

An Examination of Trade Liberalization as a Gendered Foreign Policy Instrument

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Abstract

How does gender affect trade preferences? Existing survey research consistently shows that women tend to be more protectionist than men. However, we argue that this gender gap depends on how trade is framed. When conceptualized as a foreign policy and development tool rather than as economic competition, trade liberalization gains more support from women. Using multiple empirical strategies, we test whether women's stance on trade is influenced by the perceived benefits for women abroad and by individual risk attitudes. Our survey experiment reveals that women respondents significantly increase their support for trade liberalization when it is framed as benefiting women in developing countries, particularly among those with higher risk tolerance. Building on these findings, we examine the relationship between women's descriptive representation and trade policy at the national level. Using tariff data from OECD countries and addressing endogeneity concerns through instrumental variable approaches, we find that higher women's participation in the legislative process in developed countries is associated with lower tariffs toward developing countries. Our explanation and findings underscore the importance of recognizing trade as a multidimensional policy tool, helping reconcile individual-level preferences on trade with national policy outcomes reflected in tariffs. Furthermore, our results have implications for studies on women's descriptive representation and the determinants of trade policy.

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Introduction

How does gender affect trade preferences? Existing survey research consistently shows that women are more protectionist than men.¹ Recent surveys of likely American voters, however, show that women's support for protectionist policies varies. For example, the Cooperative Election Study (CES) asked four questions about trade to a representative sample in 2021, as shown in Figure 1. While women are more supportive of tariffs on high-carbon-producing goods than men, there is no discernible gender gap in support for tariffs on steel products or Chinese goods. Furthermore, women exhibit stronger support for rejoining the Trans-Pacific Partnership trade agreement.² These findings challenge the conventional wisdom about gender and trade preferences, raising the question: Under what conditions do women support trade liberalization?

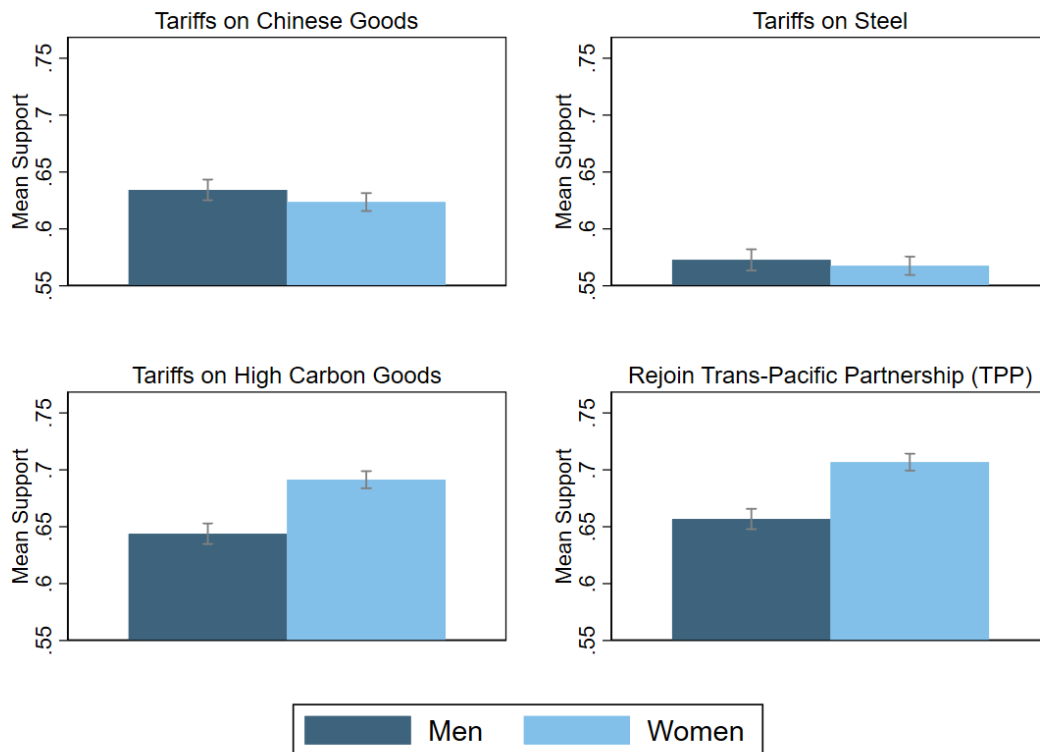


Figure 1: CES 2021 Survey Responses on Trade Issues

We argue that women's trade preferences are significantly influenced by how trade policy is framed and understood. Specifically, when trade is framed as a foreign policy and development

tool that can help others abroad—particularly women in developing countries—rather than purely as an economic competition, women become more supportive of liberalization.

Importantly, while trade is expected to have distributional consequences and create adjustment costs within the domestic market, it is often framed as a foreign policy tool that affects the well-being of individuals in trade partners. As implied by the CES questions, trade policy can involve competition with other countries (China) or competition over specific industries (steel). Nonetheless, trade policy also serves as a means to enhance connections between countries, as evidenced by initiatives like the TPP treaty. For example, US president Joseph Biden emphasized that trade was key to the United States’ “all-in” bet on Africa’s future (Shalal, Psaledakis and Martina 2022). Trade can act as a development policy, with new technologies and better jobs as a way to reduce poverty and increase income abroad (World Bank 2019). International commerce is also conceived as a pacifying force in world politics, an idea traced back to Kant (Kant 1939, Russett, Oneal and Davis 1998, Gartzke 2007, Chen 2021, among others). These broader foreign policy and development dimensions of trade may resonate differently with women and men.

Our main argument is that women’s support for trade liberalization increases when trade is framed as a foreign policy instrument benefiting women in developing countries. This argument is grounded in the concept of transnational gender solidarity — the idea that women may empathize with and support policies that improve conditions for women across borders due to shared experiences of gender discrimination. Recent empirical research has demonstrated that trade liberalization can benefit women in developing countries by increasing employment opportunities, reducing gender wage gaps, and enhancing bargaining power within households. While acknowledging debates about trade’s varied impacts on women globally, our focus is on how the *perception* that trade benefits women abroad influences support for liberalization policies.

We test this argument using a survey experiment where respondents are presented with information about a trade agreement (the African Growth and Opportunity Act) framed in different ways. We find that women respondents significantly increase their support for trade when it is framed as a development tool benefiting women in developing countries. This effect is particularly

pronounced among risk-acceptant women, suggesting that individual risk attitudes moderate the relationship between gender and trade preferences. Importantly, when trade is framed in terms of domestic economic competition or purely domestic benefits, we do not observe the same gendered patterns of support.

In the context of our survey results and previous research on women’s representation and trade policy, we examine the relationship between women’s descriptive representation and trade policy at the national level. Previous research has found that women’s descriptive representation in national legislatures is associated with lower import taxes on women’s goods (Betz, Fortunato and O’Brien 2021), a higher propensity to sign regional trade agreements with gender-related provisions (Park and Shin 2023), but is also associated with higher tariffs on consumption goods (Betz, Fortunato and O’Brien 2022). We contribute to this research by identifying likely conditions that would prompt women legislators to promote trade liberalization. To test this policy implication, we analyze data on tariff rates for developed countries using an autoregressive distributed lag model. We account for confounding variables and reverse causality concerns using an instrumental variable approach.

Given that women’s representation is increasing in governments across the world, our results have implications for the future of national trade policy outcomes. This is especially true in contemporary politics, as the United States and other countries have brought trade policy to the forefront of their states’ agendas. Recent research on trade politics has focused on changing domestic preferences related to populism, economic nationalism, and support for radical political parties (Colantone and Stanig 2018, Margalit 2019, Hafner-Burton, Narang and Rathbun 2019). Most of this research focuses on the effects of trade domestically, but previous research suggests that some individuals think about the effects of trade internationally. For example, Mansfield and Mutz (2009, 438) argue that education levels may not just be a proxy for an individual’s skill level but instead could indicate a “tendency to involve one’s self in affairs beyond the national border.”

Our analysis also focuses on the gender politics of trade outside of surveys, specifically analyzing the changes in the descriptive representation of women. Our study builds off of previous

research that demonstrates that descriptive representation may result in changes in substantive representation, reflected in policies related to women at home and abroad (Swers 2013, Wängnerud 2000, 2009). However, this line of research often focuses on domestic policy outcomes rather than foreign policy. We argue that foreign policy analysis is general, and trade policy specifically, would benefit from considering the implications of women's descriptive representation. Recent research has shown that women's representation has varied effects on trade policy, ranging from more protectionist (Betz, Fortunato and O'Brien 2022) to more liberalization (Betz, Fortunato and O'Brien 2021, Park and Shin 2023). We add to this line of research by identifying the conditions under which women's representation will lead to more liberalized trade policies.

It is worth noting that our results do not contradict the findings by Betz, Fortunato and O'Brien (2022). Our argument is about the conditions under which trade liberalization is more likely to be used as a foreign policy instrument within developed countries to empower women in developing countries. The analysis replicates Betz, Fortunato and O'Brien's (2022) model, focusing only on the rich countries, and we find that the higher presence of women in legislatures is associated with lower tariffs at both the product level and national level. Placebo tests presented in the appendix suggest that a higher presence of women in legislatures in developing countries is associated with higher tariffs. This suggests that the sample of countries affects the relationship between women's descriptive representation and trade policy as expected.

In the ensuing sections, we develop competing explanations on how women's support for trade liberalization increases. We then explain our empirical strategies, present our findings, and discuss the implications of our study.

Trade as a gendered issue

A substantial body of research in peer-reviewed journals indicates that trade liberalization, characterized by the reduction or elimination of tariffs, quotas, and other barriers to trade barriers, can result in enhanced economic growth, efficient resource allocation, and broader access to advanced

technologies and global markets (Dollar and Kraay 2004, Winters, McCulloch and McKay 2004). On the aggregate welfare front, liberalization has been linked to overall increases in societal welfare, owing to more efficient production, consumption possibilities, and access to a broader variety of goods at reduced prices (Edwards 1998). While a country may benefit on the whole, disparities in benefit distribution can arise, with sectors or populations facing potential adversities such as job losses or diminished income, leading to widening income inequalities (Rodrik 1998, Goldberg and Pavcnik 2007). These distributional consequences play an important role on the formation of trade preferences and policies.

Survey research focused on globalization attitudes suggest that women in developed countries are less supportive of liberalized trade than men (O’Rourke and Sinnott 2001, Scheve and Slaughter 2001, Burgoon and Hiscox 2008, Mayda and Rodrik 2005, Mansfield and Mutz 2009, Ardanaz, Murillo and Pinto 2013, Mansfield, Mutz and Silver 2014, Guisinger 2016).³ Some have attributed the trade gender gap to differences in skill endowment, educational attainment, and economic knowledge (Burgoon and Hiscox 2008); mobility constraints (Cooke and Bailey 1996, McKinnish 2008); or preferences towards lower involvement in foreign affairs (Mansfield and Mutz 2009, Mansfield, Mutz and Silver 2014). Others have found that women perceive more risk to their own employment and to members of their community as a result of trade openness than men (Guisinger 2016, 2017, Brutger and Guisinger 2022).

However, as the CES survey results in Figure 1 illustrate, the gender gap is not absolute. Women’s support for trade –relative to men– varies. In addition, we observe differences in trade policy as a function of gender. For example, Betz, Fortunato and O’Brien (2022) find that women’s descriptive representation in national legislatures is associated with higher tariffs on consumption goods but not intermediate products. In a separate study, the authors find that higher women representation is associated with lower tariffs on women-related goods (Betz, Fortunato and O’Brien 2021). Park and Shin (2023) find that women’s descriptive representation is associated with the formation of regional trade agreements with gender-related provisions. The sum of these findings suggests that the relationship between gender and trade preferences should not only be character-

ized by the gender gap found in survey research. Instead, this study seeks to understand when we would expect women's support for liberalizing trade to change relative to men.

We lay out three plausible explanations for why women's support for trade may change. These explanations are not exhaustive, nor exclusive, but represent untested expositions related to the international political economy of trade. We begin with the possibility that women may sometimes view trade as a foreign policy tool that can benefit women abroad.

Trade liberalization may benefit women in trade partners, particularly when women are employed – or potentially will work – in an sectors that expand as the economy opens up. Moreover, firms utilize men and women workers in different ways. Hiring practices in closed economies usually benefit men. Trade liberalization, on the other hand, is likely to impact investments in technology and force cost-saving changes in labor, two factors that benefit women workers. As countries engage in the global economy, women employed in exporting firms should expect higher employment and wages because of reduced tariffs (World Bank and World Trade Organization 2020). The prospect of increased production should attract investment resulting in new technologies that benefit the relative demand for women workers. Consistent with this, Aguayo-Tellez et al. (2010) find increased employment in women-intensive industries in Mexico after the implementation of NAFTA. In general, evidence suggests that firms that are more integrated in the global economy employ more women (Shepherd and Stone 2017, Amin and Islam 2021).

Trade liberalization may reduce gender discrimination in hiring because of increased competition and demands from the importing state (Becker 2010, Krueger 1996). Greater demand for women's labor may also result in greater bargaining power for women, better educational and social outcomes, and accelerated development (Duflo 2012). We expect that if women are aware of the benefits of trade for women abroad, women's support for trade liberalization will increase.

Why would women be more likely to support trade because of gendered benefits abroad? While women's interests are varied across countries, there are common experiences shared that transcend borders. One such common experience is gender discrimination in the workforce. While men can have empathy for gender discrimination, women are often more strongly driven by this empa-

thy.(McCue and Gopoian 2000, Bosson et al. 2012, Gault and Sabini 2000).

Economic structures and norms largely benefit men, but trade liberalization is a possible way to increase work benefits for women. Consistent with this, Betz, Fortunato and O'Brien (2021) find that trade policies often penalize gender-specific products with higher tariffs but women's representation can mitigate this penalty. In addition, gender inequality and the adverse impacts of trade on women have become more of a focal point in trade initiatives (Hannah, Roberts and Trommer 2022). These initiatives may influence women to view trade as a means to combat gender discrimination in the workforce in countries abroad. If this is the case, we expect that women will be more supportive of reduced tariffs.

Anecdotally, some women in developed countries seem to be aware that trade could benefit women abroad. For example, U.S. Congresswomen Jackson Lee in her speech supporting the passage of AGOA bill, stated "Our Growth and Opportunity trade bill seeks to uplift the women entrepreneurs and provide business and employment opportunities that will guarantee a better quality of life."⁴ If more women think trade has benefits for other women abroad, we expect women's support for trade to increase.

Hypothesis 1: Women's support for lower trade barriers will increase if the benefits for women abroad are more salient.

Trade liberalization may also bring trade benefits for women domestically. For instance, the reduction of tariffs changes the production strategies of both exporting and import-competing firms. To remain competitive, firms facing decreased import tariffs usually invest in cost-saving technology and machinery (Juhn, Ujhelyi and Villegas-Sanchez 2013, 2014). This investment in technology decreases the demand for physically demanding labor, which then makes female labor more substitutable with male labor (Weinberg 2000). Consistent with this prediction, Black and Brainerd (2004) find that industries in the United States that faced more competition as a result of trade liberalization saw a reduction in the gender wage gap.

Juhn, Ujhelyi and Villegas-Sanchez (2013) further explore this relationship by considering expectations of new technology investments. They find that blue-collar women who worked in

export-competitive firms experienced higher employment and wages as a result of the North American Free Trade Agreement (NAFTA). As a comparison, white-collar women workers did not see the same wage increase, which is expected given that the relative demand for physically demanding skills should remain unchanged as a result of trade competition (Juhn, Ujhelyi and Villegas-Sanchez 2013, 2014).

If reduced trade tariffs can plausibly help women's wages and employment, they can also help increase market and bargaining power for women. As evidence of this, Aguayo-Tellez et al. (2010) find that household expenditures shift from men's preferences (i.e. alcohol and tobacco) to women's preferences (i.e. education) following trade liberalization. This not only signifies that trade can empower women, but that women empowerment can help improve the overall utility of the household. If women believe trade can help women at home, women's support for trade should increase.

Hypothesis 2: Women's support for lower trade barriers will increase if the benefits for women domestically are more salient.

The above hypotheses focus on the potential gendered benefits of trade and whether these benefits could sway women's support for trade liberalization. Yet, there is another element of trade that needs to be considered in the context of gender: risk. Risk may matter for analyzing gender and trade for three reasons. First, men and women may perceive the risks of trade differently (Guisinger 2016, 2017). Second, men and women's risk attitudes may affect their support for trade differently (Guisinger 2016). Finally, trade policy may be affected by the risk attitudes of policymakers. We expand on these explanations below.

Trade is not a panacea for gender discrimination, gender wage gaps, or gender inequality. For some industries, local communities, or countries, trade liberalization may have no effect on gender dynamics, or may possibly make them worse. For example, Guisinger (2016, 2017) argues women are more concerned about the employment volatility that stems from trade liberalization than men. Similarly, Brutger and Guisinger (2022) argue that women will respond differently to the inherent volatility of trade than men.

Similar to risk perceptions, risk orientations may affect gendered support for trade. While Guisinger (2016) focuses on higher employment volatility resulting from trade, she concludes that another possible explanation is that differences in support for trade between men and women is explained by individual risk preferences. Individuals who hold more risk-averse preferences tend to prefer the safer status quo than the disruptive consequences of trade, even if trade may increase overall welfare. If men and women hold different risk attitudes, then their views on trade should vary. If the risk in trade is salient and if the average woman respondent is more risk averse than the average man (Kam and Simas 2010), then we should expect a gender gap in survey responses related to trade. If women survey respondents tolerate risk, however, then we expect them to favor trade liberalization more so than risk-averse women.

Hypothesis 3: Women's support for lower trade barriers is conditional on risk preferences

The risk orientation not only potentially affects trade support but can matter to trade policy-making as well. For example, the gender gap in trade surveys has prompted scholars to assume that women legislators will oppose trade liberalization (Betz, Fortunato and O'Brien 2022). However, we should expect that the risk orientation of women legislators differs from the average survey respondent. Thus if risk orientation affects trade support, we may derive different expectations for women legislators' support for trade. We expand on this possibility below.

Empirical Analysis

To test the competing explanations outlined above, we directly examine individuals' attitudes toward trade as a function of gender in a survey experiment. We are unaware of any previous surveys that focused on the *gendered* material and non-material benefits of protectionism. In addition, the survey makes a distinction of whether these gendered benefits are found at home or abroad. Our survey examines whether this distinction matters in explaining women's support for trade compared to men.

We also consider alternative explanations of trade attitudes. Drawing from Guisinger (2016)'s argument that women may perceive more risk to their employment due to trade openness than men, we also investigate the influence of individual risk preferences on trade policy. Therefore, if risk attitudes drive trade attitudes, we expect the most risk-acceptant women in our survey to have favorable attitudes toward liberalized trade.

We conducted a survey experiment focused on trade on a sample of 1,500 U.S.-based respondents recruited by Amazon Mechanical Turk in May 2019. We asked respondents standard demographic and political attitudinal questions to control for potential spurious relationships and to ensure that the randomization of the treatments worked. After we collected this standard information, we provided the respondents with a vignette on trade, where we posed the following scenario:

Congress considers many issues. If you were in Congress would you support or oppose the African Growth and Opportunity Act, a trade preference program that is at the center of U.S.-African engagement on trade and investment?

The trade vignette focuses on the African Growth and Opportunity Act (AGOA) for several reasons. First, we expect that idea of transnational surrogacy will impact trade support the most for respondents in developed countries thinking about the benefits of trade for people in developing countries. To test this possibility we also use a vignette focused on trade with the UK, which we discuss in more detail below.

Second, trade with Africa, and thus AGOA, is a smaller portion of the U.S. overall trade. As a result, AGOA does not carry the geopolitical risks inherent in trade questions related to China or the economic risks related to trade with Mexico or Canada. While not completely neutral, we expect that respondents will have less knowledge and less formulated opinions on AGOA compared to other U.S. trade relations.

After the respondents were given the vignette, some of the respondents were randomized into different treatment groups, which provided more information about this trade policy. Respondents

in treatment 1 (N=432) were given more information on the benefits of trade for women abroad and were told the following:

Treatment 1: This trade program helps create better educational and economic opportunities in Africa, particularly for women.

We expect that woman survey respondents will increase their support for AGOA as a result of this framing. Treatment 2 respondents (N=260) were given more information on the benefits of trade for women domestically and were told the following:

Treatment 2: This trade program helps create better educational and economic opportunities in the United States, particularly for women.

Consistent with the first treatment, we expect that woman survey respondents will increase their support for AGOA as a result of this framing. Treatment 3 respondents (N=443) were told about the expected job benefits of trade, but also the possible risks to the economy. Specifically, the respondents in this treatment group were told the following:

Treatment 3: While this trade program continues to add more jobs to the U.S. economy, there is a chance that some people will lose their job as a result of their continuation.

We expect that respondents in this treatment group will have lower support for AGOA, though that lower support is conditional on existing risk attitudes. We outline these treatments and our expectations in Table 1.

Following the vignette, respondents were asked how likely they would support such a bill in Congress. We created a 7-point Likert scale of the respondents' answers, ranging from "Strongly Support" to "Strongly Oppose." To analyze the effects of the treatment conditions, we present differences of means analysis in the manuscript but also carry out regression analysis to control for respondent characteristics.⁵

Table 2 reports the mean support for the AGOA bill across the control and three treatment groups. Treatments 1 and 2 increase support for trade, although only treatment 2 is statistically

Table 1: **Survey Experiment Treatments**

TREATMENT GROUP	ADDITIONAL INFORMATION	EXPECTATIONS
Control	{No added information}	Baseline comparison
Treatment 1	<i>This trade program helps create better educational and economic opportunities in Africa, particularly for women.</i>	Higher support for trade for women
Treatment 2	<i>This trade program helps create better educational and economic opportunities in the United States, particularly for women.</i>	Higher support for trade for women
Treatment 3	<i>While this trade program continues to add more jobs to the U.S. economy, there is a chance that some people will lose their job as a result of their continuation.</i>	Higher support for trade for women with risk-acceptant attitudes

different than the control group. Treatment 3 statistically decreases support for trade. We now examine whether support for trade as a function of the treatments is conditional on gender.

Table 2: **Sample Means of Treatment Groups**

Control	Treatment 1: Benefits for Women Abroad	Treatment 2: Benefits for Women at Home	Treatment 3: Risks
4.542	4.613	4.746*	4.101*

* $p < 0.05$: Treatment groups statistically different than control.

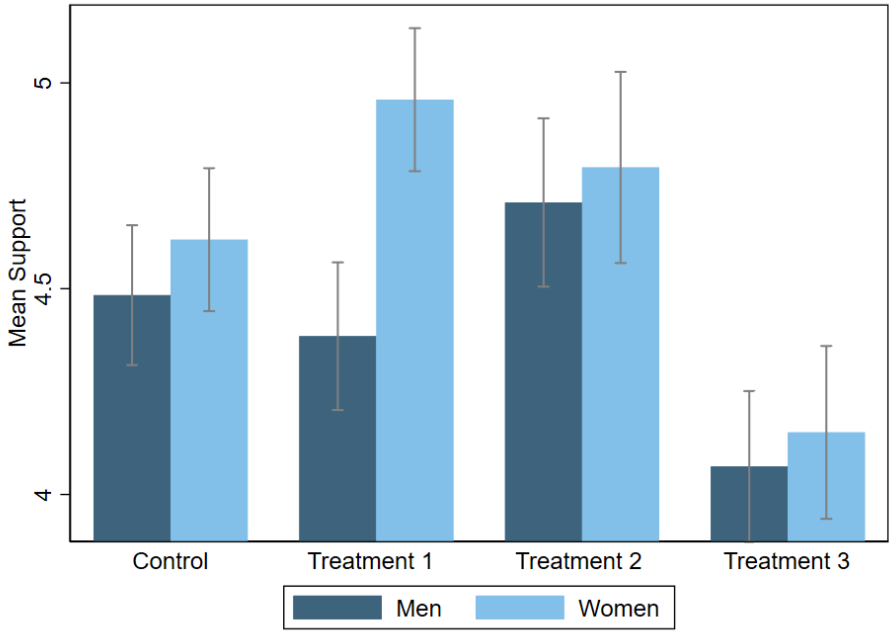
Survey Results for Treatment 1: Gender, Trade, and Benefits for Women in Developing Countries

Figure 2 summarizes our sample's responses across all three treatments, conditional on gender. We note first across all 3 samples and the control group, women are more supportive of AGOA than men. We suspect that like the CES questions about the TPP in Figure 1, women respondents' support will vary, relative to men, depending on what dimensions of trade are most salient. How-

ever, this “reverse gender gap” should not affect how we interpret the effects of the 3 randomized treatments. We examine whether respondents’ characteristics, such as education and partisanship, affect our results in the appendix and find no evidence that this is the case. We turn now to the analysis of the treatment effects.

Focusing first on Treatment 1, we can infer that women’s support for trade does increase when the vignette highlights the benefits of trade for women in Africa. This result is consistent with our expectations that women care more about the material (and possibly non-material) benefits of trade for women in developing states.

Figure 2: Treatment effects across randomized groups



Bars represent 95% confidence intervals for each sample group’s sample mean. Treatment 1 highlights the benefits of trade for women abroad. Treatment 2 highlights the benefits of trade for women in the U.S. Treatment 3 highlights the risks of trade.

For precision, we report the sample means for the Control and Treatment 1 groups in Table 3. We observe a 0.340 increase in support for trade for women given the additional framing about the benefits of AGOA for women in developing countries. This increase is statistically significant and represents 25 percent of the standard deviation in the response variable. Men’s support for trade *decreases* by -0.099 when given the framing benefits for women abroad. This decrease is small and

statistically insignificant. The difference in responses to the treatment effects by men and women is statistically significant.

Table 3: **Effect of Treatment 1 by Gender**

	Control	T1: Benefits for Women Abroad	Effect
Women	4.619 <i>168</i>	4.959 <i>172</i>	0.340* [0.063, 0.617]
Men	4.484 <i>223</i>	4.384 <i>260</i>	-0.099 [-0.332, 0.133]
Difference-in-differences			0.439* [0.078, 0.802]

* $p < 0.05$; The table shows the mean support for trade policy by group. Cell sample sizes are in italics, and 95% confidence intervals are in brackets and are based on sample mean differences.

As a placebo test, we asked additional respondents about a trade agreement with the United Kingdom, with a treatment highlighting the benefits for British women (these results are reported in the appendix). In that test, we find no gendered differences in support for trade, suggesting that women's concerns for the material and non-material benefits of trade for women abroad extend more to developing countries than developed countries.

Survey Results for Treatment 2: Gender, Trade, and Benefits for Women in the United States

Figure 2 shows that the support for trade generally increases for both women and men when given the framing about the benefits of trade for women in the United States (treatment 2). Again, for precision, Table 4 reports the difference in means results in men and women, relative to the control group. Compared to the control group, women increase their support for AGOA, although this increase is half as much as the observed increase for treatment 1 and is also statistically insignificant. Men also increase their support for trade, though that difference is statistically insignificant. We

infer that there is no statistical difference in this response to the treatment by gender.

Table 4: Effect of Treatment 2 by Gender

	Control	T2: Benefits for Women at Home	Effect
Women	4.619 <i>168</i>	4.795 <i>112</i>	0.175 [-0.122, 0.474]
Men	4.482 <i>223</i>	4.709 <i>148</i>	0.225 [-0.034, 0.484]
Difference-in-differences			-0.049 [-0.445, 0.3454]

* $p < 0.05$; The table shows the mean support for trade policy by group. Cell sample sizes are in italics, and 95% confidence intervals are in brackets and are based on sample mean differences.

These results suggest that gendered differences in trade policy are more a function of the benefits of trade abroad than at home. Men and women respondents responded to the benefits of trade to domestic women in roughly the same way.

Survey Results for Treatment 3: Gender, Trade, and Risk Attitudes

The first two treatments focus on the potential benefits of trade, highlighting gains for women broad (Treatment 1) or at home (Treatment 2). While women respondents increase their support for AGAO in both treatments, the increased support when trade benefits women abroad is (1) twice the effect size compared to benefits to home domestically, (2) statistically different from women respondents in the control group, and (3) statistically different than men. The sum of these results suggests that when the benefits of trade for women abroad are salient, women will be more supportive of liberalized trade policies.

While the first two treatments focus on the benefits of trade, we now turn our attention to the potential risks of trade. Guisinger (2016) finds that women are less responsive to positive messages on trade, particularly when the benefits highlight trade benefits for the individual or close acquaintances. The author argues that this muted response to the positive benefits of trade

(compared to men) is a consequence of women's perceptions of their vulnerability to trade.

Our results show that women do respond favorably to the benefits of trade if those benefits help women abroad. These results do not contradict Guisinger (2016), but suggest the gendered benefits of trade affect support for trade. Our results, however, do not yet consider the role of risk. Given the possibility that employment risk drives women's support for trade protection, we highlight the risks of trade for a randomized subset of respondents in Treatment 3. Figure 2 shows that this treatment lowers support for trade for both men and women. This decrease is statistically significant, as shown in Table 2.

To further analyze the effect of Treatment 3, we consider the importance of individual risk attitudes. In her conclusion, Guisinger (2016, 557) asks whether the role of risk operates through perceptions of economic security or through different individual risk tolerances. Though we do not directly test the first possibility, the roughly equal response to Treatment 3 within our sample suggests that men and women had similar reactions to the highlighted risks of trade. We do, however, directly examine the role of individual risk attitudes. We expect women who are more risk-acceptant will be most supportive of trade. To measure risk attitudes, we replicate previous surveys on risk (Eckles and Schaffner 2011) and ask respondents the following question:

Suppose you are the only income earner in the family and you have a good job guaranteed to give you income every year for life. Then suppose you are given the opportunity to take a new and equally good job, with a 50-50 chance it doubles your income and a 50-50 chance that it will cut your income by a third. Would you take the job?

Respondents who answer "Yes" to this question are coded as risk acceptant and those who respond "No" are coded as risk averse. Figure 3 shows respondents' support for the AGOA trade policy by both gender and risk attitudes when they were randomized into Treatment 3. Risk-averse respondents have lower support for trade under the risk treatment, with no obvious difference between men and women. For risk-acceptant respondents, we observe higher support for both men and women, but with a larger increase for women.

We analyze these differences further in Table 5. The top panel shows how the response mean for risk-averse women decreases when given the risk treatment frame. We observe a decrease in support by -0.660. Though not statistically significant, this decrease represents 47 percent of the standard deviation of the support outcome variable. We observe a small decrease within the risk-averse men, with the change roughly half of the change in the risk-averse women. However, this difference is not statistically different.⁶

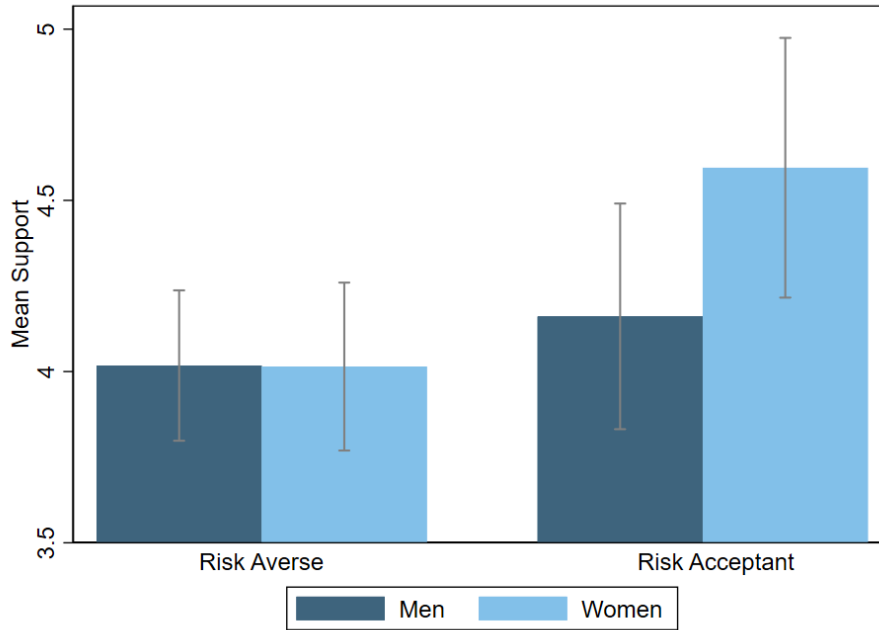
Turning now to risk-acceptant respondents, we observe a small *increase* in support for trade among risk-acceptant women when given the risk framing treatment (bottom panel of Table 5). Risk-acceptant men, however, have lower support for trade as a result of the risk treatment, similar to both risk-averse men and women. Again, the difference between risk-acceptant men and women is not statistically significant. But when we compare the difference-in-differences, we observe a statistically significant effect.

We interpret the results in Table 5 in the following way. The risk treatment (T3) decreases support for trade for the entire survey sample. This effect is not conditional on gender *until* we consider differences in risk attitudes. Again, we emphasize that these results do not rule out the gendered differences in the perceptions of risk in trade, as argued by Guisinger (2016, 2017). The results do, however, show that individual attitudes towards risk matter to gendered differences in the support for trade.

To further demonstrate that risk attitudes matter, we re-examine the effects of treatments 1 and 2, conditional on individual risk. If there is a difference in how men and women perceive the risks inherent in trade, and if that difference is conditional on individual risk attitudes, then risk attitudes may affect how gendered trade benefits for women at home or abroad affect women's support for trade. Figure 4 shows how risk-averse and risk-acceptant respondents' support for the AGOA trade bill varies by gender and Treatments 1 and 2. For risk-averse women respondents, both treatment 1 and 2 induce a small, but statistically insignificant increase in the support of trade.

Conversely, risk-acceptant women significantly increase their support for trade under both treatments. The effects are specified in Table 6. For the first treatment, we observe that risk-

Figure 3: Treatment effect of risk framing



Bars represent 95% confidence intervals for each group's sample mean..

acceptant women respond positively to the benefits of trade for women abroad. This represents a 60 percent standard deviation increase in support of the AGOA bill. For the second treatment, we observe that risk-acceptant women respond positively to the benefits of trade at home. This represents a 42 percent standard deviation increase in support of the AGOA bill. Using men respondents as a comparison, the difference in differences is significant across both treatments.

The survey results tell us the following. Women respondents are more likely to support trade when the benefits of trade for women abroad are highlighted. Men are not affected by this same treatment. When the benefits of trade for women at home are highlighted, support for trade increases for all respondents, with no discernible differences between men and women.

We observe a similar dynamic when the risks of trade are highlighted. Support for trade decreases for all respondents, not just women or men. It is not until we condition the risk treatment on individual risk attitudes that we observe gendered differences in the support of the AGOA trade bill. Risk-acceptant women are the most supportive of trade, despite the risk framing. We also

Table 5: **Effect of Treatment 3 by Gender and Risk Attitudes**

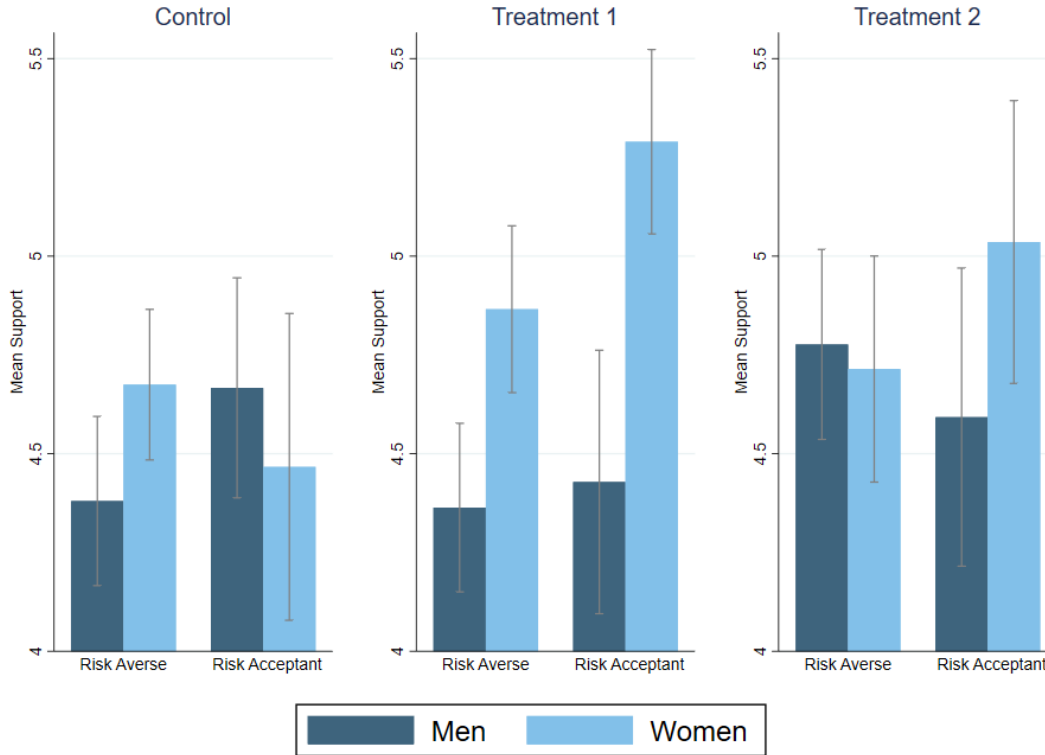
Risk averse respondents			
	Control	Treatment 3: Risk Frame	Effect
Women	4.674 <i>123</i>	4.014 <i>137</i>	-0.660 [-1.353, 0.032]
Men	4.380 <i>142</i>	4.017 <i>171</i>	-0.362 [-0.996, 0.270]
Difference-in-differences			-0.297 [-1.236, 0.641]
Risk acceptant respondents			
	Control	Treatment 3: Risk Frame	Effect
Women	4.466 <i>45</i>	4.595 <i>42</i>	0.128 [-1.467, 1.724]
Men	4.666 <i>81</i>	4.161 <i>93</i>	-0.505 [-1.636, 0.625]
Difference-in-differences			0.633 [-1.322, 2.590]
Difference in differences by risk groups			
Difference-in-differences			-0.931* [-1.768, -0.093]

**p* < 0.05; The table shows the mean support for trade policy by group. Cell sample sizes are in italics, and 95% confidence intervals are in brackets and are based on sample mean differences.

observe in Table 6 that risk-acceptant women are the most responsive to the gendered benefits of the trade (Treatments 1 and 2).

In sum, when examining the role of gender and trade, we find that the benefits of trade abroad are important in explaining women's varying support for trade. In addition, risk attitudes are a key conditioning variable to these dynamics. We now consider the potential policy implications of these findings.

Figure 4: Treatments 1 and 2 conditional on risk attitudes



Bars represent 95% confidence intervals for each sample group's sample mean.

Trade policy implications

The survey experiment reveals two dimensions of trade that may prompt women to support trade liberalization. First, when the benefits of trade are highlighted for women abroad, women are more likely to increase their support trade than men. Second, risk-acceptant women are more likely to discount the perceived risks of trade and be influenced by the potential gendered benefits of trade than risk-acceptant men and risk-averse women.

While benefits for women abroad and risk acceptance increase support for trade, our survey cannot identify when women are more likely to meet these conditions. In addition, given that trade is multidimensional, we cannot be certain which dimension of trade will prompt support of trade without manipulating the framing of trade. Given this, what implications do our results have on trade policy?

Table 6: Effect of Treatment 1 and 2 by Gender and Risk Attitudes

Risk averse respondents					
	Control	T1: Benefits for Women Abroad	Effect (T1-Control)	T2: Benefits for Women at Home	Effect (T2-Control)
Women	4.674 <i>123</i>	4.865 <i>134</i>	0.190 [-0.124, 0.506]	4.714 <i>84</i>	0.039 [-0.301, 0.379]
Men	4.380 <i>142</i>	4.363 <i>176</i>	-0.016 [-0.301, 0.268]	4.714 <i>94</i>	0.396* [0.077, 0.715]
Difference			0.207 [-0.218, 0.633]		-0.356 [-0.823, 0.109]
Risk acceptant respondents					
	Control	T1: Benefits for Women Abroad	Effect (T1-Control)	T2: Benefits for Women at Home	Effect (T2-Control)
Women	4.466 <i>45</i>	5.289 <i>38</i>	0.822* [0.248, 1.397]	5.035 <i>28</i>	0.569* [-0.041, 1.179]
Men	4.666 <i>81</i>	4.428 <i>84</i>	-0.238 [-0.644, 0.167]	4.592 <i>54</i>	-0.074 [-0.519, .371]
Difference			1.060* [0.357, 1.764]		0.643 [-0.112, 1.398]
Difference in differences by risk groups					
	Treatment 1		Treatment 2		
Difference of differences	-0.853* [-1.663, -0.042]		-0.999* [-1.867, -0.131]		

* $p < 0.05$; The table shows the mean support for trade policy by group. Cell sample sizes are in italics, and 95% confidence intervals are in brackets and are based on sample mean differences.

To answer this question, we build off of Betz, Fortunato and O’Brien’s (2022) analysis of women legislators and tariffs. The authors take the gender gap in trade preferences as a given and ask whether women legislators enact more protectionist policies. The results from our survey experiment, coupled with the CES surveys from 2021 shown in Figure 1, demonstrate that women’s support for trade can vary depending on which dimensions of trade are most salient. We thus ask when these conditions may prompt women, and specifically women legislators, to support trade.

To address this question, we focus on the theoretically relevant characteristics where legislators may differ from the public (Kertzer and Renshon 2022, 543). In his meta-analysis of the elite-public differences in political behavior, Kertzer (2022) argues that the decision-making differences between the public and elite are overstated in the existing literature. Instead, differences in the traits between the two samples matter, along with the context of their decisions.

Fortunately, existing research on women and politics and American politics provide guidance

on these issues. First, in terms of differences in traits, we suspect that women legislators are more risk-acceptant than the average woman survey respondent, given that woman legislators have selected themselves into a career requiring some tolerance of risk (Maestas et al. 2006, Sweet-Cushman 2016). Elections in democracies involve uncertain outcomes, thus political office should dissuade some risk-averse individuals from running for office. Thus we expect women legislators to be more risk-acceptant than women in general.⁷

In addition, existing research suggests that women national legislators are likely to think about trade in a different context than the public. As politicians, legislators are naturally going to think about the consequences of trade for their constituents. Yet research in gender and politics also suggests that women legislators will have an expanded view of their constituency in their role as “transnational surrogate representatives” for other women beyond their constituency.⁸ Why? The shared experience of women across borders is likely to create this surrogate bond. For example, Shea and Christian (2017) argue that the shared experience of the protection of children and prevention of gender-based violence increases the likelihood that women legislators favor interventions in humanitarian crises. Surrogate responsibility also manifests itself in other foreign policy issues areas, including aid, development, and human rights (Hicks, Hicks and Maldonado 2016, Lu and Breuning 2014).

In the case of trade, shared experiences of gender discrimination in the work environment may prompt women legislators to act as transnational surrogate representatives. Economic structures and norms largely benefit men, but trade liberalization is a way to increase work benefits for women. If women legislators view trade as a means to combat gender discrimination in the workforce in countries abroad, we expect that women legislators will be more supportive of reduced tariffs. The quote below from U.S. Representative Eddie Bernice Johnson supports this expectation:

“I rise in support of H.R. 434, hoping that many of my colleagues will answer the call from African leaders, and specifically women who are eager to possess the means to fully engage the global economy, becoming economically self-reliant. This bill

helps the economic standing of women in Africa and well as in the U.S... Currently, women in Africa head about 40 percent of African households and supply a significant percentage of the African workforce in the following industries: food processing, agricultural workforce, marketing and domestic food shortage. This shows that they are already proving their ability to work to take advantage of the benefits that would be provided by the passage of H.R. 434. Economic growth provided under AGOA also benefits women by generating increased resources for critical health care and educational needs.”⁹

We do not expect every woman legislator to view trade as a way to benefit women abroad. We argue that this is more likely to happen in richer countries and less likely to occur in lesser-developed states. Thus, we expect that women legislators in rich countries are likely to think about trade in the context of how trade affects women abroad, particularly women in developing countries. Thus, as women’s descriptive representative increases in a developed country’s legislature, that country will be more likely to reduce tariffs.

To test this expectation, we build off of product tariff policy analysis in Betz, Fortunato and O’Brien (2022, Table 2) findings. We first use the Betz, Fortunato and O’Brien’s (2022) data to analyze the relationship between women legislators and tariff rates, tariffs at the level of Broad Economic Categories (BEC).

Model 1 in Table 7 reports the full sample of country-product-years analysis, which regresses product-tariff rates on the log percentage of women legislators in a country’s national legislature. The includes a set of covariates designed to block economic and political confounding pathways: GDP, GDP per capita, unemployment, and Polity.¹⁰ In addition, the model includes year and country-fixed effects.¹¹ The fixed effects account for time-invariant country characteristics—including GATT/WTO membership or trade history—and common temporal effects. The controls account for specific observable, time-variant confounders.¹² We observe a positive effect of women’s representation on product-tariff rates in model 1, consistent with Betz, Fortunato and O’Brien’s (2022) expectations that women legislators are *generally* more protectionist.

With these results acting as the baseline, we make two changes to test our expectations. First, we limit our sample to women legislators in richer countries. We expect that these legislators are more likely to think about the benefits of trade for women abroad. To measure rich countries, we use membership in the Organization for Economic Cooperation and Development (OECD). These member countries are the most developed economies in the world, have active trade with most countries around the world, and have been increasingly engaged in trade with developing countries over the past three decades. In addition, these states tend to be consolidated democracies, where legislators can impact trade policy.¹³

Our second change relates to the temporal restrictions of the model. Betz, Fortunato and O'Brien's (2022) original analysis focuses on the static, short-term effects of women's representation on product tariffs (De Boef and Keele 2008). Trade policy, however, takes time to formulate and negotiate, and thus we assume the effects of women's representation also matter in the long term. To account for these dynamic possibilities, we estimate an autoregressive distributed lag (ADL) model with a lagged dependent variable and lagged covariates.¹⁴ The results are reported in model 2 in Table 7. We observe a negative effect of women legislators on product tariffs. Just as the survey experiment demonstrated that women's support for trade can vary, the results in model 2 show that the effect of women legislators on trade can vary. The higher the women's representation in OECD countries, the lower the tariff rates.

To ensure the robustness of these results, we generalize the analysis in model 3 to focus on a country's tariff policy as a whole, using the weighted average percentage of all applied tariff rates (data from the World Bank's World Development Indicators). The results in model 3 are consistent with model 2; higher women representation is associated with lower tariff rates for OECD countries.

Given concerns about endogeneity and reverse causality, we replicate models 2 and 3 but adopt an instrumental variable estimation. To instrument women's representation, we consider the consequences of household decisions on education. Specifically, we look at the percentage of women enrolled in secondary school (as a percent of all women eligible to attend school). This measure

captures the investment in women's household members and reflects the household's gender socialization. Esarey and Schwindt-Bayer (2019) use a similar instrument, but we lagged our variable by a generation (twenty years) as household investment and socialization process should affect women's decisions to run for office later in life. A valid instrument needs to be correlated with the endogenous regressor and orthogonal to the error term of the outcome equation of the instrumental variable model. The first requirement can be tested, while the second cannot. We expect that the twenty-year lag of the instrument makes it harder to connect past school enrollment to trade and tariffs a generation later. However, school enrollment could reflect changes in relative skill endowments or other social dynamics, which could affect trade policy. To address this possibility, we interact the lagged school enrollment with lagged (twenty years) women empowerment.¹⁵

The interaction between lagged school enrollment and lagged women empowerment provides two advantages to our IV design. First, the interaction models the heterogeneous effects of school enrollment on women's participation in politics. For example, some countries that already had strong social norms of women's participation would be affected less by school enrollment trends. We expect that women's school enrollment increases future women's participation, conditional on the baseline level of existing women empowerment.

Second, the interaction term has variation within countries, over time, which allows us to include both country and year-fixed effects in the first stage. The IV estimator for the interaction corresponds to a difference-in-difference, or a shift-share design with a continuous estimator, following other IV designs (Nunn and Qian 2014). Controlling for country and year-fixed effects, along with the current level of women empowerment, the interaction is plausibly exogenous.

In order to be a valid instrument, the interaction of women enrollment in secondary school and women empowerment (both lagged by twenty years) must (1) correlate with the *Women in Legislature* and (2) be unrelated to the error term in the second stage of the tariff model. Weak instrument tests consistently support the first assumption. While the second assumption – the exclusion restriction – cannot be directly tested, we implement a series of falsification tests in the appendix to support our case. Falsification tests examine conditions under which we expect

Table 7: Women Legislators and Tariffs Rates

	<i>OLS</i>			<i>IV</i>	
	(1)	(2)	(3)	(4)	(5)
Women in Legislature (%)	0.042*	-0.092*	-0.132*	-0.404*	-0.241*
	(0.012)	(0.023)	(0.038)	(0.113)	(0.082)
GDP	-0.039	-0.353*	-2.759	1.811*	-1.381
	(0.071)	(0.114)	(1.462)	(0.437)	(2.340)
GDP per cap	-0.216*	0.158*	0.182*	-0.096	0.154
	(0.069)	(0.056)	(0.058)	(0.053)	(0.083)
Unemployment	-0.599	-0.359	0.024	-0.695	-0.250
	(0.615)	(0.373)	(0.069)	(1.121)	(0.138)
Polity	-0.082	-0.490*	-0.463*	-0.298*	-0.635*
	(0.042)	(0.052)	(0.100)	(0.112)	(0.161)
Gender Empowerment					5.900
					(8.892)
Tariffs _{t-1}		0.979*	0.209*	0.693*	0.074
		(0.005)	(0.053)	(0.012)	(0.072)
Constant	3.634*	9.274*	77.111		
	(1.713)	(3.017)	(39.817)		
Country Fixed Effects	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
Year Fixed Effects	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
R-Squared	0.43	0.96	0.57	0.72	0.60
N	36338	4464	279	2752	172
<i>Weak IV Diagnostics</i>					
Montiel-Pflueger F test				168.995*	27.715*
Anderson-Rubin χ^2 test				15.25*	35.92*

* $p < 0.05$; Clustered standard errors reported in parentheses. Model 1,2, and 4 examine product tariffs (data from Betz, Fortunato and O'Brien (2022)) Models 3 and 5 examine weighted tariffs at the country level. Models 2-5 examine OECD, non-EU states. Covariates are lagged one year in models 2-5.

the exclusion restriction not to hold. The interaction IV term has no effect on tariffs in non-OECD countries. In addition, we expect the IV to be unrelated to obvious confounders, such as the control variables. A lack of empirical association in this does not prove our assumptions. However, any empirical association would call those assumptions into doubt. We show these tests in the appendix and they are consistent with our assumptions.

Model 4 in Table 7 uses the instrumental approach to model product tariffs. The results are consistent with the OLS model in model 2: the higher the value for the instrumented women representation, the lower the product-tariff rate. Model 5 repeats the estimation for a country's weighted tariff rate and again finds consistent results. Both the IV and OLS results suggest that the relationship between women's descriptive representation and tariffs depends on the context of the policy-making process. We expect that women legislators in rich countries are more likely to see trade as a way to improve the livelihood of women abroad. As a result, we observe that the relationship between women's descriptive representation and tariffs is negative in these countries.

We note that our results do not contradict previous studies that have examined the relationship between women's representation and protectionist outcomes, such as Betz, Fortunato and O'Brien (2022). We have focused narrowly on tariff policies within OECD countries, rather than all countries to show the potential heterogeneous relationship between gender and trade. Consistent with this, the same authors find that higher descriptive representation decreases tariff penalty on women's goods, again showing that the protectionist bias is not absolute (Betz, Fortunato and O'Brien 2021). Given that these two studies, along with our own, are the only studies that have connected women's representation to policy outcomes, more research is needed to identify where and how gender politics matters to trade policy.¹⁶

Conclusion

Trade is a multifaceted policy process, that intersects with economic, social, and political processes at the individual, local, national, and international levels. As a result, the connection between

gender and trade is not straightforward. While women may generally favor protectionist policies more than men, we argue that women's support for trade will vary depending on which dimension of trade is most salient. Our survey experiment examines several dimensions of trade and we find that when the benefits of trade are highlighted for women abroad, women are more likely to increase their support for trade openness than men.

Using multiple empirical strategies our study presents evidence that women's support for trade is a function of individual risk attitudes and the highlighted benefits of trade for women abroad. We unveil a complex, counterintuitive explanation that helps reconcile individual-level trade preferences with national policy outcomes manifested in tariff decisions. As women's political participation in government is rising worldwide, our results have implications for understanding the future of national trade policy strategies. This is especially true in contemporary politics, where trade policy has been brought to the forefront of governments' agendas.

Recent research on trade politics has focused on changing domestic preferences related to populism, economic nationalism, and support for radical political parties (Margalit 2019). Our analysis focuses on an alternative political dynamic identified in recent research: descriptive representation has resulted in changes in substantive representation and is reflected in policies related to women at home and abroad (Swers 2013). However, this line of research often focuses on domestic policy outcomes rather than foreign policy. We argue that foreign policy analysis is general, and trade policy specifically, would benefit from considering the implications of women's descriptive representation. We focus on tariff policy in this study, but the empirical implications could extend to the type of trade issues considered in legislatures or other foreign policy legislation that may complement or substitute trade policies.

Not only is women's descriptive representation changing but how trade policy is formulated with respect to gender is changing. For example, there are a growing number of gender elements within trade agreements and trade initiatives (Hannah, Roberts and Trommer 2023). Trade policy communities also appear to be more considerate of how trade interacts with gender equality and broader structural inequalities (Hannah, Roberts and Trommer 2022). While it is unclear if these

considerations change the effects of trade for women, they offer some opportunities to expand the benefits of trade for women's lives beyond wages and employment (Hannah, Roberts and Trommer 2023, Tran-Nguyen 2004). More research is needed to evaluate the empirical ramifications of trade policy and to determine whether it has any effect on the gendered support for trade.

In addition, given the increasing use of experiments, surveys, and other types of individual-level data in political economy research (Jensen, Mukherjee and Bernhard 2014), we believe it is important to connect that individual-level research to policy consequences. Additional research is needed to explore the conditions under which transnational surrogacy affects policy preferences for both the mass public and political elites. Similarly, more research is needed to examine how the characteristic differences of the public and the policymakers matter in trade policy. We focus on differences in risk attitudes but differences in ambition and empathy may also matter (Clifford, Kirkland and Simas 2019, Clifford, Simas and Kirkland 2021).

Our analysis focuses on the trade policy preferences in terms of tariffs, though future research should consider the consequences for non-tariff barriers as well (Kono 2008). Given that different trade legislation affects different aspects of trade, more research is needed to connect gender to the type of trade legislation is under consideration. In addition, we did not consider how risk attitudes and benefits of trade for women abroad condition the effects of mobility constraints on trade attitudes. We hope that the findings presented in this study serve as a catalyst for scholars to explore these and other promising avenues in future research.

Notes

¹For example, see O’Rourke and Sinnott (2001), Scheve and Slaughter (2001), Burgoon and Hiscox (2008), Mayda and Rodrik (2005), Mansfield and Mutz (2009), Ardanaz, Murillo and Pinto (2013), Mansfield, Mutz and Silver (2014), Guisinger (2016, 2009), Brutger and Guisinger (2022).

²The variance of these outcomes is consistent for CES surveys in other years and when we control for partisanship, ideology, and education.

³We note the gender gap in trade attitudes is less robust in less developed countries (Drope and Chowdhury 2014)

⁴From the Congressional Record Online <https://www.congress.gov/congressional-record/1999/7/16/house-section/article/H5699-2>.

⁵The regression results produce similar results as the difference of means tests, demonstrating that the randomization of treatment conditions was effective. The regression results can be found with our replication materials.

⁶ We acknowledge that the lack of statistical significance within each gender category or within each risk attitude category may be an artifact of a small sample size. Thus, we cannot rule out the possibility of an effect within these groups. Given the conditional role that risk attitudes appears to play with gender and trade dynamics, we suggest future studies re-assess these results.

⁷Other trait differences may emerge between legislators and the public, including education, political ambition, and empathy (Clifford, Kirkland and Simas 2019, Clifford, Simas and Kirkland 2021). We find that education does not appear to affect our survey results, but we suggest that future research examines whether empathy or ambition matters in the context of gender and trade.

⁸ See Mansbridge (2003), Angevine (2014), and Angevine (2017) for a more in-depth discussion on surrogate representation.

⁹Congressional Record Proceedings and Debates of the 106th United States Congress, First session. <https://www.congress.gov/crec/1999/07/16/CREC-1999-07-16.pdf>

¹⁰Marshall, Gurr and Harff (2010). See Betz, Fortunato and O’Brien (2022) for a fuller description of the data.

¹¹This model is not an exact replication of Betz, Fortunato and O’Brien’s (2022) analysis. Their study focused on the conditional effect of women’s descriptive representation, whereas we are interested in the additive effect, and thus we leave out the interaction term.

¹² We acknowledge that controlling for observables does not guarantee that our estimates represent causal effects and may not be properly identified. We therefore employ an instrumental variable model as in models 4 and 5 (discussed below).

¹³ We exclude European Union (EU) members from our analysis given that these states negotiate common tariff rates.

¹⁴The long temporal scope of our data makes it unlikely that the inclusion of both a lagged dependent variable and unit fixed effects would bias our results (Beck and Katz 2011). In the appendix, we estimate a general ADL model that includes changes in covariates and find support for our temporal restriction assumptions in the ADL model (De Boef and Keele 2008).

¹⁵ We use v-Dem's measure of women empowerment (Coppedge et al. 2019).

¹⁶We also examine the relationship between gender and roll call votes related to trade with developing in the US Congress. See the appendix for this analysis.

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