

Trade Shocks and Competition for Public Resources: a Case Study*

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Abstract

I investigate how trade between the EU and its emerging partners, and its impacts, may increase competition for public resources, particularly at a time when social security systems are facing strains. While in many Western countries, competition from southern partners appears to strengthen populist or redistribution-friendly coalitions, in the French context, I identify a notable shift towards conservative parties, both centrist and extreme, regardless of their stance on trade or redistribution. I review the effects on voter turnout, union membership, attitudes towards EU integration, and non-party activism to construe this outcome.

Keywords: International Trade, Import competition, Trade Shocks, Manufacturing Decline, Distributional Impact of Trade, Voting Behavior, Redistribution

JEL Codes: D72, F14, L60, R12, R23

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1 Theoretical introduction – On the political economy of trade competition

There’s a growing body of literature connecting the rise of trade globalisation to political polarisation. Most notably, Autor, Dorn and Hanson expanded their original framework to the political dimension of the China shock [Autor, Dorn, Hanson, and Majlesi 2016b], arguing that “populists” congressional candidates (i.e. progressive democrats and MAGA republicans alike) fared better *ceteris paribus* in districts most exposed to Chinese import competition. The most provocative result of this set of working papers is a widely commented counterfactual scenario in which, had import exposure in the early decades of the 21th c. be one half lower, Democrats could have won the 2016 presidential and congressional race [Autor, Dorn, Hanson, and Majlesi 2016b].

A large body of evidence going in the same direction has been accumulated since (some of them are reviewed in [Rodrik 2021]), yet the interpretation remains difficult. Econometricians would identify a significant impact of trade exposure, or layoffs caused by trade competition, on the populist (i.e. far-left and far-right) vote; political scientists would aggregate the outcomes of political questionnaires about people’s attitude towards trade, immigrants, openness, etc., the (unsurprising) result of that exercise being most of the time a restatement of the old Lipsetian argument [Lipset 1959]; i.e., trade shocks tend to bolster the illiberal, authoritarian ethos of working-class families most hurt by trade liberalisation.

Such an approach exemplifies a tendency from some trends of the academic research on that subject to embrace a psychological or identitarian interpretation of political reactions deemed irrational from an academic standpoint [Bourdieu 1979; Bourdieu 1980], especially when they seem to run against a relatively pervasive consensus in the macroeconomic literature [Wood 2018]. Hence these hurried interpretations which merely juxtapose trade exposure indexes on the one hand, political outcomes on the other, and some sort of spontaneous explanations of the *rise of populism* somewhere in the middle.

On the opposite, I believe it’s possible to interpret this political shift in a purely economic framework. In the setting outlined there, we closely follow each step of the import competition shock – its employment impact in the manufacturing sector, the multiplicative effect on services, the lingering unemployment reaction, the variability across groups and regions of the consequences over pre and post-redistribution income – and we are able to gauge which variable mediates the final political outcome (in the spirit of [Dippel et al. 2017]).

2 Empirical introduction – Elements on pre-exposure political economy statics

In French context, traditional political economy statics assign poorer and more equal communities to the Left, a result that can be extracted from the most recent and the most ancient data alike (see table 1)¹.

Arguably, there are signs, over ancient income data, of the emergence of a political consciousness of distributional issues, especially around landmarks in the history of working-class movement (we purposely focused on the 1849 and 1936 parliamentary elections in tables 1 and 2 resp.). Inequality drives the left-wing vote, the marginal effects being concentrated in more industrial and more urban areas². In the 1936 election, the lead of the Left in marginally more unequal regions is entirely driven by the communist vote, which is stronger in industrial bastions of the Parisian metropolis and of the far North, two of the most unequal regions of the country at that time.

¹Properly construing that result implies a clear distinction between the post-1945 societies – where the income structure crystallizes into conflicts over redistribution [Piketty 2019] in a context of declining class identification and higher social mobility [Piketty 1995] – and the old socio-fiscal architecture: nonexistent redistribution, taxation schemes relying on indirect contributions [Bouvier 1973; Bouvier 1978; Piketty 2001] highly unpopular among republicans and socialists [Delalande and Spire 2010]. [Corbin 1975] reports that among the very poor (but also very equal) communities of Limousin, socialist activities refrained themselves from exposing their redistributive platform, knowing it would be highly unpopular among poor farmers, and rather played on pre-industrial political feelings, especially grievances against the Church and the local nobility. The political economy statics identified there relied much more on this type of representation than on the class divide, and was therefore easily transferable to non-republican or non-socialist alternatives (liberalism, jacobinism, bonapartism) [Marx 1852] for which similar correlations can be isolated.

²Indeed, if during the fordist era, the predominance of manufacturing employment in a region was associated with lower wage and income inequalities, prior to the war, it was the very contrary.

Table 1: Raw correlation between some income variables and the left-wing vote shares in the 1849 parliamentary election

Dep. var.: Vote share of the left-wing candidates						
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	(1)	(2)	(3)	(4)	(5)	(6)
Impact of a 1SD change						
Av. income within the département	−1.99	−2.61*			−6.25**	−7.01**
	(1.46)	(1.44)			(3.15)	(3.25)
Ratio T10/B50 within the département			−0.77	−1.39	2.88	2.93
			(1.47)	(1.46)	(3.16)	(3.24)
Controls		X		X		X

Sign. thr. : *p<0.1; **p<0.05; ***p<0.01

Note: The unit of observation is the *département* (1848 geography). General data is drawn from the *Statistique de la France* report published by the statistical division of the *Ministère des travaux publics*. Electoral data is from [Salmon 2001]. The dependent variable is the vote share of candidates which are self-reported as democrats or socialists. The explanatory variables are all derived from tax data about the *contribution personnelle et mobilière*, the receipts of which are provided as a piece-wise function for each *département* (here, for the fiscal year 1835). Means and ratios are then obtained through interpolation with *gpinter* [Blanchet, Fournier, and Piketty 2017]. Controls, when included, comprise only an index of religiosity drawn from the Boulard map [Boulard 1982; Le Bras 1931]. There are 84 observations, weighted by the number of tax units.

Table 2: Raw correlation between some income variables of 1929 and the left-wing vote in parliamentary elections

Dep. var.: Vote share of the left-wing coalition in parliamentary election									
Explan. var.	All incomes		Wage income		Wealth				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Impact of a 1SD change									
Panel A. Parliamentary elections of 1924 – Cartel des gauches coalition									
–Average within the <i>département</i>	−0.52	−2.22	−0.44	−2.19	−0.23	−1.51			−0.15
	(1.07)	(1.89)	(1.01)	(1.79)	(0.88)	(1.32)			(2.33)
–Ratio T10/B50 within <i>dép.</i>							−1.12	−2.42	−2.25
							(1.11)	(1.79)	(3.19)
Panel B. Parliamentary elections of 1936 – Front populaire coalition									
–Average within the <i>département</i>	1.52*	−2.29	1.38*	−2.49*	1.08	−1.56			−5.78***
	(0.84)	(1.49)	(0.79)	(1.41)	(0.68)	(1.02)			(1.76)
–Ratio T10/B50 within <i>dép.</i>							1.89**	0.39	7.04***
							(0.86)	(1.43)	(2.43)
Controls		X		X		X		X	X

Sign. thr. : *p<0.1; **p<0.05; ***p<0.01

Note: The unit of observation is the *département* (1929 geography). General data is drawn from the *Annuaire statistique de la France* published by the statistical division of the *Présidence du Conseil*, issues [Présidence du Conseil 1930] to [Présidence du Conseil 1938]. Electoral data is from [Lachappelle 1924;Lachappelle 1936]. The dependent variable is the vote share for the entirety of reported left-wing coalition. The explanatory variables are: for columns (1) and (2), the total tax levy of the income tax (IGR) within the *département* divided by its total population (over our datasets, we are not provided with the number of taxpaying persons); for columns (3) and (4), the same statistics, but for the special *cédulaire* tax on wages; for columns (5) and (6), the average inheritance reported within each *département*, and in columns (7) and (8), the ratio of the average top 10% inheritances over the average bottom 50% ones; this last statistics was interpolated with *gpinter* [Blanchet, Fournier, and Piketty 2017], from the piece-wise distributions provided for each *département*. Controls, when included, comprise the share of rural population, the share of blue-collar within local population, and an index of religiosity drawn from the Boulard map [Boulard 1982; Le Bras 1931]. There are 85 observations, weighted by the number of votes cast in the corresponding election.

Table 3: Simple model for the political impact of the Great Depression

<i>Dep. var.: Evo. of vote shares (1924-1936) in pp</i>		
	Δ Socialist vote	Δ Communist vote
	(1)	(2)
Impact of a 1SD change		
Δ Personal income _{1929,1935}	-2.05 (1.61)	-1.19* (0.67)
Δ Personal wage income _{1929,1935}	-0.36 (1.57)	-0.06 (0.66)
Δ Personal wealth _{1929,1935}	-0.62 (1.17)	-0.57 (0.48)
Δ Ratio T10/B50 of wealth _{1929,1935}	-0.79 (0.99)	0.47 (0.41)
Δ Ratio T10/B10 of wealth _{1929,1935}	-2.06* (1.23)	1.12** (0.51)

Sign. thr. : *p<0.1; **p<0.05; ***p<0.01

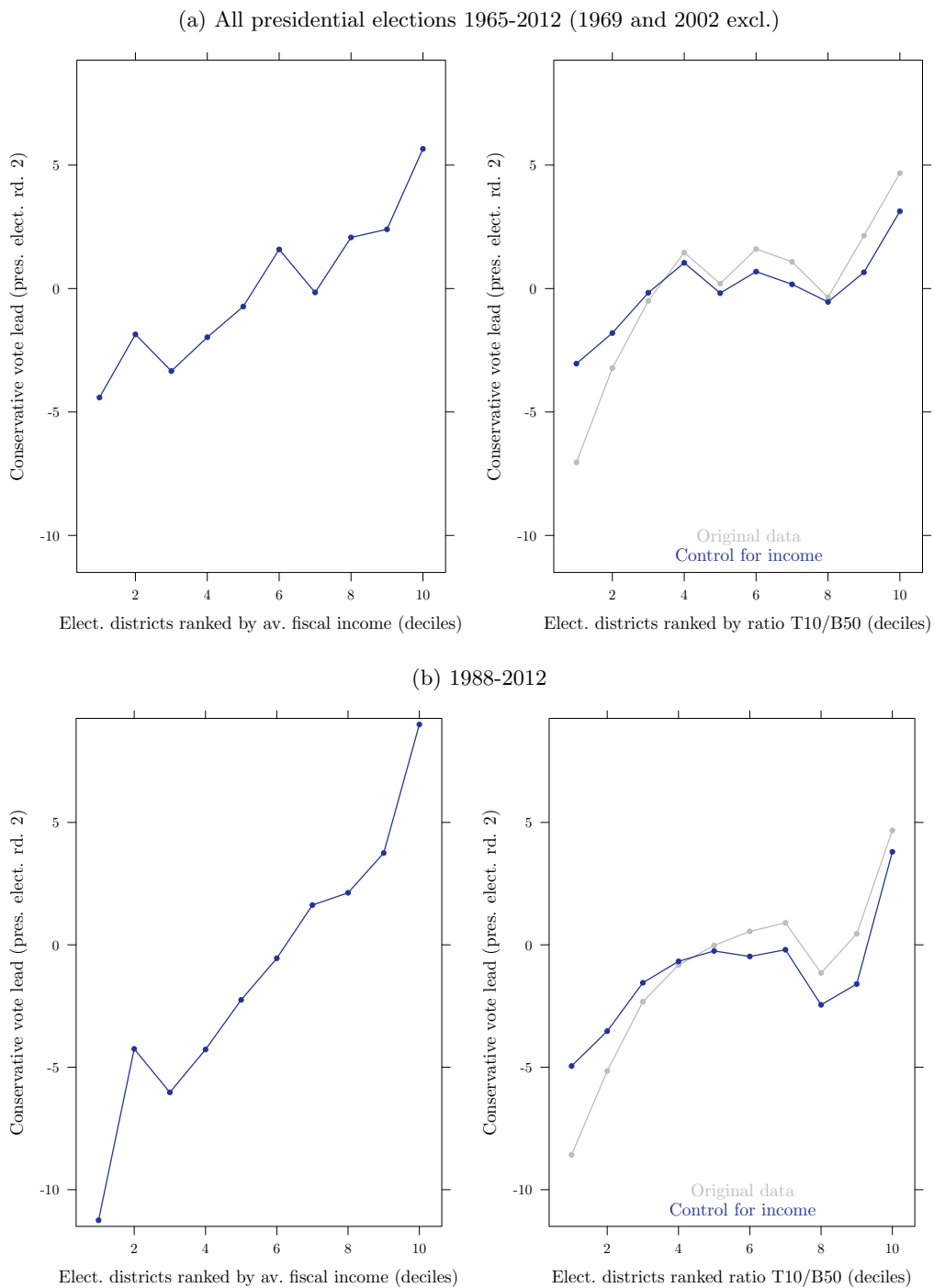
Note: The unit of observation is the *département* (1929 geography). General data is drawn from the *Annuaire statistique de la France* published by the statistical division of the *Présidence du Conseil*, issues [Présidence du Conseil 1930] to [Présidence du Conseil 1938]. Electoral data is from [Lachappelle 1924; Lachappelle 1936]. The dependent variable is the evolution of vote shares for the SFIO and SFIC parties between the 1924 and 1936 parliamentary elections. The explanatory variables are the evolution of the explanatory described in table 2 over 1929-1935; controls are start-of-the-period values of the ones mentioned in table 2. There are 85 observations, weighted by the number of vote cast in the 1936 election.

In the late 20th c., the decline of rural communities and early dechristianization pushed conflicts over redistribution on the forefront of political debate. The old Left *statics* (poorer and more equal community lean left) and the old Left *dynamics* (a community turns to the Left when faced with declining incomes or rising inequalities) crystallised (see fig. 1, 2 and 4), with some looming fissures however: 1. Very early, the FN vote borrowed to the left its statics and dynamics alike: it boomed in times of economic hardship and could claim predominance among poorer communities, though statistically these marginal effects did not exhibit the robustness of their left-wing equivalents (see table 5); 2. The full unravelling of the economic significance of the centre-right (*orleanist*) vote was slow in the making, liberal themes suffusing much of centrist political life and the leading centre-right party, the UDF, developing an almost anti-system rhetoric; yet the rise of the LREM coalition saw a reversion to more classical right-wing statics and dynamics; 3. With an electorate still highly class-polarised late in the Mitterrand era, the socialist party failed to benefit from the take-up of the late 1990s [Lefebvre and Sawicki 2006] and was the clear marginal loser of the economic shocks of the early 21st c. (see figure 7); in the second rounds of the presidential elections, the old Left *statics* and *dynamics* was still operating (see table 4); in the longer term however, our findings are consistent with individual data which show that the left dominance among lower-income workers eroded from the mid-1990s onward and had virtually vanished by 2017 [Gethin, Martinez-Toledano, and Piketty 2021].

All in all, over the first two decades of the 21st c., an economic shock (a rise of local unemployment, a decline of personal income, a rise in within-region inequality) is associated with a significant increase in support for left-leaning options, or for options which are seen as alternatives to the incumbent parties (the centrist UDF, or the FN-RN and its allies), the effect being more robust across specifications for the latter channel.

These are features to be kept in mind when we'll compare the impact of a general economic shock to the impact of trade competition-driven one.

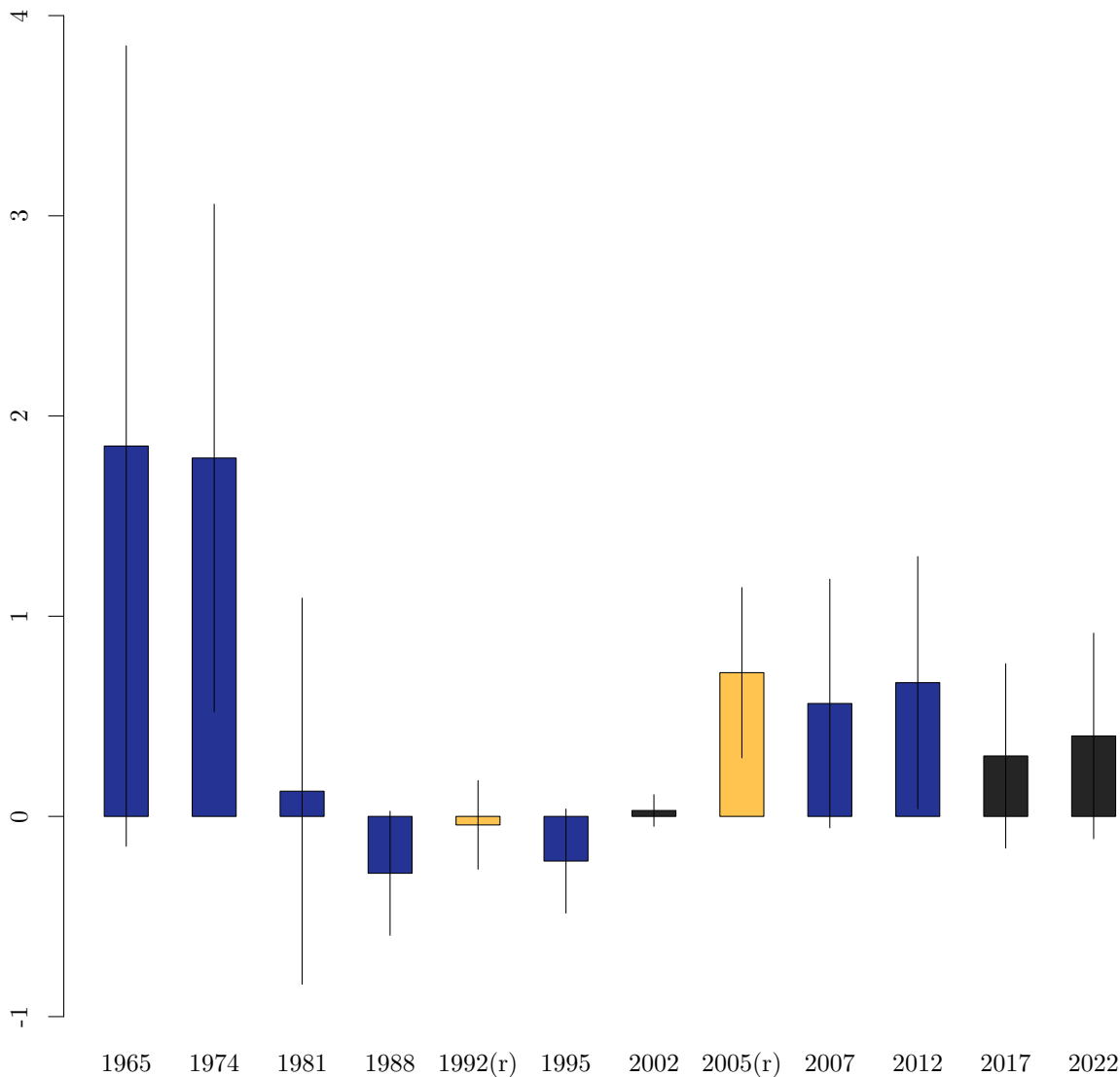
Figure 1: Pre-exposure political statics – The left-right cleavage (I)



Note: Electoral results are taken from the datasets of the CDSP-Sciences Po. Income variables are from the IRCOM database (see [Fournel 2024] for details about the construction). On the x-axis, we sort electoral districts (*circonscriptions législatives*) in deciles according to: 1. The average fiscal income of their inhabiting tax units; 2. The population-weighted average of the ratio T10/B50 within the *communes* of the electoral district. We use the political geography at the time of the election; we follow the concordance table *communes-circonscriptions électorales* of the CDSP. For the ratio T10/B50, we provide the original vote lead, and the vote lead once the impact of income has been factored out.

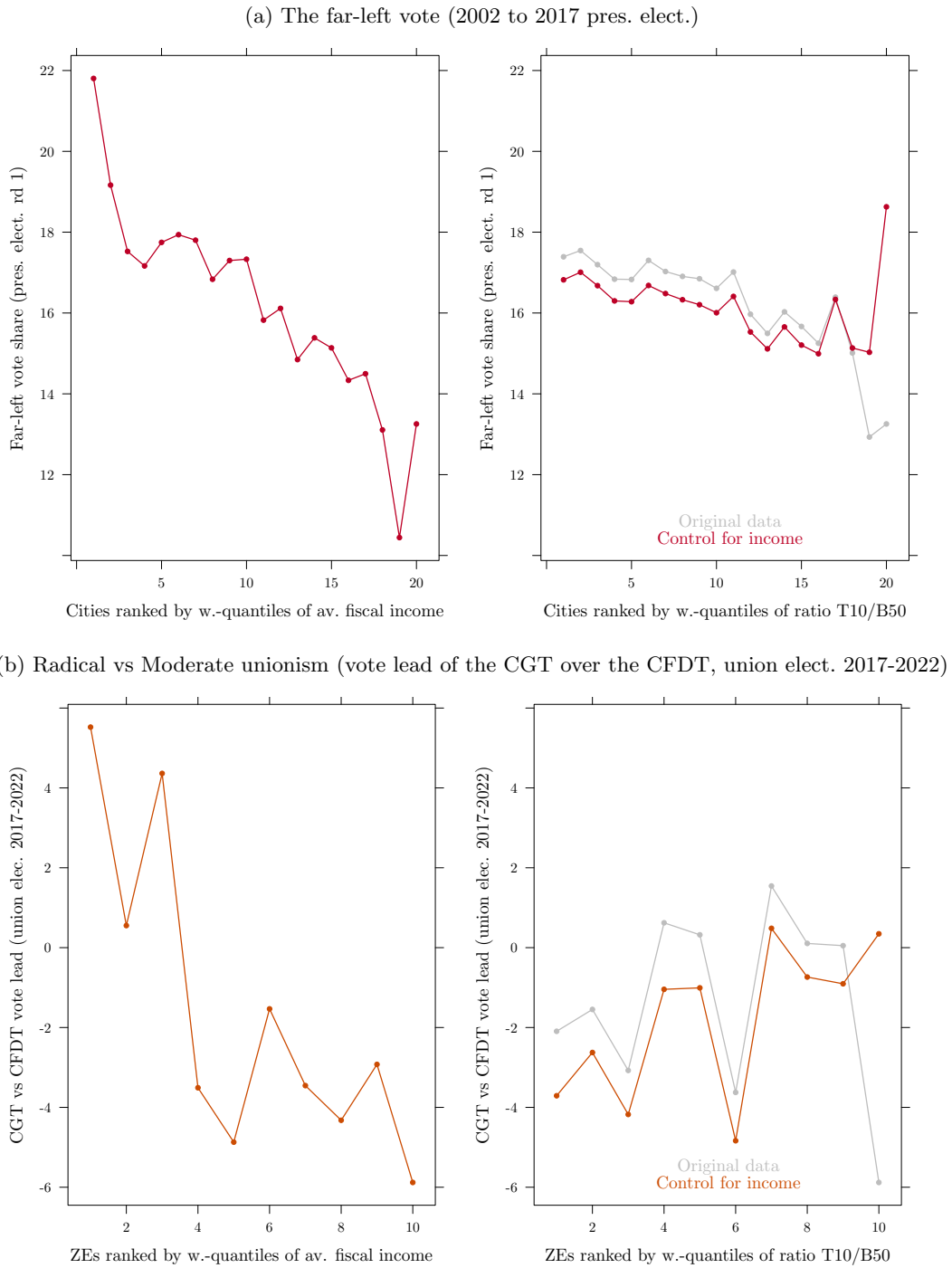
Figure 2: Pre-exposure political statics – The left-right cleavage (II)

Figure 3: Marginal effect of the av. fiscal income of the electoral district over the right-wing vote lead in the 2nd rounds of presid. elec.



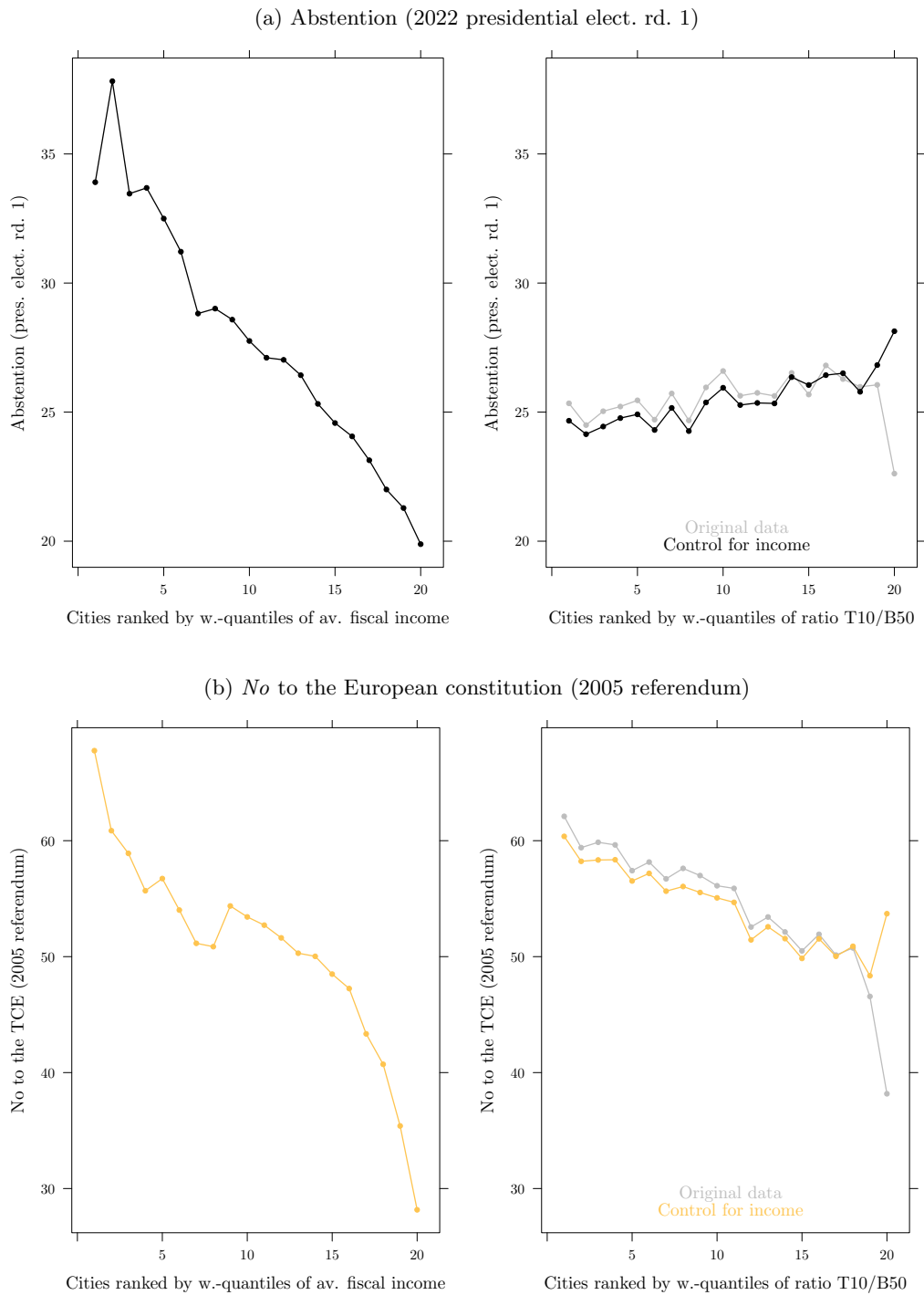
Note: The unit of interest is the electoral district (*circonscriptions législatives*). We use the political geography at the time of the election; we follow the concordance table *communes-circonscriptions électorales* of the CDSP-Sciences Po. Electoral results are taken from the datasets of the CDSP. Income variables are from the IRCOM database, or, for elections prior to 1995, interpolated from the INSEE's Census (see our annex A). We regress the vote lead (in pp) of the conservative candidate in the second round of the presidential election (or the vote lead of the *Yes* to the two referendums about Europeans treatises, or the vote lead of the non-FN/RN candidate), on the average fiscal income of the district (expressed in thousands euros of 2021), the population-weighted average of the ratio T10/B50 of the *communes* of the district, plus a set of socio-demographic controls (the unemployment rate, the share of rural population, the share of blue-collar population, and an index of religiosity, i.e. the share of the population of the district which lives in a parish with high churchgoing rates as defined by [Boulard 1982; Le Bras 1931]).

Figure 4: Pre and post-exposure political statics — Indices of polarization (I)



Note: Electoral results are taken from the datasets of the CDSP-Sciences Po, except for the union representation elections, for which data come from the *Ministère du Travail*. Income variables are from the IRCOM database. On the x -axis, we sort cities (*communes*) or *zones d'emploi* in deciles according to: 1. The average fiscal income of their inhabiting tax units; 2. The population-weighted average of the ratio T10/B50 within the *communes* of the electoral district. We use the political geography at the time of the election; we follow the concordance table *communes-circonscriptions électorales* of the CDSP. For the ratio T10/B50, we provide the original vote lead, and the vote lead once the impact of income has been factored out. For all plots, quantile 20 gives the value for Paris (either the *commune* or the corresponding ZE1101).

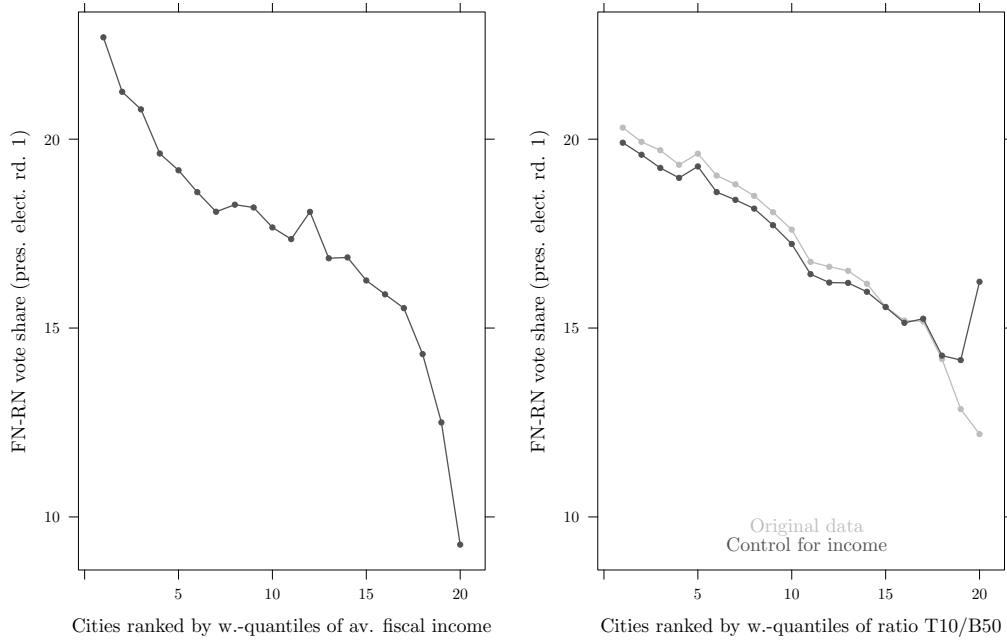
Figure 5: Pre and post-exposure political statics – Indices of polarization (II)



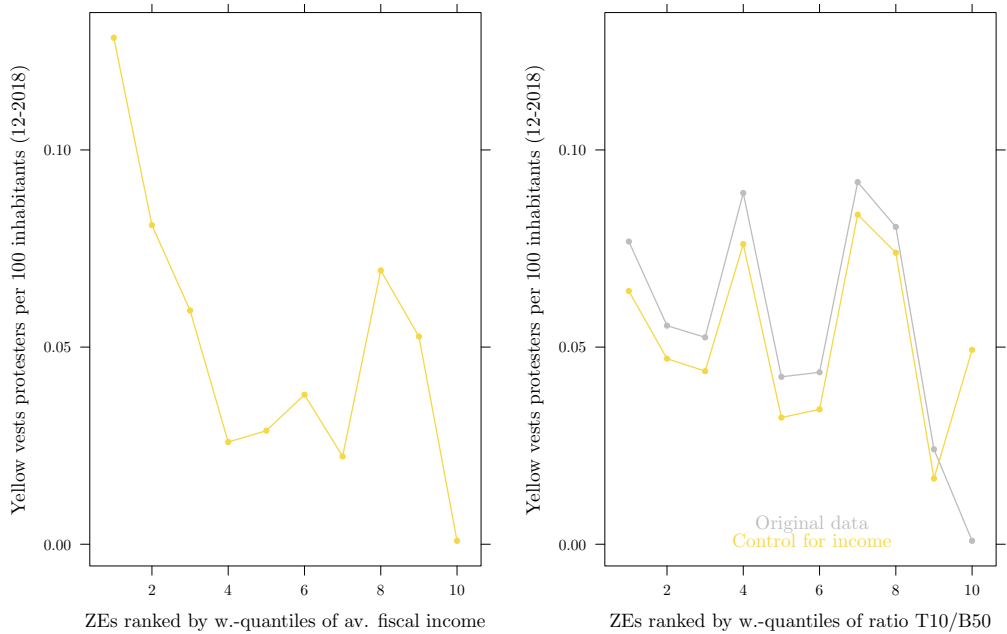
Note: See figure 4 for more details.

Figure 6: Pre and post-exposure political statics – Indices of polarization (III)

(a) Average far-right (FN-RN) vote in 1st rd. of the presidential elect. (2002 to 2022)

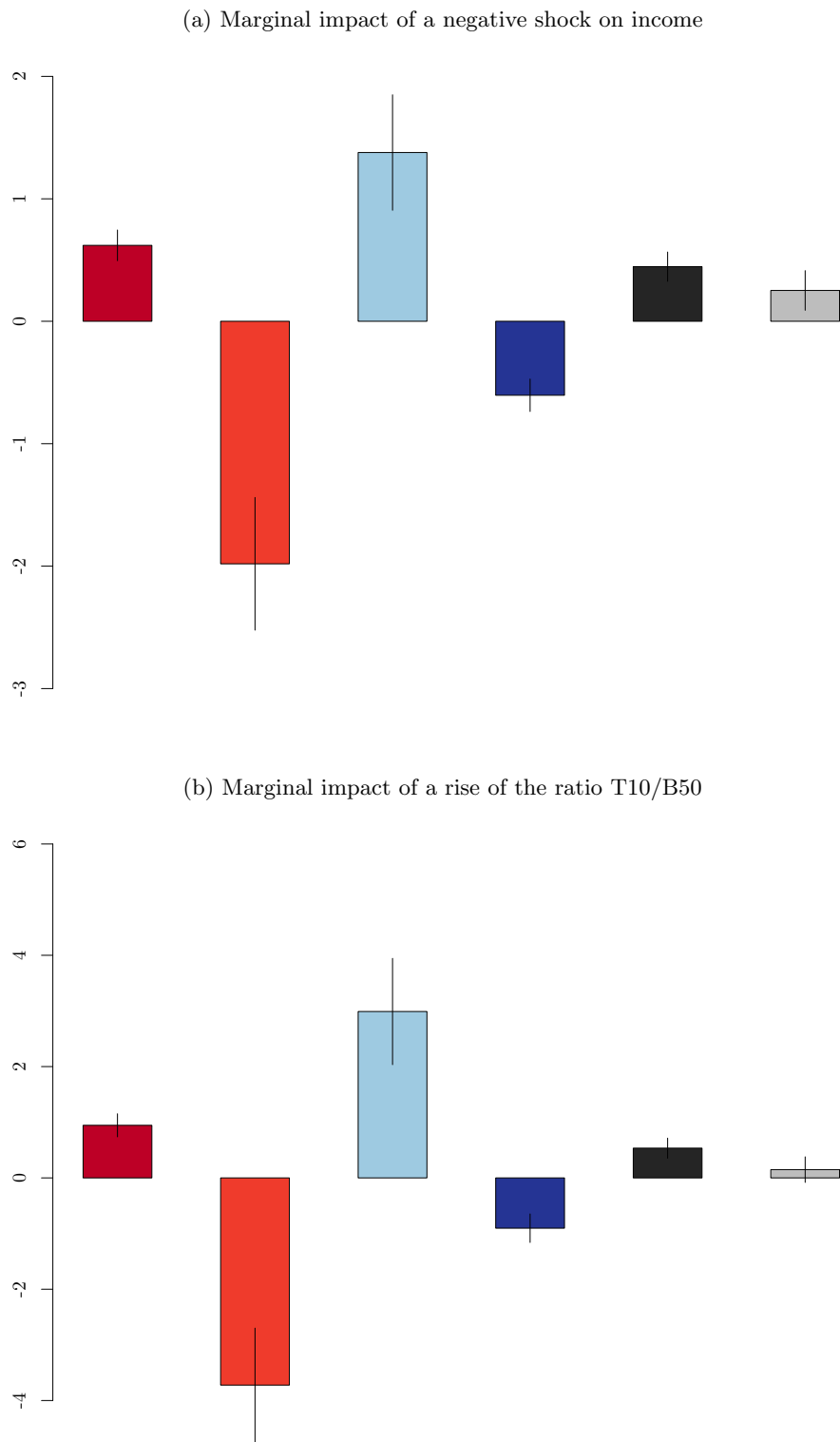


(b) Yellow vest activity in december 2018 (reported protesters per 100 inhabitants)



Note: Electoral results are taken from the datasets of the CDSP-Sciences Po. Yellow vests activity data courtesy of Daniel Cohen (raw dataset used in [Algan et al. 2019]). Income variables are from the IRCOM database (see [Fournel 2024]). On the x -axis, we sort electoral districts (*circonscriptions législatives*), cities (*communes*) or *zones d'emploi* in deciles according to: 1. The average fiscal income of their inhabiting tax units; 2. The population-weighted average of the ratio T10/B50 within the *communes* of the electoral district. We use the political geography at the time of the election; we follow the concordance table *communes-circonscriptions électorales* of the CDSP. For the ratio T10/B50, we provide the original vote lead, and the vote lead once the impact of income has been factored out. For all plots, quantile 20 gives the value for Paris (either the *commune* or the corresponding ZE1101).

Figure 7: Political dynamics – Impact of income shocks on vote shares in presidential elect. round1



Note: Electoral data are drawn from the CDSP datasets, income data from the IRCOM base (restr. 2), controls from the INSEE's census. The unit of interest is the *commune*. Our main specification is a first-difference panel regressing vote shares in first round of presidential election, on the average fiscal income (in euros of 2022), the ratio T10/B50 of the *commune*, the unemployment rate, log employment, plus a set of controls (density, share of retired persons, share of blue-collar in pop. and share of people commuting on everyday basis for their job). Four elections are estimated (2002, 2007, 2012 and 2017). S.E. are clustered at the *département* level; we report the 95% conf. inter.

3 The specific impact of an import-competition-driven shock

3.1 Empirical specification

Identification strategy When it comes to the assessment of the impact of an employment shock specifically driven by the rise of import competition from China, our foundational approach for identification follows a shift-share methodology, as outlined in [Fournel 2023a]. It integrates trade data sourced from the Comtrade database with Census data detailing the local employment structure. Central to our strategy is the computation of the change in import exposure per worker of a zone over a period t to $t+1$, denoted $\Delta IPW_{it,t+1}$. This index is derived by multiplying the change in imports (ΔM) from the trade partner over the period by the share of region i in the total national workforce of sector j at time t . The collective impact per worker due to imports over the period is computed by summing across sectors.

$$\Delta IPW_{it,t+1} = \sum_j \frac{L_{ijt}}{\sum_i L_{ijt}} \frac{\Delta M_{jt}}{L_{it}} \quad (1)$$

Instrumentation To mitigate potential endogeneity concerns inherent in the primary exposure index, we introduce an instrumental variable. This instrument, denoted as $\Delta \overline{IPW}_{it,t+1}$, is constructed analogously to the primary exposure index but utilizes imports from a control group of advanced economies ($\Delta \overline{M}$). Furthermore, the initial-period labor force (L) is lagged by one period (a decade) to counteract simultaneity bias.

$$\Delta \overline{IPW}_{it,t+1} = \sum_j \frac{L_{ijt-1}}{\sum_i L_{ijt-1}} \frac{\Delta \overline{M}_{jt}}{L_{it-1}} \quad (2)$$

Main specification Our primary 2SLS (Two-Stage Least Squares) regression specification is presented herein. It models the progression of local manufacturing employment over the decade (ΔL) based on the primary exposure index ($\Delta IPW_{it,t+1}$), accompanied by a time dummy for each decade and a vector of control variables (X'_{it}). The equation incorporates a time subscript t to denote the period under consideration.

$$\Delta L_{it,t+1} = \beta_1 \Delta IPW_{it,t+1} + X'_{it} \beta_2 + \gamma_t + u_{it} \quad (3)$$

The primary exposure index ($\Delta IPW_{it,t+1}$) is instrumented utilizing the aforementioned instrumental variable ($\Delta \overline{IPW}_{it,t+1}$).

In summary, our framework seeks to estimate the causal impact of import exposure on local manufacturing employment, while addressing potential endogeneity concerns through instrumentation and accounting for other pertinent factors.

We simply update model (3) there, using as explanatory is the rise in import exposure per worker ΔIPW for the first decade of the millennium (in our setting, 1999-2008), taking China as the base trade partner³. As to the dependent variable, we use the evolution of vote shares for specific parties between a pre-exposure event (here, the 1995 presidential election), and the elections which happened over and after the exposure period (here, presidential elections from 2002 to 2017). We built five non-exclusive political aggregates (detailed in the corresponding annex) to gauge the political fortunes of each side.

3.2 Main results

The main coefficients $\hat{\beta}_1$ for each political aggregate and each election is plotted in figure 8 for the first rounds of presidential elections, and in figure 9 for the second rounds. Figures are built in order to ensure comparability with [Autor, Dorn, Hanson, and Majlesi 2016b].

The results are clear-cut; trade-induced economic shocks do not trigger a polarisation reaction like in [Autor, Dorn, Hanson, and Majlesi 2016a], but rather a general shift to right-wing options, moderate and radical alike. Prior to 2017, when the left-right cleavage was still the dominant polarising force, a trade shock had a clear negative impact on the PS vote, in the first and second rounds alike, and tended to favour conservative options, from moderate liberals of the UDF to the far-right FN vote. After 2017, parties which emerged from the downfall of the PS

³ Attempts at replicating these results for alternative trade partners from emerging markets (Turkey) and advanced economies (Germany) alike that we made yielded results which cannot match the clearness and robustness of outputs generated by using the China shock as the explanatory.

inherited its negative marginal impacts, while the FN-RN vote benefited from the decline of the grand Gaullist party.

Our results are at variance with the existing literature. Up till now, the expected political impact of an import shock was either: 1. Increased support for the far-right [Colantone and Stanig 2017; Malgouyres 2017a; Dippel et al. 2017]; 2. Alternatively, increased support for populist parties of both sides [Autor, Dorn, Hanson, and Majlesi 2016b; Autor, Dorn, Hanson, and Majlesi 2016a; Barone and Kreuter 2021]; 3. More generally, a shift towards a more nationalistic or identitarian political atmosphere [Ballard-Rosa, Jensen, and Scheve 2022; Cerrato, Ferrara, and Ruggieri 2018; Steiner, Harms, et al. 2020]. To our knowledge, such significant positive impacts for all right-wing parties (moderate and pro-European ones included) coupled with massive negative impacts for all left-wing options (globalist and anti-globalist alike) are a home exception, with no equivalent in the extensive literature review of the subject by [Rodrik 2021].

The magnitude of the effect for conservative and far-right candidates is not trivial. In a simple counterfactual scenario with $\Delta IPW_{1999,2008}$ 60% below its actual value, Mrs Le Pen fails to qualify for the second round of the presidential election in 2017. Conversely, with $\Delta IPW_{1999,2008}$ 75% above its actual value, the PS candidate loses the second round of 2012. The only existing French replication of [Autor, Dorn, Hanson, and Majlesi 2016a] to our knowledge, the one of [Malgouyres 2017b], tested only the FN vote, finding marginal impacts slightly inferior to ours.

In the U.S. context, import exposure has been linked to increased voter turnout, to sharp rises in campaign donations for radical candidates of both sides, but also to changes in news network viewership (at the expense of liberal cable news channels like CNN and MSNBC) [Autor, Dorn, Hanson, and Majlesi 2016b]. In French context, we fail to find a similar impact on abstention (see figure 10a), but we find some evidence of a negative marginal impact on political options which are commonly associated with centrist or centre-left politics, for instance a decline of the support to centrist unions or to European federalism (see 10b).

3.3 Robustness checks and discussion of the findings

The interpretative features highlighted by [Autor, Dorn, Hanson, and Majlesi 2016a] are well fitted for the polarisation reaction they identify in the U.S. context, but are difficult to transfer to a European setting. Here are some of their major theses:

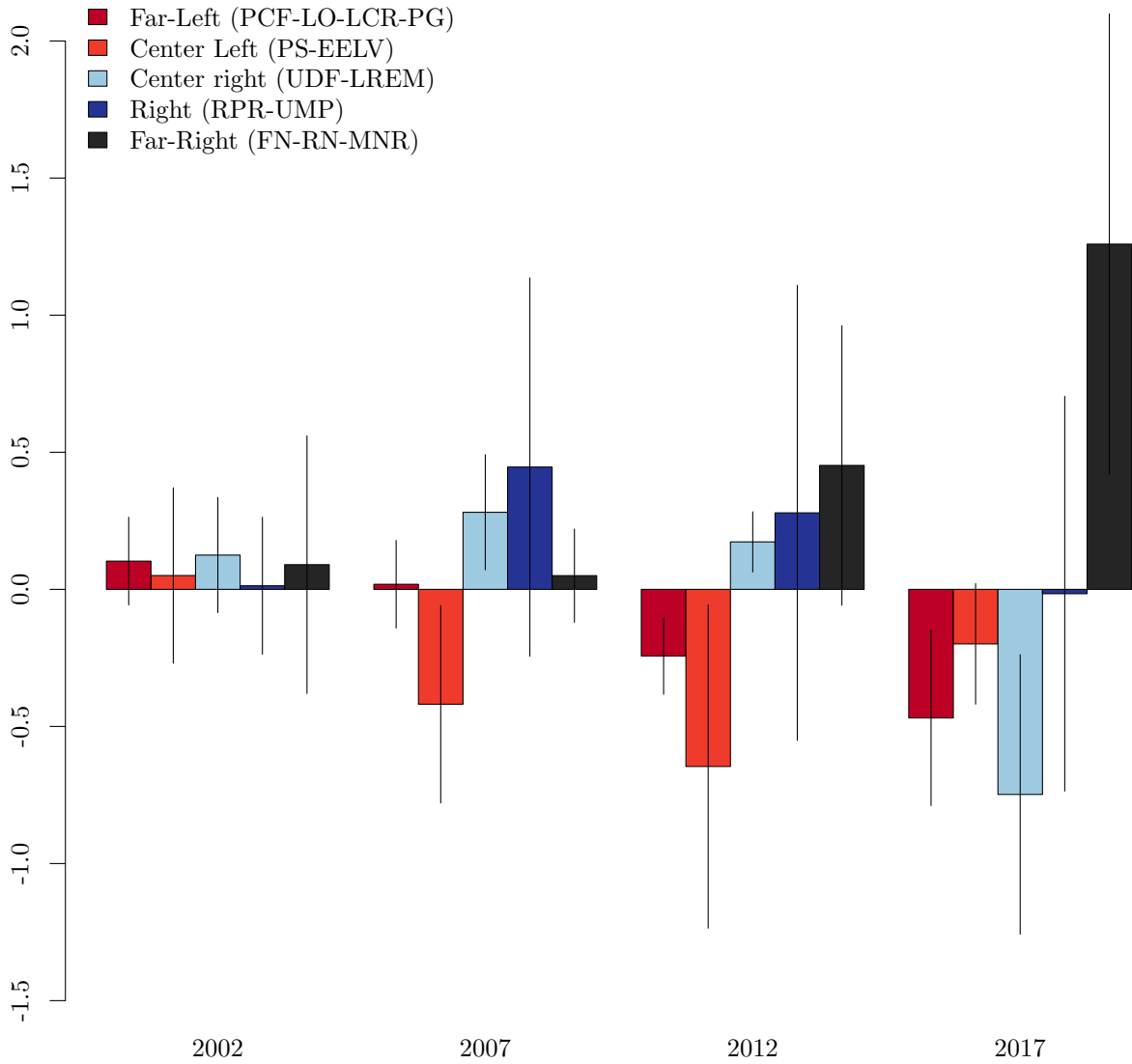
- *Protectionist reactions* – In U.S. [Feigenbaum and Hall 2015] and European contexts alike [Mayda and Rodrik 2005; Davenport, Dorn, and Levell 2021], a rise in import competition exposure is associated with an increased support to protectionist policies, an increase which is pervasive across groups and political preferences; yet if we trust our estimates, this does not transcribe into a systematic support for protectionist parties or platforms. Our findings, as many prior results⁴ do not fit into the well known narrative about the decline of the left-right cleavage and the correlative rise of a new *globalist versus anti-globalist* political divide encapsulating all issues (trade, State regulation, entrepreneurship, but also attitudes towards minorities or international cooperation). In our setting, trade shocks are much more reactivating the left-right divide that they are blurring it;
- *Decline of unionism* – Trade shocks not only decompose the local industrial structure; they also tend to shift the focus away from class-oriented conflicts, favoring identification to groups defined by nationality or identity, and not by income or worker status. There is a socialist version of this line of argument [Bourdieu 1979], which puts the emphasis on the political organising channel, i.e., on the decline of unions and political traditions caused by massive layoffs in manufacturing [Beaud and Pialoux 2003]. There is also a liberal version, focused on group identification [Grossman and Helpman 2018; Gennaioli and Tabellini 2019]. Widely used to construe the Brexit vote shares [Colantone and Stanig 2017; Colantone and Stanig 2018], this line of reasoning can however hardly explain why import shocks seem to bolster left political organising at the margin⁵ or outside⁶ the main left parties;
- *Competition over resources of declining redistribution schemes* – In our setting as in [Autor, Dorn, and Hanson 2013], trade shocks make poor families more dependent on social transfer. From this, Autor, Dorn

⁴Most notably those evolving radical democrats in [Autor, Dorn, Hanson, and Majlesi 2016a].

⁵See figure 7 in [Autor, Dorn, Hanson, and Majlesi 2016a].

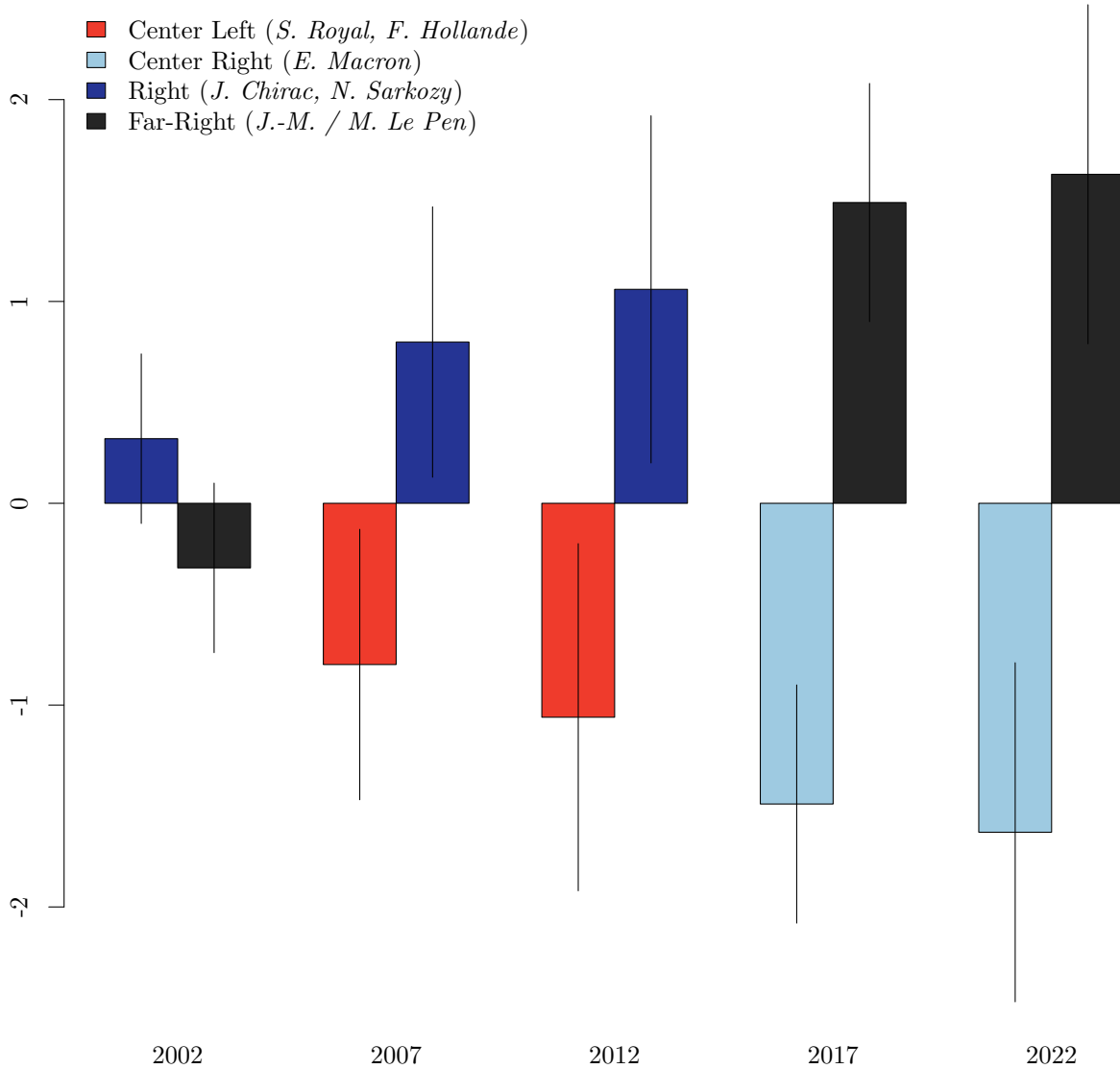
⁶See our figure 10.

Figure 8: Political impact of a rise in import competition exposure within the ZE (I) – First rounds of the presidential elections



Note: The unit of interest is the *Zone d'emploi* (ZE, INSEE def. of 2010). Electoral data are drawn from the CDSP datasets, trade data from the Comtrade base, other variables from the INSEE's Census. We estimate model (3) for the sole decade 1999-2008, with the full vector of controls. The main explanatory variable is still the rise in exposure to imports from China per ZE over the decade (expressed in thousands USD per worker) but the dependent variable is now the evolution of the vote share of five political aggregates (Far-left, Centre-left, Centre-right, Right, Far-right) between the first round of the 1995 presidential election, and the first round of the presidential election mentioned on the x -axis. Political aggregates are defined in the corresponding annex. Observations are weighted by the number of votes cast (*blancs-nuls* excluded). Standard errors are clustered at the level of the INSEE's superzones; we report 95% conf. intervals.

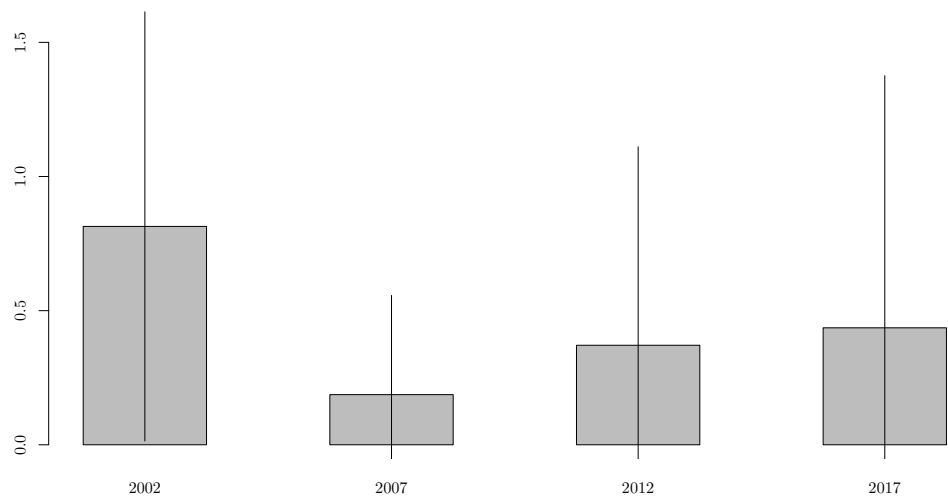
Figure 9: Political impact of a rise in import competition exposure within the ZE (II) – Second rounds of the presidential elections



Note: The unit of interest is the *Zone d'emploi* (ZE, INSEE def. of 2010). Electoral data are drawn from the CDSP datasets, trade data from the Comtrade base, other variables from the INSEE's Census. We estimate model (3) for the sole decade 1999-2008, with the full vector of controls. The main explanatory variable is still the rise in exposure to imports from China per ZE over the decade (expressed in thousands USD per worker) but the dependent variable is now the evolution of the vote shares, defined as such: 1. For the 2022 and 2017 presidential elections, the vote share of M. Le Pen in the 2nd round, minus the vote share of J.-M. Le Pen in the 2nd of the 2002 election (and vice versa for E. Macron 2017/2022-rd2 minus J. Chirac 2002-rd2); 2. For the 2012 and 2017 election, the vote share of N. Sarkozy in the corresponding 2nd round, minus the vote share of J. Chirac in the 2nd round of 1995 (and vice versa F. Hollande 2012-rd2 and S. Royal 2007-rd2 minus L. Jospin 1995-rd2); 3. For the 2002 election, the vote share of J.-M. Le Pen in the 2nd round, minus the vote share of all far-right forces (FN+MNR) in the 1st round of the 1995 presidential election (and vice versa, the vote share of J. Chirac in the 2nd round of 2002, minus the vote share of all non-far-right forces in the 1st round of the 1995 election). Observations are weighted by the number of votes cast (*blancs-nuls* excluded). The absolute start-of-the-period vote shares which are differentiated in the computation of changes in vote shares are included as a control variable. Standard errors are clustered at the level of the INSEE's superzones; we report 95% conf. intervals.

Figure 10: Political impact of a rise in import competition exposure within the ZE (III)

(a) Impact on abstention (first rounds of presidential elections)



(b) Some other tests



Note: The unit of interest is the ZE. Electoral data are drawn from the CDSP datasets (and from the *Ministère du Travail* for professional elections), trade data from the Comtrade base, other variables from the INSEE's Census. We estimate the main specification used in [Fournel 2023a]. The main explanatory variable is still the rise in exposure to imports from China per ZE over the decade (expressed in thousands USD per worker) but the dependent variable is now : A. The evolution of abstention (as a percentage of registered voters) between the 1st round of the 1995 presidential election, and the 1st of the presidential election mentioned on the x -axis; B. The evolution of the vote share in support of new EEC-EU treatises between the 1992 and 2005 referendums; the Yellow vests activity (expressed in numbers of reported protesters per 10k inhabitants). Extra controls include respectively: A. Abstention in the 1st round of the 1995 presidential election; B.1. The far-right vote in the first round of the 1995 presidential election; B.2. The centre-right vote share in the first round of the 2017 election. Observations are weighted by: A. The number of registered voters; B. The number of expressed votes. Standard errors are clustered at the level of the INSEE's superzones; we report 95% conf. intervals for panel (a), 10% risk ones for panel (b).

and Hanson hypothesise a reaction in the spirit of [Alesina, Baqir, and Easterly 1999]; each ethnic group will turn to the party which he judges most likely to divert local transfers away from the concurrent groups, hence an increase of the white support to Republicans and of the minority support to Democrats, a constant of the last half-century [Gethin, Martinez-Toledano, and Piketty 2021], particularly in the South [Kuziemko and Washington 2018]. One of the main findings meant to substantiate this hypothesis was that, when [Autor, Dorn, Hanson, and Majlesi 2016b] plot the equivalent of our figure 8 over a restriction to predominantly non-Hispanic-white districts, they find marginal gains for radical republicans only, while when they focus on predominantly non-white districts, progressive democrats seem to be the main winners of a trade-induced shock. However, as emphasised by [Malgouyres 2017b], such a conclusion is extremely difficult to replicate in French context; in order to obtain a positive, 5% significant marginal effect of trade exposure on the far-left vote in the model plotted in figure 8 (2017 election first round), we should drop almost 95% of our observations, focusing on those ZEs with the highest shares of non-native population (above 16%). Even on that very restricted set, we indeed find a positive marginal impact of +1.12 for the far-left vote, but we also find a 1% significant marginal impact of +0.44 for Mrs Le Pen (while [Autor, Dorn, Hanson, and Majlesi 2016b] get a negative marginal impact on the republican vote in predominantly non-white districts). Arguably, there’s some evidence in UK [Colantone and Stanig 2018] and US [Cerrato, Ferrara, and Ruggieri 2018] contexts alike that further imports exposure is associated with a polarisation of local communities around the ethnicity cleavage. The vast literature reviewed by [Rodrik 2021] however vindicates caution on that spot;

- *Decline of the local provision of public goods and public services* – There is consistent evidence in U.S. and European contexts that trade shocks lead to a decline of local real estate prices, hence a decline of local tax levies, and a decline of the quality of local public goods’ provision [Feler and Senses 2017]. In French context, this line of reasoning has been widely used to construe the most recent political crises, especially the rise of the FN-RN or the *Yellow vests* movement [Algan et al. 2019]. This argument is however, as emphasised by [Davezies 2021; Dherbécourt and Deschard 2019], hard to substantiate over existing data. As shown in table 8, using a wide range of INSEE indexes, we fail to replicate the two steps of the argument, i.e.: 1. We do not detect an impact of import exposure on the local provision of public services; 2. Nor do we manage to identify a significant connection between the decline of local public services and the FN-RN vote⁷.

Actually, among these diverse interpretations, it seems like the great economic channels have been relatively overlooked; the literature found significant marginal impacts of import exposure on manufacturing employment, unemployment, incomes, dependence to social transfers... but this literature seems to have little to say about their indirect impact on the political outcomes. A solution is ventured by [Dippel et al. 2017] in the form of a specific method which consists in a second-stage regressing vote shares on a mediating variable (for instance, the rise of unemployment, or the decline of incomes) itself instrumented by the home ΔIPW , using the control group’s ΔIPW as a conditioning variable. With this strategy, they are able to fully explain the marginal positive impact of the China shock on Germany’s FDP vote with economic mechanisms only. We tried to replicate their setting on the model plotted in figure 8; in our results, the evolution of personal fiscal income at the ZE’s level, the rise of the total stock of unemployed people, and the increased dependence on social transfers, are the only significant mediating variables, with which we are able to explain respectively 15.3, 13.1 and 12.4% of the +1.3pp marginal impact in favour of Mrs Le Pen (2017, first round) plotted in figure 8. The connection with distributional issues is then straightforward:

- We argued elsewhere [Fournel 2023b] that the distributional impact of the import shocks caused by emerging economies at the turn of the century was highly polarized; i.e. trade openness benefited the top 70 or 80% of households, but the lower quartile suffered a significant loss in terms of fiscal income. This was doomed to create a rift within the traditional coalitions of liberal or socialist parties, opposing a lower middle-class

⁷In raw descriptive statistics, we find little evidence that *départements* with high FN-RN vote shares or high Yellow Vests activity in December 2018 are less equipped or less administered. In first-differences, a rise of the administrative rate (i.e. the total number of civil servants per 1000 inhabitants, State, local and medical personnel included, military personnel excluded) is associated with a rise of the FN-RN vote, even once controlled for basic socio-demographic variables. We also tried to replicate the strategy of [Dippel et al. 2017] using the provision of public goods as a mediating variable between the import exposure shock and the political outcomes. Actually, if we use the evolution of the administrative rate over 2012-2018 as a dependent in model 3, whether with $\Delta IPW_{1999,2008}$ or $IPW_{2008,2018}$, we get a second-stage with a p -value of the Fisher test largely above 0.1. We get the same problem if we use a simple OLS specification regressive the rate on the home ΔIPW , with or without controls. The main coefficient retrieved is positive equal to +0.84 when we use the lagged decade, negative equal to −0.011 when we use the simultaneous decade.

which was able to keep its job, and those who lose their job and become increasingly dependent on social transfers. From this, the connection is straightforward with what analysts of the far-right vote have called the *triangular consciousness* of populist right voters [Collovald and Schwartz 2006], i.e. the pervasive feeling that they are caught between the ‘winners of globalisation’ on the one hand, and a *lumpenproletariat* threatening to absorb them on the other. The fear of falling behind the sharp discontinuities identified there might nourish injunctions to embrace a more conservative lifestyle [Cartier et al. 2008; Lechien and Siblot 2019], typically in terms of residential or school strategies;

- As emphasized by [Blanchet, Chancel, and Gethin 2019], the relation between fiscal income and gains from public redistribution is almost linear in France between deciles 2 and 9 of the distribution. Yet the distributional impact of the trade shock exhibits a sharp non-linearity somewhere around quantile .3. It means there could be a group of people who lie within the hot-spot of the shock, but are not compensated enough by transfers. It is not difficult to picture how any variation of the anti-redistribution narrative might work on this group. The very heated debate about the inactivity and poverty traps created by European-style redistributive architectures [Anne, L’horty, and Dollé 2002; Gomel and Méda 2014] might have overlooked the fact that voter’s perceptions of the legitimacy of redistribution might be based, not much on its aggregate effect, but on its differential impact when a community is faced with a specific shock (typically massive layoffs from a firm crippled by international competition);

However, if this income-based interpretation seems relevant for the conservative and far-right vote, it hardly illuminates other findings of this paper. Arguably, the identification strategy of [Dippel et al. 2017], as well as many other approaches we tested, work very well to explain the FN-RN vote shares, but perform very poorly for other parties⁸.

Indeed, one of the most striking features of our findings are these large negative marginal impacts suffered by all left-wing options. As emphasised above, it is without equivalent within Western democracies⁹. It seems like, from the late 1990s onward, the centre-left socialist party has been identified by voters as the party of globalisation, to which any other political option was preferred when a community was faced with a trade shock. This stigma set in very early and was inherited by parties which emerged from the decline of the center-left bloc. Its effect has never faltered since; changes in platforms or rhetoric have left it almost unaltered. When the conservative coalition embraced a more pro-trade discourse, it still benefited from that stigma; conversely, dissident socialist parties, even when they developed some form of protectionist rhetoric, inherited that stigma all the same.

An objectivist analysis would linger over the irrationality of import-competition exposed voters who paradoxically turn to pro-trade and anti-redistribution parties. Yet, as emphasised by [Dippel et al. 2017], what might be at stake there are not party agendas, but more broadly the *Weltanschauung* on which a social and political coalition relies.

4 Conclusion

We hypothesise that discussions about the existence of inactivity traps in European Welfare architectures — a debate particularly heated in French context [Anne, L’horty, and Dollé 2002; Gomel and Méda 2014] — might have overlooked the dynamic dimension: the perceived legitimacy of a redistributive system might depend less on the absolute level of transfers at time t , than on the way this system reacts to a particularly salient shock. In our setting, if we trust our estimates, apprehensions about the rise of a new rift within democracies opposing the winners and losers of international economic integration seems to be a performative more than a descriptive discourse; we find

⁸If we try to replicate figure 7 over a restriction to cities lying in the most exposed ZEs, or if we include variables that cross exposure and some major explanatory, we indeed find that in most exposed districts, the income and inequality channels which nourishes the FN-RN vote are reinforced: i.e., a decline of income or a rise in inequality within the city tends to bolster the far-right vote, and it is even more the case when the city is more exposed to import competition. However, we find very similar bolstering mechanisms for the left-wing vote, the marginal effects being much more robust across specifications. Replicating the strategy of [Dippel et al. 2017] for left-wing vote shares yields results which suggest a decline in the unemployment and income channels which usually bolster local left-wing support, but the marginal impacts fall short of significance. Both approaches allow us to explain to a large extent the marginal negative impact on the LREM vote, but not the gains experienced by traditional conservatives.

⁹[Autor, Dorn, Hanson, and Majlesi 2016b] find such strong negative impacts for the moderate democratic vote, but not for more progressive democrats; similarly, [Dippel et al. 2017] report negative coefficients for the Green party vote shares, not for the SDP and Die Linke.

no evidence of trade shocks having so massive and intense income effects that they would create an autonomous social group having its own consciousness; it even seems to be the contrary, with the pre-redistribution impact being so closely concentrated on the earliest deciles of the income distribution, that it might concurrently foster trans-class identification, with a rise of anti-redistribution sentiments among the lower-middle-class. In the late 1990s or early 2000s, in the absence of detailed approaches to the income response, policymakers, caught between an academic consensus stressing the distributional innocuousness of trade on the one hand, and heated political reactions to international economic integration on the other hand, were left but with the dual option of discarding the academic consensus to embrace the significance of the political response [Sapir 2011; Klein and Pettis 2021] or of embracing the consensus and discarding political grievances as a mere identitarian reaction. The correct interpretation might be more trivial. In our setting, evidence suggests that international economic integration was relatively well accepted, but that it induced the rise, within the middle-class, of a social consciousness more averse to redistribution in general and to groups perceived as benefiting from it.

References

- Alesina, Alberto, Reza Baqir, and William Easterly (1999). “Public Goods and Ethnic Divisions”. In: *The Quarterly Journal of Economics* 114.4, pp. 1243–1284.
- Algan, Yann et al. (2019). *Qui sont les Gilets jaunes et leurs soutiens ?* Tech. rep. 2019-03. OBE-CEPREMAP-CEVIPOF.
- Anne, Denis, Yannick L’horty, and Michel Dollé (2002). “Transferts sociaux locaux et retour à l’emploi ; suivi d’un commentaire de Michel Dollé, et d’une réponse au commentaire, de Denis Anne et Yannick L’Horty”. In: *Economie Et Statistique* 357, pp. 49–78.
- Autor, David, David Dorn, and Gordon Hanson (2013). “The China Syndrome: Local Labor Market Effects of Import Competition in the United States”. In: *American Economic Review* 103.6, pp. 2121–68.
- Autor, David, David Dorn, Gordon Hanson, and Kaveh Majlesi (2016a). *A Note on the Effect of Rising Trade Exposure on the 2016 Presidential Election*. MPRA Paper 112889. University Library of Munich, Germany.
- (2016b). “Importing Political Polarization? The Electoral Consequences of Rising Trade Exposure”. In: *American Economic Review* 110.
- Ballard-Rosa, Cameron, Amalie Jensen, and Kenneth Scheve (2022). “Economic decline, social identity, and authoritarian values in the United States”. In: *International Studies Quarterly* 66.1, sqab027.
- Barone, Guglielmo and Helena Kreuter (2021). “Low-wage import competition and populist backlash: The case of Italy”. In: *European Journal of Political Economy* 67, p. 101970.
- Beaud, Stéphane and Michel Pialoux (2003). *Violences urbaines, violence sociale. Genèse des nouvelles classes dangereuses*. Fayard.
- Blanchet, Thomas, Lucas Chancel, and Amory Gethin (2019). “How Unequal is Europe? Evidence from Distributional National Accounts, 1980-2017”. In: *WID Working paper* 2019/3.
- Blanchet, Thomas, Juliette Fournier, and Thomas Piketty (2017). “Generalized Pareto Curves: Theory and Applications”. In: *WID working paper*.
- Boulard, Fernand, ed. (1982). *Matériaux pour l’histoire religieuse du peuple français XIXe-XXe siècles*. EHESS-Presses de la FNSP-CNRS.
- Bourdieu, Pierre (1979). *La Distinction. Critique sociale du jugement*. Minuit.
- (1980). *Le Sens pratique*. Minuit.
- Bouvier, Jean (1973). “Le système fiscal français du dix-neuvième siècle: étude critique d’un immobilisme”. In: *Deux siècles de fiscalité française, dix-neuvième, vingtième siècle: histoire, économie, politique*. Ed. by Jean Bouvier, Robert Schnerb, and Jacques Wolff. Paris-La Haye: Mouton.
- (1978). “Histoire financière et problèmes d’analyse des dépenses publiques”. In: *Annales ESC* 33.2, pp. 207–215.
- Cartier, Marie et al. (2008). *La France des petits-moyens*. La Découverte.
- Cerrato, Andrea, Federico Maria Ferrara, and Francesco Ruggieri (2018). “Why Does Import Competition Favor Republicans? Localized Trade Shocks, Voting Behavior, and Scapegoating in the U.S.” In: *SSRN Electronic Journal*.
- Colantone, Italo and Piero Stanig (2017). *The Trade Origins of Economic Nationalism: Import Competition and Voting Behavior in Western Europe*. BAFFI CAREFIN Working Papers 1749.
- (2018). “Global Competition and Brexit”. In: *American Political Science Review* 112, pp. 1–18.
- Collovald, Annie and Olivier Schwartz (2006). “Haut, bas, fragile : sociologies du populaire”. In: *Vacarme* 6.
- Corbin, Alain (1975). *Archaisme et modernité en Limousin au dix-neuvième siècle (1845-1880)*. Paris: Marcel Rivière et Cie.
- Davenport, Alex, David Dorn, and Peter Levell (2021). “Import Competition and Public Attitudes Towards Trade”. In: *CEPR Discussion Paper No. DP16339*.
- Davezies, Laurent (2021). *L’État a toujours soutenu ses territoires*. Paris: Le Seuil.
- Delalande, Nicolas and Alexis Spire (2010). *Histoire sociale de l’impôt*. La Découverte.
- Dherbécourt, Clément and Flore Deschard (2019). *La répartition territoriale des emplois publics*. Document de travail 2019/3. France Stratégie.
- Dippel, Christian et al. (2017). *Instrumental Variables and Causal Mechanisms: Unpacking The Effect of Trade on Workers and Voters*. Tech. rep. 23209. National Bureau of Economic Research.
- Feigenbaum, James and Andrew Hall (2015). “How Legislators Respond To Localized Economic Shocks”. In: *Journal of Politics* 77.4, pp. 1012–1030.

- Feler, Leo and Mine Senses (2017). “Trade Shocks and the Provision of Local Public Goods”. In: *American Economic Journal: Economic Policy* 9.4, pp. 101–143.
- Fournel, Andrea (2023a). *Competition from emerging markets and the European industrial shift*. PSE Working Papers. Paris School of Economics.
- (2023b). In *What Sense Was Samuelson Right? New Estimates on the Distributional Effects of Trade*. PSE Working Papers. Paris School of Economics.
- (2024). *New Series on Micro-Level Tax Data: France 1835-2020*. PSE Working Papers. Paris School of Economics.
- Gennaioli, Nicola and Guido Tabellini (2019). *Identity, Beliefs, and Political Conflict*. CESifo Working Paper Series 7707. CESifo.
- Gethin, Amory, Clara Martinez-Toledano, and Thomas Piketty (2021). *Clivages politiques et inégalités sociales: une étude de 50 démocraties (1948-2020)*. Paris: Seuil.
- Gomel, Bernard and Dominique Méda (2014). “Le RSA, innovation ou réforme technocratique ?” In: *Revue Française de Socio-Economie* 1.13.
- Grossman, Gene and Elhanan Helpman (2018). *Identity Politics and Trade Policy*. Tech. rep. 25348.
- Klein, Matthew C. and Michael Pettis (2021). *Trade Wars Are Class Wars*. Yale University Press.
- Kuziemko, Ilyana and Ebonya Washington (2018). “Why Did the Democrats Lose the South? Bringing New Data to an Old Debate”. In: *The American Economic Review* 108.10, pp. 2830–2867.
- Lachappelle, Georges (1924). *Elections législatives du 11 mai 1924*. G. Roustan.
- (1936). *Elections législatives, 26 avril et 3 mai 1936*. Le Temps.
- Le Bras, Gabriel (1931). “Pour un examen détaillé et pour une explication historique de l’état du catholicisme dans les diverses régions de France”. In: *Revue d’histoire de l’Église de France* 17.
- Lechien, Marie-Hélène and Yasmine Siblot (2019). “Eux/nous/ils ? Sociabilités et contacts sociaux en milieu populaire”. In: *Sociologie* 10.1, pp. 1–15.
- Lefebvre, Rémi and Frédéric Sawicki (2006). *La société des socialistes : le P.S. aujourd’hui*. Editions du Croquant.
- Lipset, Seymour Martin (1959). “Democracy and Working-Class Authoritarianism”. In: *American Sociological Review* 24.4, pp. 482–501.
- Malgouyres, Clément (2017a). “The Impact Of Chinese Import Competition On The Local Structure Of Employment And Wages: Evidence From France”. In: *Journal of Regional Science* 57.3, pp. 411–441.
- (2017b). *Trade Shocks and Far-Right Voting: Evidence from French Presidential Elections*. RSCAS Working Papers 2017/21. European University Institute.
- Marx, Karl (1852). *Der achtzehnte Brumaire des Louis Bonaparte*.
- Mayda, Anna Maria and Dani Rodrik (2005). “Why are some people (and countries) more protectionist than others?” In: *European Economic Review* 49.6, pp. 1393–1430.
- Piketty, Thomas (1995). “Social Mobility and Redistributive Politics”. In: *The Quarterly Journal of Economics* 110.3, pp. 551–584.
- (2001). *Les Hauts revenus en France au 20^e siècle. Inégalités et redistribution, 1901-1998*. Paris: Grasset.
- (2019). *Capital et idéologie*. Paris: Le Seuil.
- Présidence du Conseil (1930). *Annuaire statistique de la France 1930*. Direction de la statistique générale et de la documentation. Paris.
- (1938). *Annuaire statistique de la France 1938*. Direction de la statistique générale et de la documentation. Paris.
- Rodrik, Dani (2021). “Why Does Globalization Fuel Populism? Economics, Culture, and the Rise of Right-Wing Populism”. In: *Annual Review of Economics* 13, pp. 133–70.
- Salmon, Frédéric (2001). *Atlas électoral de la France (1848-2001)*. Paris: Le Seuil.
- Sapir, Jacques (2011). *La Démondialisation*. Le Seuil.
- Steiner, Nils D, Philipp Harms, et al. (2020). “Local trade shocks and the nationalist backlash in political attitudes: panel data evidence from Great Britain”. In: *Gutenberg School of Management and Economics*.
- Wood, Adrian (2018). “The 1990s trade and wages debate in retrospect”. In: *The World Economy* 41.4, pp. 975–999.

Annex

Supplementary results

Table 4: Simple model for conservative vote lead in 2nd rounds (2007 & 2012 pres. elections)

Dep. var.: Right-wing vote lead in 2nd rounds of pres. elec.				
	OLS		Pooled OLS	FD panel
	2007	2012	2007,2012	2007,2012
	(1)	(2)	(3)	(4)
<i>Income regressors</i>				
Ratio T10/B50	1.39***	2.28***	2.78***	−1.34***
	(0.31)	(.42)	(.29)	(.19)
Av. income within city	.00094***	.0011***	.00061***	.00096***
(2021 euros)	(.00018)	(.00018)	(.00013)	(.00008)
<i>Spatial regressors</i>				
Density (p. per km ²)	−.0014***	−.0013***	−.0013***	−.005***
	(.0005)	(.0005)	(.0005)	(.001)
Distance to a metropolis (km)	−.021	−.033	−.029	
	(.024)	(.025)	(.024)	
Share of commuters	−.026	−.0075	−.025	.0274
	(.097)	(.008)	(.02)	(.024)
<i>Economic regressors</i>				
Unemployment rate	−1.02***	−1.18***	−1.75***	−.092
	(.19)	(.23)	(.16)	(.06)
Share of insecure jobs	.065	.15	.27	−.0008
	(.17)	(.17)	(.15)	(.021)
Blue-collar share	.091	.38	.13	.09**
	(.24)	(.28)	(.25)	(.04)
<i>Cultural regressors</i>				
Share of highly educated	−.37***	−.48***	−.49***	−.13
	(.104)	(.12)	(.104)	(.02)
Share of retired people	.23*	.302**	.14	−.038
	(.23)	(.14)	(.13)	(.03)
Share of immigrants	.39**	.135	.28	−.41***
	(.187)	(.18)	(.19)	(.12)
Within catholic realm	−.96	.0199	−.84	
	(2.15)	(2.24)	(2.22)	
R ²	0.26	0.26	0.29	0.83
F-stat	133.4***	133.4***	313.1***	2033.3***

Sign. thr. : *p<0.1; **p<0.05; ***p<0.01

Note: The unit of inter. is the *commune*. Elect. data are from the CDSP sets, income data from the IRCOM. Obs. are weighted by tot. Census pop., and SE clustered at the level of the *département*.

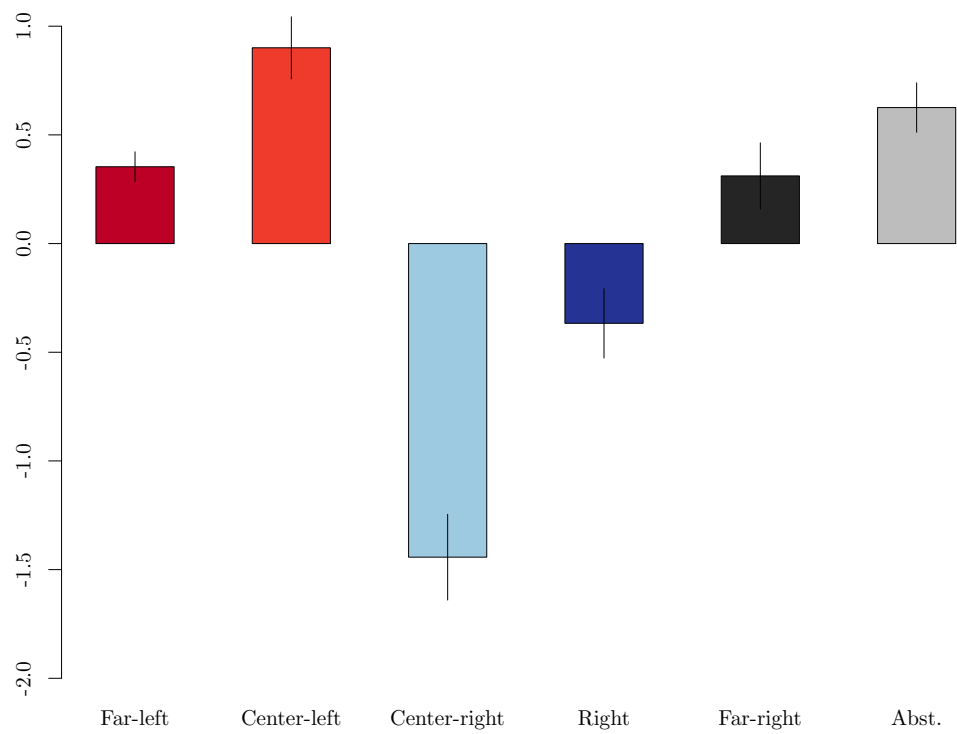
Table 5: Simple model for the FN-RN vote shares in 1st rounds (2007 to 2017 pres. elections)

Dep. var.: Vote share of the far-right in corresponding presidential election (round 1)								
	Pooled OLS				FD panel			
	2002-2007		2012-2017		2002-2007		2012-2017	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Income regressors</i>								
Ratio T10/B50	−.223** (0.109)	−.048 (0.091)	−.220 (0.154)	−.233** (0.118)	−.260* (0.136)	−.127 (0.086)	−.710*** (0.152)	−.485*** (0.143)
Av. income within city	−.0002*** (0.00003)	−.00000 (0.0001)	−.0005*** (0.0001)	−.00001 (0.0001)	0.0001 (0.0001)	0.0001 (0.0001)	0.001*** (0.0001)	0.0004*** (0.0001)
Ratio T10/B50 × Beyond tipping point	0.041 (0.106)	0.054 (0.085)	−.489** (0.220)	−.419*** (0.136)	0.164* (0.089)	0.236*** (0.081)	0.058 (0.086)	0.049 (0.083)
Av. income within city × Beyond tipping point	0.00000 (0.00000)	0.00000 (0.00000)	0.00001** (0.00001)	0.00001** (0.00000)	−.00000 (0.00000)	−.00000* (0.00000)	−.00001** (0.00000)	−.00000* (0.00000)
<i>Spatial regressors</i>								
Density		−.0004*** (0.0001)		−.0001 (0.0002)		0.0004 (0.0005)		−.004*** (0.001)
Distance to nearest metropolis		−.013* (0.007)		−.018** (0.007)				
Share of commuters		0.058*** (0.008)		0.235*** (0.032)		0.048*** (0.011)		0.144*** (0.025)
<i>Economic regressors</i>								
Unemployment		0.313*** (0.059)		0.339*** (0.081)		−.066 (0.080)		−.050 (0.043)
Share of blue-collar pop.		0.147** (0.059)		−.004 (0.080)		0.249*** (0.076)		−.109*** (0.030)
<i>Cultural regressors</i>								
Share of highly educated		−.135*** (0.031)		−.319*** (0.036)		0.110*** (0.036)		−.150*** (0.020)
Share of retired people		−.091*** (0.032)		−.268*** (0.041)		0.197*** (0.040)		−.100*** (0.020)
Late dechristianization		−1.115* (0.665)		−1.862** (0.800)				
Observations	8,302	8,302	8,302	8,302	8,302	8,302	8,302	8,302
R ²	.348	.470	.261	.535	.738	.771	.621	.668
F Statistic	887.2***	566.3***	584.9***	734.1***	2337.3***	1268.8***	1358.8***	756.7***

*p<0.1; **p<0.05; ***p<0.01

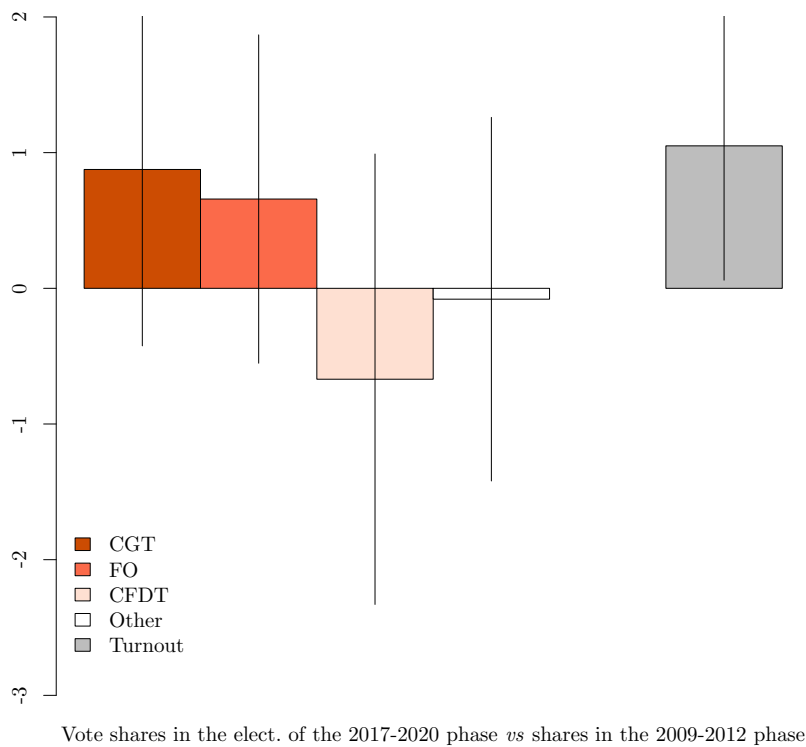
Note: The unit of interest is the *commune*. Electoral data are from the CDSP-Sciences Po sets, income data from the IRCOM. Observations are weighted by total start-of-the-period Census population. Standard errors in parentheses are clustered at the level of the *département*.

Figure 11: Political dynamics (II) – Marginal impact of an unemployment shock



Note: See figure 7 for more details.

Figure 12: Import exposure and unionism



Note: See 10 for more details. The explanandum there is the evolution of the vote shares of the three main unions (CGT, FO, CFDT) and the vote shares of all other options between the set of professional elections organised over 2009-2012, and the set of elections organised over 2017-2022; we also test for the turnout of the professional elections; note that because some candidates might be endorsed by several unions, the sum of vote shares can exceed the unity; controls include the vote share of the corresponding union over the 2009-2012 period, plus the whole left-wing vote share in the 1st round of the 2007 presidential election.

Setting

Table 6: Definition of political aggregates

Pres. elect.	1995	2002	2007	2012	2017
<i>Far-right</i>	J.-M. Le Pen	J.-M. Le Pen	J.-M. Le Pen	M. Le Pen	M. Le Pen
	P. de Villiers	B. Megret	P. de Villiers		N. Dupont-Aignan
<i>Right</i>	J. Chirac	J. Chirac	N. Sarkozy	N. Sarkozy	F. Fillon
		A. Madelin			
<i>Centre-right</i>	E. Balladur	F. Bayrou	F. Bayrou	F. Bayrou	E. Macron
<i>Centre-left</i>	L. Jospin	L. Jospin	S. Royal	F. Hollande	B. Hamon
	D. Voynet	N. Mamere	D. Voynet	E. Joly	
		C. Taubira			
<i>Far-left</i>	R. Hue	A. Laguiller	O. Besancenot	J.-L. Mélenchon	J.-L. Mélenchon
	A. Laguiller	J.-P. Chevènement	M.-G. Buffet	P. Poutou	P. Poutou
		O. Besancenot	A. Laguiller	N. Arthaud	N. Arthaud
		R. Hue	J. Bové		
		D. Gluckstein			

Note: Little candidates whose political identity is ambiguous have been dropped.

Robustness checks

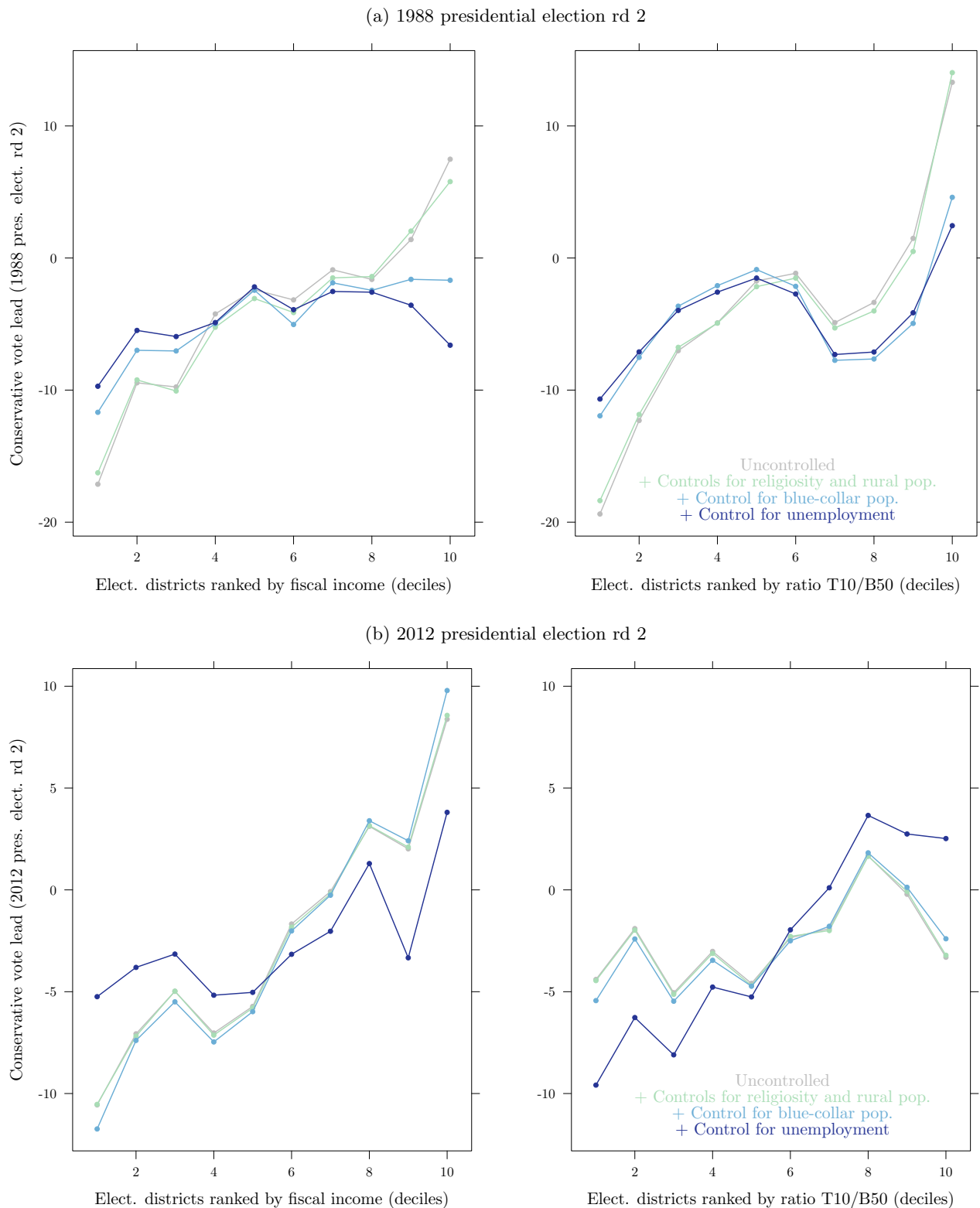
Table 7: Controlling for the choice of spatial unit – Difference between the first and last deciles of some distributions in av. conservative vote lead (2007 pres. elec. rd 2)

Type of distributions	Av. fiscal income		Ratio T10/B50	
	Raw	Controlled	Raw	Controlled
<i>Distribution of</i> départements	22.2	15.1	10.7	5.9
<i>Distribution of</i> circ. électorales	11.2	5.3	13.1	16.3
<i>Distribution of</i> communes	29.7	18.1	19.1	6.5

Sign. thr. : *p<0.1; **p<0.05; ***p<0.01

Note: Electoral data are from the CDSP-Sciences Po sets, income data from the IRCOM base. Controlled series have been factored out of the marginal effect of the Boulard index, the share of retired persons, the share of working-class people, and of the unemployment rate.

Figure 13: Income, income inequality, and the left-right cleavage at the regional level – Sensibility to controls



Note: The unit of int. is the *circonscription législative*. We use the pol. geo. at the time of the elect.; we follow the CDSP sets for vote shares and con. tab. *communes-circ.* Income data are from IRCOM dataset (see [Fournel 2024]). On the y -axis: vote lead of the conserv. RPR-UMP cand. in the 2nd rd of cor. pres. elec. On the x -axis, circ. ranked along: 1. Av. fiscal inc. of their inhab.; 2. The w.-av. of the ratio T10/B50 of fisc. inc. of all *communes* within the circ. Raw data is plotted in light grey. We then successively factor out the effect of some major controls (unempl. rate, rural pop. sh., blue-collar pop. sh., and share of the pop. living in a parish with high churchgoing rates as defined by [Boulard 1982]). x -axis quantiles are weig. by nb of vote cast.

Table 8: Raw correlation between local provision of public goods and some political outcomes (*département*-level)

<i>Dep. var.: Yellow vest activity (nb of protests per 100k inhab.) in December 2018</i>				
<i>or vote shares of M. Le Pen in presidential elections</i>				
	YW act.	Le Pen	Le Pen	Δ Le Pen
		2017-r1	2017-r2	2012/17-r1
	(1)	(2)	(3)	(4)
State spending	0.033	0.38	0.25	
<i>(euros per inh., 2016)</i>	(0.03)	(0.28)	(0.21)	
R^2	0.02	0.03	0.03	
Δ Nb of civil serv. per 1k inhab.	0.146**			0.84**
<i>(2012-2018)</i>	(0.07)			(0.35)
R^2	0.07			0.08
Nb of schools per 100k inhab.	0.034***	0.187	0.12	
<i>(2016)</i>	(0.004)	(0.16)	(0.11)	
R^2	0.41	0.14	0.13	
Nb of gen. practitioners per 100k inhab.	0.007	−0.04	−0.04	
<i>(2016)</i>	(0.008)	(0.11)	(0.08)	
R^2	0.002	0.005	0.004	
Nb of proximity shops per 100k inhab.	0.019***	0.136*	0.08	
<i>(2016)</i>	(0.06)	(0.08)	(0.06)	
R^2	0.23	0.13	0.11	
Nb of cultural equip. per 1k inhab.	0.09	−1.59**	−1.18**	
<i>(2016)</i>	(0.11)	(0.78)	(0.52)	
R^2	0.07	0.08	0.06	
Membership in associations	0.126***	0.52	0.28	
<i>(2016)</i>	(0.04)	(0.33)	(0.28)	
R^2	0.11	0.02	0.01	
Time (in min.) to reach a pool	0.033	0.38	0.25	
of local services <i>(2016)</i>	(0.02)	(0.28)	(0.21)	
R^2	0.02	0.03	0.03	

Sign. thr. : *p<0.1; **p<0.05; ***p<0.01

Note: The unit of observation is the *département*. Electoral data are from the CDSP-Sciences Po databases, the Yellows vests data has been described in figure 10b. All explanatory variables are from the INSEE’s Census or BPE bases. The membership in associations index is proxied by the number of persons within sport associations as a ratio of the total population. Observations are weighted by total Census population. Reported specifications include no control. Reported S.E. are not clustered.

Table 9: Sensibility to controls of coefficients plotted in figure 2

<i>Dep. var.: Vote lead of the conservative candidate (presidential election, 2nd round) in the electoral district</i>												
	<i>1974 presid. elec.</i>						<i>1981 presid. elec.</i>					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<i>Av. fisc. income</i>	−0.51 (0.28)	−0.002 (0.05)	0.45 (0.47)	0.85** (0.43)	2.39** (0.97)	2.48** (0.99)	−0.07 (0.23)	0.19 (0.24)	0.68** (0.29)	0.72** (0.31)	1.19*** (0.32)	0.13 (0.49)
<i>Ratio T10/B50</i>		1.81 (1.74)	−1.55 (2.21)	−0.44 (2.13)	5.38 (3.62)	4.86 (3.67)		2.41** (1.05)	−0.01 (1.46)	0.85 (1.39)	7.16*** (1.68)	4.39** (1.31)
<i>Sh. rural pop.</i>			1.13*** (0.37)	0.91** (0.42)	1.03** (0.39)	0.89* (0.66)			1.15** (0.46)	0.81* (0.48)	0.29 (0.51)	−0.28 (0.62)
<i>Religiosity</i>				0.13*** (0.03)	0.13*** (0.03)	0.11*** (0.02)				0.09*** (0.03)	0.09*** (0.03)	0.08*** (0.02)
<i>Sh. blue-collar pop.</i>					0.92** (0.44)	0.77 (0.51)					1.38*** (0.31)	0.86*** (0.27)
<i>Unemployment</i>						−2.36 (1.52)						−2.54*** (0.82)
<i>R²</i>	0.015	0.024	0.069	0.172	0.197	0.214	0.001	0.05	0.099	0.185	0.238	0.273

Sign. thr. : *p<0.1; **p<0.05; ***p<0.01
Note: Dep. var. is the vote lead of the conserv. candidate (V. Giscard d'Estaing) in the 2nd round of the cor. presidential election. Regres. are weigh. by the tot. Census household pop, and SEs are clustered at the *département*-level. Other parameters similar to fig. 13.