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# Where You Work Is Where You Stand: A Firm-Based Framework for Understanding Trade Opinion

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**Abstract** What determines public support for trade liberalization? Scholars of international political economy have generally focused on the effects of openness on employment via individuals' skill level, sector, or occupation. Recent developments in trade economics suggest that the characteristics of individual citizens' employing firms may also shape their attitudes on trade policy. In this paper, using under-explored survey data combining trade opinion with measures of employer productivity (from the 2008 Japanese General Social Survey), we present evidence that employees of more productive, more globalized firms are much more supportive of trade openness than employees of less productive, domestically oriented firms, even when accounting for skill level and sectoral and occupational characteristics. Moreover, we find evidence that the effects of these characteristics described in the literature are conditioned by globalized firm employment. Last, we find that the effect of globalized firm employment is conditioned by employees' relative position within their firms. Those who are more likely to benefit directly from firm success—such as permanent employees and managers—hold the most pro-trade preferences. These findings suggest that economic interests affect individual policy preferences in more nuanced ways than previously recognized.

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What determines trade opinion? Prominent theories point to labor market dynamics, predicting variation in individuals' preferences according to the distributional consequences of openness for their wages or job security. Stolper-Samuelson / Heckscher-Ohlin models argue that trade preferences vary by factor endowments, while Ricardo-Viner models predict variation along industry lines. Task-based models suggest that the relative competitiveness of occupational categories can shape individual trade preferences. Other scholars have highlighted the role of

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behavioral and psychological factors.<sup>1</sup> Mansfield and Mutz argue that nonmaterial factors like cultural attitudes play a greater role in shaping individual trade preferences, while Guisinger and Rho and Tomz find that individuals do not appear to form preferences by assessing trade's impact on personal job security.<sup>2</sup>

However, recent trade economics research demonstrates theoretically and empirically that the distributional impact of trade liberalization differs not only between high- and low-skill workers or competitive and uncompetitive industries, but also between employees of high-productivity and low-productivity firms. High-productivity firms respond to liberalization by increasing wages, while low-productivity firms decrease wages.<sup>3</sup> This is because productive firms are more likely to profit from trade openness and thus are able to share more rents with their employees,<sup>4</sup> while less productive firms face declining margins and possible market exit due to increased competition.<sup>5</sup> Simultaneously, a large body of research in labor and industrial economics suggests that much of the wage premium paid by productive firms is due to firm-specific traits, rather than observed or unobserved characteristics of employees.<sup>6</sup> In this research note, we derive new implications for trade opinion from recent research in trade, labor, and industrial economics: specifically, the productivity of an individual's firm of employment can shape that person's attitudes to trade policy. We test these implications using data from a nationally representative survey in Japan.

Moreover, because these firm-based wage differences can be attributed to imperfectly competitive labor markets,<sup>7</sup> caused in part by barriers to labor mobility between firms due to search and matching costs,<sup>8</sup> we also extend the logic of seminal research in trade opinion: that barriers to labor mobility (for example, between sectors of employment) can generate politically consequential trade preference cleavages—including by employer type.<sup>9</sup> We test this theory using nationally representative survey data from Japan and show that variations in firm productivity predict employees' trade preferences within a given industry and/or skill level. Due to rent/profit-sharing between employers and employees, individuals employed by highly productive firms benefiting from trade liberalization are more likely to favor free trade, while those employed by less productive firms are more likely to demand protectionism. Moreover, we hypothesize that the relative position of employees within firms conditions the degree to which they identify their interests

1. Naoi and Kume 2011; Rho and Tomz 2017.

2. Guisinger 2009; Mansfield and Mutz 2009; Rho and Tomz 2017.

3. Amiti and Davis 2012; Itskhoki and Helpman 2015.

4. Verhoogen 2008.

5. Melitz 2003.

6. See, for example, Card et al. 2018.

7. Manning 2003; Mortensen 2003.

8. See, for example, Coşar, Guner, and Tybout 2011; Davidson, Matusz, and Shevchenko 2008; Helpman, Itskhoki, and Redding 2010.

9. Hiscox 2001.

with their employers'.<sup>10</sup> Because there are likely to be relative “winners” and “losers” even among employees of highly competitive firms, we expect intra-firm variation in support for free trade to correspond to the likely distribution of its benefits.

This work makes several contributions to the literature on international political economy. First, we show that a fuller consideration of labor market frictions suggests new trade politics cleavages, reconciling trade opinion research with recent theoretical and empirical developments in trade economics. Accounting for limited inter-firm labor mobility suggests that employees' preferences are substantially influenced by their employers'. Second, we make an empirical contribution to the trade politics literature by demonstrating that the theory of heterogeneous firm preferences extends to individual-level preferences of employees within firms. Third, we show that the anticipated distributional consequences of globalization, and consequently preferences over liberalization, vary within firms. Thus, societal cleavages separating “winners” from “losers” are likely to cut across not only skill level, industry, and occupation, but also individual firms—with important implications for the mobilization of potential political coalitions.

This study has two limitations. First, our results are based on observational survey data, limiting our ability to make causal inferences and effectively rule out alternative explanations. Second, while the theoretical framework linking employer productivity and trade opinion through a wage bargaining/rent-sharing mechanism presented here has obvious—and, in our opinion, important—implications for trade preferences in a wide variety of political and economic contexts (for example, at a minimum, middle- and high-income democracies), our empirical results may be less generalizable because they are based on a single cross-sectional survey in Japan.

## Theory

The study of individual trade preferences within international political economy has focused largely on using the labor market effects of economic openness to explain variations in preferences. Individuals are expected to form trade policy preferences according to the real or anticipated effects of openness on their wages and/or job security. This body of research can be roughly subdivided into three categories, based on researchers' assumptions about the relative importance of different barriers to labor market mobility.

The Stolper-Samuelson (SS)—or Heckscher-Ohlin—model of trade opinion argues that trade preferences vary with individual factor endowments and national comparative advantage in capital or labor costs, implying that national borders constitute the only relevant barriers to labor mobility. This perspective assumes high labor mobility between sectors.<sup>11</sup> If instead many individuals have sector-

10. Martins 2004.

11. Rogowski 1989; Scheve and Slaughter 2001.

specific skills, their interests may be influenced by sector comparative advantage.<sup>12</sup> This critical insight has produced the second major strand of trade opinion research: the specific factors (Ricardo-Viner, RV) models suggesting that individual trade preferences vary with sector of employment.<sup>13</sup> Recent research extends Hiscox's logic to other labor market barriers. In particular, the increasing globalization of production has led scholars to focus on occupation.<sup>14</sup> In this model, workers are defined by tasks they perform in the global labor market, with barriers in transferring from task to task generating trade preference cleavages.

While focusing on occupation represents a useful advance toward understanding the increasingly complex distributional implications of globalization, the task-based model nonetheless omits any consideration of firms. These models (like SS and RV models) implicitly assume that individuals are participants in a single global marketplace for labor (albeit one with national, sectoral, or occupational barriers to mobility). However, according to foundational work by Coase, by Helpman, Itskhoki, and Redding, and by Williamson, transaction costs associated with switching employers constitute important barriers to labor mobility.<sup>15</sup>

Further, recent trade economics research suggests that the growing complexity of the global economy has created an important new cleavage in trade preferences based on heterogeneity in firm productivity. The "new new trade theory" argues that only the most productive firms will participate in and benefit from exporting,<sup>16</sup> importing,<sup>17</sup> or foreign direct investment,<sup>18</sup> given the high fixed costs required by these cross-border economic activities. Firm productivity has been shown to precede, rather than result from, participation in exporting or foreign investment.<sup>19</sup> Less productive firms instead focus on domestic markets.<sup>20</sup> Thus economic liberalization allows productive firms to increase their market share and reduce input costs but exposes less productive, domestically oriented firms to import competition, leading to declining margins and possible market exit.<sup>21</sup> Consistent with research in economics, recent research in political science shows that firm preferences and political activities regarding economic liberalization vary with productivity.<sup>22</sup>

12. Hiscox 2001.

13. See, for example, Busch and Reinhardt 2000; Irwin and Kroszner 1999.

14. Owen 2017; Owen and Johnston 2017; Rommel and Walter 2018; Walter 2017.

15. Coase 1937; Helpman, Itskhoki, and Redding 2008; Williamson 1985.

16. Melitz 2003.

17. Bernard et al. 2007.

18. Helpman, Melitz, and Yeaple 2004.

19. Bernard et al. 2012; Clerides, Lach, and Tybout 1998.

20. Chaney 2008; Melitz 2003.

21. We focus on firm productivity rather than size or earnings because productive firms can use earnings from international trade to grow or accumulate wealth, while large (and/or wealthy) but unproductive firms may eventually fail. Melitz 2003.

22. Baccini, Dür, and Elsig 2018; Baccini, Pinto, and Weymouth 2017; Jensen, Quinn, and Weymouth 2015; Kim 2017; Osgood 2017; Osgood et al. 2017.

TABLE 1. Labor market cleavages due to openness

Skill	Industry	Occupation	Firm	SS	RV	Job	Firm
Low	Disadvantaged	Offshorable	Globalized	+	+	+	-
			Domestic	+	+	+	+
		Less offshorable	Globalized	+	+	-	-
			Domestic	+	+	-	+
	Advantaged	Offshorable	Globalized	+	-	+	-
			Domestic	+	-	+	+
		Less offshorable	Globalized	+	-	-	-
			Domestic	+	-	-	+
High	Disadvantaged	Offshorable	Globalized	-	+	+	-
			Domestic	-	+	+	+
		Less offshorable	Globalized	-	+	-	-
			Domestic	-	+	-	+
	Advantaged	Offshorable	Globalized	-	-	+	-
			Domestic	-	-	+	+
		Less offshorable	Globalized	-	-	-	-
			Domestic	-	-	-	+

Notes: This table assumes that the preferences described are in a country, like Japan, that is relatively well endowed with high-skilled labor. A minus sign denotes decreasing demand for trade protectionism, and a plus sign, increasing demand for protectionism.

Thus we extend the logic introduced by Hiscox to argue that firms constitute an important additional dimension of cleavages separating relative winners and losers from trade.<sup>23</sup> Table 1 shows how different theories about individual trade preferences—SS, RV, occupation, and firm-based models—lead to different predictions about the direction of a change in trade preferences for various combinations of skill, industry, occupation, and firm characteristics in a country, like Japan, that is relatively well endowed with high-skilled labor.

But why should employees' preferences over trade openness converge with their employers'? First, employees of more (less) productive firms can experience wage gains (cuts) and increased (decreased) job security on liberalization. Even when the average effect of openness on employment is negative, employees of more productive firms will be relatively less affected. This is consistent with research in trade economics showing that the primary determinant of employment dislocation due to trade liberalization is employer productivity, not skill or sector.<sup>24</sup> Further, extensive research in labor economics has established that workers displaced by mass layoffs (for example due to import competition) suffer short- and long-term earnings losses even after securing new employment, whether in the same sector or not.<sup>25</sup> Given the persistent negative effects of layoffs on welfare, we expect employees to be particularly interested in keeping their current jobs.

23. Hiscox 2001.

24. Amiti and Davis 2012; Itskhoki and Helpman 2015; Verhoogen 2008.

25. Ebenstein et al. 2014; Jacobson, LaLonde, and Sullivan 1993; Kletzer 1998; Stevens 1997.

Conceivably, any apparent effect of employer productivity on employee preferences for trade openness could simply be an artifact of the well-established process of matching between employees and employers on the basis of productivity: more (less) productive employees tend to work for more (less) productive employers.<sup>26</sup> Thus, any apparent differences in preferences over trade openness between employees of productive firms and employees of unproductive firms may be a result of individual-level rather than firm-level variation in productivity. That is, employees of productive firms may favor trade openness more than employees of unproductive firms simply because productive firms have productive employees who could benefit more from trade openness, as predicted by Stolper-Samuelson.

However, a large body of research describes two types of transaction costs leading to labor frictions, suggesting an important role for the influence of firm-level productivity on employee preferences. First, employees develop firm-specific human capital. While generic forms of human capital transfer readily between firms, firm-specific human capital, much of which is proprietary and relies on patents or trademarks, is less productive for other employers.<sup>27</sup> Second, firms experience substantial costs from labor turnover.<sup>28</sup> One study estimates the average direct costs to businesses of labor turnover per employee at about 20 percent of employees' salaries.<sup>29</sup> Moreover, firms risk losing employee-specific knowledge in the separation process. Search and matching costs for qualified replacements constitute an additional layer of expenses.

The consequence of these frictions is an imperfectly competitive labor market: individuals of comparable productivity are employed by firms of varying productivity, creating variation in wages across individuals with the same intrinsic productivity. Thus, employees of highly productive firms may receive wages above their intrinsic marginal productivity due to firm rent/profit sharing.<sup>30</sup>

Researchers have identified two related mechanisms that may underlie this process. First, firms may share their profits with workers because it will be costly to replace them due to search and matching costs, causing wages to vary with firm revenues.<sup>31</sup> Second, what is perceived as a fair wage sufficient to induce worker efforts may vary with firm profitability since it is believed that more profitable firms should pay higher wages.<sup>32</sup> Moreover, productive firms are willing to pay higher wages because of their productivity advantage from firm-specific knowledge (for example, technical or

26. See, for example, Card et al. 2018; Helpman, Itskhoki, and Redding 2010.

27. Helpman 2006; Markusen 1995. This can be seen as a specific example of the broader argument found in Iversen and Soskice 2001 that skill specificity can shape individuals' economic policy preferences.

28. Helpman, Itskhoki, and Redding 2008.

29. Boushey and Glynn 2012.

30. Helpman, Itskhoki, and Redding 2008. In political science, Dean 2016 has noted that when credible profit-sharing institutions are in place, employers may be more likely to share employers' trade preferences.

31. Coçşar, Guner, and Tybout 2011; Davidson, Matusz, and Shevchenko 2008; Helpman, Itskhoki, and Redding 2010.

32. Bernard et al. 2012; Blanchflower, Oswald, and Sanfey 1996; Egger and Kreickemeier 2009. See also Amiti and Davis 2012; Davis and Harrigan 2011.

management know-how), implying that the cost of replacing employees should be even higher for these firms.<sup>33</sup>

Using employer–employee matched data in the UK and Mexico, Faggio, Salvanes, and Van Reenen and Frías, Kaplan, and Verhoogen find that workers with similar characteristics receive different wages as a result of firm-specific wage premia.<sup>34</sup> Specifically, using UK panel data, Faggio, Salvanes, and Van Reenen find that increases in wage inequality between firms can be primarily attributed to an increase in firm productivity due to technology diffusion, rather than high-skilled (low-skilled) workers selecting into productive (non-productive) firms. Similarly, using employer–employee and plant-level data from Mexico, Frías, Kaplan, and Verhoogen show that two-thirds of the higher level of wages in more productive plants can be attributed to plant-specific variation. Thus, even given the (implausible) assumption of perfect sorting of employees into employers by ability, higher wages paid by productive firms at every level of employee productivity are sufficient to generate varying employee preferences by employer productivity alone.

Consequently, combining the “new new trade theory” with the labor market frictions logic of Hiscox yields the following insight: individuals with equivalent levels of skill and task competitiveness employed in the same industry may differ widely in their trade attitudes.<sup>35</sup> Instead, their preferences may vary systematically with employer productivity, representing an important new cleavage in trade preferences. While beyond the scope of this paper, this suggests the need for an updated generalized political-economy model of preferences over globalization, building on Iversen and Soskice, where individual interests (for example, factor, sector, occupation, or firm based) affect attitudes conditional on the extent and locus of labor market frictions.<sup>36</sup>

While we focus here on the rent-sharing mechanism to explain how firm-level productivity can shape individual trade preferences, recent research in American politics, as well as an extensive literature in organizational psychology, suggests that there are other channels through which firms can influence employee preferences and political behavior. First, studies in American politics show that firms often actively or indirectly mobilize their employees to engage in various political actions on behalf of their preferred policy outcomes.<sup>37</sup> Moreover, employers are likely to convey their preferences on trade policy to their employees.<sup>38</sup> Second, a large literature on organizational identification (OI) suggests that employees gradually adopt their organizations’ views as their own.<sup>39</sup> Future research is required to assess the extent and conditions under which each of these mechanisms operates to bring about convergence in employee–employer trade preferences.

33. Caves 1996; Dunning 1988; Rugman and Verbeke 2001.

34. Faggio, Salvanes, and Van Reenen 2010; Frías, Kaplan, and Verhoogen 2009.

35. Hiscox 2001.

36. Iversen and Soskice 2001.

37. Hertel-Fernandez 2016; Li 2018; Stuckatz 2022.

38. Heath, Douglas, and Russell 1995; Keim and Baysinger 1982; Keim and Zeithaml 1986; Lord 2003.

39. Cheney 1983; Cheney and Tompkins 1987.

## Hypotheses

Following this logic, we argue that individuals' trade opinion varies predictably with the international competitiveness of their employers. Because more productive firms are likely to benefit from increased trade openness and to engage in rent sharing with their employees, while less productive firms will likely suffer from increased import competition, we expect that employees of more productive firms engaged in globalized activities will be systematically more supportive of trade openness than employees of less productive firms producing for the domestic market.

*H1: Employees of internationally competitive firms are more likely to favor trade openness than employees of less competitive firms.*

Second, existing theories of trade opinion make no specific predictions about how the effects of their favored explanators (education, sector, and task routineness/offshorability) should vary by firm productivity. However, extending the logic introduced by Hiscox<sup>40</sup> implies that if the distributional impact of trade openness on employment and wages is largely, or even primarily,<sup>41</sup> felt at the level of individual firms and determined by firm productivity,<sup>42</sup> then education, sector of employment, and occupational characteristics should have heterogeneous effects on individual trade preferences, conditional on employer productivity. Thus, we compare the empirical implications of this theory with naive extensions of alternative explanations.

First, a simple extension of the RV hypothesis would suggest that sector subsumes firm productivity as a trade preference cleavage, meaning that conditioning on sector-level competitiveness, we would not expect employees to differ systematically in their trade opinions. Instead, we hypothesize that the positive association between sector disadvantage and support for protection should obtain among the employees of less productive firms, but not among those of more productive firms.

Second, a simple extension of the occupation hypothesis would suggest that due to occupational sorting, we should not expect employees of less productive or more productive firms to differ systematically in their trade opinions once we condition on task routineness and/or offshorability. Instead, we expect that at higher levels of task offshorability, employees of globalized firms will hold particularly pro-trade opinions compared to employees of domestic firms. In addition, we expect that the positive interaction effect of routineness and offshorability on support for protection identified by Owen and Johnston will be more pronounced among employees of domestic firms than among employees of globalized firms.<sup>43</sup>

40. Hiscox 2001.

41. Amiti and Davis 2012; Itskhoki and Helpman 2015; Verhoogen 2008.

42. Melitz 2003.

43. Owen and Johnston 2017.



Third, a simple extension of the SS hypothesis would suggest that education—that is, individual skill or productivity—subsumes firm productivity, meaning that we would not expect systematic differences in trade opinion based on employer productivity, conditional on education. Instead, we expect that higher-skill employees of globalized firms should hold particularly pro-trade opinions, perhaps due to firm rent sharing.

*H2: The association between an individual's economic attributes (e.g., skill level, sector, or occupation) and trade opinion will be moderated by employer competitiveness.*

Moreover, employees' trade opinions will also likely vary by their relative position within an employing firm. We expect employees who are more likely to benefit (through rent sharing, or simply anticipated continued employment) from the success of their employers to be more favorable toward trade openness than those who are less likely to benefit. For example, managers should be more supportive of trade than ordinary employees (accounting for income and education), and permanent employees more favorable toward liberalization than temporary employees.

*H3: The effect of employer competitiveness is conditioned by the extent to which employees identify their interests with their employers'. Those more likely to benefit from increased employer profitability have systematically higher support for trade openness.*

This hypothesis is well supported by existing theories. First, consistent with the logic of open economy politics models of individual preferences,<sup>44</sup> intra-firm variations in trade opinion may arise from the anticipated distribution of benefits due to openness. Those employees best positioned to benefit from higher firm performance under openness are most likely to support liberalization. Research suggests that employees with higher status may benefit the most from rent sharing because they are likely to enjoy greater bargaining power.<sup>45</sup> For example, managers often receive substantial stock-based compensation, tying their income more directly to firm performance than ordinary employees', such that even unexpected increases in firm earnings are associated with increased executive compensation.<sup>46</sup>

Second, higher-status employees may identify more closely with employers' goals. This logic draws on the extensive OI literature.<sup>47</sup> OI can be seen as a mechanism of persuasion, whereby employees are gradually influenced to adopt the organization's goals (for example, its desired trade policies) as their own.<sup>48</sup> Intuitively, correlates of higher employee status are reliable predictors of OI. A meta-analysis of ninety-six quantitative studies, incorporating nearly 21,000 respondents, found job type and

44. Bates 1998; Lake 2009.

45. Martins 2004.

46. Baber, Kang, and Kumar 1998.

47. Edwards 2005.

48. Cheney 1983; Cheney and Tompkins 1987.

scope of responsibilities, job satisfaction, and anticipated retention to be highly and reliably correlated with OI.<sup>49</sup>

Third, higher-status employees may be better informed about employers' trade policy positions and thus more likely to be influenced by them. Employers often provide explicit trade policy cues to employees.<sup>50</sup> For example, a leaked memo from Nike management encouraged employees to support TPP ratification.<sup>51</sup> But relative exposure may depend on employees' positions within firms. Higher-status employees, like managers and full-time workers, likely will know more about employer trade preferences, even when these have not been explicitly announced.

## Data

### *Data Sources*

Assessing the effect of heterogeneous firm productivity on employee trade preferences requires data-combining measures of individual preferences and employer characteristics. The 2008 Japanese General Social Survey (JGSS)<sup>52</sup> contains a largely unused module measuring attitudes to globalization.<sup>53</sup> The survey includes data on the ownership characteristics, size, and economic activities of respondents' employers, as well as measures of job market insecurity and broader social and political attitudes. The sample is nationally representative, including for respondents' sector of employment: 28 and 67 percent of respondents worked in the manufacturing and service sectors, respectively, reflecting 2008 World Bank data showing 20 and 70 percent of Japanese workers in manufacturing and services.<sup>54</sup>

### *Variables*

As is standard in the trade opinion literature, we construct the outcome variable for our analyses using an item measuring attitudes toward limits on imports:

[Home country] should limit the import of foreign products to protect its national economy. How much do you agree or disagree with this statement?

49. Riketta 2005.

50. Hertel-Fernandez 2016; Li 2018; Stuckatz 2022.

51. Kernaghan 2015.

52. Tanioka et al. 2012.

53. Naoi 2010 is possibly the sole exception within international political economy.

54. While Rho and Tomz 2017 collect different measures of firm productivity, including foreign engagement, in an observational M-Turk survey ( $n = 324$ ) of trade preferences, our study differs in two ways. First, while their analyses of the effect of firm productivity are largely descriptive, we are able to more directly test our hypotheses alongside alternatives. Second, our analyses draw from a scientifically sampled, nationally representative survey, alleviating concerns about extrapolation from small, potentially idiosyncratic samples.

This item is very similar to its counterparts in the International Social Survey Program<sup>55</sup> and the American National Election Survey.<sup>56</sup> Using this item, we construct PROTECTION, a seven-point scale where higher values indicate greater support for limiting imports.

We measure employers' international competitiveness using GLOBALIZED EMPLOYER, a dichotomous variable indicating whether the respondent's employer imports, exports, or produces "raw materials, components, or finished products to or from a foreign country," or is a multinational corporation.<sup>57</sup> An extensive literature suggests that firm engagement in foreign economic activities is a good proxy for firm productivity because high productivity *precedes* firms' entry into and expansion in the global market.<sup>58</sup> For example, Haidar finds that companies with higher total factor productivity self-select into becoming exporters.<sup>59</sup> We make no assumptions about the drivers of firm productivity<sup>60</sup> because the survey lacks sufficiently fine-grained measures of productivity to differentiate between mechanisms.

Among JGSS survey respondents, questions about employer characteristics were asked of 2,671 respondents who indicated they were currently employed. Of these respondents, 1,361 were randomly chosen and asked for their trade opinion. Thus the relevant sample for our study is these 1,361 respondents who were asked both for their trade opinion and about the employer traits we used to code GLOBALIZED EMPLOYER.

Following the literature, we dichotomize education as COLLEGE GRADUATE. To control for sector competitiveness, we include DISADVANTAGED INDUSTRY, a dichotomous indicator of employment in comparative-disadvantage sectors in some specifications and employ industry fixed effects in all others.<sup>61</sup> To measure occupational competitiveness, we include TASK OFFSHORABILITY and TASK ROUTINENESS.<sup>62</sup> TASK OFFSHORABILITY is an empirically derived measure of how often tasks associated with particular occupations are offshored. TASK ROUTINENESS measures how much creativity and spontaneity are required to perform these tasks.<sup>63</sup> Developed economies

55. Mayda and Rodrik 2005.

56. Burgoon and Hiscox 2008; Hainmueller and Hiscox 2006; Scheve and Slaughter 2001.

57. It was coded 1 if in response to the question "Does the company/organization at which you work shift raw materials, components, or finished products to and from a foreign country?" the respondent indicated yes to "importing from a foreign country," "exporting to a foreign country," or "producing in a foreign country"; or they indicated yes to the question "Do you work for a foreign capital company as your main job?" See the online supplement for the distribution of GLOBALIZED EMPLOYER. Results are substantively identical when substituting an ordinal measure of globalized firm activities.

58. Bernard et al. 2012; Clerides, Lach, and Tybout 1998; Haidar 2012; Tabrizy and Trofimenko 2010.

59. Also see Tabrizy and Trofimenko 2010.

60. Higher productivity could result from increased economies of scale, larger customer bases, or increased marginal productivity of labor within firms.

61. We use 2008 data from the Revealed Comparative Advantage Index, coded in the OECD-WTO Trade in Value Added database, to categorize sectors by their international competitiveness. OECD 2013.

62. Autor and Dorn 2013. Alternative specifications using data from Acemoglu and Autor 2011 (task routineness) and Blinder 2007 (task offshorability) yield substantively identical results (see the online supplement).

63. Substituting the calculated Routine Task Intensity from Autor and Dorn 2013 produces substantively identical results (see the online supplement).

(like Japan) generally enjoy a comparative advantage in less routine tasks. Thus, individuals whose tasks are more (less) routine and more (less) frequently offshored are likely to be less (more) competitive on the international labor market, and consequently more (less) supportive of protectionist policies.

JOB INSECURITY, TEMPORARY WORKER, and MANAGEMENT measure employees' relative status within firms. JOB INSECURITY is coded such that higher values indicate greater insecurity. TEMPORARY WORKER and MANAGEMENT are dichotomous indicators for temporary contract employees and those with management functions.

We include measures of non-self-interested influences on trade opinion in some specifications.<sup>64</sup> COSMOPOLITANISM INDEX measures respondents' willingness to accept foreigners of widely varying ethnicities as coworkers, neighbors, and relatives by marriage. SOCIOTROPIC TRADE measures how respondents think economic globalization affects Japanese workers' job security.<sup>65</sup> Last, we include LOCALISM, measuring respondents' attachment to their localities.

To account for economic ideology, we include REDISTRIBUTION, measuring attitudes toward government actions to reduce income inequality. We favor this measure over a more generic measure of ideology since it is less likely to be confounded by other, non-economic dimensions of ideology.<sup>66</sup> Further, since gender and age have been found to affect trade opinion, we include FEMALE and AGE. Likewise, we include a dichotomous variable UNION, indicating union membership.

## Evidence

We evaluate our hypotheses through a series of ordinary least squares (OLS) regressions using JGSS data.<sup>67</sup> Consistent with expectations, we find that employees of globally competitive firms view trade openness more favorably. They are also more likely to support trade openness within a given sector, skill level, or level of task routineness and offshorability. Finally, the relationship of firm characteristics with employee trade preferences is moderated by relative status. Employees of globalized firms who benefit more directly from firm success (for example, managers) are particularly supportive of free trade.

Table 2 tests H1: that employees of internationally competitive firms are more likely to favor trade openness than employees of less competitive firms. Across all

64. Mansfield and Mutz 2009. These measures of non-economic considerations may be post-treatment since they could be consequences of economic concerns. We show that our results are substantively similar with and without these controls.

65. Sociotropic policy attitudes are attitudes about how a policy affects some larger group (for example, "Japanese workers") rather than oneself.

66. Our results are virtually identical when we substitute a dichotomous indicator for support for the Liberal Democratic Party (LDP).

67. Following Lall 2016, we include model specifications using multiply imputed data in the online supplement. Our target sample for the models is those who are employed. Findings from these specifications are consistent with those presented in the main text.

models, GLOBALIZED EMPLOYER is highly significant in the expected direction and substantively comparable to other prominent variables identified in the literature, such as skill level or sector competitiveness (Figure 1). Moreover, except for specifications including DISADVANTAGED INDUSTRY, we employ industry fixed effects (based on twenty-one industry classifications) throughout to identify within- rather than between-industry effects.<sup>68</sup>

Model 1 shows results from our base OLS model. Consistent with H1, employees of firms engaged in globalized economic activity are significantly less likely to support import restrictions. Model 2 includes a variable indicating sector competitiveness, DISADVANTAGED INDUSTRY, and Model 3 adds a sociotropic variable, LOCALISM.

TABLE 2. *Firm characteristics and support for protection (OLS)*

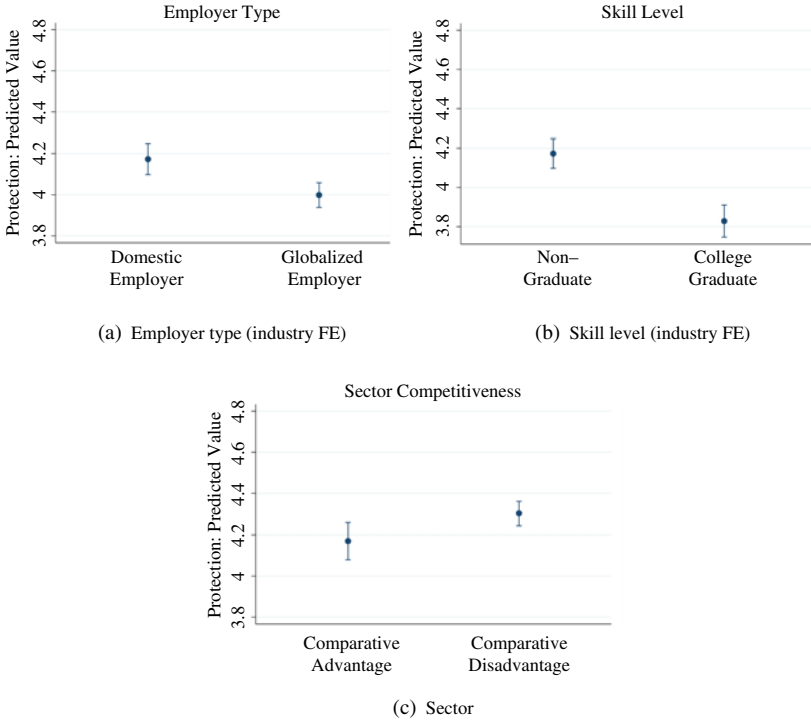
	(1)	(2)	(3)	(4)	(5)	(6)
GLOBALIZED EMPLOYER	-0.17*** (0.06)	-0.18*** (0.05)	-0.18*** (0.06)	-0.22*** (0.08)	-0.18** (0.07)	-0.18*** (0.06)
COLLEGE GRADUATE	-0.34** (0.13)	-0.38*** (0.12)	-0.35** (0.13)	-0.35** (0.13)	-0.27** (0.10)	-0.32** (0.12)
FEMALE	0.29*** (0.10)	0.26** (0.09)	0.29*** (0.10)	0.30*** (0.10)	0.35*** (0.08)	0.36*** (0.10)
AGE	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)	0.00 (0.02)	0.05 (0.03)	0.02 (0.02)
UNION	0.14 (0.11)	0.15 (0.11)	0.14 (0.11)	0.19* (0.11)	0.16 (0.15)	0.18 (0.13)
DISADVANTAGED INDUSTRY		0.13* (0.07)				
LOCALISM			0.00 (0.04)			
LDP				0.20*** (0.06)		
TASK ROUTINENESS					0.00 (0.02)	
TASK OFFSHORABILITY					0.03 (0.04)	
SOCIOTROPIC TRADE						-0.08** (0.04)
REDISTRIBUTION						0.07* (0.04)
COSMOPOLITAN INDEX						-0.31*** (0.11)
JOB INSECURITY						-0.02 (0.04)
<i>Industry fixed effects</i>	Yes	No	Yes	Yes	Yes	Yes
<i>Observations</i>	1,265	1,265	1,263	1,167	1,003	1,054

Notes: Industry-clustered standard errors in parentheses. \*  $p < .10$ ; \*\*  $p < .05$ ; \*\*\*  $p < .01$ .

Model 4 shows that our results are robust to the inclusion of Liberal Democratic Party (LDP) support as a measure of political ideology and support for redistributive policy. Model 5 demonstrates that employer competitiveness predicts trade attitudes,

68. In all models, we show industry-clustered standard errors.

even controlling for occupational (task) attributes. Model 6 provides a fuller model with variables measuring non-self-interested influences on trade opinions (SOCIO TROPIC TRADE, COSMOPOLITANISM INDEX, REDISTRIBUTION, and JOB INSECURITY).



Notes: (a) and (b) are based on model 1 of Table 2, and (c) is based on model 2 of Table 2. Covariates FEMALE, UNION, AGE, and COLLGRAD are held at sample median for (a). Covariates FEMALE, UNION, AGE, and GLOBALIZED EMPLOYER are held at sample median for (b). Covariates FEMALE, UNION, AGE, COLLGRAD, and GLOBALIZED EMPLOYER are held at sample median for (C).

FIGURE 1. Hypothesis 1: substantive effects comparison

To facilitate interpretation of Table 2 results, Figure 1 presents comparisons of substantive effects. The y-axis shows predicted values for PROTECTION from OLS estimations of the model specification shown in models 1 and 2 of Table 2. Analogous plots showing predicted probabilities based on ordered logistic regressions are substantively identical (see the online supplement).<sup>69</sup> Consistent with the results in Table 2, the observed effect of GLOBALIZED EMPLOYER on PROTECTION (the difference

69. These results also suggest that the observed effects depicted here in the main text are monotonic—for example, GLOBALIZED EMPLOYER simultaneously predicts a decreased likelihood of an Agree response and an increased likelihood of a Disagree response—and symmetrical in magnitude.

in the predicted values of PROTECTION for GLOBALIZED EMPLOYER and DOMESTIC EMPLOYER, shown in Figure 1a) is broadly comparable in magnitude to that of COLLEGE GRADUATE (Figure 1b) and DISADVANTAGED INDUSTRY (Figure 1c).

Table 3 tests H2: The association between an individual's economic attributes (such as skill level, sector, or occupation) and trade opinion will be moderated by employer competitiveness. Model 1 tests the expectation that the frequently observed relationship between trade opinion and sector comparative advantage (workers employed in comparatively disadvantaged sectors are more likely to support protection) is conditioned by employer type. Consistent with the expectations set out in H2, GLOBALIZED EMPLOYER  $\times$  DISADVANTAGED INDUSTRY is negative and significant. Employees of globalized firms in disadvantaged sectors are significantly less likely to support protectionism than employees of domestic firms in similarly disadvantaged sectors. Model 2 tests the expectation that the frequently observed effect of skill (as measured by education) on trade preferences is conditioned by employer type. Consistent with H2, GLOBALIZED EMPLOYER  $\times$  COLLEGE GRADUATE is negative and significant, suggesting that college-educated employees of globalized firms are significantly less supportive of protectionism than college-educated employees of domestic firms.

TABLE 3. Conditional effects of firm productivity (OLS)

	(1)	(2)	(3)	(4)	(5)	(6)
GLOBALIZED EMPLOYER	-0.11 (0.07)	-0.08 (0.06)	-0.11 (0.07)	-0.17** (0.07)		
COLLEGE GRADUATE	-0.37*** (0.11)	-0.23** (0.11)	-0.26** (0.10)	-0.28** (0.10)	-0.19* (0.09)	-0.46*** (0.16)
FEMALE	0.26*** (0.09)	0.30*** (0.09)	0.35*** (0.07)	0.35*** (0.08)	0.34*** (0.08)	0.39* (0.20)
AGE	0.02 (0.02)	0.02 (0.02)	0.05 (0.03)	0.05 (0.03)	0.02 (0.03)	0.14*** (0.04)
UNION	0.16 (0.11)	0.13 (0.12)	0.16 (0.15)	0.17 (0.15)	0.09 (0.15)	0.33 (0.24)
DISADVANTAGED INDUSTRY	0.24*** (0.05)					
TASK ROUTINENESS			-0.00 (0.02)	0.00 (0.02)	-0.00 (0.03)	-0.02 (0.03)
TASK OFFSHORABILITY			0.06 (0.04)	-0.02 (0.06)	0.03 (0.09)	-0.33*** (0.13)
GLOBALIZED EMPLOYER $\times$ DISADVANTAGED INDUSTRY	-0.28*** (0.07)					
GLOBALIZED EMPLOYER $\times$ COLLEGE GRADUATE		-0.38*** (0.09)				
GLOBALIZED EMPLOYER $\times$ TASK OFFSHORABILITY			-0.14*** (0.04)			
TASK ROUTINENESS $\times$ TASK OFFSHORABILITY				0.01 (0.01)	0.01 (0.02)	0.06 (0.03)
<i>Employer Sample</i>	Full	Full	Full	Full	Domestic	Globalized
<i>Industry Fixed Effects</i>	No	Yes	Yes	Yes	Yes	Yes
<i>Observations</i>	1265	1265	1003	1003	756	247

Notes: Industry-clustered standard errors in parentheses. \*  $p < .10$ ; \*\*  $p < .05$ ; \*\*\*  $p < .01$ .

Models 3 to 6 present results from specifications based on research linking occupational characteristics to trade opinion.<sup>70</sup> Using data from Autor and Dorn, we include measures for exposure to offshoring (*JOB OFFSHORABILITY*) and job task competitiveness (*TASK ROUTINENESS*).<sup>71</sup> In Model 3, task offshorability is not significantly associated with support for protectionism. Nonetheless, consistent with H2, *GLOBALIZED EMPLOYER* × *TASK OFFSHORABILITY* is negative and significant, indicating that the observed effect of employer productivity increases with task offshorability. Following Owen and Johnston, model 4 interacts *TASK OFFSHORABILITY* with *TASK ROUTINENESS*.<sup>72</sup> Contrary to their findings and our expectations, while employer type remains negatively and significantly associated with support for protection, *TASK OFFSHORABILITY* × *TASK ROUTINENESS*, while positive, is not significant. Finally, models 5 and 6 show results from specifications identical to that in model 4, but stratified by *GLOBALIZED EMPLOYER*: model 5 shows results for employees of domestic firms only, and model 6 for employees of globalized firms only. Again, consistent with results from model 4, but contrary to expectations, the interaction of *TASK OFFSHORABILITY* and *TASK ROUTINENESS* is neither significantly nor substantially associated with trade opinion regardless of respondents' employer type.

To facilitate interpretation of the results shown in Table 3, Figure 2 presents a series of plots of substantive effects based on OLS estimates with all other covariates held at their median values. The y-axis shows predicted values for *PROTECTION* from OLS estimations of model specifications shown in Table 3 (see the online supplement for substantively identical plots based on ordered logistic estimations). Figure 2a shows that the effect of sector is conditioned by globalized firm employment. While employees of domestically oriented companies in comparatively disadvantaged industries are more likely to support trade restrictions compared to those in comparatively advantaged industries, within both comparative-advantage and comparative-disadvantage sector categories, employees of globalized firms are less likely to support protectionism than employees of domestically oriented firms. Moreover, we do not observe any significant difference in support for protectionism between employees of globalized firms working in comparatively advantaged and disadvantaged industries, suggesting that the effect of employment sector on trade opinion may be concentrated in employees of domestic firms. Figure 2b suggests that the effect of skill level on trade opinion is conditioned by employer type: college graduates employed by globalized firms are less likely to support protection than college graduates employed by domestic firms, while nongraduates employed by globalized firms are also less likely to support protection than nongraduates employed by domestic firms.<sup>73</sup>

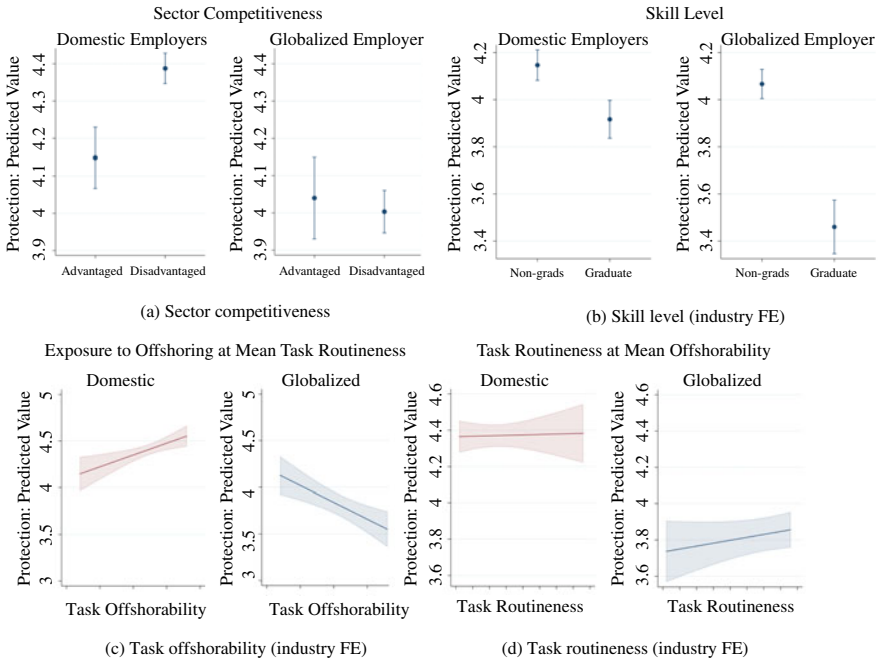
70. Owen and Johnston 2017; Walter 2017; Wren and Rehm 2014.

71. Autor and Dorn 2013.

72. Owen and Johnston 2017.

73. It is important to note that the negative effect of globalized firm employment on *PROTECTION* is greater for college graduates than for non-college graduates. While explaining the precise mechanism underlying this observed difference is beyond our scope here, one possibility is that college graduates occupy higher





Notes: (a) and (b) are based on models 1 and 2 of Table 3, respectively; (c) and (d) are based on models 5 and 6 of Table 3, respectively. Covariates FEMALE, UNION, and AGE are held at sample median for (b). Covariates FEMALE, UNION, AGE, and COLLGRAD are held at sample median for (a), (c), and (d). TASK ROUTINENESS and TASK OFFSHORABILITY are held at sample mean for (c) and (d), respectively.

**FIGURE 2.** Hypothesis 2: effects of economic attributes conditioned by employer type

Figure 2c and Figure 2d depict how globalized firm employment may moderate a pair of findings described by Owen and Johnston. First, for a given level of routineness in their job tasks, individuals will be more likely to support trade protection as task offshorability increases; second, for a given level of task offshorability, predicted values of PROTECTION will increase with task routineness.<sup>74</sup> They measure this relationship by interacting TASK ROUTINENESS with TASK OFFSHORABILITY. Thus, Figure 2c and Figure 2d show substantive effects on observed levels of PROTECTION from this interaction: TASK ROUTINENESS  $\times$  TASK OFFSHORABILITY, stratified by GLOBALIZED EMPLOYER (models 5 and 6 of Table 3). For all levels of routineness (offshorability), support for free trade is higher among globalized firm employees than among

positions in globalized companies than nongraduates, which may allow them to benefit more from rent-sharing.

74. Owen and Johnston 2017.

domestic firm employees. As offshorability increases with routineness held at the sample mean, employees of domestic firms hold increasingly protectionist views. However, equivalent increases in offshorability have null (or even negative) observed effects on globalized firm employees' support for protection. This is consistent with H2: The association between an individual's economic attributes (for example, skill level, sector, or occupation) and trade opinion will be moderated by employer competitiveness. However, contrary to expectations, increases in routineness (offshorability held at its mean) have null effects on protectionist views for employees of both domestic and globalized firms, although employees of the latter are consistently less supportive of protectionism at every level of task routineness.

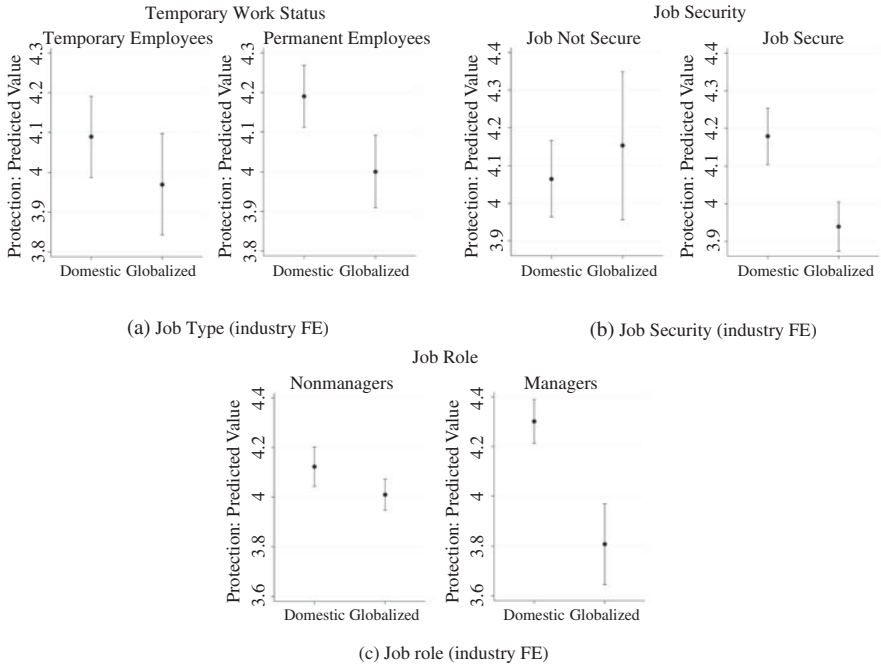
**TABLE 4.** *Employee status and firm productivity (OLS)*

	(1)	(2)	(3)
GLOBALIZED EMPLOYER	-0.59*** (0.14)	-0.19** (0.08)	-0.11* (0.06)
COLLEGE GRADUATE	-0.35** (0.13)	-0.35** (0.13)	-0.36** (0.13)
FEMALE	0.31** (0.11)	0.32*** (0.09)	0.30*** (0.10)
AGE	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
UNION	0.16 (0.12)	0.13 (0.11)	0.14 (0.12)
JOB INSECURITY	-0.06* (0.03)		
TEMPORARY WORKER		-0.10 (0.10)	
MANAGEMENT			0.18** (0.07)
GLOBALIZED EMPLOYER × JOB INSECURITY	0.23*** (0.08)		
GLOBALIZED EMPLOYER × TEMPORARY WORKER		0.07 (0.19)	
GLOBALIZED EMPLOYER × MANAGEMENT			-0.38** (0.14)
<i>Industry Fixed Effects</i>	Yes	Yes	Yes
<i>Observations</i>	1,181	1,265	1,203

Notes: Industry-clustered standard errors in parentheses. \* < .10; \*\* < .05; \*\*\* < .01.

Table 4 presents tests of H3: The effect of employer competitiveness is conditioned by the extent to which employees identify their interests with their employers'. Results from model 1 show that globalized firm employees who feel insecure in their employment are significantly more protectionist. In model 2, the coefficient for the interaction term between TEMPORARY WORKER and GLOBALIZED EMPLOYER is positive, as predicted by H3, but not statistically significant. In contrast to models 1 and 2, model 3 examines the trade opinion of employees expected to identify more strongly with their employers' interests: managers. Consistent with H3,

GLOBALIZED EMPLOYER  $\times$  MANAGEMENT is negative and significant, suggesting that managers at globalized firms are distinctively less supportive of import restrictions.<sup>75</sup> While non-management employees of globalized firms remain significantly less supportive of protection than employees of domestic firms, managers at globalized firms are particularly distinctive in their support for free trade.<sup>76</sup>



Notes: (a), (b), and (c) are based on model 2, model 1, and model 3 of Table 4, respectively. Covariates FEMALE, UNION, AGE, and COLLGRAD are held at sample median for all figures.

**FIGURE 3.** Hypothesis 3: intra-firm variation

Predicted values based on OLS estimations shown in Table 4 are depicted in Figure 3 and are consistent with H3.<sup>77</sup> The observed effect of globalized firm employment is conditioned by employees' relative position within firms. In globalized firms, relative "winners"—those who are more likely to benefit from employer success (for example, permanent employees and managers)—are distinctively less supportive of import

75. These results are robust to the inclusion of covariates measuring personal and household income.

76. Additional results are available in the online supplement from a specification including GLOBALIZED EMPLOYER  $\times$  JOB SATISFACTION, showing that employees of globalized firms who say they are "very satisfied" with their jobs are particularly opposed to protection, although less satisfied employees of these firms are also significantly more opposed to protection than less satisfied employees of domestic firms.

77. See the online supplement for substantively identical ordered logistic results and plots.

restrictions, while relative “losers”—those less likely to share in employers’ success—express preferences similar to those of employees of domestically oriented firms.

For both theoretical and empirical reasons, it is unlikely that managers’ strong support for trade is an artifact of higher relative labor market mobility. Theoretically, highly skilled or higher-status employees are more likely to develop firm-specific skills, reducing inter-firm mobility.<sup>78</sup> Empirically, in the JGSS data, college graduates and nongraduates have virtually identical job tenures for any given age cohort, while managers have notably longer job tenures than nonmanagerial employees.

## Robustness Checks

Our choice to focus our analysis on Japan is motivated by data availability, rather than theoretical necessity or substantive focus. Still, generalizations from our findings should be viewed as provisional. In 2007, the average job tenure in Japan (10.88 years) was slightly above the OECD average (9.59 years), which raises the possibility that Japan is a “likely” case for our argument since employees may have stronger propensities to adopt employers’ trade preferences given an expectation of longer job tenure.<sup>79</sup> Moreover, the Japanese labor market may be distinctive in ways that go beyond job tenure.

However, what we learn from Japanese data may extend to other middle- and high-income economies, since employee preferences in these countries are likely to be influenced by employer interests as long as (1) most workers are not self-employed, (2) transaction costs associated with switching employers create some barriers to labor mobility, and (3) firms vary systematically in their interests over openness (according to relative productivity). Admittedly, our study cannot show direct evidence for that extension, and future research is required to further evaluate the hypotheses in other political and economic settings.

A similar concern arises from the temporal coincidence of the JGSS 2008 survey with the global financial crisis. However, while Japan’s economy was undoubtedly affected by the crisis, these effects were most pronounced among larger, export-oriented firms.<sup>80</sup> Consequently, the idiosyncratic labor market effects of the global financial crisis are likely to bias *against* our findings by rendering employment less secure for employees of globalized firms, making them less likely to identify their interests with their employers’ compared to employees of domestically oriented firms.<sup>81</sup>

78. Prendergast 1993.

79. Japanese average job tenure is calculated from gender-specific data provided in Kawaguchi and Ueno 2013 using ILO figures on female:male labor force participation ratios (persons 15 and older); the OECD mean is from the OECD.Stat database, <[https://stats.oecd.org/Index.aspx?DataSetCode=TENURE\\_AVE](https://stats.oecd.org/Index.aspx?DataSetCode=TENURE_AVE)>.

80. Kawai and Takagi 2011.

81. If it were the case that firm identification is stronger in crisis times, we would expect less secure (more secure) employees to exhibit stronger (weaker) firm identification. But this is the opposite of the pattern we observe.

We also conduct a series of robustness checks to address concerns that employees of globalized firms are distinctive in some way that is both unaccounted for by our theory and systematically related to trade opinion (Table A.13 in the the online supplement). While these tests cannot be fully dispositive, they increase our confidence in the robustness of our core results. First, we include specifications designed to control for the effect of firm size (apart from involvement in globalized economic activities). Moreover, we control for geographic clustering of globalized firms (for example, in the greater Tokyo area), which may affect local economic interests,<sup>82</sup> by including prefecture-level measures of total factor productivity (TFP), labor productivity, and TFP measured at the industry-prefecture level. These data are drawn from the Regional-Level Japan Industry Productivity database.<sup>83</sup> To match JGSS data, we use 2008 data on productivity for forty-two prefectures and twenty-three industries (ten manufacturing and thirteen nonmanufacturing industries).

While our empirical results are robust to controlling for observable factors that have been found to predict both individual trade preferences and place of employment, there may be unobservable factors leading individuals to select into employment at productive firms. For example, GLOBALIZED EMPLOYER may be capturing unobservable employee competitiveness or specialization not explained by education-, sector-, or task-based measures of competitiveness. While our research design does not allow us to fully address this concern, we adopt the sensitivity test introduced by Altonji, Elder, and Taber using selection on observables to calculate potential bias from unobservables.<sup>84</sup> By calculating how much stronger selection on unobservables has to be relative to selection on observables to fully account for the pro-trade effect of globalized firm employment, sensitivity tests let us evaluate the seriousness of threats to inference arising from unobservable confounders—conditional on the assumption that relationships between observable variables are informative about unobservables.

This measure is calculated as  $\hat{\beta}^R - \hat{\beta}^F$  using estimated coefficients for the main explanatory variable from a model with restricted ( $\hat{\beta}^R$ ) and full sets ( $\hat{\beta}^F$ ) of covariates, respectively. Higher values indicate that selection on unobservables must be much stronger relative to observables to account for the entire effect. Intuitively, the smaller  $\hat{\beta}^R - \hat{\beta}^F$ , the less the estimated effect is affected by selection on observables, and the stronger selection on unobservables must be relative to observables to account for the entire effect. Moreover, as  $\hat{\beta}^F$  increases, the observed effect becomes less likely to be explained by selection on unobservables alone.

82. See Busch and Reinhardt 2000, 2005; Scheve and Slaughter 2001 for how geographic clustering of economic activities might affect trade preferences.

83. Tokui et al. 2014.

84. Altonji, Elder, and Taber 2005. We thank Nunn and Wantchekon 2011 for replication code.

TABLE 5. *JGSS sensitivity analyses*

<i>Restricted set covariates</i>	<i>Full set covariates</i>	<i>Orthogonal covariates</i>	<i>Altonji ratio</i>	<i>Implied ratio</i>
None	Base model (including industry fixed effects)	AGE, FEMALE	5.85	-1.53
None	Set two: base model + SOCIO TROPIC TRADE, COSMOPOLITANISM INDEX, REDISTRIBUTION, JOB INSECURITY	AGE, FEMALE, JOB INSECURITY	3.08	2.65
None	Set two + TASK OFFSHORABILITY, TASK ROUTINENESS	AGE, FEMALE, JOB INSECURITY	2.55	1.58

Table 5 presents a series of sensitivity analyses in which  $\hat{\beta}^F$  from three separate full models is compared to  $\hat{\beta}^R$  from a bivariate model.<sup>85</sup> Our first full model replicates model 1 of Table 2. We also consider a second full model including nonmaterial controls (replicating model 6 of Table 2) and a third including task-related variables. We find it is unlikely that the observed effect of GLOBALIZED EMPLOYER can be entirely attributed to unobserved confounders. The Altonji ratios range from approximately 2.5 to 5.8, so the effect of unobservables would have to be 2.5 to 5.8 times the effect of observables in our model to explain the observed effect of employer competitiveness on trade opinion.

However, Chaudoin, Hays, and Hicks suggest this approach may artificially inflate calculated sensitivity ratios by decreasing  $\hat{\beta}^R - \hat{\beta}^F$  by including covariates orthogonal to selection in the sensitivity analysis.<sup>86</sup> Thus, we also present theoretically informed sensitivity ratios (implied Altonji ratio) in Table 5, calculated using Chaudoin, Hays, and Hicks's POET software. According to Chaudoin, Hays, and Hicks, we should have confidence that the observed effect of employer competitiveness on trade opinion is robust if the implied Altonji ratio is greater than 1.

The negative implied Altonji ratio of -1.53 shown for the base model specification in Table 5 indicates that the effect of unobservables must be proportionally greater in the opposite direction to account for the observed effect.<sup>87</sup> This is encouraging because unobserved factors (for example, latent productivity not captured by education) sorting employees into globalized firms seem unlikely to make them *less* likely to support trade. All together, while sensitivity tests and other diagnostics alone cannot rule out alternative explanations, results from multiple sensitivity analyses

85. Comparisons using a bivariate restricted model produced the most conservative results (smallest Altonji ratios) of those we implemented.

86. Chaudoin, Hays, and Hicks 2018.

87. Heinrich, Mueser, and Troske 2009.

increase our confidence that our results are not entirely driven by the presence of unobserved confounders.

## Conclusion

Using data from the 2008 JGSS, we show that employer productivity plays an important role in shaping individual attitudes toward globalization even after accounting for skill level and sectoral and occupational characteristics. Given the importance of employment to most people's lives, it is no surprise that employees' economic interests often align with those of their employers. Simultaneously, the high barriers to entry of the global market mean that only the more productive and competitive firms engage in globalized economic activities. Consequently, employees of more productive firms (which are more likely to compete globally) are more likely to favor free trade than employees at domestic firms. This may be because employees at globalized firms expect to benefit from their employers' success, whether in the form of continued employment or increased wages through rent sharing. These findings have important implications for our understanding of the likely sources of domestic conflict over globalization, as more productive firms engage in more transnational economic activities, leading to an ever-increasing divergence of interests from domestically oriented firms. Furthermore, we extend this logic to identify relative winners and losers within firms. Using a variety of measures, we find that higher-status employees of globalized firms are systematically less supportive of protectionism than their lower-status colleagues.

In addition, a firm-centered framework for understanding policy preferences has important implications for policy outcomes in other economic issue areas. Employer characteristics may become increasingly important predictors of societal cleavages on a number of issues beyond trade, including foreign direct investment, fiscal and monetary policies, labor and health regulations, environmental policy, and immigration and border controls. Further research is required to better understand how exactly firm-level characteristics affect micro-level political behavior, as well as the conditions under which they are likely to be more or less influential than other economic, political, and psychological factors. More empirical research is also needed on whether the findings reported here extend to other countries and whether changes in the economic and political context since 2008 have changed how employer productivity might affect individual trade opinion. Further, while we have focused on a rent-sharing mechanism in this research, as we note earlier, important research in psychology and American politics has suggested alternative mechanisms by which employers might affect employee trade preferences, such as active political mobilization of employees by employers, as well as organizational identification. Future research identifying and testing specific implications of these mechanisms can help build a more complete understanding of how and when firms (as employers) influence trade politics. Finally, this work suggests an opportunity for scholars to build a new generalized model of individual attitudes toward economic globalization that extends the existing theoretical framework of

labor market barriers, first described in the early 2000s, to reflect the changing realities in global markets for labor, goods, services, and investment.

## Data Availability Statement

Replication files for this research note may be found at <https://doi.org/10.7910/DVN/F07GBK>.

## Supplementary Material

Supplementary material for this research note is available at <https://doi.org/10.1017/S0020818322000108>.

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## Key Words

Trade; new new trade theory; heterogeneous firms; endogenous protection

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