

# **Why Businesses Oppose War**

Alexander Kirss<sup>1</sup>

March 17, 2021

**Abstract:** Why do businesses support or oppose wars? International political economy scholars have long studied the determinants of businesses' foreign economic policy preferences, but we know far less about businesses' foreign security policy preferences. This is problematic, since debates about whether, when, and why businesses might affect a state's foreign security policy are difficult to resolve absent a clear understanding of businesses' security policy preferences. In contrast to the conventional wisdom that a business's war preferences—their opinions about interstate conflict—are determined solely by their trade policy preferences, I argue they have multiple causes. Namely, business war preferences are jointly determined by a business's trade orientation and conflict relevance. Using a structured multi-method approach consisting of comparative case studies of the American wheat and raw cotton industries during World War I and a rare 1916 poll of American business leaders, I demonstrate that considering either trade orientation or war utility in isolation will yield inaccurate predictions regarding a business's war preferences. These findings revise and refine capitalist peace theories of interstate war and challenge the validity of domestic theories of interstate war that don't account for businesses' preferences and political behavior.

**Word Count:** 14,897

---

<sup>1</sup> PhD Candidate, George Washington University, [akirss@gwmail.gwu.edu](mailto:akirss@gwmail.gwu.edu)

## 1. Introduction

Interstate wars are an incredible shock to domestic and international economies, and yet not all businesses are upset by the outbreak of war. Why? Businesses across a variety of conflicts and contexts have split in their support or opposition to wars. Many American businesses, for instance, were distraught at the tremendous economic disruptions caused by the start of World War I. Overleveraged cotton farmers prepared for bankruptcy as raw cotton prices plummeted and cotton exchanges closed.<sup>2</sup> Financial chaos reigned as international trade was ruptured, securities prices were decimated, and commodity and stock markets were forced to close across the world.<sup>3</sup>

Other American businesses, however, were excited by the conflict. Grain merchants and farmers across the Midwest cheered as prices steadily climbed due to demand from European belligerents. In Milwaukee, a major grain hub, a local newspaper predicted that “the United States will wax fat on the misfortunes of Europe,” since “men do not raise wheat on battlefields.”<sup>4</sup> American wool manufacturers were also pleased, since the war threatened to cut off foreign imports that competed with their domestically produced goods.<sup>5</sup> The Japanese rice industry during World War I cheered wartime demand as compensation for a stretch of poor crop yields, while the silk industry worried the conflict would disrupt export sales to Europe.<sup>6</sup> In France, the sugar industry was decimated by the war, even as heavy industry profited.<sup>7</sup>

---

<sup>2</sup> “Cotton Market,” *American Wool and Cotton Reporter*, Vol. 28, No. 31 (July 30, 1914), p. 1007; Bruce E. Baker and Barbara Hahn, *The Cotton Kings: Capitalism and Corruption in Turn-of-the-Century New York and New Orleans* (New York: Oxford University Press, 2016).

<sup>3</sup> William L. Silber, *When Washington Shut Down Wall Street: The Great Financial Crisis of 1914 and the Origins of America’s Monetary Supremacy* (Princeton, NJ: Princeton University Press, 2007); Richard Roberts, *Saving the City: The Great Financial Crisis of 1914* (Oxford, UK: Oxford University Press, 2013).

<sup>4</sup> “War May Cause Big Boom in the Trade of United States,” *Milwaukee Journal*, July 28, 1914, p. 1.

<sup>5</sup> “Combing and Clothing Wools,” *American Wool and Cotton Reporter*, Vol. 28, No. 32 (August 6, 1914), p. 1042.

<sup>6</sup> Ushisaburo Kobayashi, *The Basic Industries and Social History of Japan, 1914-1918* (New Haven, CT: Yale University Press, 1930).

<sup>7</sup> Arthur Fontaine, *French Industry During the War* (New Haven, CT: Yale University Press, 1926).

Twenty five years and one Great Depression later, American farmers were nervous in the lead-up to World War II, uncertain about whether there would be a large increase in wartime demand.<sup>8</sup> The American automobile industry, though, alongside colleagues in Nazi Germany and the Soviet Union, began proactively converting their factories to produce aircraft, tanks, and other weapons even before the war started.<sup>9</sup> During the Korean War, consumer oriented businesses in the United States feared a drop in product demand, while the aircraft industry was cheered by the prospect of increased governmental demand.<sup>10</sup>

Why did businesses hold such divergent opinions about these conflicts? Existing theories of business war preferences—the opinions that businesses have over whether or not a country goes to war—mainly try and explain these preferences through the lens of international trade. Since war ruptures trade, the argument goes, businesses that support free trade will oppose war while those who oppose free trade will support war.<sup>11</sup>

Unfortunately, this explanation rings hollow in light of many of the examples cited above. Both the American wheat and cotton industries, for example, engaged in substantial international trade before World War I. Still, the wheat industry was excited about the war while the cotton industry was not. Because they share the same trade preferences, something else must be

---

<sup>8</sup> Elizabeth M. Collingham, *The Taste of War: World War II and the Battle for Food* (New York: Penguin Books, 2013).

<sup>9</sup> Mark R. Wilson, *Destructive Creation: American Business and the Winning of World War II* (Philadelphia, PA: University of Pennsylvania Press, 2016); Stefan J. Link, *Forging Global Fordism: Nazi Germany, Soviet Russia, and the Contest over the Industrial Order* (Princeton, NJ: Princeton University Press, 2020).

<sup>10</sup> Paul Wooten, “The Month’s Business Highlights,” *The Nation’s Business*, Vol. 38, No. 10 (October 1950), pp. 23-24; Stephen Ciccone, Fred R. Kaen, and Huimin Li, “The Fortunes of War and Aircraft Manufacturer Stock Returns: The Case of the Korean War,” *Eastern Economic Journal*, Vol. 44 (2018), pp. 211-241.

<sup>11</sup> Patrick J. McDonald, *The Invisible Hand of Peace: Capitalism, the War Machine, and International Relations Theory* (New York: Cambridge University Press, 2009); Patrick J. McDonald and Kevin Sweeney, “The Achilles’ Heel of Liberal IR Theory?: Globalization and Conflict in the Pre-World War I Era,” *World Politics*, Vol. 59, No. 3 (April 2007), pp. 370-403; Benjamin O. Fordham, “The Domestic Politics of World Power: Explaining Debates over the United States Battleship Fleet, 1890–91,” *International Organization*, Vol. 73, No. 2 (2019), pp. 435-468; Etel Solingen, “Domestic Coalitions, Internationalization, and War: Then and Now,” *International Security*, Vol. 39, No. 1 (Summer 2014), pp. 44-70.

explaining their divergent opinions towards the war. The same is true of the American agriculture and automobile industries before World War II. Both these industries were large foreign exporters, and yet one supported and the other opposed pre-war mobilization.

These empirical puzzles can be easily resolved through a simple—yet powerful—addition to existing theories of business war preferences. In this article I argue that a business’s conflict relevance—their ability to sell, or easily convert to selling, goods that increase military effectiveness—is an essential and understudied determinant of their war preferences. Beyond just disrupting international trade, interstate wars also increase governmental demand and decrease consumer demand.<sup>12</sup> It makes sense, then, that businesses will form their war preferences based on considerations besides their trade policy preferences. I therefore develop a new theory of business war preferences that predicts these preferences based on the additive effects of their trade orientation and conflict relevance rather than just their trade policy preferences.

Importantly, this theory goes beyond re-stating a quite intuitive insight, that businesses will likely support or oppose wars based on whether they can profit from them. Rather, it highlights a key factor—conflict relevance—that will partially determine which businesses, and why, can profit from wars. Both businesses’ conflict relevance and trade orientation will affect their wartime profitability and, in turn, their war preferences.

Various dynamic aspects of wartime economies such as price controls, fiscal policy, trade policy, inflation, or government regulation may also affect business profitability in its own right irrespective of any follow-on effect on business war preferences.<sup>13</sup> Similarly, there are likely

---

<sup>12</sup> Amy Bentley, *Eating for Victory: Food Rationing and the Politics of Domesticity* (Urbana, IL: University of Illinois Press, 1998); Rosella Cappella Zielinski, *How States Pay for Wars* (Ithaca, NY: Cornell University Press, 2016); Link, *Forging Global Fordism*.

<sup>13</sup> Sarah Kreps, *Taxing Wars: The American Way of War Finance and the Decline of Democracy* (New York: Oxford University Press, 2018); Cappella Zielinski, *How States Pay for Wars*; Mariya Grinberg, “Planning for the Short Haul: Explaining Wartime Trade between Enemies,” Ph.D. Dissertation, University of Chicago, 2019.

additional causes of business war preferences besides a business's trade orientation and conflict relevance. Both of these facts highlight the complexity and importance of studying business war preferences and the politics of wartime economies. They don't, however, discount the importance of parsimonious theories of business war preferences like my additive theory.<sup>14</sup> Including conflict relevance in new baseline theoretical models of business war preferences can improve the predictive accuracy of existing models, explain empirical puzzles like those cited above, and open up further research on additional causes and consequences of business war preferences.

I test this new additive theory against existing monocausal explanations for business war preferences using a structured multi-method approach. First, I use controlled comparative case studies to investigate the war preferences of the American wheat and raw cotton industries during World War I. These industries are both "most likely" cases for the conventional wisdom that businesses that support free trade will oppose wars.<sup>15</sup> I find, however, that although the raw cotton industry opposes the war in line with this conventional wisdom, the wheat industry doesn't. Using qualitative evidence from World War I-era industry publications and business archives, and descriptive quantitative evidence on historical commodity prices and exports, I demonstrate that this divergence is due to the wheat industry's high conflict relevance.

Second, I use a rare 1916 poll of American business leaders to argue that the findings from these short case studies hold across the broader population of American businesses during World War I. Using difference of proportions tests I demonstrate that accounting for a business's conflict relevance and trade orientation better predicts their war preferences regarding World War I than a

---

<sup>14</sup> Parsimonious baseline theories, even if fairly intuitive, are essential for developing and testing more complex theories that seek to explain deviations from those baselines. See Seva Gunitsky, "Rival Visions of Parsimony," *International Studies Quarterly*, Vol. 63, No. 3 (2019), pp. 707-716.

<sup>15</sup> Jack S. Levy, "Case Studies: Types, Designs, and Logics of Inference," *Conflict Management and Peace Science*, Vol. 25, No. 1 (2008), pp. 1-18.

monocausal model using either of these factors by themselves. As might be expected from over century-old observational data, there are certainly limits to the inferences we can draw from this sample. Nevertheless, this survey helps bolster the external validity of the findings from my case studies across a wider swath of the World War I-era American business community.

This article therefore makes both theoretical and empirical contributions to our understanding of business war preferences and the political economy of international security.<sup>16</sup> First, it develops a novel theory of business war preferences from first principles that integrates more economic effects of conflict than existing theories and makes unique, testable predictions about businesses' relative support and opposition to war. Second, it provides empirical evidence supporting this new theory above and beyond existing explanations for business war preferences in a conflict where diplomatic historians have long believed business pressure mattered for the United States' decision to enter.<sup>17</sup>

Third, this article contributes to the study of the political economy of security by noting how businesses and other domestic actors form foreign security policy preferences based on the distributive effects of interstate competition. International political economy scholars working under the "open economy politics" paradigm have long argued that businesses form foreign economic policy preferences based on the distributive consequences of globalization, but there has been little to no analogous research on businesses' foreign security policy preferences.<sup>18</sup> This

---

<sup>16</sup> Paul Poast, "Beyond the 'Sinew of War': The Political Economy of Security as a Subfield," *Annual Review of Political Science*, Vol. 22, No. 1 (2019), pp. 223-239.

<sup>17</sup> E.g. William Appleman Williams, *The Tragedy of American Diplomacy*, 2nd ed (New York: W. W. Norton & Company, 1972). See also the historiographical discussions in Benjamin O. Fordham, "Revisionism Reconsidered: Exports and American Intervention in World War I," *International Organization*, Vol. 61, No. 2 (Spring 2007), pp. 277-310; Galen Jackson, "The Offshore Balancing Thesis Reconsidered: Realism, the Balance of Power in Europe, and America's Decision for War in 1917," *Security Studies*, Vol. 21, No. 3 (2012), pp. 455-489.

<sup>18</sup> Thomas Oatley, "The Reductionist Gamble: Open Economy Politics in the Global Economy," *International Organization*, Vol. 65, No. 2 (April 2011), pp. 311-341; W. Kindred Winecoff, "How Did American International Political Economy Become Reductionist? A Historiography of a Discipline," In *Oxford Research Encyclopedia of Politics*, edited by William R. Thompson (Oxford: Oxford University Press, 2017).

paucity of research is incredibly puzzling given that interstate conflicts, like globalization, have distributive economic consequences. This article aims to reinvigorate the study of business war preferences by developing a new baseline model of these preferences against which future theories can be developed and tested. More generally, it helps lay the groundwork for a broader understanding of what might be termed the “open economy politics of international security.”

Fourth, and relatedly, this article provides key microfoundations for understanding the conditions under which businesses may or may not affect a state’s wartime decision making.<sup>19</sup> Recent research on the domestic politics of wartime decision making has highlighted that leaders often decide whether to go to war—and how to conduct a war—based on which domestic actors and groups bear the costs of war, and their relevance for helping leaders maintain political power.<sup>20</sup> These “bottom-up” theories of wartime decision-making, however, have generally ignored the role of businesses. The main exception is the “capitalist peace” literature, which sees business pressure as a key mechanism linking economic interdependence to interstate peace.<sup>21</sup> As noted above, however, the capitalist peace literature mispredicts which businesses will support or oppose war

---

<sup>19</sup> Joshua D. Kertzer, “Microfoundations in International Relations,” *Conflict Management and Peace Science*, Vol. 34, No. 1 (2017), pp. 81-97.

<sup>20</sup> Bruce Bueno de Mesquita, Alastair Smith, Randolph Siverson and James Morrow, *The Logic of Political Survival* (Cambridge, MA: MIT Press, 2005); Jonathan D. Caverley, *Democratic Militarism: Voting, Wealth, and War* (New York: Cambridge University Press, 2014). This research sharpens a largely inconclusive paradigmatic debate about whether businesses or other pressure groups “matter” for foreign security policy. This larger debate sees Marxist and liberal scholars as arguing that business pressure affects wartime decision-making, e.g. Vladimir I. Lenin, *Imperialism: The Highest Stage of Capitalism* (New York: International Publishers, 1939[1917]); Norman Angell, *The Great Illusion* (New York: G. P. Putnam’s Sons, 1910); McDonald, *The Invisible Hand of Peace*. Some realists, like A. F. K. Organski, *World Politics* (New York: Alfred A. Knopf, 1958), Robert Gilpin, *War and Change in World Politics* (New York: Cambridge University Press, 1981), and Bear F Braumoeller, *The Great Powers and the International System: Systemic Theory in Empirical Perspective* (Cambridge, UK: Cambridge University Press, 2013) suggest that pressure from domestic economic and political actors will guide war-time decision-making, but others disagree, e.g. Stephen D. Krasner, *Defending the National Interest: Raw Material Investments and U.S. Foreign Policy* (Princeton, NJ: Princeton University Press, 1978).

<sup>21</sup> Richard N. Rosecrance, *The Rise of the Trading State: Commerce and Conquest in the Modern World* (New York: Basic Books, 1986); Ronald Findlay and Kevin H. O’Rourke, *Power and Plenty: Trade, War, and the World Economy in the Second Millennium* (Princeton, NJ: Princeton University Press, 2007); Dale C. Copeland, *Economic Interdependence and War* (Princeton: Princeton University Press, 2014).

by explaining business war preferences solely based on their trade policy preferences.<sup>22</sup> My novel theory of business war preferences therefore provides a key theoretical pre-requisite for revising and refining capitalist peace theories and other “bottom-up” theories of war-time decision-making to further our understanding of the role businesses play in foreign security policy.

In the remainder of this article I first more fully conceptualize my dependent variable: business war preferences. Second, I summarize and critique trade preference theory, the main existing explanation for business war preferences. Third, I develop a new additive theory of business war preferences from first principles. Fourth, I lay out a multi-method research design for testing competing hypotheses from these theories. Fifth, I describe my case selection criteria and report the results from short comparative case studies of the American wheat and raw cotton industries during World War I. Sixth, I describe a rare 1916 survey of American business leaders and present results from difference of proportions tests. Seventh, I discuss the significance of these results for our theoretical and empirical understanding of business war preferences. Finally, I conclude by laying out opportunities for further research on the causes and consequences of business war preferences, and discuss the relevance of my theory and results for policymakers seeking to understand the role businesses may, or may not, play in mediating contemporary economic and security competition in East Asia.

## **2. What Are Business War Preferences?**

International political economy scholars have long studied businesses’ policy preferences in a variety of foreign economic and domestic policy areas, including trade,<sup>23</sup> welfare,<sup>24</sup>

---

<sup>22</sup> E.g. McDonald, *The Invisible Hand of Peace*.

<sup>23</sup> In Song Kim, “Political Cleavages within Industry: Firm-Level Lobbying for Trade Liberalization,” *American Political Science Review*, Vol. 111, No. 1 (February 2017), pp. 1-20; Iain Osgood, “The Breakdown of Industrial Opposition to Trade: Firms, Product Variety, and Reciprocal Liberalization,” *World Politics*, Vol. 69, No. 1 (January 2017), pp. 184-231.

<sup>24</sup> Cathie Jo Martin, “Nature or Nurture? Sources of Firm Preference for National Health Reform,” *American Political Science Review*, Vol. 89, No. 4 (1995), pp. 898–913; Peter A. Hall and David Soskice, eds., *Varieties of Capitalism*:

immigration<sup>25</sup> and climate regulation.<sup>26</sup> There has been far less research, however, on businesses' foreign security policy preferences. Policies are political strategies that governments pursue to try and achieve their goals. A business's policy preferences, then, are their rank ordering and relative affinity over potential government policies and business war preferences are the rank ordering and relative affinity that businesses have over whether a state should go to war or stay at peace. They are a “preference over outcomes”—that is war or peace—rather than a “preference over strategies.”<sup>27</sup>

Businesses likely have distinct war preferences about different types of wars, for instance interstate versus intrastate conflicts.<sup>28</sup> For the purpose of this article, though, I focus exclusively on businesses' preferences about interstate conflict. Business war preferences are therefore a spectrum ranging from opposition at one end, where a business prefers interstate peace relative to interstate war, to support at the other, where a business prefers interstate war relative to interstate peace. Because support and opposition to war are diametric end points of a spectrum, saying a business is likely to support war is the same as saying that they are unlikely to oppose war, and vice versa.

### **3. Existing Explanations for Business War Preferences**

The main existing theoretical explanation for business war preferences is what I will call trade preference theory. This theory argues that a business's war preferences stem solely from their

---

*The Institutional Foundations of Comparative Advantage* (Oxford, UK: Oxford University Press, 2001); Kathleen Thelen, *Varieties of Liberalism and the New Politics of Social Solidarity* (New York: Cambridge University Press, 2014).

<sup>25</sup> Margaret E. Peters, *Trading Barriers: Immigration and the Remaking of Globalization* (Princeton, NJ: Princeton University Press, 2017).

<sup>26</sup> Amanda Kennard, “The Enemy of My Enemy: When Firms Support Climate Change Regulation,” *International Organization*, Vol. 74, No. 2 (2020), pp. 187–221.

<sup>27</sup> Jeffrey A. Frieden, “Actors and Preferences in International Relations,” In *Strategic Choice and International Relations*, edited by David A. Lake and Robert Powell (Princeton: Princeton University Press, 1999), pp. 39-76.

<sup>28</sup> For recent research on businesses and intrastate conflict see Molly M. Melin, “The Business of Peace: Understanding Corporate Contributions to Conflict Management,” *International Interactions*, Vol. 47, No. 1 (2021), pp. 107-134.

trade policy preferences. Since businesses believe that interstate wars will disrupt trade, internationalist firms that favor and engage in international trade will oppose wars.<sup>29</sup> As Patrick McDonald explains, “these foreign policy goals are driven by material interests seeking to avoid the well-known economic costs of military conflict.”<sup>30</sup> Conversely, domestic oriented firms that prefer trade protectionism to free trade will be less likely to oppose wars, and indeed may have a preference for military conflict. “The beneficiaries of protection, or firms that are not competitive in global markets, may support aggressive foreign policies or war for the economic benefits it provides to them. By slowing imports, military conflict raises the domestic price of traded goods and enables import-competing firms to expand their domestic market share.”<sup>31</sup> We can deduce one testable hypothesis from this theory.<sup>32</sup>

**H<sub>1</sub>:** Internationalist businesses will be more likely to oppose war than domestic oriented businesses

Although trade preference theory is straightforward and fairly intuitive, there are at least three potential reasons for concern. First, as noted above, trade preference theory lacks predictive accuracy in key historical cases. Many of the businesses that trade preference theory would predict should oppose wars don't. The war preferences of large, politically powerful businesses like the World War I-era American wheat industry and World War II-era American automobile industry are striking empirical puzzles for trade preference theory. Second, by focusing exclusively on war's effect on trade, the theory ignores other economic effects of war, such as higher government demand for military goods. Trade preference theory therefore implicitly argues that trade

---

<sup>29</sup> McDonald, *The Invisible Hand of Peace*; McDonald and Sweeney, “The Achilles' Heel of Liberal IR Theory?”; Fordham, “The Domestic Politics of World Power”; Solingen, “Domestic Coalitions, Internationalization, and War.”

<sup>30</sup> McDonald, *The Invisible Hand of Peace*, pp. 68-69.

<sup>31</sup> McDonald, *The Invisible Hand of Peace*, p. 69

<sup>32</sup> This hypothesis could also be written as “businesses in domestic oriented industries will be more likely to support war than businesses in internationalist industries.”

preferences are a sufficient explanation for business war preferences, a rather strong theoretical claim. Finally, trade preference theory hasn't been directly tested. Scholars primarily use trade preference theory to justify using trade policy preferences as a proxy measure of business war preferences.<sup>33</sup> Despite its popularity, therefore, there is little direct evidence supporting trade preference theory.

### *3.1 Proto-Theories*

There are also two proto-theories of business war preferences that are worth mentioning briefly. They are less clearly formulated than trade preference theory, however, so I don't empirically test them in later sections of this article. First, might a desire for military contracts and military spending drive some businesses to support war? Politicians in the United States have long feared the adverse political effects of high military spending.<sup>34</sup> Unfortunately, though, research on the "military industrial complex" doesn't coalesce into a testable theory regarding business war preferences.

Early 20th century research on businesses that profited from war—the so-called "merchants of death"—is primarily polemical, and doesn't provide systematic evidence about the opinions of military oriented businesses.<sup>35</sup> Later research often speaks about the military industrial complex in the abstract, failing to specify the preferences of private businesses as opposed to political elites or military bureaucracies.<sup>36</sup> Even if this literature can be read as simply arguing that

---

<sup>33</sup> For example, McDonald, *The Invisible Hand of Peace*, uses trade preference theory as justification for testing whether states with lower tariffs are less likely to go to war than states with higher tariffs. He doesn't directly test whether export-oriented businesses, which oppose tariffs, also oppose war.

<sup>34</sup> Rebecca Thorpe, *The American Warfare State* (Chicago, IL: University of Chicago Press, 2014).

<sup>35</sup> e.g. Helmuth C. Engelbrecht and Frank C. Hanighen, *The Merchants of Death* (New York: Dodd, Mead & Company, 1934); Charles A. Beard, *The Devil Theory of War* (New York: The Vanguard Press, 1936).

<sup>36</sup> e.g. Walter Adams, "The Military-Industrial Complex and the New Industrial State," *The American Economic Review*, Vol. 58, No. 2 (1968), pp. 652-665; Seymour Melman, *Pentagon Capitalism: The Political Economy of War* (New York: McGraw-Hill Book Company, Inc., 1970).

all members of the military industrial complex support war, therefore, it still doesn't tell us which businesses comprise the military industrial complex. It also doesn't make a clear prediction about businesses that aren't part of the military industrial complex.

Second, there is what I will call foreign market/materials theory. This theory draws on Marxist and liberal theories of imperialism to argue that businesses which desire foreign market access and raw materials will support wars, while those that don't will oppose war.<sup>37</sup> There are two key issues with this theory. First, these arguments primarily try to explain why businesses support or oppose colonization and imperialism, not war. Imperialism often involves conquest and war, but these are conceptually distinct phenomena.<sup>38</sup>

Second, explaining business war preferences on the basis of ancillary policy outcomes such as market access or raw materials requires strong assumptions about alternative government policies besides war that might also achieve these outcomes.<sup>39</sup> In particular, since war is quite costly, rational businesses will prefer governmental strategies like a negotiated settlement that can achieve ancillary policy outcomes instead of a war unless at least one of several additional conditions hold. First, there could be a higher probability that war achieves these policy outcomes than an alternate strategy. Second, alternative policies might be costlier to the business than war. Third, the business might also be directly affected by a war, either positively or negatively, regardless of whether ancillary policy outcomes occur or not. A more robust version of foreign

---

<sup>37</sup> John A. Hobson, *Imperialism: A Study* (New York: James Pott & Company, 1902); Lenin, *Imperialism*.

<sup>38</sup> Anthony Brewer, *Marxist Theories of Imperialism: A Critical Survey*. London: Routledge & Keegan Paul, 1980.

<sup>39</sup> Other ancillary policy outcomes could be the restoration of seized property, monopoly rights, or investor protections, see Eugene Staley, *War and the Private Investor* (Chicago, IL: The University of Chicago Press, 1935); Noel Maurer, *The Empire Trap: The Rise and Fall of U.S. Intervention to Protect American Property Overseas, 1893-2013* (Princeton, NJ: Princeton University Press, 2013); Peter James Hudson, *Bankers and Empire: How Wall Street Colonized the Caribbean* (Chicago, IL: University of Chicago, 2017); Edward R. Lucas, "Public Goods, Club Goods, and Private Interests: The Influence of Domestic Business Elites on British Counter-Piracy Interventions in the South China Sea, 1921-35," *Security Studies*, Vol. 28, No. 4 (2019), pp. 710-738. More generally, we can consider any policy outcome that a leader might proclaim as a "war aim."

market/raw materials theory could potentially assert and defend these first two conditions, but the theory as currently construed doesn't. The third condition implies that it is simpler to explain business war preferences based on war's direct effects rather than its ancillary benefits, which both trade preference theory and my additive theory do.

#### **4. An Additive Theory of Business War Preferences**

In contrast to trade preference theory, I argue that business war preferences have multiple determinants. In particular, businesses will support or oppose war based on both their trade orientation and conflict relevance, whether they sell—or can easily convert to selling—goods that increase military effectiveness. I deduce this theory from first principles based on two key sets of microfoundations: a strict conceptualization of businesses as unitary, boundedly rational actors motivated primarily by profit, and a set of defensible assertions about the economic effects of interstate conflicts. I also explain how these microfoundations lead to some important scope conditions on my theory.

##### *4.1 Assumptions*

For my theory I define a business as “an independent private organization that 1) mobilizes economic resources (land, labor, and capital), 2) produces goods for sale in a market, and 3) relies primarily on the proceeds from the sale of its product to meet its costs.”<sup>40</sup> I make four further assumptions about businesses. First, I “black box” businesses, ignoring their internal workings and organizational complexity and assuming that they are unitary actors. Second, I assume that businesses are boundedly rational. This is a more descriptively accurate assumption than assuming that businesses are perfectly rational, and has two main consequences: it allows business war

---

<sup>40</sup> Howard Bowen, *The Business Enterprise as a Subject for Research* (Social Science Research Council, 1955), p. 2.

preferences to have a larger variance than a strictly rational theory, and highlights how business strategies generally focus on short term rather than long term consequences.<sup>41</sup>

Third, I assume that businesses are primarily motivated to seek profits. In other words, the collective impact of non-profit motivations on business preferences isn't greater than profit motivations. Importantly, I am not denying that businesses can be motivated by a variety of beliefs, norms, and other social factors, which is a long-established fact.<sup>42</sup> Rather, my profit motive assumption sets a baseline against which social theories of business behavior can be compared. It represents a theoretical bet that profit motives will better explain variation in business support/opposition to war than social theories. Finally, I assume that businesses are independent economic and political actors operating in a market economy. It makes little sense to talk about business war preferences if businesses are wholly state owned or otherwise shielded from the economic consequences of war.<sup>43</sup>

#### *4.2 Understanding the Economic Effects of War*

What are the economic consequences of war? In other words, how might wars affect businesses' profits? Here I simply conceptualize interstate wars as a series of sequential, exogenous geopolitical shocks with three primary economic effects: raising the cost of international trade, increasing governmental demand for military goods, and decreasing consumer

---

<sup>41</sup> Ronald M. Cyert and James G. March, *A Behavioral Theory of the Firm* (Englewood Cliffs, NJ: Prentice Hall, 1963).

<sup>42</sup> Adolf A. Berle, Jr., *The 20th Century Capitalist Revolution* (New York: Harcourt, Brace, 1954); William C. Frederick, "The Growing Concern Over Business Responsibility," *California Management Review* Vol. 2, No. 4 (1960), pp. 54–61.

<sup>43</sup> For the analogous situation in the realm of trade policy see Christina L. Davis, Andreas Fuchs, and Kristina Johnson, "State Control and the Effects of Foreign Relations on Bilateral Trade," *Journal of Conflict Resolution*, Vol. 63, No. 2 (2019), pp. 405-438.

demand. I also assert that businesses know these effects will occur prior to a war breaking out, enabling them to hold *ex ante* war preferences.<sup>44</sup>

Importantly, different types of businesses will be differentially affected by these economic effects of interstate war. Businesses that don't engage in international trade, for instance, will be less concerned about an increase in the costs of international trade than businesses that are engaged in such trade. Indeed, it is precisely by thinking about which businesses are most and least affected by these consequences that we can deduce hypotheses about the primary dividing lines along which businesses will support or oppose war. In turn, these assertions about the economic consequences of war are the mechanisms linking different types of businesses to different war preferences.

First, I assert that wars, particularly large ones between powerful states, raise the costs of international trade. The notion that war disrupts trade is a key mechanism underlying arguments about the "capitalist peace," whereby economic exchange and interdependence lower the probability of war.<sup>45</sup> Even international relations scholars that note war doesn't completely rupture trade generally believe that it diminishes trade flows between belligerents and scrambles flows among neutrals.<sup>46</sup> Second, wars will raise governmental demand for military goods, both material with purely military uses, such as heavy weaponry, and "dual-use" material that has both civilian and military uses, such as food. Governments may have historically produced weapons and

---

<sup>44</sup> As "assertions" rather than "assumptions," these are testable propositions. Gunitsky, "Rival Visions of Parsimony."

<sup>45</sup> Erik Gartzke, "The Capitalist Peace," *American Journal of Political Science*, Vol. 51, No. 1 (January 2007), pp. 166-191; Solomon W. Polachek and Jun Xiang, "How Opportunity Costs Decrease the Probability of War in an Incomplete Information Game," *International Organization*, Vol.64, No. 1 (Winter 2010), pp. 133-144; Reuven Glick and Alan M Taylor, "Collateral Damage: Trade Disruption and the Economic Impact of War," *The Review of Economics and Statistics*, Vol. 92, No. 1 (2010), pp. 102-127.

<sup>46</sup> Jack S. Levy and Katherine Barbieri, "Trading with the Enemy during Wartime," *Security Studies*, Vol.13, No. 3 (2004), pp. 1-47; Joanne Gowa and Raymond Hicks, "Commerce and Conflict: New Data about the Great War," *British Journal of Political Science*, Vol. 47, No. 3 (July 2017), pp. 653-674; Mariya Grinberg, "Planning for the Short Haul."

military goods themselves, or seized supplies from their citizens, but since the mid 19th century they have generally purchased this material from private businesses.<sup>47</sup> Third, and related, wars will decrease the supply and demand for consumer goods. Wars will diminish the supply of consumer goods as factories and labor that previously manufactured these goods are transitioned to producing conflict relevant materiel.<sup>48</sup> Consumer demand will also drop as governments implement rationing, raise taxes, limit wage increases, and appeal to patriotism.<sup>49</sup>

Certainly these aren't the only economic consequences of war. Nevertheless, I emphasize them for three main reasons. First, they are direct effects of conflict rather than ancillary effects, such as a particular state's war aims. As a result, they lead to a general theory of business war preferences rather than being limited to idiosyncratic wars or individual countries.<sup>50</sup> Second, these effects' prominence in the political science and economics literatures on the economic consequences of conflict implies that they are some of the most important economic consequences of war. Third, these effects are less conditional on the outcome of bargaining between businesses and political leaders than the economic effects of wartime fiscal or regulatory policies.<sup>51</sup> I discuss how emphasizing different economic effects of war might profitably lead to alternate theories of business war preferences in the conclusion of this article.

Finally, I assert that businesses know interstate wars will cause these effects prior to a war breaking out with a relatively high degree of accuracy, therefore enabling them to hold *ex ante* war

---

<sup>47</sup> Keith Krause, *Arms and the State: Patterns of Military Production and Trade* (Cambridge, UK: Cambridge University Press, 1992); Priya Satia, *Empire of Guns: The Violent Making of the Industrial Revolution* (New York: Penguin, 2018).

<sup>48</sup> Wilson, *Destructive Creation*.

<sup>49</sup> Bentley, *Eating for Victory*; Cappella Zielinski, *How States Pay for Wars*.

<sup>50</sup> Dan Slater and Daniel Ziblatt, "The Enduring Indispensability of the Controlled Comparison," *Comparative Political Studies*, Vol. 46, no. 10 (October 2013), pp. 1301-1327.

<sup>51</sup> Cappella Zielinski, *How States Pay for Wars*; Kreps, *Taxing Wars*.

preferences.<sup>52</sup> Strategic management scholars have long argued that successful businesses proactively analyze threats to their business operations, including geopolitical risks like the threat of interstate war.<sup>53</sup> Empirically, businesses are often aware of how interstate wars will affect them and frame their interpretation of contemporary conflicts in light of their experience with past conflicts.<sup>54</sup> Saying that businesses hold *ex ante* war preferences, however, doesn't mean that these preferences will always be salient, that is relevant, for businesses.<sup>55</sup> Businesses hold war preferences even during times of peace, but the relevance of these preferences increases as the threat of conflict grows and businesses think proactively about how a potential war may affect their profitability.

#### 4.3 The Theory

Why, then, do businesses support or oppose war? I argue that the additive effects of two primary causes, a business's trade orientation and conflict relevance, will ultimately determine their war preferences. I derive these two independent variables from my three assertions above about the economic effects of conflict. First, similar to trade preference theory, I argue that business support/opposition to war will be determined by a business's trade orientation. Further following trade preference theory, I conceptualize trade orientation as a dichotomous variable

---

<sup>52</sup> In other words, businesses understand interstate conflicts under conditions of risk versus uncertainty. Frank Knight, *Risk, Uncertainty and Profit* (New York: Houghton Mifflin Company, 1921).

<sup>53</sup> Condoleezza Rice and Amy Zegart, "Managing 21st-Century Political Risk," *Harvard Business Review*, Vol. 96, No. 3 (May 2018), pp. 130-138.

<sup>54</sup> The American raw cotton industry during World War I, for instance, consistently referenced the industry's experience during the American Civil War, e.g. "Dublin Chamber on Cotton Matter," *The Athens Banner*, September 3, 1914, p. 3; "Cotton and the War," *Textile World Record*, Vol. 47, No 6 (September 1914), p. 15. The American wheat industry drew on their recent experience in the Balkan Wars, which disrupted the flow of Russian wheat into global markets. See M. E. Falkus, "Russia and the International Wheat Trade, 1861-1914," *Economica*, Vol. 33, No. 132 (1966), pp. 416-429.

<sup>55</sup> Pedro Bordalo, Nicola Gennaioli, and Andrei Shleifer, "Salience Theory of Choice Under Risk," *Quarterly Journal of Economics*, Vol. 127, No. 3 (2012), pp. 1243-1285. The salience of businesses' trade policy preferences similarly varies over time. Alexandra Guisinger, "Determining Trade Policy: Do Voters Hold Politicians Accountable?" *International Organization*, Vol. 63, No. 3 (Summer 2009), pp. 533-557.

whereby businesses are located in either an internationalist or domestic oriented sector. A business is located in an internationalist sector if they are in an export competing industry and support free trade, or are dependent on imported material for domestic sale.<sup>56</sup> Conversely, a domestic oriented sector consists of import-competing industries that oppose free trade, or industries that are oriented almost exclusively towards domestic production and sale. Since internationalist businesses are reliant on international exchange for profits, I agree with trade preference theory that they will be more likely to oppose war than domestic oriented businesses since war raises the costs of international trade. I also assume, like trade preference theory, that trade orientation primarily varies at the inter-industry rather than intra-industry level.<sup>57</sup>

Trade orientation alone, however, is insufficient for determining support/opposition to war. Instead, its effect must be added to the effect of a second cause: the business's conflict relevance. Businesses have high conflict relevance if they sell, or can easily convert to selling, goods that increase military effectiveness.<sup>58</sup> These goods can be directly used or easily repurposed for military use, and therefore increase the quantity or quality of a state's military forces. Governments will need to buy more military goods during wartime than peacetime, so businesses with high conflict relevance will be less likely to oppose conflicts than businesses with low conflict relevance since

---

<sup>56</sup> Jeffrey Frieden, "Sectoral Conflict and Foreign Economic Policy, 1914–1940," *International Organization*, Vol. 42, No. 1 (Winter 1988), pp. 59-90.

<sup>57</sup> Recent scholarship on trade policy preferences focuses on intra-industry vice inter-industry variation, see Kim, "Political Cleavages within Industry"; Osgood, "The Breakdown of Industrial Opposition to Trade." Nevertheless, this research primarily sees intra-industry variation as a supplementary rather than replacement explanation for trade preferences. I discuss how my additive theory can be amended to account for intra-industry variation in trade orientation in the conclusion.

<sup>58</sup> Existing research on the "security externalities" of international trade implicitly argues that all tradeable goods have some degree of conflict relevance, e.g. Joanne Gowa and Edward D. Mansfield, "Power Politics and International Trade," *The American Political Science Review*, Vol. 87, No. 2 (1993), pp. 408-420. I sharpen this argument by noting important variation in which products are more and less useful for conducting an interstate war. I further assert that this variation occurs at the industry level. Even if all businesses have an economic incentive to try and convert to selling military goods during war time, and increase their baseline level of conflict relevance, they likely vary in their ability to do so. Endogenizing conflict relevance based on industry or firm level variation in organizational adaptability or wartime convertibility costs is a fruitful avenue for future research but beyond the scope of this article.

they can profit from this increased governmental demand. Businesses with high conflict relevance will also be less affected by decreases in consumer demand than businesses with low conflict relevance. For simplicity I assume, as with trade orientation, that conflict relevance is a dichotomous exogenous variable that primarily varies between rather than within industries.<sup>59</sup>

As a result of these combined effects, I argue that internationalist businesses with low conflict relevance will be the most likely businesses to oppose wars. They will be unable to sell goods to belligerent governments and are most affected by wartime trade disruptions. Both their trade orientation and conflict relevance push them to oppose war.

**H<sub>2</sub>:** Internationalist businesses with low conflict relevance will be the most likely businesses to oppose wars

Conversely, domestic oriented businesses with high conflict relevance will be the least likely to oppose war. They will benefit both from the inadvertent trade protectionism that war brings and by selling war material to governments. Their trade orientation and conflict relevance both make them unlikely to oppose war.

**H<sub>3</sub>:** Domestic oriented businesses with high conflict relevance will be the least likely businesses to oppose wars

It follows then that industries facing cross-cutting war-time economic pressures will be relatively more/less likely to oppose war than these two “extreme” cases. Internationalist businesses with high conflict relevance will be less likely to oppose wars than internationalist businesses with low conflict relevance since the former can make up trade-related losses by selling military goods and the latter cannot. Similarly, domestic oriented businesses with low conflict

---

<sup>59</sup> This assumption highlights that the most relevant variation in business war preferences will occur between businesses with high and low conflict relevance while the war preferences of businesses with middling conflict relevance are hard to confidently predict.

relevance will be more likely to oppose wars than domestic oriented businesses with high conflict relevance. These businesses will gain through the trade protection that war brings but are unable to juice their profits by selling military goods.

**H4:** Internationalist businesses with high conflict relevance will be less likely to oppose wars than internationalist businesses with low conflict relevance

**H5:** Domestic oriented businesses with low conflict relevance will be more likely to oppose wars than domestic oriented businesses with high conflict relevance

What about relative support/opposition to war between these less extreme cases? Since both internationalist businesses with high conflict relevance and domestic oriented businesses with low conflict relevance face cross-cutting war-time economic pressures, it is only possible to hypothesize their level of support/opposition to war relative to each other given an assertion about the relative effect of trade orientation and conflict relevance on business war preferences. From first principles it is hard to convincingly argue that the relative effect size of either trade orientation or conflict relevance will be consistently higher than the other across various interstate conflicts. This relationship will likely be conflict-specific. As such, my theory makes no prediction about the relative support/opposition to war between domestic oriented businesses with low conflict relevance and internationalist businesses with high conflict relevance.

Finally, it is worth considering whether conflict relevance might be a sufficient explanation for business war preferences. Since my conceptualization of conflict relevance captures both a business's current and potential ability to sell military goods, it is an improvement on existing military industrial complex research that isn't clear about which businesses are in the complex or the war preferences of businesses outside the complex. As a final hypothesis, then, we might

believe that businesses with high conflict relevance simply will be less likely to oppose wars than businesses with low conflict relevance.

**H<sub>6</sub>:** Businesses with high conflict relevance will be less likely to oppose wars than businesses with low conflict relevance

#### *4.4 Scope Conditions*

It would be presumptuous to claim that such a simple theory can explain all business war preferences across time and space. There are therefore at least two important scope conditions on my additive theory. First, my theory is limited to states without a high level of state-owned businesses because of my assumption that businesses are independent economic and political actors operating in a market economy. Second, my theory is limited to businesses' opinions about large interstate wars where my assertions about the economic effects of conflict are justified. I operationalize these large wars as conflicts that contain at least one great power and last for at least six months. Small wars that don't involve a great power may not significantly raise the costs of international trade. Similarly, governments may not need to purchase large amounts of new military material during a short war lasting less than six months. Lengthy, large wars that involve a great power, however, will raise the cost of international trade, increase governmental demand for conflict relevant material, and decrease consumer demand.

Although these scope conditions are fairly restrictive, the goal of my theory is to set a clear baseline expectation for business war preferences in a constrained set of circumstances so that deviations from this baseline can be clearly assessed. I lay out the universe of cases that meet these scope conditions in the following section and, given their relative arbitrariness, I discuss in the conclusion how these scope conditions might be productively examined in further research.

## 5. Design and Methods

Testing my additive theory of business war preferences against trade preference theory requires comparing relative levels of opposition to war across different types of businesses. Unfortunately, the key independent variables in this study—a business’s trade orientation and conflict relevance—are difficult to manipulate in an experimental context. Although relatively static over the short-term, they also cannot be considered “as-if-random” relative to interstate wars. I therefore adopt a structured multi-method approach using comparative case studies and historical survey data to test my hypotheses.

Controlled comparative case comparisons possess strong internal validity and can allow for credible causal claims when they are intentionally selected to maximize inferential leverage and can rule out confounding explanations through a deep interrogation of the historical record.<sup>60</sup> In particular, demonstrating that hypothesized causal mechanisms aren’t operating as a theory predicts in “extreme” or “most likely” cases for a given theoretical explanation can provide strong contradictory evidence vis-à-vis that explanation.<sup>61</sup>

The problem with controlled comparative case comparisons is that they buy internal validity at the expense of external validity. Demonstrating that causal mechanisms are or aren’t operative in an extreme or most likely case doesn’t provide a basis for making credible claims about representative cases. I mitigate these external validity concerns by pairing comparative industry case studies with analysis of historical survey data that allows for measurement of business war preferences across a wider range of representative industries. Using historical data

---

<sup>60</sup> John Gerring, *Case Study Research: Principles and Practices*, 2nd ed (Cambridge, UK: Cambridge University Press, 2016).

<sup>61</sup> Levy, “Case Studies.”

for initial theory testing can also set a historical empirical baseline that can guide the development of contemporary surveys and experimental research.

## **6. Controlled Comparative Case Studies**

The first stage of my multi-method research design consists of short comparative case studies of two “most likely” cases for trade preference theory: the American wheat and raw cotton industries during World War I. Industries are the appropriate level of analysis for testing theories of business war preferences whose independent variables, like trade orientation and conflict relevance, are assumed to be constant between firms in the same industry. Comparing the war preferences of industries in a single country and war holds constant country and conflict specific factors that might also affect a business’s war preferences. In this section I therefore first lay out my country-war and industry case selection strategies before presenting the results from the case studies.

### *6.1 Case Selection*

I selected the cases of the American wheat and raw cotton industries during World War I because they are “most likely” industry cases for trade preference theory in a fairly representative or “typical” country-war case.<sup>62</sup> Identifying business war preferences during peacetime is difficult since these preferences won’t be particularly salient.<sup>63</sup> Only testing theories of business war preferences during wartime, however, may also be problematic, as it conditions case selection on

---

<sup>62</sup> Jason Seawright and John Gerring, “Case Selection Techniques in Case Study Research: A Menu of Qualitative and Quantitative Options,” *Political Research Quarterly*, Vol. 61, No. 2 (2008), pp. 294-308.

<sup>63</sup> Guisinger, “Determining Trade Policy.”

an outcome—war—that may also be affected by variation in business war preferences.<sup>64</sup> Identifying “negative cases” of non-conflict, however, is incredibly difficult.<sup>65</sup>

Although the full case universe for testing theories of business war preferences therefore consists of all industries in countries with a small proportion of state owned businesses that have a relatively high probability of entering a large interstate war, even if that conflict never occurs, I focus my empirical analysis on a practical sub-set of that case universe: countries with a small proportion of state owned businesses involved in an interstate war with at least one great power participant that lasts at least six months. The full list of the 71 cases that fit these criteria can be found in this article’s supplementary appendix.<sup>66</sup>

From that broader set of cases I selected the country-war case of the United States during World War I for four primary reasons. First, nearly half of the country-war cases in this set (34/71 cases) occur during the World Wars. Second, selecting a country case during World War I as opposed to World War II seems prudent given the potential confounding effect of a business’s experience during World War I on their preferences regarding World War II. Third, although it is tempting to see the American experience during World War I as unique due to its extended period of neutrality from 1914-1917, this view is the product of scholarly hindsight and is not how American business leaders viewed the war as it unfolded.

Debates over whether, and how, the United States should become involved in World War I started immediately after the war began.<sup>67</sup> American business leaders like J.P. Morgan, Jr. took

---

<sup>64</sup> War outbreak is a potential “collider variable.” See Felix Elwert and Christopher Winship, “Endogenous Selection Bias: The Problem of Conditioning on a Collider Variable,” *Annual Review of Sociology*, Vol. 40 (2014), pp. 31-53.

<sup>65</sup> James Mahoney and Gary Goertz, “The Possibility Principle: Choosing Negative Cases in Comparative Research,” *The American Political Science Review*, Vol. 98, No. 4 (2004), pp. 653-669.

<sup>66</sup> The six month length requirement is arbitrary, so I also report all country-war cases that meet the scope condition of at least one great power participant to allow for future robustness tests of my theory when relaxing this requirement.

<sup>67</sup> M. Ryan Floyd, *Abandoning American Neutrality: Woodrow Wilson and the Beginning of the Great War, August 1914 – December 1915* (New York: Palgrave Macmillan, 2013).

the time to update President Woodrow Wilson personally on how the war was affecting their business operations in its opening days, and this flow of information from business leaders continued throughout the conflict.<sup>68</sup> American businesses' preferences about World War I therefore represent a suitable test of business war preferences because these businesses had no way of knowing whether or when the United States might ultimately enter the conflict. Neutrality does not bias empirical tests of theories of business war preferences as long as those businesses confront a relatively high probability of the state they are based out of entering the conflict. Indeed, testing theories of business war preferences in neutral states may actually be less biased than tests in belligerent states if censorship laws might preclude businesses voicing opposition to war. Finally, setting generalizability concerns aside, the case of the United States during World War I is also an important case for studying business war preferences given long standing historiographical disagreement about the role of business pressure in driving the United States' involvement.<sup>69</sup>

I then selected "most likely" business cases for trade preference theory from the broader case universe of American businesses during World War I by identifying industries with an extreme internationalist trade orientation. Specifically, I used a "nested analysis" approach that uses quantitative case information to guide case selection.<sup>70</sup> Figure 1 plots the annual export-import ratio and export value of American industries in 1913 prior to the start of World War I.<sup>71</sup>

We can see that the raw cotton and wheat (breadstuffs) industries are clear outliers relative to other

---

<sup>68</sup> J. P. Morgan, Jr. to Woodrow Wilson, July 29, 1914, Woodrow Wilson Papers, Library of Congress, Series 2, Reel 60, pp. 64705.

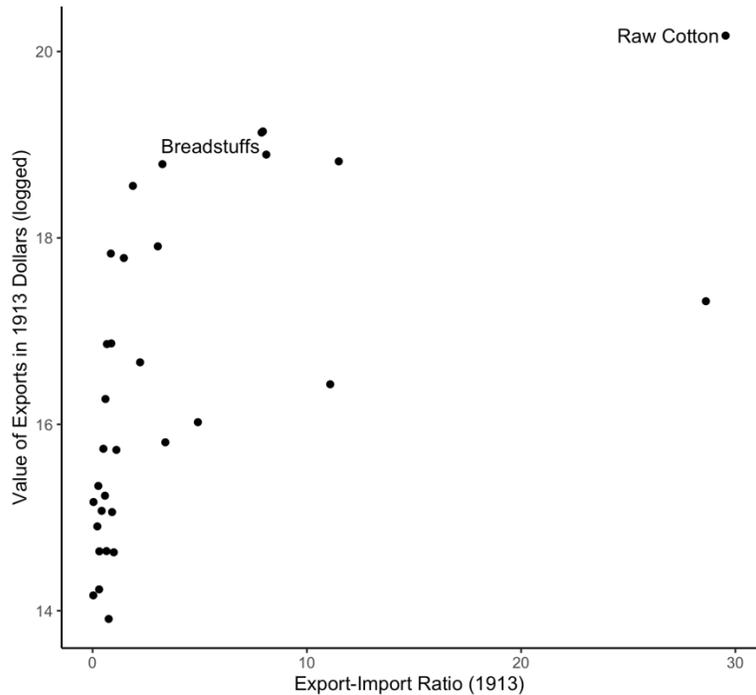
<sup>69</sup> Fordham, "Revisionism Reconsidered"; Jackson, "The Offshore Balancing Thesis Reconsidered"; Justus D. Doenecke, "American Diplomacy, Politics, Military Strategy, and Opinion-Making, 1914-18: Recent Research and Fresh Assignments," *The Historian*, Vol. 80, No. 3 (Fall 2018), pp. 509-532.

<sup>70</sup> Evan S. Lieberman, "Nested Analysis as a Mixed-Method Strategy for Comparative Research," *American Political Science Review*, Vol. 99, No. 3 (August 2005), pp. 435-452. Unfortunately, space constraints preclude a discussion of extremely domestic oriented business cases. For qualitative evidence from these types of cases see Alexander Kirss, "Why Businesses Oppose War," Ph.D. Dissertation, George Washington University, 2021.

<sup>71</sup> Department of Commerce, "Monthly Summary of Commerce and Finance of the United States," Hathi Digital Trust, Original from University of Iowa, December 1914, <https://catalog.hathitrust.org/Record/008954857>.

industries. Based on their “extreme” internationalist trade orientation they are most likely cases for trade preference theory.

**Figure 1: Nested Analysis of World War I-Era U.S. Industries**



Source: Department of Commerce 1914

But what about these industries’ conflict relevance? Conceptually, an industry has conflict relevance if it sells, or can easily convert to selling, goods that increase military effectiveness. The types of goods that increase military effectiveness, however, are historically contingent given the changing nature of warfare over time. As Hans Morgenthau put it, “the absolute and relative importance which natural resources in the form of raw materials have for the power of a nation depends necessarily upon the technology of warfare which is practiced in a particular period of history.”<sup>72</sup> An industry’s conflict relevance can therefore be most accurately coded based on the contemporaneous opinions of business leaders, politicians, and other observers.

<sup>72</sup> Hans J. Morgenthau, *Politics Among Nations*, 1<sup>st</sup> ed (New York: Alfred A. Knopf, 1948), p. 83.

I contend that wheat should be considered a military good and raw cotton shouldn't—meaning that the wheat industry has high conflict relevance, while raw cotton has low conflict relevance—based on two primary pieces of historical evidence. First, the leaders of most World War I belligerents had agreed in the years leading up to World War I that wheat had a larger effect on military effectiveness than raw cotton. Although it remained unratified at the start of the war, the 1909 Declaration of London on naval warfare clearly stated that wheat should be considered conditional contraband because it could be used to feed either civilians or military personnel while raw cotton was a “free” good that had little to no military purpose.<sup>73</sup>

Second, industry observers at the time agreed with this differentiation, clearly noting that wheat was needed for the war effort while cotton wasn't. “Naturally the man who raises wheat, corn and oats knows that a general war in Europe means heavy army demands for grain,” a correspondent for the *American Elevator and Grain Trade* (AEGT), an industry publication, noted soon after World War I began.<sup>74</sup> The cotton industry, in contrast, bemoaned that raw cotton wasn't needed in large quantities by armies. Most army uniforms at the time were primarily made of wool, not cotton, and only limited amounts of cotton were used to produce ammunition.<sup>75</sup> As a local Georgia newspaper sadly reported soon after the war broke out, “Food and everything used in warfare will be in such demand that prices will naturally rise, but there will be no appreciable demand for anything in Europe which people can live without. Cotton, lumber, etc. will be affected to an appreciable extent by this lack of demand.”<sup>76</sup>

---

<sup>73</sup> Isabel V. Hull, *A Scrap of Paper: Breaking and Making International Law during the Great War* (Ithaca, NY: Cornell University Press, 2014).

<sup>74</sup> Ralph O. Johnson, “A War-Time Diagnosis,” *American Elevator and Grain Trade*, Vol. 33, No. 3 (September 15, 1914), p. 170.

<sup>75</sup> Nina Edwards, *Dressed for War: Uniform, Civilian Clothing and Trappings, 1914 to 1918* (London: I. B. Tauris, 2014). An industry publication noted that “the influence of the use of cotton for guncotton has been exaggerated,” see “Cotton Market,” *American Wool and Cotton Reporter*, Vol. 29, no. 21 (May 27, 1915), p. 672.

<sup>76</sup> “The Effect of War on Commerce in U.S.,” *Daily Times-Enterprise*, August 6, 1914, p. 2.

## 6.2 Case Evidence

How, then, did the American wheat and raw cotton industries react to the start of World War I? Importantly, trade preference theory and my additive theory of business war preferences make different predictions regarding these two industries' war preferences. Trade preference theory predicts that, as internationalist businesses, these industries would both oppose the war (**H<sub>1</sub>**). Unlike trade preference theory, however, my additive theory predicts that the wheat industry will be less likely to oppose the war than the raw cotton industry (**H<sub>4</sub>**).

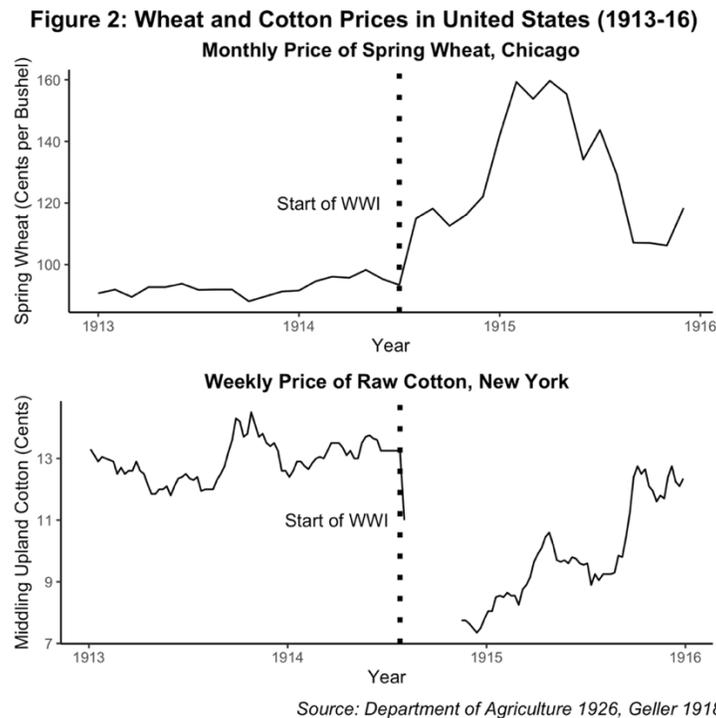
War preferences, like all types of preferences, aren't directly measurable. We must infer them from behaviors that accurately "reveal" an actor's preferences.<sup>77</sup> I therefore present three different types of evidence in my comparative case studies to test these hypotheses. First, I analyze the trajectory of the prices of wheat and raw cotton in the United States after the war begins. Since *ceteris paribus* rising commodity prices will mean more profits for the individuals selling those commodities, they should correlate with overall industry sentiment and war preferences. Second, I assess how the wheat and cotton industries reacted to the war as expressed through statements about the conflict in local newspapers, business correspondence, and industry publications. These statements and opinions about the war should again correlate with the industry's war preferences in so far as they have little incentive to misrepresent their opinions about the war in these settings. Third, I analyze the flow of wheat and raw cotton exports from the United States to European belligerents to bolster my case that it is the wheat industry's conflict relevance rather than another omitted factor that is determining their war preferences.

---

<sup>77</sup> Frieden, "Actors and Preferences in International Relations."

### 6.2.1 Commodity Price Data

How did the prices of wheat and raw cotton in the United States move around the start of World War I? While it is hard to causally identify the effect of a particular political or geopolitical event on commodity prices, analyzing the trajectory of these prices immediately prior to and after the war's beginning can provide suggestive evidence about industry sentiment and war preferences. As the top panel of Figure 2 reports, the price of raw wheat in the United States rose steeply after World War I began. Conversely, the bottom panel shows a precipitous decline in the price of raw cotton after the start of the war, compounded by a nearly three month closure of the country's major cotton exchanges.<sup>78</sup> Prices aren't preferences, but the rise in the price of wheat implies prosperity for American wheat farmers while the fall in raw cotton prices threatened devastation for cotton farmers.



<sup>78</sup> Wheat price data is from U.S. Department of Agriculture, *Wheat and Rye Statistics: Year Ended December 31, 1924, With Comparable Data for Earlier Years* (Washington, D.C.: Government Printing Office, 1926), cotton price data is from Carl Geller, ed. *Cotton Facts* (New York: Shepperson Publishing Company, 1918).

### 6.2.2 Qualitative Reactions to the War

How did the American wheat and cotton industries react to these changes in prices? Based on their statements about the war in local newspapers, business correspondence, and industry publications it's clear that the falling price of raw cotton caused despair amongst cotton farmers and merchants and an overall negative sentiment towards the conflict. American wheat farmers and merchants, however, expressed overall happiness with the way the war would lead to an increase in demand from European belligerents. On the basis of these divergent sentiments it is clear that the American wheat industry was less likely to oppose the start of World War I than the American raw cotton industry. This supports **H<sub>4</sub>** from my additive theory over **H<sub>1</sub>** from trade preference theory.

The rise in the price of wheat after the start of World War I promised to add over \$100 million in value (1914 dollars) to the American wheat crop, money that would eventually make its way to American farmers.<sup>79</sup> Industry participants and observers quickly and enthusiastically noted that the war would bring immense economic benefits to the wheat industry. "It is the opinion of those competent to interpret conditions that the beginning of the War in Europe finds the United States in a splendid position and probably the most favored country on earth," Eugene Hector, the financial editor of the *Chicago Tribune* wrote. "With the greatest wheat yield ever harvested, 930,000,000 bushels, worth \$896,000,000...there is present and in sight actual and certain new wealth."<sup>80</sup> Secretary Harry E. Hooker of the Michigan State Miller's Association believed that European countries "will produce much less wheat than usual" on account of the war. In turn, "The

---

<sup>79</sup> "Brokers Survive Pit's Wildest Day," *The Chicago Tribune*, July 29, 1914, p. 1.

<sup>80</sup> Eugene Hector, "U.S. Certain to Prosper Despite War," *The Chicago Tribune*, August 2, 1914, p. 3.

wheat growers of this country should take advantage of this unusual situation and plant a large acreage of good wheat and reap the reward of coming high prices.”<sup>81</sup>

Grain merchants and farmers were understandably concerned about the potential difficulty of exporting American wheat overseas as a result of disrupted international trade, but believed that European wartime demand for wheat would ensure a steady and high volume of exports. “Grain traders at Milwaukee are at this moment much agitated over what method is to be used by the United States to get their wheat exported while the great European war is in progress,” the local *AEGT* correspondent reported. But local traders still “turned bullish because of the prospects of selling vast amounts of wheat to the war ridden countries of Europe.”<sup>82</sup> As the wheat export trade recovered from the initial shock of the war’s start, the Milwaukee wheat industry became “convinced that the present war crisis will prove a strong bullish influence in grain” due to “an enormous demand for wheat from the millions in the armies.”<sup>83</sup>

Midwestern bankers, responsible for financing the wheat crop, were also enthused by the prospect of increased European demand for wheat as a result of the war. Secretary George D. Bartlett of the Wisconsin Bankers Association believed any financial disruption from the war would be temporary, and “As soon as communication is resumed...the present tension over any warlike activity in Europe should result favorably to the United States. Our crop outlook is the best in years and by reason of the war should command good prices.”<sup>84</sup> Similarly, Walker Hill, the

---

<sup>81</sup> *The Operative Miller*, Vol. 19, No. 9 (August 1914), p. 643.

<sup>82</sup> C. O. Skinrod, “Special Correspondence: Milwaukee,” *American Elevator and Grain Trade*, Vol. 33, No. 2 (September 8, 1914), p. 113,

<sup>83</sup> C. O. Skinrod, “Special Correspondence: Milwaukee,” *American Elevator and Grain Trade*, Vol. 33, No. 3 (September 15, 1914), p. 199.

<sup>84</sup> Chalmer B. Traver, “Milwaukee, Wisconsin News Letter,” *The Chicago Banker*, Vol. 38, No. 6 (August 8, 1914), p. 14.

acting president of the St. Louis Clearing House issued a statement praising the “magnificent crops in our territory” which meant that “the prospects for good business are particularly encouraging.”<sup>85</sup>

Contrast the wheat industry’s generally favorable views towards the conflict with the universally negative sentiment in the American raw cotton industry. Cotton farmers, merchants, and bankers across the American south all highlighted how the war meant economic pain and suffering for their industry. A local newspaper in Americus, Georgia, for instance bemoaned how international conflict always hurt cotton producers: “It has truly been said that a dog fight in China would be seized upon by the cotton gamblers to depress the price of cotton in this country...and while the present outlook in Europe is bigger than the proverbial dog fight, it verifies the assertion.” Importantly, “If the price can be hammered by the war scare, it means a material loss to the cotton growers of the South.”<sup>86</sup> The raw cotton industry also recognized that although they would suffer as a result of the war, the wheat industry and other foodstuffs producers would benefit economically. As the editors of *The Daily Times-Enterprise*, a local paper in Thomasville, Georgia, complained, “The foodstuffs in this country will have an abnormal rise in price and cotton will take an awful tumble. Let’s don’t have war.”<sup>87</sup>

### 6.2.3 Export Data

Data on wheat and raw cotton exports to Europe before and after the outbreak of World War I provide an easy explanation for these divergent opinions regarding the war.<sup>88</sup> Although the start of World War I initially disrupted both wheat and raw cotton exports, the international wheat

---

<sup>85</sup> R. L. Robinson, “St. Louis and Southwest Banking Letter,” *The Chicago Banker*, Vol. 38, No. 6 (August 8, 1914), p. 14.

<sup>86</sup> “Americus Feels Already Effect European Cloud,” *Americus Weekly Times-Recorder*, July 30, 1914, p. 1.

<sup>87</sup> “Editorial,” *The Daily Times-Enterprise*, July 31, 1914, p. 2.

<sup>88</sup> Department of Commerce, “Monthly Summary of Commerce.”

trade quickly recovered and boomed as a result of war-related demand from European belligerents. The international raw cotton trade, however, remained depressed for many months, seriously hurting the American raw cotton industry.

As Table 1 demonstrates, although there was only a small 3.4% increase in the year-over-year (YoY) value of total monthly American wheat exports following the war's start in August 1914, wheat exports quickly recovered and were nearly 600% higher by value in December 1914. The international raw cotton trade had no similar recovery. Exports of raw cotton nearly disappeared in August 1914 and were still almost 40% lower in value by December. The relative value of wheat and raw cotton exports also suggest that it was wheat's relatively high conflict relevance versus raw cotton that drove these different outcomes. Table 1 shows that the value of American wheat exports to the Entente powers of France and United Kingdom increased over 800% YoY after the war began. Entente demand for raw cotton from the United States, however, cratered in August 1914 and was still nearly 50% lower in value YoY by the end of the year.

**Table 1: YoY Change in Value of American Wheat and Cotton Exports, Total and Entente Powers (Percentage)**

	<u>Total</u>		<u>United Kingdom</u>		<u>France</u>		<u>Belgium</u>	
	<i>Wheat</i>	<i>Cotton</i>	<i>Wheat</i>	<i>Cotton</i>	<i>Wheat</i>	<i>Cotton</i>	<i>Wheat</i>	<i>Cotton</i>
May 1914	-4.8	-13.2	-5.9	-8.4	-48.1	<b>23.8</b>	-24.6	<b>177.4</b>
June 1914	<b>26</b>	<b>35.8</b>	<b>73.3</b>	<b>48.6</b>	-24.9	<b>56.6</b>	<b>35.3</b>	<b>289.3</b>
July 1914	<b>163.9</b>	-5.2	<b>67.9</b>	<b>24.8</b>	<b>249.3</b>	-70.4	<b>58.3</b>	<b>27.1</b>
August 1914	<b>3.4</b>	-92.1	<b>88.7</b>	-92	<b>571.7</b>	-100	-96.6	-86.1
September 1914	<b>161.3</b>	-91.2	<b>57.9</b>	-91.5	<b>788</b>	-100	-75.6	-100
October 1914	<b>226</b>	-81	<b>234.9</b>	-74.4	<b>1129.6</b>	-95.8	-56.8	-100
November 1914	<b>555.7</b>	-69.1	<b>1074.5</b>	-62.5	<b>655.7</b>	-86.7	-100	-100
December 1914	<b>578.3</b>	-39.8	<b>448.5</b>	-27.9	<b>572.4</b>	-71.5	-100	-100

*Source: Department of Commerce 1914, YoY increases in bold*

Table 2 shows a similar pattern across the Central Powers and neutral countries. There was a tremendous decrease in the value of American wheat exports to Germany, but a nearly 6000% increase in the value of wheat exports to neutral Italy. The American wheat industry readily sold

wheat to neutral countries like Italy throughout the early months of the war, knowing that it would eventually be resold to the Central Powers of Germany and Austria-Hungary.<sup>89</sup> Although Italy also increased its imports of American cotton, these paled beside the increase in the value of American wheat imports.

**Table 2: YoY Change in Value of American Wheat and Cotton Exports, Central Powers and Neutrals (Percentage)**

	<u>Germany</u>		<u>Italy</u>		<u>Netherlands</u>	<u>Austria-Hungary</u>
	<i>Wheat</i>	<i>Cotton</i>	<i>Wheat</i>	<i>Cotton</i>	<i>Wheat</i>	<i>Cotton</i>
May 1914	-70.1	<b>8.3</b>	-78	-12.5	-19.4	.
June 1914	-28.1	<b>23.4</b>	-16.7	<b>16</b>	<b>59.2</b>	.
July 1914	<b>68.8</b>	<b>7.1</b>	<b>1706.6</b>	-3.3	<b>208.4</b>	-72.5
August 1914	-100	-99.9	<b>137.5</b>	-87.5	-96.6	-100
September 1914	-100	-100	<b>410.3</b>	-77.1	<b>53.4</b>	-100
October 1914	-100	-100	<b>541.9</b>	-47.2	<b>256.3</b>	-100
November 1914	-100	-99.9	<b>902.8</b>	<b>6</b>	<b>697.3</b>	-100
December 1914	-100	-89.9	<b>6367.4</b>	48.7	<b>126.8</b>	-100

*Source: Department of Commerce 1914, YoY increases in bold*

## 7. Historical Survey Analysis

To complement the findings from my comparative case studies I turn in this section towards quantitative tests of historical survey data. Historical surveys that capture business war preferences are exceedingly rare.<sup>90</sup> Although contemporary surveys of business leaders might mitigate concerns about historical survey design, and the temporal validity of conclusions based on historical data, contemporary, representative cross-industry survey samples of business leaders

<sup>89</sup> e.g. “Ways and Means,” *American Elevator and Grain Trade*, Vol. 33, no. 12 (June 15, 1915), p. 810.

<sup>90</sup> These surveys generally target nationally representative samples rather than business leader samples, or anonymize business leader respondents in ways that make accurately coding respondents’ trade orientation and conflict relevance impossible. See Bruce M. Russett and Elizabeth C. Hanson, *Interest and Ideology: The Foreign Policy Beliefs of American Businessmen* (San Francisco, CA: W. H. Freeman and Company, 1975); Adam J. Berinsky, *In Time of War: Understanding American Public Opinion from World War II to Iraq* (Chicago, IL: University of Chicago Press, 2009).

are incredibly difficult to assemble.<sup>91</sup> Contemporary surveys would also be of little help in establishing a historical baseline for determinants of business war preferences.

One of the few surviving historical surveys of business war preferences was conducted by Harris, Winthrop & Co., a New York-based investment firm, in the spring of 1916. This survey assessed American business leaders' opinion about World War I, amongst other policy areas. Since the survey measures business war preferences across a range of representative business cases, it bolsters the external validity of the findings from my comparative case studies across all American businesses during the World War I era.<sup>92</sup> I first summarize the survey data and how I measured my dependent and independent variables before reporting the results of difference of proportions tests on the relative opposition to war between different types of American businesses.

### *7.1 Survey Data*

The Harris, Winthrop & Co. survey consists of seventeen questions mailed to approximately 4,500 business leaders and other notables across the country in the spring of 1916.<sup>93</sup> The survey aimed to reach a representative sample of American business leaders, so the firm sent surveys to each state in proportion to that state's population. It received 1,710 responses, for a response rate of ~38% across a wide range of industries. The quantitative survey responses are unfortunately only reported in aggregate, and therefore can't be used to assess individual respondents' war preferences. A substantial sub-sample of survey respondents (n = 185), however, provided open-ended text responses that elaborated on their quantitative responses. Although

---

<sup>91</sup> David E. Broockman, Gregory Ferenstein, and Neil Malhotra, "Predispositions and the Political Behavior of American Economic Elites: Evidence from Technology Entrepreneurs," *American Journal of Political Science*, Vol. 63, No. 1 (2019), pp. 212-233.

<sup>92</sup> Slater and Ziblatt, "The Enduring Indispensability of the Controlled Comparison."

<sup>93</sup> Harris, Winthrop & Co, *American Business as Affected by Peace and Preparedness* (New York, 1916), <https://catalog.hathitrust.org/Record/100511581>.

varying in length and detail, these qualitative responses are measured at the individual respondent level and can be matched to the industry in which respondents work.<sup>94</sup> I can therefore use this qualitative survey data to test my additive theory of business war preferences against alternative explanations. Moreover, as I demonstrate in the supplementary appendix, the composition of this sub-sample is virtually identical to that of the full survey sample, indicating that there was no clear selection bias in which respondents provided open-ended responses.

### *6.3 Pre-Processing and Measurement*

I pre-processed the raw survey response data using a digital copy of the survey and simple optical character recognition (OCR) technology. I then manually verified the accuracy of the OCR output against the original survey report. I measured a survey respondent's trade orientation, conflict relevance, and war preferences using a mix of quantitative and qualitative coding rules.

First, following trade preference theory, I dichotomously categorized a respondent as being in a domestic oriented versus internationalist industry based on their industry's export/import ratio, export value, and import value prior to World War I using data from the U.S. Department of Commerce.<sup>95</sup> I coded a respondent as being in a domestic oriented industry if their industry's export-import ratio was in the bottom half, and import value in the top half, of all industries in 1913. I coded a respondent as being in an internationalist industry if their industry's export-import ratio was in the top half, and export value in top half, of all industries during 1913. Although an imperfect measure, since it ignores an industry's domestic consumption, *ceteris paribus* industries

---

<sup>94</sup> The shortest qualitative response was 42 words while the longest was 2158 words. The mean response contained 345 words with a median response of 263 words.

<sup>95</sup> Department of Commerce, "Monthly Summary of Commerce."

that export more than they import should favor free trade while industries that face a high flow of import competition should favor trade protectionism.

I supplemented these quantitative coding rules with qualitative industry information from a variety of historical sources to account for respondents that didn't fall easily into one of the Department of Commerce's industry groupings. I excluded respondents such as lawyers, academics, and bankers, who couldn't be coded as belonging to an internationalist or domestic oriented industry even with this supplemental research (n = 46).<sup>96</sup> As I demonstrate in the appendix, my findings are robust to alternate tests that include these respondents. More qualitative evidence justifying individual trade orientation coding decisions can also be found in the appendix.

I then categorized industries based on whether they have high conflict relevance or not. Conceptually, an industry has conflict relevance if it contributes to a military's effectiveness, their ability to successfully fight and win on the battlefield. Measuring conflict relevance therefore becomes a somewhat subjective exercise, since all industries contribute to military effectiveness to some degree in a total war such as World War I. Here I am interested in separating industries with a high level of conflict relevance from those with a low level of conflict relevance.

I categorize an industry as having high conflict relevance based on whether its products were considered conditional and absolute contraband in the 1909 Declaration of London and, more generally, if the industry largely contributed to the feeding, clothing, or equipping of World War I era armies. I relied on historical sources from the World War I era to inductively determine how observers at the time thought about an industry's conflict relevance when confronted with borderline cases, where it was hard to determine an industry's conflict relevance deductively.

---

<sup>96</sup> I exclude bankers and the finance industry given the uniqueness of managing domestic and international capital flows versus commodity and trade flows. On financial opposition to war see Jonathan Kirshner, *Appeasing Bankers: Financial Caution on the Road to War* (Princeton, NJ: Princeton University Press, 2007).

Qualitative evidence underpinning each conflict relevance coding decision can be found in the appendix. Figure 3 reports where all the industries represented in the final sample (n = 139) fall in my typology.

**Figure 3: Industries Present in Sample**

	<b><u>Internationalist</u></b>	<b><u>Domestic Oriented</u></b>
<b><u>High Conflict Relevance</u></b>	<ul style="list-style-type: none"> <li>● Automobile (2)</li> <li>● Breadstuffs (5)</li> <li>● Chemicals (1)</li> <li>● Coal (3)</li> <li>● Iron Founder (2)</li> <li>● Iron Manufacturing (4)</li> <li>● Leather Manufacturing (1)</li> <li>● Meat (1)</li> <li>● Metalworking (1)</li> <li>● Mining (1)</li> <li>● Oil Production (2)</li> <li>● Packaged Food (3)</li> <li>● Precision Tool Manufacturing (1)</li> <li>● Rubber (1)</li> <li>● Steel Manufacturing (4)</li> <li>● Steel Production (3)</li> </ul>	<ul style="list-style-type: none"> <li>● Brass Manufacturing (2)</li> <li>● Railroad Equipment (2)</li> <li>● Railway (12)</li> <li>● Wholesale Hardware (1)</li> <li>● Wholesale Produce (1)</li> <li>● Wool Manufacturing (2)</li> </ul>
<b><u>Low Conflict Relevance</u></b>	<ul style="list-style-type: none"> <li>● Cotton Buying and Shipping (3)</li> <li>● Dry Goods (2)</li> <li>● Importers (1)</li> <li>● Lumber (20)</li> <li>● Manufacturing (General) (3)</li> <li>● Ocean Freight Broker (1)</li> <li>● Paint/Ink Manufacturing (1)</li> <li>● Pharmaceuticals (5)</li> <li>● Sugar Production (3)</li> <li>● Wood Manufacturing (1)</li> </ul>	<ul style="list-style-type: none"> <li>● Agricultural Tools (5)</li> <li>● Brewing (2)</li> <li>● Brick Manufacturing (1)</li> <li>● Cement (1)</li> <li>● Clocks (1)</li> <li>● Cold Storage (1)</li> <li>● Construction (4)</li> <li>● Cotton Manufacturing (2)</li> <li>● Department Stores (3)</li> <li>● Distilling (3)</li> <li>● Furniture (3)</li> <li>● Glass Manufacturing (1)</li> <li>● Linseed Oil (1)</li> <li>● Musical Instruments (1)</li> <li>● Paper (1)</li> <li>● Pottery (1)</li> <li>● Publishing (2)</li> <li>● Ribbons and Silks (1)</li> <li>● Shoes (1)</li> <li>● Stone Quarry (1)</li> <li>● Textile Manufacturing (4)</li> <li>● Wholesale Grocery (3)</li> <li>● Wine Growers (1)</li> </ul>

*Number of respondents from each industry is in parentheses*

In terms of a survey respondent's war preferences, I coded the respondent as opposing the war if they clearly note that the war has had a negative economic effect, or peace would have a positive effect, on their business. I coded a respondent as not opposing the war if they noted either that the war had a positive economic effect, peace would have a negative effect, or peace would have no effect on their business.

Interestingly, no business leaders in the sample actively supported the war. Although conceptually, therefore, business war preferences range from opposition to war to support for war, the range of business war preferences in the sample is censored. It might be that businesses in the United States simply didn't benefit economically enough from the conflict to cause them to support it. Alternatively, businesses might be normatively influenced to conceal their opposition to war. I discuss ways to investigate whether businesses censor their war preferences, and alternate ways to improve measurements of business war preferences, in the conclusion of this article.

Finally, I coded survey respondents who didn't mention the war in their qualitative response ( $n = 17$ ) as having "no response" (NA). These respondents could either be unaffected by the war—and therefore hold no preference—or hold a preference but not have expressed it. This means that my effective sample size for my difference of proportions tests is 122 respondents. I note in the appendix, however, that my findings are robust to coding these respondents as not opposing the war. Given the subjective nature of my measurement approach and coding I provide illustrative examples of each coding decision below (Figure 4) and make the entire set of survey responses available in the supplementary materials to aid in validation and replication.

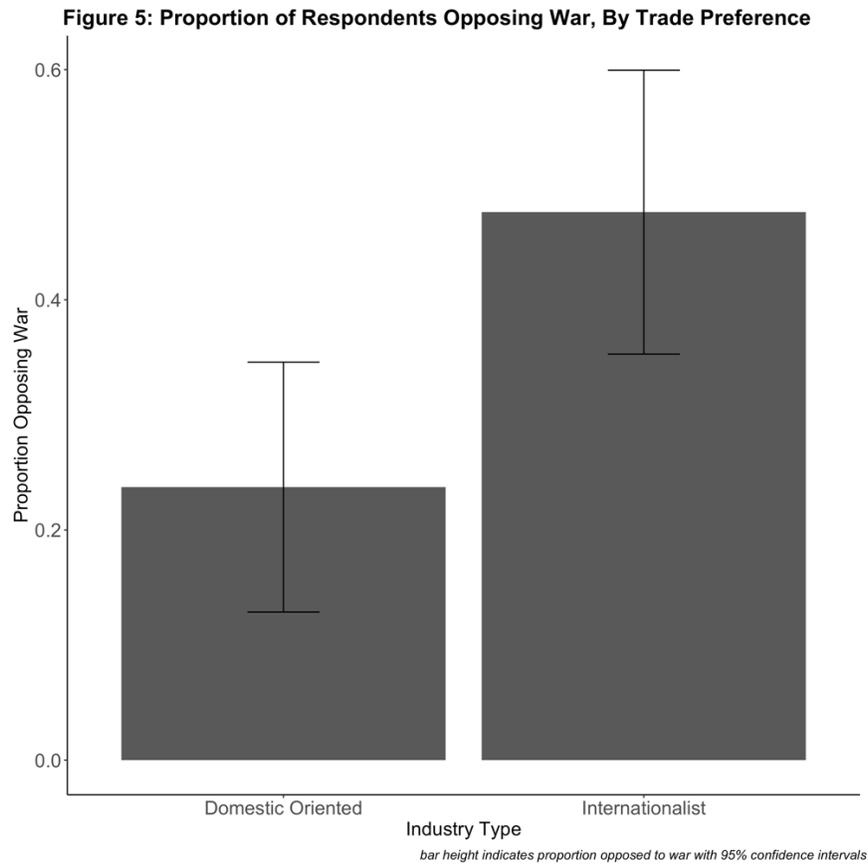
**Figure 4: Coding Examples of Business War Preferences**

<b><u>Opposition to War</u></b>
“Our business is very much affected by the war and, therefore, it would be a great benefit to have the war cease. For instance, the material which enters into the construction of our goods is two and a half times higher than it was last year, which, at the present price, almost prohibits our doing business. Labor is very scarce caused by a good many of the foreign laborers going abroad and further caused by the eastern factories who are making war appliances.”
<b><u>Not Opposition to War</u></b>
“Our business consists largely of the growing of grain and other farm products. Values of these products have ranged above the normal during the war, and this section has been correspondingly prosperous. There is likely to be a sharp break in values when the war closes but it seems probable that higher prices will prevail later and cover a considerable time after the war.”
<b><u>No Response</u></b>
“We feel that with our country and Canada taking practically the capacity of our shops that foreign trade is not a necessity at present, though we are making some endeavors to secure good connections in foreign countries where that trade is desirable. As to the general situation, we feel as if we could have a more stable government, one in which the policies are not altered every four years and in which nine-tenths of the action results from political feelings and not from what is best for the country at large”

#### 7.4 Results

Do the survey results better support trade preference theory or my additive theory? Figure 5 presents the results of my first difference of proportions test, assessing trade preference theory.<sup>97</sup> We can see that internationalist businesses are proportionally more likely to oppose the war (48%) than domestic oriented businesses (24%), and the difference is statistically significant ( $p = 0.01$ ). This supports  $H_1$ , which predicts that internationalist businesses will be more likely to oppose wars than domestic oriented businesses.

<sup>97</sup> Because my hypotheses all posit a directional relationship in relative opposition between different types of businesses, I use one-sided difference of proportions test and a standard alpha level of .05 for assessing the statistical significance of all difference of proportions. For a formal discussion of difference of proportions tests see the supplementary appendix.



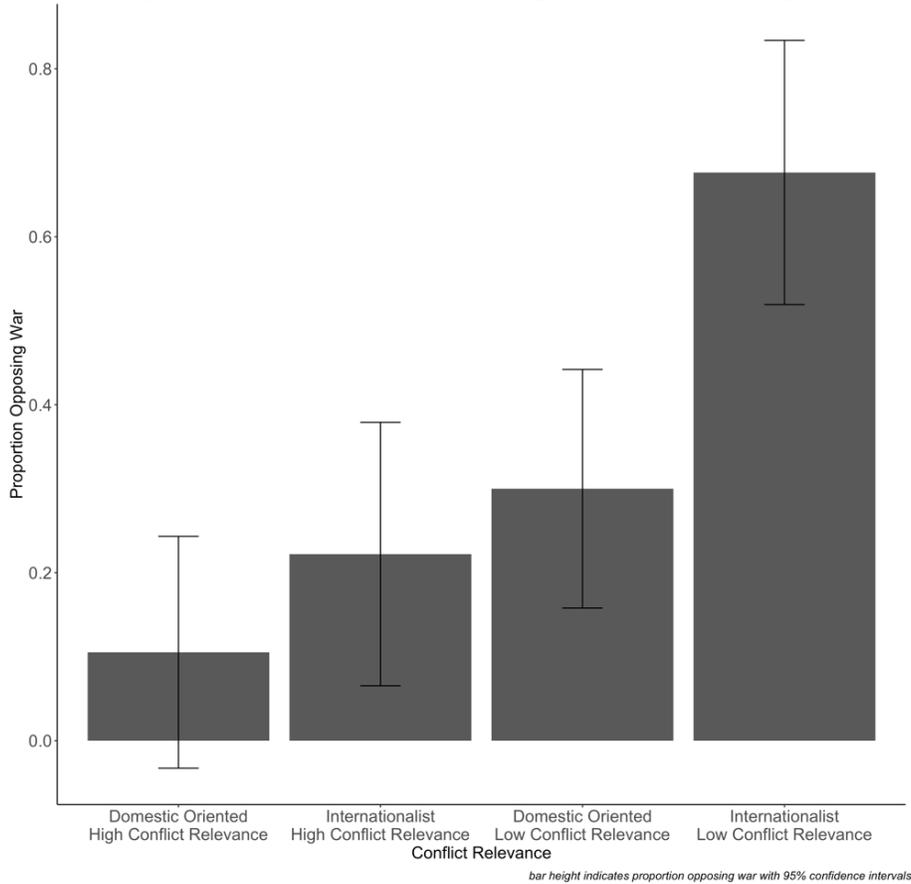
These results nevertheless leave an important question unanswered: why do so few internationalist businesses oppose the war? To be fair, trade preference theory doesn't take a clear position on the absolute level of opposition to war that internationalist or domestic oriented industries will hold. It is somewhat puzzling, however, that only a minority of internationalist business leaders (48%) in the sample oppose the war given its disruption to international trade. Trade preference theory cannot explain why this is the case, but my additive theory of business war preferences can.

Figure 6 reports the results of my second set of difference of proportions tests, which test my additive theory of business war preferences. This set of tests provides support for my additive theory of business war preferences above and beyond trade preference theory. Figure 6 provides full support for **H<sub>4</sub>**, which predicts internationalist businesses with low conflict relevance will be

more likely to oppose wars than internationalist businesses with high conflict relevance. A higher proportion of respondents from internationalist businesses with low conflict relevance (68%) oppose the war than respondents from internationalist businesses with high conflict relevance (24%), and the difference is statistically significant ( $p = .0007$ ). Importantly, trade preference theory cannot explain this key split in opposition to war between different types of internationalist businesses, and we would miss this divide entirely if we only looked at Figure 5 above.

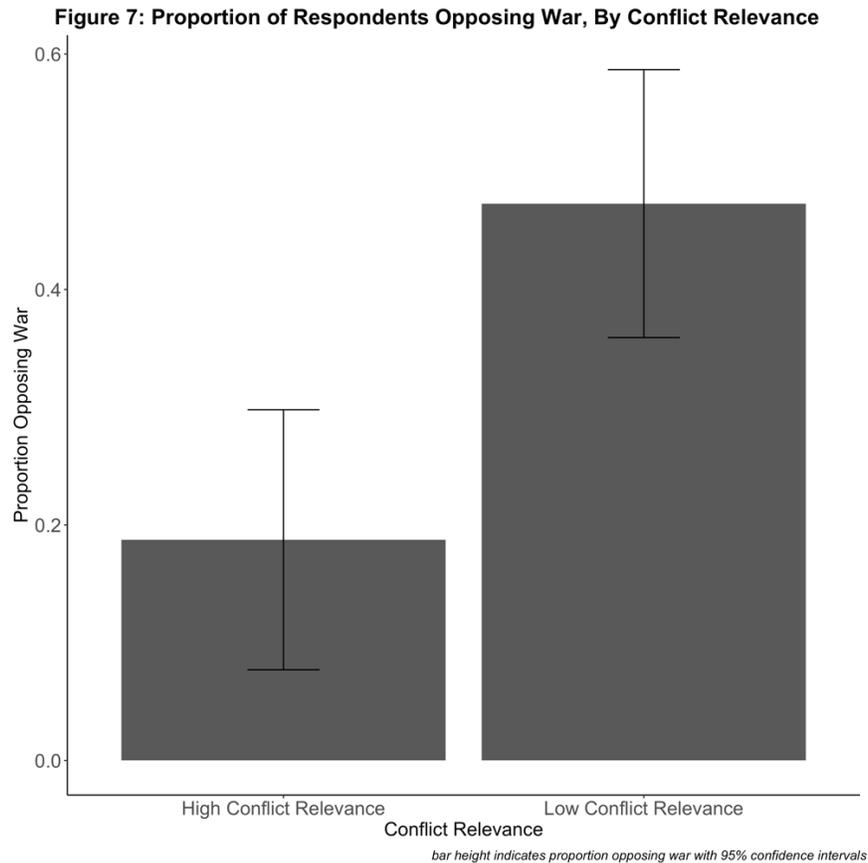
The results of this second set of difference of proportions tests also provide full support for  $H_2$ , which predicts that internationalist businesses with low conflict relevance will be the most likely businesses to oppose the war. The highest proportion of respondents opposing the war are from internationalist businesses with low conflict relevance (68%) and there are statistically significant differences between this high proportion of opposition and the proportion of opposition in other business types.

Figure 6: Proportion of Respondents Opposing War, By Industry Grouping



The other hypotheses from my additive theory, though, aren't supported. **H<sub>5</sub>** predicts that respondents from domestic oriented businesses with low conflict relevance will be more likely to oppose the war than respondents from domestic oriented businesses with high conflict relevance. Only 10% of respondents from domestic oriented businesses with high conflict relevance oppose the war compared with 30% respondents from domestic oriented businesses with low conflict relevance, but the difference is not statistically significant ( $p = .094$ ). Finally, **H<sub>3</sub>** predicts that domestic oriented businesses with high conflict relevance will be the least likely businesses to oppose war in the international system. Although only 10% of respondents from domestic oriented businesses with high conflict relevance oppose the war, this is statistically indistinguishable from internationalist businesses with high conflict relevance (24%,  $p = .789$ ).

Can conflict relevance alone accurately predict business war preferences? **H<sub>6</sub>** predicts that businesses with high conflict relevance will be less likely to oppose wars in than businesses with low conflict relevance, and this is exactly what Figure 7 shows. A lower proportion of respondents from businesses with high conflict relevance (19%) oppose the war than businesses with low conflict relevance (47%), a difference that is statistically significant ( $p < .001$ ). These results point to the importance of including conflict relevance as an explanatory variable when trying to predict business war preferences, but don't indicate that conflict relevance alone explains a business's war preferences. Namely, this figure obscures the clear difference in opposition to war between domestic oriented businesses with low conflict relevance and internationalist businesses with low conflict relevance. As we can see in Figure 6, there is a large and statistically significant difference in these businesses' opposition to war, which isn't captured in Figure 7.



I report the results of a number of robustness and sensitivity checks in the supplementary appendix. First, I estimate simple model specifications using logistic and Ordinary Least Squares (OLS) regression. Second, I test the sensitivity of my results to differing sample composition and individual coding decisions for my independent variables by conducting 306 additional difference of proportions tests while sequentially dropping each individual industry one at a time. Third, I test the sensitivity of my results to differing sample composition and individual coding decisions for my dependent variable by re-coding respondents who didn't mention the war as "not opposing" the war. I replicate my initial difference of proportions tests, and conduct 330 additional difference of proportions tests while sequentially dropping individual industries. Fourth, I re-estimate my logistic and OLS models using an industry's export value as a continuous measure of trade orientation. Fifth, I re-estimate my regressions using all businesses that take an opinion on the war ( $n = 157$ ) to investigate whether my results hinge on removing businesses that don't align to my four-part typology. Sixth, I include regional fixed effects in all model specifications to guard against the possibility that sociotropic economic factors or other regional confounders are biasing my results. The results of all these tests are either identical to or consistent with the results of my difference of proportions tests.

## **8. Discussion**

Combined, then, the results from both my comparative case studies and difference of proportions tests support my additive theory of business war preferences above and beyond trade preference theory. A business's trade orientation is clearly an important determinant of their war preferences, but it isn't the only determinant of these preferences. The qualitative and quantitative evidence reported above demonstrate that a business's conflict relevance plays an essential, and to this point under examined, role in determining a business's opposition to conflict.

In particular, the comparative case studies reveal that the American raw cotton industry opposed World War I while the American wheat industry didn't. Trade preference theory cannot explain this divergence while my additive theory of business war preferences can. Similarly, the difference of proportions tests reveal a large and statistically significant gap in the relative opposition to war between internationalist businesses with low conflict relevance and internationalist businesses with high conflict relevance that trade preference theory cannot explain. Trade preference theory would predict that internationalist businesses with high conflict relevance and internationalist businesses with low conflict relevance would both oppose war. Empirically, we find that internationalist businesses with high conflict relevance are among the least likely businesses to oppose war (24%) and far less likely to oppose the war than internationalist businesses with low conflict relevance (68%).

At the same time, however, conflict relevance alone isn't a sufficient explanation for business war preferences. The difference of proportion tests reveal a statistically significant difference in the relative opposition to war between internationalist businesses with low conflict relevance (68%) and domestic oriented businesses with low conflict relevance (30%,  $p = .001$ ). A monocausal explanation for business war preferences based solely on their conflict relevance would predict that these types of businesses would have similar levels of opposition to war, and they don't.

There are at least three important caveats regarding the empirical results of this article. First, although the difference of proportions tests don't provide support for all the hypotheses from my additive theory, this may simply be due to a lack of statistical power given the small number of survey respondents. For example, **H<sub>5</sub>** predicts that respondents from domestic oriented businesses with low conflict relevance will be more likely to oppose wars than respondents from

domestic oriented businesses with high conflict relevance. The p-value for the difference of proportions test ( $p = .094$ ) is not statistically significant at the  $p < .05$  level but is significant at the  $p < .1$  level. Given that there are only 59 total survey respondents in these two sub-groups, a larger sample size could easily increase the precision of this and the other difference of proportions tests.

Second, I am not arguing that trade orientation and conflict relevance are the only important determinants of business war preferences, or that I have causally identified the effects of trade orientation and conflict relevance. There may be additional, potentially confounding, causes of business war preferences that may be biasing my quantitative results. Importantly, however, existing theories of business war preferences provide little guidance regarding what those confounders might be. As a result, my quantitative results still improve on our current understanding of business war preferences by highlighting other important factors, like a business's conflict relevance, that matter for determining their war preferences.

Third, whether these results are generalizable to other countries and wars requires further investigation. Although the evidence from the comparative case studies possess high internal validity, it necessarily lacks external validity across a wide range of representative business cases. The results of my difference of proportions tests can mitigate these concerns but not completely resolve them. In particular they can't demonstrate the external validity of my additive theory outside of the case of American businesses during World War I. The results very well could be generalizable to other countries and contexts given that my additive theory of business war preferences consists of general variables and mechanisms that aren't context specific.<sup>98</sup> Still, there are reasons to be cautious. The financialization of modern international commerce, whereby capital flows far outpace trade in either goods and services, may have decreased the contemporary

---

<sup>98</sup> Slater and Ziblatt, "The Enduring Indispensability of the Controlled Comparison."

importance of trade orientation as a determinant of business war preferences.<sup>99</sup> Similarly, the changing nature of interstate warfare may affect which businesses are and aren't conflict relevant over time.<sup>100</sup> The fact that the determinants of war preferences may have changed over time, or vary across different wars, is a strong incentive for further research on business war preferences.

## 9. Conclusion

This article has developed a new additive theory of business war preferences and presented evidence supporting that theory, above and beyond existing explanations, from American businesses during World War I. This theory and evidence provides much needed microfoundations for understanding the conditions under which businesses might be able to affect a state's wartime decision-making. Additional empirical and theoretical research, though, can further expand our understanding of the causes and consequences of business war preferences and help policymakers understand the role businesses may, or may not, play in mitigating contemporary economic and security competition in East Asia.

First, additional empirical testing can establish whether my additive theory accurately predicts business war preferences in additional wars and countries. It is especially important to investigate the contemporary relevance of my theory given that some scholars have argued trade preference theory doesn't hold in the modern era.<sup>101</sup> Second, more work should be done on conceptualizing and objectively measuring business war preferences. Contemporary surveys with dedicated survey questions on business war preferences might improve on my subjective coding

---

<sup>99</sup> Stephen G. Brooks, "Economic Actors' Lobbying Influence on the Prospects for War and Peace," *International Organization*, Vol. 67, No. 4 (2013), pp. 863-888.

<sup>100</sup> Morgenthau, *Politics Among Nations*.

<sup>101</sup> Brooks, "Economic Actors' Lobbying Influence on the Prospects for War and Peace."

of qualitative survey responses, but could still be subject to censoring due to social desirability bias. Creative research designs, however, can help identify and mitigate this potential bias.<sup>102</sup>

Third, there are a number of opportunities for developing additional theories of business war preferences. Relaxing my assumptions about businesses, for instance that they are unitary actors, or motivated primarily by profit, might reveal intra-business differences in war preferences or shed light on the normative or other social causes of business war preferences.<sup>103</sup> Breaking apart my assumptions that trade orientation and conflict relevance vary primarily at the inter-industry rather than intra-industry level might reveal intra-industry divides in business war preferences.<sup>104</sup> Endogenizing additional economic consequences of conflict, such as inflation, profit controls, and regulation, through theories of wartime political economic bargaining might also complexify and sharpen theories of business war preferences.<sup>105</sup>

Finally, scholars armed with a better understanding of business war preferences can turn towards investigating the conditions under which businesses will act politically to try and affect wartime decision-making. This is particularly important as policy makers confront simmering economic and security competition in East Asia. In the United States and China there have been increased calls for economic “decoupling” as a form of economic coercion and to mitigate supply chain vulnerabilities and security externalities.<sup>106</sup> At the same time, scholars have also drawn on

---

<sup>102</sup> Ivar Krumpal, “Determinants of Social Desirability Bias in Sensitive Surveys: A Literature Review,” *Quality & Quantity*, Vol. 47, No. 4 (2013), pp. 2025-2047.

<sup>103</sup> Zhao Li, “How Internal Constraints Shape Interest Group Activities: Evidence from Access-Seeking PACs,” *American Political Science Review*, Vol. 112, No. 4 (November 2018), pp. 792-808.

<sup>104</sup> Cameron G. Thies and Timothy M. Peterson, *Intra-Industry Trade: Cooperation and Conflict in the Global Political Economy* (Palo Alto, CA: Stanford University Press, 2015).

<sup>105</sup> Kirshner, *Appeasing Bankers*; Kreps, *Taxing Wars*.

<sup>106</sup> Li Wei, “Towards Economic Decoupling? Mapping Chinese Discourse on the China–US Trade War,” *The Chinese Journal of International Politics*, Vol. 12, No. 4 (December 2019), pp. 519-556; Ali Wyne, “How to Think about Potentially Decoupling from China,” *The Washington Quarterly*, Vol. 43, No. 1 (January 2020), pp. 41-64.

capitalist peace theories to argue that business pressure should mitigate competition and the possibility of war in East Asia.<sup>107</sup>

My additive theory of business war preferences and empirical findings about American businesses' support and opposition to World War I highlight the importance of accurately understanding businesses' contemporary preferences regarding international security competition and war. Despite unquestionable changes in the international economy and security environment, understanding businesses' preferences about security competition remains just as important today as it was to policy makers over a century ago. As long as some businesses can profit from interstate conflicts, whether based on their trade orientation, conflict relevance, or some other factor, they have an incentive to not oppose—and potentially support—policies that raise the probability of war. Understanding which businesses—and why—might lobby governments for a peaceful power transition in East Asia, and which businesses will profit from increased tension, is essential for both political and business leaders looking to manage the complexities of the modern, economically interconnected world.

---

<sup>107</sup> G. John Ikenberry, "The Rise of China and the Future of the West: Can the Liberal System Survive?," *Foreign Affairs*, Vol. 87, No. 1 (February 2008), pp. 23-37; Rosemary Foot, "Constraints on Conflict in the Asia-Pacific," *Political Science*, Vol. 66, No. 2 (2014), pp. 119-142.