Trade Openness, Job Sectors, and Social Policy Preferences: Evidence from China

Statistical Appendix

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In this Statistical Appendix, we present additional information about survey data from the WVS VI China Module and examine issues associated with survey non-responses. We also provide several robustness checks, including (1) alternative model specification using province-level clustered standard errors, (2) alternative model specification using province-level fixed effects, (3) models including additional control variables for respondents' labor-union membership and affiliation with the Chinese Communist Party (CCP), (4) models replacing individual-level inequality perception from the survey data with the province-level Gini coefficient index. In addition, we check empirical results in models that include measures for annual percentage changes of foreign trade and interaction between trade and individuals' labor skills. These additional models, taken together, demonstrate the robustness of the findings we present in the main manuscript.

1 Summary Statistics of Variables

Table A1: Summary Statistics of Variables

Variable	Obs	Mean	Std. Dev.	Min	Max
Dependent Variables:Social Protections					
Government Responsibility	2123	6.356	2.653	1	10
Unemployment Subsidies	1968	8.189	1.999	1	10
Trade					
Trade (as % of GDP)	2300	34.088	38.681	3.857	144.029
Export (as % of GDP)	2300	17.859	19.185	2.429	64.636
Import (as % of GDP)	2300	16.229	23.328	1.429	122.984
Job Sectors					
Private Employee	1425	0.683	0.466	0	1
Control Variables					
Unemployment Rate (2011)	2300	3.464	0.545	1.400	4.200
Income Level	2055	4.416	1.853	1	10
Foreign Direct Investment (as % of GDP)	2300	28.580	26.730	7.091	129.378
Share of Service Industry	2300	40.606	8.170	30.900	76.500
Employed Status	2300	0.501	0.500	0	1
Age	2300	43.918	14.947	18	75
Education	2300	5.337	2.366	1	9
Skill Levels	1416	5.302	2.586	1	10
Female	2300	0.510	0.500	0	1
Inequality Perception	2130	6.548	2.742	1	10

2 Independent and Dependent Variables Visualization

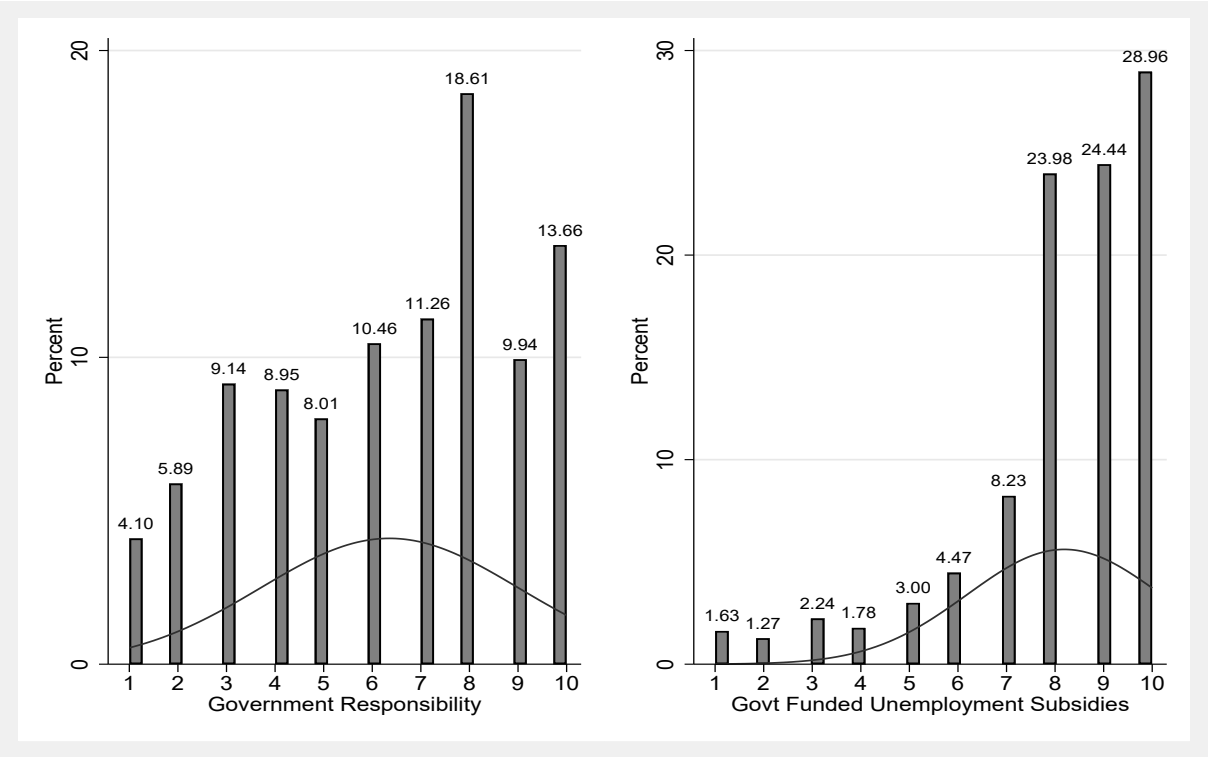

Figure 1: Individuals' Preferences on Social Protection in China (World Value Survey 2012, The China Module)

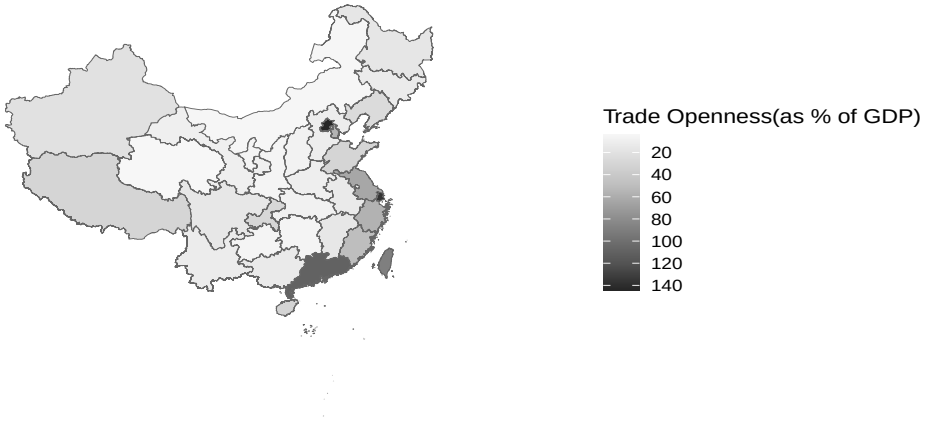

Figure 2: The Distribution of Trade at Province Level (National Bureau of Statistics of China, 2012)

3 Main Regression Tables

Table A2: Determinants of Social Protections Preference: Full Models I

	Dependent variables:	
	Government ①	Unemployment ②
Trade (% of GDP)	0.019***	0.022**
	(0.005)	(0.010)
Private Employee	-0.329**	-0.199
	(0.130)	(0.140)
Unemployed Rate (2011)	0.526**	0.546
	(0.216)	(0.396)
Foreign Direct Investment (% of GDP)	0.000	-0.017
	(0.006)	(0.011)
Share of Service Industry	-0.053***	-0.026
	(0.013)	(0.025)
Income Level	-0.041	-0.075**
	(0.031)	(0.034)
Employed Status	-0.064	-0.066
	(0.121)	(0.131)
Female	-0.109	0.199*
	(0.106)	(0.113)
Education	0.002	-0.044
	(0.030)	(0.033)
Skill Level	-0.038	0.030
	(0.025)	(0.026)
Age	0.002	-0.004
	(0.005)	(0.005)
Inequality Perception	0.393***	0.078***
	(0.024)	(0.022)
Random Effects ($\zeta_1 j$)	0.019	0.217***
N	1144	1071
The Number of Province	24	23
Log-likelihood	-2348.187	-1838.631

Significance Levels: *p<0.10; **p<0.05; ***p<0.01.

Table A3: Determinants of Social Protections Preference: Full Models II

	Dependent variables:	
	Government ③	Unemployment ④
Export (% of GDP)	0.021***	0.010
	(0.007)	(0.012)
Import (% of GDP)	0.016**	0.036**
	(0.007)	(0.012)
Private Employee	-0.327**	-0.205
	(0.129)	(0.140)
Unemployed Rate (2011)	0.513**	0.654*
	(0.219)	(0.378)
Foreign Direct Investment (% of GDP)	-0.000	-0.011
	(0.006)	(0.011)
Share of Service Industry	-0.048***	-0.055*
	(0.017)	(0.029)
Income Level	-0.041	-0.078**
	(0.031)	(0.034)
Employed Status	-0.067	-0.060
	(0.121)	(0.131)
Female	-0.109	0.200*
	(0.106)	(0.113)
Education	0.001	-0.042
	(0.031)	(0.033)
Skill Level	-0.039	0.030
	(0.025)	(0.026)
Age	0.002	-0.005
	(0.005)	(0.005)
Inequality Perception	0.393***	0.077***
	(0.024)	(0.022)
Random Effects ($\zeta_1 j$)	0.020	0.181***
N	1144	1071
The Number of Province	24	23
Log-likelihood	-2348.079	-1837.337

Significant Levels: *p<0.10; **p<0.05; ***p<0.01.

Table A4: Determinants of Social Protections Preference: Interaction Models I

	Dependent variables:	
	Government	Unemployment
	⑤	⑥
Trade (% of GDP)	0.016***	0.022**
	(0.006)	(0.009)
Private Employee	-0.476**	-0.243
	(0.189)	(0.181)
Trade * Private	0.005**	0.004
	(0.002)	(0.002)
Unemployed Rate (2011)	0.511**	0.799
	(0.225)	(0.505)
Foreign Direct Investment (% of GDP)	0.000	-0.016
	(0.003)	(0.012)
Share of Service Industry	-0.055***	-0.019
	(0.014)	(0.015)
Income Level	-0.047	-0.101*
	(0.035)	(0.057)
Employed Status	-0.067	-0.071
	(0.126)	(0.130)
Female	-0.105	-0.207
	(0.089)	(0.130)
Education	0.002	-0.032
	(0.042)	(0.042)
Skill Level	-0.035	0.025
	(0.025)	(0.027)
Age	-0.002	-0.004
	(0.005)	(0.005)
Inequality Perception	0.397***	0.075
	(0.029)	(0.056)
N	1144	1071
The Number of Province	24	23
Log-likelihood	-2347.469	-1856.512

Note: Coefficients and standard errors are included in the table.
*p<0.10; **p<0.05; ***p<0.01.
Model Specification:
Ordered logistic regression with cluster standard errors by province.

4 Survey Sample, Response Rate, and Survey Nonresponse

In the manuscript, we use data from the World Values Survey VI's 2012 China Module to measure individuals' preferences on social protection. The Research Center for Contemporary China (RCCC) at Peking University and several academic institutions jointly administrated the WVS China Module from 2012 to January 2013. The sample design for this survey used "GPS Assisted Area Sampling Methods", which measures individual respondents based on the size of sampling areas, various stratification, and multi-stage PPS ("Probabilities Proportional to Size") (Landry and Shen 2005). Compared with traditional probability sampling, the use of multi-stage PPS reduces sampling bias due to household registrations in China. The intended survey sample includes 3496 Chinese adults aged 18 to 75. The completed interviews produce 2300 valid responses across 21 provinces and 3 direct-administrated municipalities (Beijing, Chongqing, and Shanghai), making an overall response rate of 65.8%.

We further assess if there are salient survey nonresponse bias associated with respondents' socioeconomic characteristics and provincial-level factors; and if so, whether survey nonresponse biases are large enough to be a concern. We code survey responses as one and non-responses as zero. Then we run two logistic regressions including the macro-level economic indicators and individual-level control variables used in our main empirical models. Significant coefficients for these included variables would suggest they cause survey response bias. Nevertheless, only the odds ratio coefficients that are substantially larger or less than one indicate troublesome over- or under-sampling biases. Table A5 and Table A6 report the results of two logistic regressions. We did not find evidence that survey non-responses are substantially drive by the level of trade openness and respondents' job sectors. For our key variable *Trade Openness*, Table A5 and Table A6 both report odds ratios that are not statistically significant. And in both cases, the odds ratios are near 1 (0.987 and 0.989), meaning that survey non-responses do not vary substantially across provinces with low and high levels of trade openness. We observe, nevertheless, survey non-responses are systematically associated with respondents' income and the unemployment rate at the province level (Table A6), with statistically significant odds ratios of 1.267 and 0.350, respectively. In our empirical models, we control for both variables. In addition, we do not find evidence that survey non-responses differ across demographic factors such as gender, education and age.

Table A5: The Analysis of Survey Response: Logistic Regression I

	Dependent variable: Government		
Variable	Coefficient	Odds Ratio	(Robust SE)
Trade (% of GDP)	-0.013	0.987	(0.010)
Private Employee	0.273	1.314	(0.940)
Unemployment Rate (2011)	-1.208	0.299	(1.159)
Education	0.001	1.001	(0.088)
Female	-0.405	0.667	(0.810)
Income	0.030	1.031	(0.201)
Employed Status	1.735	5.667	(1.136)
Age	-0.004	0.996	(0.025)
Inequality Perception	0.149	1.161	(0.093)
Intercept	8.641	5657.998	(6.305)
N	1181		

Significance Levels: *p<0.10; **p<0.05; ***p<0.01

Table A6: The Analysis of Survey Response: Logistic Regression II

	Dependent variable: Unemployment		
Variable	Coefficient	Odds Ratio	(Robust SE)
Trade (% of GDP)	-0.011	0.989	(0.007)
Private Employee	-0.251	0.778	(0.296)
Unemployment Rate (2011)	-1.050**	0.350	(0.418)
Education	0.060	1.062	(0.069)
Female	-0.047	0.954	(0.229)
Income	0.237***	1.267	(0.075)
Employed Status	-0.164	0.849	(0.261)
Age	-0.014	0.986	(0.011)
Inequality Perception	-0.015	0.985	(0.041)
Intercept	6.256***	520.943	(1.994)
N	1181		

Significance Levels: *p<0.10; **p<0.05; ***p<0.01

5 Alternative Models with Province Clustered Standard Errors

In the manuscript, we use multilevel model with provincial random intercepts as the model specification. In this section, we present the results using province-level clustered standard errors instead of random intercepts. Table A7 and Table A8 show four models that replicate empirical models in the manuscript by using province clustered standard errors. Model 7 and 8 in Table A7 measure trade openness as total trade over local GDP. Model 9 and Model 10 in Table A8 show the results by decomposing the total trade into exports and imports. Four models by clustered standard errors present highly consistent results with the ones we report in the manuscript except, with only small differences for a few control variables. Some scholars point out that empirical models using macro-level cluster standard errors have limitations when the number of clusters is small (Abadie et al. 2017). Even so, using clustered standard errors does not substantively change our conclusions regarding how trade openness and job sectors affect one's social policy preferences in China.

Table A7: Determinants of Social Protections Preference: Clustered SE Models I

	Dependent variables:	
	Government ⑦	Unemployment ⑧
Trade (% of GDP)	0.019***	0.024**
	(0.005)	(0.010)
Private Employee	-0.317**	-0.113
	(0.145)	(0.129)
Unemployed Rate (2011)	0.505**	0.799
	(0.222)	(0.500)
Foreign Direct Investment (% of GDP)	-0.000	-0.016
	(0.003)	(0.012)
Share of Service Industry	-0.055***	-0.018
	(0.015)	(0.015)
Income Level	-0.046	-0.100*
	(0.035)	(0.058)
Employed Status	-0.059	-0.062
	(0.125)	(0.129)
Female	-0.108	-0.211*
	(0.089)	(0.127)
Education	0.002	-0.031
	(0.042)	(0.042)
Skill Level	-0.034	0.025
	(0.025)	(0.027)
Age	0.002	-0.004
	(0.005)	(0.005)
Inequality Perception	0.397***	0.076
	(0.029)	(0.056)
N	1144	1071
The Number of Province	24	23
Log-likelihood	-2348.561	-1857.152

Significant Levels: *p<0.10; **p<0.05; ***p<0.01

Table A8: Determinants of Social Protections Preference: Clustered SE Models II

	Dependent variables:	
	Government	Unemployment
	⑨	⑩
Export (% of GDP)	0.020***	0.012
	(0.004)	(0.012)
Import (% of GDP)	0.017*	0.040**
	(0.009)	(0.016)
Private Employee	-0.315**	-0.154
	(0.145)	(0.137)
Unemployed Rate (2011)	0.495**	0.916*
	(0.236)	(0.488)
Foreign Direct Investment (% of GDP)	-0.001	-0.010
	(0.003)	(0.013)
Share of Service Industry	-0.052**	-0.052*
	(0.023)	(0.032)
Income Level	-0.046	-0.107**
	(0.035)	(0.054)
Employed Status	-0.061	-0.041
	(0.126)	(0.125)
Female	-0.108	-0.211*
	(0.089)	(0.127)
Education	0.002	-0.027
	(0.042)	(0.042)
Skill Level	-0.035	0.029
	(0.025)	(0.027)
Age	0.002	-0.005
	(0.005)	(0.006)
Inequality Perception	0.397***	0.073
	(0.029)	(0.054)
N	1144	1071
The Number of Province	24	23
Log-likelihood	-2348.503	-1850.743

Significant Levels: *p<0.10; **p<0.05; ***p<0.01

6 Alternative Models with Province-level Fixed Effects

One potential issue associated with cross-section multilevel analysis is that coefficient estimations might be influenced by time-invariant confounding factors. In our data context, one might worry that these unobservable factors other than our key explanatory variables drive the empirical results. Figure A2 above shows that several sub-national units (such as Beijing, Shanghai, and Guangdong Province) have the highest ratios of trade over GDP, all of which are over 100% while the mean of trade over GDP is 34%. The exceptionally high levels of foreign trade in Beijing, Shanghai, and Guangdong province might be driven by their substantially higher growth rate, compared with other provinces. These three cases also represent the most economically advanced areas in China, which attract large flow of national government subsidies and enjoy tax/tariff policies that might be different from other provinces. As these factors are not observed in our empirical models, we check if our model results will change when adding provincial fixed effects to control for unobserved heterogeneity.

Table A9 shows that the inclusion of province-level fixed effects significantly improves the magnitude size of trade openness and the job sector on individuals' social protection preferences, including government responsibility and public-funded unemployment subside. Specifically, using fixed-effects raises the coefficients for trade openness on two social protection models tremendously (0.019 to 0.103 for government responsibility, 0.022 to 0.307 for unemployment subsidies). The private sector's effect on one's support for government responsibility also drops (-0.329 to -0.377). These results prove that our primary analyses are not driven by unobserved heterogeneity between different sub-national units.

Also, we find that foreign direct investment increases one's demand for government role while reducing her demands for job-related subsidies. At last, individuals with a higher level of skill-asset are less likely to demand government responsibility. This finding presents evidence that the factor-specific model of trade does not gain support in China.

Table A9: Determinants of Social Protections Preference: Province Fixed Effects

	Dependent variables:	
	Government	Unemployment
	⑪	⑫
Trade (% of GDP)	0.103*	0.307***
	(0.056)	(0.079)
Private Employee	-0.377**	-0.224
	(0.158)	(0.148)
Unemployed Rate (2011)	-4.430	-8.235*
	(3.029)	(4.255)
Foreign Direct Investment (% of GDP)	0.030**	-0.122***
	(0.009)	(0.015)
Share of Service Industry	-0.621*	-1.319**
	(0.344)	(0.476)
Income Level	-0.027	-0.070
	(0.038)	(0.047)
Employed Status	-0.104	-0.058
	(0.129)	(0.130)
Female	-0.112	-0.194
	(0.091)	(0.128)
Education	-0.002	-0.047
	(0.043)	(0.042)
Skill Level	-0.053**	0.034
	(0.026)	(0.029)
Age	0.002	-0.004
	(0.005)	(0.005)
Inequality Perception	0.385***	0.079
	(0.029)	(0.054)
N	1144	1071
The Number of Province	24	23
Log-likelihood	-2325.097	-1811.529

Significant Levels: *p<0.10; **p<0.05; ***p<0.01

7 Models Controlling Labor Unions and Party Membership

In the existing literature, scholars emphasize that labor unions and partisanship can affect the magnitude of social spending (Huber and Stephens 2001; Swank 2002; Lipsmeyer and Zhu 2011). However, other scholars suggest that the power resource theory does not work in less-developed countries where we do not observe politically independent and influential unions or parties (Rudra 2002; Nooruddin and Rudra 2014).

Despite the on-going debate regarding the role of labor union and left-wing parties in shaping government social spending, there is scholarly consensus that individuals' affiliation with labor union and left-wing party membership significantly shape their social policy preferences. In this section, we present additional models adding respondents' labor union membership and the affiliation with CCP as control variables. We estimate these additional models using two specifications: (1) clustered standard errors by province, and (2) multi-level models with random intercepts by province. We find empirical results in Table A10 and A11 are consistent with those from primary estimations in the manuscript after controlling respondents' affiliation on labor unions and party membership. Similar to (Rudra 2002), we find that in the Chinese context, one's labor union and CCP membership do not significantly explain their social policy preferences.

Table A10: Determinants of Social Protections Preference: Models with Clustered Standard Errors by Province and Labor Union and Party Membership as Controls

	Dependent variables:			
	Government	Unemployment	Government	Unemployment
	⑬	⑭	⑮	⑯
Trade (% of GDP)	0.019***	0.024**		
	(0.005)	(0.009)		
Export (% of GDP)			0.020***	0.011
			(0.004)	(0.012)
Import (% of GDP)			0.018*	0.041**
			(0.010)	(0.016)
Private Employee	-0.322**	-0.127	-0.321**	-0.172
	(0.146)	(0.131)	(0.146)	(0.136)
Unemployed Rate (2011)	0.500**	0.801*	0.496**	0.915*
	(0.227)	(0.502)	(0.242)	(0.484)
FDI (% of GDP)	-0.001	-0.016	-0.001	-0.010
	(0.003)	(0.012)	(0.003)	(0.013)
Share of Service Industry	-0.055***	-0.018	-0.054**	-0.054*
	(0.015)	(0.015)	(0.025)	(0.032)
Income Level	-0.046	-0.099*	-0.046	-0.105*
	(0.035)	(0.060)	(0.035)	(0.056)
Employed Status	-0.059	-0.067	-0.060	-0.044
	(0.125)	(0.134)	(0.127)	(0.127)
Female	-0.102	-0.207	-0.102	-0.205
	(0.087)	(0.128)	(0.088)	(0.128)
Education	0.003	-0.029	0.003	-0.025
	(0.043)	(0.043)	(0.042)	(0.043)
Skill Level	-0.036	0.025	-0.036	0.027
	(0.026)	(0.027)	(0.025)	(0.027)
Age	0.002	-0.004	0.002	-0.005
	(0.005)	(0.005)	(0.005)	(0.006)
Inequality Perception	0.397***	0.075	0.397***	0.072
	(0.029)	(0.056)	(0.029)	(0.054)
Labor Union Member	-0.133	-0.012	-0.129	-0.122
	(0.156)	(0.198)	(0.169)	(0.185)
Party Member	0.122	-0.037	0.118	0.058
	(0.244)	(0.226)	(0.257)	(0.263)
N	1143	1070	1143	1070
The Number of Province	24	23	24	23
Log-likelihood	-2346.494	-1854.257	-2346.484	-1847.478

Significance Levels: *p<0.10; **p<0.05; ***p<0.01

Table A11: Determinants of Social Protections Preference: Multilevel Models with Random Intercepts by Provinces and Controlling for Labor Union and CCP Membership

	Dependent variables:			
	Government	Unemployment	Government	Unemployment
	⑰	⑱	⑲	⑳
Trade (% of GDP)	0.019***	0.022**		
	(0.005)	(0.010)		
Export (% of GDP)			0.020***	0.009
			(0.007)	(0.012)
Import (% of GDP)			0.017**	0.037**
			(0.008)	(0.013)
Private Employee	-0.338**	-0.209	-0.337**	-0.216
	(0.131)	(0.142)	(0.132)	(0.142)
Unemployed Rate (2011)	0.524**	0.548	0.516**	0.658*
	(0.219)	(0.395)	(0.223)	(0.376)
FDI (% of GDP)	0.000	-0.017	-0.000	-0.010
	(0.006)	(0.011)	(0.006)	(0.011)
Share of Service Industry	-0.053***	-0.026	-0.050**	-0.056*
	(0.013)	(0.025)	(0.018)	(0.029)
Income Level	-0.040	-0.075**	-0.040	-0.077**
	(0.031)	(0.034)	(0.031)	(0.035)
Employed Status	-0.062	-0.069	-0.064	-0.063
	(0.122)	(0.132)	(0.122)	(0.132)
Female	-0.102	-0.195*	-0.103	-0.196
	(0.106)	(0.114)	(0.106)	(0.114)
Education	0.004	-0.042	0.003	-0.041
	(0.031)	(0.033)	(0.031)	(0.033)
Skill Level	-0.039	0.029	-0.040	0.029
	(0.025)	(0.026)	(0.025)	(0.026)
Age	0.002	-0.004	0.002	-0.005
	(0.005)	(0.005)	(0.005)	(0.005)
Inequality Perception	0.392***	0.077***	0.392***	0.076***
	(0.024)	(0.022)	(0.024)	(0.022)
Labor Union Member	-0.157	-0.032	-0.150	-0.056
	(0.177)	(0.189)	(0.179)	(0.189)
Party Member	0.125	-0.009	0.119	0.012
	(0.189)	(0.195)	(0.190)	(0.195)
N	1143	1070	1143	1070
The Number of Province	24	23	24	23
Log-likelihood	-2346.016	-1835.967	-2345.975	-1834.604

Significance Levels: *p<0.10; **p<0.05; ***p<0.01.

8 Trade Openness in the Previous Year and Changes in Trade from 2011 to 2012

In this section, we treat trade openness as a form of an economic shock to the local job market and therefore present two different empirical approaches. First of all, we use the year of 2011's trade variable to re-estimate all the primary models. Secondly, we replace total trade volume with percent change in trade from 2011 to 2012, calculated based on Equation (1).

$$TradeChange_{2012} = \frac{Trade_{2012} - Trade_{2011}}{Trade_{2011}} \tag{1}$$

Table A12 presents the results of empirical models using these two different measures of trade openness. First, model 21 to model 24 show that using the data of trade openness in 2011 delivers highly consistent results as 2012's data on trade openness in the manuscript. Secondly, when we use the change ratio of the trade openness, two coefficients in four models increase significantly. This finding suggests that a yearly change of trade has a considerably salient impact on individuals' economic risks and social protection preferences.

Table A12: Determinants of Social Protections Preference: Trade as Lagged Variable and External Shock

	Dependent variables:			
	Government ㉑	Unemployment ㉒	Goverment ㉓	Unemployment ㉔
Trade (% of GDP) in 2011	0.021***	0.028***	0.021***	0.025**
	(0.005)	(0.010)	(0.006)	(0.011)
Trade Change (% of GDP)	0.639**	0.525	0.626*	0.275
	(0.293)	(0.589)	(0.334)	(0.597)
Private Employee	-0.317**	-0.115	-0.326**	-0.199
	(0.143)	(0.129)	(0.129)	(0.140)
Unemployed Rate (2011)	0.555**	0.868*	0.566***	0.579
	(0.216)	(0.508)	(0.214)	(0.399)
FDI (% of GDP)	0.000	-0.017	0.001	-0.018
	(0.003)	(0.012)	(0.006)	(0.011)
Share of Service Industry	-0.054***	-0.020	-0.053***	-0.029
	(0.013)	(0.013)	(0.013)	(0.025)
Income Level	-0.053	-0.105*	-0.048	-0.076**
	(0.034)	(0.061)	(0.032)	(0.034)
Employed Status	-0.071	-0.069	-0.073	-0.067
	(0.124)	(0.129)	(0.121)	(0.131)
Female	-0.114	-0.215*	-0.114	-0.199*
	(0.089)	(0.128)	(0.106)	(0.114)
Education	0.004	-0.031	0.004	-0.044
	(0.042)	(0.041)	(0.030)	(0.033)
Skill Level	-0.037	0.024	-0.039	0.030
	(0.025)	(0.026)	(0.025)	(0.026)
Age	0.002	-0.004	0.002	-0.004
	(0.005)	(0.005)	(0.005)	(0.005)
Inequality Perception	0.392***	0.074	0.390***	0.077***
	(0.029)	(0.054)	(0.024)	(0.022)
N	1144	1071	1144	1071
The Number of Province	24	23	24	23
Log-likelihood	-2347.962	-1856.249	-2347.730	-1838.432

Significance Levels: *p<0.10; **p<0.05; ***p<0.01
Model 15 and 16 use province cluster standard errors.
Model 17 and 18 are run by random-intercept proportional odds model.

9 Models Including an Interaction between Trade and Skill

The existing literature suggests how trade shapes individuals' social preferences can be examined by looking at their skill-assets or a combination of skill-assets and individuals' exposure in trade Mayda and Rodrik (2005); Walter (2017). In an emerging market, one might expect that skilled workers tend to have a higher level of economic risks than low-skilled workers based on a factor model of trade (Stolper and Samuelson 1941; Rogowski 1989). In this section, we present additional models that include an interaction term between the provincial-level trade measure and individuals' skill assets. Nevertheless, the empirical results shown in Table A13 do not produce expected results. We do not observe evidence that trade openness and individual skill-asset interactively shape their preferences on social protection.

Table A13: Determinants of Social Protections Preference: Including an Interaction Term Between Trade and Skill

	Dependent variables:	
	Government (25)	Unemployment (26)
Trade (% of GDP)	0.017***	0.021*
	(0.006)	(0.011)
Skill Level	-0.048	0.020
	(0.031)	(0.032)
Trade * Skill	0.000	0.000
	(0.001)	(0.001)
Private Employee	-0.332**	-0.201
	(0.129)	(0.140)
Unemployed Rate (2011)	0.528**	0.547
	(0.217)	(0.396)
Foreign Direct Investment (% of GDP)	0.001	-0.017
	(0.006)	(0.011)
Share of Service Industry	-0.052***	-0.026
	(0.013)	(0.025)
Income Level	-0.042	-0.076**
	(0.031)	(0.034)
Employed Status	-0.064	-0.065
	(0.121)	(0.131)
Female	-0.108	-0.198*
	(0.106)	(0.114)
Education	0.001	-0.044
	(0.031)	(0.033)
Age	0.002	-0.004
	(0.005)	(0.005)
Inequality Perception	0.392***	0.077***
	(0.024)	(0.022)
N	1144	1071
The Number of Province	24	23
Log-likelihood	-2348.039	-1838.496

Significant Levels: *p<0.10; **p<0.05; ***p<0.01

10 Models Using Province-level Gini Coefficient Index

The existing literature suggests that income equality influences how individuals perceive their economic risks and social policy preferences (Mares and Carnes 2009; Kelly and Enns 2010; Rehm, Hacker and Schlesinger 2012). In this section, we replace individual-level inequality perception from the survey data with the province-level Gini coefficient index of income inequality. In this study, we adopted Gini-coefficient data in 2010 provided by (Tian 2012). Table A14 presents two empirical models including the objective measure of income inequality. Both models show consistent results with main findings presented in the manuscript. Regarding the income inequality variable, we find a null relationship between the provincial-level objective inequality measure and individuals' social policy preferences. Therefore, our findings are indicative that perceptions of inequality are often different from the reality of how income and wealth are distributed in a society (Hauser and Norton 2017), and income inequality perceptions play a more salient role in shaping individuals' social policy preferences than the actual level of income inequality(Gimpelson and Treisman 2017; Hauser and Norton 2017).

Table A14: Determinants of Social Protection Preferences: Additional Analysis Using Province-level Gini Coefficient Index

	Dependent variables:	
	Government	Unemployment
	㉗	㉘
Trade (% of GDP)	0.019*	0.021*
	(0.011)	(0.011)
Private Employee	-0.341**	-0.146
	(0.143)	(0.148)
Unemployed Rate (2011)	0.554	0.134
	(0.417)	(0.413)
Foreign Direct Investment (% of GDP)	0.007	-0.024**
	(0.011)	(0.011)
Share of Service Industry	-0.043	-0.051*
	(0.026)	(0.026)
Income Level	-0.041	-0.062
	(0.035)	(0.038)
Employed Status	-0.145	-0.123
	(0.137)	(0.142)
Female	-0.052	-0.163
	(0.116)	(0.121)
Education	-0.036	-0.057
	(0.033)	(0.035)
Skill Level	-0.065**	0.029
	(0.028)	(0.028)
Age	0.007	-0.003
	(0.005)	(0.005)
Gini Coefficient Index (2010)	3.605	-5.131
	(3.532)	(3.645)
N	967	940
The Number of Province	21	21
Log-likelihood	-2095.340	-1605.499

Significant Levels: *p<0.10; **p<0.05; ***p<0.01

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