Voting for Populism in Europe: Globalization, Technological Change, and Populist Right Parties

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Globalization and Populism

- What are the political consequences of globalization?
- Long literature about capitalism and democracy (Marx 1890, Polanyi 1957, Piketty 2014):
  - Is capitalism necessary for democracy? Does it undermine democracy?
  - Distributive Consequences & Inequality
  - Embedded Liberalism as solution?
- Will globalization undermine liberal democracy?
- Will erosion of liberal democracy undermine Liberal International Order (LIO)?

Outline of the Book

- Chapter 1: Global Capitalism and Challenges to Democracy.
- Chapter 2: Globalization and Democracy Part I: 1870-1930.
- Chapter 3: Globalization and Liberal Democracy today: the Rise of the Populist Right and Polarization.
- Chapter 4: Populist Right Party Politics: the F(R)N in France.
- Chapter 5: A Global Survey of Globalization and Populism.
- Chapter 6: Globalization, Populism and the LIO: Brexit.
- Chapter 7 : Some Conclusions.

Globalization and Populism

- What are the political consequences of globalization?
  - How to deal with the Distributive Consequences:
    - ★ e.g., Winners & losers from trade (Rogowski 1989)
  - Embedded Liberalism as past solution: Progressive taxation, social welfare policies, & trade and capital controls can make capitalism compatible with democracy (Ruggie 1982).
  - Challenges to liberal democracy
- Is Embedded Liberalism still viable in an open economy?
- Do new domestic political coalitions arise from these changes?

Challenges to Liberal Democracy

- Two big challenges:
- Rise of far right populist parties (RPP).
  - Undermining liberalism, institutions that check executive
- Extreme Polarization.
- They are related: RPP stoke polarization.
- Are they due or related to globalization?

CAUSAL STORY: DEMAND

- Why would globalization generate support for extreme right in rich democracies?
- DEMAND and SUPPLY matter.
- DEMAND: Global capitalism creates losses for lower skill workers
  - Biggest impact of China shock is firm closures leading to unemployment
  - Unemployed get worse jobs, take up disability insurance, or drop from labor market
  - Agglomeration effects mean entire locale affected
- Losses create rising **insecurity**
- Insecurity associated with tendency toward
  - authoritarianism
  - dislike of out-groups, anti-foreign
  - anti-egalitarianism
- Hence rising globalization ==> rising demand for these political programs

CAUSAL STORY: SUPPLY

- Why would globalization generate support for extreme right in rich democracies?
- SUPPLY: Political parties and leaders enter and alter their programs.
- Politicians and Far Right Populist Parties appear and move to programs that are more
  - Anti-elite
  - Nationalist, nativist
  - Anti-internationalist, anti-EU
  - protectionist, anti-globalization, esp trade, immigration
  - anti-liberalism
- SUPPLY meets DEMAND
- Hence rising globalization ==> rising support for far right populist parties

- Key questions:
  - Is globalization causing voters to turn to far right parties?
  - Is globalization causing voters to turn away from center left parties?
  - Can social welfare spending modify impact of globalization on voters?
  - Is globalization related to polarization?

Empirical Evidence:

- What do we mean by globalization?
  - 5 elements: trade, FDI, immigration, financial integration, and technology
  - Trade: China import shock, low wage import shock
  - Trade instrument: US China import shock
  - FDI and offshoring
  - Technology: robots, routine task intensity (RTI)
  - Financial Crisis, global capital markets, spillover from US
- Other Factors
  - Inequality (regional level)
  - Social welfare spending (individual)
- Regional Level (within countries) where impact is felt

Empirical Evidence:

- Two levels of analysis
  - regional level (N=164): aggregate vote share of party families
  - individual level (N=141,505): individual vote by party family

- Data on 15 European democracies from 1990-2018
- Regions vary: they average 2.38 million people, 25,800 km^2 land area (e.g., VT).
- OLS with election-year country fixed effects and 2SLS.
- Robust standard errors clustered over 164 regions.
- Multiple imputation, N=1150.

▸ details

Shock Variables

- **Globalization Shocks Creation**
  - I follow Autor, et al. (2013), Colantone and Stanig (2018), and others in defining the globalization shocks as:

$$Globalization\ Shock_{crt} = \sum_{j} \frac{L_{rj(1992)}}{L_{r(1992)}} \times \frac{\Delta M_{cjt}}{L_{cj(1992)}}$$

    where $\frac{L_{rj(1992)}}{L_{r(1992)}}$ is the share of total workers of region r in country c employed in industry j.
  - ΔM_{cjt} is the change in **imports, foreign direct inflows, or the operational stock of robots** in industry j (manufacturing) in country c between year t and $t-3$, normalized by the number of workers in manufacturing in that country in 1992.
  - I use a three-year difference to match the average time between elections (3.8 years).

Shock Variable Calculations (cont.)

- **Immigration Shock**
  - Since we have data by region, immigration shock is:

$$Immigration\ Shock_{crt} = \frac{\Delta Imm_{rt}}{P_{r(1992)}}$$

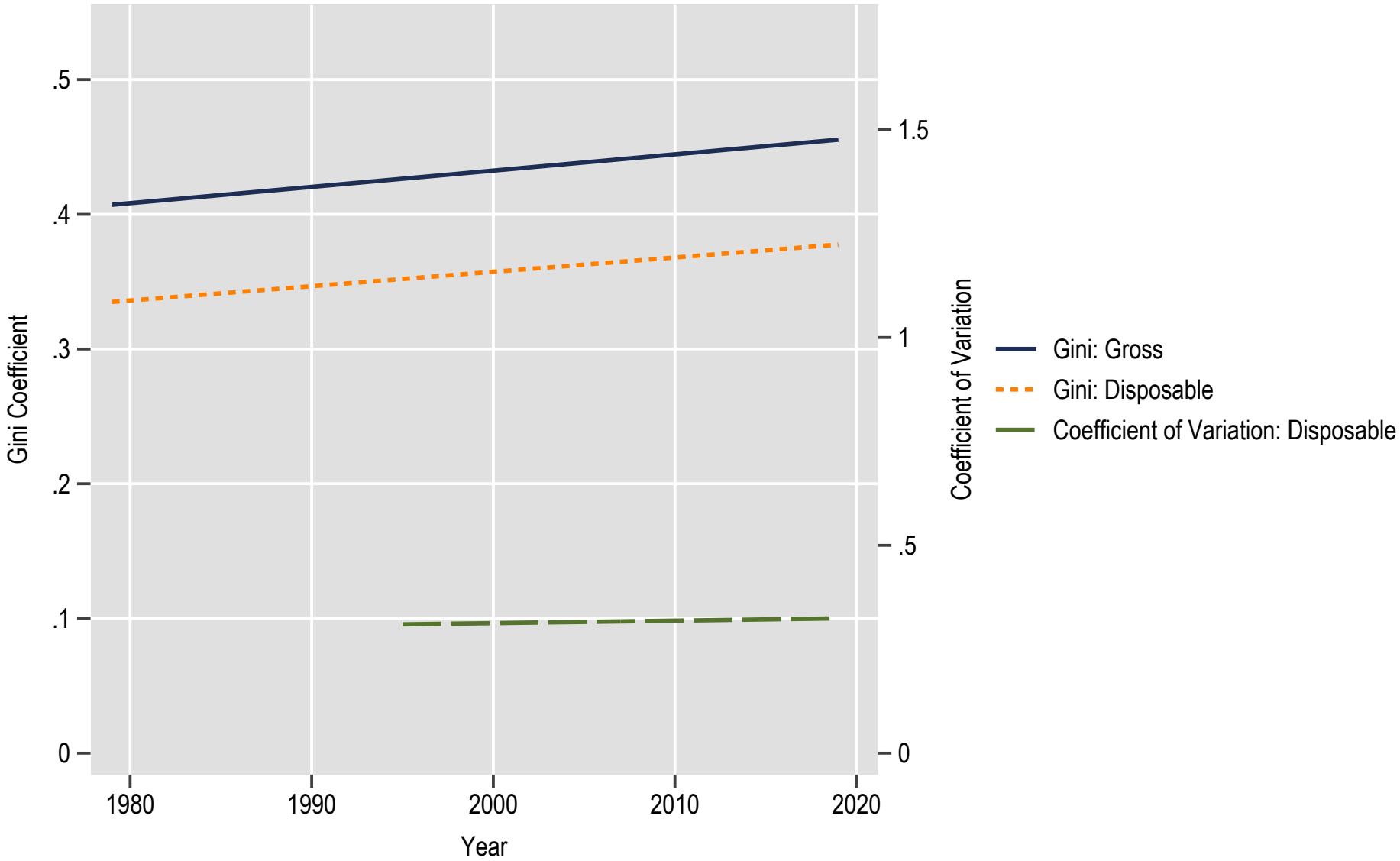
where ΔImm_{rt} is the change in the stock of foreign nationals in region r between year $t-1$ and $t-4$ normalized by $P_{r(1992)}$, the total population in NUTS-2 region r in 1992.

- **Global Financial Crisis**: =1 if year=2008 or greater; 0 otherwise.

Inequality's Impact on Vote Shares

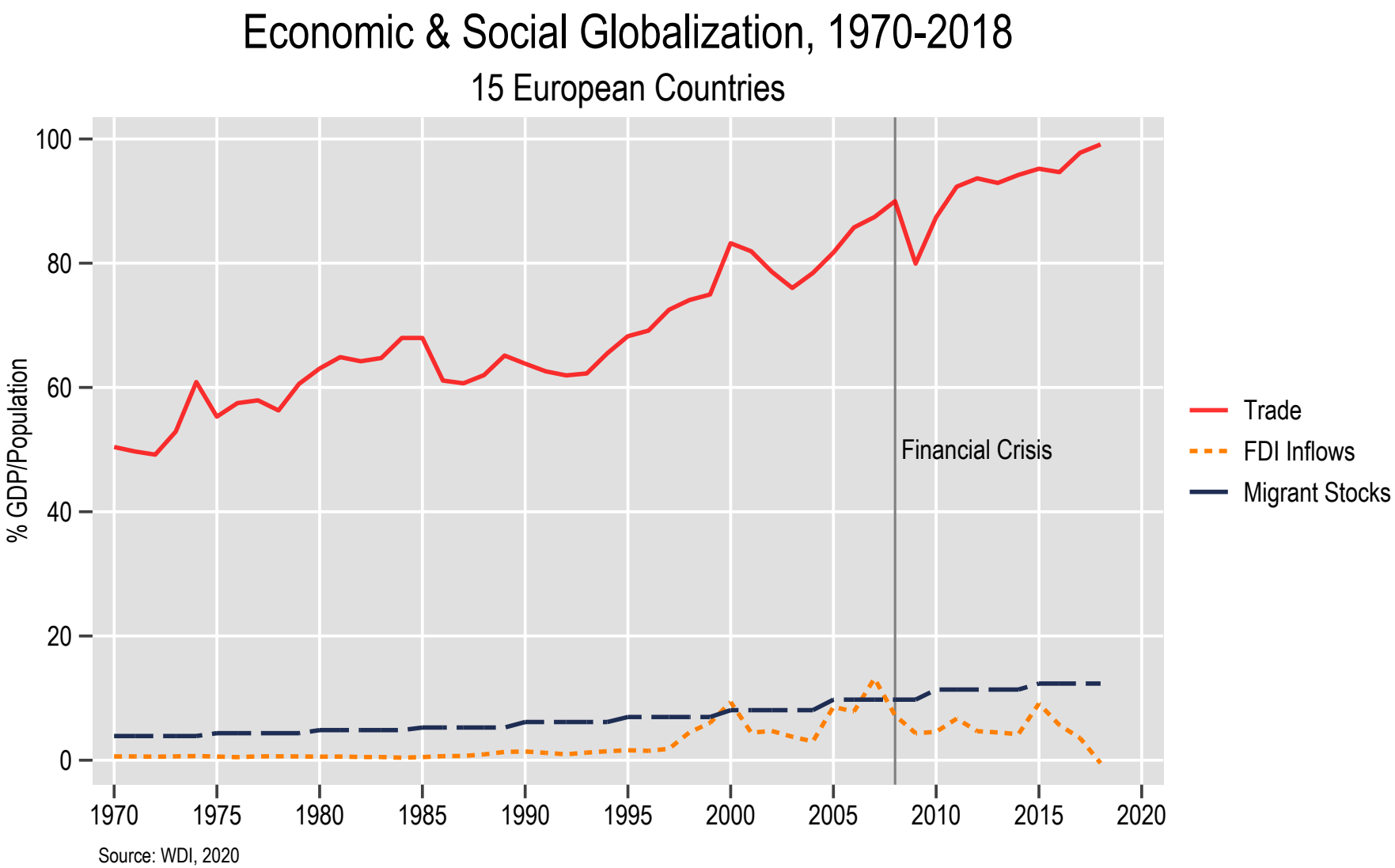
- Quantifying inequality at regional level
  - Using average income of region in year
  - Coefficient of variation (SD/Mean) shock $\frac{\sigma_t - \sigma_{t-3}}{\mu_{1992}}$
  - Measured at within-region level for NUTS regions at LAU level
  - Accounts for differences in costs of living across regions and currencies.
  - pre-tax/transfer data as well as post-tax/transfer, with similar results.
- Within a region, inequality is very stable over time. Across countries, inequality rising a lot.

Inequality Trends



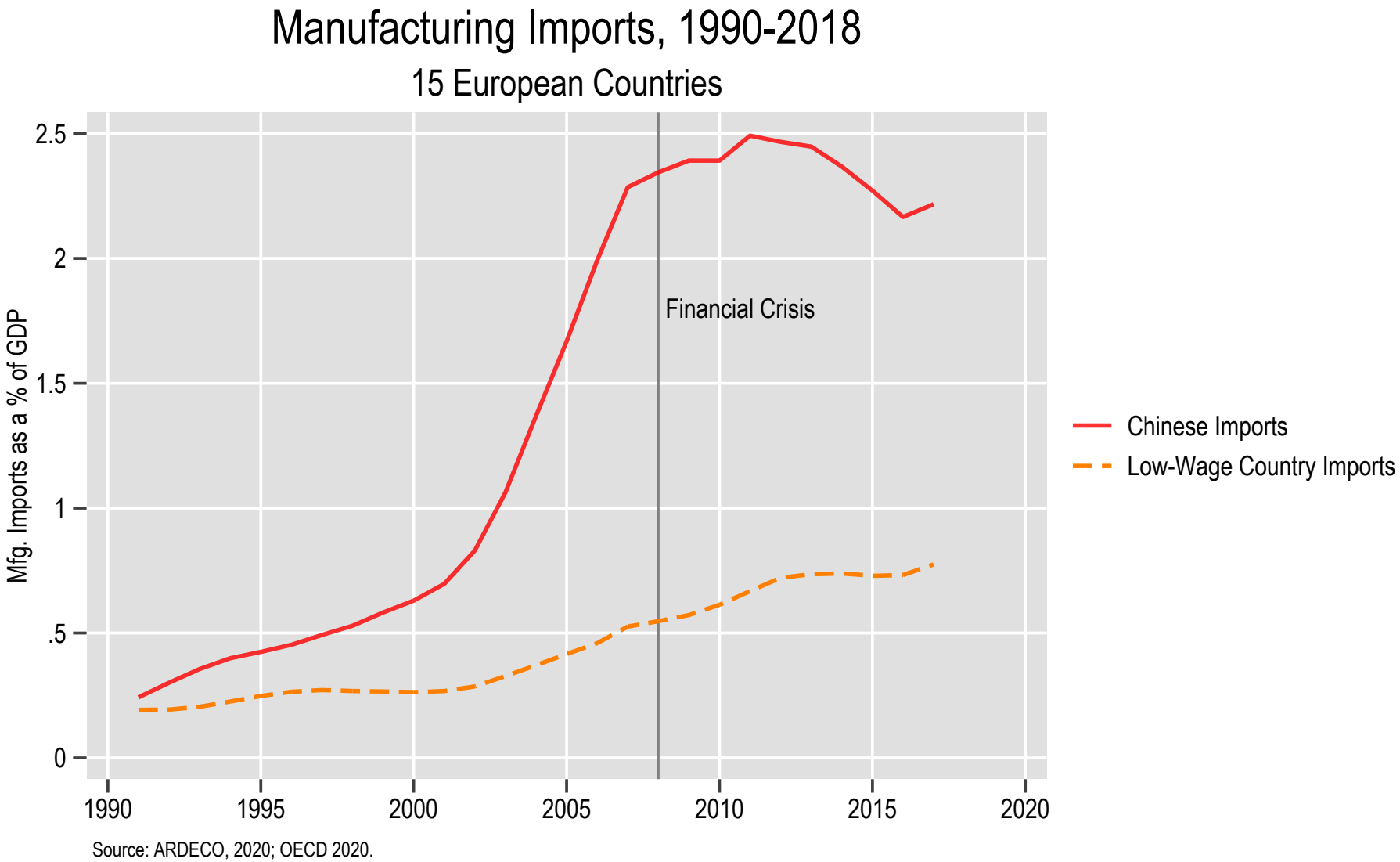
Linear predictions plot of observed values. Coefficient of variation reflects regional observations, while Gini coefficients present country-level observations. Gini estimates from WID

Economics and Social Globalization Measures



Trade flows as a % of GDP, FDI inflows as a % of GDP, and immigrants as % of the total population

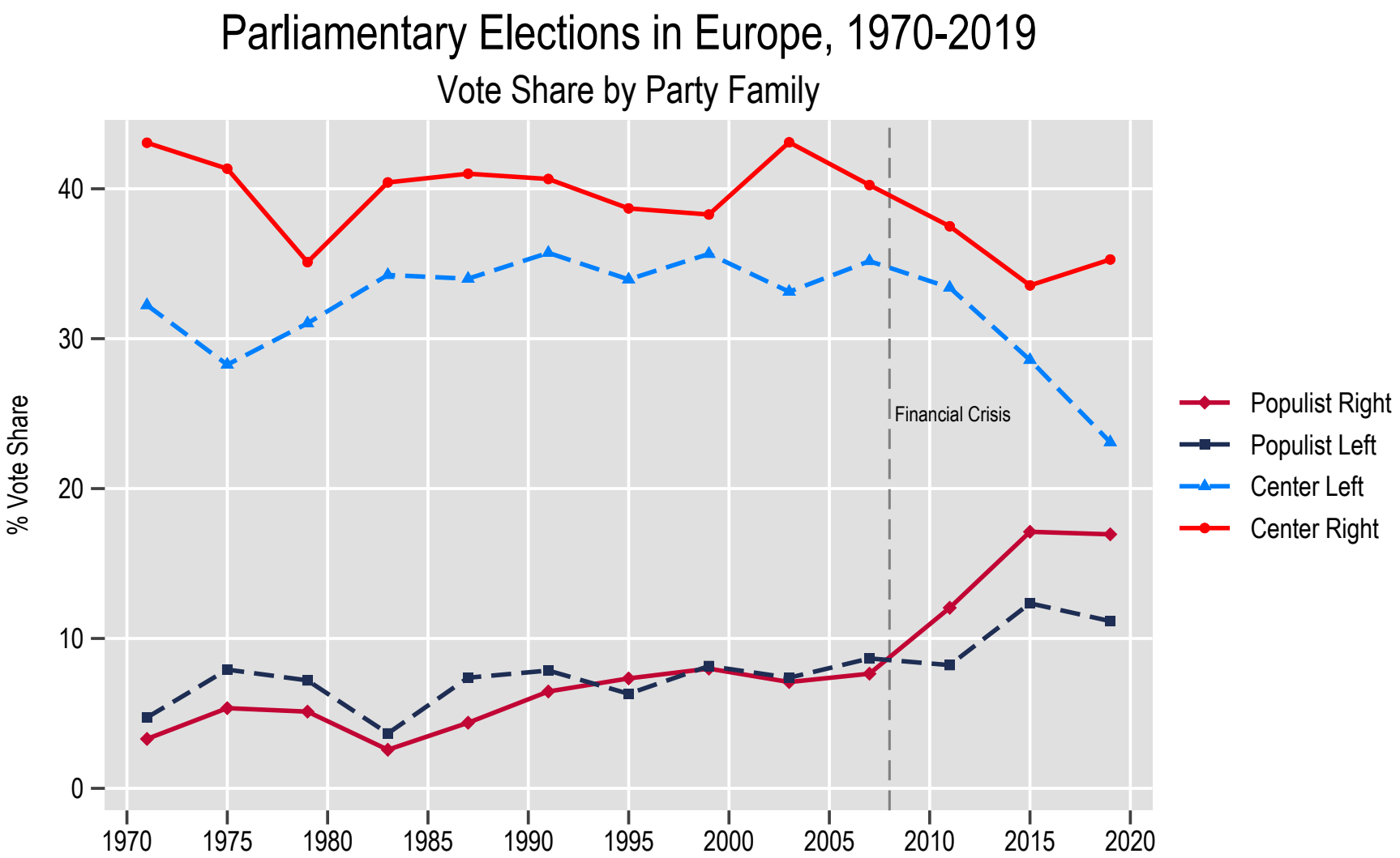
Imports from China & Low-Wage Countries



Source: ARDECO, 2020; OECD 2020.

Imports from China & Low Wage Countries: Three year moving average of manufacturing imports as a % of GDP.

Vote Share by Party Family



Source: ParlGov, 2020. 15 European countries.

Mean vote share by party family from 1970-2019 across 15 European countries, 4-year averages

Regional Voting (1990-2018) (Right Populist Parties)

Right Populist	b/se	b/se	b/se	b/se	b/se	b/se
China Shock	2.269**	4.303***	2.225*	4.264**	2.345**	4.685***
	(0.961)	(1.545)	(1.279)	(1.905)	(1.176)	(1.659)
FDI Shock	-0.229	-0.407	-0.180	-0.487	0.037	-0.366
	(1.781)	(1.734)	(1.828)	(1.794)	(1.804)	(1.822)
Inequality Shock (Disposable)					0.302	0.359
					(0.701)	(0.692)
Immigration Shock	-19.300	-20.519			-21.645	-22.951*
	(14.592)	(14.072)			(14.136)	(13.575)
Post-Crisis	22.849***	23.276***	20.600***	21.136***	22.072***	22.172***
	(2.727)	(2.656)	(2.624)	(2.634)	(2.679)	(2.579)
Post-Crisis × China Shock			0.763	1.991	0.551	1.602
			(1.566)	(2.912)	(1.459)	(2.818)
Robot Shock	2.110	1.559	3.552**	2.717	1.313	0.309
	(1.589)	(1.644)	(1.700)	(1.798)	(1.496)	(1.623)
RTI Region	7.072**	6.585**			7.550**	6.854**
	(2.870)	(2.790)			(2.951)	(2.869)
Constant	-0.730		-0.356		0.284	
	(1.161)		(1.180)		(0.961)	
N	1150	1150	1150	1150	1086	1086
Estimator	OLS	2SLS	OLS	2SLS	OLS	2SLS
Adj. R^2	.758		.755		.776	
First Stage Results						
US-China Instrument		0.022***		0.021***		0.020***
		(0.002)		(0.003)		(0.003)
Post-Crisis × US China Inst.				0.006*		0.006*
				(0.004)		(0.004)
Kleibergen-Paap rk Wald F-statistic		138.00		54.07		
Anderson-Rubin Confidence Interval		[2.39, 7.57]				

Notes: $^{*}p < .1, ^{**}p < .05, ^{***}p < .01$. OLS and 2SLS estimates with country-year (i.e., election) fixed effects and robust standard errors clustered over 164 European regions (NUTS-1/2) in parentheses. The dependent variable is vote share for each party family as a percentage of the total regional vote.

Regional Voting (1990-2018) (Left Populist Parties)

Left Populist	b/se	b/se	b/se	b/se	b/se	b/se
China Shock	0.239	-0.211	0.403	-0.182	0.886	0.249
	(0.621)	(1.750)	(0.786)	(1.864)	(0.867)	(2.314)
FDI Shock	-0.704	-0.665	-0.703	-0.623	-0.875	-0.792
	(2.126)	(2.081)	(2.115)	(2.050)	(2.019)	(1.961)
Inequality Shock (Disposable)					-0.261	-0.275
					(0.618)	(0.590)
Immigration Shock	-7.943	-7.688			-4.848	-4.589
	(10.519)	(10.194)			(11.145)	(10.692)
Post-Crisis	7.933***	7.843***	10.482***	10.335***	7.438***	7.399***
	(2.159)	(2.048)	(1.910)	(1.840)	(2.272)	(2.149)
Post-Crisis × China Shock			-1.595	-1.861	-1.461	-1.512
			(0.980)	(1.663)	(0.995)	(1.700)
Robot Shock	0.256	0.386	-1.515	-1.276	-0.285	-0.039
	(1.931)	(1.879)	(1.882)	(1.845)	(2.120)	(2.165)
RTI Region	-7.927**	-7.825**			-7.917**	-7.754**
	(3.515)	(3.417)			(3.752)	(3.647)
Constant	2.427**		1.672		2.939**	
	(1.162)		(1.079)		(1.389)	
N	1150	1150	1150	1150	1086	1086
Estimator	OLS	2SLS	OLS	2SLS	OLS	2SLS
Adj. R^2	.724		.720		.725	
First Stage Results						
US-China Instrument		0.022***		0.021***		0.020***
		(0.002)		(0.003)		
Post-Crisis × US China Inst.				0.006*		0.006*
				(0.004)		(0.004)
Kleibergen-Paap rk Wald F-statistic		138.00		54.07		
Anderson-Rubin Confidence Interval		[-3.64, 3.58]				

Notes: $^{*}p < .1, ^{**}p < .05, ^{***}p < .01$. OLS and 2SLS estimates with country-year (i.e., election) fixed effects and robust standard errors clustered over 164 European regions (NUTS-1/2) in parentheses. The dependent variable is vote share for each party family as a percentage of the total regional vote.

Regional Voting (1990-2018) (Center Right Parties)

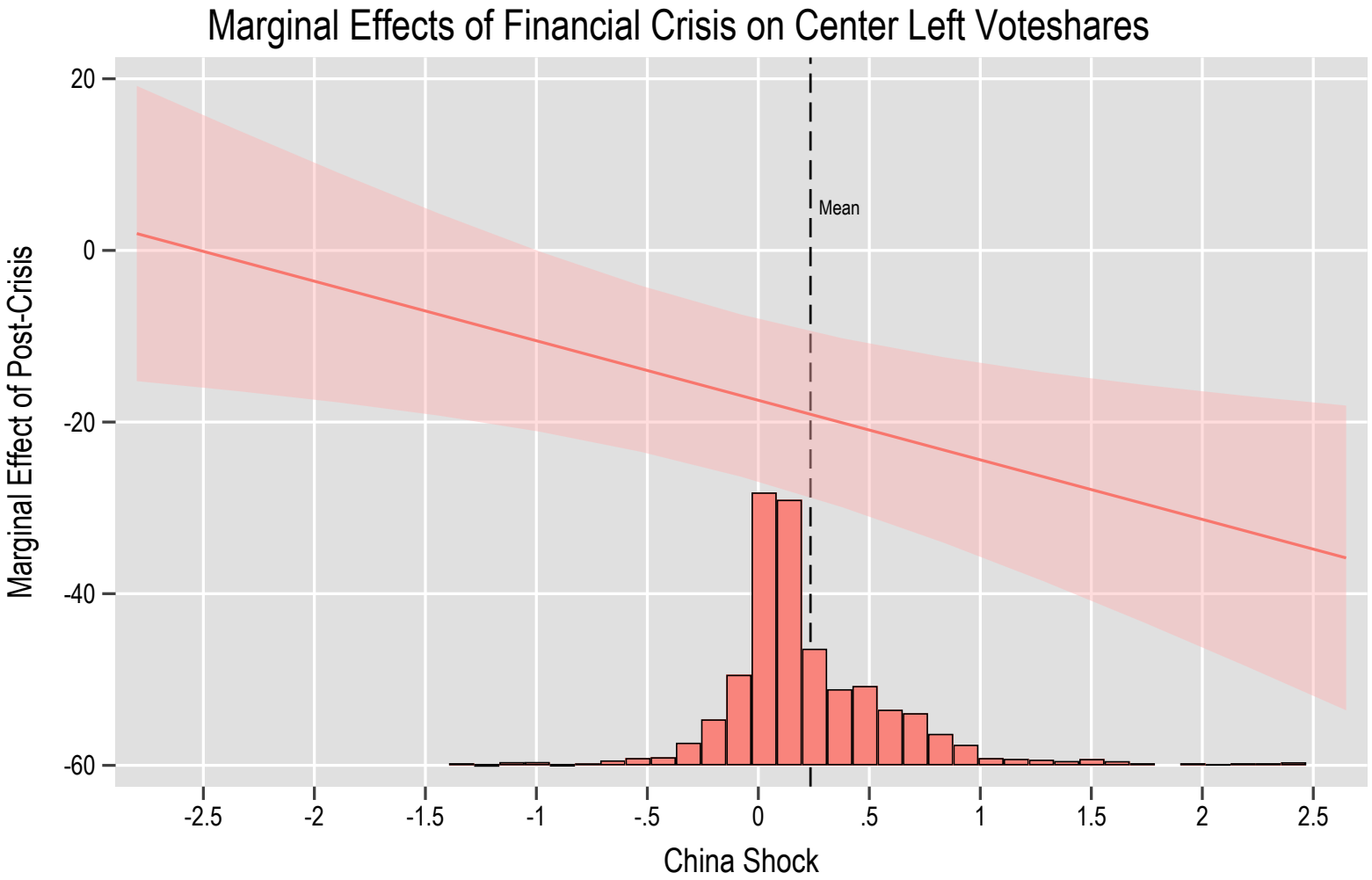
Center Right	b/se	b/se	b/se	b/se	b/se	b/se
China Shock	-1.196	1.832	-0.508	2.553	0.023	5.114
	(1.954)	(3.828)	(2.160)	(4.229)	(2.145)	(4.216)
FDI Shock	-1.347	-1.632	-1.198	-1.443	-1.145	-1.382
	(3.283)	(3.217)	(3.328)	(3.227)	(3.834)	(3.797)
Inequality Shock (Disposable)					0.946	1.010
					(1.443)	(1.389)
Immigration Shock	5.458	3.564			6.061	5.320
	(21.430)	(20.830)			(20.561)	(19.805)
Post-Crisis	-16.782***	-16.144***	-16.530***	-15.623***	-5.621	-5.171
	(4.853)	(4.597)	(4.473)	(4.347)	(4.333)	(4.107)
Post-Crisis $\times$ China Shock			-2.173	-2.794	-3.023	-6.105
			(3.459)	(4.777)	(3.317)	(4.312)
Robot Shock	-5.629	-6.447	-5.507	-6.447	-4.134	-5.500
	(4.728)	(4.502)	(4.710)	(4.503)	(5.465)	(5.230)
RTI Region	0.111	-0.652			-1.580	-2.591
	(7.487)	(7.301)			(7.850)	(7.650)
Constant	39.724***		39.532***		28.061***	
	(4.133)		(4.089)		(3.305)	
N	1150	1150	1150	1150	1086	1086
Estimator	OLS	2SLS	OLS	2SLS	OLS	2SLS
Adj. R^2	.583		.584		.594	
First Stage Results						
US-China Instrument		0.022***		0.021***		0.020***
		(0.002)		(0.003)		(0.003)
Post-Crisis $\times$ US China Inst.				0.006*		0.006*
				(0.004)		(0.004)
Kleibergen-Paap rk Wald F-statistic		138.00		54.07		
Anderson-Rubin Confidence Interval		[-4.91, 9.75]				

Notes: $^{*}p < .1, ^{**}p < .05, ^{***}p < .01$. OLS and 2SLS estimates with country-year (i.e., election) fixed effects and robust standard errors clustered over 164 European regions (NUTS-1/2) in parentheses. The dependent variable is vote share for each party family as a percentage of the total regional vote.

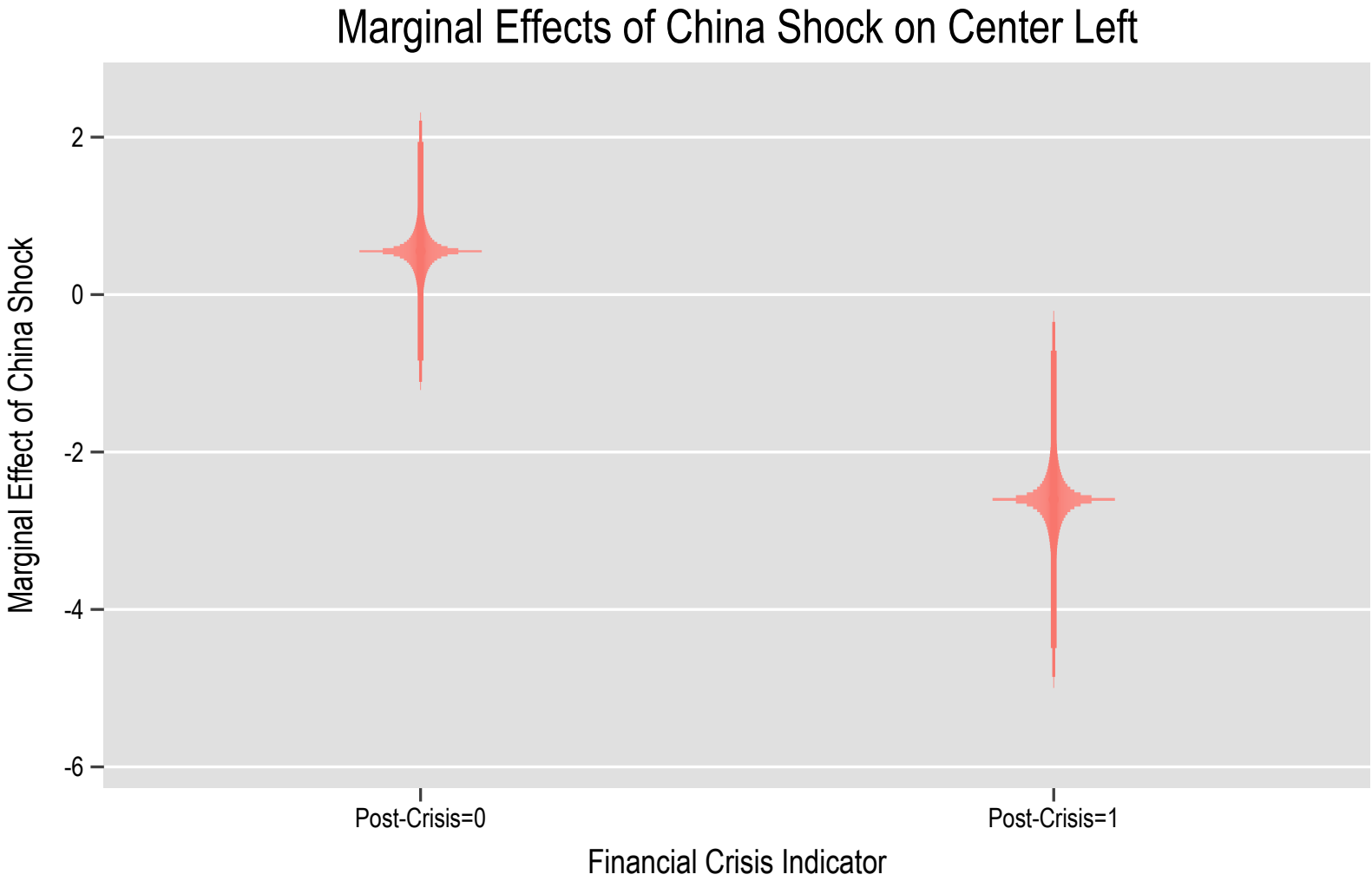
Regional Voting (1990-2018) (Center Left Parties)

Center Left	b/se	b/se	b/se	b/se	b/se	b/se
China Shock	-1.140	0.434	0.851	1.941	1.212	3.352
	(1.774)	(3.371)	(2.006)	(3.610)	(1.843)	(3.860)
FDI Shock	1.094	0.959	1.577	1.445	0.972	0.740
	(2.996)	(2.896)	(2.998)	(2.892)	(3.047)	(2.911)
Inequality Shock (Disposable)					-0.451	-0.408
					(1.091)	(1.066)
Immigration Shock	8.299	7.393			15.567	14.786
	(29.315)	(28.038)			(29.209)	(27.749)
Post-Crisis	-9.738**	-9.434**	-7.861*	-7.585*	-17.458***	-17.319***
	(4.495)	(4.276)	(4.428)	(4.334)	(4.798)	(4.545)
Post-Crisis × China Shock			-6.851**	-6.520*	-6.938**	-7.017**
			(2.895)	(3.638)	(2.734)	(3.245)
Robot Shock	-2.839	-3.275	-3.344	-3.769	-3.156	-3.908
	(3.946)	(3.752)	(3.745)	(3.600)	(3.988)	(3.790)
RTI Region	-3.491	-3.890			-4.142	-4.679
	(6.166)	(6.096)			(6.488)	(6.384)
Constant	35.587***		34.711***		43.160***	
	(4.389)		(4.384)		(4.669)	
N	1150	1150	1150	1150	1086	1086
Estimator	OLS	2SLS	OLS	2SLS	OLS	2SLS
Adj. R^2	.636		.638		.649	
First Stage Results						
US-China Instrument		0.022***		0.021***		0.020***
		(0.002)		(0.003)		(0.003)
Post-Crisis × US China Inst.				0.006*		0.006*
				(0.004)		(0.004)
Kleibergen-Paap rk Wald F-statistic		138.00		54.07		
Anderson-Rubin Confidence Interval		[-4.99, 8.06]				

Notes: $^{*}p < .1, ^{**}p < .05, ^{***}p < .01$. OLS and 2SLS estimates with country-year (i.e., election) fixed effects and robust standard errors clustered over 164 European regions (NUTS-1/2) in parentheses. The dependent variable is vote share for each party family as a percentage of the total regional vote.



Col. 5 OLS estimation of center-left party family voteshares. Y-axis scale is voteshare (pp.) China shock magnifies negative effect of financial crisis on center left votes.

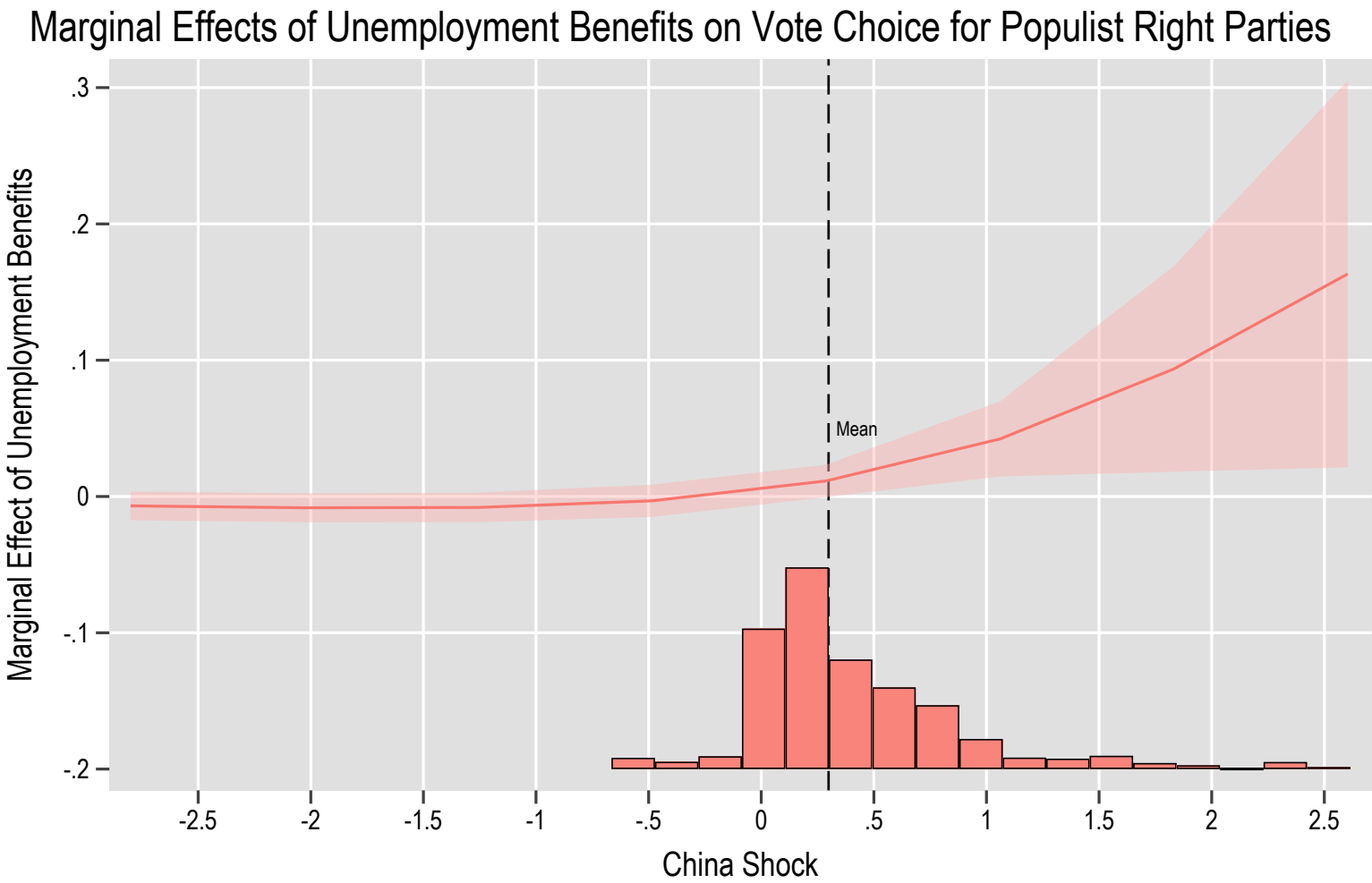


Col. 5 OLS estimation of center-left party family voteshares. Y-axis scale is voteshare (pp.). There is no effect at conventional significance levels pre-financial crisis, but there is a negative and statistically significant relationship 2008 onwards.

ESS Individual Level Analysis, 2002-2016

	Pop Left	Main Left	Main Right	Pop Right
	Regional Variables			
China Shock	-0.015	-0.023	-0.036	0.523**
	(0.199)	(0.163)	(0.188)	(0.252)
Unemp. Ben.	0.420***	-0.136	-0.362***	0.003
	(0.117)	(0.085)	(0.081)	(0.159)
Unemp. Ben $\times$ CN Shock	0.120	0.151	0.063	0.551***
	(0.193)	(0.123)	(0.089)	(0.202)
Inequality Shock	-0.053	0.001	0.088	-0.021
	(0.130)	(0.094)	(0.101)	(0.224)
Post-Crisis	3.186***	-0.402*	0.560**	3.559***
	(0.809)	(0.210)	(0.267)	(1.023)
FDI Shock	-0.016	-0.013	-0.061	-0.003
	(0.700)	(0.394)	(0.243)	(0.623)
Robots Shock	-2.376***	-0.558	-0.484	-0.715
	(0.673)	(0.358)	(0.434)	(0.526)
Immigration Shock	0.997	1.096	4.740	-0.894
	(3.467)	(2.913)	(4.026)	(6.044)
	Individual-Level Variables			
RTI	-0.002	0.007	0.007	0.087***
	(0.018)	(0.015)	(0.014)	(0.025)
Offshore	-0.009	0.039*	0.019	-0.081***
	(0.028)	(0.020)	(0.016)	(0.028)
Constant	-3.145***	0.558***	-0.758***	-3.077***
	(0.743)	(0.195)	(0.190)	(1.019)
N	141505	141505	141505	141505
Pseudo R^2	.08			

Notes: $^{*}p < .1, ^{**}p < .05, ^{***}p < .01$. Multinomial logistic regression estimates with country-year fixed effects and robust standard errors clustered by region. Includes controls for gender, age, education, urban, union member, and religiosity.



Col. 4. At lower levels of the China Shock, individuals are no more likely to vote for a right populist party (relative to baseline) whether they received unemployment benefits or not. At higher levels of the China Shock, the probability of a right populist vote for those taking unemployment benefits increases.

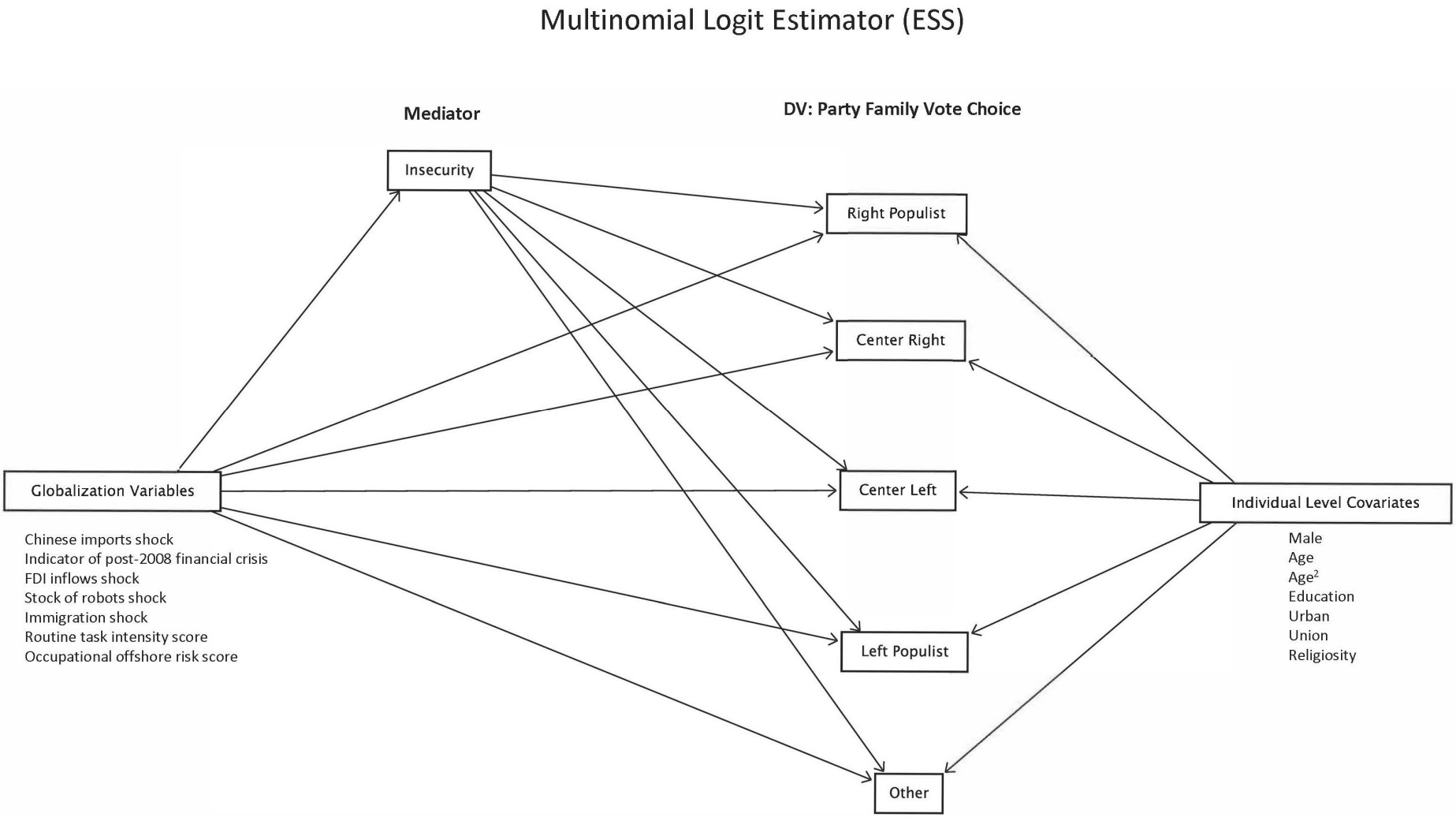
Robustness Checks

- Effects for Individual Countries
  - To see if results sensitive to particular observations, I drop each of the 15 countries individually. Results remain robust
- Trade Shock from Low Wage Countries
  - Extended the trade shock variable to analyze 50 “low-wage” countries and results robust
- Seemingly Unrelated Regressions
  - If errors are correlated across individual models, I run seemingly unrelated regressions (SUR)and main results robust
- Instrument Robustness
  - Kleibergen-Paap rk wald F-statistic and inverted Anderson-Rubin Confidence Interval Set suggest a valid, consistent, and non-weak instrument
  - To allay concerns of finite sample bias of 2SLS in models with imputed data, I put instrument into imputation model

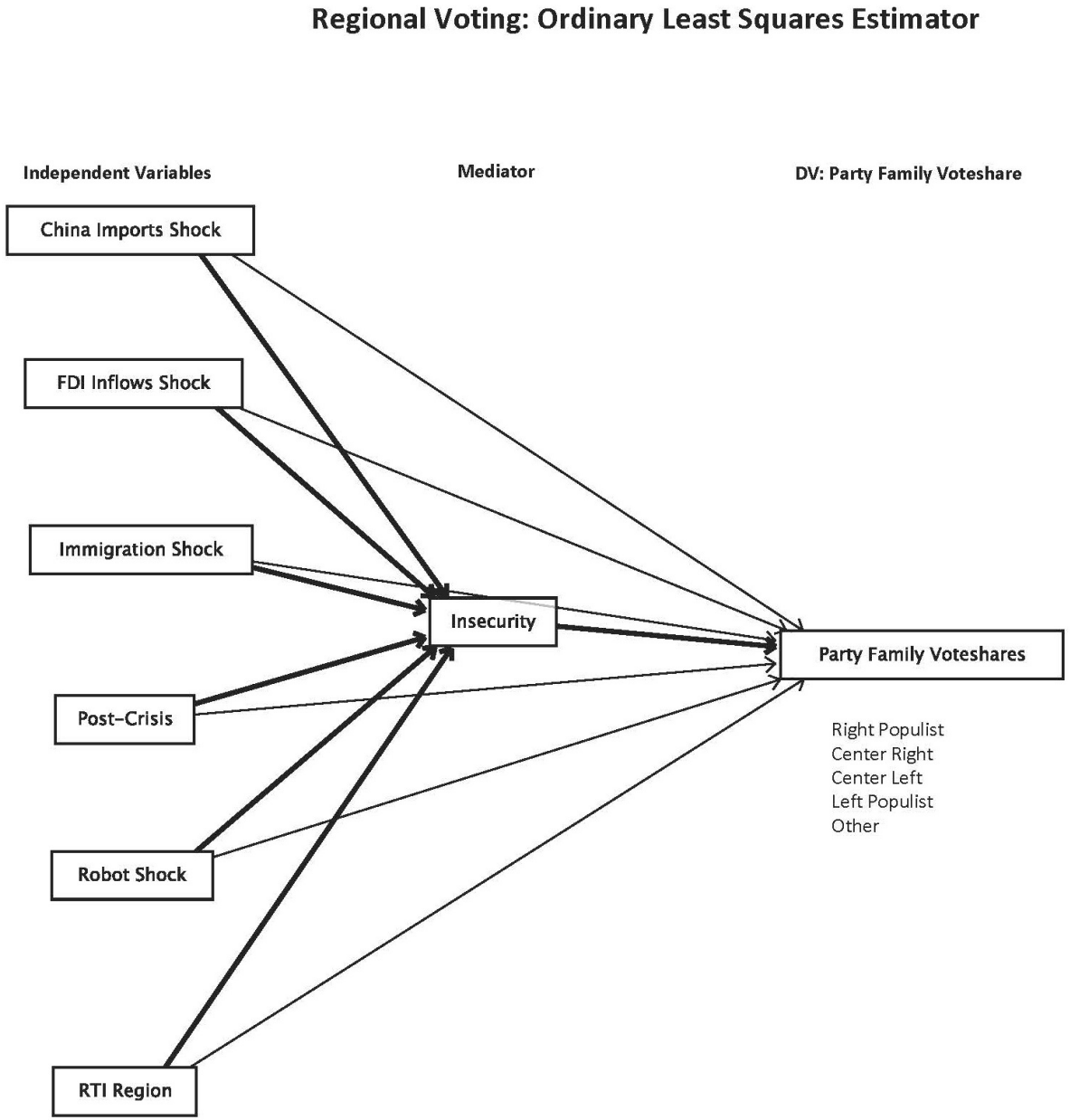
Insecurity: Subjective and Objective Measures

- Individual Level Vote Choice Model (subjective)
  - Principal Components Analysis for European Social Survey Responses
  - Difficulty living on present income, unemployment & work indicators (short term and long term), routine task intensity score, and offshoring index scores.
- Regional Level Model (Subjective)
  - Factor Analysis or Item Response Theory from Eurobarometer responses
  - Current inputs: Personal job situation judgement, financial situation of the household, importance of macroeconomic indicators to the respondent, quality of life changes, difficulties with bills, social class self-selection
  - Forward looking inputs: Expectations of personal & household employment & financial situations, as well as a general life satisfaction expected change measure
- Objective Insecurity
  - A derivation of the English indices of deprivation
  - Includes inputs from the domains of health deprivation & disability, crime, barriers to housing & services, and living environment deprivation
  - Currently gathering data to allow for a uniform cross-country comparison

Insecurity: Causal Paths



Insecurity: Causal Paths



Measures of Polarization

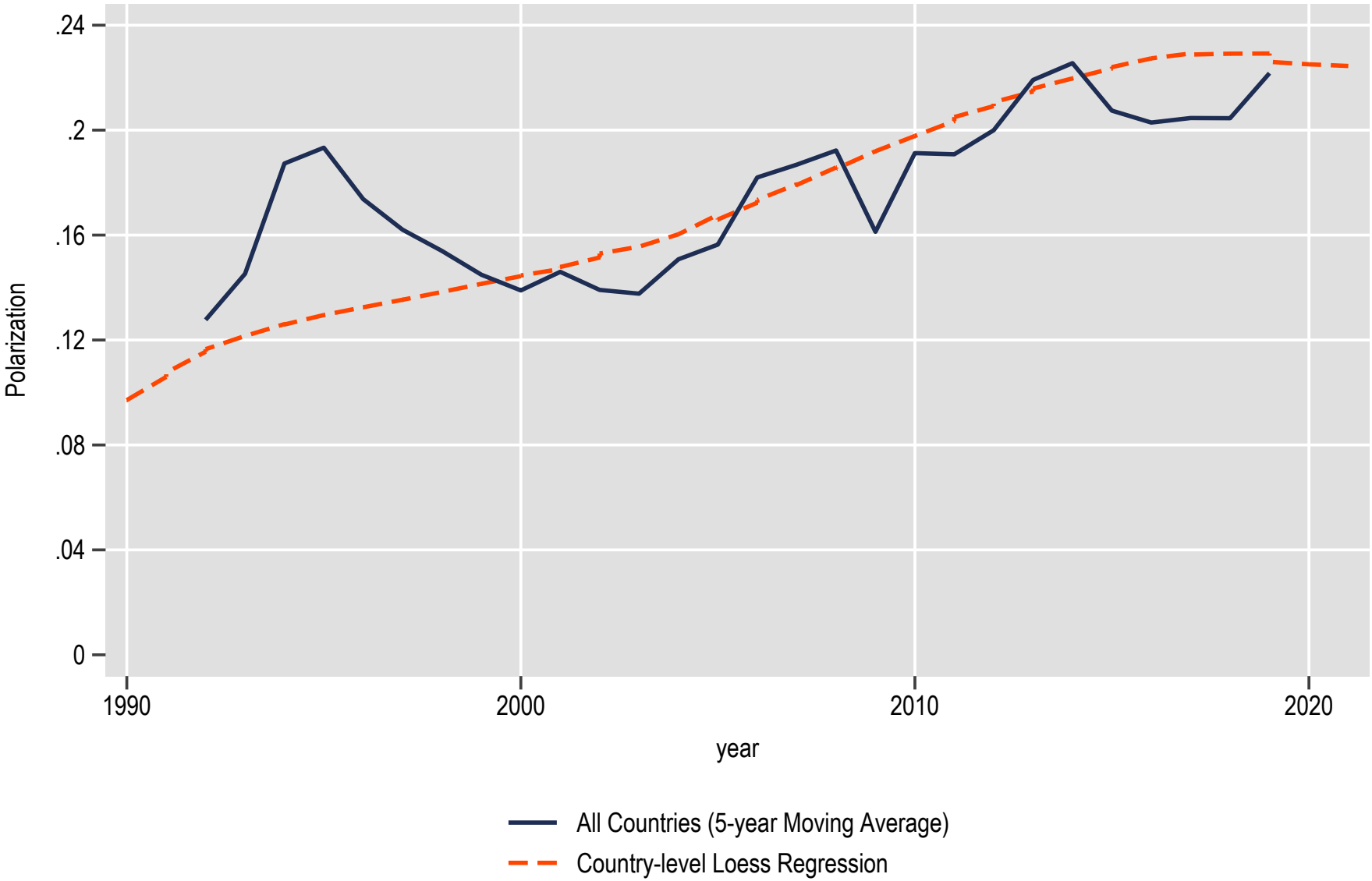
- Esteban & Ray (1994, Econometrica): in political context by Colantone, Ottaviano, and Stanig (Working Paper, 2021), polarization is sum of distances between party positions on globalization (CMP), weighted by vote share.
- Reynal-Querol (2002, JCR): distribution of group sizes for religions and civil war.
- Gunderson (2021, BJPS): standard deviation of party left-right position (CHES) from the country's ideological center, weighted by vote-share.
- Dalton (2008, CPS) Similar to Gunderson (2021), sum of squared deviations from mean is divided by 5 (CHES median Left-Right value.)
- Other examples include Lelkes (2016, Public Opinion Quarterly), Sigelman & Yough (1978, CPS), and Stanig (2011, Working Paper)

Polarization at regional level

$$Polarization = (1 - |\pi_{left} - \pi_{right}|)(\frac{\pi}{2} - arctan(\frac{||\vec{n}_1 \times \vec{n}_2||}{\vec{n}_1 \cdot \vec{n}_2}))$$

- π is voteshare by party family (far-left, center, and far-right) in region
- $\vec{n}_1$ is a unit normal vector of party voteshares.
- $\vec{n}_2$ is a unit normal vector associated with maximum polarization (=50/50 voteshare split between far left and far right parties)
- Measures spherical distance along unit sphere between maximum polarization and observed voteshares, adjusted by the difference between concentrations of far left and far right voteshares. The measurement is bounded at $[0, \frac{\pi}{2}]$
- Advantage: By holding voteshare combinations equal to 1, distances account for all possible voteshare distributions between maximum polarization and observed voteshares. Thus any shift in voteshare distributions has a more precise representation of the change in polarization.

Regional Polarization Trends



Is LIO affected?

- Do changes in domestic politics affect LIO?
  - Domestic political coalitions needed to support LIO.
- Does rise of far right populist parties affect LIO?
  - Rise of far right drives other parties to change to more anti-LIO positions.
- Does extreme polarization domestically affect LIO?
  - Polarization undercuts credibility of int'l commitments.
- BREXIT as example of this.
- How else is LIO breaking down?

Next Steps

- More on Mechanisms: Insecurity. Measures of? Mediation analysis?
- Global financial crisis is a dummy! Need better measure. Housing?
- Within-region inequality measures are problem.
- Just beginning work on polarization.
- What events show demise of LIO? BREXIT and?

Conclusions

- Three elements of globalization matter most: trade, financial market integration, and technology.
  - Trade induces increasing support for far right at regional and individual level.
  - Technological change: Robots and RTI increase support for extreme right and hurt extreme left.
  - Global Financial Crisis reveals how deeply financial markets are integrated, accelerates changes in party fortunes.
- Is Embedded Liberalism dead? So far, social welfare spending has little to no effect in moderating globalization's impact.
- No evidence for inequality so far.
- Effect of Coronavirus???

Thank you!

Additional Slides

Appendix Navigation

- Regional Level & Individual Level Elections List
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  - Regressions: Globalization & Polarization
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  - Most/Least Unequal Regions 1990 & 2018
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European Elections: 1990 - 2018

Country	Election 1	Election 2	Election 3	Election 4	Election 5	Election 6	Election 7	Election 8
Austria	1994	1995	1999	2002	2006	2008	2013	
Belgium	1991	1995	1999	2003	2007	2010	2014	
Denmark	1994	1998	2001	2005	2007	2011	2015	
Finland	1991	1995	1999	2003	2007	2011	2015	
France	1993	1997	2002	2007	2012	2017		
Germany	1994	1998	2002	2005	2009	2013		
Greece	1993	1996	2000	2004	2007	2009	2012	2015
Ireland	1992	1997	2002	2007	2011	2016		
Italy	1992	1994	1996	2001	2006	2008	2013	2018
Netherlands	1994	1998	2002	2003	2006	2010	2012	2017
Norway	1993	1997	2001	2005	2009	2013	2017	
Portugal	1991	1995	1999	2002	2005	2009	2011	2015
Spain	1993	1996	2000	2004	2008	2011	2015	2016
Sweden	1991	1994	1998	2002	2006	2010	2014	
United Kingdom	1992	1997	2001	2005	2010	2015	2017	

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Elections Analyzed from ESS Individual Level Data

Country	Year (N)	Year (N)	Year (N)	Year (N)	Year (N)	Total
Austria	2002 (2918)	2006 (1665)	2013 (2691)			7274
Belgium	1999 (959)	2003 (1874)	2007 (909)	2010 (2598)	2014 (2612)	8952
Denmark	2001 (2476)	2005 (1248)	2007 (2567)	2011 (2567)		8858
Finland	1999 (700)	2003 (1479)	2007 (2882)	2011 (3209)	2015 (1403)	9673
France	2002 (3286)	2007 (2349)	2012 (3509)			9144
Germany	2002 (3766)	2005 (3698)	2009 (3980)	2013 (4145)		15600
Greece	2000 (1617)	2004 (1671)	2007 (908)	2009 (1800)		5996
Ireland	2002 (3778)	2007 (1360)	2011 (4607)	2016 (1732)		11477
Italy	2001 (1399)	2006 (380)	2013 (1839)			3618
Netherlands	2002 (1770)	2003 (2316)	2006 (1886)	2010 (1600)	2012 (3782)	11354
Norway	2001 (2742)	2005 (2484)	2009 (2311)	2013 (2229)		9766
Portugal	2002 (1743)	2005 (2846)	2009 (1308)	2011 (1710)	2015 (1085)	8692
Spain	2000 (925)	2004 (2042)	2008 (2691)	2011 (1193)	2016 (1323)	8174
Sweden	2002 (3110)	2006 (2951)	2010 (3211)	2014 (2341)		11613
United Kingdom	2001 (2485)	2005 (3081)	2010 (4192)	2015 (1556)		11314

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Voting Summary Stats

- Regional Voteshares

Party Family	Mean	SD	min	max	N
Right Populist	8.256	9.037	0	48.247	1150
Center Right	33.994	13.724	0	76.012	1150
Center Left	28.654	13.142	0	65.021	1150
Left Populist	8.125	8.796	0	50.691	1150

- Individual-Level Analysis

Variable	Mean	SD	min	max	N
China Shock	0.299	0.772	-2.813	3.136	210,138
FDI Shock	-0.083	0.414	-2.669	0.714	210,138
Robots Shock	0.203	0.210	-0.303	1.103	210,138
Immigration Shock	0.008	0.014	-0.071	0.099	210,138
Inequality Shock	0.014	0.296	-1.828	1.652	210,138
RTI	-0.032	1.017	-1.465	2.410	186,783
Offshore	-0.106	0.830	-0.841	2.660	186,783
Unemployment Benefits	0.027	0.163	0	1	210,139
Male	0.475	0.499	0	1	210,034
Education	12.45	4.370	0	56	207,941
Urban	0.635	0.482	0	1	209,710
Union	0.419	0.493	0	1	207,260
Religiosity	4.618	2.976	0	10	209,067

Polarization

- Current quantifications
  - Gunderson (2021, BJPS) $P = \sqrt{\frac{1}{N}\sum_{i=1}^{N}((LR_i - \overline{LR}) * \pi_i)}$
  - Reynal-Querol (2002, Journal of Conflict Resolution) $P = \sum_{i=1}^{n} \pi_i^{1+\alpha}$
  - Dalton (2008, CPS) $P = \sqrt{\sum_{i=1}^{n}(\pi_i \frac{|LR_i - \overline{LR}|}{5})^2}$
  - Lelkes (2016, Public Opinion Quarterly) $P = \frac{skewness^2+1}{excess.kurtosis+3(\frac{(n-1)^2}{(n-2)(n-3)})}$
  - Sigelman & Yough (1978, CPS) $P = \sum_{i=1}^{N}(\pi_i(LR_i - \overline{LR})^2)$
  - Colantone, Ottaviano, & Stanig (Working Paper, 2021) $P = \sum_{j \neq l}\sum_{l \neq j} \pi_j^{1+\alpha}\pi_l(|NetAutarky_j - NetAutarky_l|)$

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Polarization: Correlations

Source	Sph	G	RQ	D	L	SY	S	COS
Spherical	1.000							
Gunderson, 2021	0.900	1.000						
Reynal-Querol, 2002	0.641	0.625	1.000					
Dalton, 2008	0.904	0.992	0.651	1.000				
Lelkes, 2016	0.296	0.431	-0.188	0.400	1.000			
Sigelman and Yough, 1978	0.296	0.431	-0.188	0.400	1.000			
Stanig, 2011	0.798	0.871	0.499	0.841	0.629	0.848	1.000	
Colantone, Ottaviano, and Stanig, 2021	0.932	0.962	0.760	0.966	0.299	0.959	0.811	1.000
N	5151							

Correlation of measures of polarization. Assumes a three party/party family system of far left, center, and far right, where the extreme party families are equally ideologically distant from the center. Data used for correlation matrix is 5,151 observations, representing the possible voteshare combinations across the three point distribution up to two significant figures.

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