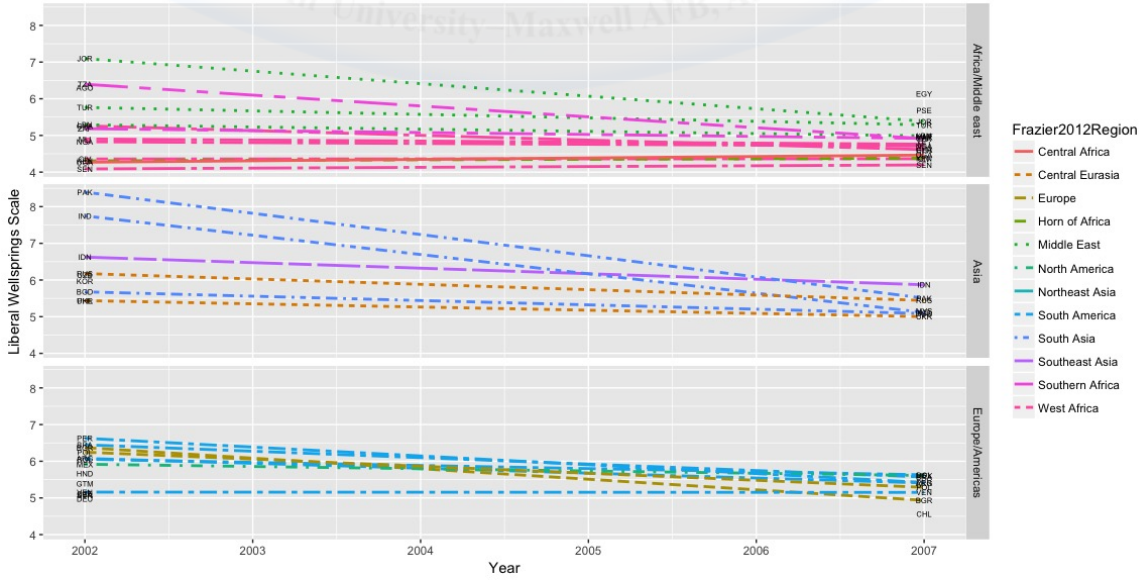

Figure 7: Attitudinal scale measuring views on the liberal wellsprings over time.
Source: Author created in R with PEW Global Attitude Survey data.

This work establishes three new attitudinal scales related to liberal values or views of the US by using EFA with PEW Global Attitude surveys. The statistical models include these scales as explanatory variables operationalizing population values and test Hypothesis 3. Additionally, these scales will be assessed for regional differences to test Hypothesis 4. Overall, these scales will provide additional depth to testing the relationship between state values and state actions, as the views of the population may also be considered instead of only values as reflected in the outcomes of a state's government. However, these scales are very limited in the states and years available, and this limitation makes generalizing results derived from these scales troublesome. Further research into measures of population values available for all states is desirable.

Chapter 5

Testing the Liberal Order

> *Noting that no theory can ever be exposed to all possible relevant tests, they ask not whether a theory has been verified but rather about its probability in the light of the evidence that actually exists.*
>
> – *Thomas S. Kuhn, 1962*

This chapter merges theory with empirical analyses to draw conclusions about the international order. All hypotheses developed in Chapter 2 are evaluated, results for each hypothesis are presented individually, and the chapter concludes with a summary of all hypotheses to consider the liberal order holistically.

Testing the Progression of Liberal State Actions

H0: Liberal state behaviors within the international order are staying the same or decreasing over time.

H1: Liberal state behaviors within the international order are progressing over time.

The above competing hypotheses are under test to evaluate if state actions are becoming more liberal over time in the international order. Three variables operationalize liberal state actions: total IGO membership, trade as a percentage of GDP, and customs to imports ratio. For all hypotheses about state actions in the international system, each of these operationalizations of liberal state behaviors is considered separately, and then the results of all models are summarized to draw conclusions about the stated hypotheses. The models presented in this section also test the hypotheses regarding regional variations. While this section presents the model results, the discussion of the regional specific results is reserved for the respective section.

Trade as a Percentage of GDP

Table 7: Model results for Hypotheses 1 and 5 using trade as percentage of GDP.

	Coefficient	Delta	Range	p-value	
Year	0.063	1.094	20	2.20E-16	***
Central Eurasia	1.312	24.604	1	2.19E-05	***
Europe	0.755	13.740	1	0.042	*
Horn of Africa	-0.221	-3.804	1	0.773	
South Asia	-1.187	-19.290	1	0.034	*
West Africa	-1.239	-20.075	1	0.0001	***
Year:Central Eurasia	-0.048	-0.827		5.34E-09	***
Year:Europe	0.039	0.690		2.20E-16	***
Year:Horn of Africa	-0.088	-1.521		0.0007	***
log(GDP)	-0.307	-5.259	11.6	1.85E-07	***
GDP PCAP	0.013	0.230	205.5	3.91E-10	***
CINC	-6.342	-70.392	0.2	0.397	
Major Power	-1.012	-16.619	1	0.054	

Source: Author's analysis results.

Table 7 provides the modeling results indicating that year is statistically significant in the model to predict trade as a percentage of GDP.[1] Statistical significance indicates there is evidence of a relationship between year and trade as a percentage of GDP. In this case, based on the interpretation of the coefficient results (using the delta values from Table 7), there was an average increase of approximately one percentage point in trade as a percentage of GDP each year, between 1991 and 2012. This finding suggests that total trade volume, operationalizing commercial liberalism, increased between 1991 and 2012 while controlling for other state characteristics such as GDP and power. Regional differences were detected but will be discussed in the section addressing regional variations. To demonstrate the regional and temporal trends visually a plot of the average regional trade as a percentage of GDP over time is presented in Figure 8.

1. Table 7 presents model coefficients and p-values for trade as percent of GDP using double clustered robust SE. The interpretation of model coefficients as the change (delta) in trade as a percentage of GDP at the median dependent variable value for a one unit change in the explanatory variable holding all others fixed is also given. A one unit change has a different meaning depending on the range of possible values for the explanatory variable, so the range for all explanatory variables is also included. No changes in statistical significance decisions for year or region variables occurred when using other robust SE options. This model is an unbalanced Panel: Number of states = 182, Number of years = 1-21, Total sample size = 3513, Adj. R-Squared: 0.59. $^{*}p<0.05$; $^{**}p<0.01$; $^{***}p<0.001$

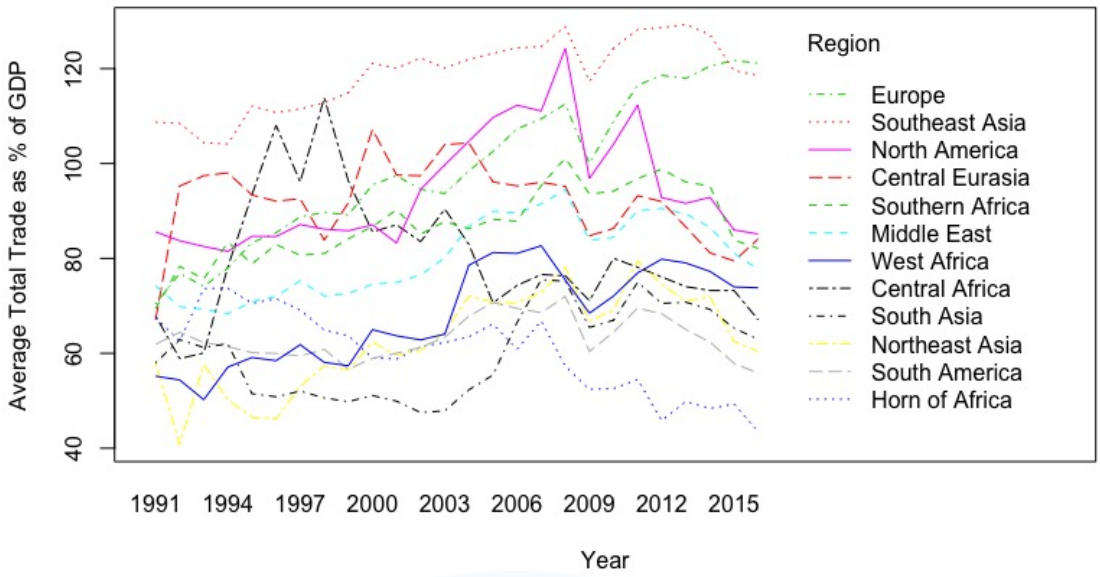

Figure 8: Plot of the regional average total trade as a percentage of GDP over time. *Source: Author created in R with World Bank data.*

Customs to Imports Ratio

Table 8 provides the modeling results which indicate that year is statistically significant in the model predicting customs to imports ratio, once again providing evidence of a trend in customs to imports ratio over time.[2] Additionally, based on the interpretation of the coefficient results there was an average decrease of 6 percentage points in the customs to imports ratio each year, between 1991 and 2012. A decrease in customs to imports implies higher free trade, a progression towards more liberal behavior. To provide additional context as to what this change implies, the range of customs to imports ratios observed in the dataset used for this model is -0.005 to 0.387. Regional

2. Table 8 presents model coefficients and p-values using DC robust SE for Customs to Imports model. The interpretation of model coefficients as the change (delta) in customs to imports ratio at the median dependent variable value for a one unit change in the explanatory variable holding all others fixed. A one unit change has different meaning depending on the range of possible values for the explanatory variable, so the range for all variables is also included. No changes in statistical significance decisions for year or region variables occurred when using the other robust SE options. White 1 SE makes CINC significant. This model was an unbalanced Panel: Number of states = 146, Number of years = 1-21, Total sample size = 2035, Adj. R-Squared: 0.76. $^{*}p<0.05$; $^{**}p<0.01$; $^{***}p<0.001$.

differences were detected but will be discussed in the section addressing regional variations. To demonstrate the regional and temporal trends visually a plot of the average regional customs to imports ratio over time is presented in Figure 9.

Table 8: Model results for Hypotheses 1 and 5 using customs to imports ratio.

	Coefficient	Delta	Range	p-value	
Year	-0.043	-0.006	20	2.20E-16	***
Central Eurasia	-1.831	-0.029	1	2.20E-16	***
Europe	-1.515	-0.027	1	1.03E-07	***
Year:Central Eurasia	0.096	-0.002		2.20E-16	***
Year:Europe	-0.075	-0.007		2.20E-16	***
log(GDP)	-0.236	-0.011	11.50	8.10E-11	***
GDP PCAP	0.002	-0.004	51.13	0.415	
CINC	6.690	23.561	0.21	0.036	*
Major Power	-0.476	-0.016	1	0.323	

Source: Author's analysis results.

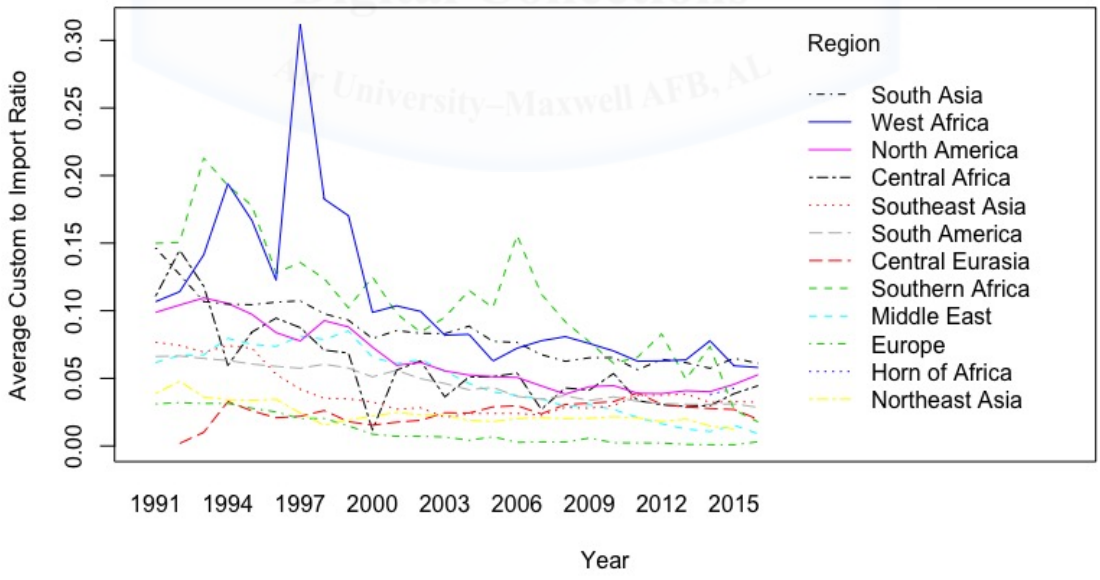

Figure 9: Plot of the regional average customs to imports ratio over time.
Source: Author created in R with World Bank data.

Total IGO Memberships

Table 9 provides the modeling results which indicate that year is statistically significant in the model to predict a state's number of IGO memberships.[3] Additionally, based on the interpretation of the model coefficient there was an average increase of almost one IGO each year, between 1991 and 2005. This result displays a trend towards increased liberal behavior in the international system while controlling for other state characteristics such as GDP and power. To demonstrate the regional and temporal trends visually a plot of the regional average IGO memberships over time is presented in Figure 10.

Table 9: Model results for Hypotheses 1 and 5 using IGO memberships.

	Coefficient	Delta	Range	p-value	
Year	0.817	0.817	13	2.20E-16	***
Central Eurasia	-42.089	-42.089	1	1.76E-14	***
Middle East	-6.183	-6.183	1	0.047	*
Northeast Asia	-22.530	-22.530	1	4.51E-09	***
South Asia	-4.169	-4.169	1	0.115	
Southeast Asia	-15.516	-15.516	1	8.84E-13	***
Southern Africa	-7.750	-7.750	1	3.12E-03	**
West Africa	13.502	13.502	1	2.01E-05	***
Year:Central Eurasia	2.053	2.053		2.20E-16	***
Year:Middle East	-0.294	-0.294		5.04E-10	***
Year:South Asia	-0.515	-0.515		2.20E-16	***
Year:Southeast Asia	-0.165	-0.165		8.66E-07	***
log(GDP)	5.716	5.716	13.1	2.20E-16	***
GDP PCAP	-0.007	-0.007	236.9	0.326	
CINC	-25.428	-25.428	0.2	0.573	
Major Power	13.526	13.526	1	2.93E-03	**

Source: Author's analysis results.

3. Table 9 presents model coefficients and p-values using DC robust SE for the Total IGO Memberships model. The interpretation of model coefficients as the change (delta) in Total IGO memberships at the median dependent variable value for a one unit change in the explanatory variable holding all others fixed. A one unit change has different meaning depending on the range of possible values for the explanatory variable, so the range for all variables is also included. The interaction with year could not be evaluated for N.E. Asia, S. Africa, and W. Africa because these interactions all resulted in a singularity in the model. No changes in statistical significance decisions for year or region variables occurred when using the other robust SE options. White 1 SE makes CINC significant. This model is an unbalanced Panel: Number of states = 182, Number of years = 2-14, Total sample size = 2391, Adj. R-Squared: 0.85. $^{*}p<0.05$; $^{**}p<0.01$; $^{***}p<0.001$.

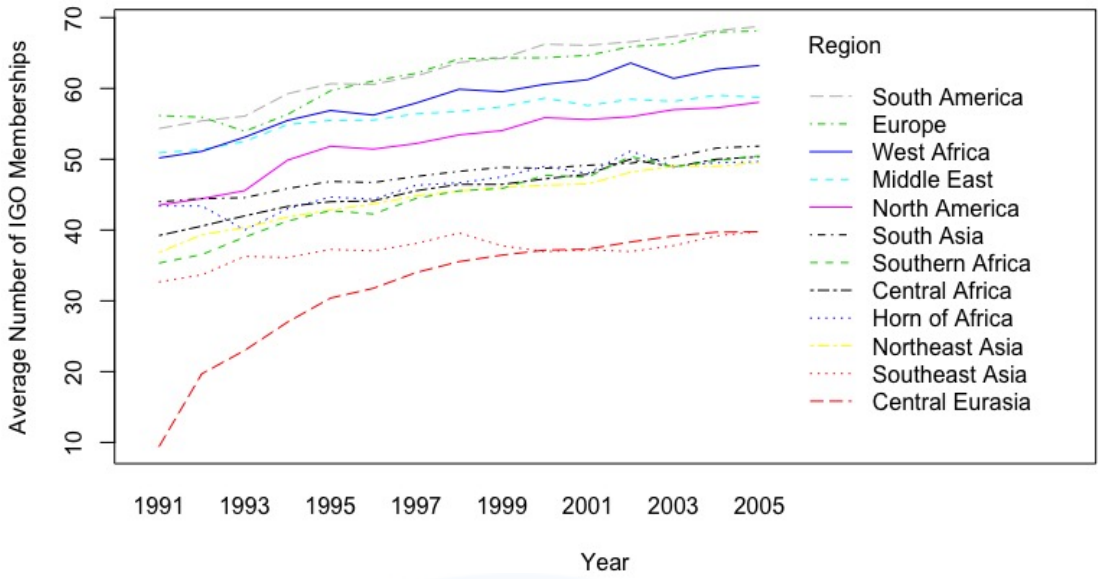

Figure 10: Plot of the regional average IGO memberships over time.
Source: Author created in R with Correlates of War data.

Summary

All models provide evidence of a positive trend in liberal state behaviors over time. Visually, in Figures 8 to 10, customs to imports and IGO memberships provide the most convincing visual display of increasing liberal behaviors. The model results taken together give evidence to reject the null hypothesis and conclude that liberal state behaviors within the international order are progressing over time.

In a liberal order, the principles and rules of the order are negotiated and based on agreements between the leading state and the other states in the system.[4] If a liberal order exists today we would expect to see acceptance and increasing participation in these negotiated liberal intuitions, as these statistical results highlight. Additionally, the increasing nature of the liberal behaviors may demonstrate the constructivist

4. Ikenberry, G. John. *Liberal Leviathan: the Origins, Crisis, and Transformation of the American World Order*. Princeton, NJ: Princeton Univ. Press, 2011b, 70; Ikenberry, G. John. *After Victory: Institutions, Strategic Restraint, and the Rebuilding of Order After Major Wars*. Princeton: Princeton University Press, 2001, 30.

path-dependency of neoliberal institutionalism as the self-reinforcing nature of the order, as the increasing returns to institutions create cumulative effects continually impacting the interests and behaviors of the states in the system.[5] The solid black arrows in Figure 1 represent this expectation. However, it is also possible that liberal state behaviors are increasing because states view such actions in their best interest for ensuring survival through wealth and power accumulation (or any other unknown reason), and not because of a self-reinforcing nature of the institutions and progression towards an interest in, and acceptance of, the fundamental values of liberalism. If this is true, liberal state behaviors should be unrelated or randomly associated with internal state values. Therefore, to assess if states who participate in the liberal order more are also states who embody liberal values, statistical models test for a relationship between liberal state values and state actions in the next section.

Testing the Relationship Between State Values and State Actions

H0: There is no relationship between internal values and state actions in the international order.

H2: A positive relationship exists between internal state values and state actions in the international order.

Trade as a Percentage of GDP

Using the results given in Table 10 we see that GDP, GDP per capita growth, % of labor force that is female, press freedom score, civil liberties score, and the gender inequality index are all significant in the model predicting trade as a percentage of GDP, between 1991 and 2012.[6] Statistical significance indicates evidence of a relationship

5. Ikenberry, G. John. *After Victory: Institutions, Strategic Restraint, and the Rebuilding of Order After Major Wars.* Princeton: Princeton University Press, 2001, 15, 17.
6. Table 10 presents model coefficients and p-values using DC robust SE for the trade as a percentage of GDP model. The interpretation of model coefficients as the change (delta) in trade as a percentage of GDP at the median dependent variable value for a one unit change in the explanatory variable holding all others fixed is also given. A one unit change has different meaning depending on the range of possible values for the explanatory variable, so the range for all variables is also included. No changes

between these variables and trade as a percentage of GDP. Both forms of governance (autocracy level and democracy level), political rights score, the gender development index, and the GINI index were not significant and removed from the model.

Table 10: Model results for Hypothesis 2 using trade as a percentage of GDP.

	Coefficient	Delta	Range	p-value	
% Labor Force Female	0.047	0.804	44.53	4.30E-05	***
Press Score	-0.003	-0.057	78	7.00E-05	***
Civil Liberties Score	0.194	3.309	5	0.0002	***
Gender Inequality Index	-3.568	-47.500	0.80	2.20E-16	***
log(GDP)	0.323	5.554	10.29	0.012	*
GDP PCAP	0.019	0.325	68.32	0.021	*
CINC	6.244	144.392	0.21	0.059	

Source: Author's analysis results.

An interpretation of the model coefficients provides insights into the average changes across states, based on explanatory variable values.[7] Going from a state with the highest gender inequality to one with the lowest inequality resulted in an average increase of 38 percentage points in trade as a percentage of GDP. Additionally, if going from the lowest female workforce participation rate to the highest, trade as a percentage of GDP increases an average of approximately 36 percentage points. The next explanatory variable having a statistically significant relationship with trade as a percentage of GDP is the civil liberties score. When going from the lowest level of observed civil liberties to the

in statistical significance decisions occurred when using the other robust SE options. Additionally, the random effects model to include major power status resulted in % of Labor Force Female and Press Score becoming not significant but all other variables remaining significant. Finally, the two-way fixed effects model including a fixed effect for year was run to confirm the significance of the liberal variables when accounting for yearly trends, and all variables except for % of Labor Force Female remained significant. This model is an unbalanced Panel: Number of states = 129, Number of years = 1-19, Total sample size = 2196, Adj. R-Squared: 0.58. $^{*}p<0.05$; $^{**}p<0.01$; $^{***}p<0.001$.

7. To make variable impact comparable across variables, the delta (expected change in dependent variable with a one unit change in the explanatory variable) is multiplied by the range of the explanatory variable, to give a maximum possible impact of each variable. These values are not exact interpretations. The delta is calculated at the median of the dependent variable and then transformed based on the modeling transformation used on the dependent variable. So the delta calculated is not linear and would not directly translate across the full range of explanatory variable values. However, because of the range differences in the explanatory variables, only considering the delta value is also misleading. Instead, the theoretical maximum possible change assuming a linear relationship for delta is calculated for each variable, to make the values comparable across variables. The comparison across variables is more important than the actual change, to help interpret which variables are most impactful as related to the dependent variable.

highest, trade as a percentage of GDP increased an average of 16 percentage points. Finally, when going from the least free press score to most free press score, trade as a percentage of GDP increased an average of 4.5 percentage points. All of these relationships indicate that states with higher liberal values, as measured by GII, percent of the labor force that is female, civil liberties, and press freedom, also had higher trade volume. GDP and GDP per capita growth were also significant in the model, where higher levels of wealth corresponded to higher trade percentage levels. These results are consistent with the framework developed in Chapter 2 and displayed in Figure 1 where both state values and realist factors, specifically in this case wealth, relate to state behaviors in the international system.

Customs to Imports Ratio

With the results in Table 11 we see that GDP, CINC, civil liberties score, and the gender inequality index are all significant in the model predicting a state's customs to imports ratio, indicating evidence of a relationship between these variables and a state's level of free trade.[8] Both governance measures, political rights score, press score, the percentage of female in the workforce, the gender development index, and the GINI index were not significant (indicating a lack of relationship between these variables and a state's customs to imports ratio) and removed from the model.

Interpreting the model coefficients gives insight into the average change in customs to imports ratio across states, based on explanatory variable values between 1991 and 2012.[9] Using the model results, going from the highest gender inequality to the lowest

8. Table 11 presents model coefficients and p-values using Arellano robust SE for Customs to Imports Ratio model. The interpretation of model coefficients as the change (delta) in customs to imports ratio at the median dependent variable value for a one unit change in the explanatory variable holding all others fixed is also given. A one unit change has different meaning depending on the range of possible values for the explanatory variable, so the range for all variables is also included. Using either the double clustered or White1 robust SE in place of the Arellano robust SE resulted in no changes in variable statistical significance status. Additionally, the random effects model to include major power status resulted in major power status not being significant and therefore is not considered further. Finally, the two-way fixed effects model including a fixed effect for year was run to confirm the significance of GII even when accounting for yearly trends and GII remained significant in the model, but civil liberties score did not remain significant. This model is an unbalanced Panel: Number of states = 114, Number of years = 1-21, Total sample size = 1632, Adj. R-Squared: 0.79. $^{*}p<0.05;$ $^{**}p<0.01;$ $^{***}p<0.001.$
9. To make variable impact comparable across variables, the delta (expected change in the dependent variable with a one unit change in the explanatory variable) is multiplied by the range of the

Table 11: Model results for Hypothesis 2 using customs to imports ratio.

	Coefficient	Delta	Range	p-value	
Civil Liberties Score	-6.8E-03	-0.002	5	0.010	**
Gender Inequality Index	2.7E-01	0.173	0.79	2.20E-16	***
log(GDP)	-1.2E-01	-0.019	10.35	2.20E-16	***
GDP PCAP	-7.6E-05	-1.92E-05	39.61	0.700	
CINC	-1.4E+00	0.861	0.21	0.003	**

Source: Author's analysis results.

inequality results in an average decrease of 14 percentage points in customs to imports ratio. Additionally, if going from the least freedoms as measured by the civil liberties score to the greatest freedoms, customs to imports ratio decreases approximately one percentage point. Both of these relationships indicate that states with higher liberal values, as measured by GII and the civil liberties score, also had higher levels of free trade, between 1991 and 2012. GDP and CINC were also significant in the model, with higher levels of wealth corresponding to lower customs (freer trade) and higher levels of power corresponding to higher customs (more restrictive trade). These results are also consistent with the framework developed in Chapter 2 and displayed in Figure 1 where both state values and realist factors, in this case wealth and power, relate to state interactions. However, in this case, power is related to less liberal behaviors, indicating the existing rules and liberal institutions are not sufficient to overcome the influence of power within the international system.

Total IGO Memberships

Using the results for the model testing the relationship between liberal values and participation in IGOs presented in Table 12 we see that the gender inequality index, autocracy level, and GDP are all statistically significant in the model, providing evidence

explanatory variable, to give a maximum possible impact of each variable. These values are not exact interpretations. The delta is calculated at the median of the dependent variable and then transformed based on the modeling transformation used on the dependent variable. So the delta calculated is not linear and would not directly translate across the full range of explanatory variable values. However, because of the range differences in the explanatory variables, only considering the delta value is also misleading. Instead, the theoretical maximum possible change assuming a linear relationship for delta is calculated for each variable, to make the values comparable across variables. The comparison across variables is more important than the actual change, to help interpret which variables are most impactful as related to the dependent variable.

of a relationship between these variables and IGO membership.[10] Democracy level, press freedom score, civil liberties score, political rights score, the percentage of females in the workforce, the gender development index, and the GINI index were not significant (indicating a lack of relationship between these variables and IGO membership) and therefore removed from the model.

Table 12: Model results for Hypothesis 2 using IGO memberships.

	Coefficient	Delta	Range	p-value	
Gender Inequality Index	-29.747	-29.747	0.76	3.04E-11	***
Autocracy	-0.291	-0.291	10	6.17E-09	**
log(GDP)	14.339	14.339	10.26	2.20E-16	***
GDP PCAP	0.046	0.046	101.98	0.08818	
CINC	-107.065	-107.065	0.17	0.08808	

Source: Author's analysis results.

An interpretation of the model coefficients provides insights into the average change across states related to the explanatory variables, between 1991 and 2005. Based on the model results, going from the highest gender inequality to the lowest inequality resulted in an average increase of 23 IGO memberships. When going from the highest level of autocracy to the lowest, IGO memberships increase by an average of 3 IGOs. Both of these relationships indicate that states with higher liberal values, as measured by GII and governance, also had higher IGO participation between 1991 and 2005. GDP was also significant in the model, where higher wealth corresponded to higher levels of IGO participation. These results are consistent with the framework developed in Chapter 2 and displayed in Figure 1 where both state values and realist factors, in this case only wealth, relate to state interactions.

10. Table 12 presents coefficients and p-values using DC robust SE for total IGO memberships model. The interpretation of model coefficients as the change (delta) in total IGO memberships at the median dependent variable value for a one unit change in the explanatory variable holding all others fixed. A one unit change has different meaning depending on the range of possible values for the explanatory variable, so the range for all variables is also included. Using the White1 robust SE in place of the DC robust SE makes CINC significant. The random effects model to include major power status resulted in major power status not being significant and therefore is not considered further. Finally, the two-way fixed effects model including a fixed effect for year was run to compare results to including a year effect resulting in only GDP being significant. This model is an unbalanced Panel: Number of states = 123, Number of years = 2-12, Total sample size = 1332, Adj. R-Squared: 0.70. $^{*}p<0.05$; $^{**}p<0.01$; $^{***}p<0.001$.

Summary

One of the prominent theoretical consistencies in liberalism is the fundamental importance of values related to the three liberal wellsprings. These values are an essential component of liberalism to consider because if no relationship between liberal values and state behaviors exists, the increase in states liberal behaviors over time may be driven by other interests, such as wealth and power accumulation, reducing empirical support for the liberal framework considered in this work. Instead, the statistical results in this section demonstrate evidence that values are related to a state's behavior in the international order, where states with stronger liberal values also displayed higher levels of liberal state actions. Overall the results provide interesting insights about the relationships between state values and state behaviors, especially the lack of significance of democracy level in the models. However, further research and consideration may be required to bolster the strength of these conclusions.

An interesting result of this work was the lack of statistical significance of democracy level and the political rights score in the models considered thus far. Other studies, like Oneal and Russett (2001), demonstrate a relationship between democracy and bilateral trade using a dyad-year unit of analysis.[11] However, these differences in research results are understandable given the different approaches. First, Oneal and Russett do not consider other liberal measures like GII. Also, they use a different unit of analysis which impacts the definition of democracy level. Oneal and Russett define democracy level as the lower democracy score of the dyad. Therefore, they are testing the impact of mutual democratic governance on bilateral trade and not democratic governance alone on total trade or free trade practices of a state, as was the approach of this work. By using state-year instead of dyad-year data, we evaluate the overall impact of a state's values on its behaviors in the international system regardless of the nature of the states with which it interacts. This approach may provide a better assessment of the relationship between liberal state values and state actions, as relationships in the international system are not dyadic. Using the approach of this work, democracy was not related to liberal

11. Oneal, John R. and Bruce Russett. "Clear and Clean: The Fixed Effects of the Liberal Peace." *International Organization 55*(2), 469–485, 2001.

behavior when accounting for other measures of liberal values. If democracy level is not related to state actions, this brings into question Ikenberry's second avenue for order stability: the proliferation of liberal democratic governance. Without a relationship between democracy level and liberal behaviors in the order democracies can not provide stability to the rules and institutions of the liberal order. However, we have not considered conflict initiation, the outcome of interest for democratic peace theory, and therefore this discussion only covers the relationship between state values and the outcomes of trade and IGO membership.

It is possible that democratic governance is not what is important but how this translates into a state's treatment of its citizens and what this treatment reflects about the state's values. Some studies indicate democracies are most robust when they are also wealthy, implying that merely having a democratic form of government may not be sufficient to ensure equality and freedom for citizens.[12] Figure 11 presents a plot of democracy level versus gender inequality index and Figure 12 presents democracy level versus a state's civil liberties score to consider the relationship between democracy level and state values as related to the treatment of citizens.

These figures demonstrate a relationship between the plotted variables, however, it also appears the measures are operationalizing different characteristics of states.[13] In Figure 11, states with the highest democracy level (10) have a range of gender inequality index values (from perfect equality (0) to somewhat unequal (up to greater than 0.5). Moreover, some states with the lowest democracy level (0) have high equality (GII values below 0.2).[14] Additionally, while there is a strong positive relationship between democracy level and civil liberties score (Figure 12), states with democracy levels as high as nine have civil liberties scores as low as two. By studying Figure 12 it appears that high civil liberty scores only occur with higher democracy levels (except for the single outlier with a civil liberties score of 5 and democracy level of 1). This relationship, however, does not

12. In fact, a GDP per capita greater than $14,000 (2018 USD) has been shown as a minimum requirement for democracies to remain stable. See, for example, Mounk, Yascha and Roberto Stefan Foa. "The End of the Democratic Century: Autocracy's Global Ascendance." *Foreign Affairs 97*(3), 29–36, 2018, 31.
13. The correlation between democracy level and GII in the data set used for this study is -0.57 and between democracy level and civil liberties score is 0.85.
14. This plot includes all data, starting in 1991 and GII has a trend towards higher equality over time.

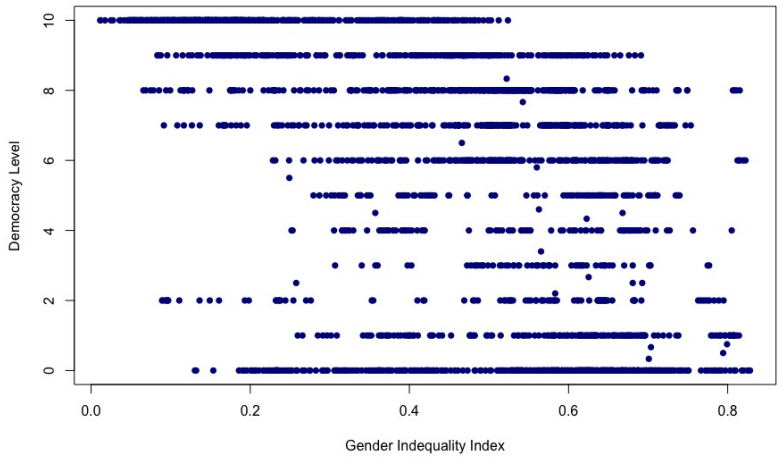

Figure 11: Plot of democracy level versus gender inequality index.
Source: Author created in R with Center for Systemic Peace and International Monetary Fund data.

translate in reverse. High democracy levels exist for almost all values of civil liberties, low and high. The democracy level is a composite index of: competitiveness of executive recruitment, openness of executive recruitment, constraint on chief executive, and competitiveness of political participation.[15] While these measures used in the democracy level value are appropriate for assessing the health of a democracy, they are not as aligned with the foundations of liberalism as the gender inequality index and the civil liberties score. Therefore, the additional measures used in this study may provide a better assessment of a state's liberal values than the commonly used democracy level.

While the results of this section provide evidence to support Hypothesis 2, there are some cautions. First, is the possibility that the relationship between GII and liberal behaviors in the international system is spurious, where other factors or relationships are contributing to the strength of the perceived relationship between liberal values and liberal state actions. For example, values associated with liberal democracies may be related to the economic benefits and stability provided by such governance.[16] Therefore, improvement in gender equality may be related to economic strength, and higher GDP

15. Marshall, Monty G., Ted R. Gurr, and Keith Jaggers, 2017. *POLITY IV Project: Dataset Users' Manual*. Center for Systemic Peace, 15.
16. Mounk and Foa, "The End of the Democratic Century," 29

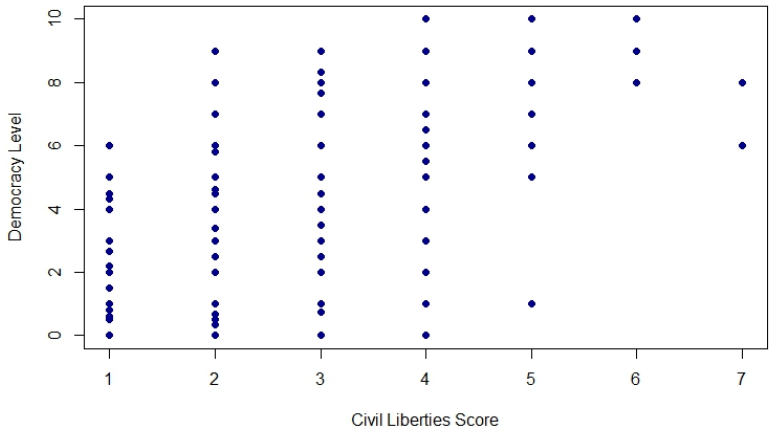

Figure 12: Plot of democracy level versus civil liberties score.
Source: Author created in R with Center for Systemic Peace and Freedom House data.

was also statistically significant in predicting liberal state behaviors. Therefore, with these results it is not possible to discern if wealth, values, or both, are the mechanisms at work. A quick plot of the log of GDP and gender inequality indices demonstrates the relationship between these two variables in Figure 13.[17] Considering the treatment of other religious or racial minority groups in future research may provide further insight into equality of citizens and the depth of liberal values a nation holds.

A strong relationship between GDP and the civil liberties score does not exist, and the civil liberties score is also significant in the models predicting trade (both volume and customs to imports ratio).[18] The impact of the civil liberties score on customs to imports ratio is not as large GII, however, and this variable was not robust to model choice for predicting customs to imports. Therefore, the most convincing results for civil liberties were with trade as a percentage of GDP. Given these considerations, the results for Hypothesis 2 are mixed, where some evidence exists to reject the null and support the hypothesis but further research is needed to verify this result.

17. The correlation between the log of GDP and GII in the data set used for this study is -0.56.
18. The correlation between the log of GDP and civil liberties score in the data set used for this study is very low indicating no relationship, correlation = 0.06.

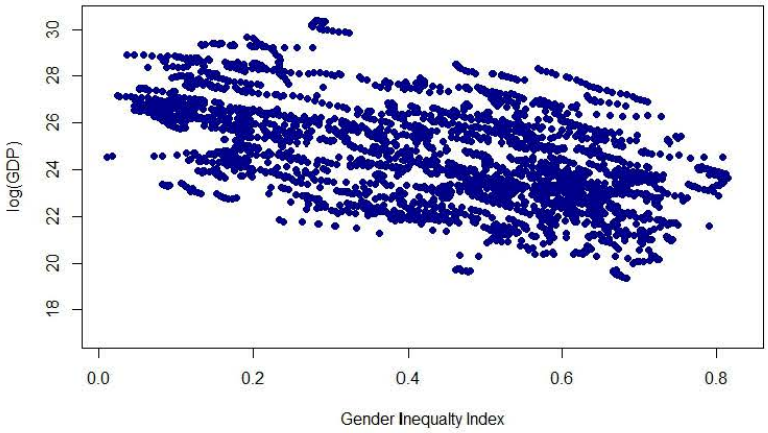

Figure 13: Plot of the log of GDP versus gender inequality index.
Source: Author created in R with World Bank and International Monetary Fund data.

Finally, GDP is significant in all three models and power (CINC) is significant in the model predicting customs to imports ratio. For all three models, higher GDP corresponds to higher liberal behavior, indicating states with higher wealth participate in the liberal order more. In the case of customs to imports ratio, however, higher power corresponds to higher customs, or more restrictive trade. Therefore, in the case of customs to imports ratio, the benefits of liberal institutions do not outweigh the effects of power.

Testing the Relationship Between State Population Values and State Actions

H0: There is no relationship between population values and state actions in the international order.

H3: A relationship exists between the values of a state's population and state actions in the international order.

This research includes three levels of analysis. At the international level, state behaviors are treated as outcomes and at the state level, state values are treated as explanatory variables. Another level below state values are the values of the state's

population, or individual values. Doyle posits that a liberal state should represent the will of the people. Andrew Moravcsik extends this concept in establishing a liberal theory appropriate for empirical evaluation, emphasizing the primacy and influence of individuals and groups within a society, regardless of the nature of the state.[19] Furthermore, Moravcsik asserts the interests of the population, or a subgroup of it, shape state preferences which in turn influence state behavior in the international system.[20] If these assumptions are valid, a relationship between states' population values and states' behaviors should exist. This relationship is displayed in Figure 1 with the blue arrow. As a means to test this theoretical assumption, attitudinal scales were constructed from the PEW Global Attitudes surveys to measure population values in Chapter 4. These scales are treated as the explanatory variables in this section. The development of the scales resulted in limited sample sizes requiring the separate modeling of the attitudinal scales from measures of state values (like GII and civil liberties score).[21] These models include both governance measures (democracy level and autocracy level), regardless of statistical significance, to control for the impact of governance and how this may influence the size of the subgroup represented by the state. While three attitudinal scales were created, the opinion of the US and democracy scales were not significant in any models, and therefore this section only presents the results of the Liberal Wellsprings scale. Additionally, there is not enough data to build the model to predict total IGO memberships with the liberal wellsprings scale, so that model is also excluded.

Trade as a Percentage of GDP

The results given in Table 13 indicate that both power and the Liberal Wellsprings scale are significant in the model, providing evidence of a relationship between these variables and trade as a percentage of GDP.[22] The Liberal Wellsprings scale has a

19. Moravcsik, Andrew. "Taking Preferences Seriously: A Liberal Theory of International Politics." *International Organization 51*(4), 513–553, 516.
20. Moravcsik, Andrew. "Taking Preferences Seriously: A Liberal Theory of International Politics." *International Organization 51*(4), 513–553, 519.
21. Due to the small sample size, two decisions were made to save modeling degrees of freedom that prohibit the inclusion of these scales in the models including other liberal state values. First, a random effects model is used instead of a fixed effects model. Second, only the scale of interest and control variables are included in each model.
22. Table 13 presents model coefficients and p-values using Arellano SE for trade as a percentage of GDP model. The interpretation of model coefficients as the change (delta) in trade as a percentage of GDP

negative delta estimate indicating higher values of the scale correspond to lower trade as a % of GDP. A lower value on this scale indicates a view more in line with the liberal wellsprings. Therefore, states with populations whose views align with the liberal wellsprings had higher trade as a percentage of GDP, in 2002 and 2007. Going from the lowest value for this scale to the highest results in an average decrease of approximately 32 percentage points in trade as a percentage of GDP. While CINC is also significant, the difference between the lowest and highest power values results in an average decrease of approximately only nine percentage points in trade as a percentage of GDP. In this case, higher power is related to lower trade.

Table 13: Model results for Hypothesis 3 using trade as a percentage of GDP.

	Coefficient	Delta	Range	p-value	
Liberal Wellsprings Scale	0.009	-7.494	4.309	0.0002	***
Democracy Level	-0.001	0.486	10	0.722	
Autocracy Level	-0.002	2.201	9	0.190	
log(GDP)	0.002	-1.704	7.501	0.564	
GDP PCAP	-0.0003	0.324	20.598	0.292	
CINC	0.556	-57.826	0.153	0.0001	***
ISMajor	-0.012	13.079	1	0.244	

Source: Author's analysis results.

Customs to Imports Ratio

Based on the results given in Table 14 we see that both power (CINC) and the Liberal Wellsprings scale are significant in the model predicting customs to imports ratio, indicating evidence of a relationship between these variables and customs to imports ratio.[23] GDP is marginally significant, indicating weak evidence of a relationship with the

at the median dependent variable value for a one unit change in the explanatory variable holding all others fixed. A one unit change has different meaning depending on the range of possible values for the explanatory variable, so the range for all variables is also included. Using the White1 robust SE in place of the Arellano SE did not result in any changes in variable significance status. Given the low number of repeated state observations (1 - 2) double clustered SE can not be calculated. This model is an unbalanced Panel: Number of states = 41, Number of years = 1-2, Total sample size = 66, Adj. R-Squared: 0.28 $^{*}p<0.05$; $^{**}p<0.01$; $^{***}p<0.001$.

23. Table 14 presents model coefficients and p-values using white1 robust SE for Customs to Imports Ratio. The interpretation of model coefficients as the change in customs to imports ratio is made at the median dependent variable value for a one unit change in the explanatory variable holding all others fixed. A one unit change has different meaning depending on the range of possible values for the

dependent variable. The Liberal Wellsprings scale has a positive coefficient estimate indicating higher values of the scale correspond to higher customs to imports ratios. Therefore, states with populations whose views are more aligned with the liberal wellsprings have lower customs to imports ratios. When going from the lowest values of this scale to the highest results in an expected decrease of approximately six percentage points in the customs to imports ratio.[24] CINC is also significant and the difference between the highest and lowest power results in an expected increase of approximately 40 percentage points in the dependent variable. Once again, power relates to higher customs to imports ratio.

Table 14: Model results for Hypothesis 3 using customs to imports ratio.

	Coefficient	Delta	Range	p-value	
Liberal Wellsprings Scale	0.036	0.014	4.038	0.0003	***
Democracy Level	-0.015	-0.005	10	0.051	
Autocracy Level	-0.020	-0.007	7	0.104	
log(GDP)	-0.022	-0.007	7.501	0.037	*
GDP PCAP	0.002	0.001	20.448	0.163	
CINC	1.460	2.638	0.153	0.015	*
ISMajor	-0.058	-0.017	1	0.184	

Source: Author's analysis results.

Summary

The Liberal Wellsprings scale and CINC are significant in both models. Both models indicate that higher liberal population values (as measured by the Liberal

explanatory variable, so the range for all variables is also included. Using the Arellano robust SE in place of the White1 SE did not result in any changes in variable significance status. Given the low number of repeated state observations (1 - 2) double clustered SE can not be calculated. This model is an unbalanced Panel: Number of states = 29, Number of years = 1-2, Total sample size = 41, Adj. R-Squared: 0.25. $^{*}p<0.05$; $^{**}p<0.01$; $^{***}p<0.001$.

24. To make variable impact comparable across variables, the delta (expected change in dependent variable with a one unit change in explanatory variable) is multiplied by the range of the explanatory variable, to give a maximum possible impact of each variable. These values are not exact interpretations. The delta is calculated at the median of the dependent variable and then transformed based on the modeling transformation used on the dependent variable. So the delta calculated is not linear and would not directly translate across the full range of explanatory variable values. However, because of the range differences in the explanatory variables, only considering the delta value is also misleading. Instead, the theoretical maximum possible change assuming a linear relationship for delta is calculated for each variable, to make the values comparable across variables. The comparison across variables is more important than the actual change, to help interpret which variables are most impactful as related to the dependent variable.

Wellsprings scale) correspond to increases in liberal state actions at the international level. For the trade as a percentage of GDP model the expected impact of liberal values is greater than the expected impact for changes in power. However, this relationship is flipped for the customs to imports ratio model. Additionally, in the customs to imports model greater national capabilities (i.e., power) correspond to much higher levels of customs (i.e., less free trade). The results of the relationship found in this section between power and customs to imports ratio is consistent with the model examining the relationship between state-level values and customs to imports ratios (presented in Table 11). Both indicate greater power corresponded to less free trade, evidence that the liberal rules and norms of the value of free trade do not overcome the effects of power within the international system. However, the results of the models in this section also provide evidence of a relationship between population values and state behaviors. Overall, these results are consistent with Moravcsik's framework of the influence of individuals on state preferences in addition to realist factors like capability distributions that impact interactions between states.[25] However, these models are built on a small, non-random subset of the data since PEW survey years and states restrict data availability. This subset of data is further restricted to the years the questions composing the scale were asked. Therefore, while these results provide evidence to reject the null hypothesis and support Hypothesis 4 they are not generalizable to all states.[26]

25. Moravcsik, Andrew. "Taking Preferences Seriously: A Liberal Theory of International Politics." *International Organization 51*(4), 513–553, 545.
26. States included in one or both models including the Liberal Wellsprings scale: Angola, Argentina, Bangladesh, Bulgaria, Bolivia, Brazil, Chile, Cote D'Ivoire, Czech Republic, Germany, Egypt, Ghana, Guatemala, Honduras, Indonesia, India, Jordan, Kenya, Republic of Korea, Kuwait, Lebanon, Morocco, Mexico, Mali, Malaysia, Nigeria, Pakistan, Peru, Philippines, Poland, State of Palestine, Russian Federation, Senegal, Slovenia, Turkey, United Republic of Tanzania, Uganda, Ukraine, United States of America, Uzbekistan, Venezuela, South Africa

Testing Regionalization

Internal State Values

H0: There are no differences between regions.

H4: Liberal state values are not universal and therefore different across regions.

While values are of interest in general, they are mainly of interest because of the theoretic expectation that values relate to state actions in the international order. For this reason, testing for regionalization will only include liberal state values found to be statistically significant in models predicting state actions. As an exception, analyses also include democracy level due to the importance of democracy to the liberal tradition. Differences between regions are assessed with the most recent year of data for each measure.[27] The ANOVA results testing for differences in values between regions are in Tables 15 and 16.[28] When possible, the ANOVA tests for regional differences in each variable compared to the US value for that variable. This approach is possible for all variables except the Liberal Wellsprings scale, which is instead tested against the global average.[29]

All tests indicate statistically significant regional differences. In Tables 15 and 16 the regions with significant differences are also marked with asterisks. GII has 10 of 12 regions statistically different from the US GII value. Europe has lower inequality than the US while Central Africa, Horn of Africa, Middle East, North America, South America, South Asia, Southeast Asia, Southern Africa, and West Africa (all of the African regions) have higher inequality than the US. Interestingly, the average GII for North America is statistically different from the US, despite the US being a member of this region and having considerable influence in the region. There are eight regions with statistically different democracy levels compared to the US. All of the African regions, Central

27. Results presented are for the primary region definitions. The most recent year for each variable is: GII - 2013, Democracy level - 2016, Percentage of workforce female - 2017, Liberal Wellsprings scale - 2007, Press Score - 2016, Civil Liberties Score - 2016.
28. $^{*}p<0.05$; $^{**}p<0.01$; $^{***}p<0.001$
29. The US does not have a Liberal Wellsprings scale value for 2007, and therefore the average value is used for comparisons instead.

Table 15: ANOVA results for Hypothesis 4.

Region	Liberal Wellsprings Scale (2007)	Gender Inequality Index (2013)	Democracy Level (2016)	Percent Female Workforce (2017)
Central Africa	4.47	0.54***	2.33***	45.68
Central Eurasia	5.22	0.35	3.15***	43.37
Europe	5.11	0.12***	9.53**	45.45
Horn of Africa	4.49*	0.57***	2.57***	38.86**
Middle East	5.35*	0.38***	1.68***	21.35***
North America	5.61	0.41***	7.36	42.33**
Northeast Asia	No Data	0.20	6.33	44.37
South America	5.29	0.43***	7.75	41.28**
South Asia	5.24	0.45***	6.33	32.79***
Southeast Asia	5.51	0.35*	5.47***	43.14*
Southern Africa	4.92	0.52***	6.14*	46.97
West Africa	4.53**	0.62***	5.41***	45.03
United States	No Data	0.28	8	45.82
Overall Mean	5.05	0.41	5.33	40.90
ANOVA p-value	0.008**	<2.2E-16***	<2.2E-16***	<2.2E-16***

Source: Author's analysis results.

Eurasia, Middle East, and Southeast Asia have lower democracy levels while Europe is the only region with a higher democracy level compared to the US. The percentage of females in the workforce is lower than the US value with statistical significance in Horn of Africa, Middle East, North America, South America, South Asia, and Southeast Asia. Once again, the North American value for this variable is less liberal than the US value. For both, the press freedom score and the civil liberties score almost all regions are less liberal than the US with statistical significance (except for the Europe press freedom score). The Liberal Wellsprings scale only had three regions with statistically significant differences compared to the global average, which may be a function of the limited data available for this measure. However, it may also be a reflection of a more consistent preference for the liberal wellsprings at the population level which does not necessarily translate to a state's treatment of its citizens, depending on how large a subgroup of the population the state represents. Further research, including more states, is required for this variable.

To provide a more detailed consideration of these results, Figures 14 to 19 show the regional averages visually over time and Figures 20 to 25 show the geographic spread of

Table 16: ANOVA results for Hypothesis 4, continued.

Region	Press Freedom Score (2016)	Civil Liberties Score (2016)
Central Africa	57.10***	1.88***
Central Eurasia	60.62***	2.18 ***
Europe	17.90	5.55 *
Horn of Africa	64.57***	2.00***
Middle East	59.15***	2.059***
North America	25.48***	4.65 ***
Northeast Asia	39.50 ***	4.60*
South America	36.50***	4.25***
South Asia	45.57***	2.86 ***
Southeast Asia	35.08***	4.042***
Southern Africa	41.27***	3.47***
West Africa	40.12***	3.18 ***
United States	14	6
Overall Mean	38.21	3.91
ANOVA p-value	<2.2E-16 ***	<2.2E-16***

Source: Author's analysis results.

values across all states for which data exist. Two maps for each liberal value measure are created, one at the earliest available year and the second at the latest available year to further show geographic changes over time. Figure 20 shows some improvement of the gender inequality index when looking at 1991 compared to 2013, which is consistent with Figure 14. Additionally, the maps clearly show the differences in regions for gender inequality. Figure 21 plots the percent of women in the workforce. This map indicates regional differences but not large trends in time, also seen in Figure 15. Figure 22 shows the striking regional differences and changes in civil liberties over time. Interestingly some states, like Russia and others in Africa have regressed in civil liberties between 1991 to 2016. Furthermore, the regional averages of civil liberties presented in Figure 16 show little improvement since 1991 and very diverse values across regions (higher values equate to more civil liberties). Figure 23 shows the regional differences and changes in press freedom over time. Like civil liberties, Russia worsened in press freedom between 1991 to 2016. Also, the US shows slightly lower levels of press freedom in 2016 compared to 1991. As with civil liberties, Figure 17 shows no apparent improvement in press freedom over

time, and some regions have worsened (Horn of Africa, Central Eurasia, Middle East, and Central Africa, where higher values correspond to less freedom). Figure 24 shows the regional differences and changes in democracy level over time. Many states in Africa have higher levels of democracy since the earlier map of 1991, but the US has a lower level of democracy in 2016 compared to 1991. A slight positive trend in democracy level is noticeable in some regions in Figure 18. This overall trend seems positive given recent concerns about a decline of democracy, however, Figure 18 also demonstrates clear differences among regions. Finally, Figure 25 shows the regional differences and changes in the Liberal Wellsprings scale over time. Additionally, this map gives a visual display of which states have data for the construction of this scale. Consistent with the ANOVA results, the regional differences for this measure are less noticeable than the other measures. Also, it is clear that overall most states have more liberal values in 2007 compared to 2002 as measured with this scale, especially India.

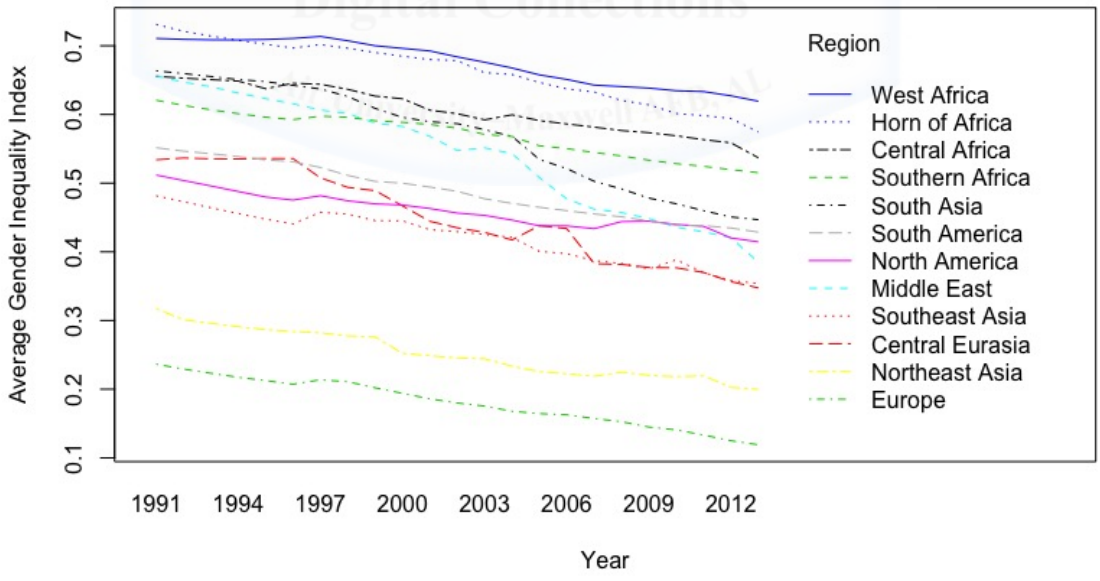

Figure 14: Regional average gender inequality index over time.
Source: Author created in R with International Monetary Fund data.

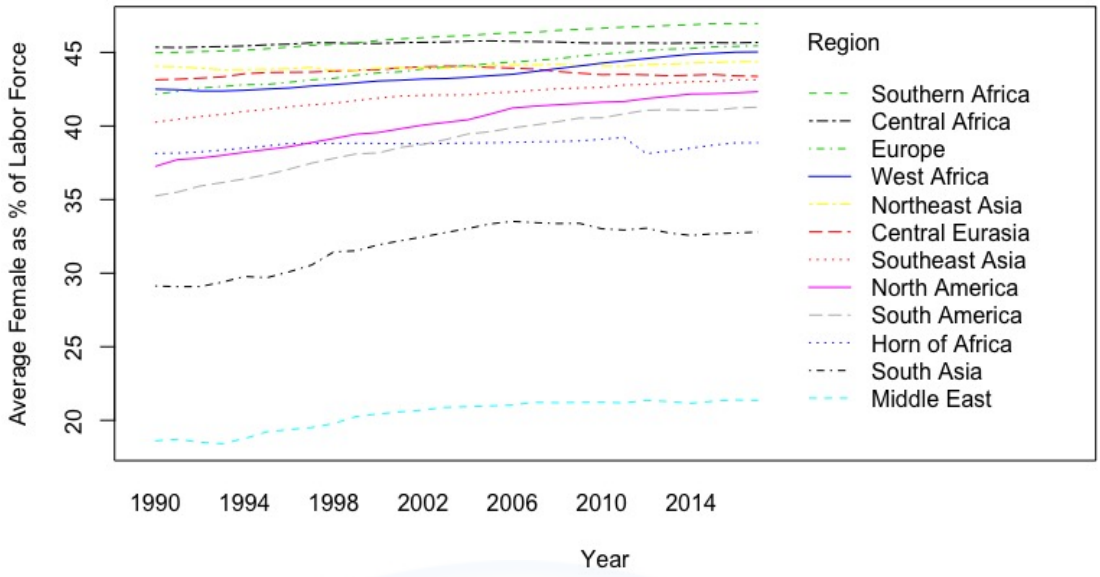

Figure 15: Regional average percentage of workforce that is female over time.
Source: Author created in R with World Bank data.

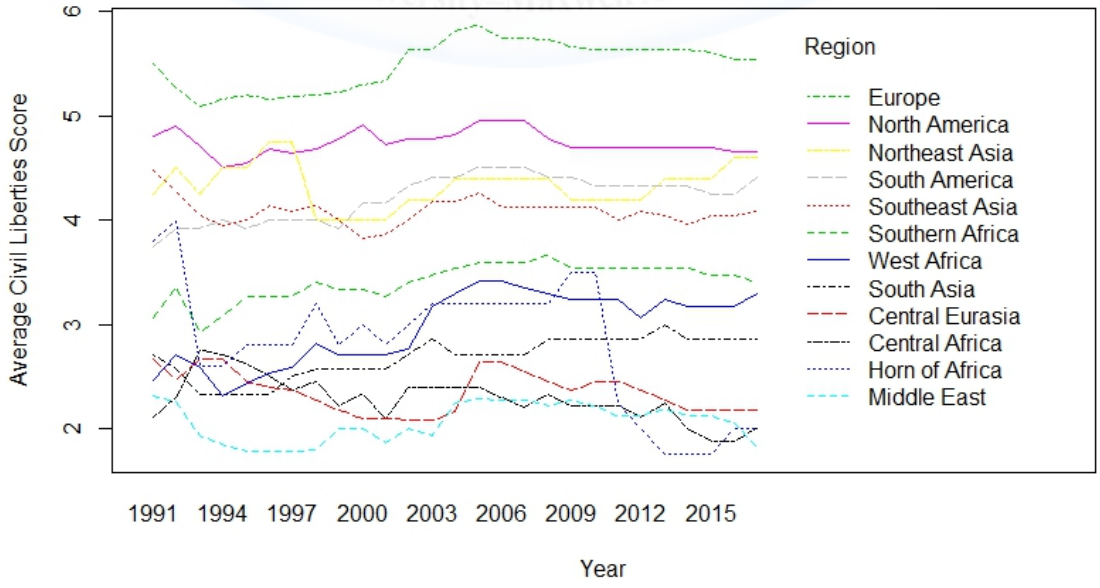

Figure 16: Regional average civil liberties score over time.
Source: Author created in R with Freedom House data.

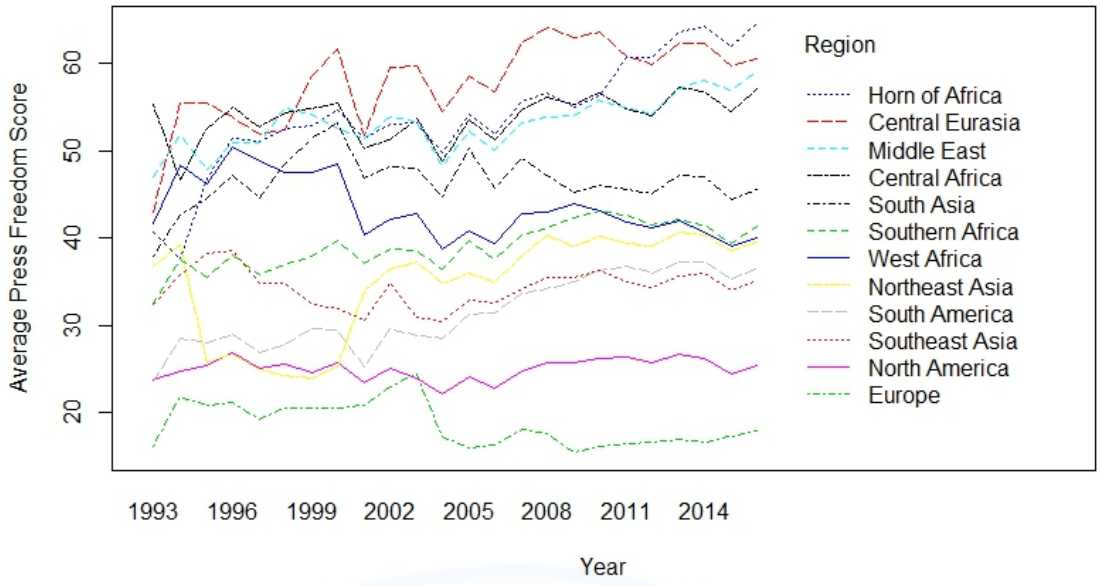

Figure 17: Regional average press freedom score over time.
Source: Author created in R with Freedom House data.

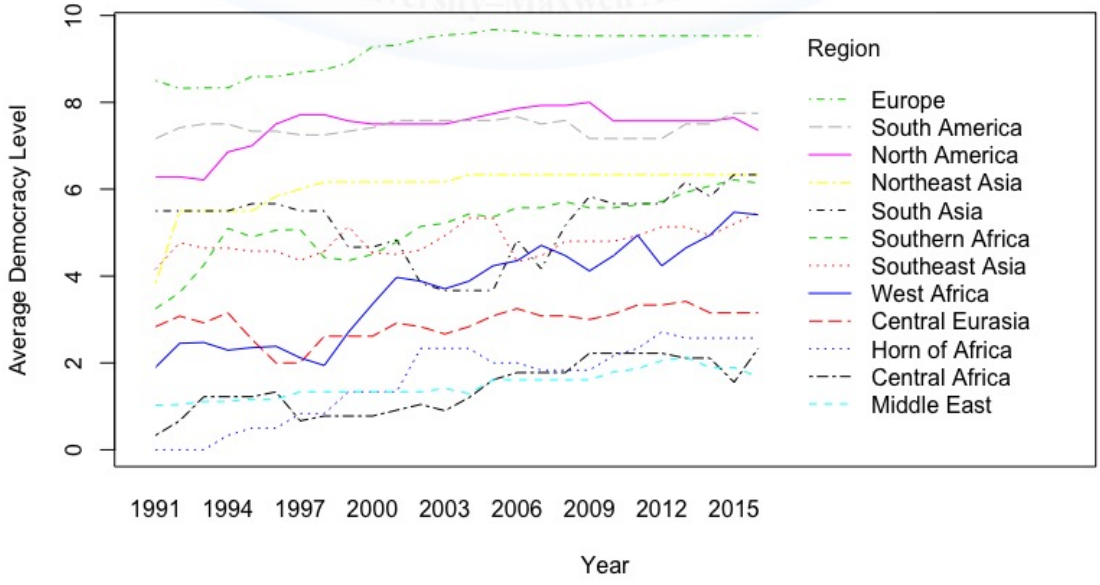

Figure 18: Regional average democracy levels over time.
Source: Author created in R with Center for Systemic Peace data.

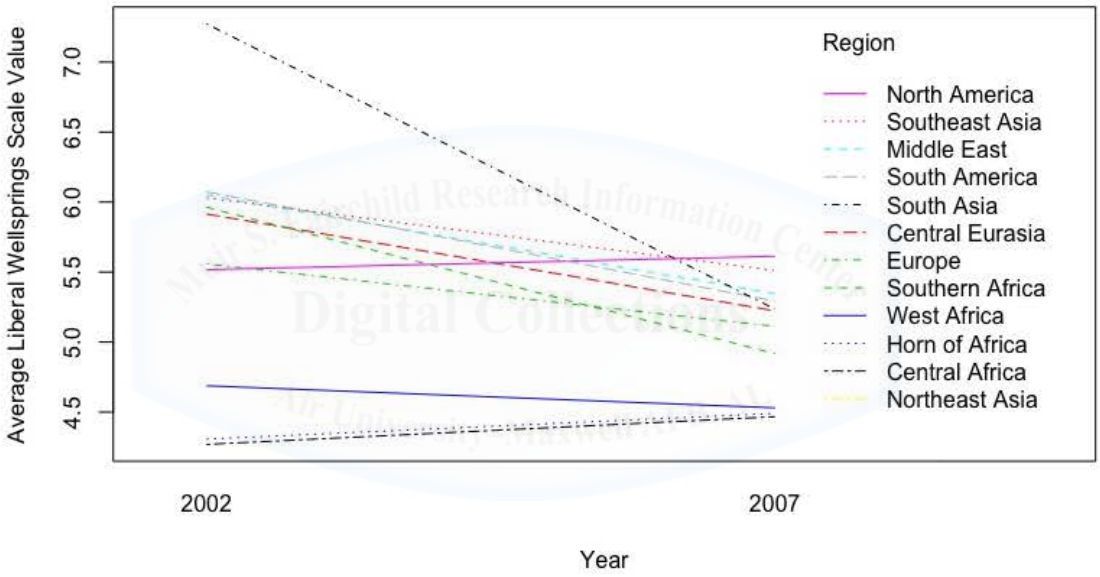

Figure 19: Regional average Liberal Wellsprings scale values over time.
Source: Author created in R with scales from from PEW Global Attitude Survey data.

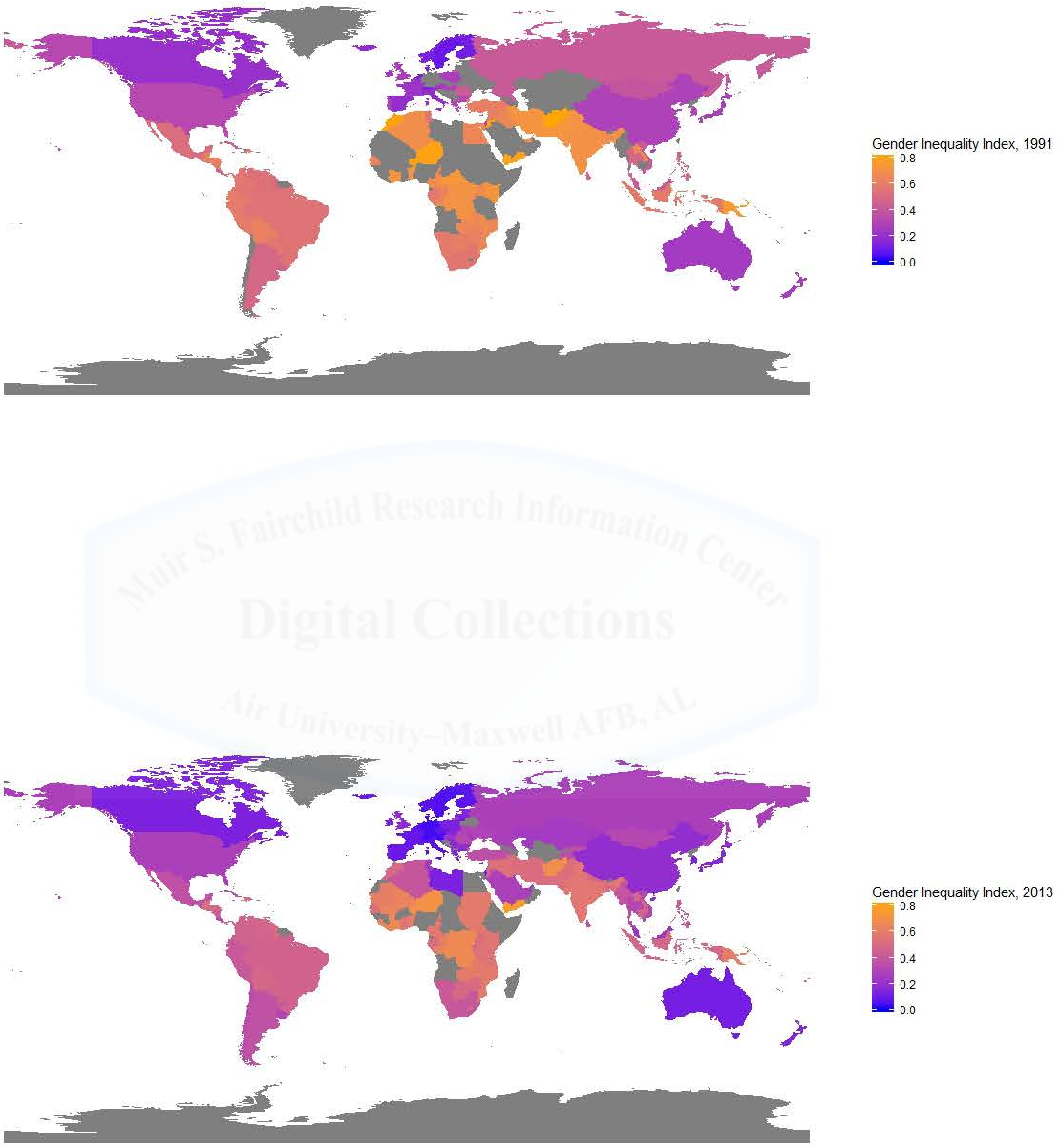

Figure 20: Gender inequality index in 1991 (top) and 2013 (bottom).
Source: Author created in R with International Monetary Fund data.

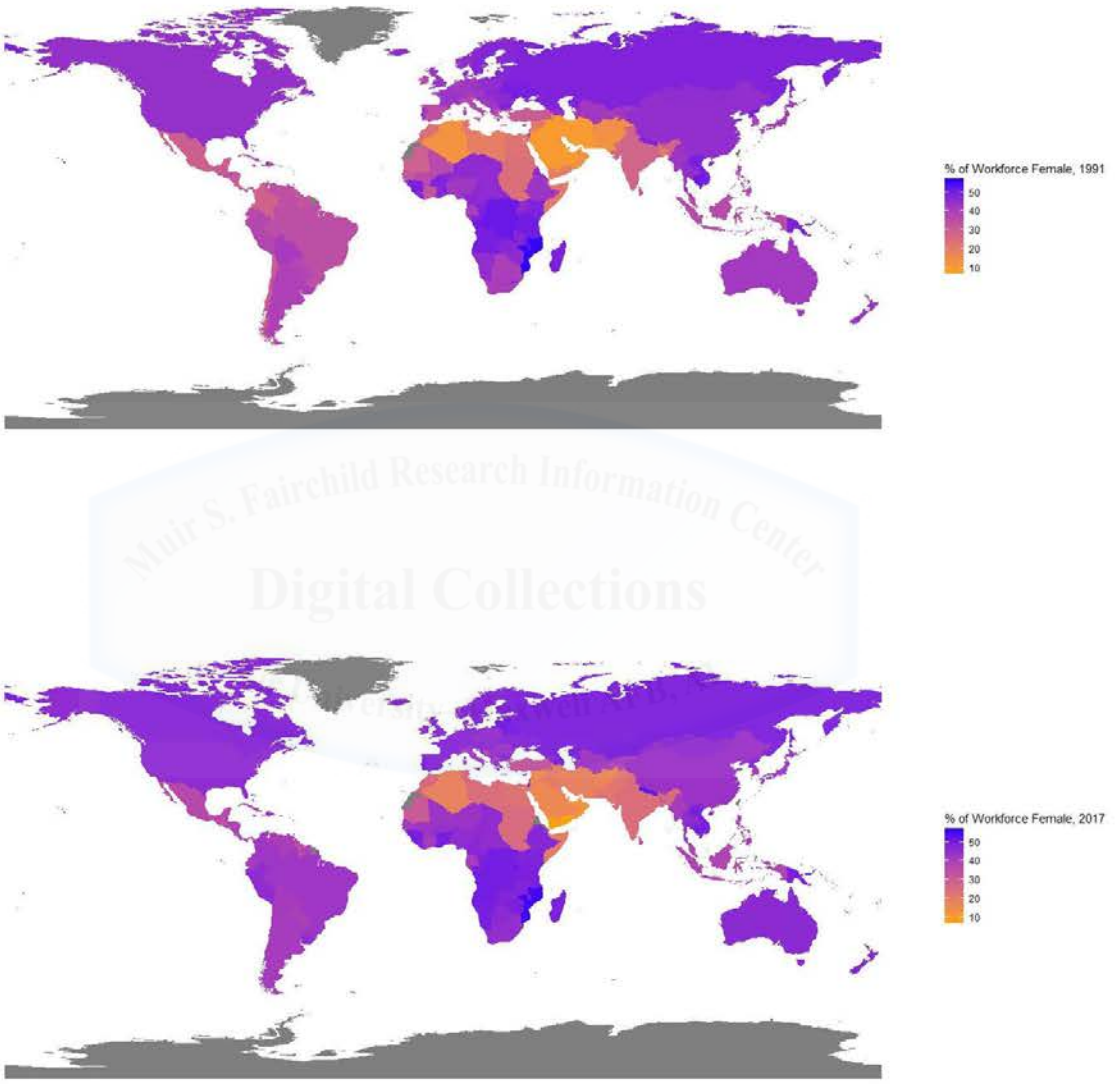

Figure 21: Map of percentage of workforce that is female in 1991 (top) and 2013 (bottom). *Source: Author created in R with World Bank data.*

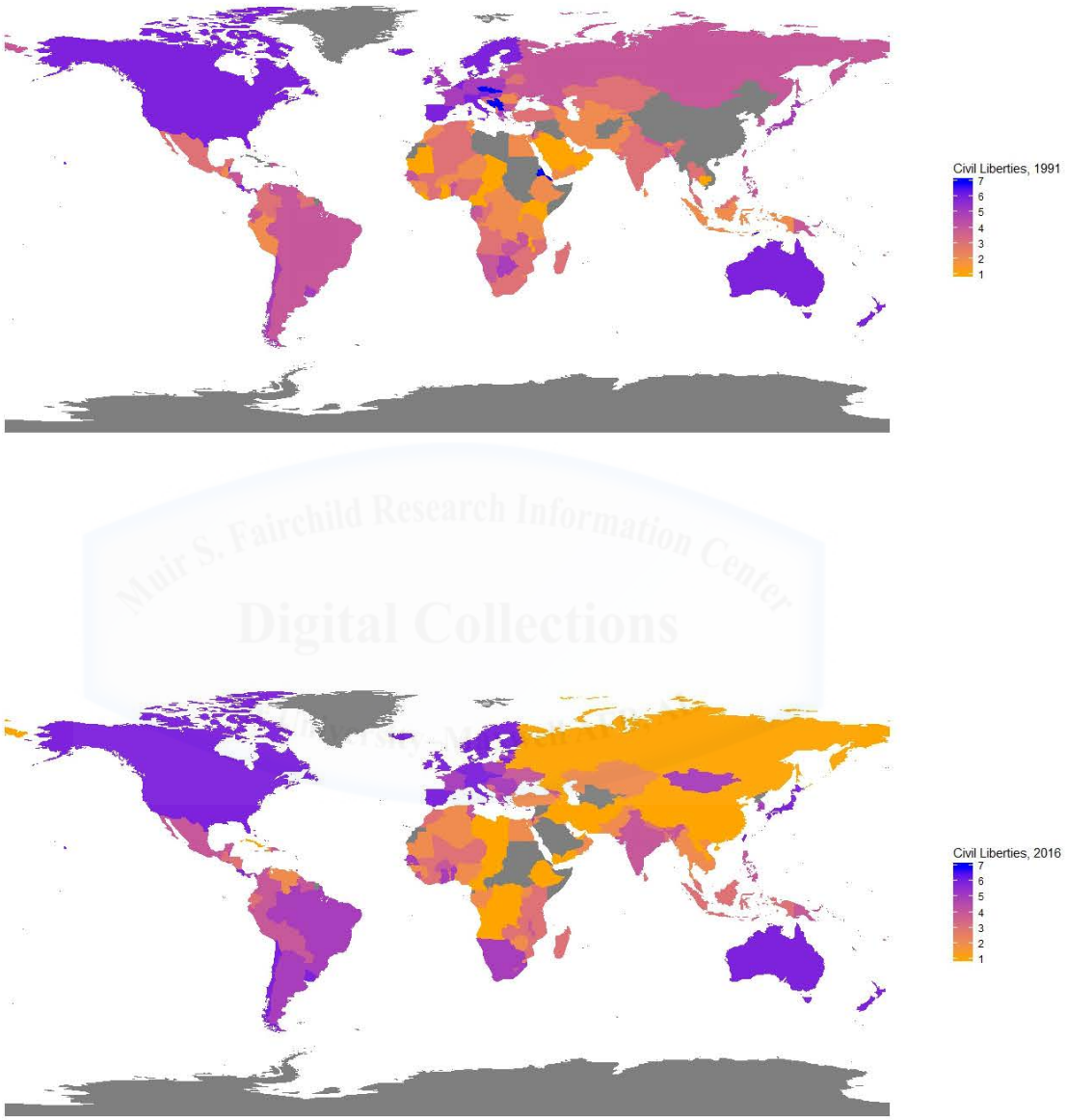

Figure 22: Map of civil liberties score in 1991 (top) and 2016 (bottom), higher values are more free.
Source: Author created in R with Freedom House data.

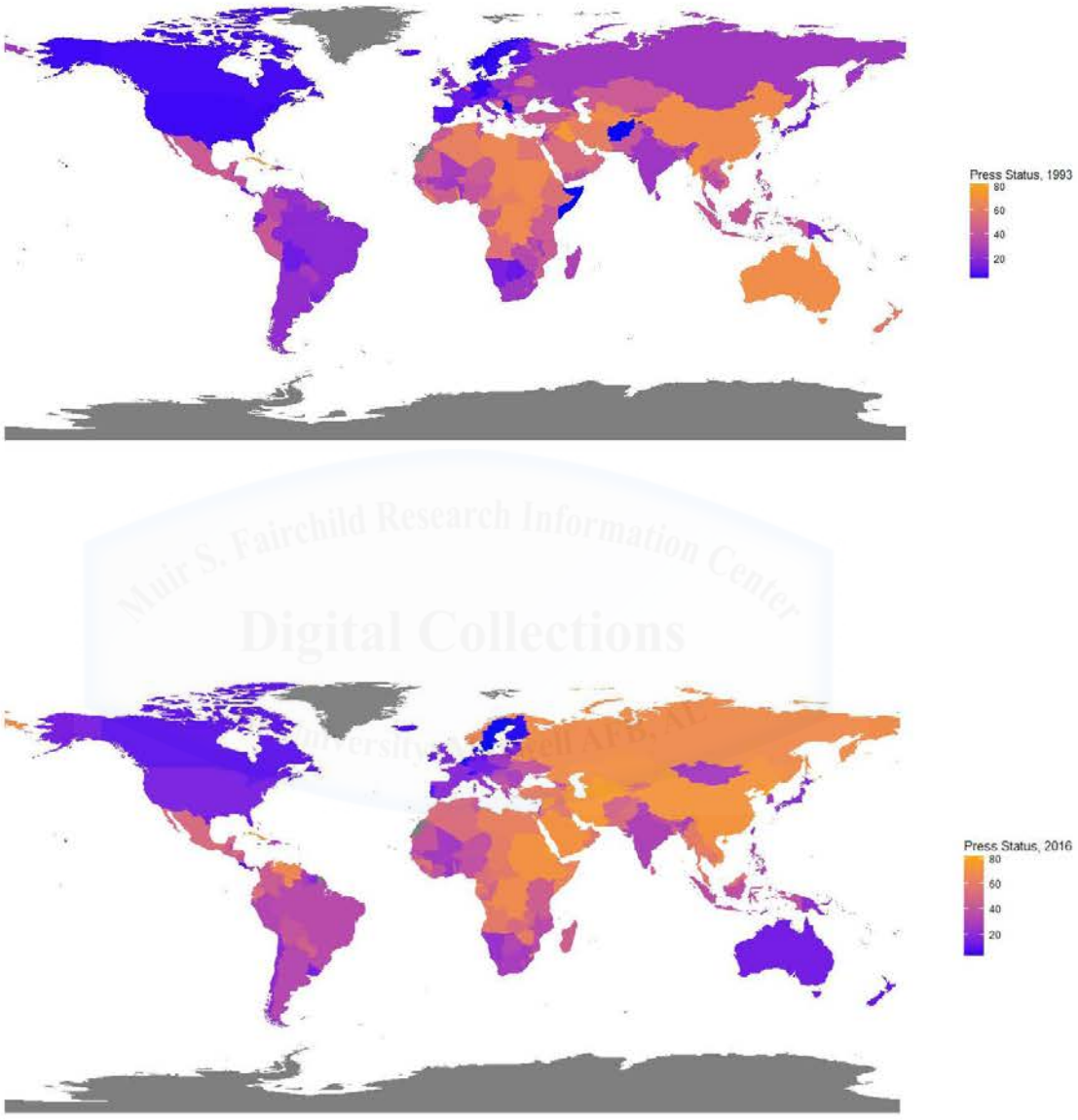

Figure 23: Map of press freedom score in 1993 (top) and 2016 (bottom), higher values are less free.
Source: Author created in R with Freedom House data.

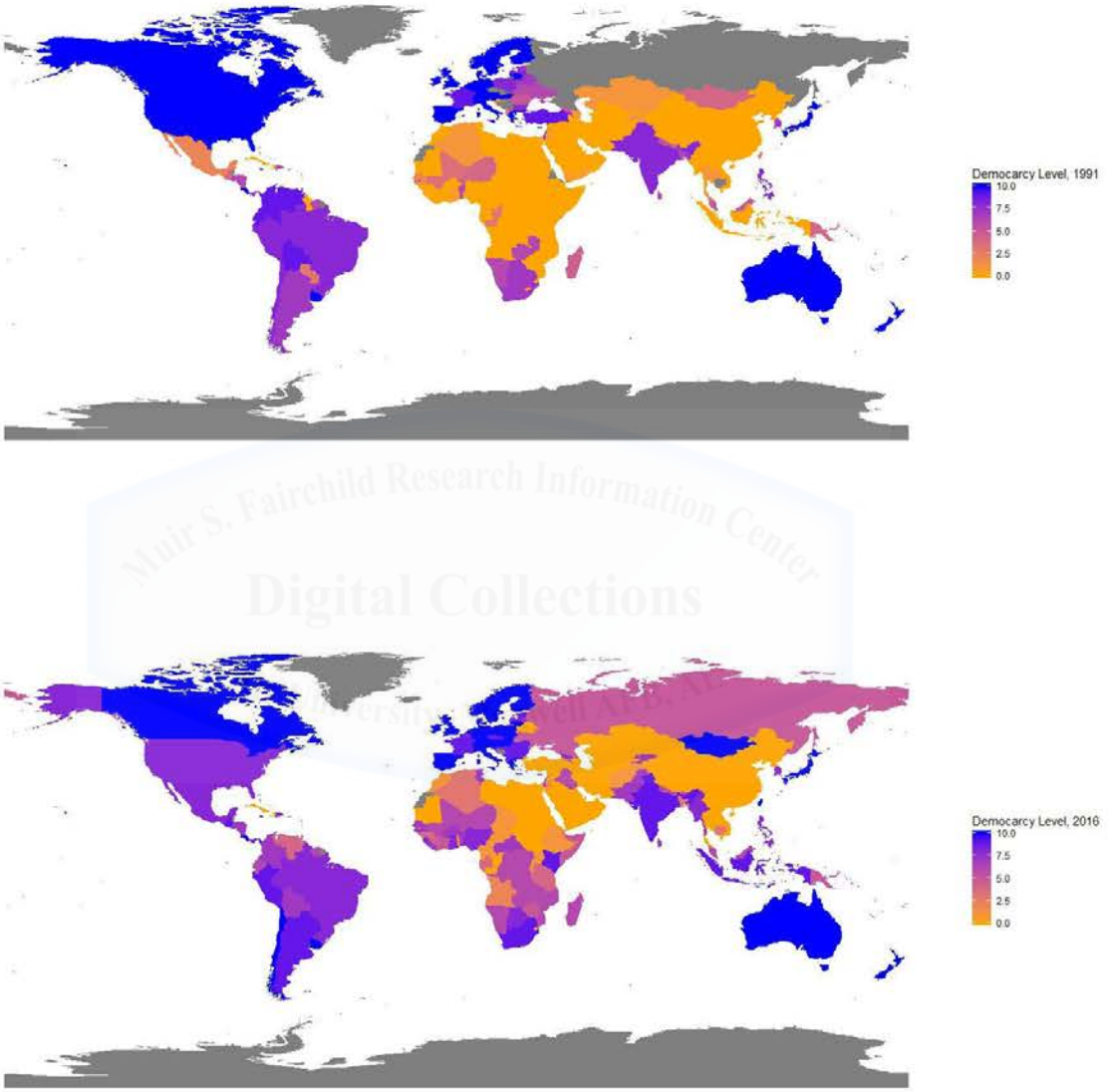

Figure 24: Map of democracy levels in 1991 (top) and 2016 (bottom).
Source: Author created in R with Center for Systemic Peace data.

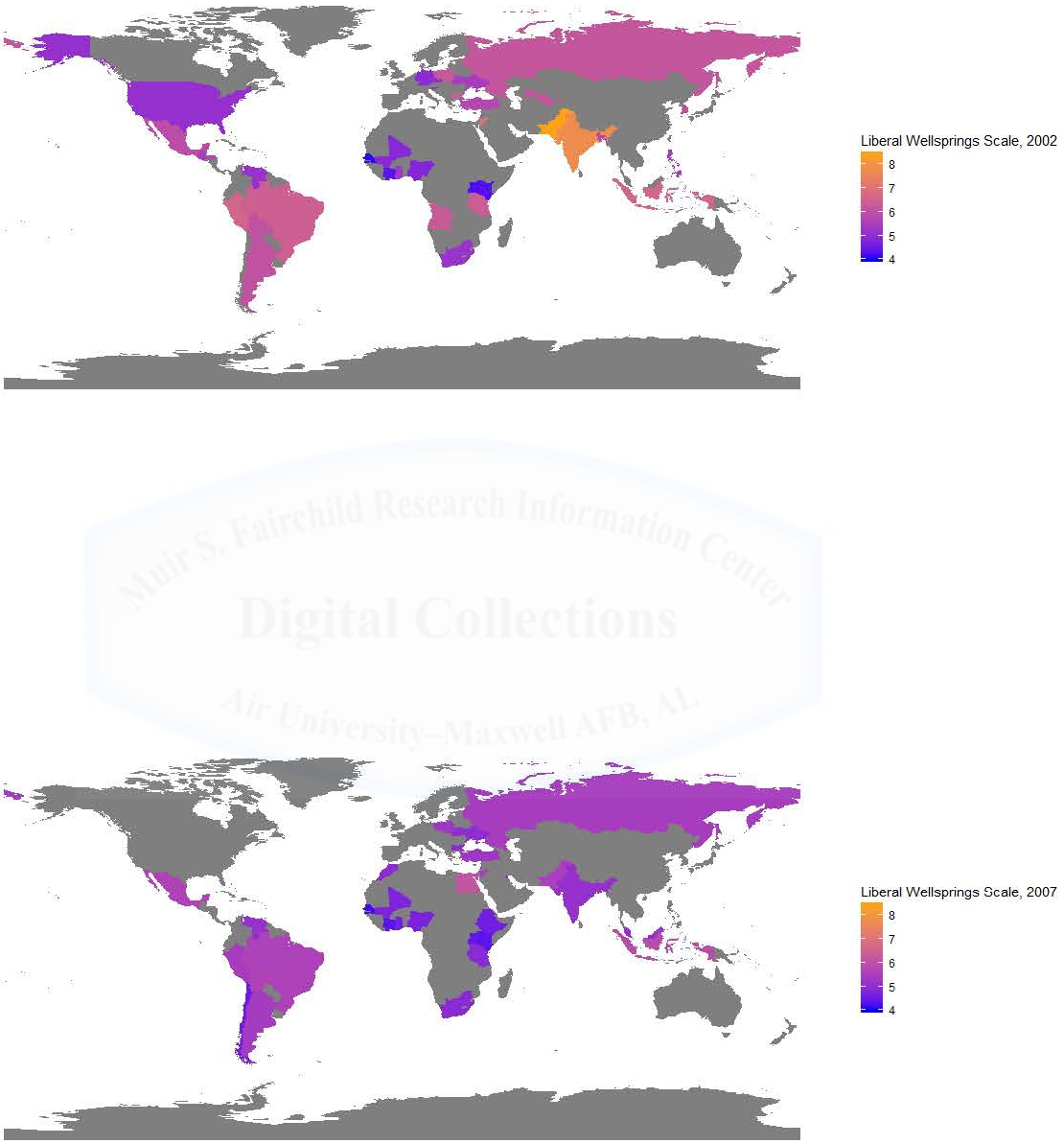

Figure 25: Map of Liberal Wellsprings scale values in 2002 (top) and 2007 (bottom). *Source: Author created in R with scales from PEW Global Attitude Survey data.*

Two competing views of the current order come from Ikenberry and Kupchan. Ikenberry posits that the US-built liberal order will persist even if the US declines in power because the rules and institutions of the order have been embedded in the system and embraced by the other states in the order. However, Kupchan counters this view with a theory that the values that underlie the US-built order are not universal and are instead unique to American society (dashed gray arrows in Figure 1). Instead, Kupchan hypothesizes that without US superiority of power a more regionalized order will form aligned with the interests of the region's dominant states. The results in this section support Kupchan's view that US liberal values are not universal, and differences in these values exist with statistical significance. These results provide evidence to reject the null hypothesis and support Hypothesis 4. However, for most variables, Europe scored more liberal compared to the US. Therefore, while these liberal values do not appear to be universal, they spread further than the US to include Western states in Europe and by visual inspection of the maps, also Canada and Australia (but not necessarily Canada's and Australia's entire regions). The combination of these regional results with the results for Hypotheses 2 and 3 further support Kupchan's view that a regionalized order may develop because we have observed some evidence (although mixed) that values relate to state behavior in the system and that values are different across regions. If the theoretical framework presented in Figure 1 holds, the combination of these results should lead to differences in state behaviors by region, the final hypothesis to be tested in the following section.

However, we also observe here that some measures related to liberal values, specifically press freedom and civil liberties, have relatively flat trends between 1991 and today. Therefore, while there is some evidence of a relationship between state values and state actions, there is not abundant evidence of the neoliberal institutionalist expected path dependence (black arrows from state interactions to state values in Figure 1) where liberal state interactions re-enforce and further liberal state values.

State Actions within the International System

H0: There are no differences between regions.

H5: Liberal state actions and their temporal trends vary by region.

Regional differences in state behaviors in the international order are tested with the random effects models that also tested for behavior trends over time in the section titled, "Testing the Progression of Liberal State Actions." This section presents the regional results of these models.

Trade as a Percentage of GDP

Table 7 contains the modeling results for regional differences in trade as a percentage of GDP. A graphical display of all state data over time by region is given in Figure 26.[30] Based on the modeling results, there are statistically significant differences in trade as a percentage of GDP in Central Eurasia, Europe, Horn of Africa, South Asia, and West Africa regions. Additionally, the interactions between Central Eurasia, Europe, and Horn of Africa and year is also statistically significant, indicating the temporal trends in these regions is different from the baseline trend. Both Central Eurasia and Europe have higher levels of trade as a percentage of GDP compared to the model baseline, with Central Eurasia having the largest difference (an average difference of 27 percentage points). However, Central Eurasia has a negative interactive effect with year indicating that the progression over time in Central Eurasia is not as strong (an average expected increase a year of approximately 0.3 percentage points instead of 1). Europe has a positive interactive effect with year indicating Europe's trade trend over time is greater than in other regions (an average expected increase a year of almost 2 percentage points instead of 1). Horn of Africa, South Asia, and West Africa all have lower average trade levels, with South Asia and West Africa having an average trade as a percentage of GDP that is 20 points lower than the baseline. Additionally, Horn of Africa's yearly trend is negative, demonstrating a decrease in trade volume between 1991 and 2012 instead of an increase, as in the other regions. Figure 8 displays these regional differences visually. The model

30. In Figure 26, extreme values (500-800) for the US Virgin Islands and Equatorial Guinea are excluded.

includes all control variables to ensure the differences by region are not due to differences in wealth or power.

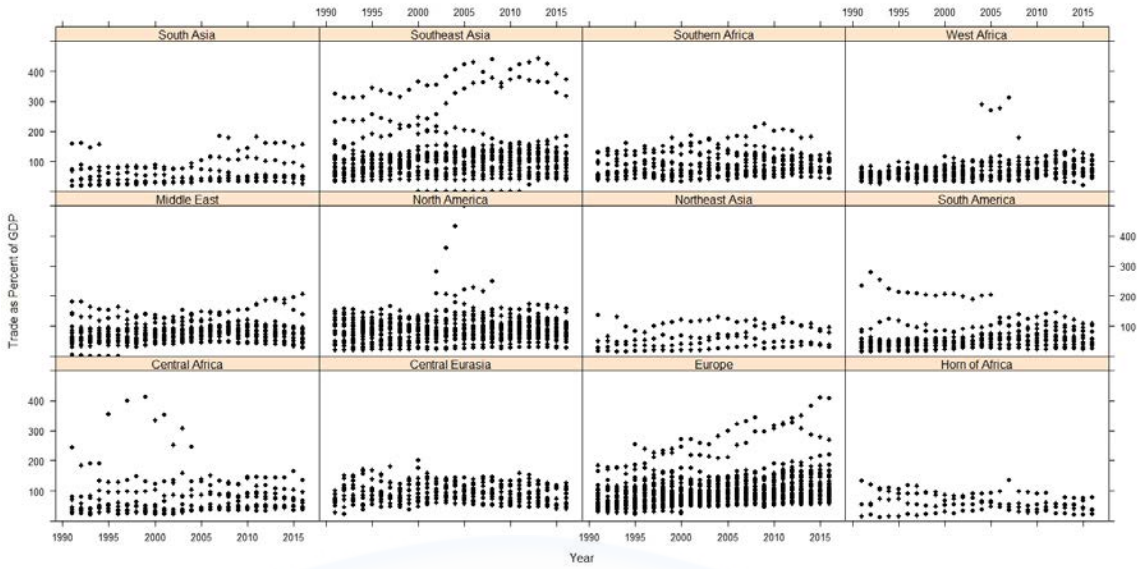

Figure 26: Scatterplot of trade as a percentage of GDP by region across years. *Source: Author created in R with Wold Bank data.*

Customs to Imports Ratio

Table 8 contains the modeling results for testing regional differences in customs to imports ratio.[31] A graphical display of all state data over time by region is given in Figure 27.[32] As with trade as a percentage of GDP there are significant differences in both the Europe and Central Eurasia regions. Additionally, the interactions between these regions and year is also statistically significant. Both of these regions have lower customs to import ratio levels compared to the other regions (an average expected difference of approximately 3 percentage points for both regions). Europe's significant interaction with year indicates that it has a slightly faster decrease in customs to imports over time, and Central Eurasia is also decreasing faster, but not as fast as Europe. These modeling results provide consistent evidence about the regional difference for Europe and Central Eurasia

31. All of these estimates were made at the median for the dependent variable assuming all other values are fixed and are not linear due to the transformation on the dependent variable.
32. In Figure 27, high values for Seychelles are excluded.

and trends in commercial liberalism regardless of operationalization (trade as percentage of GDP or customs to imports ratio). Figure 9 displays these regional differences visually.

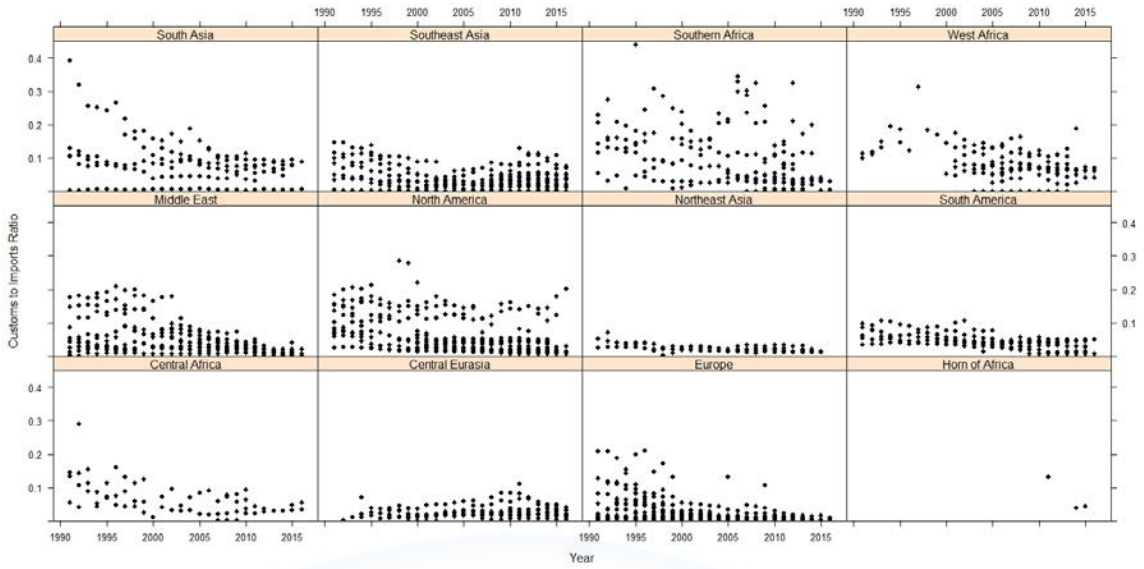

Figure 27: Scatterplot of customs to imports ratio by region across years.
Source: Author created in R with Wold Bank data.

Total IGO Memberships

Table 9 contains the modeling results for testing regional differences in IGO participation. A graphical display of all state data over time by region is given in Figure 28. As with the two trade measures, there are significant differences in regions. Statistical differences between regions exist for Central Eurasia, Middle East, Northeast Asia, South Asia, Southeast Asia, Southern Africa, and West Africa. An interpretation of the model coefficients indicates that all of these regions, except for West Africa, participate in less IGOs than the baseline when controlling for wealth and power. Additionally, the Middle East, South Asia, and Southeast Asia have statistically significant slower growth in IGO participation than other regions. Central Eurasia's rate of change in IGO participation per year is higher than the baseline. The results for Central Eurasia are interesting because this region is composed of former USSR states. The baseline average IGO participation is lower, which might be expected since these states generally started further behind other states in IGO participation at the end of the Cold War. However, the yearly

trend for these states is higher (an average yearly increase of almost 3 IGOs as opposed to less than 1 IGO) indicating these states may be "catching up" with other states in the system. Figure 10 displays these average regional differences visually, and the Southeast Asia trend line appears almost flat since 1991.[33]

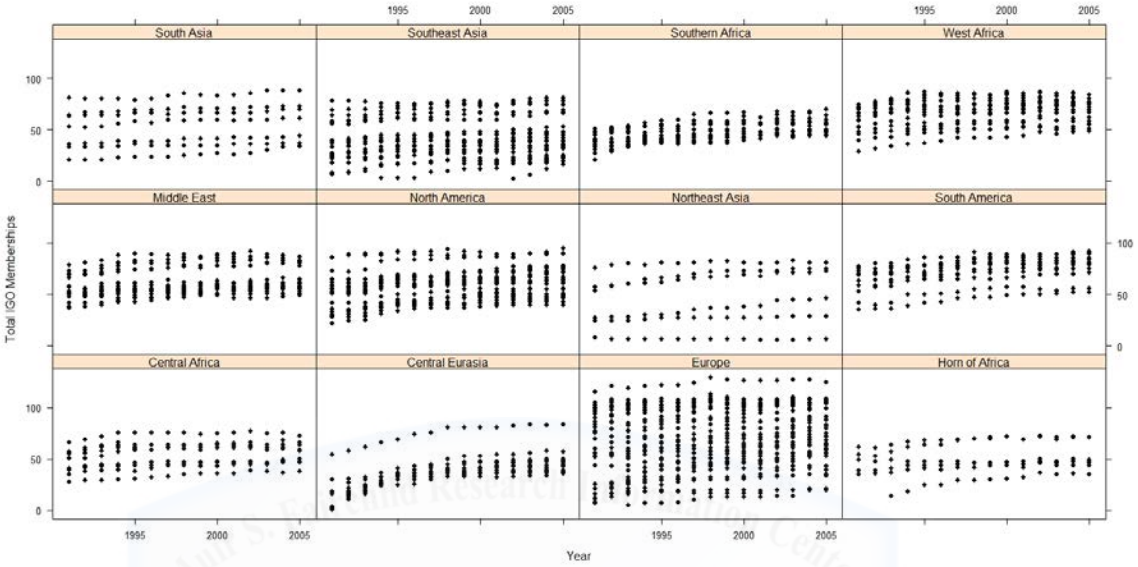

Figure 28: Scatterplot of IGO membership by region across years.
Source: Author created in R with Correlates of War data.

Summary

All models indicate differences in liberal behaviors within the international order between regions. Both operationalizations of commercial liberalism indicate significant differences in Europe and Central Eurasia compared to the other regions, and for IGO participation there were significant differences in several regions. These results provide evidence to reject the null hypothesis and conclude that liberal state actions and their temporal trends vary by region. These results support Kupchan's view that a more regionalized order may form or be forming. In Northeast Asia and Southeast Asia, we see lower participation in IGOs and the growth of IGO participation is slower in Southeast Asia. Both of these regions are subject to influence from China, and as China grows in

33. All of these estimates of differences are made at the median for the dependent variable assuming all other values are fixed.

power, these results might indicate a shift to increased Chinese influence. Further research into these regions may provide additional evidence as to the relationship between China and these states, and whether China is having a greater impact in their decision-making processes, thereby beginning to establish a regional order according to China's vision. Further research into regional behaviors should not only consider geographical proximity but similarities in behavior and values, as the differences across regional behavior and values have been highlighted here. Such research may shed more light on what factors influence state values, if any.

Testing the Liberal Order

The empirical results presented in this chapter provide insights into the post-Cold War international order. First, there is substantial evidence of increasing liberal behaviors within the order since the end of the Cold War across all three operationalizations considered. These results support Ikenberry's claim that the liberal order is progressing, expressed in Hypothesis 1. Additionally, the results provide evidence that internal state values, such as those expressed through the equality afforded women measured by the GII, are significantly related to state actions in the international order. This result provides support of Hypothesis 2. However, the results with other measures of liberal values, such as press freedom and civil liberties, were not as strong as those found with GII. GII is also related to wealth, and GDP was significant in predicting the liberal behaviors for all three operationalizations. Therefore, further research is warranted to support Hypothesis 2 as the results of testing this hypothesis are mixed and not conclusive. Some evidence was found that values at the individual level, that from a state's population, are also related to state actions. This result is based on limited data and therefore requires further evaluation. With the current results we have some evidence to support Hypothesis 3, but only for the subset of states included in this particular analysis. When evaluating liberal values for regionalization, strong evidence was found to support both Hypotheses 4 and 5. Additionally, while there are positive trends in values as measured by GII and percentage of women in the workforce, the trends in press freedom and civil liberties do not indicate

strong growth. Therefore, while there is some mixed evidence of the relationship between values and state behaviors, it is unclear if state interactions are creating cumulative, reinforcing effects on each other to move all states towards greater liberal values. The results of Hypotheses 2 through 5 support Kupchan's view that while values may matter, US values are not universal and a more regionalized order may form. A summary of all findings is presented in Table 17.

Table 17: Summary of analysis results.

Hyp.	Claim	Null	Conclusion
1	Liberal state behaviors within the international order are progressing over time.	Liberal state behaviors within the international order are staying the same or decreasing over time.	Reject Null
2	A positive relationship exists between internal state values and state actions in the international order.	There is no relationship between internal state values and state actions in the international order.	Mixed
3	A relationship exists between the values of a state's population and state actions in the international order.	There is no relationship between population values and state actions in the international order.	Reject Null[†]
4	Liberal state values are not universal and therefore different across regions.	There are no differences between regions.	Reject Null
5	Liberal state actions and their temporal trends vary by region.	There are no differences between regions.	Reject Null

[†] *These results are based on a small, non-random sample and are therefore not generalizable.*
Source: Author's original work.

This work uses variables related to wealth and power as controls, and while some measures of values relate to actions in the international order, measures of wealth and power are also well related to state behavior. This provides evidence that power is an important feature of the existing order, especially when considering the relationship

between power and customs to imports ratio, where more power corresponds to higher customs. Further consideration of these measures is outside the scope of this work but is of interest for future research. For example, it is possible there are regionalization trends in competition as well, not only in trade and IGO participation, like, as James Clay Moltz notes, Asian nations competing within their region through an Asian Space Race.[34] Therefore, evidence for a regionalized order may also be found by further research into regional competitions, not just regional participation (or lack of participation) in the liberal order.

34. Moltz, James Clay. *Asia's Space Race: National Motivations, Regional Rivalries, and International Risks*. New York, NY: Columbia University Press, 2012, 7.

Chapter 6

Conclusion

In the making of the United States, as a modern American writer has said, 'Hamilton stood for strength, wealth and power, Jefferson for the American dream'; and both the power and the dream were necessary ingredients.

– E.H. Carr, 1939

After the Second World War, the US pursued the construction of an international order with a combination of US power and liberal institutions. Building and maintaining such an order is costly, and today there is evidence of a US relative decline in power. If the US-led order is to be sustained without a US preponderance of power the liberal values and principles of the order must be embedded within the system and the participating states. Then, liberal institutions and the benefits of cooperation may sustain the order despite a relative decline of US power. If such institutions are not ingrained in the system, a decline in US power may also spell a breakdown of the liberal order. This work evaluated the post-Cold War order's mechanisms, to determine if liberal institutions, power, or both are at work, with empirical analyses.

If a liberal order is durable and progressing, states in the order are expected to display increasing liberal behaviors. The behaviors are expected to be increasing as a sign of the continued and expanding acceptance of the rules and institutions of the liberal order. If states' behaviors in the international system are becoming more liberal, this will provide evidence of the progression and possible stability of the order. Statistical models were used to detect such trends. This research found strong evidence that liberal behaviors, as measured by trade volume, free trade, and IGO memberships, have been increasing since the end of the Cold War. These trends give support of the existence of a liberal order since the end of the Cold War. However, an essential component of the

liberal order is the interests and values of states, and how such interests reinforce the liberal mechanisms of the order.

Values at the state level were also assessed for their relationship with state actions in the international system. Specifically, measures expected to reflect how strongly a state holds liberal values, like gender equality, civil liberties, and form of governance, were used. The results of these analyses were mixed. The gender inequality index was found to be strongly related to state actions. However, civil liberties and press freedom were related to state actions, but with much lower impact on state behaviors. Additionally, democracy level was not related to liberal state behaviors. These results brought to question if gender equality is an appropriate measure for operationalizing liberal state values, as this measure is also highly related to a state's economic capacity. A state's GDP was also strongly related to liberal behaviors in the international system. Therefore, the strong relationship found with GII may be a function of wealth, and less a function of values. If state values are unrelated to state actions (something that requires further research to determine), the view of neoliberal institutionalists that the liberal order is expansive and self-reinforcing is questionable. This cumulative, self-progressing view of the order is a crucial aspect required to sustain the order after US relative decline. Unfortunately, the results of this work are mixed, and at best we can conclude there is a weak relationship between state actions and values (as measured by press freedom and civil liberties). Further research into the relationship between gender equality, state values, state wealth, and state actions could strengthen this result.

When considering values, one of the fundamental components of liberalism is the importance of the individual and the rights of freedom and equality. Therefore, in Chapter 4 attitudinal scales measuring liberal values were developed to assess population values using PEW Global Attitude surveys. These attitudinal scales were then used in Chapter 5 to test for relationships between population values and state actions in the international system. The attitudinal scale using three questions to measure individual's attitudes about the liberal wellsprings (trade, international organizations, and democratic governance) was found to be related to states' trade volume and level of free trade. A lack of data availability prevented the testing of the relationship between this scale and IGO

membership. The weakness in these analyses is the limited availability of data given the number of states surveyed by PEW each year and the non-replication of many questions from year to year. Therefore, while these results present interesting evidence that population values relate to state actions in the international system, providing evidence of an order with liberal mechanisms, further research is required to generalize these findings to all states in the international system.

When testing for trends in state actions and relationships between liberal values and liberal state behaviors, realist factors of wealth and power were also considered. A state's gross domestic product was strongly related to state behavior in the international system, where higher GDP corresponded to greater participation in the liberal order. However, power, as measured by national capabilities, was strongly related to states' customs to imports ratios. The relationship detected indicated that stronger states had, on average, higher levels of customs, indicating that stronger states behaved in less liberal manners with respect to free trade. The results for GDP and power indicate that realist factors are also mechanisms that exist in the international system. The results for power indicate that liberal institutions and cooperation are not enough to overcome possible adverse outcomes of state power, at least as it relates to trade negotiations.

The final component of the empirical analyses of the international order was an assessment of the universality of US liberal values. The results presented in Chapter 5 provide strong evidence that liberal values are not universal. Additionally, the level of, and temporal trends in, participation in the liberal order, as measured by trade and IGO participation, also varies by region. Therefore, despite mixed to weak evidence in support of the relationship between values and state actions, there is already evidence of regionalized behaviors within the order.

All of these results combine to evaluate the existing order and avenues for its stability or change. Specifically, Ikenberry posits that the current order is durable for three reasons: the lack of great power war, the proliferation of democracies, and the integrative nature of the order that is "easy to join and hard to overturn."[1] While this

1. Ikenberry, G. John. *Liberal Leviathan: the Origins, Crisis, and Transformation of the American World Order*. Princeton, NJ: Princeton Univ. Press, 2011b, 1-3.

work focused mainly on the mechanisms of the order, each of these avenues for stability will be addressed in turn using the findings of this research.

The first avenue of durability for the liberal order suggested by Ikenberry is the lack of potential for future great power war. While great power war is not a focus of this research, it is considered here briefly because this assumption has consequences for the findings of this work. Ikenberry's primary argument for this view is the existence and proliferation of nuclear weapons, serving two purposes. First, nuclear weapons give states like China and Russia less to fear about US power, leading to a lack of urgency in counterbalancing.[2] Today, however, other states like Russia and especially China are investing in military capabilities that contest US military dominance.[3] Additionally, there is increasing evidence of states using soft power to balance against the US.[4] Second, Ikenberry assumes that nuclear weapons protect the US from any attempts at balancing, thereby removing "war-driven change" as a potential option for international systemic change.[5] There is evidence, however, that major power war is still a possible future outcome.[6] Additionally, this work found empirical evidence that both wealth and power (with stronger evidence for wealth) are related to state outcomes in the international system. Therefore, the US-led liberal order has not removed the influence of realist mechanisms from the international system. Regardless of whether great power war will occur in the future, this is not the only means of change in the international order. While Gilpin links hegemonic war to systemic change, there are other possible changes. Specifically, interaction change can occur which does not necessarily change the hierarchy of power in the order but can change the rules, rights, and institutions of the order.[7] Given that the rules and institutions are critical components of the liberal order, and

2. Ikenberry, *Liberal Leviathan*, 130.
3. Department of Defense. "Summary of the 2018 National Defense Strategy of The United States of America: Sharpening the American Military's Competitive Edge." 2018, 3.
4. See for example Pape, Robert, A. "Soft Balancing Against the United States." *International Security 30*(1), 7–45, 2005 and Paul, T. V. "Soft Balancing in the Age of U.S. Primacy." *International Security 30*(1), 46–71, 2005.
5. Ikenberry, *Liberal Leviathan*, 130.
6. See, for example, the most recent US National Defense Strategy, Department of Defense, 2.
7. Gilpin, Robert. *War and Change in World Politics* (Transferred to digital printing ed.). Cambridge, UK: Cambridge Univ. Press, 2002, 43.

power and wealth are still mechanisms within the order, an interaction change is possible and could unravel the liberal order.

The second avenue for the stability of the liberal order is the proliferation of liberal democracies. First, one might note the recent trend of global democratic decline.[8] However, surges and declines define the history of democratic proliferation, so recent trends may not mark the end of democracies at large.[9] More importantly, for democratic states to provide stability to the liberal order, democratic governance should relate to participation in the liberal order. However, this work found no relationship between a state's level of democracy and liberal behaviors in the international order. This work is limited in scope and did not consider conflict initiation. However, the rules and institutions of the order, like free trade and cooperation through IGOs, are essential for its continuation. For democracies to give the order stability, they must participate in, and thereby continue the advancement of, the liberal order. This work found evidence that this is not happening, making the proliferation of democracies a questionable source of order stability.

The third, final, and most prominent avenue for the continuation of the existing liberal order is the nature of the order itself. In this view, the rules and institutions of the liberal order are "expansive and integrative" which encourage other states to participate and diminish opportunities for the creation of alternate orders.[10] These features of the existing order were the primary focus of the empirical evaluations in this research. If the order is truly expansive, integrative, and self-reinforcing liberal state behaviors should be progressing in the international order. Additionally, these behaviors should be related to state values, as part of the integrative and continually advancing logic of the liberal institutions. Statistical modeling evaluated the embeddedness of the liberal mechanisms influencing state interactions. Strong evidence was found in support of the notion that liberal state behaviors, as related to trade and IGO participation, increased over time between 1991 and 2012. This supports the theory that the liberal order is progressing.

8. Inglehart, Ronald. "The Age of Insecurity: Can Democracy Save Itself?" *Foreign Affairs 97*(3), 20–28, 2018, 20.
9. Inglehart, "The Age of Insecurity," 22.
10. Ikenberry, *Liberal Leviathan* 3.

However, the results linking state values to state behaviors are mixed. Additionally, while there are positive trends in state values as measured by gender equality, the trends in the freedom of states' press and the civil liberties afforded populations do not display strong growth. So while the liberal actions (and therefore we assume participation in the liberal order) are increasing, the path dependent and re-enforcing nature of this order is questionable. It appears the feedback loop between state interactions and state values is not strong. If the rules and institutions in the liberal order do not promote increased interest in liberal values and institutions, the foundations of this order may be weaker than expected.

Another component of the third avenue for durability is the question of whether opportunities exist to overthrow or undermine the order. As previously discussed, the potential for hegemonic war is not the only avenue for change. Some theorists, like Charles Kupchan, contend that the values underlying the liberal order are not universal and instead of embracing the liberal order, states will develop disparate order logics.[11] To test these competing views, regional differences in state values and state behaviors in the international system were assessed. Measures used to assess internal state values, like democracy level and gender equality, display great regional disparity. However, depending on the strength of linkage between state behaviors and state values, such differences may not threaten the liberal order (although alone, such differences bring into question the foundations and legitimacy of the order). However, regardless of the strength of the relationship between values and state actions, regional differences in state's participation in components of the liberal order (specifically free and voluminous trade and IGO membership) also exist. These regional differences may provide opportunities for other states to weaken and alter the existing order.

States like China and Russia are already working to undermine the existing liberal order.[12] Such behaviors are consistent with Kupchan's view that a more regionalized order may form or be forming.[13] Not only did this work find mixed evidence to support

11. Charles A. Kupchan in Ikenberry, G. John (Ed.). *Power, Order, and Change in World Politics.* Cambridge, UK: Cambridge University Press, 2014,54
12. Department of Defense, "National Defense Strategy," 2.
13. Kupchan in Ikenberry, *Power, Order, and Change*, 57.

the notion of a fully embedded and integrative liberal order, but regional differences present opportunities for a rising state to shape a regional order more consistent with its views and aligned to best serve its interests. Such a development does not require nor imply the inevitability of hegemonic war, or even require a US power transition from most powerful to something less. These changes in the international order may be interaction changes, not systemic changes. However, Gilpin notes that interaction changes are usually indicators of, and precursors to, states attempting more significant changes of the system.[14] Additionally, the US built the current liberal order at high cost and effort to serve its security interests, and changes to the rules and institutions of this order may disadvantage the US.

Now we return to our original question: Is the liberal order here to stay? The results of this work suggest the answer to this question is maybe, maybe not. To avoid a break down of the liberal order, the US must determine what it wants the future order to look like and take concrete, purposeful steps to create this future vision.[15] The order that exists today is not a circumstance of luck, but instead was built with purpose and intention, clearly defined in US national strategy documents.[16] An essential step in outlining such a strategy is first understanding the mechanisms underlying the existing international order, something this work sought to do.

A rising state will take action to overthrow or change an existing order when the benefits of doing so outweigh the costs.[17] If the US wishes to prevent other states from changing the rules of the international order, it must determine ways to minimize the benefits of change and maximize the costs. The regional variations highlighted in this work provide one avenue to inform policy decisions in this direction. Specifically, places where the liberal order is least embedded, provide the most accessible opportunity for states like China to influence and degrade the US vision of order. For example, Northeast and Southeast Asia are two regions where China has great geographic proximity, and both

14. Gilpin, *War and Change*, 43.
15. Ikenberry, *Liberal Leviathan*, 9,315.
16. Mazarr, Michael J, Miranda Priebe, Andrew Radin, and Astrid Stuth Cevallos. *Understanding the Current International Order*. Santa Monica, CA: RAND Corporation, 2016, 45.
17. Gilpin, *War and Change*, 50.

of these regions demonstrated lower IGO participation. Additionally, regions in Africa highlight areas where liberal values and liberal state behaviors are not well ingrained. Therefore, China may find low-cost opportunities to gain influence and start establishing rules and institutions in its interest, activities China has already begun.[18] The findings of this work, and future work examining the international order, have considerable implications for US policymakers and future US grand strategy.

The purpose of this work was not to determine which international relations theory is right and which is wrong. They are all wrong, but they are all also useful for developing a better understanding of the complex international system, which is "the largest and most complicated social system possible."[19] Therefore, the purpose of this research was to accumulate a small amount of additional knowledge about this complex system. Using existing theories on which to base empirical evaluations, as was done in this work, helps to that end. Further research is required. This work was limited to available data, making the results of the evaluation of population values non-generalizable. Additionally, this work evaluated the current order through empirical study only. Further, more detailed research, considering particular case studies of interest is needed to verify the empirical findings. The results presented here should provide insights into areas of interest for future qualitative and quantitative studies. One avenue of research that was inconclusive, requiring further study, is the relationship between state values and state participation in the international system. Finally, detailed regional studies to consider what mechanisms are at play within regional sections of the order may give more insights into the types of regionalization that are occurring.

18. Shaobin, Zhu. "Xinhua Headlines: China, Africa pursue ambitious future on principled cooperation." *XinhuaNet*, 2018.
19. Lake, David A. "Why "isms" are evil: Theory, Epistemology, and Academic Sects as Impediments to Understanding and Progress." *International Studies Quarterly 55*(2), 465–480, 2011, 467.

Appendix A

Statistical Software

PEW Global Attitude survey data was downloaded as SPSS data files. SPSS was used to extract the question text and question labels, and then the data was imported into R.[1] All other analyses were completed with R using RStudio.[2] Additionally, all figures and some tables were created using R. Many R packages were required for this work including: car, countrycode, DataCombine, dplyr, foreign, ggplot2, haven, lattice, lavaan, lmtest, maptools, nFactors, plm, psych, sandwich, sp, stargazer, taRifx, tidyr, WDI, zoo.[3]

1. IBM Corp. *Released 2015. IBM SPSS Statistics for Windows, Version 23.0.* Armonk, NY: IBM Corp., 2015.
2. R Core Team, 2015b. *R: A Language and Environment for Statistical Computing.* Vienna, Austria: R Foundation for Statistical Computing; RStudio Team, 2015. *RStudio: Integrated Development Environment for R.* Boston, MA: RStudio, Inc.
3. Fox, John and Sanford Weisberg. *An R Companion to Applied Regression* (Second ed.). Sage, 2011; Arel-Bundock, Vincent, 2017. *countrycode: Convert Country Names and Country Codes.* R package version 0.19; Gandrud, Christopher, 2016. *DataCombine: Tools for Easily Combining and Cleaning Data Sets.* R package version 0.2.21; Wickham, Hadley, Romain Francois, Lionel Henry, and Kirill Mller, 2017. *dplyr: A Grammar of Data Manipulation.* R package version 0.7.2; R Core Team, 2015a. *foreign: Read Data Stored by Minitab, S, SAS, SPSS, Stata, Systat, Weka, dBase, ...* R package version 0.8-65; Wickham, Hadley. *ggplot2: Elegant Graphics for Data Analysis.* Springer-Verlag New York, 2009; Wickham, Hadley and Evan Miller, 2017. *haven: Import and Export 'SPSS', 'Stata' and 'SAS' Files.* R package version 1.1.0; Sarkar, Deepayan. *Lattice: Multivariate Data Visualization with R.* Springer, 2008; Rosseel, Yves. "lavaan: An R Package for Structural Equation Modeling." *Journal of Statistical Software 48*(2), 1–36, 2012; Zeileis, Achim and Torsten Hothorn. "Diagnostic Checking in Regression Relationships." *R News 2*(3), 7–10, 2002; Bivand, Roger and Nicholas Lewin-Koh, 2016. *maptools: Tools for Reading and Handling Spatial Objects.* R package version 0.8-39; Raiche, Gilles, 2010. *an R package for parallel analysis and non graphical solutions to the Cattell scree test.* R package version 2.3.3;Croissant, Y. and G. Millo. "Panel Data Econometrics in R: The plm Package." *Journal of Statistical Software 27*(2), 1–43, 2008; Millo, Giovanni. "Robust Standard Error Estimators for Panel Models: A Unifying Approach." *Journal of Statistical Software 82*(3), 1–27, 2017b; Revelle, William, 2016. *psych: Procedures for Psychological, Psychometric, and Personality Research.* Evanston, Illinois: Northwestern University. R package version 1.6.9; ; Pebesma, Edzer J. and Roger S. Bivand. "Classes and methods for spatial data in R." *R News 5*(2), 9–13, 2005, November; Bivand, Roger S., Edzer Pebesma, and Virgilio Gomez-Rubio. *Applied Spatial Data Analysis with R, Second edition.* Springer, NY, 2013; Hlavac, Marek, 2018. *stargazer: Well-Formatted Regression and Summary Statistics Tables.* Bratislava, Slovakia: Central European Labour Studies Institute (CELSI). R package version 5.2.1; Friedman, Ari B., 2014. *taRifx: Collection of Utility and Convenience Functions.* R package version 1.0.6;Wickham, Hadley and Lionel Henry, 2017. *tidyr: Easily Tidy Data with 'spread()' and 'gather()' Functions.* R package version 0.7.0;Arel-Bundock, Vincent, 2013. *WDI: World Development Indicators (World Bank).* R package version 2.4; Zeileis, Achim and Gabor Grothendieck. "zoo: S3 Infrastructure for Regular and Irregular Time Series." *Journal of Statistical Software 14*(6), 1–27, 2005

Appendix B

PEW Global Attitude Factor Questions

Factor 1 - Opinion of US

The questions and associated response scales for Factor 1 are as follows:

What is your opinion of the United States?

(1) Very Favorable to (4) Very Unfavorable

What is your opinion of Americans?

(1) Very Favorable to (4) Very Unfavorable

In making international policy decisions, to what extent do you think the United States takes into account the interests of countries like our country?

(1) A great deal, (2) A fair amount, (3) Not too much, or (4) Not at all

Which comes closer to describing your view? I admire the United States for its technological and scientific advances, OR I do not admire the United States for its technological and scientific advances.

(1) Admire or (2) Do not admire.

Higher scores on this scale indicate a lower opinion of the US, Americans, and US tech.

Factor 2 - Liberal Wellsprings

The questions and associated response scales for Factor 2 are as follows:

Is the influence of NGO's, non-governmental organizations such as (country specific) very good, somewhat good, somewhat bad or very bad in our country.

(1) Very good to (4) Very bad

What do you think about the growing trade and business ties between our country and other countries - do you think it is a very good, somewhat good, somewhat bad, or very bad thing for our country?

(1) Very good to (4) Very bad

How important is it to you to live in a country where the media can report the news without (state/government) censorship?

(1) Very important to (4) Not important

How important is it to you to live in a country where honest elections are held regularly with a choice of at least two political parties?

(1) Very important to (4) Not important

In general, would you say the government is run for the benefit of all people?

(1) Completely agree to (4) Completely disagree

Higher scores on this scale indicate lower liberal values of the individual or their perception of their country.

Bibliography

Andrews, Nathan. "Telling Tales of Conformity and Mutual Interests: The Limits of a (Neo)liberal International Order." *International Journal 66*(1), 209–223, 2010.

Arel-Bundock, Vincent, 2013. *WDI: World Development Indicators (World Bank).* R package version 2.4.

Arel-Bundock, Vincent, 2017. *countrycode: Convert Country Names and Country Codes.* R package version 0.19.

Batterton, Katherine and Kimberly Hale. "The Likert Scale: What it is and How to Use it." *Phalanx: The Magazine of National Security Analysis 50*(2), 32–39, 2017.

Bivand, Roger and Nicholas Lewin-Koh, 2016. *maptools: Tools for Reading and Handling Spatial Objects.* R package version 0.8-39.

Bivand, Roger S., Edzer Pebesma, and Virgilio Gomez-Rubio. *Applied Spatial Data Analysis with R, Second edition.* Springer, NY, 2013.

Brooks, Stephen G. and William C. Wohlforth. "American Primacy in Perspective." *Foreign Affairs 81*(4), 20–33, 2002.

Buzan, Barry and Ole Waever. *Regions and Powers: The Structure of International Security.* Cambridge, UK: Cambridge University Press, 2003.

Carr, E. H. *The Twenty Years' Crisis, 1919-1939.* London: Macmillan/Springer Nature, 2016.

Copeland, Dale C. *Economic Interdependence and War.* Princeton, NJ: Princeton Univ. Press, 2015.

Correlates of War. "State System Membership List, v2016." *Online*, 101–119, 2017.

Costello, Anna B. and Jason W. Osborne. "Best Practices in Exploratory Factor Analysis: Four Recommendations for Getting the Most from Your Analysis." *Practical Assessment Research & Evaluation 10*(7), 1–9, 2005.

Croissant, Y. and G. Millo. "Panel Data Econometrics in R: The plm Package." *Journal of Statistical Software 27*(2), 1–43, 2008.

Department of Defense. "Summary of the 2018 National Defense Strategy of The United States of America: Sharpening the American Military's Competitive Edge." 2018.

Department of State Office of the Historian. "The Collapse of the Soviet Union." *Milestones:1989-1992*. https://history.state.gov/milestones/1989-1992/collapse-soviet-union.

Doyle, Michael W. "Kant, Liberal Legacies, and Foreign Affairs, Part 1." *Philosophy & Public Affairs 12*(3), 205–235, 1983a.

Doyle, Michael W. "Kant, Liberal Legacies, and Foreign Affairs, Part 2." *Philosophy & Public Affairs 12*(4), 323–353, 1983b.

Drezner, Daniel W. *Theories of International Politics and Zombies* (Revived edition ed.). Princeton: Princeton University Press, 2015.

Fox, John and Sanford Weisberg. *An R Companion to Applied Regression* (Second ed.). Sage, 2011.

The Freedom House. "Freedom in the World 2017 Complete Book," *https://freedomhouse.org/sites/default/files/freedom_in_the_World_2017_complete_book.pdf*. 2017.

The Freedom House. "Freedom of the Press 2017 Methodology," *https://freedomhouse.org/report/freedom-press-2017-methodology*. 2017.

Frees, Edward W. *Longitudinal and Panel Data: Analysis and Applications in the Social Sciences*. New York, NY: Cambridge University Press, 2004.

Friedman, Ari B., 2014. *taRifx: Collection of Utility and Convenience Functions.* R package version 1.0.6.

Gandrud, Christopher, 2016. *DataCombine: Tools for Easily Combining and Cleaning Data Sets*. R package version 0.2.21.

Gilpin, Robert. *War and Change in World Politics* (Transferred to digital printing ed.). Cambridge, UK: Cambridge Univ. Press, 2002.

Green, William H. *Econometric Analysis, International Edition*. Essex, England: Pearson Education Limited, 2012.

Greig, J. Michael and Andrew J. Enterline. "National Material Capabilities (NMC) Data Documentation: Version 5.0." *Correlates of War Project*, 2017.

Hlavac, Marek, 2018. *stargazer: Well-Formatted Regression and Summary Statistics Tables*. Bratislava, Slovakia: Central European Labour Studies Institute (CELSI). R package version 5.2.1.

IBM Corp. *Released 2015. IBM SPSS Statistics for Windows, Version 23.0*. Armonk, NY: IBM Corp., 2015.

Ikenberry, G. John. *After Victory: Institutions, Strategic Restraint, and the Rebuilding of Order After Major Wars*. Princeton: Princeton University Press, 2001.

Ikenberry, G. John. "The Rise of China and the Future of the West: Can the Liberal System Survive?" *Foreign Affairs 87*(1), 23–37, 2008.

Ikenberry, G. John. "The Future of the Liberal World Order: Internationalism After America." *Foreign Affairs 90*(3), 56–68, 2011a.

Ikenberry, G. John. *Liberal Leviathan: the Origins, Crisis, and Transformation of the American World Order*. Princeton, NJ: Princeton Univ. Press, 2011b.

Ikenberry, G. John (Ed.). *Power, Order, and Change in World Politics*. Cambridge, UK: Cambridge University Press, 2014.

Inglehart, Ronald. "The Age of Insecurity: Can Democracy Save Itself?" *Foreign Affairs 97*(3), 20–28, 2018.

The International Monetary Fund. "Gender Development Index." *World Bank, Barro and Lee (2014), UNESCO Institute for Statistics, International Labor Organization, International Monetary Fund*.

The International Monetary Fund. "Gender Inequality Index." *United Nations Department of Economic and Social Affairs, Inter-Parliamentary Union, Barro and Lee (2014), UNESCO Institute for Statistics, International Labor Organization, International Monetary Fund*.

Jones, Bruce, Thomas Wright, Jeremy Shapiro, and Robert Keane. *The State of the International Order*. Brookings Policy Paper Nr. 33. Washington, DC: Brookings, 2014.

Kant, Immanuel. *Perpetual Peace: a Philosophic Essay,* Translated by Benjamin Franklin Trueblood. Boston: American Peace Society, 1897.

Keohane, Robert O. *After Hegemony: Cooperation and Discord in the World Political Economy*. Princeton, NJ: Princeton University Press, 1984.

Kinne, Brandon J. "Multilateral Trade and Militarized Conflict: Centrality, Openness, and Asymmetry in the Global Trade Network." *The Journal of Politics 74*(1), 308–322, 2012.

Lake, David A. "Beyond Anarchy: The Importance of Security Institutions." *International Security 26*(1), 129–160, 2001.

Lake, David A. "Why "isms" are evil: Theory, Epistemology, and Academic Sects as Impediments to Understanding and Progress." *International Studies Quarterly 55*(2), 465–480, 2011.

Lieber, Keir A. and Gerard Alexander. "Waiting for Balancing: Why the World Is Not Pushing Back." *International Security 30*(1), 109–139, 2005.

Likert, Rensis. "A Technique for the Measurement of Attitudes." *Archives of Psychology 22*(140), 5–55, 1932.

Mazarr, Michael J., Astrid Stuty Cevallos, Miranda Priebe, Andrew Radin, Kathleen Reedy, Alexander D. Rothenberg, Julia A. Thompson, and Jordan Willcox. *Measuring the Health of the Liberal International Order*. Santa Monica, CA: RAND Corporation, 2017.

Mazarr, Michael J, Miranda Priebe, Andrew Radin, and Astrid Stuth Cevallos. *Understanding the Current International Order*. Santa Monica, CA: RAND Corporation, 2016.

McDonald, Patrick J. "Peace through Trade or Free Trade?" *The Journal of Conflict Resolution 48*(4), 547–572, 2004.

McKeown, Timothy J. "A Liberal Trade Order? The Long-Run Pattern of Imports to the Advanced Capitalist States." *International Studies Quarterly 35*(2), 151–171, 1991.

Mearsheimer, John J. "The False Promise of International Institutions." *International Security 19*(3), 5–49, 1994.

Mearsheimer, John J. *The Tragedy of Great Power Politics* (Updated edition ed.). The Norton series in world politics. New York: W.W. Norton & Company, 2014.

Millo, G. "Robust Standard Error Estimators for Panel Models: A Unifying Approach." *Journal of Statistical Software 82*(3), 1–27, 2017a.

Millo, Giovanni. "Robust Standard Error Estimators for Panel Models: A Unifying Approach." *Journal of Statistical Software 82*(3), 1–27, 2017b.

Moltz, James Clay. *Asia's Space Race: National Motivations, Regional Rivalries, and International Risks*. New York, NY: Columbia University Press, 2012.

Marshall, Monty G., Ted R. Gurr, and Keith Jaggers, 2017. *POLITY IV Project: Dataset Users' Manual*. Center for Systemic Peace.

Moravcsik, Andrew. "Taking Preferences Seriously: A Liberal Theory of International Politics." *International Organization 51*(4), 513–553.

Mounk, Yascha and Roberto Stefan Foa. "The End of the Democratic Century: Autocracy's Global Ascendance." *Foreign Affairs 97*(3), 29–36, 2018.

Oneal, John R. and Bruce Russett. "Assessing the Liberal Peace with Alternative Specifications: Trade Still Reduces Conflict." *Journal of Peace Research 36*(4), 423–442, 1999a.

Oneal, John R. and Bruce Russett. "The Kantian Peace: The Pacific Benefits of Democracy, Interdependence, and International Organizations, 1885-1992." *World Politics 52*(1), 1–37, 1999b.

Oneal, John R. and Bruce Russett. "Clear and Clean: The Fixed Effects of the Liberal Peace." *International Organization 55*(2), 469–485, 2001.

Oneal, John R. and Bruce M. Russett. "The Classical Liberals Were Right: Democracy, Interdependence, and Conflict, 1950-1985." *International Studies Quarterly 41*(2), 267–293, 1997.

Pape, Robert, A. "Soft Balancing Against the United States." *International Security 30*(1), 7–45, 2005.

Paul, T. V. "Soft Balancing in the Age of U.S. Primacy." *International Security 30*(1), 46–71, 2005.

Paul, T. V. and John A. Hall (Eds.). *International Order and the Future of World Politics*. Cambridge, UK: Cambridge University Press, 1999.

Pebesma, Edzer J. and Roger S. Bivand. "Classes and methods for spatial data in R." *R News 5*(2), 9–13, 2005, November.

Pevehouse, Jon C., Timothy Nordstrom, and Kevin Warnke. "The COW-2 International Organizations Dataset Version 2.0." *Conflict Management and Peace Science 21*, 101–119, 2004.

Pew Research Center. "Methods in Detail," Pew Global Attitudes Dataset, 2009.

Pew Research Center. Pew Global Attitudes Datasets, 2002 - 2016. http://www.pewresearch.org/download-datasets/.

R Core Team, 2015a. *foreign: Read Data Stored by Minitab, S, SAS, SPSS, Stata, Systat, Weka, dBase, ...* R package version 0.8-65.

R Core Team, 2015b. *R: A Language and Environment for Statistical Computing.* Vienna, Austria: R Foundation for Statistical Computing.

Raiche, Gilles, 2010. *an R package for parallel analysis and non graphical solutions to the Cattell scree test.* R package version 2.3.3.

Revelle, William, 2016. *psych: Procedures for Psychological, Psychometric, and Personality Research.* Evanston, Illinois: Northwestern University. R package version 1.6.9.

Rosseel, Yves. "lavaan: An R Package for Structural Equation Modeling." *Journal of Statistical Software 48*(2), 1–36, 2012.

RStudio Team, 2015. *RStudio: Integrated Development Environment for R.* Boston, MA: RStudio, Inc.

Sarkar, Deepayan. *Lattice: Multivariate Data Visualization with R.* Springer, 2008.

Shaobin, Zhu. "Xinhua Headlines: China, Africa pursue ambitious future on principled cooperation." *XinhuaNet*, 2018.

Stewart-Ingersoll, Robert and Derrick Frazier. *Regional Powers and Security Orders: A Theoretical Framework.* New York, NY: Routledge, 2012.

Stotsky, Janet Gale, Sakina Shibuya, Lisa Kolovich, and Suhaib Kebhaj. *IMF Working Paper 16/21: Trends in Gender Equality and Women's Advancement.* International Monetary Fund, 2016.

Tarzi, Shah M. "Democratic Peace, Illiberal Democracy, and Conflict Behavior." *International Journal on World Peace 24*(4), 35–60, 2007.

Thucydides, Robert B. Strassler, Richard Crawley, and Victor Davis Hanson. *The Landmark Thucydides: a Comprehensive Guide to the Peloponnesian War ; with Maps, Annotations, Appendices, and Encyclopedic Index* (A newly rev. ed. of the Richard Crawley transl ed.). New York: Simon & Schuster, 1998.

United Nations. "Charter of the United Nations." http://www.un.org/en/sections/un-charter/preamble/index.html.

Waltz, Kenneth Neal. *Theory of International Politics* (Reissued ed.). Long Grove, Ill: Waveland Press, 2010.

Wendt, Alexander. "Anarchy is what States Make of it: The Social Construction of Power Politics." *International Organization 46*(2), 391–425, 1992.

Wickham, Hadley. *ggplot2: Elegant Graphics for Data Analysis*. Springer-Verlag New York, 2009.

Wickham, Hadley, Romain Francois, Lionel Henry, and Kirill Mller, 2017. *dplyr: A Grammar of Data Manipulation*. R package version 0.7.2.

Wickham, Hadley and Lionel Henry, 2017. *tidyr: Easily Tidy Data with 'spread()' and 'gather()' Functions*. R package version 0.7.0.

Wickham, Hadley and Evan Miller, 2017. *haven: Import and Export 'SPSS', 'Stata' and 'SAS' Files*. R package version 1.1.0.

Wike, Richard and Katie Simmons, 2015-11-18. Global Support for Principle of Free Expression, but Opposition to Some Forms of Speech: Americans Especially Likely to Embrace Individual Liberties.

The World Bank. "Customs and other import duties (current LCU)." *International Monetary Fund, Government Finance Statistics Yearbook and data files*.

The World Bank. "GDP (constant 2010 US$)." *World Bank national accounts data, and OECD National Accounts data files*.

The World Bank. "GDP per capita growth (annual %)." *World Bank national accounts data, and OECD National Accounts data files*.

The World Bank. "GINI index (World Bank estimate)." *World Bank, Development Research Group. Data are based on primary household survey data obtained from government statistical agencies and World Bank country departments/.*

The World Bank. "GINI index metadata." http://databank.worldbank.org/data/Views/Metadata/MetadataWidget.aspx?Name=GINI%20index%20(World%20Bank%20estimate)&Code=SI.POV.GINI&Type=S&ReqType=Metadata&ddlSelectedValue=SAU&ReportID=43276&ReportType=Table.

The World Bank. "Imports of goods and services (current LCU)." *World Bank national accounts data, and OECD National Accounts data files*.

The World Bank. "Labor force, female (% of total labor force)." *International Labour Organization, ILOSTAT, and World Bank*.

Zeileis, Achim and Gabor Grothendieck. "zoo: S3 Infrastructure for Regular and Irregular Time Series." *Journal of Statistical Software 14*(6), 1–27, 2005.

Zeileis, Achim and Torsten Hothorn. "Diagnostic Checking in Regression Relationships." *R News 2*(3), 7–10, 2002.