

# **U.S./China Trade Disputes in the post-Recession Political Landscape**

## **Abstract**

This paper investigates the connection between the recent economic recession and an increase in trade disputes between the United States and China. Overall, I conclude political factors exacerbated by the recession, rather than economic considerations, were the catalyst for an increase in disputes. Misconceptions by the American public concerning the importance of manufacturing in the U.S. economy, political rhetoric, and fear of China's rise led the United States to implement a series of economically ill-advised protectionist tariffs on Chinese goods. These tariffs in turn lead to an increase in WTO disputes between the United States and China. Given the severe economic consequences and the growing importance of Sino-American trade relations, it is imperative the United States actively seeks to curb protectionism and reduce trade disputes with China.

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## **Introduction**

*“I will go anywhere in the world to open new markets for American products. And I will not stand by when our competitors don’t play by the rules. We’ve brought trade cases against China at nearly twice the rate as the last administration – and it’s made a difference. Over a thousand Americans are working today because we stopped a surge in Chinese tires. But we need to do more... It’s not fair when foreign manufacturers have a leg up on ours only because they’re heavily subsidized.”*

*- President Barack Obama, 2012 State of the Union*

In recent years, China bashing has vaulted to the top of American political rhetoric. In the 2012 election, presidential hopeful Mitt Romney and President Obama jockeyed to appear more hawkish towards China than their opponent, each claiming their policies best check the “cheating” Chinese and protect critical American industry and jobs. Their recent sparring is a small snippet of a larger debate that has been occurring in boardrooms, living rooms, and the Situation Room over how to address the emergence of China as a world power. China’s state-capitalism and enigmatic foreign policy inflames fears concerning the impact of their growth on the U.S economy, and spurred a recent backlash against Chinese goods, including the tariff on Chinese tires alluded to in Obama’s 2012 State of the Union address. The political contentiousness surrounding the pervasiveness of imports from China, as well as protectionist measures by the U.S., have increased drastically in the last several years, coinciding with 2008 financial crisis and subsequent recession. Did the macroeconomic shocks of the recession exacerbate fears of imports from China, and lead to an increase in U.S./China trade disputes?

China's Communist Party remains heavily involved in the country's economic decision making, prompting conflict with Western liberal democracies, particularly the U.S., that espouse free trade and economic liberalization. These conflicts have been especially apparent since China joined the World Trade Organization (WTO) in 2001. WTO membership forced China to reform some of its trade practices and comply with international standards, and provided China and the U.S. a forum to voice their trade grievances against one another. The first five years of China's WTO participation produced relatively few trade conflicts with the U.S. However, since the second half of 2007, when signs of the global financial crisis and economic recession began to appear, the rate of China specific protectionist tariffs implemented by the U.S. against China has doubled, while the number of formal disputes between the two countries has tripled.

I argue that during the recession, political pressures, not economic theory, led the U.S. to dramatically increase protectionist trade measures against China, triggering an increase in Sino-American trade disputes.<sup>1</sup> The recession reinforced the U.S. bias that trading with China's pseudo-capitalist economy is harmful to the domestic economy. Politicians and the public alike have long been leery of China's rapid economic growth, state-controlled economy, and expanding exports to the U.S. This is largely because imports from China threaten the domestic manufacturing industry, which is viewed by many as the backbone of the American economy (Deloitte 2011). As unemployment skyrocketed, cheap and abundant Chinese goods were blamed for undercutting domestic manufacturing, leading to political backlash and protectionist tariffs against imports from

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<sup>1</sup> There is evidence and research that suggest China's own domestic politics and policies play a large role in perpetuating trade disputes. This paper will acknowledge those factors, though focus almost exclusively on analyzing U.S. policy decisions.

China. These protectionist measures subsequently led China to initiate a series of WTO disputes with the U.S. Claiming the U.S. has a “bias” does not imply that China never violates international trade agreements, or that imports from China do not negatively affect some segments of the U.S. economy. Rather, it reveals how “cracking down” on China leads to policies that are detrimental to the U.S. economy.

While many dismiss these recent disputes as growing pains in the trade relations between the world’s two largest economies, this optimistic view does not tell the full story. China passed Germany in 2009 and Japan in 2010 to assume its place as the world’s second largest economy, though the recent pace U.S./China trade conflicts far outstrips China’s economic growth. Although the industries affected by trade disputes are materially small relative to all U.S./China trade, the trend of increased politicization in U.S./China trade relations is troubling. Politicization leads to policies directly harmful to the U.S. economy, and increases the threat of an economically catastrophic trade war with China. Therefore, it is important U.S. policymakers are aware of these risks, and formulate strategies to ease economic and domestic political tensions. Ultimately, the best way to significantly reduce trade disputes and improve economic relations is to espouse greater trade liberalization and cooperation. However, before this can occur the public and policymakers alike must be willing to reconsider their views on the Chinese threat to the U.S. economy.

### **Economic Context**

Historically, macroeconomic downturns correlate with a rise of protectionist policies (Bagwell & Staiger 2003). The most common type of protectionist measures are Temporary Trade Barriers (TTBs), WTO approved tariffs allowed under certain

circumstances in order to slow imports and protect national industries. However, when TTBs are applied outside the WTO framework, the country on which the tariff was imposed can file a complaint in the WTO protesting the TTB. Contesting TTBs is one of the most common causes of formal disputes within the WTO. The 2007-2009 financial meltdown is shown by one study to have led the U.S. to implement more TTBs, though not as many as predicted. This depressed number of TTBs is attributed to exchange rate movements rendering some protectionist policies unnecessary, and increased global political pressure to adhere to established trade agreements (Bown and Crowley 2012).

This same study also reveals that before the financial crisis and recession, import protection, particularly by the U.S. and E.U., was chiefly targeted towards countries with contracting economies. However, during the recent financial crisis this pattern reversed, and import protection policies are now directed towards countries exhibiting economic growth (Bown and Crowley 2012). This finding is important for U.S./China trade relations, as many of their WTO disputes have been over the U.S. implementing TTBs against China, currently one of the fastest growing economies in the world. Other studies contend the total number of protectionist trade measures implemented by the U.S. in the wake of the financial crisis was insubstantial, possibly due to the domestic bailout and stimulus package, though protectionist measures on a country by country basis were not evaluated (Wolfe 2012). Non-tariff barriers, like domestic stimulus spending and “Buy National” programs were also instituted during the recession, which amount to *de facto* protectionist measures (Larch and Lechthaler 2011).

The financial crisis led many scholars to predict challenges for U.S./China trade relations in the years ahead, as the economic downturn increases the likelihood that

countries will abandon (or bend) the rule-based system of the WTO, leading to further disputes and possible retaliation (Bown 2009). While the WTO system has not been abandoned, it has been strained: since China joined the WTO on December 11, 2001 China and the U.S. have been involved in more disputes than any other pair of countries, with most disputes coming since 2007. Since then, the U.S. has been involved in 20 WTO disputes with China, compared to only seven with Japan, the E.U., Canada, and Mexico combined. U.S./China disputes have composed 18 percent of all WTO disputes during this period (WTO 2013). Recent U.S./China WTO disputes reveal a clear pattern of the U.S. contesting “offensive” Chinese policies, those giving Chinese exports an advantage in the U.S. market, while China contests “defensive” U.S. policies that shelter domestic industry from Chinese competition (Hufbauer & Woollacott 2010). This pattern is attributed to the growing pains of U.S./China trade relations, but the authors also predict these trends will persist and possibly escalate into the future, a forecast that has proven accurate.

A core reason for the U.S.’s “defensive” trade policies is to shield the domestic manufacturing industry from Chinese competition. The desire for a manufacturing driven economy persists in the American psyche, despite evidence that this is unnecessary for a healthy U.S. economy. A recent survey revealed 86 percent of Americans believe “the manufacturing industry is very important to our economic prosperity,” and 83 percent agreed “The U.S. needs a more strategic approach to developing its manufacturing base” (Deloitte 2011). However, the U.S. has been pivoting away from a manufacturing driven economy towards a service driven economy for decades: the share of Americans employed in manufacturing was 21 percent in 1979, but down to around 12 percent today

(Gross 2011). Meanwhile, the service sector now employs more than 80 percent of U.S. workers (International Trade Commission 1999). In a developed country like the U.S., a focus on services such as finance, law, and technology that utilize an educated, innovative workforce makes more sense than a manufacturing based economy, where success is largely based on the availability of cheap labor. Indeed, the U.S. currently has a trade surplus with China in services that is expected to reach \$60 billion by 2015 (Gross 2011), compared to its 2012 \$315 billion dollar deficit in trade in goods with China (Census Bureau 2013).

Despite public sympathies, the U.S. share of global manufactured goods exported dropped from 19 percent in 2000 to 11 percent in 2011, while during the same period China's increased from seven percent to 21 percent (Shilling 2013), due to the U.S.'s inability to compete with cheap Chinese labor. Even as China moves up the value chain from textiles and shoes to high-tech manufacturing, that most favored in the U.S., China's average hourly wage in manufacturing was \$1.15 in 2011, compared to \$35.53 in the U.S. (Schilling 2013) While manufacturing will never completely disappear from the U.S., in many sectors it lacks the competitiveness to be viable in the global marketplace. Indeed, empirical research shows imported Chinese manufactured goods cause limited, regional unemployment in the U.S. labor markets with which they directly compete (David et. al 2012). Yet rather than viewing these trends as a change in comparative advantage and a sign the U.S. economy should re-orient its focus to services and technology where it is most competitive, the public views these manufacturing trends as a sign of the demise of the American economy, and largely blames China.



China's government involvement in the economy reinforces these critiques. The U.S. has long worried trading with non-free market economies causes significant damage to the domestic economy, embodied in provisions allowing otherwise illegal protectionist measures to be taken by the U.S. against "non-market" economies in the Trade Act of 1974. China's state-run enterprises and government subsidies in some industries foster the notion in the U.S. that Chinese manufacturers only outcompete their American counterparts by cheating. The public believes if this cheating was curbed U.S. manufactured goods would be the most demanded in the world (Obama 2012). However, as demonstrated above, wages, not government intervention, are the driver of China's comparative advantage in manufacturing.

Recognizing the public's views on manufacturing, politicians seek political gain by associating themselves with the manufacturing industry. For example, during the 2010 Congressional and gubernatorial elections candidates from both parties spend tens of millions of dollars on "advertisements suggesting that their opponents have been too sympathetic to China and, as a result, Americans have suffered" (Chen 2010). In the lead up to those elections, House Speaker Nancy Pelosi encouraged Democratic candidates to highlight instances of Republicans supporting policies that may lead to job growth in China after internal polling revealed voters strongly favored eliminating tax breaks for companies doing business in China (Chen 2010).

President Obama made supporting manufacturing a major element of his 2012 reelection campaign. Of his 242 recorded campaign rallies, he mentioned manufacturing in 231 of them (2012 Presidential Election Documents 2012). Delivering speeches at abandoned and run-down factories, he promised to "bring manufacturing back," despite

insistence from many of his top economic advisors that banking on manufacturing was a losing proposition (Goldfarb 2012). Job creation, particularly in manufacturing, remained a consistent theme throughout his campaign, and a particularly salient issue given the recession and high unemployment. These campaign promises translated directly into his actual policies, as Obama has set a goal of adding one million manufacturing jobs to the U.S. economy by 2016 (Organization for Action 2013). Appealing to the public's desire for increased manufacturing cuts across partisan lines. While attacking Obama's policies for requiring too much government intervention, Romney also appealed to popular sentiment and called for more manufacturing jobs to return to the U.S.

While China poses a threat to the U.S. manufacturing industry, this alone does not explain the U.S. targeting them for protectionist trade measures, as other manufacturing oriented countries saw record lows in TTBs leveraged against them by the U.S. during the recession. Rather, there is something specific about the Chinese system that foments public ire: China's state-capitalism and growing political and military strength challenge Americans' understanding of the world (Schuman 2011). As explained, "China appears to be challenging not just today's economic orthodoxy and order, but the world's political and military framework as well. China isn't content just to sell more TV sets to the world, like Japan. The Chinese want to have more control over the world. And they want to use their economic clout to get it. Or so we think" (Schuman 2011).

Regardless of its validity, the notion that China's continued economic expansion will lead to massive shifts in global political power is prominent in the mindset of Americans. A recent survey shows 52 percent of Americans "view China's emergence as a world power as a major threat to the U.S." As for jobs, 71 percent of the American

believe loss of U.S. jobs to China is “a very serious problem,” though tellingly only 12 percent of scholars hold this view (Pew Research 2012). Therefore, constraining the government-controlled Chinese economy, even at the expense of American consumers, placates political demands and appeases those concerned with both the domestic economy and America’s place in global politics.

### **Methodology**

This paper utilizes a Poisson regression model to analyze U.S. implementation of TTBs on its 14 largest trade partners between 1990 and 2012. Poisson models are used to model count data, meaning the outcome variable values are assumed to be non-negative whole numbers, an appropriate assumption for modeling the number of TTBs implemented by the U.S. This model will help conclude if, independent of the *economic* impact of the recession, the U.S. has increased the number of TTBs it levies against China since the recession began. If this relationship can be proved, it will strongly suggest political factors, rather than economic ones, are driving recent U.S./China trade disputes.

Cases for the model are a combination of half-year period (either quarters 1-2 or 3-4) ranging from Q3-Q4 1990 to Q1-Q2 2012, and country. The countries used are the 14 trade partners that are the most common targets of U.S. TTBs, which is virtually the same as the U.S.’s 14 largest trade partners: Australia, Brazil, Canada, China, the E.U., India, Indonesia, Japan, Mexico, South Africa, South Korea, Switzerland, Taiwan, and Turkey. All values for the E.U., even for time periods before the E.U. was formally established, are an aggregation of the E.U.-27, the 27 nations that currently make up the European Union. These cases begin in 1996. Cases from Taiwan date from the second half of 1999. The outcome variable is the total number of TTBs implemented by the U.S.

against a country in a specific half year time period (*TTB*). *TTB* comes from the World Bank Global Antidumping Database, and is an aggregation of four different types of tariffs and duties.

The controlled for variables are volume of U.S. imports (*U.S. imports*) from a given country in a given period, percentage increase in U.S imports from a given country compared to the pervious time period (*Import change*), a variable for time (*Time*), whether or not the time period is before or after the beginning of the recession (*Recession*), GDP growth rate of the U.S. trade partner (*GDP growth*), change in U.S. unemployment rate from the previous time period (*Unemployment*), and *Country*. *U.S. imports* is measured in \$1,000s, and is lagged by one period, as in common in these models, on the assumption that this variable impacts *TTB* by the policy responses it garners. Controlling for *U.S. imports* accounts for the effect of scale of trade on *TTB*. Each time period is assigned a numerical value from 1 to 44, which is tested as a continuous variable, *Time*. *Time* helps compare different time periods where the U.S. may have been implementing more or fewer TTBs. Data for *GDP Growth* measures domestic GDP growth for the U.S. trade partner in a half-year period, controlling for the effect of economic growth on TTBs levied. *GDP growth* data comes from a combination of the OECD and World Bank databases.

For some time periods and countries only annual GDP growth data is available. In these cases, annual growth is halved, and used as an estimate for semi-annual GDP growth for both Q1-Q2 and Q3-Q4 of that year. This is consistent with the data for when semi-annual growth is available: for those cases, if you add the two semi-annual growth rates together, it sums to the annual growth rate. Values are again lagged by one time

period. For *Recession*, half-year periods from Q1-Q2 2008, when the first major effects of the recession were felt in the U.S., to Q1-Q2 2012 are considered to be during the recession period. *Recession* controls for potential changes in *TTB* since the recession's onset. For these three variables (*U.S. Imports*, *Time*, and *Recession*), interactions are taken for when the country is China, in order to investigate if these variables affect China differently than they do other countries.<sup>2</sup>

*Unemployment* measures change in the U.S. seasonally adjusted unemployment rate, and is taken from the U.S. Bureau of Labor Statistics. Unemployment rates from June are used for Q1-Q2 periods, and rates from December are used for Q3-Q4. The change in unemployment rate is found by subtracting the unemployment rate for a particular time period from the unemployment rate of the previous period. Rates are then lagged one time period. As protectionism is typically higher during recessions, *Unemployment* controls for how the state of the job market affects *TTB*. The variable *Country* demonstrates the difference in *TTB* implementation between other U.S. trade partners and China. In all models considered here, China is the baseline to which other countries are compared, meaning the value produced by the regression for each country is the relative level of *TTBs* compared to China (China, therefore, does not appear in the model because it would have a value of 0).

Case studies on trade disputes regarding tires and solar panels explore the effect of domestic politics, versus economic factors shown in the model, on the increase in U.S./China trade disputes. Both of these cases are WTO disputes instigated by the U.S.

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<sup>2</sup> Taking an interaction just when Country is China, instead of an interaction for each country, shows how China's reaction to these variables compares to the aggregation of all other countries. Including interactions for all countries shows the same general trends as the approach I took, but inflates standard errors, includes too many variables, and tends to over fit the model.

enacting a TTB on a specific Chinese industry, and China subsequently filing a WTO complaint against the TTB. While the U.S. has instigated 13 WTO disputes against China since 2007, 10 have dealt with U.S. exports to China, and are thus unrelated to this analysis. The three dealing with Chinese exports were all caused by the U.S. protesting either Chinese government subsidies or predatory dumping. While these would be useful cases to consider, subsidies and dumping are the same factors that lead the U.S. to implement TTBs.

Therefore, cases where China files a WTO complaint contesting U.S. TTBs are very similar to U.S. initiated disputes, and have the additional benefit of demonstrating how China responds to U.S. protectionist trade measures. Of the six cases involving China disputing U.S. TTB implementation, the tires and solar panels cases comprise the largest industries, and were most covered in media and academia. Admittedly, the larger literature available on these cases does make it easier to explicate the politics and interests groups at work in invoking protectionist measures. Nevertheless, the cases are representative of all WTO disputes, whether instituted by the U.S. or China, involving U.S. attempts to slow imports from China. All such cases involve protectionist measures implemented by the U.S. justified by rapid increases in imports from China, and most include accusations of Chinese government subsidies and predatory dumping. In all these cases China has denied the accusations and claimed the U.S. protectionism is illegal. The cases selected highlight all the components of this pattern, and point to the broader issues underlying U.S./China trade disputes.

## Data Results

Figure 1 (below) plots the outcome variable *TTB* versus time period for each country. The recession began in the very beginning of 2008, with warning signs appearing as early as 2007. As shown, before 2007 many countries had similar numbers of TTBs levied against them, but after the onset of the financial crisis and recession China's number of TTBs increased significantly, and became far larger than any other countries'. However, in order to determine if this increase in TTBs is due to the recession itself and is truly unique to China, the aforementioned variables likely to affect *TTB* must be controlled for. The full regression output for three models is shown in *Table 1*, also below.

Figure 1

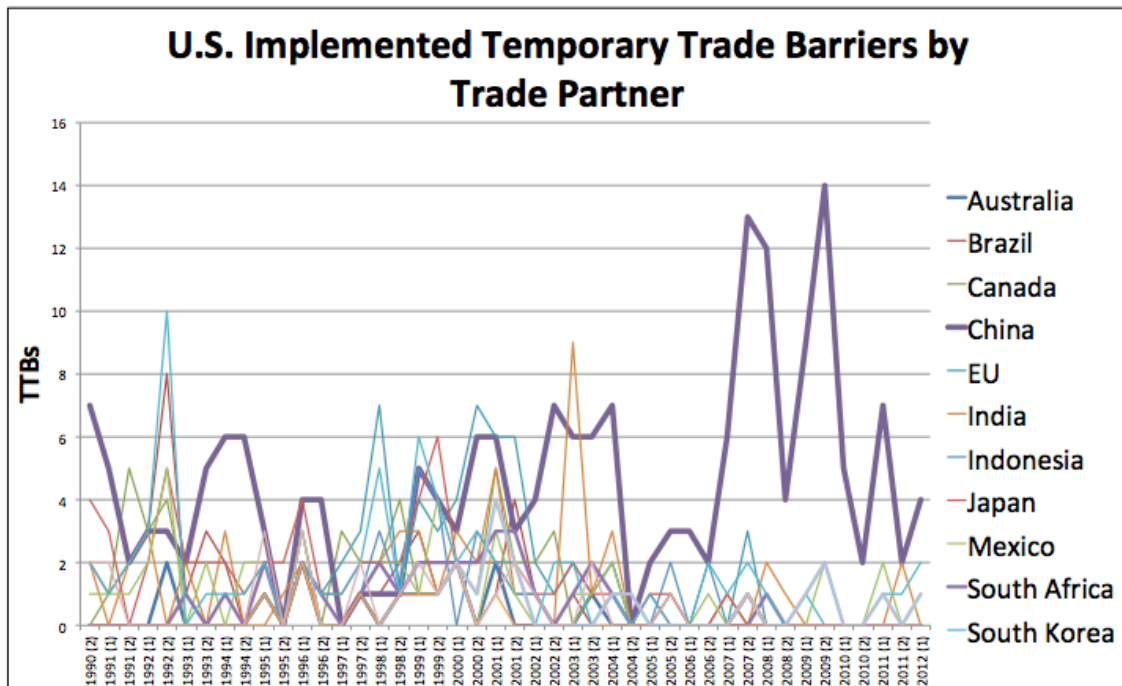


Table 1

**Poisson Regression for TTBs implemented by the U.S. by time period and Country**

Explanatory Variable	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>
<b>U.S. Imports<sup>3</sup></b>	8.51 <sup>-09***</sup> (7.14 <sup>-10</sup> )	5.32 <sup>-09***</sup> (1.26 <sup>-09</sup> )	-1.02 <sup>-08***</sup> (2.69 <sup>-09</sup> )
<b>U.S. Imports, Country in China</b>			1.33 <sup>-08***</sup> (3.22 <sup>-09</sup> )
<b>Import Change</b>	5.56 <sup>-03**</sup> (2.32 <sup>-03</sup> )	4.93 <sup>-04</sup> (3.10 <sup>-03</sup> )	2.60 <sup>-03</sup> (3.03 <sup>-03</sup> )
<b>Time</b>	-1.06 <sup>-02***</sup> (2.91 <sup>-03</sup> )		-9.58 <sup>-03**</sup> (3.93 <sup>-03</sup> )
<b>Time, Country in China</b>			1.85 <sup>-02**</sup> (8.42 <sup>-03</sup> )
<b>Recession</b>	-1.14*** (0.14)	-0.98*** (0.15)	-1.48*** (0.22)
<b>Recession, Country is China</b>			1.41*** (0.34)
<b>GDP Growth</b>	0.11*** (1.35 <sup>-02</sup> )	-1.29 <sup>-02</sup> (1.90 <sup>-02</sup> )	-2.63 <sup>-02</sup> (1.84 <sup>-02</sup> )
<b>Unemployment Change</b>	0.47*** (7.68 <sup>-02</sup> )	0.26*** (7.82 <sup>-02</sup> )	0.25*** (7.44 <sup>-02</sup> )
<b>Australia</b>		-2.27*** (0.29)	-1.78*** (0.33)
<b>Brazil</b>		-1.20*** (0.20)	-0.65** (0.26)
<b>Canada</b>		-1.57*** (0.18)	0.31 (0.33)
<b>E.U.</b>		-1.24*** (0.18)	1.01*** (0.37)
<b>India</b>		-0.93*** (0.17)	-0.40* (0.24)
<b>Indonesia</b>		-1.48*** (0.21)	-0.96*** (0.27)
<b>Japan</b>		-1.13*** (0.17)	0.24 (0.29)
<b>Mexico</b>		-1.44*** (0.18)	-0.21 (0.28)
<b>South Africa</b>		-1.55*** (0.22)	-6.63 <sup>-02</sup> (0.27)

<sup>3</sup> Coefficients for the *U.S. Imports* variable are so small because *U.S. Imports* is measured in thousands of dollars, but actual import values are in the range of tens of billions of dollars. Therefore, even with very small coefficients, this variable is influential in the model.



<b>South Korea</b>		-0.77*** (0.17)	-6.63 <sup>-02</sup> (7.44 <sup>-02</sup> )
<b>Switzerland</b>		-2.70*** (0.34)	-2.21*** (0.38)
<b>Taiwan</b>		-1.52*** (0.27)	-0.75** (0.32)
<b>Turkey</b>		-1.32*** (0.29)	-0.83** (0.37)

N=587, Significance codes: \*=10%, \*\*=5%, \*\*\*=1%

*Model 1:*

Null deviance: 1330.8 on 586 degrees of freedom

Residual deviance: 1075.2 on 580 degrees of freedom

*Model 2:*

Null deviance: 1330.83 on 586 degrees of freedom

Residual deviance: 869.05 on 567 degrees of freedom

*Model 3:*

Null deviance: 1330.83 on 586 degrees of freedom

Residual deviance: 777.65 on 564 degrees of freedom

Controlling for major measures of economic health and bilateral trade relations, these models point to non-economic factors influencing recent U.S. implementation of TTBs on China. In *Model 1*, which does not include the variable *Country* or any interactions, *Time* and *Recession* are negative and significant at the 1 percent level, implying that as time progressed, and particularly since the recession, the U.S. has been implementing fewer TTBs. However, this output contradicts *Figure 1*, which shows a vast uptick in TTBs against China since 2007. To account for the difference between countries, the *Country* variable is added in *Model 2*. In *Model 2*, the coefficient for every country is negative and significant, demonstrating that, holding other variables constant, China has more TTBs imposed on it than any other country. Adding interactions between China and *U.S. imports*, *Recession*, and *Time* in *Model 3* demonstrates how these variables contribute to the difference between China and other countries. *Model 3* has the lowest residual deviance and is the best overall model, and therefore will be used for analysis. The only substantial difference between *Models 1* and *2* and *Model 3* is that *U.S. imports* is

positive in *Model 1* and *2* but negative in *Model 3*. This is likely because the influence of China on *U.S. imports* changes the coefficient when an interaction is not included.

In *Model 3*, *U.S. imports* is significant at the 1 percent level and negative, indicating that holding all other factors constant, the more the U.S. imports from a country the less likely it is to impose TTBs on that country. This makes particular sense in the context of the U.S.'s relations with their large trading partners who are also strong political allies, such as Canada, Mexico, and the E.U. However, this same trend does not hold for China. An interaction between China and *U.S. imports* is positive, and also significant at the 1 percent level, demonstrating that China's pattern differs from general U.S. trade trends, and importing more from China in fact leads to more TTB implementation. *Unemployment* is both significant and positive, demonstrating that increases in domestic unemployment lead to an increase in TTBs in the proceeding period. This finding is expected given the existing literature that macroeconomic shocks and increased protectionism are correlated, as unemployment is the most obvious impact of economic recessions (Bagwell & Staiger 2003). *GDP growth* is not significant, indicating that the economic growth of the trade partner does not actually impact their trade disagreements with the U.S. While this finding is surprising, historically the U.S. targeted countries with contracting economies, while only recently switching towards tariffs against countries growing economically (Bown and Crowley 2012). These factors may have over time canceled each other out, leading *GDP growth* to be insignificant in the aggregate.

The *Country* variables show how other U.S. trade partners, holding all else constant, compare to China in having U.S. TTBs leveraged against them. Australia, Brazil, India, Indonesia, South Africa, Switzerland, Taiwan, and Turkey all have a statistically significant smaller number of TTBs leveraged against them than China, with only the E.U. having

significantly more. This means compared to many of the U.S.'s other trading partners, China, for none of the reasons controlled for in this model, has more TTBs leveraged against them. This points to unquantifiable factors, such as the aforementioned desire to protect domestic manufacturing and fear of China's authoritarian political system, influencing U.S./China trade dynamics. Interestingly, the three countries with positive coefficients (though not all are statistically significant) are the E.U., Canada, and Japan, three of the United States' four largest trade partners. This finding may imply that bilateral trade flow volume was not completely controlled for in the *U.S. imports* variable, and that countries with which the U.S. trades more are more susceptible to TTBs, though the results are inconclusive.

Regardless, the data is clear that relative to other countries, TTBs on China have risen in recent years. The *Time* and *Recession* variables demonstrate that since 1990, and especially since 2008, the overall number of TTBs implemented by the U.S., holding constant various macroeconomic factors, has decreased. While *Time* shows this is a continuous trend, *Recession* reveals this pattern is significantly more pronounced since 2008. Pushes by the WTO and other international bodies for economic liberalization and free trade account for much of this finding, and the global trend towards less protectionist measures became especially apparent during the recession (Wolfe 2012). However, despite the overall trend towards using fewer TTBs, China shows the exact opposite pattern. The interaction between China and *Time* is much larger than the *Time* variable itself, indicating that as *Time* increases, China sees more and more TTBs implemented on it by the U.S., with the highest predicted number of TTBs coming in the most recent years.

During the recession period, holding all other factors constant, the U.S. is estimated to impose 1.48 fewer TTBs per country per time period. However, the interaction between China

and *Recession* is significant and has a value of 1.41, meaning the trend towards fewer TTBs is essentially nullified for China. China has not seen the easing of protectionist policies experienced by other countries during the recession, and was subject to similar levels of protectionism traditionally imposed during the economic instability of recessions. Looking at all the data, it is clear China is exhibiting different trends than other U.S. trade partners in terms of having TTBs leveraged against them, and the evidence points to political factors as a possible explanation for these trends.

### *Effect of TTBs on WTO Disputes*

TTBs themselves do not cause large-scale trade conflicts, though they are by far the most common source of WTO disputes. Between China's ascension to the WTO on December 11, 2001 and the end of 2006 the United States and China were involved in three WTO disputes,<sup>4</sup> two initiated by the U.S. and one by China. However, since 2007, when the presages of the economic recession began to appear, 20 WTO disputes have occurred between the two countries, 13 initiated by the United States and seven initiated by China (see *Figure 2* below). The average annual rate of WTO disputes between these two countries increased a staggering 5.5 times between the 2002-2006 and 2007-2012 periods, with bilateral trade increasing just 2.6 times between 2002 and 2007 (Census 2012). While China becoming accustomed to the WTO certainly played a role in this disputes increase (Ji & Huang 2011), the most complete explanation for the increase is the beginning of the recession. The spike in disputes can be traced

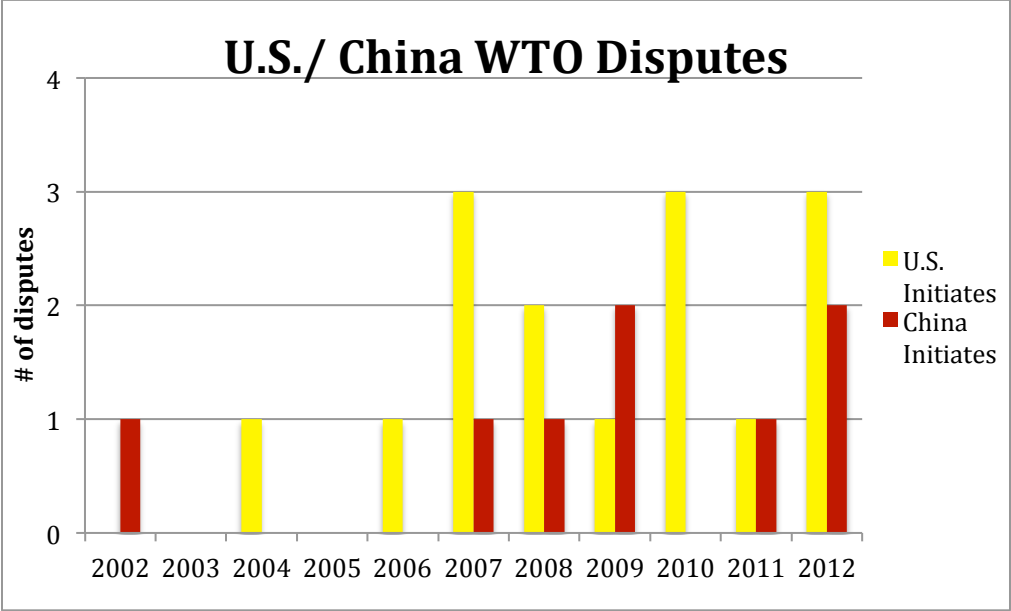
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<sup>4</sup> In the WTO, if a country desires to lodge a dispute against another country, they must "request consultation" with them. The two countries are then given a 60-day period to come to an agreement. If no agreement is reached, the WTO establishes an independent panel to make a ruling. The vast majority of U.S./China disputes are resolved during these consultations, but even getting to the point of "requesting consultation" demonstrates high levels of economic contention. Therefore, in this analysis I do not distinguish between cases that resorted to panels and those that did not, referring to both types generally as "WTO disputes" or "WTO complaints." Both case studies involve disputes for which a WTO panel was established.

back to 2007, when warning signs of financial trouble and economic slowdown began to appear, and disputes remained high throughout the recession period. While most countries did not experience heightened trade tensions with the U.S. during the recession period, non-economic factors pushed conflicts between China and the U.S. to record highs.

Beyond the number of disputes, the type of disputes also reveals clues to the evolving nature of U.S./ China trade conflicts. Every WTO complaint initiated by China against the U.S., regardless of year, can be categorized as offensive, or attempting to protect Chinese firms’ ability to export to the U.S. Indeed, since 2007, six of the seven complaints lodged by China have been challenges to U.S. implementation of TTBs. Equally telling are the types of U.S. initiated disputes. Of the 14 total U.S. initiated WTO disputes against China, 11 are classified as offensive. However, all three of the U.S.’s defensive disputes, those attempting to limit imports from China, have been initiated since the recession began in 2008. Overall, the data suggests U.S. import protection has increased in importance as a cause of WTO disputes since the recession began.

Figure 2



## Case Studies

### *Chinese Tires*

Fears that imports from China are undercutting U.S. manufactured goods and leading to unemployment is a major cause of the rise in protectionist measures towards China during the recession demonstrated in the model. However, policies meant to protect manufacturing consistently prove largely detrimental to the U.S. economy they are designed to protect, suggesting misinformation and politics are influencing policy. For example, the Obama administration levied a tariff on imports of Chinese produced car and truck tires in 2009. While the tariff was positioned as an attempt to save jobs and reboot the economy, in actuality it proved economically harmful, largely politically motivated, and contributed to further trade conflicts between the U.S. and China.

In April 2009, the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial, and Service Workers International Union, which represents tire manufacturing workers, filed a petition with the U.S. International Trade Commission (ITC) requesting a Section 421 investigation of certain passenger vehicle and light truck tires imported from China. Section 421 was created by the Trade Act of 1974, as amended, and states that if imports of a product from a “non-market economy” are in such quantities that they cause, or threaten to cause a “market disruption” to domestic producers of like or directly competitive products, the ITC can propose a tariff remedy and send it to the President, who can then approve, modify, or reject it. Under bilateral accords that were part of its agreement to support China’s accession to the WTO in 2001, the U.S. can consider China a non-market economy for the purpose of instituting this type of tariff, though the tires tariff was the first time this provision was enacted. The ITC report found that increases in both quantity and value of Chinese tire imports were “large, rapid, and

continuing” (ITC 2009a) during the period from 2004-2008, and that this increase hurt domestic producers, as “virtually all the industry indicators declined during that period” (ITC 2009a). The ITC recommended an ad valorem duty on imported Chinese tires of 55 percent for the first year (2009-2010), 45 percent for the second year (2010-2011), and 35 percent for the final year (2011-2012). On September 11, 2009, President Obama approved the tariff (though he lowered the annual rates to 35, 30, and 25 percent), fulfilling a 2008 campaign promise that he would do so (Richburg 2011).

WTO bylaws generally demand countries demonstrate their trade partner is engaging in some unfair or illegal activity, such as dumping or government subsidies, to justify a trade barrier. However, due to Section 421 and the terms of China’s WTO accession, the ITC only had to demonstrate goods from China were causing a “market disruption” to justify a tariff, not that China’s trade practices were “unfair.” The inclusion of Section 421 in the Trade Act of 1974 and insisting on China’s “non-market economy” distinction in 2001 demonstrate the U.S. has long been fearful of potential economic harm from trading with “non-market economies.” While the U.S. had never invoked this clause before 2009, by September of that year the unemployment rate had risen to 9.8 percent (Bureau of Labor Statistics 2013), awakening latent fears of high unemployment caused by imports from China, and prompting the federal government to approve a tariff on Chinese tires.

Though Section 421 had never previously been levied against China, 2009 was not the first time an investigation occurred. The ITC underwent six Section 421 investigations involving China between 2000 and 2009, and in four reached a decision affirming that a “market disruption” had occurred. However, President George W. Bush did not approve a tariff in any of these four cases. The trade policies of Presidents Bush and Obama clearly differ and cannot be

directly compared, but nevertheless the highest unemployment rate during Bush's eight years in office was 6.3 percent (Bureau of Labor Statistics 2013), far below the 9.8 percent under which Obama approved the first use of Section 421 on imports from China. Obama had consistently stated creating jobs, particularly in manufacturing, is his number one priority. This promise, coupled with skyrocketing unemployment and U.S. Steel's claim "non-market" China was stealing American jobs, created substantial political pressure on the Obama administration to increase pressure on China and enact the tariff.

#### *Economic and Political Impact of the Tires Tariff*

The tariff did not create the desired economic effect for the U.S. While the initiative saved a maximum of 1,200 U.S. manufacturing jobs, the cost to U.S. consumers was estimated at \$1.1 billion (Hufbauer and Lowry 2012). This means the cost per manufacturing job saved was over \$900,000 in 2011, demonstrating the economic inefficiency of the tariff. Additionally, the tariff may have actually caused net job loss in the U.S., as an estimated 2,531 jobs were lost in the tire retail industry due to higher prices and lower demand. Furthermore, the small economic benefit from the tariff did not go to domestic factory workers. As a spokesman from American tire manufacturer Goodyear explained "The tariffs didn't have any material impact on our North American business. The stuff coming in from China is primarily low-end. We got out of that market years ago" (Rapoza 2012). Because U.S. producers, like Goodyear, do not compete with Chinese tire manufacturers in the low end of the market, manufacturers from Thailand, Indonesia, and Mexico reaped the economic benefit by filling much of the demand previously met by Chinese tires.

Despite the failure of the tires tariff in the economic arena, it was largely a success in the political arena. President Obama appeased U.S. Steel, one of the largest U.S. unions, part of



rallying his domestic support base as Democrats began the process of passing the Affordable Care Act (Andrews 2009). For Obama, the 1,200 jobs saved by the tariff could be used in his narrative of constraining China and protecting jobs, which he employed often during his 2012 Presidential re-election campaign. Manufacturing's political saliency, combined with the power of unions, fostered both political pressure and opportunity that encouraged President Obama to support the tires tariff. China responded promptly, filing a complaint with the WTO on September 14, 2009. However, the WTO panel ruled in favor of the U.S. on all counts, upholding the right of the U.S. to impose Section 421 tariffs on China, and ruling the U.S. provided sufficient evidence that Chinese tires were hurting the domestic market, despite the fact the rate of Chinese tire exports to the U.S. slowed in 2008. Subsequently, in April 2009 China enacted a 100 percent anti-dumping tariff on imported U.S. chickens' feet, a move many described as retaliation for the tire tariff. The U.S. subsequently filed a WTO dispute over the Chinese tariff in a case that is yet to be ruled on by the WTO.

### *Chinese Solar Panels*

Similarly, in May 2012 the Commerce Department announced a 31 percent tariff on imports of Chinese solar panels, in addition to the 2.9 to 4.73 percent duties they had already announced in March. Seven months earlier, in October 2011, the Coalition for American Solar Manufacturing (CASM) accused China of providing illegal export subsidies to Chinese solar firms, and claimed these firms were dumping, or setting prices in the U.S. below market value in order to drive out domestic competition and increase market share. The solar industry has become a focal point of U.S./China trade relations in recent years, as both countries view growth in this industry as vital for driving their national economies, as well as a promising source of

potential jobs (Obama 2012 & Bradsher 2013). Both the U.S. and China targeted the U.S. as their primary market to sell solar panels, heightening competition and tensions.

China is, by all accounts, guilty as accused of violating WTO rules by subsidizing and dumping solar panels. However, while the tariff was legally justified it was still economically harmful to the U.S., pointing to political factors outside of policy analysis influencing its implementation. In 2010, Chinese state-run banks loaned up to \$32.6 billion to large Chinese solar firms such as LDK, Trina, Yingli, and Suntech (Wesoff 2011). Additionally, input prices for Chinese panels and the domestic price of Chinese produced panels demonstrate the price of Chinese solar panels in the U.S. fell below market value. These tactics proved successful for the Chinese, as they captured over 80 percent of the global solar panel manufacturing market by 2013 (Plumer 2013), exporting over 99 percent of what they produced, with the U.S. and E.U. as their primary markets. The U.S. imported \$1.5 billion in Chinese solar goods in 2010, compared to \$1.1 billion in Chinese tires the year the tire tariff went into effect.

China, however, was not the only government promoting solar panel manufacturing. As part of the American Recovery and Reinvestment Act of 2009 (the Obama administration's economic stimulus package), the U.S. government loaned over \$527 million to the U.S. solar firm Solyndra and granted them substantial tax breaks, and instituted a program known as Section 1603, allowing renewable energy project owners to recover three percent of their construction costs in cash, a program that has so far distributed more than \$2.7 billion dollars (Ebling 2012). The goal of these policies was to finance an industry struggling to procure capital in the wake of the financial meltdown. Policymakers believed the solar panel industry could both promote environmental sustainability as well as create domestic manufacturing jobs. Despite large investments by the federal government, American made solar panels could not compete

with the prices of Chinese panels, and Chinese firms quickly gained the lion's share of the U.S. solar market, estimated at up to 80 percent. U.S. firms suffered as a result and on August 31, 2011 Solyndra announced it was filing for Chapter 11 bankruptcy, costing the government hundreds of millions of dollars in unpaid loans. In this environment of bankrupt U.S. firms and an explosion of Chinese solar panels in the domestic market, the Commerce Department investigation into Chinese solar panels began, just 49 days after Solyndra filed for bankruptcy.

### *Economic and Political Impact of the Solar Panels Tariff*

The May 2012 tariff announced by the Department of Commerce applied to all imports of Chinese crystalline silicon photovoltaic cells, the cells used in solar panels, even when the cells are assembled into solar panels in the U.S. Just as in the case of Chinese tires, while a political success, the tariff was economically harmful domestically. Of the approximately 100,000 employees in the U.S. solar panel industry, 52 percent work in installation. As solar prices rose in the U.S. demand for both panels and panel installation decreased, leading to an estimated loss of 10,000 to 40,000 solar panel installation jobs in the U.S. Furthermore, the U.S. is a net exporter of solar products to China by \$200 million, prompting worries the tariff could provoke a reaction from China and put these U.S. exports at risk (Huffbauer & Vieiro, 2012). Indeed, this fear became a reality, as China placed large retaliatory tariffs on imports of U.S. polysilicon, which has proved disastrous for U.S. firms (Washington Post Editorial Board 2013). Many U.S. individuals and businesses were from the onset deeply concerned about the effects of the solar panel tariff, evidenced by the Coalition for Affordable Solar Energy, a 700 member group of individuals and companies involved in the solar industry, strongly opposing the tariff (Huffbauer & Vieiro 2012).

Despite the negative economic effects of the solar panels tariff, for the Obama administration it was a political victory. The tariff was most beneficial for U.S. solar manufacturers, placating lobbyists and individuals concerned with manufacturing's decline. Furthermore, the tariffs allowed Obama to be seen as tough on the "cheating" Chinese. During the 2012 Presidential election Mitt Romney attacked Obama for both the failure of Solyndra and for not being tough enough on China, declaring the government should not pick "winners and losers," and promising to label China a currency manipulator on his first day in office. The tariff afforded Obama political protection from the Solyndra debacle, and allowed him to claim that he had in fact been tough on China, while playing into the popular notion that China is a threat to the U.S. economy.

In September 2012, China filed a complaint with the WTO, claiming they were neither subsidizing nor dumping solar panels, and therefore the U.S. tariff is in violation of WTO rules. The WTO panel set up to address the issue has not yet completed its investigation and issued a ruling. The political environment during the recession prompted policymakers in both the U.S. (and China) to protect the solar panel industry, and to promote the sale of panels in the U.S. This resulted in direct competition between the two countries and ultimately to a WTO dispute with disastrous economic repercussions for both countries. The U.S. solar installation industry sharply declined as a result of the tariff, negatively impacting consumers and resulting in the loss of thousands of jobs. China oversupplied the market with subsidized panels, leading prices to fall up to 75 percent between 2008 and 2012. This, combined with the U.S. tariff and a similar tariff imposed by the E.U., led many Chinese solar companies to lose profitability. In March 2012 the main subsidiary of Chinese solar panel producer Suntech Power, the largest solar production

company in the world, declared bankruptcy, the knockout blow for a battered Chinese solar industry (Bradsher 2013).

## **Discussion**

In the cases of both tires and solar panels, protectionist tariffs proved economically harmful. The tires tariff cost U.S. consumers over one billion dollars, and virtually eliminated Chinese tire exports to the U.S. The solar panels tariff led to the loss of tens of thousands of American jobs in the solar panel industry, as well as higher prices. Chinese solar firms also suffered as a result of the U.S. tariffs, experiencing plummeting profitability. Clearly, the decisions to implement these tariffs lacked sound economic judgment, as the harmful results were predictable outcomes, forewarned by economists and industry groups like the Coalition for Affordable Solar Energy. Rather, these policies were enacted because they were publicly popular and could be leveraged for political gain.

Constraining China's growing economic influence is often framed as preventing China from cheating. China bends or outright violates many international trade agreements, often subsidizing specific industries and engaging in predatory dumping. This precipitates political rhetoric focused on forcing China to "play by the rules," a moralistic claim pitting the liberal free trade economic policies of the U.S. against the state-run economy of China. Indeed, the U.S. is often preoccupied with making China adhere to the letter of the law even when it is not in its economic best interest, exemplified in the cases of the tires and solar panels. Attempting to enforce international trade laws can become less about what is best for the U.S. economy, and more about forcing China into the U.S.'s vision for a rules-based, capitalist global political order.

Perhaps the clearest example of this, outside of the U.S.'s use of protectionist trade measures, is the current debate over China's currency regime. China is accused of using its

central bank bond buying program to artificially suppress the value of its currency, the renminbi. This lowers prices of Chinese exports, making them more attractive, and allows for China to increase exports, central to its economic growth. While there is no consensus among scholars, the most common view is that the renminbi likely is undervalued, and allowing the renminbi to float (depend on the market for its value) could benefit the economies of both the U.S. and China (Moosa 2011). Regardless of what the actual value of the renmibi is, the Chinese central bank certainly does intervene in currency rates, in violation of WTO and IMF rules. However, allowing the renminbi to float would likely only have a marginal impact on the U.S. economy. The renmibi appreciated approximately 25 percent relative to the dollar between 2009 and 2011 (Gross 2012), yet this did nothing to hamper Chinese exports to the U.S., even though many believe the renminbi is now very close to its market value. Complaints against the undervalued renminbi are in fact tied to perceptions about manufacturing: an undervalued currency means Chinese goods are cheaper and therefore favorably compete with U.S. manufactures. Yet, as demonstrated earlier, China has a significant cost advantage in manufactured goods that is not likely to be erased by small currency shifts. While the potential benefits of aggressively pressuring China to let the renminbi float are small, the risks are significant. Labeling China a currency manipulator for trade purposes, a common policy recommendation, has the potential to elicit a response from China that could usher in a trade war, putting at risk hundreds of billions of dollars of bilateral trade.

While an aggressive confrontation of China's currency manipulation does not make economic sense, that has not prevented politicians from making it a key political issue. Obama promised to designate China a currency manipulator during his 2008 campaign, and instituted a series of investigations into China's currency regime once in office, though he shied away from

actually labeling China a currency manipulator. This decision was attacked by Romney during his campaign, as he accused Obama of not being “tough on China.” Romney promised to label China a currency manipulator “on day one,” and when asked if he was formally accusing China of manipulating its currency and starting a trade war he replied “There’s one going on right now, which we don’t know about it. It’s a silent one. And they’re winning” (Branigan 2012). Romney also consistently repeated that labeling China a currency manipulator was part of an attempt to get them “to play by the rules.”

While many question whether Romney would have actually followed through on his promise, nevertheless the fact that labeling China a currency manipulator has been part of the platforms of Presidential candidates from two different parties, both trying to appeal to the American people at large, is telling. First, it underlines the importance of manufacturing to the public, as China’s undervalued currency gives it an edge over the U.S. in selling manufactured products (though, as often ignored in public rhetoric, it also keeps prices much lower for consumers). Second, it points to the willingness of policymakers to take economic risks to counter the economic and political jostling of China. While the risks of labeling China a currency manipulator clearly outweigh the rewards, this policy still makes it onto the agendas of Presidential candidates and members of Congress alike. This points to a larger issue in U.S./China relations, not present between the U.S. and most of its other trade partners. When dealing with U.S./China trade, both the public and policymakers are constantly looking beyond economics to security and geopolitical concerns, wanting to keep China in check, and in their “proper place” in the world political order.

### **Policy Implications**

Given the economic damages caused by recent protectionist measures imposed by the U.S. on China, and the strain they place on Sino-American trade relations, the obvious policy recommendation is to reduce the use of protectionist tariffs. However, this is easier said than done. As demonstrated, the U.S. does not use TTBs and other protectionist measures because policy analysis has deemed them economically efficient and beneficial for U.S./China trade relations. Rather, these protectionist measures are implemented because they appeal to special interests directly tied to the manufacturing industry, and those with misconceptions about the importance of manufacturing in the U.S. economy. China's state-controlled economy, and broader uncertainty about its larger geopolitical objectives, only compounds fears that massive imports of Chinese goods are harmful to the U.S. Observing these public attitudes, politicians consciously associate themselves with the manufacturing industry, and contend they will curb Chinese cheating and revive manufacturing. These platforms normally come in spite of the advice of their top economic advisors (Goldfarb 2012). In order to reduce U.S. protectionism and improve trade relations with China, public misconceptions and misleading political rhetoric must be addressed.

Agenda setting and rhetoric by politicians has a substantial influence on public opinion. Therefore, a shift in the way politicians address economic and trade issues will impact the public's views, and in turn will impact policy. Shifting away from a focus on job creation in manufacturing and towards job creation in services is essential. The true economic strength of the U.S. lies in its research and technology, legal and financial services, entrepreneurship, and other service industries, rather than in heavy manufacturing. If politicians channel their rhetoric towards promoting these segments of the economy, pressure will be eased on politicians to safeguard the U.S. from Chinese exports. When pressured to crack down on China, politicians



can point to the fact that even when China does break the rules, American consumers actually benefit from lower prices. The impact on consumers is often ignored when discussing economic policy, yet lower prices on basic goods directly impacts all Americans, and should have broad appeal. Politicians need incentives to switch away popular rhetoric like promoting manufacturing and China bashing. Through more widely accessible and promulgated economic and policy analysis by politicians and think tanks alike, a shift away from current rhetoric can be politically feasible.

Limiting imports from China is beneficial to those directly involved in the manufacturing industry, even if it is not to society as a whole. Imports from China have been demonstrated to cause localized unemployment in labor markets with which they directly compete (David et. al 2012), and these impacted groups lobby hard to restrain imports from China. Leveraging government resources currently used to bolster non-competitive manufacturing to support job training for impacted groups would be beneficial. As the U.S. becomes more and more of a services oriented economy, educational and job-training programs need to reflect this shift. A recent survey revealed 59 percent U.S. business executives believe the U.S. education system needs to better prepare future generations of workers, and 44 percent believe the largest skill gap for American workers is soft skills, such as communication, critical thinking, creativity, and collaboration (Adeco 2013). Emphasizing these skills in schools and job training programs will better prepare workers for success in the U.S.'s service oriented economy.

When shifts in rhetoric and public opinion make it politically feasible, politicians can begin to address the trade policies themselves. As the U.S. and China adapt to China's new role in the global economy, policymakers from both countries must work to insure the transition is smooth, and relatively small disputes do not escalate into economically crippling conflicts. The

best way to prevent future trade conflicts between the U.S. and China is through further economic liberalization. For China, this means eliminating export subsidies that enable oversupply and dumping in the U.S., and an overall reduction in the government's role in the economy. For the U.S., further liberalization means allowing domestic industries, particularly manufacturing, to be exposed to more foreign competition, and not singling out China for the imposition of protectionist measures. The U.S. needs to understand that even when China "cheats," it ultimately still serves to benefit American consumers, and the U.S.'s true economic power lies in its technical expertise, not manufacturing capabilities. Liberalization has been the dominant narrative of U.S./China trade relations over the past 30 years, and if both countries increase their emphasis on continued liberalization disputes will be drastically reduced, and the economies and people of both nations will stand to benefit.

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