ORIGINAL PAPER

Trade exposure and electoral protectionism: evidence from Japanese politician-level data

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Abstract

This study empirically examines the causal impact of economic shocks of trade on trade policy positions by candidates who run for national elections using politician-level data of Japan during the period from 2009 to 2014. The focus of this research is an examination of how the influence of trade shocks, measured by import competition with China on politicians' trade policy stance, is related to election pressure. The results revealed that an increase in import exposure deters candidates from supporting trade liberalization, even after considering offset by export exposure. Among other points, this protectionist effect is more pronounced for challengers than for incumbents, and for candidates who run for the Lower House election and are exposed to stronger pressures of elections than those who run for the Upper House election. Taking these findings into account, politicians who face trade shocks tend to appeal to protectionist trade policies as the pressures of elections become stronger.

Keywords Trade policy · Protectionism · Election · Electoral competition

JEL Classification D72 · F13

1 Introduction

Why do politicians endorse protectionist trade policies during election campaigns? Prior international economics literature has pointed out the role of economic conditions in constituencies in determining their trade policy stance. Economic variables such as constituencies' skill endowments and industry compositions, are motivated by theoretical predictions (Magee 1980; Irwin 1994; Kaempfer and Marks 1993; Baldwin and Magee 2000; Beaulieu 2002) as well as campaign contributions based

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on political economic considerations centered on the trade policy for sale model (Grossman and Helpman 1994; Baldwin and Magee 2000; Devault 2010). Recent studies have attempted to elucidate the impact of the rapidly increasing import from China on domestic policy formation (Feigenbaum and Hall 2015; Autor et al. 2016; Che et al. 2016; Jensen et al. 2017). Simultaneously, some studies have suggested that the pressure of elections is one of the causes for a politician's protectionism (Conconi et al. 2014; Ito 2015). A politician may change their policy stance when placed in a challenging situation in elections. This study attempts to contribute to the literature by empirically examining how the effect of trade shock on a politician's trade policy horizon is related to electoral pressures proxied by the politician's observable attributes based on survey data of candidates who ran for national elections in Japan in the period of 2009–2014.

Studies on the impact of rising import exposure from China on the labor market find significant job losses in manufacturing in the United States of America (the U.S.) (Autor et al. 2013; Acemoglu et al. 2016). Chinese import penetration also affects election outcomes or Congress's policy stance. Autor et al. (2016) reported that Chinese import shocks increased political polarization in the U.S. congressional districts based on an analysis of congressional elections from 2002 to 2010. Che et al. (2016) analyzed congressional elections in the period from 1992 to 2010 to show that congressional districts exposed to import competition from China are more likely to elect Democrats, who are generally more protectionist than the Republicans. Focusing on the 2016 U.S. presidential race, Autor et al. (2017) reported that the exposure of local labor markets to greater import competition from China affected voting behavior; in this case, the rising import competition led to Republican vote share gains. To consider the direct impact on trade policy, Feigenbaum and Hall (2015) examined whether greater exposure to Chinese imports would affect legislators' roll-call positions on trade bills and electoral outcomes in the U.S. House of Representatives in the period 1990–2010. They provided evidence that local economic shocks, caused by the influx of Chinese imports, force legislators to vote for protectionist trade policies. The evidence from the U.S. suggests that strong import competition is related to the rise of protectionism.

Similar to the U.S., in Japan, imports from China increased dramatically after China joined the World Trade Organization (WTO), accounting for a quarter of the total imports. Furthermore, the value seems to have increased substantially after 2011, the year in which the Great East Japan Earthquake occurred. Politicians may be sensitive to higher imports that harm manufacturers in their constituencies and, in response, may prefer protectionist trade policies. In addition, in the national election held in 2012, as Japan's participation in the Trans-Pacific Partnership (TPP) Agreement negotiations emerged as a major policy issue, the scope for further trade liberalization became one of the main issues. While much of the research on the impact of changes in imports from China on the formation of trade policy is concentrated in the U.S., this study is the first attempt to examine the impact on politicians' views on trade policies in Japan, which face the same dramatic changes in imports from China

as the U.S.[1] Hence, the primary objective of this study is to evaluate the impact of import exposure on politicians' trade policy stance by following the measurement for import exposure per worker by Autor et al. (2013). The increase in import from China is possibly caused by domestic structural changes in Japan, and this raises the issue of the potential endogeneity of import exposure. In addition, the protectionist effect from import exposure may be mitigated by export exposure, as it is considered to have a positive economic impact on the local labor market (Dauth et al. 2014). The present study considers the offset effect of export exposure and deals with the endogeneity issue of import exposure.

This study contributes to a series of previous studies on this topic by showing the heterogeneous impacts of trade shocks on politicians' trade policy stance depending on electoral factors. Recent research in this area has shown that election proximity and closeness are associated with the rise of protectionism among politicians. For example, Conconi et al. (2014), who examined the determinants of legislators' votes on trade policy using the results of votes on major bills in the U.S. Congress since the 1970s, showed that senators are more likely to support free trade policy than house representatives, except for those who are serving their final terms.[2] This result suggests that re-electoral incentives deter legislators from supporting free trade policies. Moreover, they report that the protectionist effect of election proximity is not observed for senators who hold safe seats—that is, for those in which the margin of victory in the previous election exceeded a certain percentage. In this regard, Ito (2015) showed that candidates who are projected to win the election by a narrow margin are more likely to favor protectionist trade policies than those who are projected to win by a substantial majority using the data of policy positions on the trade policy of candidates who ran for the House of Representatives election in 2012. A series of these types of findings imply that electoral pressure pushes politicians to adopt protectionist policies. On the other hand, there are very limited empirical studies on how import exposure in constituencies and electoral pressure are related to each other. An exceptional study on this point was conducted by Feigenbaum and Hall (2015), who reported a more pronounced effect of Chinese import competition on roll-call positioning on trade bills in constituencies where the election competition is strong. They examined the heterogeneity of the impact depending on the constituency, but the heterogeneity of the impact among politicians has not been analyzed. To this end, it is necessary to measure the degree of election pressure among politicians. The vast majority of previous studies on this topic have been based on data from the U.S. Congress and included only election winners. Therefore, there is potential selection bias in the sense that only strong politicians are selected. The present study has the advantage of representing politicians' policy stance on trade

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[1] Using the same candidate data as this study, Ito (2015) and Kagitani and Harimaya (2017) found a correlation between candidates' campaign promises on trade policies and their constituency's economic indicators, such as the intensity of import competing industries. These previous studies differ from the present study in that the causal impacts of import changes have not been examined.

[2] In the U.S. Congress, one-third of the senators are elected every 2 years together with the entire membership of the House of Representatives.

policy and controlling for their attributes using the candidate data of those who won and lost, retrieved from a unique survey on candidates' policy positions on various policies conducted during a general election campaign in Japan. These unique data enable us to observe the heterogeneity of electoral pressures among politicians and to examine the determinants of trade policy stance. This study specifically focuses on the incumbency advantage and the inter-cameral difference as proxies for the extent of observable election pressures.

The empirical results from ordered logit models and linear probability models show that an increase in import exposure per worker in the constituency where candidates run deter them from supporting trade liberalization. This protectionist effect is not offset by export exposure per worker and is still significant, even after the endogeneity of import exposure is addressed by the instrumental variable method. Moreover, the remarkable findings of this study are that the protectionist effect inspired by import exposure differs depending on the competition environment for elections. More specifically, non-incumbents respond more sensitively to trade shocks and tend to advocate protectionist trade policy than incumbent candidates who are favorable to elections in general. In addition, the influence varies depending on the election system. The protectionist effect of trade shock is more pronounced for candidates who run for elections for members of the House of Representatives, who are not aware when the election will take place during the 4 year term due to a dissolution of the Congress, rather than candidates running for members of the House of Council, where a term of 6 years is guaranteed. This result indicates that politicians who face a more tense election driven by short terms in office and term uncertainty react sensitively to trade shocks in their constituencies and are more likely to support protectionism.

The remainder of this paper is organized as follows. Section 2 describes the analytical framework to examine the effect of trade shocks on trade policy positions of Japanese politicians and presents the hypothesis to be tested. Section 3 explains the data and variables used in the empirical analysis. Section 4 presents the estimation results, and Sect. 5 concludes.

2 Analytical framework

2.1 Hypotheses

This section presents the hypotheses to be tested by econometric analysis and the data of Japanese politicians' policy positions on trade policy. The primary objective is to examine how candidates' trade policy stance responds to trade shocks in constituencies. Import shocks from low-cost producers are thought to have negative effects on the local labor market, such as wage cuts and increased unemployment. If industries competing with imports are concentrated within constituencies, candidates will be able to increase the probability of winning by placing a protectionist trade policy on commitments. Therefore, we can expect that candidates from constituencies with high import exposure will tend to prefer protectionism policies for popularity. This argument is the first hypothesis to be tested in the empirical

analysis. On the other hand, the protectionist trade policy stance may be restrained if export industries are intensively located within the constituencies. Therefore, the influence of import exposure may be offset when considering export exposure, and it is an empirical issue whether the protectionist effect of the import exposure remains in consideration of export exposure.

The second hypothesis is related to the question of whether the protectionist effect of trade shock will change depending on the pressure of elections. Recent empirical studies have shown that the pressure of winning an election is closely related to the politicians' preference for protectionism. Candidates facing competitive pressures in elections may have a stronger protectionist response to trade shocks. Thus, we would expect politicians, facing competitive pressure in an election, to exhibit a more protectionist streak due to trade shocks. This idea is the second hypothesis to be tested; the protectionist impact of import exposure will be more pronounced for candidates confronted with high electoral pressure.

Considering electoral pressure, this study focuses on three observable characteristics of candidates. The first trait is incumbency. It is well known that incumbents are more advantaged when compared to freshmen candidates, both in terms of finance and degree of recognition, and this has empirical evidence (Gelman and King 1990; Lee 2001). Non-incumbents are more exposed to the pressure of election than incumbents. It is expected that non-incumbents are more sensitive to trade shocks than incumbents and favor protectionist trade policies to take popular positions. One may expect that incumbents also advocate protectionism in response to trade shocks in their constituencies following non-incumbents, but incumbent candidates may not be able to flexibly change election promises when compared to non-incumbents. It would be more natural to consider that non-incumbents can more flexibly decide their policy stance than incumbents who are afraid to be labeled "*flip-floppers*." Therefore, the present study assumes that a possible protectionist effect of import exposure on trade policy stance will be more pronounced for non-incumbents than incumbents whose election promises are rigid.[3]

As a second element, this research focuses on the difference between the candidates of the House of Representatives and House of Councilors. In Japan, there is a significant difference in the election system and the terms in office between the houses. Although the term in office of the House of Representatives is 4 years, the election of expiring the term of office is extremely rare owing to the dissolution of Congress. The Prime Minister, who has the authority to dissolve the House of Representatives, often exercises his/her power within 2–3 years, and elections have not been held at the expiration of terms of office since 1976. The average term in office is 2 years and 9 months. On the other hand, the House of Councilors' term in office

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[3] Feigenbaum and Hall (2015), who examined the effects of localized economic shocks on voting on trade bills in the U.S. House, show contradictory results to this view. Under the assumption that incumbents can flexibly change policy positions according to the economic conditions, they reported that incumbents tend to vote by favoring protectionism in response to trade shocks, and this effect is more pronounced in districts where the incumbents are most worried about re-election. However, as their data captured voting behavior in the U.S. Congress, the subjects were limited to incumbents and winners in elections.

Table 1 Status of responses to trade policy positions

Elections	Surveyed	Respondents	Mean	S.D.	Min	Max
2009 LH	1129	1106	0.977	0.040	0.800	1
2010 UH	284	278	0.979	0.068	0.667	1
2012 LH	1294	1231	0.950	0.068	0.780	1
2013 UH	271	266	0.989	0.044	0.750	1
2014 LH	959	929	0.957	0.062	0.778	1
Total	3937	3810	0.970	0.059	0.667	1

"Surveyed" indicates the number of candidates surveyed, and "Respondents" means the number of respondents on trade policy positions. The descriptive statistics are based on response rates at the 47 prefectures level

is 6 years, and the term in office is guaranteed as the parliament is not dissolved, and half of them face elections every 3 years. The members of the House of Representatives are more sensitive to the voices of voters owing to uncertainty during their 4 year term about the potential dissolution of Parliament and the fresh elections that follow. It can be inferred that the members of the House of Representatives with short and uncertain terms are more heavily involved in the election than the members of the House of Councilors. In addition, even in the election system, the House of Representatives has a single-seat constituency electoral system with small-sized electoral districts, but the electoral district of the House of Councilors is at the prefecture level and is thus relatively large, with two or more seats of Diet members. This inter-cameral difference in seats may also affect electoral pressures.

2.2 Japanese politicians trade policy positions

This study used data retrieved from the University of Tokyo-Asahi Survey (UTAS) for politicians' trade policy stance, which are collected when a national election takes place in Japan.[4] The results of the survey were released at the candidate level and party level promptly before the election date by *Asahi Shimbun*, one of Japan's major daily newspapers. The survey obtained data on candidates' attitudes toward various policies, including trade policies from candidates running for the Diet, and the data include both election winners and losers. The data show the political stances of candidates on each policy for every constituency. The available data are from the five national elections; the House of Representatives elections in 2009, 2012, and 2014; and the House of Councilors elections in 2010 and 2013.[5] The survey consistently asks a general question on trade liberalization: "*Which policy do you support: (a) trade liberalization or (b) protection of domestic industries?*" The

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[4] The UTAS is conducted by Professor Masaki Taniguchi of the Graduate Schools for Law and Politics, University of Tokyo and the *Asahi Shimbun*.

[5] Elections for the House of Councilors are held every 3 years because half of them are elected every 3 years while their term in office is guaranteed for 6 years.
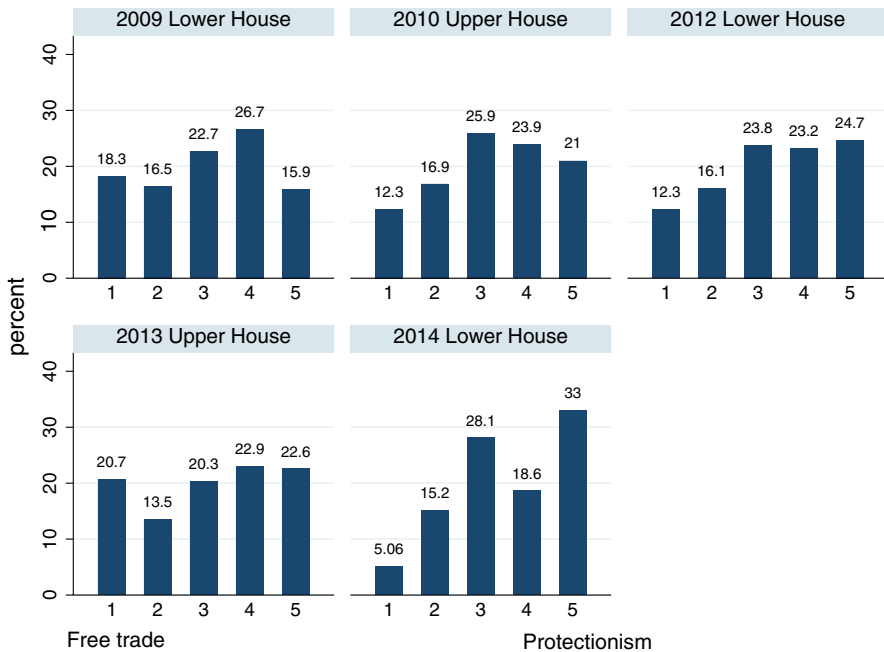
Fig. 1 Trade policy positions of Japanese politicians. *Source*: Author's calculation based on the UTAS data

answers were as follows: 1. "*support (a)*," 2. "*somewhat support (a)*," 3. "*neither*," 4. "*somewhat support (b)*," 5. "*support (b)*," and not answered. The response rate for this survey item has been generally high throughout the five elections. Table 1 provides an overview of the response rate for this item. The first column shows the five national election years (LH: Lower House, UH: Upper House), the second column shows the number of candidates surveyed, and the third column displays the number of respondents in each election. In all the elections, approximately 95% or more of the candidates answered their trade policy position. The information in the four to seventh columns of the table shows the descriptive statistics regarding the variation in the response rate between 47 prefectures in Japan. Throughout the five elections, the average response rate for each prefecture is still 95% or higher, and the standard deviation does not mean that the response rate varies significantly between prefectures. Figure 1 shows the distribution of trade policy positions for each year as a bar chart. It appears that most politicians tend to prefer protectionism or to not clarify their attitudes. This result contrasts with the result of investigating the trade policy preference of individuals in Japan and again raises the question as to why politicians prefer protectionism.[6]

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[6] Tomiura et al. (2016) and Ito et al. (2019) report that the majority of individuals support further trade liberalization in Japan.

2.3 Empirical strategy

2.3.1 Base model

The primary objective of this study is to examine how import exposure in constituency affects candidates' policy positions on trade policy using the results from the questionnaire during their election campaign and the measurement for import exposure per worker by Autor et al. (2013). First, this study applies ordered logistic estimations based on a simple random utility model as candidates' policy positions on trade policy observed in five ordered categories. This study assumes that the utility of candidate i is proportional to the number of votes obtained, and the issue of election is limited to trade policy between protectionist trade policies and further trade liberalization. A vote maximizing candidate i in constituency j in time t is expected to advocate a protectionist trade policy when the utility from supporting the protectionist trade policy U_{ijt}^P is greater than that from supporting the free trade policy U_{ijt}^F. The difference between the two sets of utility ΔU_{ijt}^P is considered as a latent variable, y_{ijt}^* that is assumed to be linearly related to the independent variables as follows:

$$y_{ijt}^* = \beta_1 IM_{jt} + \beta_2 EP_{ijt} + \gamma Z_{ijt} + u_i + \varepsilon_{ijt} \tag{1}$$

where IM is the import exposure, EP is a variable indicating electoral pressures, Z is a set of other control covariates, u_i denotes a set of candidate-specific random effects that are expected to capture the candidate's beliefs, and ε_{ijt} indicates errors distributed as logistic. The ordered choice model is specified as follows:

$$y_{ijt} = \begin{cases} 1 \text{ "support}(a)\text{" if } \kappa_0 \le y_{ijt}^* < \kappa_1 \\ 2 \text{ "somewhat support}(a)\text{" if } \kappa_1 \le y_{ijt}^* < \kappa_2 \\ 3 \text{ "neither" if } \kappa_2 \le y_{ijt}^* < \kappa_3 \\ 4 \text{ "somewhat support}(b)\text{" if } \kappa_3 \le y_{ijt}^* < \kappa_4 \\ 5 \text{ "support}(b)\text{" if } \kappa_4 \le y_{ijt}^* < \kappa_5 \end{cases} \tag{2}$$

where (a) is trade liberalization, and (b) is protection of domestic industries. The higher the difference in utility value ΔU_{ij}^P, the higher the likelihood that ΔU_{ij}^P falls in the high range of threshold (κ_{m-1}, κ_m), and the protectionist trade policy is likely to be adopted. The parameter in Eq. (1) and the cut points in Eq. (2) are estimated. The probability of choosing the option m is given by the probability that the linear function plus the candidate-specific random effects and errors is within the following range of cut-points.

$$\Pr\left(y_{ijt} = m | \kappa, IM_{jt}, EP_{ijt}, Z_{ijt}, u_i\right) = \Pr\{\kappa_{m-1} < \beta_1 IM_{jt} + \beta_2 EP_{ijt} + \gamma Z_{ijt} + u_i + \varepsilon_{ijt} < \kappa_m\} \tag{3}$$

In this study, as the protectionist impact of trade shocks on the candidate's trade policy stance is expected to be more pronounced as competition is more intense, this paper also examines the interaction relationship between trade shocks, IM_{jt}, and variables indicating competitive pressures, EP_{ijt}.

An econometric issue is that the magnitude of the interaction effect in non-linear models is not equal to the marginal effect of the interaction term.[7] Since it is difficult to interpret the estimated interaction effect from the ordered model, the present study also estimates a linear probability model by converting the five options into a binary variable. The linear probability model is expected to facilitate the interpretation for interaction effects. Hence, in this case, the dependent variable in Eq. (1) turns out to be a binary variable that indicate whether candidates support protectionist trade policies (4 "*somewhat support* (b)" or 5 "*support* (b)"). Another important issue is that the key variable in this analysis, IM_{jt}, the import exposure at the constituency level, may be endogenous as changes in imports may be due to structural changes in Japan. The economic stagnation that Japan experienced is likely to coexist endogenously with the import shock. To cope with the potential of endogeneity, this study follows the instrumental variable estimation approach employed by Autor et al. (2013) and Feigenbaum and Hall (2015), and it uses imports of other major economies from China as an instrumental variable for the import exposure. The variable construction is detailed in the following section.

3 Explanatory variables

3.1 Trade shocks

Following Autor et al. (2013), this study specifies import exposure per worker in the constituency. More specifically, similar to Feigenbaum and Hall (2015), the measurement for the import exposure per worker is defined as follows:

$$\Delta IMW_{jt} = \sum_{k} \left(\frac{L_{jkt}}{L_{kt}} \right) \left(\frac{\Delta M_{kt}^{JC}}{L_{jt}} \right) \qquad (4)$$

where suffix j denotes the constituency, and k denotes the industry. L_{jkt} is the number of workers in constituency j, industry k, and year t. L_{kt} is the total number of workers in industry k and year t. L_{jt} is the total number of workers in constituency j and year t. ΔM_{kt}^{JC} are the changes in Japan's imports from China of industry k and year t. Similar to several studies using this index, this study also focuses on import competition from China, which is Japan's largest importing partner, accounting for a quarter of the total imports. On the other hand, the effect of import exposure can be offset by local export exposure. To consider the potential of offset, in the same manner as the import exposure, the measurement for the export exposure per worker is formed as follows:

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[7] Even if the coefficient of interaction term is equal to zero, the interaction effect may be nonzero depending on other covariates (Ai and Norton 2003). As the interaction effect varies according to other covariates, there are variations in the magnitude and statistical significance of the interaction effect.

$$\Delta EXW_{jt} = \sum_k \left(\frac{L_{jkt}}{L_{kt}} \right) \left(\frac{\Delta X_{kt}^{JC}}{L_{jt}} \right) \tag{5}$$

where ΔX_{kt}^{JC} are the changes in Japan's exports to China of industry k and year t. Regarding the constituency-level variables, there are no official statistics through the prefectural-level data that can be applied for the House of Councilors. One challenge is to allocate data obtained from censuses by municipalities to constituencies for the candidates of the House of Representatives. This study constructs data at the constituency level by aggregating data from the 2010 national census disaggregated into the smallest unit of address in a municipality, similar to a "street" level. Trade volume scaled in units of 100 USD was retrieved from RIETI-TID trade data, which can be divided into 13 industries (SITC Rev.3). The import and export price indexes retrieved from the Bank of Japan were used to deflate the trade volume. A disadvantage in constructing the import and export exposure measurement is that the industry classification is irregular due to data constraints of the census. Eventually, the industrial classification is limited to four industries: agriculture; forestry; fishery; and mining, manufacturing, and service, while maintaining consistency of industry categories between the census and trade data. The endogenous potential of import shock is dealt with by creating instrumental variables using changes in imports from China of other countries, following previous studies (Autor et al. 2013; Feigenbaum and Hall 2015). The instrument is defined as follows:

$$\Delta IMW_{jt}^{O} = \sum_k \left(\frac{L_{jkt-1}}{L_{kt-1}} \right) \left(\frac{\Delta M_{kt}^{OC}}{L_{jt-1}} \right) \tag{6}$$

where the superscript O indicates "other (non-Japan)" major economies (EU28 and the U.S.). The lagged labor share in constituency j for industry k is assumed to be a good proxy for the current labor share. In the first stage, ΔIMW_{jt}^{O} is used for an instrument variable, and in the second stage, the predicted values of ΔIMW_{jt} from the first stage regression are used.

3.2 Electoral pressures

The first variable of interest is a dummy variable indicating whether the candidate is incumbent or not (*Incumbent*). The UTAS survey also provides information on candidates' basic characteristics, including careers. The dummy variable for an incumbent member is defined as a value of 1 if candidates are incumbent and 0 if otherwise. Second, based on the idea that the House of Representatives is more competitive than the House of Councilors, the difference between the two is examined. The dummy takes a value of 1 if candidates run for the House of Councilors and 0 if otherwise (*Upper*).

3.3 Other covariates

Other characteristics at the constituency level are expected to affect candidates' trade policy stance. For example, it has been argued that politicians in large constituencies face relatively low pressures from special interest groups or specific sectors as voters are more diverse. Politicians would rather support free trade policies while relying on votes from a large number of voters who benefit from tariff reduction.[8] To measure the size of a constituency, the population size is employed (*Size*). The number of candidates divided by the number of seats in the constituency is also employed as a control variable (*Rivals*). The issue of trade liberalization in Japan is also a matter of importance as agriculture is provided a high protection level.[9] Therefore, even if there is no import shock, the presence of existing farmers in constituency may lead politicians to adopt protectionism. In this analysis, the share of agricultural workers (*Agri*) is also included in the model. The factor endowment theory predicts that skilled workers support further trade liberalization, whereas less-skilled workers favor protectionist trade policies. This suggests that skill endowment is negatively correlated with protectionism. The proportion of college graduates (*Education*) is used as a proxy for skill endowment.

The UTAS compiles candidates' basic characteristics, such as experienced terms, gender, and party affiliation. The differences in experience between the incumbents are controlled by the number of experienced terms served as a member of the Diet (*Experience*) added to the right-hand side of the model.[10] The model includes a gender dummy variable (*Gender*) that takes a value of 1 if candidates are female and 0 if otherwise.[11] Differences in the policy interests of candidates may be associated with their trade policy stance. In Japan's political system, members of the House of Representatives who have focused on a specific policy for many years are said to have a strong influence on that policy. In this respect, the survey included the following question about particular areas of engagement: "*On which policy field have you focused your efforts until now?*" Regarding trade policies, because agriculture is the most sensitive and import-competing sector in Japan, candidates who engaged in agricultural policy as their field of expertise were likely to support import restrictions to protect the sector and maintain their political influence. From answers to this question, a dummy variable for influential members on agricultural policy

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[8] It has been argued that constituency size is negatively correlated with support for protectionist trade policies (Baldwin 1985; Rogowski 1987; Irwin and Kroszner 1999; Nielson 2003).

[9] According to the *World Tariff Profiles 2014*, Japan's simple average most favored nation applied a tariff rate of 19% on agricultural products, which is higher than that of the European Union (EU) (13.2%) and the U.S. (5.3%). In particular, the tariff rate on some commodities is extremely high. For example, the tariff on rice is equivalent to 778%, and the tariff on butter is 360%. However, the average tariff rate on non-agricultural products in Japan is 2.6%, which is lower than that of the EU (4.2%) and the U.S. (3.1%).

[10] In the case of a member of the House of Councilors, as the term in office is longer than the House of Representatives, the number of experienced terms is doubled.

[11] Previous studies on the determinants of individuals' trade policy preferences consistently show that in comparison to males, females are more likely to prefer import restrictions (Scheve and Slaughter 2001; Mayda and Rodrik 2005; Blonigen 2011; Tomiura et al. 2016; Ito et al. 2019).

Table 2 Descriptive statistics (3775 obs.)

Variable	Mean	S.D.	Min	Max
Free trade 1–5 protectionist	3.291	1.331	1	5
Protectionists dummy	0.469	0.499	0	1
Protectionists dummy (excluding "*Neither*")	0.620	0.485	0	1
ΔIMW_jt (100USD)	−0.054	1.522	−6.489	5.617
ΔEXW_jt (100USD)	−0.730	2.259	−4.378	10.051
Size_jt (10,000 people)	91.309	181.159	24.127	1315.939
Rivals_jt (n of candidates)	3.991	1.031	2	9
Agri_jt (%)	4.142	4.173	0.041	20.647
Education_jt (%)	18.427	7.845	5.993	42.979
Incumbent_ijt	0.337	0.473	0	1
Upper_ijt	0.135	0.342	0	1
Experience_ijt	1.328	2.255	0	16
Organized_ijt	0.459	0.498	0	1
Agri-member_ijt	0.175	0.380	0	1
Gender_ijt (female = 1)	0.166	0.372	0	1

The number of observations excluding "*Neither*" is 2853

(*Agri-member*) was defined, with a value of 1 if a candidate selected "*policy for agriculture, forestry, and fisheries*" and 0 if otherwise. A difference in campaign style may affect their trade policy positions. A candidate who appeals to special interest groups, from which many votes can be expected, may conform to the organizations' needs. In the survey, the following question regarding campaign style was asked: "*For an election campaign, various activities are allowed, except appealing for a policy. During this election, which element have you made the most of, except appealing for a policy?*" To control for differences in the style of election campaigns, a dummy variable (*Organized*) is introduced into the model, which takes a value of 1 for a candidate who selected to appeal to specific people or organizations and 0 if otherwise.[12] Because it is believed that a candidate who intends to run an organized election campaign has a strong tendency toward protectionism, the dummy variable is expected to have a positive sign.

The affiliation of a political party is likely to significantly affect their policy stance. In the case of the U.S. Congress, Democrats tend to be more protectionist than Republicans. Candidates' policy positions differ significantly according to their party affiliation, and this suggests that party dummy variables are highly significant. One may consider that we should take into account political contributions from special interest groups; however, Japanese law prohibits donations from corporations to

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[12] The choices are prepared as follows: (1) to appeal to specific people who or organizations that or that have always supported you, (2) to emphasize past achievements, (3) to emphasize ability for government leadership, (4) to emphasize the nature of the leader, and (5) to emphasize your own achievements and nature.

individual politicians but allows corporate donations to political parties and donations from individuals to politicians. Owing to the restriction of corporate donations to politicians, political contributions are expected to have a limited effect on candidates' policy positions.[13] Table 2 displays the descriptive statistics for candidate characteristics running for elections and their constituencies' characteristics. The number of observations available from responding candidates in the elections in 2009, 2010, 2012, and 2014 is 3775.

4 Empirical results

4.1 Results from ordered logit models

Table 3 displays the basic results estimated by ordered logit models. The results show the estimated coefficients and robust standard errors in brackets. To test the consistency of the results on import exposure per worker, the control variables are sequentially added to the model. For all the models, year fixed effects are controlled, while the models in columns [2]–[6] include political party fixed effects as well, but the results of the fixed effects are omitted from the table. Columns [1]–[4] show the baseline results from the standard ordered logistic regression model, and column [5] shows the result from the random effect ordered logit model that includes the all control variables.[14]

Overall, the statistical significance of the constituency attributes is low, but the variable of interest, ΔIMW_{jt}, shows a statistically significant positive sign, as expected, suggesting the protectionist effect of import exposure. It is remarkable that the result is invariant, even when the export exposure per worker, ΔEXW_{jt}, and the other constituency attributes and candidate attributes are added sequentially. The statistically significant and negative signs of ΔEXW_{jt} in columns [2] and [3] are consistent with the view that it has a positive effect on the local labor market and restrains protectionism, but it turns out to be insignificant when the candidate attributes are taken into account, as shown in columns [4] and [5]. Based on the results of the full model displayed in column [5], Table 4 shows the marginal effects at the mean on the probability of choosing each of the five options. It is found that an increase in ΔIMW_{jt} turns candidates toward protectionism. The marginal effect of ΔIMW_{jt} is significantly negative for options 1: Support free trade, 2: Somewhat support free trade, and 3: Neither, but the effects are significantly positive for the options, 4: Somewhat support protectionist trade policy and 5: Support protectionist trade policy. A one hundred U.S. dollar increase in the import per worker in a

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[13] In fact, however, politicians can receive donations from corporations owing to the law that allows free movement of money between a political party and politicians. To some extent, party dummy variables are expected to control for the possible effects of political contributions through this legal loophole.

[14] Column [5] in Table 3 shows that the estimated candidate-level variance component is statistically significant. The results from the likelihood-ratio test indicate that there is significant variability between candidates to support a random-effects ordered logistic regression, rather than a standard ordered logistic regression.

Table 3 Results for determinants of politicians' protectionism

	[1]	[2]	[3]	[4]	[5]
ΔIMW_jt	0.114***	0.177***	0.200***	0.205***	0.135***
	[0.0249]	[0.0258]	[0.0268]	[0.0270]	[0.0379]
ΔEXW_jt	− 0.015	− 0.0480***	− 0.0432**	− 0.0195	0.0236
	[0.0168]	[0.0172]	[0.0185]	[0.0198]	[0.0292]
Size_jt (10,000)			− 0.00109***	− 0.000559**	− 0.000364
			[0.000181]	[0.000239]	[0.000411]
Rivals_jt			− 0.153***	− 0.157***	− 0.220***
			[0.0329]	[0.0337]	[0.0549]
Agri_jt (%)			0.0138	− 0.0101	− 0.00199
			[0.0105]	[0.0110]	[0.0240]
Education_jt (%)			− 0.00954	− 0.009	− 0.0214*
			[0.00587]	[0.00602]	[0.0129]
Incumbent_ijt				− 0.275***	− 0.298**
				[0.0848]	[0.122]
Upper_ijt				− 0.537***	− 0.703***
				[0.138]	[0.229]
Experience_ijt				− 0.00344	− 0.0539
				[0.0165]	[0.0374]
Organized_ijt				0.221***	0.319***
				[0.0596]	[0.0972]
Agri-member_ijt				0.727***	0.934***
				[0.0858]	[0.145]
Gender_ijt (female = 1)				0.265***	0.407**
				[0.0826]	[0.181]
κ1	− 1.917***	− 1.951***	− 2.742***	− 2.798***	− 4.890***
	[0.0500]	[0.0697]	[0.182]	[0.196]	[0.412]
κ2	− 0.909***	− 0.899***	− 1.680***	− 1.721***	− 2.981***
	[0.0377]	[0.0587]	[0.177]	[0.192]	[0.395]
κ3	0.130***	0.226***	− 0.535***	− 0.548***	− 0.871**
	[0.0346]	[0.0560]	[0.175]	[0.190]	[0.387]
κ4	1.174***	1.392***	0.656***	0.671***	1.390***
	[0.0400]	[0.0628]	[0.176]	[0.191]	[0.390]
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Party fixed effects	No	Yes	Yes	Yes	Yes
Random effect variance					7.883***
					[0.765]
Observations	3775	3775	3775	3775	3775
ll	− 5321	− 5305	− 5314	− 5315	− 5290
df_m	20	21	21	21	23
chi2	464.1	494	484.5	476.2	525.6

Coefficients of order logit models are reported. Robust standard errors in brackets; ***$p < 0.01$; **$p < 0.05$; *$p < 0.1$

Table 4 Marginal effects on the probability

	1: Support free trade		2: Somewhat support free trade		3: Not sure		4: Somewhat support protectionist policy		5: Support protectionist policy	
ΔIMW_jt (100USD)	− 0.00850***	[0.00242]	− 0.00553***	[0.00161]	− 0.00194***	[0.000699]	0.00395***	[0.00121]	0.0120***	[0.00346]
ΔEXW_jt (100USD)	− 0.0015	[0.00183]	− 0.0010	[0.00119]	− 0.0003	[0.000419]	0.0007	[0.000853]	0.0021	[0.00259]
Size_jt (10,000 people)	0.0000	[2.58e−05]	0.0000	[1.69e−05]	0.0000	[6.05e−06]	0.0000	[1.21e−05]	0.0000	[3.66e−05]
Rivals_jt	0.0138***	[0.00346]	0.00900***	[0.00228]	0.00315***	[0.000987]	− 0.00643***	[0.00171]	− 0.0195***	[0.00492]
Agri_jt (%)	0.0001	[0.00151]	0.0001	[0.000981]	0.0000	[0.000344]	− 0.0001	[0.000701]	-0.0002	[0.00213]
Education_jt (%)	0.00134*	[0.000812]	0.000875*	[0.000529]	0.0003	[0.000191]	− 0.0006	[0.000381]	− 0.00190*	[0.00115]
Incumbent_ijt	0.0188**	[0.00768]	0.0122**	[0.00502]	0.00428**	[0.00192]	− 0.00873**	[0.00367]	− 0.0265**	[0.0108]
Upper_ijt	0.0442***	[0.0144]	0.0288***	[0.00945]	0.0101***	[0.00380]	− 0.0206***	[0.00693]	− 0.0625***	[0.0204]
Experience_ijt	0.0034	[0.00235]	0.0022	[0.00153]	0.0008	[0.000544]	− 0.0016	[0.00110]	− 0.0048	[0.00331]
Organized_ijt	− 0.0200***	[0.00612]	− 0.0130***	[0.00403]	− 0.00457***	[0.00164]	0.00932***	[0.00297]	0.0283***	[0.00868]
Agri-member_ijt	− 0.0587***	[0.00927]	− 0.0383***	[0.00628]	− 0.0134***	[0.00331]	0.0273***	[0.00505]	0.0831***	[0.0132]
Gender_ijt (female=1)	− 0.0256**	[0.0114]	− 0.0167***	[0.00747]	− 0.00584**	[0.00282]	0.0119**	[0.00543]	0.0362**	[0.0162]

Standard errors in brackets. ***$p < 0.01$; **$p < 0.05$; *$p < 0.1$

constituency is associated with a 1.2% increase in the probability of choosing 5: Support protectionist trade policy and a 0.4% increase in that of choosing 4: Somewhat support protectionist trade policy. Considering that one standard deviation of ΔIMW_{jt} is 1.5, there exists an approximately 2.4% difference in the probability of supporting a protectionist trade policy, which is a sizable impact.

Among the attributes of constituencies related to election, only the coefficients of *Rivals*, the number of candidates over seat, is statistically significant and negative. As the number of candidates increases, there is a tendency to curb protectionism. It was predicted that the constituency size would be negatively correlated with protectionism, but it is no longer statistically significant when the candidate-specific random effects are controlled. As for the other constituency characteristics, although the presence of farmers has no relevance to protectionism, the share of college graduates has a slightly negative correlation with the choice of protectionism in the models. On the other hand, the candidate attributes are found to be strongly associated with their trade policy positions.

Regarding candidates' attributes concerning the competitive pressures of elections, the focus of this paper, the incumbent dummy and upper house dummy show statistically significant negative signs. Newcomers or candidates who run for members of the House of Representatives are more inclined to protectionism than incumbent candidates or those who run for House of Councilors. As expected, candidates who appeal to special interest groups or organizations from which many votes can be expected in election campaigns tend to support protectionist trade policies. In addition, the result of *Agri-member* indicates that a candidate with experience in agricultural policy is likely to support protectionism. Consistent with the results of previous studies on voters' trade policy preferences, female candidates appear to prefer protectionist trade policies.

4.2 Results from linear probability model

The analysis by the ordered logit model, which uses the response results of the five options, is suitable for comprehensively grasping the relationship between the covariates and the trade policy positions, but it is difficult to simultaneously deal with the interaction effect of interest and the potential of endogeneity in the import exposure. Therefore, the following subsections address these issues by simply aggregating the responses in the five options into a binary variable that show pros and cons and applies a linear probability model. The binary variable is a dummy variable that takes unity to indicate protectionist trade policy positions (i.e., 4: Somewhat support protectionist trade policy and 5: Support protectionist trade policy) and 0 if otherwise. Regarding the handling of the answer "3: *neither*," both cases of including it as 0 in a binary variable and excluding it from the sample are examined. Table 5 presents the results from the linear probability model. Columns [1]–[4] show the estimation results from the OLS, and columns [5] and [6] display the results from the two-stage least squares estimates instrumenting for the import exposure using changes in imports from China of other major economies. The coefficient of ΔIMW_{jt} is statistically significant and comparable with the results shown in Table 4 as it

Table 5 Results from linear probability model

	[1]LPM	[2]LPM	[3]LPM	[4]LPM	[5]IV-LPM	[6]IV-LPM
ΔIMW_jt	0.0252***	0.0399***	0.0418***	0.0423***	0.0606***	0.0382***
	[0.00704]	[0.00704]	[0.00720]	[0.00708]	[0.00978]	[0.00882]
ΔEXW_jt	− 0.0068	− 0.0156***	− 0.0126***	− 0.00793	− 0.0164***	− 0.0101*
	[0.00475]	[0.00459]	[0.00488]	[0.00512]	[0.00599]	[0.00543]
Size_jt (10,000)			− 0.000193***	− 8.07e−05	− 9.17e−05	− 5.31e−05
			[4.66e−05]	[6.25e−05]	[5.99e−05]	[5.97e−05]
Rivals_jt			− 0.0222***	− 0.0247***	− 0.0297***	− 0.0257***
			[0.00844]	[0.00839]	[0.00877]	[0.00869]
Agri_jt (%)			0.00724***	0.00116	0.000917	0.00176
			[0.00276]	[0.00281]	[0.00280]	[0.00309]
Education_jt (%)			− 0.00259*	− 0.00221	− 0.00183	− 0.00222
			[0.00149]	[0.00150]	[0.00153]	[0.00169]
Incumbent_ijt				− 0.0955***	− 0.0934***	− 0.0853***
				[0.0240]	[0.0236]	[0.0218]
Upper_ijt				− 0.110***	− 0.110***	− 0.0956***
				[0.0367]	[0.0339]	[0.0330]
Experience_ijt				− 0.00166	− 0.00156	− 0.00457
				[0.00483]	[0.00463]	[0.00515]
Organized_ijt				0.0450***	0.0441***	0.0385**
				[0.0154]	[0.0154]	[0.0151]
Agri-member_ijt				0.201***	0.203***	0.175***
				[0.0225]	[0.0224]	[0.0223]
Gender_ijt (female = 1)				0.0591***	0.0599***	0.0645***
				[0.0208]	[0.0207]	[0.0227]
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Party fixed effects	No	Yes	Yes	Yes	Yes	Yes
Candidate fixed effects	No	No	No	No	No	Yes
Constant	0.465***	0.400***	0.512***	0.538***	0.547***	0.556***
	[0.00874]	[0.0166]	[0.0455]	[0.0490]	[0.0492]	[0.0526]
Observations	3775	3775	3775	3775	3775	3775
R-squared	0.004	0.099	0.118	0.147	0.146	0.169

The dependent variable is the binary variable that takes the value of 1 if the candidate supports the view of protecting domestic industries and 0 if otherwise. The OLS estimates from linear probability model are shown. Robust standard errors in brackets. ***$p<0.01$; **$p<0.05$; *$p<0.1$

can be interpreted as the change in the probability of supporting protectionist trade policy. The instrumental variable method succeeded in eliminating the endogeneity bias, and the result from 2SLS with candidates fixed effects in column [6] indicates that an increase of 100 USD in the import exposure per worker increases the

probability of a candidate's support for protectionism by 3.8%. The export exposure per worker, ΔEXW_{jt}, shows a negative sign, as expected, and a statistically significant coefficient at the 1% level is found in columns [2], [3], and [5]. However, the offset effect of exports is limited, and the net effect is dominated by the import exposure. The results for other control variables are also similar to the results from the ordered logit models. Appendix Table 7 shows the result of using a binary variable indicating pros and cons by excluding candidates who answered "*neither*" from the sample. The results have changed little, and ΔIMW_{jt} still steadily shows a positive and significant protectionist effect.

4.3 Cross-effects of trade shocks and election pressures

This subsection discusses the results on interaction effects of the import exposure per worker and proxies for election pressures to examine whether the protectionist effect of trade shocks is more for candidates who are exposed to severe election pressures. Table 6 shows the results of the interaction term of interest while the results for other covariates, including fixed effects, are suppressed. Since a linear probability model is applied, the coefficients of the interaction terms are directly interpreted as the interaction effects. The first cross-relationship of interest is examined by the interaction term of the incumbent dummy and the import exposure per worker. It is pointed out that incumbents have advantages both in terms of finance and degree of recognition. Therefore, non-incumbent candidates are considered to adopt a protectionist trade policy that is more popular against trade shocks. In other words, the incumbent dummy interacted with the import exposure per worker is expected to have a negative sign. Column [1] in Table 5 shows that the interaction effect is negative and significant, as predicted. For non-incumbent candidates, an increase of 100 USD in imports exposure per worker is associated with a 5% increase in the probability of choosing protectionism, but for incumbent candidates, it is significantly lower than 0.8%. This significant difference in the impact is visually illustrated in Fig. 2, where the vertical axis shows the predicted probability on supporting protectionism, and the horizontal axis indicates import exposure per worker in units of 100 USD. We can interpret an interaction effect as the change in the distance between the two set of predicted probabilities. There is a clear difference with statistical significance at the 95% confidence level between the two. Non-incumbent candidates show a steep upward slope for the choices of somewhat support or support protectionist trade policy, while incumbents are neutral to the import exposure.

The inter-cameral difference in election pressure is driven by the difference in term length. In Japan, members of the House of Representatives are not aware when the election will take place during the 3-year term because of dissolution of the Diet, whereas a term of 6 years is guaranteed for members of the House of Council (Upper House). Election pressure is likely to be severe for candidates for members of the House of Representatives (Lower House). As shown in column [2], the cross term, $\Delta IMW_{jt} \times Upper_{ijt}$, shows a negative coefficient, as expected. Figure 3 also shows a similar picture to that for the incumbency in Fig. 2. As for candidates of the House of Representatives, an upward slope is found for the probability of supporting

Table 6 Results of interaction effects

	[1]LPM	[2]LPM	[3]LPM	[4]LPM	[5]LPM	[6]LPM	[7]LPM
ΔIMW_jt	0.0502***	0.0337***	0.0605***	0.0276***	0.0336***	0.0337***	0.0660***
	[0.00733]	[0.00647]	[0.00769]	[0.00625]	[0.00645]	[0.00645]	[0.00836]
ΔIMW_jt×Incumbent_ijt	−0.0583***		−0.0659***				−0.0805***
	[0.0103]		[0.0104]				[0.0132]
ΔIMW_jt×Upper_ijt		−0.0477***	−0.0646***				0.0231
		[0.0154]	[0.0155]				[0.0931]
ΔEXW_jt	−0.00843*	0.00911	0.0111*	−0.00185	0.01	0.0174**	0.00603
	[0.00466]	[0.00666]	[0.00664]	[0.00509]	[0.00675]	[0.00738]	[0.00761]
ΔEXW_jt×Incumbent_ijt				−0.0131*		−0.0180**	0.0167*
				[0.00731]		[0.00742]	[0.00933]
ΔEXW_jt×Upper_ijt					−0.0261***	−0.0297***	−0.0456
					[0.00811]	[0.00824]	[0.0491]
Incumbent_ijt	−0.0863***	−0.0896***	−0.0903***	−0.0974***	−0.0897***	−0.105***	−0.0763***
	[0.0217]	[0.0218]	[0.0217]	[0.0226]	[0.0218]	[0.0227]	[0.0231]
Upper_ijt	−0.0972***	−0.0943***	−0.0960***	−0.0963***	−0.107***	−0.110***	−0.118***
	[0.0329]	[0.0330]	[0.0328]	[0.0330]	[0.0332]	[0.0332]	[0.0407]

The OLS estimates from linear probability model are shown. The results for other control variables are suppressed. Robust standard errors in brackets. ***$p < 0.01$; **$p < 0.05$; *$p < 0.1$
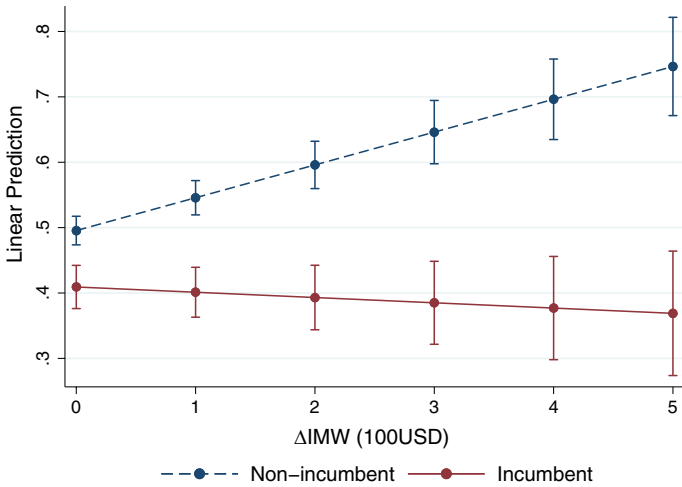
Fig. 2 Difference in impact of import exposure between incumbent and non-incumbent. *Note*: The vertical axis shows the predictive linear probability of supporting the view of protecting domestic industries. The horizontal axis shows the import exposure per worker (USD100) at the constituency level. A 95% confidence interval is shown
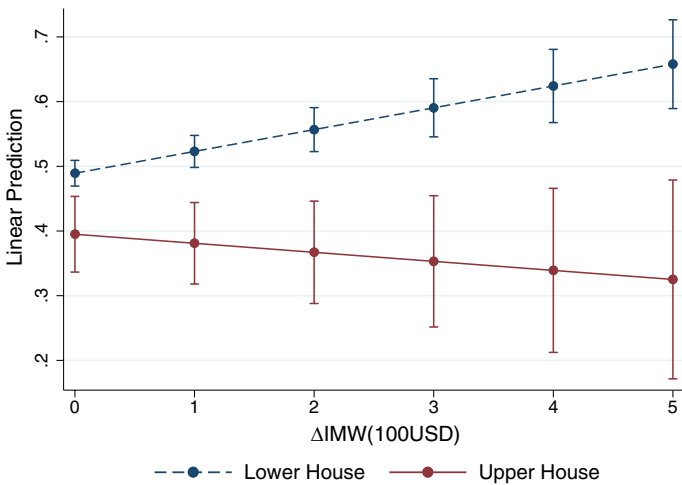

Fig. 3 Inter-cameral difference in the impact of import exposure. *Note*: See note in Fig. 2. A 95% confidence interval is shown

protectionist trade policy. Candidates who run for the election of members of the House of Representatives, who are exposed to severe pressures due to irregular election timing, are more sensitive to import exposure in their constituencies. It is a remarkable finding that this inter-cameral difference continues to remain even if

the difference in size of the constituency is considered. The results are not changed even in the model shown in column [3], where both interaction terms are included at the same time. Columns [4]–[6] show the additional results for testing as to whether electoral pressures vary the effect of export exposure. Export exposure also has interaction effects with respect to the incumbency and the inter-cameral difference. However, as shown in column [7], the interaction term of the incumbent dummy and the import exposure per worker is still statistically significant, even after the interaction terms related to the export exposure are considered at the same time, although the inter-cameral difference in impact of import exposure fades off. To summarize these results, politicians are more likely to support protectionism when faced with a trade shock in their constituency, especially candidates who are vulnerable to competitive pressures in elections.[15]

5 Conclusions

There is growing interest in the impact of trade shock on domestic policy formation. This study attempted to contribute to the literature of this context by empirically examining the determinants of candidates' policy positions using candidate-level data of general elections in Japan, paying attention to the link between trade shocks and electoral pressures. Unlike several previous studies in this field that have relied on data of the U.S. Congress, the data used in this study include both election winners and losers, and it thus enabled us to avoid possible sample selection bias. As we predicted, it has become clear that the increase in import exposure from China in constituencies that have dramatically increased in the last 2 decades and are likely to involve job replacement prevent politicians from favoring free trade. This protectionist effect is not offset by export exposure per worker. In addition, this result is robust in performing two-stage least squares estimators to deal with endogeneity bias in the import exposure and the exclusion of candidates with uncertain attitudes from the sample. Moreover, the results of this study provide evidence that the protectionist effect of trade shocks is sensitive to electoral pressure. The results suggest that as election pressure increases, politicians attempt to acquire votes by using trade shocks as a legitimate reason to advocate protectionist trade policies.

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[15] Appendix Table 8 presents the result of interaction effects from the subsample where the candidates answered "*Neither*." The main conclusions are maintained.

Appendix

See Tables 7 and 8.

Table 7 Results from linear probability model excluding "*neither*"

	[1]LPM	[2]LPM	[3]LPM	[4]LPM	[5]IV-LPM	[6]IV-LPM
ΔIMW_jt	0.0299***	0.0478***	0.0481***	0.0510***	0.0902***	0.0512***
	[0.00779]	[0.00761]	[0.00769]	[0.00748]	[0.0105]	[0.00903]
ΔEXW_jt	− 0.00407	− 0.0141***	− 0.00944*	− 0.00466	− 0.0227***	− 0.0124**
	[0.00518]	[0.00497]	[0.00525]	[0.00545]	[0.00647]	[0.00549]
Size_jt (10,000)			− 0.000208***	− 4.46e−05	− 6.78e−05	− 3.07e−05
			[5.54e−05]	[7.21e−05]	[6.59e−05]	[6.33e−05]
Rivals_jt			− 0.0194**	− 0.0213**	− 0.0313***	− 0.0283***
			[0.00935]	[0.00931]	[0.00956]	[0.00908]
Agri_jt (%)			0.00660**	− 0.001	− 0.00154	0.000845
			[0.00292]	[0.00297]	[0.00309]	[0.00332]
Education_jt (%)			− 0.00409**	− 0.00377**	− 0.00292*	− 0.00309*
			[0.00171]	[0.00172]	[0.00169]	[0.00183]
Incumbent_ijt				− 0.103***	− 0.0992***	− 0.0897***
				[0.0290]	[0.0287]	[0.0245]
Upper_ijt				− 0.145***	− 0.145***	− 0.103***
				[0.0394]	[0.0369]	[0.0336]
Experience_ijt				− 0.00079	− 0.00069	− 0.0051
				[0.00612]	[0.00576]	[0.00614]
Organized_ijt				0.0731***	0.0731***	0.0661***
				[0.0170]	[0.0170]	[0.0158]
Agri-member_ijt				0.255***	0.261***	0.181***
				[0.0218]	[0.0251]	[0.0238]
Gender_ijt (female = 1)				0.0690***	0.0709***	0.0661***
				[0.0219]	[0.0223]	[0.0244]
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Party fixed effects	No	Yes	Yes	Yes	Yes	Yes
Candidate fixed effects	No	No	No	No	No	Yes
Constant	0.619***	0.706***	0.840***	0.840***	0.855***	0.868***
	[0.00980]	[0.0204]	[0.0525]	[0.0549]	[0.0555]	[0.0578]
Observations	2,853	2,853	2,853	2,853	2,853	2,853
R-squared	0.007	0.101	0.127	0.174	0.166	0.171

Robust standard errors in brackets. ***$p < 0.01$; **$p < 0.05$; *$p < 0.1$

Table 8 Results of interaction effects from the sample excluding "*neither*"

	[1]LPM	[2]LPM	[3]LPM	[4]LPM	[5]LPM	[6]LPM	[7]LPM
ΔIMW_jt	0.0448***	0.0364***	0.0606***	0.0269***	0.0361***	0.0360***	0.0694***
	[0.00731]	[0.00664]	[0.00776]	[0.00636]	[0.00661]	[0.00661]	[0.00824]
ΔIMW_jt×Incumbent_ijt	−0.0554***		−0.0680***				−0.0927***
	[0.0114]		[0.0116]				[0.0138]
ΔIMW_jt×Upper_ijt		−0.0730***	−0.0911***				−0.0154
		[0.0159]	[0.0161]				[0.0910]
ΔEXW_jt	−0.00481	0.0210***	0.0228***	−0.00242	0.0220***	0.0232***	0.0137*
	[0.00471]	[0.00681]	[0.00680]	[0.00502]	[0.00690]	[0.00745]	[0.00757]
ΔEXW_jt×Incumbent_ijt				0.00372		−0.00378	0.0033
				[0.00841]		[0.00855]	[0.0101]
ΔEXW_jt×Upper_ijt					−0.0392***	−0.0398***	−0.038
					[0.00838]	[0.00852]	[0.0479]
Incumbent_ijt	−0.0933***	−0.0986***	−0.101***	−0.0896***	−0.0987***	−0.102***	−0.0726***
	[0.0244]	[0.0245]	[0.0244]	[0.0254]	[0.0245]	[0.0256]	[0.0259]
Upper_ijt	−0.105***	−0.108***	−0.112***	−0.103***	−0.126***	−0.126***	−0.127***
	[0.0334]	[0.0334]	[0.0333]	[0.0335]	[0.0338]	[0.0338]	[0.0400]

The results for other control variables are suppressed. Robust standard errors in brackets. ***$p < 0.01$; **$p < 0.05$; *$p < 0.1$

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