The Mediterranean Refugees Crisis and Extreme Right Parties: Evidence from Greece

Sekeris, Petros and Vasilakis, Chrysovalantis

University of Portsmouth, Bangor Business School

27 June 2016

The Mediterranean Refugees Crisis and Extreme Right Parties: Evidence from Greece

Petros G. Sekeris[a] and Chrysovalantis Vasilakis[b,c]

[a]*University of Portmouth,UK*
[b] *IRES, Univeristé Catholique de Louvain (Belgium)*
[c]*Bangor Business School, (UK)*

Abstract

This paper exploits the effect of massive refugees flows to the Greek islands on natives' political attitudes. Our results show a significant effect of refugees' presence on xenophobia. This outcome is robust under FE estimates and IV strategies. Furthermore the particular context of our study and the timing of the elections allow us to dismiss anti-immigration votes being casted for different motives than purely xenophobic reactions.

1 Introduction

The political instability of Middle East has prompted the largest flow of refugees in Europe since WWII. An estimated 856,723 people crossed the Mediterranean sea in 2015 to reach Europe via Greece and applied for political asylum. Meanwhile, we have witnessed a rise of nationalist and anti-immigration parties, as epitomized by the successful BREXIT campaign. While the rise of extreme right parties is not a new phenomenon in Europe (Arzheimer 2009), the trend does seem to have accelerated in more recent years thereby raising the question of whether massive refugees flows can affect the political choices of natives in European countries. To address this question, we explore the effect of the unprecedented wave of refugees to the European Union on two parliamentary electoral results in Greece in January and September 2015.

Immigration - especially when the flow of migrants is important - has been shown to generate anti-immigration feelings (Hopkins 2010, Dustmann et al. 2011). The channels explaining this phenomenon are multiple. Anti-immigration attitudes are explained by both economic factors such as labour market competition (Scheve and Slaughter 2001, Mayda 2006, O'Rourke and Sinnott 2006, Facchini and Mayda 2009) and the impact of immigration on the fiscal burden (Dustmann and Preston 2007, Facchini and Mayda 2009, Dahlberg et al. 2012), and non-economic factors rooted in cultural values and beliefs (see e.g. Arzheimer 2009, Hainmueller and Hopkins 2014, Barone et al. 2016).

Most of the existing literature points at the positive effect of immigration on negative attitudes towards migrants and refugees by using a series of instruments to overcome endogeneity concerns (e.g. Halla et al. 2012, Harmon 2014, Mayda et al. 2015, Barone et al. 2016, Steinmayr 2016). The context of our study is unique and enables us to improve the identification of the impact of refugees flows on policy opinions. We exploit two electoral rounds (January and September 2015), that were 8 months apart, and where - more importantly - the second election was neither caused by the refugee flow, nor was anticipated by voters or political parties.[1]

---

[1]The September 2015 elections were the consequence of a referendum over the bailout terms imposed on the

Importantly, over the period separating the two electoral rounds, Greece witnessed a massive refugee flow. A second distinctive feature of our study is that after refugees massively migrated to the Greek islands, further movement proved extremely complicated as explained below. A third feature of our study is our use of an instrument taken from the recent migration literature (see Beine et al. 2013, Docquier et al. 2016) based on a gravity model predicting the stock of refugees out of a set of reasonably exogenous dyadic variables interacted with time dummies. These features enable us to improve on the existing literature by proposing a convincing identification strategy.

In the next section we review the current refugee crisis, and explore the migratory paths from Turkey to Europe via Greece. Section 3 describes the data, Section 4 contains our empirical findings, and Section 5 concludes.

2 The background

2.1 The refugee crisis

In 2015 alone, more than a million refugees are estimated to have reached Europe (International Organization for Migration), mainly by sea (97%) and mostly transiting via the Turkish shores to the Greek islands (82%), before pursuing their journey through the Balkans towards northern Europe (IOM 2015). With close to 3 million registered refugees in Turkey in April 2016 (UNHCR, 2016), most of which desire to reach Northern Europe, the predilection road for refugees to penetrate Europe has been to be smuggled to the Greek islands. The total number of registered arrivals of refugees in Greece in 2015 reached the record figure of 856,723, with the bulk of the flow being directed towards the Greek islands bordering Turkey.

Once on Greek soil, the unique way for refugees to pursue their route to Northern Europe, is by processing their papers with local Greek authorities, before embarking on vessels heading to Athens' port, Piraeus, or to the port of Kavala. This unprecedented flow of migrants created

Greek government.

3

a bottleneck on the Greek islands where local authorities struggled to screen and record the migrants, while Ferry companies reached capacity constraints on board of their vessels. The combination of these features makes our study unique: first, this flow of refugee has translated in a permanent presence of refugees on the Greek islands during the time span covered by this study and, second, natives were conscious that refugees would not remain on their islands in the long run, hence dismissing any economic motivation for voting in favour of an anti-immigration party.

2.2 The rise of the Golden Dawn

The heavy presence of refugees on the Greek islands has coincided with an increase in the support for the extreme right wing party Golden Dawn. The party was founded in 1980 but has historically been politically insignificant, securing less than 0.5% of the total votes at parliamentary elections. The party gained momentum in the midst of the economic crisis scoring 7% at the June 2012 parliamentary elections, which secured them 21 seats (out of 300) in the Greek parliament. In the January and September 2015 electoral rounds the party renewed its electoral success with its scores reaching, respectively, 6.3% and 7%.

Golden Dawn is known for its harsh discourse and actions against migrants, and its political platform is deeply anti-austerity, anti-European and anti-immigration. These features have convinced part of the Greek electorate, with the party obtaining more than 20% of the votes in some municipalities of Athens in the May 2012 parliamentary elections. Given this clear and loud anti-immigration discourse, the on-going refugee crisis is likely to have contributed to strengthening the party in municipalities harbouring refugees. This is especially true given the fact that the large media coverage of the refugee crisis may have contributed to the political polarization of the electorate (Melki and Pickering 2014).

The unprecedented refugee flow to Greece in 2015 has disproportionally affected islands neighbouring Turkey, thus constituting an ideal context for testing the impact of refugees' presence on votes for an anti-immigration party. Two parliamentary elections were organized in

Greece in 2015, in January and in September. The peculiarity of the September elections lies in that they were totally unexpected, thus preventing political parties from strategically designing electoral campaigns in advance. Moreover, the second electoral round was organized at the end of the northern hemisphere summer period, a period of particularly intense refugee smuggling due to favourable weather conditions. Together these facts imply that municipalities close to the Turkish border had been exposed to important increases of refugee presence prior to casting their votes in September 2015.

3 Data

Monthly data for refugees has been collected from United Nations' archives for the years 2013, 2014 and 2015. Our database contains the number of registered refugees at the municipality level for a 3 month window preceding the two elections. The rationale for considering such wide windows of observation lies in the constant (day-by-day) variation in the number of refugees present on the islands, thus increasing the likelihood of encountering outliers when considering shorter windows of observation. For robustness reasons we equally collected data for 4-months and 7-months observation windows, respectively.[2] We collected electoral data for each municipality from the ministry of Interior for the January and September 2015 ballots. Data for population, unemployment are taken from the Greek statistics service (ELSTAT) and the crime data (thefts) for each region for the years 2014 and 2015 from the Greek police. The travel distance (by road) from Turkey to Greek municipalities is computed as the minimal travel distance from each Greek municipality to the closest Turkish border using geographical coordinates, and relying on geodesic distances for the islands. Table 1 illustrates the summary statistics for the main variables of our analysis.

---

[2]Our results remain robust to the use of 1-month or 12-months windows.

Table 1: Summary statistics

Variable	Mean	Std. Dev.	Min.	Max.
REF_{3month}	0.008	0.067	0	0.976
REF_{4month}	0.009	0.07	0	0.978
REF_{7month}	0.01	0.074	0	0.98
Golden Dawn	0.066	0.023	0	0.171
SYRIZA	0.363	0.074	0.139	0.788
New Democracy	0.309	0.078	0.047	0.679
Potami	0.049	0.03	0.006	0.43
KKE	0.054	0.031	0	0.331
ANEL	0.042	0.018	0	0.207
Centrists	0.023	0.013	0	0.112
Pasok	0.036	0.042	0	0.207
$ln(unemployment)$	-2.99	0.848	-4.67	-0.782
$ln(crime)$	-7.193	0.644	-8.041	-4.875

4 Empirical Methodology

4.1 Benchmark Specification

Our benchmark specification reads as:

$$y_{it} = \beta REF_{it} + \lambda X_{it} + \gamma_t + \gamma_i + e_{it} \tag{1}$$

where $y_{i,t}$ is the share of votes received by Golden Dawn in municipality i and year t, and REF_{it} is the percentage of refugees over the total population of municipality i in year t.

The coefficient of interest, β, captures the effect of the presence of refugees in a given municipality on the percentage of votes the Golden Dawn party received. To mitigate the possibility of an omitted variable bias, we introduce time varying covariates, X_{it}, that include the log of unemployment rates and the log of crime rates (thefts). To further shield our analysis from policies specific to the islands (e.g. change in the islands' specific tax regime) that could affect political choices, we augment our model with the interaction of an island dummy with time. Also, to capture unobserved historical heterogeneity across municipalities, we introduce a dummy for whether the municipality elected members of Golden Dawn in the Greek par-

liament in June 2012 (I_{GD}). Lastly, we further capture unobserved heterogeneity by including time (γ_t) and municipality fixed effects (γ_i). To solve the reverse causality and measurement problems, we next propose an instrumental variables approach.

4.2 Instrumental strategy

In line with Feyrer (2009) and Alesina et al. (2016), our strategy consists in instrumenting the stock of refugees using the predictions of a pseudo-gravity regression that includes interactions between year dummies and the geodesic distance between each municipality of destination (i) and the closest Turkish border (r). Identification comes from the time varying characteristics of specific potential routes used by refugees. The predictions of bilateral migration stocks are obtained from the following pseudo-gravity model:

$$\ln(Stock_{r,i,t}) = \beta_t \ln(Distance_{r,i}) + \gamma_i + \gamma_t + \varepsilon \tag{2}$$

where $Stock_{r,i,t}$ is the number of refugees in municipality i in year t, and r stands for the closest Turkish border. Variables γ_i and γ_t are, respectively, destination and year fixed-effects. In the pseudo-gravity stage, the presence of a large number of zeroes in bilateral migration stocks gives rise to econometric concerns about possible inconsistent OLS estimates. To address this problem, we use the Poisson regression by pseudo-maximum likelihood (see Santos Silva and Tenreyro 2011).[3] Then, we predict the stocks from the gravity model subtracting the destination and year dummies as included in (1) to construct our instrument.[4]

4.3 Results

Table 2 displays the baseline estimates. Columns 1-3 contain the results when considering the aggregate stock of refugees over 3-month, 4-month, and 7-month windows, respectively.

---

[3] The zero-stage results can be found in Table A.1.

[4] For robustness reasons we also develop an augmented shift-share strategy *à la* Ottaviano and Perri (2006) to instrument the stocks of refugees. The results - which are available upon request - are qualitatively equivalent.

The majority of the regressions explain more than 96 percent of the variation in the observed percentage of votes received from Golden Dawn. This ensures a very good fit, given that migration rates are very heterogeneous across corridors. The results confirm our expectations: higher stocks of refugees are correlated with higher percentages for the extreme right Golden Dawn party. The magnitude of the coefficient is relatively low: a 1 percentage point increase in the share of refugees is associated with an increase of 0.05 percentage points for the Golden Dawn at the elections. Also, the unemployment and crime rates are not significant at any significance level.

Table 2: Benchmark Model

	(1) Golden Dawn	(2) Golden Dawn	(3) Golden Dawn
REF_{3month}	0.0578***		
	(4.29)		
$ln(unemployment)$	0.0023	0.0022	0.0023
	(0.49)	(0.47)	(0.50)
$ln(crime)$	0.0033	0.0034	0.0032
	(0.57)	(0.58)	(0.56)
REF_{4month}		0.0587***	
		(4.37)	
REF_{7month}			0.0625***
			(4.29)
N	648	648	648
R^2	0.96	0.96	0.96
Municipality fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes

Notes: In all tables standard errors are clustered at the municipality level and the corresponding t-statistics are reported in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels respectively.

In Table 3 we explore the robustness of our results to the inclusion of two additional control variables: a dummy taking the value 1 for municipalities which elected members of Golden Dawn in the Greek parliament in the June 2012 elections (I_{GD}) and that captures pre-refugee attitudes, as well as an island-dummy capturing the effect of policies targeting the islands in particular on electoral outcomes. The coefficient of interest remains stable throughout the various specifications in Columns (1)-(4). In Column (5), we exclude the municipalities that elected

members of Golden Dawn the last 4 years from our sample. Throughout the specifications, we find that the *islands* coefficient is negative and significant, revealing a lower historical propensity to vote for the extreme right in islands. The I_{GD} coefficient is positive and significant, thus reflecting a higher tendency to vote for the extreme right in municipalities where the party had a historical presence. On the other hand, we notice that the interacted islands-time variable has a positive and significant effect thus confirming the expectation that austerity measures that hit disproportionally more the Greek islands pushed local populations to support increasingly the extreme right.

Table 3: Benchmark Model: additional controls

	(1) Golden Dawn	(2) Golden Dawn	(3) Golden Dawn	(4) Golden Dawn	(5) Golden Dawn
REF_{3month}	0.0565***		0.0453***		0.0481***
	(4.27)		(3.48)		(3.75)
$ln(unemployment)$	-0.0009	-0.0010	0.0002	0.0002	-0.0068
	(-0.25)	(-0.27)	(0.07)	(0.06)	(-1.61)
$ln(crime)$	0.0046	0.0047	0.0044	0.0045	0.0073
	(0.81)	(0.82)	(0.85)	(0.86)	(0.96)
I_{GD}	0.0227***	0.0228***	0.0115**	0.0116**	
	(4.64)	(4.65)	(2.34)	(2.35)	
REF_{4month}		0.0574***		0.0461***	
		(4.36)		(3.56)	
island			-0.0093***	-0.0093***	
			(-7.61)	(-7.60)	
island*t			0.0064***	0.0064***	
			(5.27)	(5.25)	
N	648	648	647	647	389
R^2	0.96	0.96	0.97	0.97	0.96
Municipality fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes

In Table 4, we propose a falsification test. To see whether other political parties have been affected by the refugee crisis, we substitute the percentages of votes for Golden Dawn by the percentages of votes for the other parties that were elected in the Greek parliament. Our results suggest that no other political party was affected by the refugee crisis, including the ruling

coalition parties *Syriza* and *ANEL*.

Table 4: Falsification Tests

	(1) SYRIZA	(2) New Democracy	(3) Potami	(4) KKE	(5) ANEL	(6) PASOK	(7) Centrists
REF_{3month}	-0.0026	-0.0871	0.0062	0.0031	-0.0085	0.0230	.0052
	(-0.04)	(-1.38)	(0.37)	(0.23)	(-0.32)	(0.56)	(1.03)
$ln(unemployment)$	-0.0223	0.0261	-0.0031	0.0095*	0.0067	-0.0118	-.00231
	(-1.09)	(1.59)	(-0.58)	(1.84)	(1.28)	(-1.19)	(-0.61)
$ln(crime)$	0.0153	-0.0820***	0.0116	-0.0094	0.0016	0.0596***	-.00528
	(0.68)	(-3.04)	(1.50)	(-1.12)	(0.17)	(3.41)	(-1.40)
N	646	646	646	646	646	646	646
R^2	0.92	0.94	0.90	0.97	0.86	0.88	0.92
Municipality Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 5 presents the instrumental variable approach results. Both columns document that the impact of the presence of refugees on the percentage of votes for the extreme-right is now much larger and highly significant, suggesting a substantial overall downward bias in the FE estimates. This finding highlights the fact that among the sources of biases those delivering attenuation, such as measurement error and/or reverse causality, are likely to play a major role. After instrumenting for the shares of refugees, we find that an increase in 1 percentage point of the immigrant shares entails an increase in the percentage of votes for Golden Dawn of 0.06 percentage points on average. The F-statistic is above 10, meaning that our estimates do not suffer from the issue of weak instruments.

Table 5: Instrumental Variable

	(1) Golden Dawn	(2) Golden Dawn
REF_{3month}	0.075***	0.053***
	(3.94)	(2.96)
$ln(unemployment)$	0.0026	.0002367
	(0.78)	(0.10)
$ln(crime)$	0.0024	0.0044432
	(0.54)	(1.22)
island		-.009306
		(-10.89)
island*T		0.0064
		(7.53)
I_{GD}		0.01153
		(3.34)
N	648	648
R^2	0.95	0.96
$F-$test first stage	32.02	31.55
K-P F-$Test^{\dagger}$	64.47	60.5

5 Conclusion

In this study we exploit an unprecedented flow of refugees to the Greek islands during the summer of 2015, and show that the municipalities that were more exposed to the inflow of refugees experienced a relative increase in the share of votes for the anti-immigration party Golden Dawn in the Greek parliamentary elections of September 2015. This unique context that features unexpected elections at the height of the refugee crisis allows us to isolate the effect of an increased level of xenophobia in response to the refugee presence, as opposed to other anti-immigration mechanisms, while also shielding our sample from strategic behaviour of political parties and of natives. Our results are supported by an instrumentation strategy exploiting the distance of Greek municipalities to the Turkish shores, while we also control for a host of controls capturing time-varying and time-invarying unobserved heterogeneity.

11

References

[1] Arzheimer, K. (2009). Contextual factors and the extreme right vote in western europe, 1980–2002. *American Journal of Political Science*, 53(2):259–275.

[2] Barone, G., D'Ignazio, A., de Blasio, G., and Naticchioni, P. (2016). Mr. rossi, mr. hu and politics. the role of immigration in shaping natives' voting behavior. *Journal of Public Economics*, forthcoming.

[3] Beine, M., Docquier, F., and Schiff, M. (2013). International migration, transfer of norms, and home country fertility. *Canadian Journal of Economics*, 46(4):1406–1430.

[4] Dahlberg, M., Edmark, K., and Lundqvist, H. (2012). Ethnic diversity and preferences for redistribution. *Journal of Political Economy*, 120(1):41–76.

[5] Docquier, F., Lodigiani, E., Rapoport, H., and Schiff, M. (2016). Emigration and democracy. *Journal of Development Economics*, forthcoming.

[6] Dustmann, C., Fabbri, F., and Preston, I. P. (2011). Racial harassment, ethnic concentration, and economic conditions. *Scandinavian Journal of Economics*, 113(3):689–711.

[7] Dustmann, C. and Preston, I. P. (2007). Racial and economic factors in attitudes to immigration. *The B.E. Journal of Economic Analysis & Policy*, 7(1):1–41.

[8] Facchini, G. and Mayda, A. M. (2009). Does the welfare state affect individual attitudes toward immigrants? evidence across countries. *Review of Economics and Statistics*, 91(2):295–314.

[9] Hainmueller, J. and Hopkins, D. J. (2014). Public attitudes toward immigration. *Annual Review of Political Science*, 17(225-249).

[10] Halla, M., Wagner, A. F., and Zweimüeller, J. (2012). Does immigration into their neigh-

borhoods incline voters toward the extreme right? the case of the freedom party of austria. *IZA Discussion Papers*, 6575.

[11] Harmon, N. A. (2014). Immigration, ethnic diversity and political outcomes: Evidence from denmark. *mimeo, University of Copenhagen*.

[12] Hopkins, D. J. (2010). Politicized places: Explaining where and when immigrants provoke local opposition. *American Political Science Review*, 104(1):40–60.

[13] International Organization for Migration (2015). Irregular migrant, refugee arrivals in europe top one million in 2015: Iom. Technical report, Press Release 12/22/15.

[14] Mayda, A. M. (2006). Who is against immigration? a cross-country investigation of individual attitudes toward immigrants. *Review of Economic Studies*, 88(3):510–530.

[15] Melki, M. and Pickering, A. (2014). Ideological polarization and the media. *Economics Letters*, 125:36–39.

[16] O'Rourke, K. H. and Sinnott, R. (2006). The determinants of individual attitudes towards immigration. *European Journal of Political Economy*, 22:838–861.

[17] Ottaviano, G. I. and Perri, G. (2006). The economic value of cultural diversity: evidence from US cities. *Journal of Economic Georgraphy*, 6(1):9–44.

[18] Santos Silva, J. and Tenreyro, S. (2011). Poisson: some convergence issues. *Stata Journal*, 11(2):207–212.

[19] Scheve, K. F. and Slaughter, M. J. (2001). Labor market competition and infdividual preferences over immigration policy. *Review of Economics and Statistics*, 83(1):133–145.

[20] Steinmayr, A. (2016). Exposure to refugees and voting for the far-right: (unexpected) results from austria. *IZA Discussion Papers*, 9790.

[21] UNHCR (2016). Statistics on Syrian refugees. http://data.unhcr.org/syrianrefugees
/country.php?id=224.

Table A.1.: Zero-stage estimates: Gravity model *à la* Feyrer (2009)

	(1)	(2)
	$ln(Stock_{i,r,t})$	$ln(Stock_{i,r,t})$
$ln(Distance_{i,r}) \times I_{2014}$	-0.7197***	-0.572***
	(-3.23)	(-2.69)
$ln(Distance_{i,r}) \times I_{2015}$	-0.7043***	-0.56***
	(-3.12)	(-2.65)
Observations	609	609
R-squared	0.99	0.99
Year dummies	Yes	Yes
Destination dummies	Yes	Yes