The electoral tipping point

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Share of immigrants by municipality



Vote shares LEGA NORD at 2013 national elections



- This not at all an Italian feature; similar evidence in many other countries (e.g. Dustmann et al., 2019; but also think to Trump, Brexit, the European Eastern countries, ect.)
- Why people vote more for anti-immigrant parties where there are less immigrants? Is it just the fact that immigrants do not go where they are not liked?
- More generally, what determines the attitude of voters towards immigrants?

- Several potential reasons for anti-immigrant feelings:
 - Economic factors (Mayda, 2006; Card, Mas, and Rothstein, 2008): labour market competition, economic specialization: immigrants steal our jobs! (or push down our wages or worsen our labour conditions...);
 - Local public goods (Hainmueller and Hiscox, 2010; Cavaille and Ferwerda, 2019): immigrants compete with natives on access to local services (i.e. social housing).

- Culture and compositional amenities (Card, Dustmann, and Preston, 2012): immigrants are different from natives in terms of culture, language, religion...
 - And people, special in small centers is not used to strangers and do not accept them.
 - Plus, immigrants might reduce the quality of local amenities (es. too many foreign kids in schools).
- More generally, crime and other related factors.

- How to distinguish among all these factors? What matters more?
- Interesting question, because this might also allow for better policies to promote integration and to better policies for allocating immigrants on the territory (e.g. refugees: Dustman, 2018).
- Problem; usually all these factors play a role and are correlated, distribution of immigrants on the territory is not random, hard to discriminate among many different explanations etc.

This paper: methodology

- Using the fact that we have a snapshot of the distribution of incomes in Lombardia in 2012 (dichiarazioni dei redditi: detailed information on the income of each individual presenting an income declaration living in each municipality in Lombardia, including if native or immigrant) we attempt a novel methodology.
- We first look at identifying a structural break, an electoral Tipping Point (following Card, Mas and Rothstein, 2008), a percentage of immigrants over population where voting behaviour abruptly change.

This paper: methodology

- Then, we use a regression discontinuity design (Calonico, Cattaneo and Titiunik, 2014; Calonico and Farrell, 2018) around this threshold to check which variables jump at the threshold (and hence can explain away the jump in electoral behaviour);
- We use proxies that capture all the potential explanations summarized above;
- Then, we run several robustness tests to check whether our results hold at other points of the distribution of immigrants over the population (yet to be completed).

- It is (competition in) the labour market, stupid !!
- The only variables that kill the tipping point are related to labor market:
- Vote for Lega collapses where there is large difference in income between immigrants and native (which suggest that natives and immigrants do different jobs; they are complementary not substitute on labor markets; Cattaneo, Fiorio, and Peri, 2014);
- Specialization of the municipalities (where natives work in services, jobs that immigrants cannot do, vote for Lega collapse).
- No other variable related to different stories matter.

Contribution to the literature

- Determinants of attitudes of natives towards immigrants (Mayda, 2008; Barone et al., 2016; Dustmann et al., 2019):
 - We show relationship between vote shares anti-immigration parties and share of immigrants follows a U-shaped curve
 - We provide evidence of a tipping-like behaviour in the vote shares of anti-immigration parties
- Role labour market competition between natives and immigrants:
 - Other papers have studied how labour market competition affects attitudes towards immigrants (Mayda, 2008; Barone et al., 2016; Edo et al., 2019)
 - Literature measures labour market competition using education, which correlates with cultural openess (Hainmueller and Hiscox, 2007, 2010; Barone et al., 2016)
 - We use more direct measures of labour market characteristics and competition
- Analysis based on Card, Mas, and Rothstein (2008):
 - In a context where natives are not very mobile like in Europe, it is possible to find a tipping-like behavior in electoral outcomes rather than in native population outflows

- Institutional background
- **2** Identification strategy (1): regression discontinuity design
- Identification strategy (2): find the tipping point
- Oata
- Sesults: a) baseline results; b) mechanisms
- Onclusions

Institutional background

- Lombardia:
 - Rich region, 10 millions inhabitants, 12 % share of immigrants
 - 12 provinces, 57 Local Labor Systems and 1544 municipalities
 - 23 % of the total immigrants resident in Italy
 - $\bullet\,$ Municipal share of immigrants from 0 % to 30 %
 - $\bullet\,$ Lega Nord vote shares from 0 % to 50 %
- Lega Nord :
 - Created in 1989; it participated to a national election for first time in 1992
 - Party created to defend the interests of the north of Italy
 - It has taken anti-immigration positions since the beginning
 - Anti-immigration positions have become stronger with election of Matteo Salvini
- Focus is on the 2013 national elections:
 - Italian parliament is divided in two chambers, the House and the Senate
 - $\bullet\,$ Electoral rule (law 270/2005): proportional with a majority premium of 55 % of the seats assigned to biggest coalition
 - House and the Senate are elected for a term of 5 years

Identification strategy (1): regression discontinuity design

We follow Card, Mas and Rothstein (2008), running following RDD model:

$$V_{i} = \beta_{0} + \beta_{1}r_{i} + \beta_{2}\mathbf{1}[r_{i} > 0] + \beta_{3}r_{i} * \mathbf{1}[r_{i} > 0] + \beta_{i}X_{i} + \eta_{i}$$
(1)

 V_i is vote share taken by Lega Nord during 2013 national election in municipality i

Running variable r_i is difference between share of immigrants at municipal level s_i and candidate tipping point s^*

Variable of interest is dummy $1[r_i > 0]$, which is 1 for municipalities above tipping point

 β_2 estimated by local linear regression on subsample in interval $r_i \in [-h, +h]$ around the tipping point, where interval calculated using Calonico, Cattaneo and Titiunik (2014) and Calonico and Farrell (2018) optimal bandwidth selector

Identification strategy (2): find the tipping point

Main challenge is how to identify tipping point s^* , which must be estimated from the data

We follow Card, Mas and Rothstein (2008), using search techniques applied in times series to find structural breaks. We run following regression:

$$V_i = \alpha_0 + \alpha_1 \mathbf{1}[\mathbf{s}_i > \mathbf{s}^*] + \xi_i \tag{2}$$

We run separated regressions for every potential candidate over the entire distribution of share of immigrants s_i and select value s^* which maximizes R^2

Hansen (2000) shows that if model estimated correctly, procedure gives consistent estimate of structural break

We estimate a candidate tipping point around a share of migrants equal to 3.35 % of municipal population

Data (1)

- Data from the ARCHIMEDE project run by ISTAT, through Eupolis Lombardia:
 - Data on the individual level labour market conditions of both natives and immigrants of the municipalities of Lombardia
 - Cross-section for 2012, containing information for approximately 10 million individuals and 4.4 million households
 - We observe the income, the employment status, the level of education, the age and the gender of approximately 10 millions of individuals, distinguishing between natives and immigrants
- Electoral data and share of immigrants:
 - Vote shares taken by Lega Nord at municipal level during the 2013 national elections from Home Office
 - Data on the share of immigrants who live in all the municipalities of Lombardia from the Italian Statistical Office (ISTAT)

Data (2)

- Municipal characteristics:
 - $\bullet\,$ From 2011 Census: municipal population, % women, % children, % elderly, % graduate, altitude, school data
 - From Istat: information about the economic specialization of 57 local labour areas (LLA) of Lombardia
 - From Italian Ministry of Economy and Finance: municipal economic performance for 2007-2012
 - From Home Office: balance sheets data
- Final dataset:
 - Includes 1500 Lombardia's municipalities
 - Starting from original sample of 1543 municipalities, we exclude 26 with no infomation on share immigrants
 - We drop 16 with reported average annual income per capita below first percentile of distribution (i.e. 9412 euros per capita)
 - These are municipalities at border with Switzerland with high share of citizens working in Switzerland
 - We drop Campione d'Italia (exclave in Swiss territory)

Tipping point: vote shares for LEGA and share of immigrants



Tipping point: vote shares for LEGA

	(1)	(2)	(3)	(4)					
Dependent variable	Vote share of Lega Nord								
Above tipping point	-0.060***	-0.050*	-0.079***	-0.058***					
	(0.023)	(0.029)	(0.011)	(0.016)					
	. ,	. ,	. ,						
Observations	140	150	1,500	1,500					
Mean	0.237	0.240	0.249	0.249					
R-squared	0.120	0.135	0.160	0.174					
Bandwidth	0.009	0.010	Global	Global					
Polynomial	Linear	Quadratic	Linear	Quadratic					

 * p<0.1, ** p<0.05, *** p<0.01

Mechanisms behind the tipping point (1)

- What does explain this tipping-like behavior? We implement two types of analysis
- First, we analyse which variables behave discontinously at the tipping point around a share of immigrants equal to 3.35 %:
 - This analysis allows to understand the differences in socio-economic characteristics between municipalities just below and just above the threshold
- Second, we rerun RDD controlling for the socio-economic characteristics of the municipalities:
 - Controlling for these characteristics enables us to understand which factors are correlated with the tipping-like behaviour

Mechanisms behind the tipping point (2)

- We investigate 4 main mechanisms suggested by literature:
 - Economic factors (Mayda, 2006; Card, Mas, and Rothstein, 2008): labour market competition, economic specialization, crisis, migration;
 - Public goods (Hainmueller and Hiscox, 2010; Cavaille and Ferwerda, 2019): school, welfare, crime;
 - Culture and compositional amenities (Card, Dustmann, and Preston, 2012): differences in education, presence of kids at school, age, geographical origin;
 - Characteristics municipalities: population, age, gender, education;
- Main mechanism found:
 - Above the threshold: differences in incomes and employment between natives and immigrants bigger, municipalities more likely to be in urban areas with more individuals in skilled jobs, population larger
 - Tipping point estimate insignificant only when controlling for labour market competition between natives and foreigners, i.e. the difference in incomes between natives and immigrants

Tipping point: municipal characteristics (1)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent	Difference income	Difference employment	Urban	Log	% change	% change	Social	Police
variables	natives	natives	specialized	population	natives	immigrants	expenditures	expenditures
	immigrants	immigrants	area					
Above tipping point	3.703**	0.129***	0.218**	0.786**	-0.006	-0.006	16.235	10.295
	(1.431)	(0.049)	(0.105)	(0.326)	(0.006)	(0.007)	(32.485)	(8.274)
Observations	140	140	140	140	140	140	140	140
Mean	8.070	0.0957	0.0200	7.050	0.000851	0.0286	106.8	21.36
R-squared	0.088	0.066	0.083	0.051	0.008	0.065	0.020	0.018
Bandwidth	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009
Polynomial	Linear	Linear	Linear	Linear	Linear	Linear	Linear	Linear

Tipping point: municipal characteristics (2)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent	Difference education	Share	Share	Share	Share	Share	Share	Share
variables	natives	East Europe	Africa	Asia	Latin	graduate	0-14	>65
	immigrants				America			
A1	0.110	0.001	0.000	0.001	0.001	0.000	0.000	0.000
Above tipping point	0.118	-0.001	0.003	0.001	-0.001	0.009	0.009	-0.002
	(0.114)	(0.002)	(0.002)	(0.001)	(0.001)	(0.011)	(0.010)	(0.016)
Observations	140	140	140	140	140	140	140	140
Mean	0.0172	0.0107	0.00570	0.00237	0.00343	0.0758	0.132	0.213
R-squared	0.043	0.010	0.091	0.080	0.008	0.068	0.021	0.005
Bandwidth	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009
Polynomial	Linear	Linear	Linear	Linear	Linear	Linear	Linear	Linear

Tipping point: vote shares for LEGA, add control variables (1)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Dependent variable	Vote share of Lega Nord								
Above tipping point	-0.060***	-0.029	-0.066***	-0.037*	-0.051**	-0.063***	-0.058**	-0.058**	-0.058**
Difference income natives immigrants	(0.023)	-0.008*** (0.002)	(0.024)	(0.020)	(0.024)	(0.022)	(0.023)	(0.022)	(0.023)
Difference employment natives immigrants			0.048 (0.041)						
Urban area				-0.102*** (0.012)					
Log population					-0.010 (0.008)				
% change natives						-0.623** (0.290)			
% change immigrants							0.024 (0.049)		
Social expenditures								-0.000 (0.000)	
Police expenditures									-0.000 (0.000)
Observations	140	140	140	140	140	140	140	140	140
Mean	0.237	0.237	0.237	0.237	0.237	0.237	0.237	0.237	0.237
R-squared	0.120	0.262	0.128	0.294	0.141	0.143	0.124	0.130	0.123
Bandwidth	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009
Polynomial	Linear	Linear	Linear	Linear	Linear	Linear	Linear	Linear	Linear

Tipping point: vote shares for LEGA, add control variables (2)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Dependent variable	Vote share of Lega Nord									
Above tipping point	-0.060***	-0.029	-0.057**	-0.061***	-0.061***	-0.058**	-0.062***	-0.054**	-0.059**	-0.059**
Difference income natives immigrants	(0.025)	-0.008*** (0.002)	(0.020)	(0.020)	(0.025)	(0.020)	(0.020)	(0.021)	(0.021)	(0.025)
Difference education natives immigrants			-0.021 (0.016)							
Share East Europe				-1.237 (1.168)						
Share Africa				. ,	0.706					
Share Asia					(,	-1.258 (1.557)				
Share Latin America						(,	-2.242 (2.054)			
Share graduate							()	-0.652*** (0.129)		
Share 0-14								(**==*)	-0.021	
Share >65									(0.200)	0.226 (0.155)
Observations	140	140	140	140	140	140	140	140	140	140
Mean	0.237	0.237	0.237	0.237	0.237	0.237	0.237	0.237	0.237	0.237
R-squared	0.120	0.262	0.129	0.130	0.124	0.125	0.131	0.270	0.120	0.139
Bandwidth	0.009	0.009	0.009 Lincor	0.009	0.009	U.UU9	0.009	0.009	U.UU9	U.UU9
Mean R-squared Bandwidth Polynomial	0.237 0.120 0.009 Linear	0.237 0.262 0.009 Linear	0.237 0.129 0.009 Linear	0.237 0.130 0.009 Linear	0.237 0.124 0.009 Linear	0.237 0.125 0.009 Linear	0.237 0.131 0.009 Linear	0.237 0.270 0.009 Linear	0.237 0.120 0.009 Linear	0.237 0.139 0.009 Linear

Tipping point: vote shares for LEGA, add all control variables

	(1)	(2)	(3)	(4)	(5)			
Dependent variable		Vote share of Lega Nord						
Above tipping point	-0.060***	-0.029	-0.028	-0.027	-0.019			
	(0.023)	(0.023)	(0.018)	(0.018)	(0.021)			
Difference income natives immigrants		-0.008***	-0.004**	-0.004**	-0.000			
		(0.002)	(0.002)	(0.002)	(0.002)			
Average income natives				0.000				
-				(0.002)				
Observations	140	140	140	140	140			
Mean	0.237	0.237	0.237	0.237	0.237			
R-squared	0.120	0.262	0.678	0.678	0.845			
Bandwidth	0.009	0.009	0.009	0.009	0.009			
Polynomial	Linear	Linear	Linear	Linear	Linear			
Controls	No	No	Yes	Yes	Yes			
LLA FE	No	No	No	No	Yes			

Placebo thresholds, left of tipping point



Placebo thresholds, right of tipping point



Conclusions

- Relationship between Lega Nord vote shares and share of immmigrants follows U-shaped curve:
 - It exhibits a tipping-like behavior when share of immigrants passes the threshold of 3.35 %
 - $\bullet\,$ Using RDD, we estimate that Lega Nord vote shares are approximately 6 $\%\,$ points higher below the threshold
- Mechanisms behind the tipping-like behavior:
 - Above the threshold: differences incomes and employment between natives and immigrants bigger, municipalities more likely to be in urban areas with high skilled jobs, population larger
 - Tipping point estimate insignificant only when controlling for labour market competition between natives and foreigners, i.e. difference in incomes between natives and immigrants
 - Consistent with skills upgrade story (Cattaneo, Fiorio, and Peri, 2014)
 - Other stories do not find support in the data