THE ROLE OF NATIONALISM IN THE UNITED STATES ECONOMY

by

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Do instances of economic nationalism translate into consumer behavior concerning American import levels? Individual consumer biases and economic nationalism have been commonly researched in marketing and sociology, but have rarely been translated into a larger macroeconomic scale. In April 2017, President of the United States, Donald Trump, signed an executive order, "Buy American and Hire American." In doing so, he called upon the "buy domestic" rhetoric that has been echoed through centuries of American politics. This paper will analyze the effects of this decision through a difference in differences model used in Mitchell Morey's 2015 paper on home bias in trade. Results find that "Buy American and Hire American" caused imports to decrease for goods covered by the policy while causing overall imports to increase. This paper looks at the consumer implications of domestic content requirements, underscoring the repercussions of such politically attractive policies.

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Introduction

In 2013, Walmart launched an initiative committed to selling and supporting U.S.-made products and U.S. manufacturers. According to their corporate website, the company's $250 billion investment was estimated to create one million new American jobs over the ten-year initiative. Similarly, in his successful campaign for the United States presidency, Donald Trump repeatedly boasted about his plan to bring jobs back to the U.S., slapping tariffs on German made cars and restricting the imports of Chinese-produced technology. The idea of promoting locally or nationally produced goods is not a phenomenon unique to the twenty first century nor to the United States. Even at the very inception of the United States, the Boston Tea Party demonstrated against British imports (Frank 1999). This type of rhetoric goes hand in hand with protectionist policies: tariffs, quotas, and other ways governments and consumers isolate their domestic economy from international economy. Protectionist policies ultimately bring an economy further away from free trade – international trade without restrictions – and closer to autarky – complete economic independence. It is generally accepted by economists that under free trade, economies are pushed to greater efficiencies and higher states of general welfare, and thus bjnkgive consumers the benefit of more choice. Conversely, protectionism has been shown to hurt both the nations attempting to protect their industries and those nations its being protected against (Larch & Lechthaler 2009). It begs the question, do American consumers care if their products are made in the U.S.? Is this observable enough to affect levels of imports? My research will investigate if instances of increased "Made in America" national rhetoric have a measurable macroeconomic effect. To answer this question, I

will first contextualize my research with economic and historical background; then with the support of past research, argue against the implementations of protectionist policies in large and developed economies such as the United States; present my own findings on the negative effect of a specific American policy, The Buy American Act of 1933; and finally conclude with the debated role of economic nationalism in the American economy.

Demand & Utility

Economists generally consider the studies of employment and costs of production the "supply side" of economics, while the studies of consumer behavior and preferences are considered the "demand side." Although it may be clear why Americans would support initiatives that promote domestic employment, it is not as salient if such initiatives would translate into American consumer preferences.

At the most rudimentary level, consumer behavior can be explained by the Law of Demand, which states the inverse relationship between quantity demanded and price. Although the model does not account for many other variables affecting consumer behavior, it is commonly accepted that the Law of Demand holds for most circumstances. Another large driving economic principle is utility. Given prices and a budget constraint, consumers will buy what gives them the most utility. How much utility, or units of "utils", each consumer gains from a product is a function of their preferences. Analogously, a country can be thought of as one large consumer that

imports goods that its preferences demand. My research looks at these preferences for U.S. produced goods through ebbs and flows of national trade data.

Buy American Act

Passed in 1933 on the last day of the Hoover administration, the Buy American Act (BAA) is a domestic content requirement policy that aims to focus production and acquisition of goods within the United States, stating:

> [o]nly unmanufactured articles, materials, and supplies that have been mined or produced in the United States, and only manufactured articles, materials, and supplies that have been manufactured in the United States substantially all from articles, materials, or supplies mined, produced, or manufactured in the United States, shall be purchased for public use.

The Act focuses on the procurement of construction materials for public projects. The Federal Acquisition Regulation (FAR) regulates and enforces the procurement of materials for public projects. Price preferences are artificially controlled through adding a certain percentage of the lowest offer price plus duties. In general, 6% is added to the lowest foreign offer when the lowest domestic offer is from a large business, 12% is added to the lowest foreign offer when the lowest domestic offer is from a small business, and up to 50% for Department of Defense procurements. After these rate changes, if the domestic producer is tied for the lowest offer, the agency must go with the domestic producer. If after these applications, the foreign offer is still the lowest, choosing the foreign products is permitted due to an "unreasonable" additional cost from choosing the domestic products. Beyond when the price inflation still favor the foreign imports, the President of the United States can waive BAA at their discretion. Buy American is generally waived due to public interest, non-availability of supplies, if

the end-product of the materials is for commercialized purposes, and to the aforementioned unreasonable costs to the taxpayer.

How much does public procurement matter in the scope of the American economy? Annually, public procurement in the United States amounts to about $1.9 trillion, which translates to approximately ten percent of annual Gross Domestic Product (GDP), the total value of goods and services produced in a country. Import content, alone, makes up $95 billion (Hufbauer & Jung 2017). Thus, policies like ‘Buy American’ not only have lasting and compounding effects on the American construction industry, but on the entire economy.

Literature Review

Economic Nationalism

To work within the critical lens of economic nationalism, it is prudent to evaluate the individual, societal, and psychological motivations of economic nationalism. Much of the research done to define the term, "economic nationalism," comes from psychological and sociological sources.

In the 1940s, Hans Kohn defined nationalism to be the "state of mind in which the individual identified himself with the 'we-group' to which supreme loyalty is given" (Kohn, 1944; Baughn and Yaprak, 1996). Groups begin linking distinctions with nationalistic orientation, paving a way for prejudice and discrimination when the 'in-group' perceives physical, social or economic threats from the 'out-group' (Baughn and Yaprak, 1996). It must be noted, however, that nationalism differs from 'patriotism', where a distinction and positive image of the 'in-group' does not necessarily suggest a negative image and dislike of the 'out-group.' Economic nationalism, then, can be interpreted as protective from those perceived threats. Mostly commonly, economic nationalism suggests that the economy is 'zero-sum', where economic gains that are not of the 'in-group' are considered losses. It is most clearly observed through policy interventions that favor one's own nation. Free trade, as discussed earlier, facilitates international exchanges of production; economic nationalism seeks to alter the direction or "nature of these trade, capital, and technology flows" (Baughn and Yaprak, 1996). Primary methods include tariffs, a tax on imports or exports; quotas, limitations on imports; restrain agreements, and duties. These terms generally carry negative and

restrictive economic connotations, but economic nationalism can also come in more 'benevolent' forms such as domestic subsidies or increasing regulatory standards.

While these interventions have clear quantitative effects on trade, instances of economic nationalism carry through international relationships that play large roles in determining trade agreements. The role of these trade relationships are magnified in the world of globalization, as the international connections in private firms give way to increased opportunity for friction and conflict (Baughn and Yaprak, 1996). Furthermore, the economic nationalism at the policy level can permeate and be expressed at through consumer behavior. Johnson (1967) and Macesich (1985) classify economic nationalism as a form of taste and economic discrimination, linking it to Becker's (1957) work on racism. Becker suggests that psychologically, individuals can have a "taste for discrimination," where they choose the psychological satisfaction of avoiding and discriminating a group over potential material gain, such as price (Becker, 1967). This thesis examines if there exists a taste for discrimination that can be observed at the macroeconomic level.

To observe any effect, this taste for discrimination must be quantified in a measurable way. Only then can it be argued as an instance of nationalism, which I will later describe as a "treatment" of certain tradable goods. Past studies have indicated that nationalism is often positively correlated with ethnocentrism, authoritarianism, and conservatism while negatively correlated with internationalism (Eckhardt, 1991; Sampson & Smith, 1957). Research has shown that ethnocentrism correlates to resistance to the immigration of foreign workers and foreign investment (Johnson, 1965). Additionally, consumer ethnocentrism can be a result of economic competition

(Ray, 1984) that can be seen through consumer bias against foreign produced goods. These biases can be expressed through country-of-origin effects and home bias.

Country-of-Origin Effect and Home Bias

Given two options of the same good, there will be factors that pull a consumer to one good over the other. A product's country-of-origin, for example, plays a large role in consumer habits. It is commonly accepted that consumers do not view goods produced by different countries as homogenous. Country-of-origin effect generalizes the role of where a product is produced, branded, and "made" on consumer behavior. Over 700 studies have established and verified the existence and degree of impact of the country-of-origin effect (Papadopoulos and Heslop, 2002). The effect can be broken down with several classes of goods, types of consumers, and different countries as producers. Costa et al. (2016) utilized a multidimensional structure of country-of-origin image in order to gauge a more accurate generalization of the impact. The study found that for different types of goods, different emotional and logical responses were associated with different countries of origin. Differentiated responses likely go hand in hand with well-known consumer biases that are a result of history, popular culture, and the media, like German cars or Korean refrigerators (Hamzaoui-Essoussi et al., 2011). On the other hand, consumers are not always working with complete and decision-altering information. Chao (1998) found that consumers do no significantly differentiate the perceived quality of goods when given knowledge of country-of-assembly, country-of-design, and parts-source country. Country-of-origin studies lay important groundwork regarding general consumer habits for my research; they allow me, and

other researchers, to treat country-of-origin as better defined variables when developing further research aims.

It also must be noted that consumer preferences are neither uniform nor do they conform perfectly to theoretical models. This could potentially explain why in practice, the world trades 50% less than the neoclassical Heckscher-Ohlin-Vanek trade model predicts (Trefler, 1995). In a study of the causes and consequences of regional taste differences, Atkin (2013) finds that taste differences that arose from accessible and abundant foods from prior generations form regional purchasing habits that can be at the cost of price and taste. Such studies underscore how, outside of traditional marketing, cultural and societal habits can explain why consumers, groups, and countries make decisions that favor domestic production that sacrifices efficiency. Farmers in western Kenya, for example, can set a decent premium on their domestically grown maize relative to other available maize because consumers are more assured of its safety and free of aflatoxin (Hoffman and Gatobu 2012). Their research shows how a cultural food safety concern can translate into higher than expected levels of domestic agricultural production.

In line with my research interests, it has also been shown that national interests and concerns can translate into consumer behavior. Morey (2016) research finds that on average, the Malagasy population in Madagascar's capital were willing to pay a 9% price premium on labeled Malagasy produced rice over labeled French produced rice, despite preferring the French rice when nothing was labeled. Madagascar's colonial relationship with France, however, played a significant role in the price a participant was willing to pay – Malagasies with surveyed anti-French sentiment were willing to

pay a statistically significant more amount for Malagasy produced rice than those with neutral or pro-France sentiments. Studies on 'Buy Local' movements have also indicated that consumers are willing to buy locally grown produce with a higher price tag for the sake of environmental sustainability or supporting local businesses (Darby et al. (2006); Hu et al. (2012)). These studies, like mine intends, test consumers' willingness to pay more for the sake of general welfare. However, these studies only imply macroeconomic effects – Morey (2016), for example, suggests that the 9% premium Malagasy consumers are willing to pay could mean about a 5% decrease in French rice imports. Drawing heavily from Morey's models, I will look directly at U.S. imports during a resurgence of "Made in USA" rhetoric to see if the suggested consumer preference for domestically produced goods is translate to the import and export levels.

Morey's work is an excellent example of how discrimination against foreign products is only one of the components of economic nationalism. In comparison to other potential explanations of home bias, a consumer's perception of "domestic" versus "foreign" producers define economic nationalism (Reich, 1991). Baughn and Yaprak (1996) and Kahan (1967) synthesize it from the American consumer perspective:

> Economic nationalism is based nationalism is based on two propositions that, for brevity, may be stated as follows:
>
> 1. American Motors is better for the United States than British Motors and therefore deserves support.
> 2. What is good for the United States is good for American Motors.

Reich (1991) argues that economic nationalism reflects the belief that the success of domestic firms also ensures the well-being of a nation's citizens, where domestic firms serve as the "intermediary" between the national economy and individual welfare. This type of rhetoric is used to justify protection of domestic industries and firms against their foreign counterparts. The economy is thus reduced to zero-sum, where investment and consumption of foreign goods is interpreted as "betrayals" or losses to the domestic economy and thus, the nation's citizens.

Baughn and Yaprak (1996) look at Realistic Group Conflict Theory to map out the psychological dynamic underpinning economic nationalism. Utilizing the "in-group" and "out-group" popularized by political scientists and sociologists, the authors argue that in the scope of the economy, domestic companies become the "in-companies" while foreign firms represent the "out-companies". Through two surveys of undergraduate students, the authors focused on five measurements: economic nationalism, nationalism, patriotism, internationalism, and economic threat and job insecurity. In particular, restrictions on foreign firms, restrictions on foreign investment, restriction on immigration of workers, formal barriers to foreign products, "buy domestic" sentiment, intellectual property, domestic production by American firms, and general "U.S. first" orientation in regard to trade and competition, were used as metrics to determine economic nationalism (Baughn and Yaprak 1996). They used measurements based on the work of Kosterman and Feshbach (1989) for nationalism, patriotism, and internationalism. Economic threat and job insecurity were measured using Sharma et al.'s (1992) criteria. Results found that economic nationalism was predicted by perception of economic threat posed by foreign competitors ($r = .52$, p

.01). The survey also indication that despite substantial relationship between measures for nationalism and economic nationalism, patriotism showed to be a predictor for general nationalism but not for economic nationalism. Above all, the authors found that perceived economic threat was the strongest predictor for nationalism ($p < 0.01$). Their data suggests that "readiness" to support economic nationalism is a function of the perceived economic threat posed by foreign industries and competition (Baughn and Yaprak 1996).

This perceived threat characterizes the context surrounding the passage of The Buy American Act of 1933. In the throes of the Great Depression, the United States was experiencing an annual unemployment peak of 23.6% and Gross Domestic Product (GDP) fall of 12.9% (United States Census Bureau). Periodic strengthening or reinforcements of Buy American can be similarly contextualized: Buy American provisions were included in President Barack Obama's American Recovery and Reinvestment Act of 2009 following the 2008 stock market crash and again included as a part of President Donald Trump's election promises to bring manufacturing jobs back to the United States. Gary Clyde Hufbauer and Eujin Jung from the Peterson Institute for International Economics synthesize this phenomenon, stating that "Buy American provisions are often enacted because politicians associate the patriotic slogan with the creation of domestic jobs" (2017). Reinforcements 'Buy American' policies are strong examples of economic nationalism in the United States.

In her book, "Buy American: the Untold Story of Economic Nationalism," Dana Frank draws a thorough narrative of economic nationalism over the course of American history (1999). Through the American Revolution, the Great Depression, and the period

of globalization, Frank especially scrutinizes the role of corporations in capitalizing on the working classes' fears. She states, "Buy American campaigns blind us to corporate capital's willingness to simultaneously play the nationalist card at home and flee overseas with its investment dollars" (251) From one of the first American demonstrations of economic nationalism, the Boston Tea Party, were cries from the working class opposing infringement on their economic democracy. Frank contends that self-interested corporations have perverted those original cries to consolidate capital. In particular, Frank argues that through and since the twentieth century, economic nationalism in the United States has become synonymous with anti Asian-American racism and Yellow Perilism (251). The "perceived threats" that Baughn and Yaprak attribute as a primary motivator for economic nationalism, is argued to be largely carried through American characterizations of Asian Americans as "sneaky, dangerous, inappropriate trading partners" (251). Frank's narrative extends seamlessly into the twenty-first century, where the fast-growing Chinese economy has become a popularized enemy of American industries and jobs. Thus, it only makes sense that yet again, 'Buy American' has become a popular rhetorical device of the U.S. government. Frank's work does an excellent job tying in Baughn and Yaprak's findings (1996) to the United States.

While research relating to the of fields marketing, sociology, and psychology looks heavily into the consumer implications, research generally (and very reasonably) does not consider macroeconomic data. Thus, a better framing of economic nationalism must require a deeper look into empirical analyses of protectionist policies.

Protectionism in Practice

Only three years preceding the Buy American Act, Congress passed perhaps one of the most infamous American protectionist policies, the Smoot-Hawley Tariff Act of 1930. Popularly blamed for the rise of international protectionism (including by the League of Nations), slashing U.S. trade activity, and plunging the then-fragile American economy deeper into recession and depression, the Smoot-Hawley Tariff Act has had its fair share of analysis (Irwin 1996). Douglas A. Irwin looks into the 40% fall of U.S. imports over the two years following the passage of Smoot-Hawley. He found that the 20% average of tariff increases translated approximately into a 5-6% increase in the relative price of imports which further suggested a 4-8% fall in import volume (1996). Exacerbated by the rampant deflation in the early 1930s, his estimates found that the effective tariff amounted about 30% more, causing up to a 20% decrease in imports. Irwin's work emphasizes the multiplicative role that rises in prices can have on imports. Furthermore, international retaliation and responsive protectionist policies against the United States only augmented these economic consequences. Intended to protect American unemployment from even more foreign competition, the Smoot-Hawley Tariff serves as an important reminder of the incredibly harmful aftershocks of economically nationalistic-driven policies.

The Buy American Act is an example of a domestic content requirement or preference, an application of economic nationalistic attitudes and country-of-origin bias. As its name suggests, domestic content requirement and preference policies make it required or preferred for goods to be produced with goods sourced domestically. In similar vein to how domestic content requirements are utilized in Buy American (1933)

to protect American manufacturing and construction industries, India passed the Jawaharlal Nehru National Solar Mission (NSM), their own domestic content requirement aimed at strengthening their solar photovoltaic (PV) manufacturing base. Researchers Anshuman Sahoo and Gireesh Shrimali examine the Indian solar PV manufacturing sector's competitiveness over time and cross referenced their findings with the sector's trends in capacity utilization relative to others (2013). Their research found that India's solar PV manufacturing sector was not only uncompetitive compared to related industries, but also experienced decreasing competitiveness relative to China's competing industries. Additionally, they found that domestic developers in the solar PV sector were potentially favoring a different technology in order to bypass the domestic content requirement. Ultimately, the authors found that India's solar PV sector struggled with innovations that their Chinese competitors did not. Domestic content requirements, thus, exacerbated the issue, sheltering the sector from potential synchronization with others. The impact of domestic content requirements on India's solar photovoltaic manufacturing industry not only underscore the ineffectiveness of these measures, but also how they can insulate the issues underlying struggling industries.

Following the global financial crisis of 2008, the United States and China passed stimulus packages that enacted domestic content requirements. Mario Larch and Wolfgang Lechthaler expand on the popularity of 'Buy American' or 'Buy National' rhetoric alongside their own analysis of the economic effectiveness of these measures. Through the documentation international protectionist activity by the International Monetary Fund (2009), World Bank (2009), and GlobalTradeAlert.org (2009), they

found that in comparison to the number of internationally implemented protectionist policies during the Great Depression, there were many fewer protectionist interventions following the 2008 global recession. Despite the significant decrease, however, The United States and China both enacted stimulus packages that incorporated 'Buy National' provisions, triggering international criticism and response (Larch & Lechthaler 2009). In order to examine the role of protectionism as a short-run response to recession, the authors focus on the dynamics of the economy while experiencing the recessional shock and the effects of protectionism during this state. Drawing from past work and their own model, Larch and Lechthaler find that protectionism hurts everyone – countries protecting themselves and those that the measures protect against. Even without trade retaliation, trade barriers foremost decrease the protecting nation's imports. The protecting nation's exports will also decline following a price level increase relative to its trading partners. This translates into reduced exporting firm business opportunities and higher consumer prices. Resources, thus, move from efficient exporting firms to their less productive counterparts (Larch & Lechthaler 2009).

Despite these negative outcomes, Larch and Lechthaler find that governments still can default to protectionism for two primary reasons: first, non-exporting firms gain under the circumstances and second, closed economies can better shield from global economic shocks. In particular, the authors contend that the loss non-exporting firms feel relative to competitive exporting firms under a more liberated economy are felt more strongly. This notion is an example of loss aversion–the idea that losses are felt more than gains. Such attitude, when coupled with lobbying, can give politicians a

reason to strongly consider protectionism (Larch & Lechthaler 2009). Larch and Lechthaler's argument is in line with previous works on economic nationalism: the perceived as threats and losses from foreign markets are a strong justification for protectionism.

Despite their thorough criticisms of protectionism, Larch and Lechthaler bring up the positive role of protectionism in non-exporting firms. The multidimensionality of the economy inherently casts off black and white interpretations. Bai et al. expand on this notion using evidence from China's industries (2002). They take a systematic approach to examine the role protectionism plays in economic efficiencies alongside scale economies–the idea that firms receive increasing returns with larger scale, and external economies–when these efficiencies are experiences in the industry rather than the single firm. Drawing from other sources, the authors used the average firm size in an industry served as a proxy for scale economies and the share of engineers and technicians in an industry's employment was used for external economies. Using panel data from 32 two-digit industries from 29 Chinese regions over 13 years, Bai et al. found evidence supporting the use of local protectionism for industries with larger shares of state ownership. Compared with external scale and scale economies, protectionism played a larger role in bolstering efficiencies of these industries.

On April 18, 2017, President Donald Trump signed an executive order reiterating the role of Buy American (1933) and similar laws with domestic content requirements. The order was an efforts of the President and his administration to fulfill their campaign promises of "reviving" the American manufacturing industry and jobs (Donald J. Trump for President, Inc 2019). In particular, the executive order called for

ensuring “the maximum utilization of goods, products, and materials produced in the United States” to the extent “permitted by law” (The White House, 2017). Economists’ reactions were immediate.

Researchers with the Peterson Institute for International Economics (PIIE), Gary Clyde Hufbauer and Euijin Jung argue that two greatest and most significant losers from ‘Buy American’ are American taxpayers and the export industry, in line with the findings of Larch and Lechthaler (2009). Buy American (1933) and similar policies primarily involve federal procurement, how governments source inputs for public projects. Even before the negative effects are seen through empirical data, broad advocacy of Buy American policies risk the needed multilateral cooperation necessary for more open federal procurement provisions across trading partners. Drawing from the general notion that competition creates more consumer choice and environments for innovation, reducing the accessibility of open and competitive government procurement implies paying for lower quality and less innovative goods at a higher price. Even more so, Hufbauer and Jung argue Buy American has negative implications for U.S. exports. As noted by Larch and Lechthaler (2009) and Irwin (1996), trading partner retaliation not only compounds the negative effects of protectionism, but is generally expected. As major trading partners adopt similar policies, American exported goods and services face the same barriers in those governments’ procurement markets (Hufbauer & Jung 2017). Additionally, the authors note the many private business who not only largely make up construction exports, but also medical equipment, medicines, and information technology industries. They concede, however, that public procurement makes up a relatively small percentage of American goods and services exports. Even so, they

estimate a $189 billion export increase without the existence of Buy American and its international counterparts. On the contrary, I want to measure the change in imports as consequence of these policies as a proxy for American consuming habits.

Like Hufbauer and Jung, trade economist, Tori Whiting argues that President Trump's reinforcement of Buy American does significantly more harm than good. The policy is more pervasive than one might assume, affecting projects of the Federal Highway Administration, Federal Aviation Administration, Federal Transit Administration, Federal Railroad Administration, Amtrak, and through the Clean Water State Revolving Fund and the Drinking Water State Revolving Fund, Buy American affects the nation's water supply as well (Whiting 2017). Her primary qualms with the domestic content requirements are threefold: they create additional regulatory hurdles for producers, bring additional cost to the American taxpayer, and are unlikely to yield targeted job growth in industries (2017). Contrary its purpose, Buy American has yielded consistent opposition from American businesses who cite the provisions as a detriment to their ability to compete in the market (Whiting 2017). Specifically, Whiting cites American steel manufacturing company, NLMK USA. The company uses steel slab to make rolled coil and galvanized steel products, employing about 1,100 Pennsylvania and Indiana residents. The company, however, must import most of its steel slab due to limited American supply; these products, in turn, are disqualified for U.S. highways, transit, and water projects (Whiting 2017). The Trade Partnership Worldwide estimates that 25 new $100,000 salary jobs could be created in Indiana alone if Buy American and similar domestic content rules were removed (Whiting 2017). In addition to stagnating job creation, Buy American's preferential system of

adding from 6 to 50% to prices could cost taxpayers between an additional $53 million and $75 million (Whiting 2017). Finally, using employment and wage data from the Bureau of Labor Statistics, Whiting found that policies carrying Buy American provisions had no positive impact on the United States steel-manufacturing employment. She argues that removing domestic content requirements would increase U.S. GDP by $22 billion and create an estimated 363,000 jobs (while losing 57,000 jobs). Ultimately, Whiting argues that the Trump Administration and Congress ought focus on developing innovation-driven and job-creating economic environments over interventionist tactics.

Whiting's paper draws heavily from the work of Peter B. Dixon, Maureen T. Rimmer, and Robert G. Waschik of Victoria University's Centre of Policy Studies. They use a tool called USAGE, a 389-industry computable general equilibrium model of the U.S. Economy developed at the Centre of Policy Studies, Victoria University with the U.S. International Trade Commission (Dixon et al. 2017). The authors simulate 'Buy American' policies through the assumption that U.S. industries artificially prefer to supply the U.S. government with domestically produced inputs of goods rather than those imported. By modeling the U.S. economy without American domestic content requirements, they model the policies' negative repercussions. Using their economic model, they found a clear failure on the part of Buy American to promote aggregate employment and economic growth. The model indicated that industries targeted by domestic content requirements, especially iron and steel, were not strongly dependent on those policies. While they found that Buy American reduces manufacturing jobs by 0.439%, or 57,000 jobs, its implementation accounts for 9% of jobs (900 jobs) in light

fixture, plumbing materials, and wiring devices industries (2017). These findings are consistent with the general findings of Larch and Lechthaler (2009) and Bai et al. (2002), that certain industries are offered levels of protection under 'Buy American' legislation. Despite this, Dixon et al. contend that when weighing scrapping the Buy American Act and its counterparts, the winners heavily outweigh the losers; 50 out of 51 states (including Washington D.C.) and 430 out of 436 congressional districts would experience job growth. Moreover, abandoning these policies would hopefully be an international signal for the democratization of public procurement markets.

While Dixon et al. utilize an incredibly thorough model (that took fifteen years to create), they acknowledge in their modeling of Buy American, that they did not find existing quantitative evidence on how input decisions by bidders to the U.S. government are biased against imports. Their observation underscores how majority of the quantitative research on the Buy American Act and similar domestic content requirements have not examined the role of 'Buy American' rhetoric on the choices of private firms. I will attempt to fill this gap.

Research Question

This thesis examines the potential impact of "Made in America" rhetoric on American consumption of goods. Does it encourage American consumers to buy products sourced from the United States? How does this rhetoric have an affect U.S. importing behavior?

Hypothesis

I hypothesize that "Made in America" products will not translate into U.S. trade trends. Although many survey-based studies have indicated that country-of-origin and home biases play a statistically significant role in consumer preferences, these studies do not require participants to spend their actual dollars. Although these methods reveal legitimate preferences, they likely exaggerate the role of these biases.

Methodology

Studies in the past have focused on surveying audiences to observe the role of country-of-origin and home bias effects. In his study of the impact of country-of-origin on product quality perceptions, Chao (1998) surveyed university students with images of products with a list of country-of-origin, price, and design specifications. Later research on country-of-origin effects emulate Chao's survey methods, but test different consumer groups and accordingly adjust the specifications of the compared goods to align with their research scope. Costa et. al (2016) used an online survey to observe the perception of foreign goods in French consumers, comparing German and Brazilian made goods. Economists have also utilized bidding and auctioning survey methods in communities where it is commonly practiced when determining price differences consumers are willing to pay for different goods (Hoffman and Gatobu (2012); Morey (2016)). Surveying, however, does not require the participants to follow through with the transaction. As a result, results can overestimate significance of suggested biases. Looking at U.S. imports allows me to test if these biases are observable.

Model

To address my research question, I use a Difference-in-Differences (DID) model design, following similar steps to Morey (2016). The model is used to measure the effect of a "treatment", a variable. DID has two different groups: a "treatment" group and "control" group. For my research, I focus on President Donald Trump's executive order passed on April 18, 2017, titled "Buy American and Hire American." Given this choice, the "treatment" group will be Buy American imports that are directly targeted

and affected while the "control" group is unaffected. I will detail the process of determining these two groups later in the methodology. First, I will explain why "Buy American and Hire American" is an attractive and effective "treatment" for the purposes of my research.

Proxy of Economic Nationalism

Economic nationalism strongly characterizes the context of the order's signing. Passed in the first few months of Trump's Administration, the executive order is emblematic of Donald Trump's presidential campaign promises of bringing back stolen American jobs and reviving manufacturing industries. In the 2016 U.S. Presidential Campaign and well into his presidency, Trump has consistently painted threatening narratives concerning nations such as China, Germany, and Japan (Fisher 2018). His rhetoric surrounding manufacturing employment heavily parallels an economically nationalist zero-sum attitude Baughn and Yaprak (1996) describe, associating with economic gains and wins of trading partners as losses to the United States. President Trump's choice to especially target the People's Republic of China seamlessly mirrors Dana Frank's (1996) analysis of the Yellow Perilism disguised in modern American economic nationalism. Thus, the executive order was one of the President's first signs of putting those campaign promises in practice, stating that the order was a part of working "in our power to make sure more products are stamped with those wonderful words 'Made in the USA," because "for too long we've watched as our factories have been closed and our jobs have been sent to faraway lands" (Phillip 2017).

Price Effects

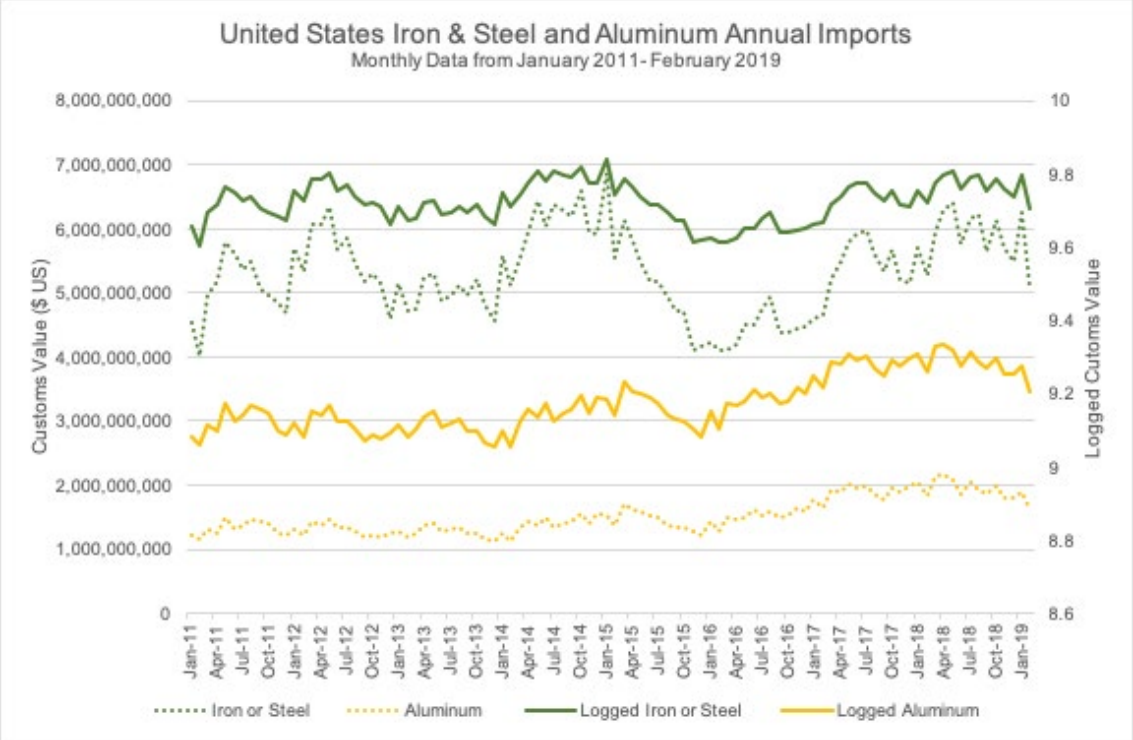
Because "Buy American and Hire American" did not directly implement additional trading barriers or change the Buy American Acts existing provisions, its role is largely symbolic. Over year later in July 2018, the United States implemented tariffs valued at $34 billion on Chinese products, followed by a back-and-forth of tariff retaliations. These interventions have direct impact on import and export pricing, making discerning import biases much more difficult. Thus, having a "treatment" that causes minimal changes to existing prices helps me eliminate price effects and isolate consumer bias.

Simplicity

In January of 2019, President Trump signed another executive order titled "Strengthening Buy-American Preferences for Infrastructure Projects" as an extension of the first. Given its recency and the pace at which the United States Census Bureau publishes its import data, it made little sense to focus on it. Furthermore, the executive order passed amidst American and Chinese trade retaliations, which would play an even larger role in this hypothetical model. Furthermore, this executive order expanded Buy American to all factors of production, while "Buy American and Hire American" affected only steel and iron and articles thereof. A crucial part of the difference-in-differences model is the parallel trends assumption, where the control and treated groups should have parallel behaviors prior to the treatment. This means when looking for a goods that serve as the model's "control" group, they must trend parallel to the import custom value of iron and steel, while not being covered by "Buy American and Hire American." Goods that are most likely parallel to iron and steel are likely also

widely used in the realm of construction, making aluminum a favorable option. In economics, goods are substitutable if the price increase of one good causes demand increase for the other good. If the control and treated groups are substitutes, opposite movements following the treatment can indicate that "Buy American and Hire American" had an affect similar to a price level change. Figure 1 graphs U.S. monthly import levels for aluminum and steel.

Figure 1: United States Iron & Steel and Aluminum Annual Imports



Data Source: United States Census Bureau

Visually, the two goods obey the parallel trends assumption. Thus, the two goods are likely not perfect substitutes (they do not have a perfect inverse relationship). If the treatment does have a significant effect on the two groups, the parallel trend between the treated and control group prior to treatment underscore a potential substitution effect. Because President Trump's 2019 executive order also covers

aluminum, it eliminates that control group. Thus, we are given a unique window to analyze in 2017.

Chosen Goods

American imports are classified using the Harmonized Tariff Schedule of the United States Annotated (HTSA), a hierarchical structure for organizing goods for duty, quota, and statistical purposes (United States International Trade Commission 2019). The 2-digit HS code is the broadest form of product classification. Products are further specified by the 4 and 6-digit HS codes. The United States further specifies products by 8-digit rate lines and even more by 10-digit HS codes for statistical reporting purposes. Import data was collected from the United States Census Bureau's USA Trade Online database which provides monthly customs values in U.S. Dollars up to the 10-digit HS code detail.

GlobalTradeAlert.org is a website that tracks international interventions. If applicable, the website also records products effected at the 4-digit HS and 6-digit HS levels. Using its database, listed goods affected by Buy American interventions were chosen to be a part of the "treated" group at the 6-digit HS level. In total, I use 309 different commodities at the HS 6 level; iron and steel commodities make up 273 while aluminum commodities make up 36. This is due to the higher specifications given to iron and steel commodities. All commodities used and their respective 6-digit HS codes are listed in the Appendix. The U.S. Census Bureau provides data from as early as January 2001. Because aluminum becomes included in Buy American Act provisions after February 2019, my study ends after that date. To keep the periods before and after the treatment symmetric, the data set includes observations of 20 monthly periods

before and after the treatment. Thus, the observations include data from June of 2013 to January of 2019. Table 1 gives summary statistics of the custom values and logged custom values. Note that values for iron and steel are the sum of the total import values for 2-digit HS codes 72, titled "Iron and Steel", and 73, titled "Articles Of Iron Or Steel", while the value for aluminum is the total import values for 2-digit HS code 76, titled "Aluminum And Articles Thereof."

Summary statistics

	Entire sample	Iron & Steel	Aluminum
Total Custom Value (in hundred thousand of US$)	460,527	354,069	106,457
Average Monthly Customs Value (in hundred thousand of US$)	6,978	5,365	1,613
Observations	20,164	17,854	2,310

Table 1: Observation Summary Statistics

Model Specifications

Given the variables selected, my most rudimentary model is as follows:

$$LoggedCustomValue_{HS,\,t} = \beta_0 + \beta_1 Treatment_{HS,\,t} + \beta_2 Treated_{HS,\,t} + \beta_3\,(Treatment_{HS,\,t})(Treated_{HS,\,t}) + \varepsilon_{HS,t}$$

Where subscript *HS* refers to the HS code at the 6-digit level and the subscript *t* refers to time. The variable Treatment is a dummy variable for President Trump's executive order that turns on and after April 2017. The variable Treated is a dummy variable that turns on for HS 6-digit level products that GlobalTradeAlert.org marks as affected. The

interaction variable, Treatment*Treated measures the difference in differences. Its estimated β_3 constant models the impact of Buy American as follows:

$$Impact_{Buy\ American} = \Delta(Import_{HS,t} - Import_{HS,\ t-1})$$

Where t indicates the treatment and t-1 indicates the period(s) before treatment and subscript HS still refers to the HS code at the 6-digit level.

Software

All statistical analysis was conducted within STATA. Data was downloaded from the U.S. Census Bureau into csv files where I reformatted for STATA's reading purposes. My entire STATA code is listed in the Appendix.

Results

I ran a preliminary level regression to give me an early idea of what the data would predict. Results of an unlogged difference in differences regression are located in the Appendix. The coefficient on *TreatmentxTreatedGroup* is the primary indicator if "Buy American and Hire American" influences U.S. imports. Iron and steel and their articles thereof, which are affected by the Buy American Act, have a negative relationship with levels of custom values imported (p=0.000). In general, all goods were positively affected by the treatment—President Trump's executive order and public announcements of strengthening of Buy American provisions. All included goods were imported at higher levels after Trump's announcement (p=0.000). The interaction variable between commodities affected by Buy American and President Trump's executive order has a negative coefficient, suggesting that Buy American affected products were imported at lower levels than unaffected products after the signing of the executive order (p=0.000).

The coefficient values are so large, however, making interpretation very difficult. The extremely high root mean square error alongside the very significant p-values (p=0.000) are just a few signs that level data is not the best choice. For the rest of my regressions, I take the log of the custom values. Not only does this correct the skewness from the import custom values being in the billions, it allows for percentage change interpretations. The $time_t$ variable is added to eliminate time invariant fixed effects. Additionally, I add control variables to account for events affecting certain commodities or at certain times that otherwise would be absorbed in the error term. The variable *USChinaTradeWar* is a dummy variable that turns on after March 2018, when

the United States imposed a 25 percent tariff on all steel imports (excluding Argentina, Australia, Brazil, and South Korea) and a 10 percent tariff on all aluminum imports (excluding Argentina and Australia) (Wong & Koty 2019). The variable $DutyInvestigations_{HS,\,t}$ is a dummy variable that turns on for commodities under the 4-digit HS code 7208 and after June 2018, when the U.S. began countervailing and antidumping duty investigations of steel racks imported from China (GlobalTradeAlert.org). The variable $CanadaMonitering_{HS,\,t}$ is a dummy variable that turns on for all commodities under the 2-digit HS code 72 and 73 and after November 2017, when Global Affairs Canada announced to Importers the extension of their import monitoring program (GlobalTradeAlert.org). The variable $ChineseTariffs_{HS,t}$ is a dummy variable that turns on for commodities under the 4-digit HS codes 7204 and 7602 and after August 2018, indicating when the Chinese government announced $16 billion worth of tariffs. These controls and fixed effects are added into the regressions seen on Table 2. Regression (1) is the simplest regression, emulating the preliminary regression ran but with logged custom values.

Table 2: Difference in differences regression results (not robust)

Logged Custom Value$_{HS,\,t}$	(1)		(2)		(3)		(4)	
$(Treatment_{HS,\,t})$*	-0.077	*	-0.077	*	-0.077	*	-0.067	
$(TreatedGroup_{HS,\,t})$	(0.041)		(0.041)		(0.041)		(0.120)	
$Treatment_{HS,\,t}$	0.0936	**	0.166	***	0.162	***	0.158	***
	(0.008)		(0.000)		(0.000)		(0.000)	
$TreatedGroup_{HS,\,t}$	-0.297	***	-0.297	***	-0.297	***	-0.297	***
	(0.000)		(0.000)		(0.000)		(0.000)	

$time_t$			-0.0000072	***	-0.000074	***	-0.000074	***
			(0.894)		(0.352)		(0.202)	
$USChinaTradeWar_t$					0.0108		0.0140	
					(0.601)		(0.588)	
$DutyInvestigations_{HS, t}$							-0.00915	
							(0.905)	
$CanadaMonitoring_{HS, t}$							-0.0130	
							(0.663)	
$ChineseTariffs_{HS, t}$							0.282	*
							(0.016)	
constant	7.002	***	8.452	***	8.499	***	8.496	***
	(0.000)		(0.000)		(0.000)		(0.000)	
N	20164		20164		20164		20164	
R-squared	0.017		0.018		0.018		0.018	

p-values in parentheses
* p<0.05, ** p<0.01, ***p<0.001

Regression (2) includes a variable to account for time fixed effects. Regression (3) includes the dummy variable for the start of the U.S.-Chinese Trade War. Regression (4) adds in the rest of the control variables. As mentioned before, the interaction variable, $(Treatment_{HS, t})*(TreatedGroup_{HS, t})$ is the key to measuring the effect of the Buy American Act on goods affected. We can see that even as fixed effects and explanatory variables are being added, the coefficient on the interaction variable remains relatively the same while the p-value decreases.

Heteroskedasticity and Multicollinearity

To ensure that my error terms are constant, I conducted the White Test for heteroskedasticity on Regression (4). The results are shown in Figure 2.

Figure 2: White's Test for heteroskedasticity

```
White's test for Ho: homoskedasticity
         against Ha: unrestricted heteroskedasticity

         chi2(18)     =     20.76
         Prob > chi2  =    0.2916
```

With a p-value = 0.2916, the null hypothesis of homoskedasticity is not rejected, thus the OLS assumption of homoskedasticity is retained. Additionally, because the model has multiple dummy variables, I want to look at multicollinearity to ensure that the model does not account for effects multiple times.

Table 3: Multicollinearity between variables

	logcus~e	Treatm~p	Treatm~t	treate~p	time1	USChin~r	DutyIn~s	Canada~g	Chines~s
logcustoms~e	1.0000								
Treatmentx~p	-0.0201	1.0000							
Treatment	0.0147	0.9169	1.0000						
treatedgroup	-0.1279	0.2256	0.0004	1.0000					
time1	-0.0063	0.7398	0.8069	0.0003	1.0000				
USChinaTra~r	0.0062	0.6002	0.6546	0.0003	0.6455	1.0000			
DutyInvest~s	-0.0045	0.1192	0.1093	0.0269	0.1137	0.1669	1.0000		
CanadaMoni~g	-0.0203	0.8010	0.7344	0.1807	0.6719	0.7636	0.1488	1.0000	
ChineseTar~s	0.0174	0.0634	0.0707	-0.0020	0.0760	0.1080	-0.0036	0.0808	1.0000

Looking at Table 3, notice that the $CanadaMonitering_{HS,\,t}$ has consistently higher correlations with other variables. With this in mind and to further ensure that the standard error values are accurate, I reran the regressions with robust standard errors and including a regression without the variable, $CanadaMonitering_{HS,t}$. The results are in Table 4, which displays p-values in parentheses, and Table 5, which alternatively displays standard errors.

Table 4: Robust OLS regression results with p-values

	(1) logcustoms~e	(2) logcustoms~e	(3) logcustoms~e	(4) logcustoms~e	(5) logcustoms~e
Treatmentx~p	−0.0771*	−0.0772*	−0.0772*	−0.0767*	−0.0674
	(0.038)	(0.038)	(0.038)	(0.039)	(0.115)
Treatment	0.0936**	0.166***	0.162***	0.162***	0.158***
	(0.007)	(0.000)	(0.000)	(0.000)	(0.000)
treatedgroup	−0.297***	−0.297***	−0.297***	−0.297***	−0.297***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
time1		−0.0000716***	−0.0000739***	−0.0000744***	−0.0000738***
		(0.000)	(0.000)	(0.000)	(0.000)
USChinaTra~r			0.0108	0.00727	0.0140
			(0.608)	(0.731)	(0.590)
DutyInvest~s				−0.00956	−0.00915
				(0.908)	(0.912)
ChineseTar~s				0.282*	0.282*
				(0.018)	(0.018)
CanadaMoni~g					−0.0130
					(0.663)
_cons	7.002***	8.452***	8.499***	8.508***	8.496***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
N	20164	20164	20164	20164	20164
R-sq	0.017	0.018	0.018	0.018	0.018

Table 5: Robust OLS regression results with standard errors

	(1) logcustoms~e	(2) logcustoms~e	(3) logcustoms~e	(4) logcustoms~e	(5) logcustoms~e
Treatmentx~p	-0.0771*	-0.0772*	-0.0772*	-0.0767*	-0.0674
	(0.0372)	(0.0372)	(0.0372)	(0.0372)	(0.0427)
Treatment	0.0936**	0.166***	0.162***	0.162***	0.158***
	(0.0348)	(0.0384)	(0.0390)	(0.0389)	(0.0399)
treatedgroup	-0.297***	-0.297***	-0.297***	-0.297***	-0.297***
	(0.0206)	(0.0206)	(0.0206)	(0.0206)	(0.0206)
time1		-0.0000716***	-0.0000739***	-0.0000744***	-0.0000738***
		(0.0000162)	(0.0000168)	(0.0000168)	(0.0000168)
USChinaTra~r			0.0108	0.00727	0.0140
			(0.0210)	(0.0212)	(0.0260)
DutyInvest~s				-0.00956	-0.00915
				(0.0825)	(0.0825)
ChineseTar~s				0.282*	0.282*
				(0.119)	(0.119)
CanadaMoni~g					-0.0130
					(0.0299)
_cons	7.002***	8.452***	8.499***	8.508***	8.496***
	(0.0193)	(0.329)	(0.340)	(0.340)	(0.341)
N	20164	20164	20164	20164	20164
R-sq	0.017	0.018	0.018	0.018	0.018

We can see that standard errors uniformly increase with the addition of $CanadaMonitering_{HS,\,t}$, so it will be excluded for the final regression. The formula for the final regression is as follows:

$$LoggedCustomValue_{HS,\,t} = \beta_0 + \beta_1 Treatment_{HS,\,t} + \beta_2 Treated_{HS,\,t} + \beta_3\,(Treatment_{HS,\,t})(Treated_{HS,\,t}) + \beta_4 USChinaTradeWar_{HS,\,t} + \beta_5\, DutyInvestigations_{HS,\,t} + \beta_6\, ChineseTariffs_{HS,\,t} + \varepsilon_{HS,\,t}$$

Its regression results are in Table 6.

Table 6: Final OLS regression results

Linear regression	Number of obs	=	20,164
	F(7, 20156)	=	55.23
	Prob > F	=	0.0000
	R-squared	=	0.0180
	Root MSE	=	.79388

logcustomsvalue	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
TreatmentxTreatedGroup	-.0766938	.0371593	-2.06	0.039	-.1495291	-.0038585
Treatment	.1621962	.0389453	4.16	0.000	.0858602	.2385322
treatedgroup	-.2971315	.0206109	-14.42	0.000	-.3375306	-.2567325
time1	-.0000744	.0000168	-4.43	0.000	-.0001073	-.0000415
USChinaTradeWar	.0072718	.0211899	0.34	0.731	-.0342621	.0488056
DutyInvestigations	-.0095588	.0824679	-0.12	0.908	-.1712026	.1520851
ChineseTariffs	.2819913	.118978	2.37	0.018	.0487847	.5151979
_cons	8.507577	.3404035	24.99	0.000	7.840358	9.174795

Robustness Checks

Another potential factor that could be skewing results are the chosen cutoff dates. Tables 7 and 8 runs the final model with different time periods; Table 7 shows p-values in parentheses while Table 8 shows standard errors in parentheses. Regression (1) is the original regression with 20 periods before and after the treatment. Regression (2) extends the period prior to treatment by an extra year, or 12 periods; regression (3) extends the period prior to treatment by only 3 periods; regression (4) reduces the period prior to treatment by 3 periods; regression (5) reduces the period prior to treatment by an extra year, or 12 periods. Across the board, p-values and standard errors for the $(Treatment_{HS,\,t})*(TreatedGroup_{HS,\,t})$ coefficient seem to be inversely related to the number of periods before the passage of President Trump's executive order.

Table 7: Robustness checks, p-values

	(1) logcustoms~e	(2) logcustoms~e	(3) logcustoms~e	(4) logcustoms~e	(5) logcustoms~e
Treatmentx~p	-0.0755*	-0.0796*	-0.0779*	-0.0733	-0.0545
	(0.047)	(0.030)	(0.037)	(0.056)	(0.173)
Treatment	0.164***	0.137***	0.154***	0.175***	0.189***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
treatedgroup	-0.299***	-0.294***	-0.296***	-0.301***	-0.320***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
time1	-0.0000789***	-0.0000320**	-0.0000600***	-0.000102***	-0.000158***
	(0.000)	(0.009)	(0.000)	(0.000)	(0.000)
USChinaTra~r	0.00791	-0.00623	0.00220	0.0148	0.0318
	(0.715)	(0.771)	(0.918)	(0.496)	(0.159)
DutyInvest~s	-0.0160	-0.0183	-0.0170	-0.0149	-0.0122
	(0.857)	(0.837)	(0.849)	(0.867)	(0.891)
ChineseTar~s	0.287*	0.284*	0.286*	0.289*	0.294*
	(0.028)	(0.030)	(0.029)	(0.027)	(0.025)
_cons	8.601***	7.639***	8.212***	9.075***	10.25***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
N	19553	23210	20773	18637	15883

p-values in parentheses
* p<0.05, ** p<0.01, *** p<0.001

The increasing p-values and standard errors are likely the result of the Difference-in-Differences model parallel trend assumption breaking down as fewer data points are used for the regression. Looking at the Figure 1, the difference between level custom imports is less uniform. This can detract from the validity of the model and must be critically considered when interpreting regression results.

Table 8: Robustness checks, standard errors

	(1) logcustoms~e	(2) logcustoms~e	(3) logcustoms~e	(4) logcustoms~e	(5) logcustoms~e
Treatmentx~p	−0.0755*	−0.0796*	−0.0779*	−0.0733	−0.0545
	(0.0379)	(0.0367)	(0.0374)	(0.0383)	(0.0400)
Treatment	0.164***	0.137***	0.154***	0.175***	0.189***
	(0.0396)	(0.0379)	(0.0389)	(0.0402)	(0.0426)
treatedgroup	−0.299***	−0.294***	−0.296***	−0.301***	−0.320***
	(0.0208)	(0.0185)	(0.0200)	(0.0216)	(0.0244)
time1	−0.0000789***	−0.0000320**	−0.0000600***	−0.000102***	−0.000158***
	(0.0000174)	(0.0000123)	(0.0000153)	(0.0000194)	(0.0000274)
USChinaTra~r	0.00791	−0.00623	0.00220	0.0148	0.0318
	(0.0217)	(0.0214)	(0.0215)	(0.0218)	(0.0226)
DutyInvest~s	−0.0160	−0.0183	−0.0170	−0.0149	−0.0122
	(0.0890)	(0.0890)	(0.0890)	(0.0890)	(0.0890)
ChineseTar~s	0.287*	0.284*	0.286*	0.289*	0.294*
	(0.131)	(0.131)	(0.131)	(0.131)	(0.131)
_cons	8.601***	7.639***	8.212***	9.075***	10.25***
	(0.353)	(0.248)	(0.310)	(0.394)	(0.560)
N	19553	23210	20773	18637	15883

Standard errors in parentheses
* p<0.05, ** p<0.01, *** p<0.001

Discussion

When comparing the results from Table 7 to Table 1, notice that all coefficients maintained their positive or negative states, and thus all relationship interpretations remain the same. The p-value on the first three variables are all statistically significant below the five percent level. Robust standard errors and the root mean squared error (Root MSE) also sit at low values. Most significantly, the results indicate that Buy American affected goods experienced a 7.55 percent decrease (p=0.047) after President Trump signed the executive order, “Buy American and Hire American.” Import levels

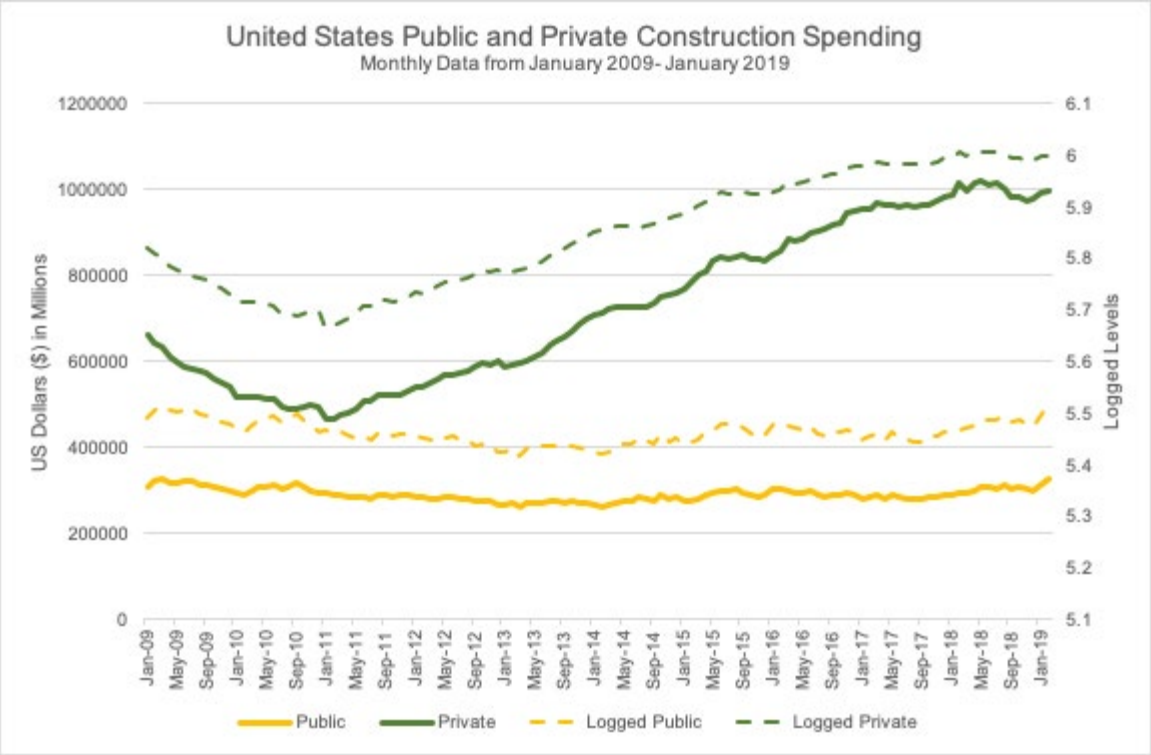
of all goods, however, increase by 16.4 percent (p=0.000) following President Trump's executive order, while iron and steel imports in general, are imported 29.9 percent less (p=0.000) relative to the imports of aluminum. Considering that iron and steel made up most the observations, it is surprising that despite the coefficient for the treated group being negative, that the treatment's overall correlation with logged custom value is positive.

While interpreting these results, it is important to note that the Buy American Act and President Trump's executive order do not raise the prices of foreign products in all markets. Rather, only the United States government faces the artificially increased prices. Furthermore, Trump's executive order did not change the Buy American policies of the status quo, but merely recalled the importance of such measures. But unlike the private construction market, government spending is not only restrained by a tax revenue, but a slow growing tax revenue. Thus, when the government is artificially increasing its prices, its ability to invest in construction and infrastructure projects also significantly decreases due to the budget constraint. Accordingly, there are two simple narratives that explain the negative relationship between the Buy American Act enforcement and the goods it covers. First, consumers responded positively to President Trump's support of buying domestic and emulated it in their own buying behavior. This explanation seems unlikely due to the overall statistically significant positive relationship between the executive order and imports. Furthermore, American steel company, NLMK USA, serves as anecdotal evidence that steel imports are driven largely by necessity as a reality of limited American supply, rather than a hardline for

supporting domestically sourced goods. Thus, a likelier explanation is the government's reduction in its own ability to import commodities due to budgetary constraints.

Then what accounts for the positive increase in imports overall after a politically and economically significant example of economic nationalism? Potentially those who are not constricted by the taxpayer's dollar, private construction, raised overall imports. Figure 3 shows the monthly levels of private versus public construction spending over the last decade.

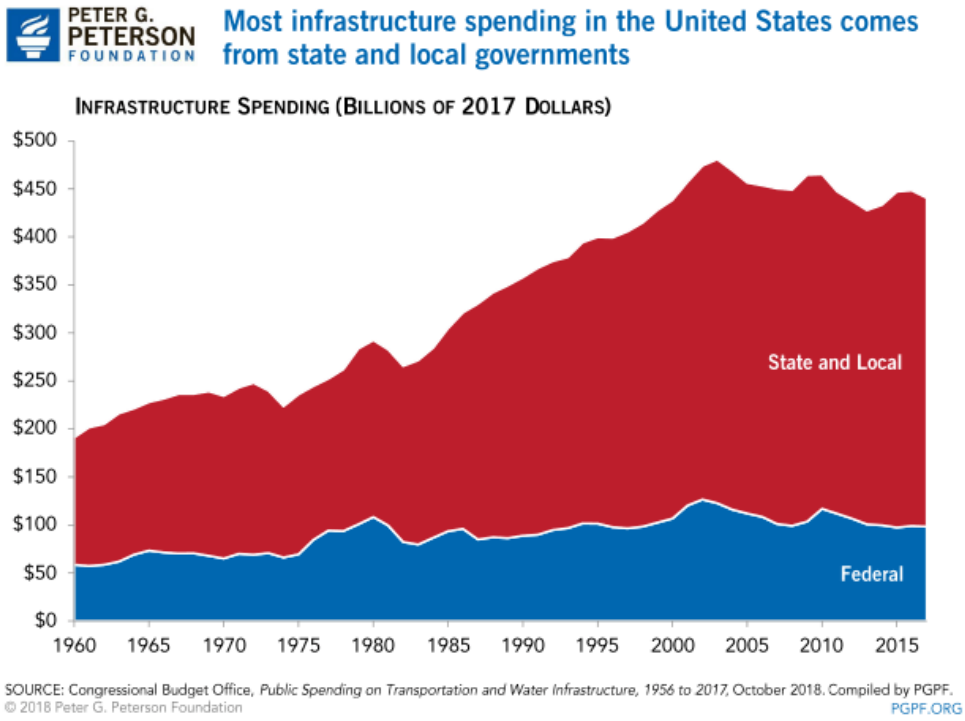
Figure 3: United States Public and Private Construction Spending



Data Source: United States Census Bureau

Since the 2008 recession, private construction spending has both increased higher and at faster rates than public construction spending. As major factors of construction, it logically follows that import levels increase for iron, steel, and aluminum.

Figure 4: United States Infrastructure Spending



Source: Peter G. Peterson Foundation

This fact, coupled with the reality of decreasing government infrastructure spending, depicted in Figure 4, can potentially explain demand increases for construction related commodities and imports.

Model Limitations

Although I previously cited simplicity as a reason behind choosing "Buy American and Hire American" and the Buy American Act as the treatment for this model, the original act and its executive order counterpart come with many limitations. First, because the policies exclusively affect public procurement, it precludes the

research from observing potential economically nationalist biased non-governmental consumption. Furthermore, although my dataset contains many substitutable good sets at the 4-digit and 6-digit HS levels, they are all articles or types of iron and steel or aluminum. In particular, these metals face a sea of barriers and are often the commodity of choice when weaponizing trade relationships. As a result, the turbulent political environment can make modeling around these commodities difficult. The difference in differences model, however, is very helpful in this regard, as for the most part, aluminum, iron, and steel products are often targeted together.

Another caveat in the data is the sole use of custom values imported to the United States. Having access to the units imported would have enabled calculations for imports' average weight and measure the impact of the treatment on imported units. Additionally, it could provide better insight to the relationship between the control and treated groups. This information was limited by the United States Census Bureau database. Such additional measures and regressions could have provided better narrative insight and context and should be explored in further research of this topic.

Conclusion

Although economic nationalism, consumer biases, and domestic content requirements have been extensively researched in a variety of fields, the majority of research focuses on either the individual preferences of consumers without budget constraints or on the specific policy interventions that have direct price implications. Since economic nationalism and home bias has been shown to be a significant influence in consumer behavior, this paper has attempted to model the effect of a representative case of economic nationalism on American consumption of foreign goods–imports.

Using an OLS regression to estimate a difference in differences, model results show that the representative case, President Trump's first executive order, "Buy American and Hire American," correlated with an approximately 10 percent reduction in imports for goods covered by Buy American Act provisions, but also about an 8 percent increase in imports overall. Looking at these results alongside the stagnant levels of U.S. government construction spending and the rising private construction spending, suggests a narrative less patriotic than the slogan of the executive order would imply. As the government artificially increases the prices of construction inputs to accommodate for domestic prices while working within the budget of the taxpayer dollar, the budget constraint suggests a lower ability to invest in public infrastructure. This fact is reinforced by declining U.S. infrastructure spending.

Alongside previous Buy American Act research by Hufbauer and Jung (2017), Tori Whiting (2017), and Dixon et al. (2017), this paper finds that these domestic content requirements also work against price-driven consumers. It is the U.S. economy, not the government, that is responsible for job creation, while the government's role is

to “create a tax, trade, and regulatory environment where private businesses are able to grow and flourish” (Whiting 2017). Domestic content requirements such as the Buy American Act and “Buy American and Hire American” are harmful economically nationalist policies that ultimately pander to party allegiances while harming the American public.

Appendix A: STATA Code

```
import delimited "/Users/melissaliu/iCloud Drive (Archive)/Desktop/Thesis Work/alum
vs steel .csv", clear
// Destringing US Census's time formatting and making it Stata comaptible
gen time1 = date(time, "MDY")
/* Dummy variable that turns on after April 2017, when President Trump signs
executive order, "Buy American and Hire American */
generate Treatment = (time1 > 20545)

// The following are dummies for fixed effects and control variables
generate USChinaTradeWar = (time1 > 21216)
generate DutyInvestigations = time1 >= 21336 & hs4==7208
generate CanadaMonitoring = time1 >= 21124 & hs2 <= 73
generate ChineseTariffs = time1 >=21397 & hs4==7204 | time1 >=21397 & hs4==7602

// Generating interaction variable between 'treatment' and 'treated group'
gen TreatmentxTreatedGroup = Treatment*treatedgroup

// Establishing the time periods
drop if time1 > 21550
drop if time1 < 19571
// Summary Table of Iron and Steel Imports
summarize customsvaluegenus logcustomsvalue if treatedgroup == 1
```

```
// Summary Table of Aluminum Imports
summarize customsvaluegenus logcustomsvalue if treatedgroup == 0

ssc install estout, replace
eststo clear
eststo: quietly reg logcustomsvalue TreatmentxTreatedGroup Treatment treatedgroup
eststo: quietly reg logcustomsvalue TreatmentxTreatedGroup Treatment treatedgroup
time1
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time1 USChinaTradeWar
eststo: quietly reg logcustomsvalue TreatmentxTreatedGroup Treatment treatedgroup
time1 USChinaTradeWar DutyInvestigations CanadaMonitoring ChineseTariffs
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// Breusch-Pagan tests of hetereoskedasticity
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hettest TreatmentxTreatedGroup Treatment treatedgroup time1 DutyInvestigations
CanadaMonitoring ChineseTariffs
hettest TreatmentxTreatedGroup Treatment treatedgroup time1 USChinaTradeWar
DutyInvestigations CanadaMonitoring ChineseTariffs
```

```
eststo clear
eststo: quietly reg logcustomsvalue TreatmentxTreatedGroup Treatment treatedgroup,
robust
eststo: quietly reg logcustomsvalue TreatmentxTreatedGroup Treatment treatedgroup
time1, robust
eststo: quietly reg logcustomsvalue TreatmentxTreatedGroup Treatment treatedgroup
time1 USChinaTradeWar, robust
eststo: quietly reg logcustomsvalue TreatmentxTreatedGroup Treatment treatedgroup
time1 USChinaTradeWar DutyInvestigations ChineseTariffs, robust
eststo: quietly reg logcustomsvalue TreatmentxTreatedGroup Treatment treatedgroup
time1 USChinaTradeWar DutyInvestigations ChineseTariffs CanadaMonitoring, robust
esttab, p r2

corr logcustomsvalue TreatmentxTreatedGroup Treatment treatedgroup time1
USChinaTradeWar DutyInvestigations CanadaMonitoring ChineseTariffs, means

quietly reg logcustomsvalue TreatmentxTreatedGroup Treatment treatedgroup time1
USChinaTradeWar DutyInvestigations CanadaMonitoring ChineseTariffs
estat imtest, white
```

Appendix B: Preliminary Regression Results

The following table are the regression results from running the model:

$$CustomValue_{HS,\,t} = \beta_0 + \beta_1 Treatment_{HS,\,t} + \beta_2 Treated_{HS,\,t} + \beta_3\,(Treatment_{HS,\,t})(Treated_{HS,\,t}) + \varepsilon_{HS,t}$$

Source	SS	df	MS	Number of obs	=	20,164
				F(3, 20160)	=	304.76
Model	1.7546e+18	3	5.8488e+17	Prob > F	=	0.0000
Residual	3.8690e+19	20,160	1.9191e+15	R-squared	=	0.0434
				Adj R-squared	=	0.0432
Total	4.0444e+19	20,163	2.0059e+15	Root MSE	=	4.4e+07

customsvaluegenus	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
TreatmentxTreatedGroup	-1.28e+07	1937304	-6.62	0.000	-1.66e+07	-9020563
Treatment	1.27e+07	1822960	6.98	0.000	9148739	1.63e+07
treatedgroup	-2.21e+07	1369951	-16.12	0.000	-2.48e+07	-1.94e+07
_cons	3.97e+07	1289028	30.82	0.000	3.72e+07	4.23e+07

Appendix C: Commodities

6-Digit HS Code	Product Description	Effected by BAA
720110	Nonalloy Pig Iron 0.5 Prcnt Or Less Phosphorus	yes
720150	Alloy Pig Iron; Spiegeleisen, In Primary Forms	yes
720211	Ferromanganese With Over 2 Percent Carbon	yes
720219	Ferromanganese, 2 Percent Or Less Carbon	yes
720221	Ferrosilicon With Over 55 Percent Silicon	yes
720229	Ferrosilicon, 55 Percent Or Less Silicon	yes
720230	Ferrosilicon Manganese	yes
720241	Ferrochromium Over 4 Percent Carbon	yes
720249	Ferrochromium, 4 Percent Or Less Carbon	yes
720250	Ferrosilicon Chromium	yes
720260	Ferronickel	yes
720270	Ferromolybdenum	yes
720280	Ferrotungsten And Ferrosilicon Tungsten	yes
720291	Ferrotitanium And Ferrosilicon Titanium	yes
720292	Ferrovanadium	yes
720293	Ferroniobium	yes
720299	Ferroalloys, Nesoi	yes
720410	Cast Iron Waste And Scrap	yes
720421	Stainless Steel Waste And Scrap	yes
720429	Alloy Steel Waste And Scrap, Not Stainless	yes
720430	Tinned Iron Or Steel Waste And Scrap	yes
720441	Ferrous Waste & Scrap Nesoi, Turnings, Chips Etc	yes
720449	Ferrous Waste & Scrap Nesoi	yes
720711	Smfd Ios Na U.25PCT Crbn Rec/sq Cs Wdth Un 2x Thns	yes
720712	Smfd Irn/nal Stl Lt .25 Pct Crb Rect Cs Wid 2x Thk	yes
720719	Smfd Irn/nal Stl Lt 0.25 Pct Carbon Cs Nt Rect/sqr	yes
720720	Smfd Irn Or Nonalloy Stl, .25 Pct Or More Carbon	yes
720810	Flat-hot-roll Iron, Nonaly Stl,coils,pttrns, Nes0i	yes
720825	Flat-hot-roll Irn,nonaly,coil,pkled,4.75mm >,nesoi	yes
720826	Flt-hot-rol Irn Nonaly,coil,pkld,3mm <4.75mm,nesoi	yes
720827	Flt-hot-rol Irn,noaly Stl,coil,pk,<3mm Thick,nesoi	yes
720836	Flt-hot-roll Irn,nonaly Stl,coil,>10mm Thick,nesoi	yes
720837	Flt-hot-rol Irn,nonaly,coils,4.75mm N/o 10mm Nesoi	yes
720838	Flt-ht-rl Irn,noaly Stl,coil,3mm But < 4.75MMNESOI	yes
720839	Flat-hot-roll Irn,nonaly Stl,coil,<3mm Thick,nesoi	yes
720840	Fr Ios Nal 600mm Ao Hr Nt C/p/c/cls Pttrns In Rel	yes
720851	Flt-hot-roll Irn,nonaly St,not Coil>10mm Thk,nesoi	yes
720852	Fr Ios Nal 600mm Ao Hr Nt C/p/c/cls 4.75-10MM Thck	yes
720853	Fr Ios Nal 600 Ao Hr Nt C/p/c/cls 3-un 4.75MM Thck	yes
720854	Fr Irn/nal Stl 600mm Ao Hr Nt C/p/c/cls Un 3mm Thk	yes
720890	Fr Ios Na Cornc 600mm Ao W Hr Pl Nesoi	yes
720915	Flt-cold-rol Irn,noaly,coil,600mm Wide,3mm > Thick	yes
720916	Fl-cld-rl Irn,st,coil,600mm Wide,>1mm But <3mm Thk	yes
720917	Fl-cld-rl Irn,st,coil,600mm Wd,0.5mmbut N/o 1mm Tk	yes

6-Digit HS Code	Product Description	Effected by BAA
720918	Flat-cold-rld Ir,stl,coils,600mm Wide,<0.5mm Thick	yes
720925	Flt-cld-rld Ir,st,not Coil,600mm Wide,3mm Or > Thk	yes
720926	Flt-cld-rld Ir,st,not Coil,600mm Wd, >1mm <3mm Thk	yes
720927	Flt-cld-rld,not Coil 600mm W,>0.5mmbut N/o 1mm Thk	yes
720928	Flt-cld-rld Ir,nonal,notcoil,600mm Wide,>0.5mm Thk	yes
720990	Fr Ios Na Cls Or Nt 600mm Ao W Cr Pl Nesoi	yes
721011	Fr Ios Na 600mm Ao W Tin Coatd Or Pltd 0.5MM Ao Th	yes
721012	Fr Ios Nal 600mm Ao W Tin Ctd Or Pltd Undr 0.5MM T	yes
721020	Fr Ios Na 600mm Ao W Lead Ctd Or Pltd (ternplate)	yes
721030	Flat-rld Iron,nonal Stl,600mm Wide,elec Platd Zinc	yes
721041	Fr Ios Na 600mm Ao W Zinc Ctd O Pltd Nt Elctc Corr	yes
721049	Fr Ir/nas Ctd/pltd W Zinc Nt Elec Nt Corr 600mm Om	yes
721050	Fr Ios Na 600mm Ao W Ctd/pltd W Cro Or Cr And Cro	yes
721061	Fr Iron/nonalloy Steel 600mm Ao,pltd/ctd Alum-znc	yes
721069	Fr Iron/nonalloy Steel,600mm Ao,pltd/ctd Othr Alum	yes
721070	Fr Ir/nas 600mm W Om, Painted, Varnished, Plastic	yes
721090	Flat-roll Iron Or Nonalloy Steel Nu600mmclad Nesoi	yes
721113	Fr Hs Ios Na Un600mm W Hr Pl Unvrsl Mllplte	yes
721114	Fr Hs Ios Na Un600mm W Hr Pl 4.75MM Ao Thck	yes
721119	Oth Fr Hi-str St Un 600mm W Npld Un4.75mm Thck	yes
721123	Flat-cold-rolled Iron,nonalloy Steel, <600 mm Wide	yes
721129	Flat-rolled Iron/nonalloy Steel Undr 600 mm, Nesoi	yes
721190	Fr Ios Na Un 600mm W, Nesoi Mr Thn C-r	yes
721210	Fr Ios Na Undr 600mm Wide Tin Coatd O Plated	yes
721220	Flat-rld Irn,nonal St, < 600mm Wide Elec Pltd Zinc	yes
721230	Flat-rld Ir/nas Un 600mm W Pltd/ctd W Zinc Nt Elec	yes
721240	Flat-rld Ir/nas Un 600mm W Pntd/varnshd/plstc Ctd	yes
721250	Fr Ios Na Undr 600mm Wide Pltd Or Coatd, Nesoi	yes
721260	Fr Ios Un 600mm Wd Clad Nesoi	yes
721310	Bars And Rods Irregular Coils Concrete Reinforcing	yes
721320	Brs Rods Hot-rlld Irreg Coils Free-cuttng Steel	yes
721391	Bars,rodshot-roll,irnnoal St Coil Circ,<14mm Nesoi	yes
721399	Bars,rods,hot-rolled,iron Or Nonal Stl,coils,nesoi	yes
721410	Other Bars And Rods Iron Or Nonalloy Steel, Forged	yes
721420	Oth Brs Rds Ios Na Hot-wrkd, Conc Reinfrcng	yes
721430	Other Bars And Rods Free-cutting Steel, Hot-worked	yes
721491	Bars,rods,hot-rolled,-drawn,-ext,rectangular,nesoi	yes
721499	Bars,rods,irn,noal,hot-rolled,-drawn-extrude,nesoi	yes
721510	Oth Brs And Rds Free-cttng Stl Cold-fmd Or Fnshd	yes
721550	Bars,rods,irn,noal,cold-formed,cold-finished,nesoi	yes
721590	Bars And Rods Iron Or Nonalloy Steel, Nesoi	yes
721610	U-i-h-sections Ir/nas Hot/wrkd Ls Thn 80mm High	yes
721621	L Sec Ios Na Hot-wkd Lss Th 80mm High	yes
721622	T Sec Ios Na Hot-wkd Lss Th 80mm High	yes
721631	U Sec Ios Na Hot-wkd 80mm Or More High	yes
721632	I Sec Ios Na Hot-wkd 80mm Ao High (standard Beams)	yes
721633	H Sections Irn/nas, Hot-wrkd, 80mm Hi Or More	yes

6-Digit HS Code	Product Description	Effected by BAA
721640	L Or T Sections Ir/nas Hot-wrkd, 80mm Hi Or More	yes
721650	Oth Angls Shps Sec Ios Na Hot-wkd	yes
721661	Angls Shps Sec Ir/nas Nt Frthr Cld-wrkd Frm Fr Pro	yes
721669	Angls Shps Sec Ir/nas Nt Frthr Cld-wrkd Nt Fr Prod	yes
721691	Angls Shps Sec Irn/nas Oth Cld-wrkd Fr Fr Products	yes
721699	Angles Shapes Sections Iron/nonalloy Steel Nesoi	yes
721710	Wire Of Iron Or Nonalloy Stl,not Plated Or Coated	yes
721720	Wire Of Iron,nonaly Stl,plated Or Coated With Zinc	yes
721730	Wire Of Irn,noal St, Plted Or Ctd Base Metal,nesoi	yes
721790	Wire Iron/nonalloy Steel Under 0.25% Carbon, Nesoi	yes
721810	Stainless Steel Ingots And Other Primary Forms	yes
721891	Smfnshed Prdcts,stainless Steel,rectngulr (nt Sqr)	yes
721899	Other Semifinished Products Of Stainless Steel	yes
721911	Fr ss 600mm Ao W Hr Cls Ov 10mm Thck	yes
721912	Fr ss 600mm Ao W Hr Cls 4.75-NOV 10mm Thck	yes
721913	Fr ss 600mm Ao W Hr Cls 3-un 4.75MM Thck	yes
721914	Fr ss 600mm Ao W Hr Cls Un 3mm Thck	yes
721921	Fr ss 600mm Ao W Hr Nt Cld Ov 10mm Thck	yes
721922	Fr ss 600mm Ao W Hr Nt Cld 4.75-NOV 10mm Thck	yes
721923	Fr ss 600mm Ao W Hr Nt Cld 3-un 4.75MM Thck	yes
721924	Fr ss 600mm Ao W Hr Nt Cld Undr 3mm Thck	yes
721931	Flt-rld Stnls Stl 600mm Om W Cld/rld 4.75MM Om Thk	yes
721932	Flt-rld Stnls Stl 600mm Om W Cld-rld 3-un4.75mm Th	yes
721933	Fl-rld Stnls Stl 600mm Om W C-r Ov 1mm Un3mm Thk	yes
721934	Flt-rld Stnls Stl 600mm Om W Cld-rld .5-1 mm Thck	yes
721935	Flt-rld Stnls Stl 600mm Om W Cld-rld Un.5 mm Thick	yes
721990	Flt-rld Stnls Stl 600mm Ao Wide, Nesoi	yes
722011	Fr ss Undr 600mm W Hr 4.75MM Ao Thck	yes
722012	Flt-rld Stnls Stl Un 600mm Wide Ht-rld Un4.75mm Th	yes
722020	Flat-rolled Stnls Stl Und 600mm Wide, Cld-rld	yes
722090	Fl-rld Stnls Stl Un 600mm Wde, Nesoi	yes
722100	Bars And Rods, Stnls Stl, Ht-rld, Irreg Coils	yes
722211	Oth Bars & Rods Stainless Steel Circ Cross-section	yes
722219	Oth Bars & Rods Stnless Steel Hr Nt Circ Cross-sec	yes
722220	Oth Bars A Rods, Stnls Stl, Nt Fur Th Cld-frm/fnsh	yes
722230	Other Bars And Rods Stainless Steel, Nesoi	yes
722240	Angles, Shapes And Sections Of Stainless Steel	yes
722300	Wire Of Stainless Steel	yes
722511	Flt-rlld Grain-ornted Silicon Elctrcl Stl 600mm Ao	yes
722519	Flt-rld Silicon Elctrcl Stl 600mm Ao Nt Grain-ornt	yes
722520	Flat-rolled High-speed Steel 600mm Wide Or More	yes
722530	Flt-rld Oth Alloy Stl 600mm Om W, Ht-rld, Coils	yes
722540	Flt-rld Oth Alloy Stl 600mm Om W, Ht-rld Nt Coils	yes
722550	Flt-rld Oth Alloy Stl 600mm Om W, Cld-rld	yes
722591	Flt-rld Alloy Stl Nesoi 600ao Elctlyc Plt/ctd Zinc	yes
722592	Flt-rld Alloy Stl Nesoi 600ao Plt/ctd Zinc Nt Elct	yes
722599	Flt-rld Alloy Steel Nt Stainless 600mm Ao W Nesoi	yes

6-Digit HS Code	Product Description	Effected by BAA
722611	Flt-rlld Silicon Elctrcl Steel Un 600mm W Grain-or	yes
722619	Flt-rld Silicon Elctrcl Stl Un 600mm W Nt Grain-or	yes
722620	Flat-rolled High-speed Steel Under 600mm Wide	yes
722691	Flat-rolled Oth Alloy Stl Un 600mm W Ht-rld	yes
722692	Flt-rld Oth Alloy Stl Un 600mm W, Cld-rld	yes
722694	Fr Alloy Stl Nes Un 600mm Pltd/ctd Zinc Nt Elctlyt	yes
722699	Flat-rolled Other Alloy Steel Un 600mm W Nesoi	yes
722710	Brs A Rds Hspd Stl Irrg Coils Hot-rolld	yes
722720	Brs A Rds Slco-mn Stl Irrg Coils Hot-rolld	yes
722790	Bars And Rods Oth Alloy Stl, Hot-rld, Irreg Coils	yes
722810	Other Bars And Rods Of High-speed Steel	yes
722820	Other Bars And Rods Of Silico-manganese Steel	yes
722830	Oth Brs A Rods Oth Aly Stl Nt Fur Th Ht-rld/drn/ex	yes
722840	Oth Brs Rds Oth Alloy Stl Nt Frthr Wrkd Thn Forged	yes
722850	Oth Brs A Rods Oth Aly Stl Nt Fur Th Cld-frmd/fnsh	yes
722860	Other Bars And Rods Of Other Alloy Steel, Nesoi	yes
722870	Angles, Shapes And Sections Of Other Alloy Steel	yes
722880	Hollow Drill Bars And Rods, Ios, Nesoi	yes
722910	Wire Of High-speed Steel	yes
722920	Wire Of Silico-manganese Steel	yes
722990	Wire Of Other Alloy Steel, Nesoi	yes
730110	Sheet Piling Of Iron Or Steel	yes
730120	Welded Angles, Shapes And Sections, Iron Or Steel	yes
730210	Railway Or Tramway Rails Of Iron Or Steel	yes
730230	Swtchblds, X-ing Frgs, Pt Rds And Oth Ios Xing Pcs	yes
730240	Fish-plates And Sole Plates Of Iron Or Steel	yes
730290	Railway Or Tramway Track Constr Matrl Of Ios Nesoi	yes
730300	Tubes, Pipes And Hollow Profiles Of Cast Iron	yes
730410	Line Pipe For Oil Or Gas Lines Nsm, Ir Nesoi Steel	yes
730421	Drill Pipe Used For Oil,gas Drilling,iron Or Steel	yes
730429	Casing And Tubing,oil,gas Drilling, Iron Or Steel	yes
730431	Oth Ios Na Ps Tb Hlw Pfl Smls Cir Cs Cold-wrkd	yes
730439	Oth Ios Na Ps Tb Hlw Pfl Smls Cir Cs Nt Cld-wrkd	yes
730441	Oth ss Tb Ps Hlw Pfl Smls Circ Cs Cold-wrkd	yes
730449	Tubes, Pipes Etc Nesoi, Circ Cr Sect, Stainless St	yes
730451	Oth Tb Ps Hlw Pfl Aly Stl Nt ss Smls Circ Cs Cd-wk	yes
730459	Oth Tb Ps Hp Aly Stl Nt ss Smls Circ Cs Nt Cld-wrk	yes
730490	Tubes, Pipes Etc, Seamless Nesoi, Ir Nesoi & Steel	yes
730511	Pipe, Oil Line Etc Ov16in Ir St, Long Sub Arc Weld	yes
730512	Pipe, Oil Line Etc Ov16in Ir Or St, Longi Wd Nesoi	yes
730519	Pipe, Oil Line Etc Ov16in Ir Or Steel, Close Nesoi	yes
730520	Casing, Oil Or Gas Drillng Over16in, Iron Or Steel	yes
730531	Pipe Nesoi, Ov16in Iron Or Steel, Longit Welded	yes
730539	Pipe Nesoi, Ov16in Iron Or Steel, Welded Nesoi	yes
730590	Pipe Nesoi, Ov16in Iron Or Steel, Closed Nesoi	yes
730610	Pipe For Oil Or Gas Pipelines Iron Or Steel Nesoi	yes
730620	Casing Etc Oil Or Gas Drillng, Iron Or Steel Nesoi	yes

6-Digit HS Code	Product Description	Effected by BAA
730630	Pipe Etc Nesoi, Weld Cir Cr Sect, Iron Or Nonal St	yes
730640	Pipe Etc Nesoi, Weld Cir Cr Sect, Stainless Steel	yes
730650	Pipe Etc Nesoi, Weld Cir Cr Sec, Alloy Steel Nesoi	yes
730660	Pipe Etc Nesoi, Weld Noncir Cr Sec, Iron Or Steel	yes
730690	Pipes Etc Nesoi, Riveted Etc, Of Iron Or Steel	yes
730711	Cast Pipe Fittings, Nonmalleable Cast Iron	yes
730719	Cast Pipe Fittings, Iron Nesoi Or Steel	yes
730721	Pipe Or Tube Fittings Nesoi, St Steel Flanges	yes
730722	Pipe Fittings Nesoi, Stainless Steel Thr Elbow Etc	yes
730723	Stainless Steel Tube Or Pipe Butt Welding Fittings	yes
730729	Stainless Steel Tube Or Pipe Fittings Nesoi	yes
730791	Pipe Fittings Nesoi, Iron Or Nonst Steel Flanges	yes
730792	Pipe Fittings Nesoi, Ir Or Nonst St Thr Elbows Etc	yes
730793	Pipe Fittings Nesoi, Ir Or Nonst St, Butt Weld Fit	yes
730799	Pipe Fittings Nesoi, Of Iron Or Nonst Steel Nesoi	yes
730810	Bridges And Bridge Sections Of Iron Or Steel	yes
730820	Towers And Lattice Masts Of Iron Or Steel	yes
730830	Drs, Wndws A Frms A Thrshlds Fr Drs, Iron Or Steel	yes
730840	Equip For Scafldg/shuttrg Proppg/pit-proppg Ir/stl	yes
730890	Structures And Parts Nesoi Of Iron Or Steel	yes
730900	Tanks Etc, Over 300 Liter Capacity, Iron Or Steel	yes
731010	Tanks Etc, Capacity Notun50notov300 Liter, Ir & St	yes
731021	Cans To Be Soldered/crimped Closed Ir/st Un 50 Ltr	yes
731029	Tanks Csks Drms Cns Bxs Etc Ios Nesoi Und 50 Ltr	yes
731100	Contnrs Fr Cmprssd O Lqfd Gas Of Iron O Steel	yes
731210	Stranded Wire, Rope Etc, No Elect Insul, Ir Or St	yes
731290	Plaited Bands, Slings Etc, Iron Or Steel Nesoi	yes
731300	Barbed Wire And Twisted Wire For Fencing, Iron/stl	yes
731412	Endless Bands Of Stainless Steel	yes
731413	Endlss Bnds,wovn Iron/steel Wire Clth,nt Stainless	yes
731414	Other Products Of Woven Stainless Steel Cloth	yes
731419	Woven Products Iron Or Steel, Nesoi	yes
731420	Grill Netting Fencing Wld Ir/st Wr 3mmcs 100cm2msh	yes
731431	Oth Grll Nttng A Fncng Wldd At Intrsct Galvnzed St	yes
731439	Oth Grll Nttng A Fncng Wldd At Intrsct Ios Nt Glvn	yes
731441	Oth Grill, Nettg Fncg Ios Ctd/pl W Zn Nesoi Nt Wld	yes
731442	Grill Netting Fencing, Plastic Coated Ios Wr Nesoi	yes
731449	Oth Grill, Nttng Or Fncng Nesoi Of Iron Or Steel	yes
731450	Expanded Metal, Iron Or Steel	yes
731511	Roller Chain Of Iron Or Steel	yes
731512	Artcltd Lnk Chain Nt Rllr Chain, Iron Or Steel	yes
731519	Parts Of Articulated Link Chain Of Iron Or Steel	yes
731520	Skid Chain Of Iron Or Steel	yes
731581	Stud Link Chain Of Iron Or Steel	yes
731582	Chain Nesoi, Welded Link Of Iron Or Steel	yes
731589	Chain Of Iron Or Steel Nesoi	yes
731590	Parts Of Irn/stl Chain Nesoi	yes

6-Digit HS Code	Product Description	Effected by BAA
731600	Anchors, Grapnels And Parts Thereof, Of Iron/steel	yes
731700	Nails, Tacks, Drawing Pins Etc Of Iron Or Steel	yes
731811	Coach Screws, Threaded, Of Iron Or Steel	yes
731812	Other Wood Screws Of Iron Or Steel, Threaded	yes
731813	Screw Hooks And Screw Rings Of Iron Or Steel	yes
731814	Self-tapping Screws Of Iron Or Steel	yes
731815	Threaded Screws And Bolts Nesoi Of Iron Or Steel	yes
731816	Nuts Of Iron Or Steel	yes
731819	Threaded Articles Of Iron Or Steel, Nesoi	yes
731821	Spring Washers And Oth Lock Washers, Iron Or Steel	yes
731822	Washers Other Than Lock Washers, Iron Or Steel	yes
731823	Rivets Of Iron Or Steel	yes
731824	Cotters And Cotter Pins, Of Iron Or Steel	yes
731829	Oth Non-threaded Articles (fastnrs) Irn/stl Nesoi	yes
731910	Sewing, Darning Or Embroidery Needles, Iron Or Stl	yes
731920	Safety Pins Of Iron Or Steel	yes
731930	Pins Of Iron Or Steel Nesoi	yes
731990	Knitting Needles And Similar Articles, Irn/stl Nes	yes
732111	Cooking Appliances Etc For Gas Fuel, Iron Or Steel	yes
732112	Cookng Applncs And Plt Wrmrs, Irn/stl For Liq Fuel	yes
732113	Cooking Appliances Etc For Solid Fuel, Ir Or Steel	yes
732181	Nonelc Dom Appl Nesoi Ios Gas Or Gas A Oth Fuel	yes
732182	Nonelc Dom Appl Nesoi Ios Liquid Fuel	yes
732183	Nonelc Dom Appl Nesoi Ios Solid Fuel	yes
732190	Parts Of Nonelec Domest Cooking Appl, Iron & Steel	yes
732211	Radiators For Centrl Htng And Parts, Cast Iron	yes
732219	Radiators For Cntrl Htng And Parts, Ios Exc Cstirn	yes
732290	Air Htrs A Hot Air Dist Nt Elec Htd Wfan, Prts Ios	yes
732310	Ios Wool, Scouring Pads, Gloves Etc, Iron Or Steel	yes
732391	Tbl Ktchn Oth hh Artcls A Pts Cst Irn Nt Enmld	yes
732392	Oth Tbl, Kitch, Hshld Artic, Enam Cst Irn A Parts	yes
732393	Table, Kitchen Etc Articles & Pts, Stainless Steel	yes
732394	HH Artcs A Pts Nesoi Enmld Irn Nt Cst Stl Nt Stnls	yes
732399	HH Artcs/pts Nesoi Nt Enmld Irn Nt Cst Stl Nt Stls	yes
732410	Sinks And Wash Basins Of Stainless Steel	yes
732421	Cast Iron Baths Enameled Or Not	yes
732429	Baths Of Iron Or Steel, Other Than Cast Iron	yes
732490	Other Sanitary Ware, Including Parts, Irn/st Nesoi	yes
732510	Cast Articles Nesoi Of Nonmalleable Cast Iron	yes
732591	Grinding Balls A Sim Artic For Mills, Cst, Ios Nes	yes
732599	Cast Articles Of Iron Or Steel Nesoi	yes
760110	Unwrought Aluminum, Not Alloyed	no
760120	Unwrought Aluminum Alloys	no
760200	Aluminum Waste And Scrap	no
760310	Aluminum Powders Of Non-lamellar Structure	no
760320	Aluminum Powders Of Lamellar Structure, Flakes	no
760410	Aluminum Bars, Rods And Profiles, Not Alloyed	no

6-Digit HS Code	Product Description	Effected by BAA
760421	Aluminum Alloy Hollow Profiles	no
760429	Aluminum Alloy Bars, Rods And Nonhollow Profiles	no
760511	Aluminum Nonalloy Wire, Over 7mm Crsect Max Dimen	no
760519	Al Wir Nt Aly Of Whi Th Max C-s Dim Is 7mm Or Less	no
760521	Aluminum Alloy Wire, Over 7mm Cross Sect Max Dimen	no
760529	Al Wir Nt Aly Of Whi Th Max C-s Dim Is 7mm Or Lss	no
760611	Aluminum Nonalloy Rect Plates Etc, Over .2mm Thick	no
760612	Aluminum Alloy Rect Plates Etc, Over .2 mm Thick	no
760691	Aluminum Nonalloy Plates Etc, Ov .2mm Thick, Nesoi	no
760692	Aluminum Alloy Plates Etc, Over .2 mm Thick, Nesoi	no
760711	Aluminum Foil, Nov .2mm Th, No Back, Rolled Only	no
760719	Aluminum Foil Not Backed Not Ovr .2mm Thck, Nesoi	no
760720	Aluminum Foil Not Over 0.2MM Thick, Backed	no
760810	Aluminum Nonalloy Tubes And Pipes	no
760820	Aluminum Alloy Tubes And Pipes	no
760900	Aluminum Tube Or Pipe Fittings	no
761010	Alu Dor Win And Their Fra And Thres For Doors	no
761090	Aluminum Structures And Parts, Nesoi	no
761100	Tanks Etc, Over 300 Liter Capacity, Aluminum	no
761210	Aluminum Collapsible Tubular Containers Nt Ov 300l	no
761290	Casks Etc, Not Over 300 Liter Cap Nesoi, Aluminum	no
761300	Aluminum Containers For Compressed Or Liquefid Gas	no
761410	Stranded Wire Etc Of Aluminum With Steel Core	no
761490	Stranded Wire Etc, No Elec Insul Nesoi, Aluminum	no
761511	Alum Pot Scours, Scourng/polishng Pads/gloves, Etc	no
761519	Table,kitcen,& Other Household Articles, Aluminum	no
761520	Aluminum Sanitary Ware And Parts Thereof	no
761610	Nails, Tacks, Staples, Screws, Nuts Etc, Aluminum	no
761691	Cloth, Grill, Netting And Fencing Of Aluminum Wire	no
761699	Articles Of Aluminum, N.E.S.O.I.	no

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