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Abstract

Populist parties are likely to gain consensus when mainstream parties and status quo institutions fail to manage the shocks faced by their economies. Institutional constraints, which limit the possible actions in the face of shocks, result in poorer performance and frustration among voters who turn to populist movements. We rely on this logic to explain the different support of populist parties among European countries in response to the globalization shock and to the 2008-2011 financial and sovereign debt crisis. We predict a greater success of populist parties in response to these shocks in Euro zone countries, and our empirical analysis con firms this prediction. This is consistent with voters' frustration for the greater inability of the Euro zone governments to react to di cult-to-manage globalization shocks and financial crises. Our evidence has implications for the speed of construction of political unions. A slow, staged process of political uni cation can expose the EU to a risk of political backlash if hard to manage shocks hit the economies during the integration process.

JEL Classification: D72, D78, F14, F16

Keywords: Frustration, Relocation, Globalization, Financial Dependence, populism

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Global Crises and Populism: the Role of Eurozone Institutions*

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March 22, 2018

Abstract

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1 Introduction

Our goal in this paper is to show that the effects of globalization and the financial crisis on voting for populist parties in a European country crucially depends on whether or not such a country belongs to the Euro-zone (EZ henceforth). We claim that both globalization and the financial crisis have stronger effects on perceived economic insecurity in EZ countries than in the rest of Europe. Building on empirical literature documenting the link between economic insecurity and populism, we conjecture that fear of economic insecurity drives the success of populist parties across regions. There are two main intuitive reasons that lead us to think that economic insecurity grew significantly more in EZ countries: first, the greater difficulty of EZ countries' policy makers in responding to a shock, due to greater constraints in terms of fiscal and monetary policy; second, the greater incentive for Western firms to relocate production from EZ to Eastern European countries. We will make these two intuitions precise and we will provide strong evidence in favour of our hypothesis.

Before we explain our hypothesis about the differential effects of shocks on fear of economic insecurity across countries, we summarize the recently established connections between economic insecurity and populism. A large number of recent papers have uncovered the importance of economic insecurity shocks to explain the recent wave of populism – see Guiso, Herrera, Morelli and Sonno (2017) and references therein. Algan et al. (2017) showed that the EU regions where unemployment rose during the crisis saw the sharpest decline of trust in institutions and establishment politics. As Dustman et al. (2017) highlight the populist vote is related to this distrust in institutions and in particular EU institutions. Foster and Frieden (2017) nuance this result showing that this correlation is stronger in debtor countries. Colantone and Stanig (2017) have highlighted the significant role of the fear of the effects of globalization, the so called "China effect" in continental Europe. The regions where manufacturing plays an important role are the regions where the fear of losing a job due to Chinese competition is highest, and such regions are those where nationalistic sentiments and protection demand kick in the most.[1] The explanation of this finding given in Guiso et al. (2017) is that populism is a three-part phenomenon: (1) anti-elite rhetoric; (2) immediate protection offer; (3) hiding the future costs of the protection policies proposed.[2] For the specific case of the globalization effect, the way this three-part theory works is as follows: the reduction in wages, prices and employment opportunities in Western countries creates a first direct effect in terms of immediate perception of economic insecurity. Such an economic insecurity perception, if protracted and pervasive, reduces trust in current government policies and institutions and reduces voter turnout. Then, if there is a widespread perception that neither market-driven policies nor government-based ones work (particularly when the institutional constraints make it even harder for government policies to counter the crisis), populist supply arises, tempting voters with an easy protection strategy (such as trade barriers, building a wall to protect from migrants, or exit from the Euro-zone). Such protection policies are insulated from future cost considerations through the populist manipulation strategies: everybody who talks about future costs or relatively complex solutions (as required by the nature of the problems) is simply

[1] These papers study the role of insecurity for the demand of populism. Rodrik (2017) and Guiso et al. (2017) also highlight the role of economic insecurity shocks for the supply of populism.

[2] See Encyclopedia Britannica (2015) as well: `http://www.britannica.com/topic/populism`

depicted as part of the elite and should not be listened to. The same sequence of effects and demand-supply interactions is at play for any form of economic insecurity shocks, including those that can be related to the financial crisis and simultaneous debt crisis in Europe.

This paper shows that the greater impact of a global crisis on populism in EZ countries than in non-EZ countries is due to two effects, which we call *policy strait-jacket* effect (PSJ henceforth) and the *relocation* effect.

The PSJ effect relates to the fact that EZ countries have limited policy space in terms of fiscal policy (given the various EZ rules) and no independent monetary policy to counter country-specific shocks.[3] If this PSJ effect is a significant factor in determining voters' frustration, which leads them to vote for a populist party, then we should see a significant difference in populist votes between EZ countries and non-EZ countries even controlling for GDP and time spent in the Union. Moreover, within the EZ we should see a positive correlation between each measure of PSJ and the increase in populist voting after a crisis - such as a financial crisis - that would have normally required counter cyclical policy responses. We provide both of these tests in the paper, hence confirming the importance of the PSJ perception on voters' decisions.

The relocation effect relates, instead, to firms' responses to a competitiveness crisis like the crisis produced by exposure to globalization. The recognized positive impact of the China effect on populist voting (Steiner, 2012; Autor et al., 2016; Autor et al., 2017; Colantone and Stanig, 2017; Colantone and Stanig, 2017b; Jensen et al., 2016), changes dramatically when the EZ distinction is introduced. The positive effect on populist voting goes through the interaction with the EZ dummy: once this interaction effect is considered, the China effect remains positive for EZ countries but changes sign for Eastern European countries. This sign switch can be explained in part on the basis of relocation incentives and the pattern of inflow and outflow of jobs. Outside the EZ there is less PSJ related frustration, but, on top of this, some countries in the Eastern part of Europe may actually be "receivers" of firms relocating away from EZ countries. The low cost of production in China and other Asian countries has been highlighted in the literature and media as the main threat in a world of free trade and globalization, but obviously reality is more "continuous": costs of labour and production are clearly much higher in Italy than in China. However, there is a wide range of variability for these costs for countries "in between", and when a firm decides to relocate away from a high labour cost and high tax country it may consider a variety of factors, leading to a decision to relocate plants to Hungary, Romania or Serbia rather than going all the way to another continent. Thus, even if a manufacturing region of Romania were to be equally threatened by Chinese competition as a similar Italian region, the former expects an inflow of jobs from (say) Italian firms, compensating the potential Chinese shock effects.

Imagine a voter in an EZ country who observes that (1) national and multinational firms are moving to lower cost countries and (2) their governments are not able to stop them through tax cuts or subsidies or competitive devaluations (PSJ effect). These circumstances create economic insecurity and frustration, which make populist alternatives relatively more

[3]The importance of idiosyncratic shocks and the induced volatility within the EZ is well documented. See Luque, Morelli and Tavares (2014) and Fahri and Werning (2017) for the phenomenon of increased volatility in the Euro-zone that has been caused by such policy constraints.

tempting. The market based reasoning and the institutional policy constraint reasoning can also reinforce each other: a firm that decides to relocate away from Italy expects the policy making authorities of a country outside the Euro-zone to be able to respond with greater flexibility to shocks, using monetary as well as fiscal incentives, and these institutional flexibility effects are considered a valuable addition to the lower costs effect.

We will test our general differential hypothesis not only by using the globalization shock, but also by focusing on the financial crisis. A region's vulnerability to an external financial shock also depends on the financial dependence of the industries operating in the region. Weighing the external financial dependence of each manufacturing industry (obtained from Rajan and Zingales, 1998) by the labour share of that industry in a given region, we can obtain a measure of financial stress for the citizens of that region. The frustration hypothesis has a clear prediction: regions belonging to EZ countries with more financially dependent firms should suffer more insecurity as a consequence of the crisis and thus vote disproportionately for populist parties relative to comparable regions in non-EZ countries.

Our empirical findings are remarkably consistent with the narrative outlined above. We document that both the globalization shock and the financial crisis shock have boosted support for populist parties in industrial regions belonging to EZ countries significantly more than in similar regions in non-EZ countries. The difference in populist consensus in EZ regions with respect to regions in Eastern European countries reflects the relocation effect; the difference with respect to regions in non-EZ Western countries reflects the straitjacket hypothesis. We estimate that the latter can explain 74% of the effects of the globalization shock in EZ regions compared to regions of Western non-EZ countries. Similarly, while we find that the financial crisis increased populist consensus across all regions of Europe - both Eastern and Western, in EZ and non-EZ countries - we find that the effect is three times larger in Eurozone regions. To shed light on the mechanism, we exploit variation across EZ countries in terms of the bite of the policy strait jacket, looking at constraints on exchange rate, fiscal and monetary policy. We show that populist consensus in response to the globalization shock and following the financial crisis is significantly stronger in EZ countries where the constraints on policy are more binding. Finally, we document that where these constraints were tighter people frustration (measured by mistrusts in European institutions such as the Parliament and the European Central Bank) has increased the most. We find instead no evidence of frustration in countries that enjoy more discretion in setting the policy agenda.

The paper is organized as follows: Section 2 discusses the theoretical roots of the two main drivers of our differential hypothesis; Section 3 describes our data collection and measuring choices; Section 4 contains our empirical results. Section 5 concludes and discusses policy implications.

2 Conceptual Framework

In this section we provide a theoretical basis for the main hypothesis of the paper, giving a rationale for the PSJ related frustration effects and relocation incentives.

2.1 Frustration Effect

Consistent with expressive voting theories, the decision of voters to abstain or vote for new untested alternatives is affected by the performance of parties in power and existing institutions at times of crisis. Specifically, a common source of frustration among voters is the lack of simple ready solutions to the threats posed by the globalization and financial crisis shocks. Voters who are most frustrated by the perceived inability of parties and institutions to respond to a crisis are more likely to buy the "exit from the Euro" solution proposed by the populist rhetoric, and disregard the intricate (and more complicated to understand) negative consequences of such a solution. The truth may be that there is no quick and easy solution for the globalization, immigration and automation phenomena (and consequent loss of income problems), but people, perhaps understandably, don't want to hear that. The drivers of this behavioural pattern are similar to the drivers of other belief formation and simple fix desire phenomena: for instance, despite having been proven wrong, the belief that vaccines causes autism persists, with dramatic longer-term consequences as the rebirth of small epidemics of diseases that had been eradicated. The most effective way to discredit this unfounded belief would be to say "We know the real cause of autism: *this* is the cause of autism, not vaccines." However, the truth is: there is no understood cause of autism. This lack of a clear alternative explanation helps the wrong belief about vaccines to persist . Similarly, there is no agreed-upon explanation for and no easy to implement solution to the costs imposed by fast globalization and immigration (Rodrik, 2017), leaving the door open to illusory explanations or solutions.

This "behavioural" frustration should be stronger in countries within the Euro-zone: the fiscal policy constraints imposed by European rules determines lower expected effectiveness and credibility of political promises by traditional parties, and, as a reverse of the medal effect, the simple populist proposals in terms of protectionism and exit from the Euro have great relative impact. This aspect has become particularly salient in the aftermath of the great recession. The great recession affected all countries in Europe, both Eastern and Western, but the lack of policy tools to respond to individual country idiosyncratic shocks was particularly evident within the Eurozone. The Eurozone rules imposed much stricter constraints on both the fiscal side and the monetary side, which made the response to the crisis less effective – causing the subsequent Euro debt crisis . The so called austerity generated a sense of frustration in voters, which was present to a lesser extent in non-EZ countries such as the UK, Norway or Sweden. We will document empirically the link between frustration and the policy strait-jacket in Section 4.3.

2.2 Relocation Effect

A firm producing in a Western European country (henceforth WE) – Italy or the UK to fix ideas in the discussion below – may decide to relocate to Eastern Europe (henceforth EE) in order to lower costs of production – e.g., think of Romania. This move evidently entails relocation costs which may be heterogenous across firms. If the relocation option becomes *more profitable* after the China-effect or a crisis lowering prices, then, depending on their relocation cost, certain firms will find it profitable to relocate.

The key to this relocation timing argument is that profit erosion after Chinese entry, though clearly present both in WE and EE, is *larger* for a firm located in WE than in EE. In Appendix A, we show that under very simple assumptions the latter is true, thus strong enough Chinese competition causes ex-post relocation. The stronger the competition the larger the incentives to relocate.

Within WE there are EZ countries such as Italy, and non-EZ countries like the Sweden or the UK. The loss of competitiveness of their products due to Chinese entry will result in depreciation pressure on their currencies, which should, in turn, lower production costs with respect to global demand and partly help regain some competitiveness. However this compensation through depreciation will be stronger in countries like the UK which, not being part of the EZ, can count on exchange rate devaluations. Thus, EZ countries, such as Italy, will suffer more from relocation after Chinese entry than non-EZ countries, such as Sweden or the UK.

The populist support is linked to the loss of job opportunities, which in turn is linked to the loss of competitiveness and firm relocation expectations. The drop in labor demand due to the globalization shock causes distrust on the traditional parties that have not been able to address or smooth this shock. In EZ countries this is aggravated by the PSJ effect. The populist parties offer a simple alternative, which in regular time would be recognized as too risky, but gains traction in times of crisis and frustration.

2.3 Summing the Effects

The recession affected all countries, but should have provoked a greater frustration within the Eurozone, because of the inability of the EZ countries to respond effectively to the crisis due to the austerity rules. This PSJ effect may have even prolonged the crisis by several years, making it evolve into a major debt crisis in several EZ countries.

The second source of differences in political effects of crises is the relocation incentives for firms from WE to EE, which affect these two regions very differently. In EE countries, like Romania, workers had a compensating inflow of firms from Germany, Italy and so forth, making the manufacturing regions of Romania suffer less (or possibly benefit, on net) from globalization and the China shock. The rise of nationalism in EE is supported primarily by xenophobic fears or race related issues, rather than by globalization-induced competition in the manufacturing sector, as in WE.

The two effects push frustration differentials – and hence voting incentive differentials – in the same direction. A worker in a manufacturing region in an EZ country fears job stability and wage negative effects of globalization or a financial crisis, and this fear is amplified when national and multinational companies close production plants to open one somewhere else. Seeing that EZ rules make it difficult to respond with fiscal subsidies for firms or other policies at the national level, seeing that at the same time EU level countercyclical policies do not find support, the worker's fears become frustration with existing institutions and parties that took part in the construction of those, and this frustration makes this worker willing to endorse anti-system proposals. On the other hand, a worker in a manufacturing region of an EE country outside the Euro zone if anything sees firms arrive rather than leave, and sees no major policy constraint to eliminate. Hence the relative fear of economic insecurity is diminished by globalization shocks and policy ineffectiveness

frustration effects do not kick in. Other fears are made salient by populist parties in EE countries, but the reversal of the two effects highlighted in this paper makes us predict that the globalization effects should have the opposite sign for EE countries.

3 Data Description

In this section we provide a general description of the data and indicators used, namely our dependent variable, the electoral data, and our main explanatory measures of globalization shock and financial dependence, as well as measures of frustration and policy constraints. Table 1 presents summary statistics of the main variables that we will describe below, for the effects of the globalization shocks and that of financial dependence. Table 3 lists the populist parties (defined as described below).

Electoral data. The European Election Database[4] provides electoral results at local level for a number of European countries. Data are available according to the NUTS classification of European regions. In our research we will rely on the most disaggregated level, namely NUTS3, to better capture the importance of local factors for populist consensus documented in the literature (e.g. Autor et al., 2016; Autor et al., 2017; Colantone and Stanig, 2017). Overall, our dataset comprises electoral results for 23 European countries at the NUTS3 level, ranging from 2000 to 2015 (see Table 2). Populist parties, as in Guiso et al. (2017), are defined according to the time-varying classification by Van Kessel (2015). Van Kessel defines a party as populist if it a) portrays "the people" as virtuous and essentially homogeneous; b) advocates popular sovereignty, as opposed to elitist rule; c) defines itself as against the political establishment, which is alleged to act against the interest of the people. To identify populist parties Van Kessel uses primary sources such as party manifestos and speeches, and to corroborate the validity of the resulting populist classification, he also asks a pool of country experts to validate or reject it by answering an ad hoc questionnaire.

Exposure to globalization. Our index of exposure to globalization is inspired by measures used in the literature, such as Autor et al. (2016) and Colantone and Stanig (2017), with some modifications. For each region in our sample we construct an indicator of exposure to globalization (labeled GS - mnemonic for globalization shock) by first computing the rise in imports from China in each manufacturing industry at the country level and then attributing these measures to each region using the regional occupational weights in the various manufacturing sectors. Formally, our globalization shock measure in region r, in country c at time t is defined as:

$$GS_{crt} = \frac{L^m_{cr(pre-sample)}}{L_{cr(pre-sample)}} \times \sum_s \frac{L^m_{crs(pre-sample)}}{L^m_{cr(pre-sample)}} \frac{\Delta IMP(China)^m_{cst}}{L^m_{cs(pre-sample)}}$$

[4]Disclaimer from the data source: "Some of the data applied in the analysis in this publication are based on material from the European Election Database". The data are collected from original sources, prepared and made available by the NSD - Norwegian Centre for Research Data (NSD). NSD are not responsible for the analyses/interpretation of the data presented here `http://www.nsd.uib.no/european_election_database/about/`".

where $L^m_{cr(pre-sample)}$ is the number of workers in aggregate manufacturing in region r of country c, $L_{cr(pre-sample)}$ is the total employment in region r of country c, $L^m_{crs(pre-sample)}$ and $L^m_{cs(pre-sample)}$ are the number of workers in the manufacturing sector s in region r and in the whole country c respectively. All occupational figures are taken at the pre-sample period. Finally, $\Delta IMP(China)^m_{cst}$ is the (value) change in real imports of sector s from China to country c in year t over the last n years. The measure captures the exposure of the region to the China shocks through two channels: the regional composition of the manufacturing industry and the relative size of manufacturing in the region. The larger the weight of import-intensive manufacturing sectors, the more exposed the region is, holding constant the relative size of manufacturing. Holding constant industry structure, exposure declines with the relative size of manufacturing. Although mathematically redundant in the formula, the double weighting first within manufacturing and then as aggregate manufacturing on the total regional employment is justified by our data structure. Disaggregated employment data at sectorial level ($L^m_{crs(pre-sample)}$) are only available for NUTS2 regions, while the aggregated manufacturing measures ($L^m_{cr(pre-sample)}$) are available also at NUTS3. In order to conduct our analysis, we use NUTS2 level occupational weights for the manufacturing sector and NUTS3 data on the relative size of manufacturing (i.e. compute the term $\frac{L^m_{cr(pre-sample)}}{L_{cr(pre-sample)}}$ using NUTS3 data). The import data are collected from COMEXT and UN COMTRADE (for Norway), while the labour data come from EUROSTAT, INSEE (for France), and SSB (for Norway). In our analysis, the pre-sample period is year 2000 (right before entry of China in the World Trade Organization) and the import change is computed over two years ($n = 2$).

Following the literature, in order to clean our globalization measure from the possible endogeneity due to both a supply effect of Chinese imports and a demand effect of European regions, we build an instrument replacing import from China in European countries with US imports from China in the equation above, and dividing the change in real imports by the number of US workers in the manufacturing sector s, always taken at the pre-sample value. Data on US imports are collected from the UN COMTRADE, data on US employment are sourced from the OECD.

Exposure to financial crisis. This measure builds on the concept of *external financial dependence* developed by Rajan and Zingales (1998). Intuitively, regions whose industries are more dependent on external finance are also more vulnerable to financial shocks. Using detailed data on employment in manufacturing from EUROSTAT, INSEE (for France), and SSB (for Norway), we devise a regional-specific measure of exposure to the financial crisis. The idea is to weigh the external dependence of each manufacturing industry by the labour share of that industry in a given region. More formally, our measure is defined as:

$$Findep_{crt} = \frac{L^m_{crt}}{L_{crt}} \times \sum_s \frac{L^m_{crst}}{L^m_{crt}} \times ExtDep^m_s$$

where $\frac{L^m_{crt}}{L_{crt}}$ is the labour share of aggregate manufacturing with respect to the total employment in region r of country c, L^m_{crst}/L^m_{crt} is the labour share within manufacturing of sector s in region r of country c at time t and $ExtDep^m_s$ is the Rajan and Zingales (1998)

measure of financial dependence of the manufacturing sector s in the United States, used to identify the technological component of a firm's need to rely on external finance.

In our estimates the measures described above will be interacted with a *Eurozone* (EZ) dummy variable, set to 1 if the region is in a country belonging to the Eurozone in a given year covered by our sample. Variation in membership come from the fact that in a given year some countries are part of the Eurozone and others are not and from the fact that a given country that at the beginning of the sample is not part of the Eurozone joins it later.

Policy strait-jacket. To measure the bite of constraints that participating in the single currency imposes on national policies we construct three measures. The first captures the loss of discretion in devaluing the currency when domestic goods lose competitiveness. Clearly, belonging to the single currency does not allow competitive devaluations. This type of constraint was probably particularly important when EZ countries were losing competitiveness as a consequence of globalization. To capture this, we would ideally like to measure the distance between the current exchange rate (Euro-Dollar) and an hypothetical exchange rate that each country would choose to balance the current account. Computing the latter is not trivial and different methodologies seem to give different results (see Isard, 2007). However, we can measure country competitiveness using the estimated real effective exchange rate (REER) of a country vis à vis the trading partners and assume that the distance between the hypothetical and actual exchange rate would increase with the loss of competitiveness. Accordingly, as a proxy of the PSJ along this dimension we use the loss of competitiveness between 1995 and 2007 as computed by Eurostat. We compute the loss during this time interval to isolate the loss in competitiveness when globalization was unfolding from dynamics in competitiveness during the financial crisis. As a robustness, we show results using the loss in competitiveness between 1995 and 2000, before China entered the WTO, to better capture the consequence of the globalization shock on countries that faced the shock with different initial competitive strengths. Table 4 shows the change in REER by Eurozone country in our sample, while Table 1 presents its relative descriptive statistics for the full sample. We call this indicator PSJ^{ex}, a mnemonic for policy strait-jacket on the exchange rate.

Our second PSJ measure captures constraints on domestic fiscal policy. Constraints on fiscal policy are formalized in the Stability and Growth Pact requiring each member state to implement a fiscal policy aiming for the country to stay within the limits on government deficit (3% of GDP) and debt (60% of GDP). And if the stock of debt exceeds the 60% level it should each year decline with a satisfactory pace. Accordingly, the PSJ can be measured by the deviation of the stock of debt from the 60% target and by the deviation of the current deficit from the 3% threshold. The larger the difference between the current stock of debt (current deficit) from its target level debt (3% target deficit/GDP) the greater the PSJ.

The third indicator captures lack of discretion in setting monetary policy. To estimate the extent of the bite of the common monetary policy, we compute the difference between a country optimal Taylor rule and the ECB policy rule for each country in the EZ (as in Guiso, Sapienza and Zingales, 2017). Policy constraints on fiscal and monetary policy are more likely to be felt when a country is hit by specific shocks that require country-level

demand management policies. A financial crisis shock, more than a globalization shock, is arguably better managed if a country can tailor its fiscal and monetary response to the severity of the shock in the country. The Stability and Growth Pact limits this discretion. To capture the fiscal PSJ during the financial crisis we compute the deviations of government debt and deficits from the 60% and 3% thresholds as of 2007, right before the financial crisis hits or taking a three years average (2005, 2006 and 2007). The deviations from the Taylor rule are instead computed using all the years after 2007 when the bite of the single monetary policy can be observed. Because EZ countries have no possibility of departing from the single monetary policy (except by leaving the Euro) this captures well the bite of the constraint. We then combine the fiscal and monetary policy constraints measures into a single macro index PSJ^{macro} - by extracting the principle component of the three indexes (deviation of debt from 60%, deficit from 3% and distance of the EZ common ECB rate from the national Taylor rule). We will also use the deviation from the Taylor rule separately, labelling this index PSJ^{mp}. Table 4 shows the distribution of these indexes across EZ countries and Table 1 its descriptive statistics for the full sample over the period 2000-2014.

Frustration. We capture people's frustration with policy and political institutions using three measures of average trust among citizens of the countries in our sample: trust in the European Parliament, trust in the ECB and trust in the European Commission. Data We complement these measures with people's opinion about the benefits of participating in the European Union. Data are coming from Eurobarometer.

4 Empirical Results

In this section we study how different shocks impacted populist electoral outcomes. Our focus is on the heterogeneous effects within and outside the Euro-zone. In particular, we analyse the impact of a globalization shock, such as the China effect, and that of a financial crisis, such as the 2008-2009 credit crisis. Both shocks share the feature of being "hard to manage", in the sense that they differ from traditional business cycle shocks, and both may imply that a country may benefit from enjoying greater flexibility in devising policies to respond to the shocks. We use variants of the following general specification:

$$v_{crt} = \alpha + \gamma\ shock_{rt} + \beta\ shock_{rt} \times eurozone_{ct} + FE_{ct} + X_{rt} + \epsilon_{rt} \tag{1}$$

where, as before, (c,r,t) identify the country, the NUTS-3 region, and year (of the election), respectively. The outcome variable v_{rct} is the share of votes obtained by populist parties in region r in country c in year t; $shock_{rt}$ is either the measure of the China shock or of the 2008-2009 shock described above; $eurozone_{ct}$ indicates whether the country belongs to the Euro zone; X_{rt} are a battery of region-year specific controls, notably the rate of GDP growth in the regions and/or GDP per capita at the beginning of sample. ϵ_{rt} is the error term. FE_{ct} are country×year fixed effects, which are equivalent to country-election fixed effects. These dummies control for all the factors that impact symmetrically all the regions within the same country in an election (e.g. general political trends, political orientation of the government, performance of the economy at the national level, political tensions, etc.).

Our test exploits variation in populist voting and exposure to shocks across regions of a given country, once general cross countries differences in average populist voting have been netted out by the country-year fixed effects. Hence, these later trends are left unexplained by our analysis. Instead, drivers of populist voting are identified by comparing political voting in regions that differ in exposure to shocks. This is indeed consistent with existing evidence that populist voting has a strong local component, which justifies our use of variation across the most fine geographical units in our dataset (NUTS3).

To study the role of the PSJ we amend the above specification by adding an extra interaction between the shock and PSJ indicator for the eurozone countries and run variants of the following regression

$$v_{crt} = \alpha + \gamma\ shock_{rt} + \beta\ shock_{rt} \times eurozone_{ct} + \delta\ shock_{rt} \times eurozone_{ct} \times PSJ^{x}_{ct} + FE_{ct} + X_{rt} + \epsilon_{rt} \tag{2}$$

where $x = [ex, macro, mp]$

4.1 Populism and the Globalization Shock

Table 5 presents the results of equation (1), when $shock_{rt}$ is the measure of globalization shock induced by China. All the specifications include country-year dummies, and standard errors are clustered at the NUTS-3 level. We also control for the rate of growth in per capita GDP in the region. The first-stage estimates of our IV regressions are shown in Appendix C. They reveal that our instrument and the instrument interacted with the Eurozone dummy consistently predict the supposedly endogenous variable; the F-statistic of the Kleinbeger-Paap test does not signal a weakness problem, in line with earlier studies (Autor et al., 2013; Colantone and Stanig, 2017). To rely on the finer available information, in this first set of estimates we only include countries for which we have full data on employment for the manufacturing industry sectors as of year 2000 and for the NATS3 classification; in addition we restrict the sample of non-Euro countries to Eastern European countries. These requirements leave us with seven EZ countries (Austria, Germany, Greece, Spain, France, Italy and the Netherlands) and three non-EZ Eastern European (EE) countries (Poland, Romania and Slovakia). We complement the data with information on three non-EZ Western European (WE) countries (Sweden, UK, and Norway). Table 2 shows the list of countries in our dataset and whether they belong to the Eurozone.

In the first two columns we replicate the result obtained by Colantone and Stanig (2017),[5] namely the positive and significant role of the Chinese imports on populist vote share in the sample of WE countries in the Euro-zone or not. The first column estimates a simple OLS model and the second uses an IV approach. Both estimates are positive and statistically significant (the OLS at the 10% confidence level), showing a positive effect

[5]We replicate the result of Colantone and Stanig (2017) on a sample as close as possible to theirs, given the data at our disposal. Namely, we include Austria, Germany, Greece, Spain, France, Italy, Netherlands, Norway, Sweden, and the UK. However, a few remarks are needed. First, our dependent variable is different: populist vote shares instead of polarization (among others, radical right parties' vote shares). Second, the time periods considered are different, ours being more recent and including also post-crisis years. Finally, we use electoral data at the NUTS3 level, while Colantone and Stanig (2017) resort to constituency results.

of import penetration on populist consensus. The IV model results in a higher and more precisely estimated effect of the globalization shock on populist voting, consistent with the idea that the instrument helps isolate the dynamics in imports from China that reflects China increased advantage in producing manufacturing goods compared to local industries - causing disappointment in local workers and voters. A one standard deviation increase in imports from China raises the average share of votes to populist parties across European regions by 17.5% of the sample mean - a non negligible effect.

In the third and forth column we replicate Colantone and Stanig (2017) estimates on our full sample of countries excluding three non-Euro WE countries, Sweden, Norway and the UK, but including the three EE countries. Results are similar to those in the first two columns, with the IV giving a higher and more precisely estimated marginal effect than the OLS. The last column shows the IV estimates of equation (1), thus adding the interaction between imports from China and the Euro-zone dummy. The result is striking. The coefficient γ measuring the effect of the globalization shock alone becomes *negative* and statistically significant at the 5% confidence level, and its absolute size is large. This coefficient measures the effect of the globalization shock on populist voting in the regions of non-Euro countries: face value, the globalization shock has *lowered* consensus to populist parties in European regions located in countries not belonging to the Euro area that are more exposed to the shock, an issue we come back to below. The effect of the interaction terms (δ) is positive, large and highly statistically significant (p-value 0.01). The effect of the globalization shock on populist voting among EZ countries is the sum of the two effects - and thus equal to about 4.7. Hence, all the positive effect on populist voting of the China shock in Europe as a whole is due to the positive effect on voting in EZ countries. In the regions of these countries a one standard deviation increase in imports from China raises populist voting by as much as 22% of the populist vote share in regions of the Euro-zone. Comparing the region within the Euro-zone to the lowest exposure to the globalization shock and the one with the highest exposure entails a difference in the average share of votes to populist parties as large as 167% of the sample mean (equal to 6.3%, see Appendix B for summary statistics in EZ and non-EZ regions separately). In regions outside the Euro-zone and in EE countries, the globalization shock, far from contributing to a populist backlash, has actually dampened consensus to populist parties. In the absence of the China shock, populist parties would have attracted much more consensus than they have actually been able to attract in those manufacturing regions. One standard deviation increase in imports from China contributes to contain the populist vote share by 4.9 percentage points, equivalent to 23% of the average share in these regions (19.9%). This differential effect of the globalization shock between EZ and non-EZ countries reflects two forces. First, an opposite (in sign) effect of the globalization shocks in Eastern and Western Europe, with WE regions suffering a loss of jobs and economic activity after the entry of China. This is partly because Western firms relocate abroad - particularly in Eastern Europe - in an attempt to contain labour costs and survive competition from China. Second, there is a PSJ effect, which ties the hands of EZ countries by limiting the possibility of devaluing the currency to alleviate competitive pressure.

Before showing evidence of the PSJ we dispel doubts that the negative effect of populist voting in EE regions is spurious. One objection is that the negative correlation between populist voting and the globalization shock in EE regions reflects the fact that growth in

the regions most exposed to the China shock was taking place not because of the relocation effect but for other reasons and this was affecting the voting pattern. This possibility is attenuated if we compare more similar countries or if we control for the pattern of growth of the region. Our estimates already control for regional growth, hence any effects we find of the globalization shock is net of other independent sources of growth. Table 6 shows additional robustness regressions. The first column runs the regression only for the regions of the EE countries. The result is unaffected: the effect of the globalization shock is negative and of the same size as that in Table 5, column 5. The second column restricts the sample to only Western EZ countries, finding an estimate close to the one implied in Table 5, column 5. The third column adds pre-period GDP per capita as a control in the pooled regression; this leaves results unchanged. The fourth column interacts the globalization shock in Eastern European regions with a temporal dummy equal to 1 in the years since the country entered the EU. Admission to the single market has lowered the cost of relocation of Western firms in regions of Eastern Europe and thus has speeded up the process. The effect of the globalization cost on populist voting in EE regions before the enlargement is *positive* (this is the first estimated coefficient, 16.53); but it turns negative, large and highly statistically significant after the enlargement. On the other hand the effect on the EZ countries' regions is positive and magnified. This evidence lends direct support to the relocation effect affecting populist voting in EE and WE in opposite directions.

The finding that the effect of globalization is positive within the EZ regions and negative in the non-EZ countries is clearly inconsistent with a voting hypothesis that voters should be more forgiving of the national government because they understand that their incapacity to better contrast the globalization shock reflects binding constraints on action imposed by the Euro-zone, compared to countries that maintain their own currency (e.g. cannot devalue unilaterally). Instead, they are supportive of the frustration hypothesis that predicts that voters behaviour is not driven by the root cause of the crisis (which remains a harder to understand consideration), but by the perceived economic insecurity due to the globalization shock and the proximate, more salient and easier to grasp cause - the relocation of local firms to other regions and the impediments to adopt those that appear the optimal policies from a local point of view because of the Euro-zone constraints. Furthermore, this effect can be amplified if voters blame the country elite for having adopted the Euro in the first place, possibly fuelled by populist rhetoric. Even more to the point, there is evidence[6] that, despite the legislation forbids it, EU structural funds have been used to relocate companies from Western to Eastern countries of the EU-27 - a use that while probably boosting consensus towards Europe (and national parties) in EE regions, may have had exactly the opposite effect in Western countries, contributing to disseminate the beliefs that not only "Europe" limits national discretion in designing policies to tackle the shock, but even amplifies its effects. Below we offer evidence of a PSJ channel in the effect of the globalization shock on populist voting.

[6]See Financial Times, "Questions surround EU relocations", by Cynthia O'Murchu and Andrew Ward, December 1, 2010

4.1.1 Policy strait-jacket effects and the globalization shock

To test for the PSJ effects, we follow two strategies: first we contrast EZ countries in WE and non-EZ countries in WE. Second we interact our PSJ^{ex} indicator (measuring heterogeneity in the loss of competitiveness between year 1995 and 2007 in the EZ countries) with exposure to globalization shocks in EZ regions. Table 8 adds Sweden to the sample. Sweden is a non-Euro non-EE country and this allows us to separate the PSJ effect from the relocation effect that are instead bundled together when we compare EZ with non-EZ EE countries as in Table 5. Because Sweden does not belong to the Euro but has an industry structure that is comparable to that of WE countries, it is similarly exposed to the China shock and is not a relocation destination. Thus, the difference in the effect of the China shock on populist consensus between EZ regions and Swedish regions captures the PSJ effect of belonging to the Euro-zone. To quantify this effect we add the interaction between a dummy for Sweden and the China shock (and instrument it in the usual way, see Appendix C for the first stage regressions). The result is reported in the first column. The globalization shock has the same impact on populist voting in the EZ regions and the EE ones, as in Table 5. However, the effect of the globalization shock on populist voting in Sweden is however smaller than in the Euro-zone and the difference is both economically (difference in coefficient 3.5) and statistically significant (p-value 0.015, reported in the last row at the bottom of the table). Assuming that the incentive to relocate firms to Eastern Europe in response to the globalization shock was in Sweden as strong as in WE countries, the difference between the two effects can be interpreted as reflecting the effect of the constraints on policy due to the single currency. Hence, the latter accounts for about 74% of the effect of the globalization shock on populist voting in the EZ regions. To make sure that what we are measuring is not a reflection of having restricted the comparison to a single non-EZ Western country, we also add the UK in column 2 and Norway in column 3. Results are unaffected: in all these countries the populist voting response to the globalization shock is smaller than in the regions of EZ countries, consistent with the strait-jacket hypothesis.[7]

The regressions in the last two columns show evidence of a PSJ effect by adding to the baseline specification the interaction between the globalization shock and the index PSJ^{ex} proxying for the bite of the single exchange rate for the Eurozone countries. Euro area countries with larger values of PSJ^{ex} (larger losses of competitiveness) suffer a tighter

[7]We find that the political backlash has been smaller in the UK regions compared to the regions of other WE countries of the Euro area. This may appear at odds with the support for "leave" in the Brexit referendum which is typically interpreted as a reaction to the hardship imposed by the globalization shock in the industrial districts of the UK (Becker et al., 2017). There is however no contradiction. What we are testing is the political consequence of the globalization shock in different regions of Europe whose national policy makers are differentially affected by the constraints on policies imposed by the common currency - while holding constant country-level trends in populist consensus. Our evidence suggests, net of the average effect on populist consensus, that the globalization shock has had in the UK and in the EZ countries, it has had caused a greater political backlash in a region of a western country that is part of the Euro than in a region of a western country that is not part of the Euro. If the two regions are similarly exposed to the China shock (i.e. have a similar economic structure), than the measured difference is (almost) all traced to the Euro constraints on policy. Extrapolating from this evidence, one could argue that the UK voters support to Brexit is (also) the reflection of perceived weaker ability of Euro area countries in dealing with the China shock.

constraint on exchange rate policy for the EZ country (for non-EZ countries the index is set at zero). Column 4 adds an interaction with a dummy equal to 1 for the EZ countries with a value of PSJ^{ex} in the top quartile (in the period 2007-1995) and zero otherwise. For these countries the effect of the globalization shock is significantly larger than the average effect: one standard deviation increase in the shock increases populist voting in these countries by as much as 37% of the sample, providing direct evidence that perceived constraints on national policies have mediated the political support to populist parties following the globalization shock.

As a robustness check, in column 5 we replicate the analysis of column 4 using the loss in competitiveness between 1995 and 2000, before China entered the WTO, to better capture the consequence of the globalization shock on countries that tackled the shock with different initial competitive strengths. Results are qualitatively and qualitatively the same.

4.2 Populism and the Financial Crisis

In this section we present the results of the estimates of equation (1) when $shock_{rt}$ describes the 2008-2009 financial crisis. To capture the effects of the crisis on voting and test whether there was a differential effect in the Euro area, we need to modify slightly the specification in equation (1) and use:

$$\begin{aligned} v_{crt} =& \alpha + \beta Findep_{rc} + \gamma Findep_{rc} \times shock_{rt} + \delta\ Findep_{rc} \times shock_{rt} \times Eurozone_{ct} + \\ &+ FE_{ct} + X_{rt} + \epsilon_{rt} \end{aligned} \tag{3}$$

In this specification $Findep_{rc}$ is the Rajan-Zingales measure of financial dependence in region r country c, and is time invariant. *shock* is a dummy equal to 1 for the years after 2008 following the collapse of Lehman Brothers; it is meant to capture the first wave of the financial crisis as well as the European sovereign debt crisis. *Eurozone* is a dummy equal to 1 for the regions belonging to Euro.zone countries. We would expect that regions with industries that are more dependent on external finance are hit harder by a financial crisis, causing more economic insecurity and possibly more support for populist parties - i.e. $\gamma = 0$. But if the frustration hypothesis is true, then the effect on populist support should be particularly strong for regions in EZ countries, that is $\delta > 0$. This is the key parameter of interest. Table 9 shows the results of OLS estimates of the above equation. The first column only controls for financial dependence in the region; the correlation with populist voting is positive and statistically significant, but its effect is hard to interpret. The second column adds the interaction between the financial crisis dummy and financial dependence. The effect is strongly positive and statistically very significant, consistent with the idea that the economic insecurity induced by financial crisis - which is stronger in regions with more financially dependent industries - may boost support for populist parties. At the sample mean of financial dependence (0.044) the 2008 financial crisis increases the share of votes to populist parties in a region by 3.96 percentage points (0.044×88.09), equivalent to 42% of the sample mean. This is a considerable effect. Most importantly, this positive effect stems mostly from the consensus to populist parties in the Euro-zone. This is shown in the third column by the large, positive and highly significant value of δ - the differential effect

of the crisis on populist voting in the EZ regions. When the triple interaction is added as a control, the direct effect of the crisis (keeping the financial dependence constant at its mean value of 0.044) on populist voting in non-EZ regions (the estimated value of γ) is positive and statistically significant at the 10% confidence level but much smaller than the average effect in column 2 (coefficient size 39.07, standard error 20.05). The effect in the EZ regions is instead large (110.64=39.07+71.57) and implies an effect of the crisis on populist voting of 4.9 percentage points, 52% of the sample average share of votes. This pattern confirms the validity of the frustration hypothesis, which predicts that support of populist parties reflects voters disappointment with the national governments for their inability to react to the crisis, and voters' holding governments responsible for having tied their hands to the European project and the constraints on the policy space that it entails.

4.2.1 Policy strait-jacket effects and the financial crisis shock

To shed light on this interpretation we use our measures of policy constraints on macro policies PSJ^{macro} that, as discussed in Section 3, combines constraints on fiscal policy and on monetary policy for EZ countries. To test whether these constraints play a role we modify the previous specification and estimate the following model

$$\begin{aligned} v_{crt} =& \alpha + \beta Findep_{rc} + \gamma Findep_{rc} \times shock_{rt} + \delta\ Findep_{rc} \times shock_{rt} \times Eurozone_{ct} + \\ & \lambda Findep_{rc} \times PSJ^{macro-z}_{ct} + \theta\ Findep_{rc} \times shock_{rt} \times PSJ^{macro-z}_{ct} + \\ & FE_{ct} + X_{rt} + \epsilon_{rt} \end{aligned} \tag{4}$$

where we have added to the specification an interaction with a dummy for whether PSJ^{macro}_{ct} is above a certain threshold z (using respectively the 75th and the 90th percentile of the distribution across the EZ countries). The parameter of interest is now θ which should be positive and significant to be consistent with the PSJ hypothesis. A positive θ in fact implies that the financial crisis has a stronger effect on populist voting within the eurozone in precisely those countries where the policy strait jacket has a stronger bite. The results of the estimates of this model are shown in Table 10. In columns 1 and 3 we construct PSJ^{macro}_{ct} using the deviation of government debt and deficit from the Stability and Growth Pact thresholds in 2007; in columns 2 and 4 using the three year average prior to 2008. In the first column the effect of the financial crisis in non-EZ countries regions, measured as the sample mean of financial dependence, is estimated now at 39.51×0.044, only slightly larger than that estimated in Table 9, column 3 (39.07×0.044). The effect on Eurozone regions (at the mean of financial dependence) is $(39.515 - 10.657 + 96.064 \times PSJ^{macro}_{ct}) \times 0.044$ and it size depends on the bite of constraints on macro policies. The political effect of the financial crisis is to increase populist voting in the EZ regions by 1.27 percentage points (13% of the sample mean) in regions of countries with a value of PSJ^{macro}_{ct} below the 75th percentile; by 5.5 percentage points (59 percent of the sample mean) in regions whose country measure of the PSJ is above the 75th percentile. The estimates in the second column produce similar results. The last two columns repeat the exercise using the three year average deviation of government debt and deficit from the Stability and Growth Pact prior to 2008 to construct $PSJ^{macro-z}_{ct}$. Results are quantitatively the same.

In sum, this evidence lends clear support to the strait-jacket hypothesis.

4.3 Frustration and the Policy Strait-Jacket Hypothesis

Finally, we close the circle by showing evidence that voters frustration and constraints on policy are related. Specifically, our narrative implies that in countries where the bite of the constraints on domestic policies from participating in the single currency is stronger voters should show an increase in frustration and a more sceptical attitude towards European institutions, particularly in the years following the financial crisis when the loss of discretion in using domestic macroeconomic policy is more evident. To document frustration we use three measures of trust towards European institutions (the European Parliament, the ECB and the European Commission) and a measure of beliefs about membership in the European Union (share of people that think membership is good). Trends in these variables since year 2000 are reported in Figures 1-4. The trends are reported separately for EZ countries and for non-EZ Western and non-EZ Eastern European countries (since they acquired membership in the Union). The most remarkable feature is the drop in confidence in all these institutions in the EZ countries with a negative or attenuated dynamic starting already in mid-2004, and a sharp negative trend after the start of the financial crisis and during the European sovereign debt crisis. The drop is either absent or much more moderate in non-Euro countries. In EZ countries trust in the European parliament in 2014 is almost 30 percentage points lower than in year 2000 (Figure 1). In Western and Eastern non-EZ countries it is 10 percentage points above the year 2000 level. Trust in the European Commission shows a similar differentiated time profile (Figure 3) and so does trust in the ECB (Figure 2). The only difference is that after several years of increasing values trust in the ECB is revised downwards in non-EZ countries following the financial crisis; yet its level in 2014 is 30 percentage points above its level in 2000, while it is almost 30 percentages point below in EZ countries. Simultaneously, there is a loss of enthusiasm for the benefits of staying in the Union, much more marked in EZ countries (Figure 4). These patterns are consistent with the policy strait-jacket hypothesis. To lend direct support to this interpretation we correlate the drop in trust in the three European institutions and in the benefits of belonging to the union after 2007 with our measure PSJ^{macro} using variation among the EZ countries in our sample. Figures 5-8 show a systematic negative correlation: in countries with stronger constraints on policy the drop in trust in the European Parliament, the European Commission as well as the ECB is decisively more marked, and so is the drop in the perceived benefit from membership in the EU. The last set of figures (Figures 9-12) show that the negative correlation holds also if we specialize the PSJ measure to the constraints on monetary policy, i.e. use PSJ^{mp} instead if PSJ^{macro}.[8]

5 Conclusions and Policy Implications

This paper makes several contributions to the understanding of the determinants of populism. We have argued and proved that the policy strait-jacket of individual countries in the Euro zone has a direct first order effect on frustration of citizens with European institutions and traditional parties associated with them, and such a frustration pushed

[8] All these correlations are robust to excluding Greece from the sample whose values of PSJ^{macro} and PSJ^{mp} are very far from those of the other countries.

voters to support populist platforms. Other Western European countries outside the Euro displayed significantly lower support for populist parties in regions affected by the various crises we have witnessed; Eastern European countries benefited from relocation incentives of firms, and this relocation effect, added to the absence of a policy strait-jacket, caused a reduction of support for populist parties in the manufacturing regions of such countries.

The broad policy implications of our results concern the European integration process. We have shown that a European Monetary Union without a fiscal and political union creates citizens' frustration for the inability of individual governments to counter shocks, and this may lead to a political derailing of even the existing levels of integration. In spite of all the benefits of monetary integration,[9] the incompleteness of the EMU architecture without a proper fiscal and perhaps political union is often recognized.[10] This paper points out that, to the extent that one considers the current wave of populism an important challenge for democracy, the imperfect integration of policy making in Europe has significant political implications. A hypothetical United States of Europe would be able to give faster and more effective fiscal and monetary policy countercyclical responses, and hence the individual country level PSJ frustration effects would be eliminated. Moreover, a fiscal union would reduce tax competition effects, leading to less relocation decisions.

Beside the above implications of our analysis for the discussion on the necessary steps for EU integration, there are also potential implications in terms of the EU expansion process. Much of the relocation consequences of the various shocks we have analysed seems to have happened from Western to Eastern European countries; thus, the expansion from 15 to 28 (now 27) countries had an important neglected effect: the profit and job opportunities related to the firms that no longer found it viable to remain in EZ countries, nevertheless remained in Europe. Without the expansion to 28 countries it would have been more costly to relocate a firm in Romania or alike, and hence some firms would have decided to relocate production all the way to even cheaper labor costs countries in Asia, or alternatively to shut down altogether. Further enlargements of the EU therefore could be seen as desirable, among other reasons, for the fact that expansion eastwards further increases location choices within the EU for multinational companies, which therefore will continue to produce corporate revenues in Europe. Advocates of a EU-level corporate sales tax could further motivate their proposal beyond its redistributive value for its effects on total welfare. Thus, even though our evidence shows that the EU enlargement fostered support for populist parties in Western European countries, support could have been even stronger without the enlargement. Our evidence shows that the enlargement reduced populist consensus in Eastern Europe manufacturing regions, and this effect would have unlikely been there without the admission of Eastern countries to the European project.

[9] See e.g. Mundell (1961), Alesina and Barro (2002), and Baldwin and Wyplosz (2006) for an excellent survey.

[10] Theoretically, Celentani et al. (2004) show that a set of decentralized fiscal entities can lead to inefficient risk sharing, even if countries have access to a sequentially complete financial structure of assets. For an example of policy discussion on the need to complete the Euro-zone institutions with a fiscal union, see e.g. the report of the Tommaso Padoa-Schioppa Group (2012) "Completing the Euro - A road map towards fiscal union in Europe". The vulnerability to external shocks when both monetary and fiscal policies are constrained for individual countries was a known weakness even before the start of the Euro, but the extent of the problem was not anticipated.

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Tables

Table 1: Descriptive statistics

	N	mean	sd	min	max
Full sample (excl. SE, NO, UK)					
Populist %	2716	10.189	16.013	0.000	73.563
Eurozone (EZ)	2716	0.715	0.451	0.000	1.000
EU	2716	0.890	0.314	0.000	1.000
GDP per capita (1 yr rate)	2190	3.435	6.597	-29.260	42.857
GDP per capita (pre-sample)	2320	17.043	11.330	0.800	81.100
GS	1541	0.185	0.288	-0.377	1.880
GS (US)	1554	0.522	0.468	-0.186	2.220
GS (US, excl. DL)	1554	0.341	0.315	-0.186	1.982
GS (US, excl. DI-DJ)	1554	0.475	0.434	-0.145	2.102
GS (US, excl. DF)	1554	0.521	0.468	-0.186	2.220
GS (US, excl. DB-DC)	1554	0.410	0.384	-0.119	2.144
PSJ^{ex}_{07-95}	2716	1.103	0.299	0.835	1.848
PSJ^{ex}_{00-95}	2716	0.975	0.175	0.825	1.385
Full sample (incl. SE, NO, UK)					
Populist %	3508	9.297	14.526	0.000	73.563
Eurozone (EZ)	3508	0.554	0.497	0.000	1.000
EU	3508	0.897	0.304	0.000	1.000
GDP per capita (1 yr rate)	2772	3.595	6.318	-29.260	45.000
GDP per capita (pre-sample)	3112	20.744	16.844	0.800	255.800
GS	2193	0.197	0.255	-0.377	1.880
GS (US)	2193	0.475	0.443	-0.186	2.220
GS (US, excl. DL)	2193	0.290	0.303	-0.317	1.982
GS (US, excl. DI-DJ)	2193	0.438	0.403	-0.145	2.102
GS (US, excl. DF)	2193	0.474	0.442	-0.186	2.220
GS (US, excl. DB-DC)	2193	0.382	0.366	-0.166	2.144
PSJ^{ex}_{07-95}	3508	0.533	0.486	0.000	1.755
PSJ^{ex}_{00-95}	3508	0.493	0.446	0.000	1.236
Findep	2452	0.044	0.027	0.005	0.134
PSJ^{macro}_{07}	3332	0.198	1.264	-0.452	5.624
$\text{PSJ}^{macro}_{05-07}$	3332	0.197	1.206	-0.497	5.208
*Trust variables and PSJ**					
Trust in EP	368	53.538	10.889	20.806	73.173
Trust in EC	368	49.431	10.657	17.027	69.860
Trust in ECB	368	48.247	11.749	13.382	79.289
EU membership is good	270	53.342	13.034	24.377	82.337
PSJ^{mp}	345	1.036	1.552	0.000	11.065
PSJ^{macro}_{07}	345	0.127	1.099	-0.452	6.552
$\text{PSJ}^{macro}_{05-07}$	345	0.140	1.092	-0.497	6.114

*Summary statistics based on EU28 countries over the 2000-2014 period.

Table 2: List of Countries and elections

Country ID	Country	Eurozone	Globalization shock	Financial dependence	Elections				
AT	Austria	Yes	Yes	Yes	2002	2006	2008		
BG	Bulgaria	No	No	Yes	2001	2005	2009	2013	2014
CZ	Czech Republic	No	No	Yes	2002	2006	2010		
EE	Estonia	Partially[1]	No	Yes	2003	2007	2011		
FI	Finland	Yes	No	Yes	2003	2007	2011		
FR	France	Yes	Yes	Yes	2002				
DE	Germany	Yes	Yes	Yes	2002	2005			
EL	Greece	Partially[2]	Yes	Yes	2000	2004	2007	2009	2012
HU	Hungary	No	No	Yes	2006	2010			
IT	Italy	Yes	Yes	Yes	2008	2013			
LV	Latvia	No	No	Yes	2002	2006	2010	2011	
NL	Netherlands	Yes	Yes	Yes	2002	2003	2006	2010	2012
NO	Norway	No	No	Yes	2001	2005	2009	2013	
PL	Poland	No	Yes	Yes	2001	2005	2007		
RO	Romania	No	Yes	Yes	2000	2004	2008	2012	
SK	Slovakia	Partially[3]	Yes	Yes	2002	2006	2010		
ES	Spain	Yes	Yes	Yes	2000	2004	2008	2011	
SE	Sweden	No	No	Yes	2002	2006	2010		
UK	United Kingdom	No	No	Yes	2001	2005	2010	2015	

Yes (or *No*) if the country is included (not included) in the corresponding set of regressions, either *globalization shock* or *financial dependence*. In this table we are listing only the 19 countries for which we have complete data. Cyprus, Denmark, Luxembourg, and Switzerland have missing detailed employment and imports data, therefore are not included in the analysis. [1] Since 2011. [2] Since 2001. [3] Since 2009.

Table 3: Populist parties

Country	Party
AT	FPO
AT	Alliance for the Future of Austria
AT	Team Stronach
BE	Vlaams Blok
BE	FRONT NATIONAL
BE	List Dedecker
BG	NDSV
BG	Coalition Ataka
BG	Law, Order and Justice (Red, Zakonnost, Spravedlivost)
BG	Citizens for European Development of Bulgaria (GERB)
CH	Swiss People's Party
CH	Swiss Democrats
CH	Lega dei Ticinesi
CH	Geneva Citizen's Movement
CZ	ANO
CZ	Public Affairs (Veci Verejne)
CZ	Usvit
DE	Die Linke (The Left)
DK	Dansk Folkeparti
FI	True Finns
FR	FN (Front National)
GB	British National Party
GB	UK Independence Party
GR	SYRIZA
GR	ANEL
HR	HSP-AS
HU	FYD-HDF Fed.of Young Democrats and Hungarian Dem.Forum
HU	Justice and Life Party (MIEP)
HU	Movement for a Better Hungary
HU	FIDESZ-MPSZ
IE	Sinn Fein
IS	Citizen's Movement (BF)
IT	Forza Italia
IT	Lega Nord
IT	Movimento Cinque Stelle
IT	Il Popolo della Liberta (PdL)
LT	Labour Party (DP)
LT	Party "Order and Justice" (TT)
LU	Alternative Democratic Reform Party
LV	For Fatherland and Freedom/ LNNK
LV	All for Latvia
LV	NA National Alliance
NL	List Pim Fortuyn
NL	Liveable Netherlands
NL	Geert Wilders' Freedom Party (PVV)
NO	Progress Party (FrP)
NO	Democrats
PL	Samoobrona Rzeczypospolitej Polskiej
PL	Prawo i Sprawiedliwosc
RO	People's Party
SE	Sweden Democrats
SI	Slovene National Party (SNS)
SK	HZDS Movement for a Democratic Slovakia
SK	SMER
SK	KDH Christian Democratic Movement
SK	Slovak National Party (SNS)
SK	Ordinary People and Independent Personalities (OLaNO)

The table presents the classification of populist parties according to van Kessel. For a more detailed discussions on the countries covered and the methodology followed by van Kessel (2015), see Guiso, Herrera, Morelli, Sonno (2017).

Table 4: PSJ summary by Country (mean values over 2008-2014 period)

Country ID	Country	Eurozone	PSJ^{mp}	PSJ^{macro}_{07}	PSJ^{macro}_{05-07}	PSJ^{ex}_{07-95}	PSJ^{ex}_{00-95}
AT	Austria	Yes	1.730	0.153	0.157	0.905	0.884
BE	Belgium	Yes	1.700	1.049	1.053	0.946	0.882
BG	Bulgaria	No	0.000	-0.452	-0.497	0.000	0.000
HR	Croatia	No	0.000	-0.452	-0.497	0.000	0.000
CY	Cyprus	Yes	.	.	.	1.046	0.972
CZ	Czech Republic	No	0.000	-0.452	-0.497	0.000	0.000
DK	Denmark	No	0.000	-0.452	-0.497	0.000	0.000
EE	Estonia	Yes	1.350	-0.128	-0.180	0.830	0.706
FI	Finland	Yes	1.303	-0.139	-0.191	0.882	0.862
FR	France	Yes	0.685	-0.114	-0.092	0.947	0.879
DE	Germany	Yes	1.408	0.036	0.143	0.872	0.825
EL	Greece	Yes	6.139	5.370	4.960	1.034	0.939
HU	Hungary	No	0.000	-0.452	-0.497	0.000	0.000
IS	Iceland	No	0.000	-0.452	-0.497	0.000	0.000
IE	Ireland	Yes	3.141	0.302	0.239	1.188	0.949
IT	Italy	Yes	1.176	1.442	1.753	1.151	1.044
LV	Latvia	Yes	0.000	-0.452	-0.497	0.198	0.198
LT	Lithuania	No	0.000	-0.452	-0.497	0.000	0.000
LU	Luxembourg	Yes	2.122	0.057	0.000	0.985	0.899
MT	Malta	Yes	.	.	.	1.186	1.063
NL	Netherlands	Yes	1.794	-0.022	-0.076	0.985	0.902
NO	Norway	No	0.000	-0.452	-0.497	0.000	0.000
PL	Poland	No	0.000	-0.452	-0.497	0.000	0.000
PT	Portugal	Yes	1.547	0.259	1.258	1.069	0.950
RO	Romania	No	0.000	-0.452	-0.497	0.000	0.000
SK	Slovakia	Yes	0.000	-0.452	-0.497	1.504	0.986
SI	Slovenia	Yes	1.399	-0.116	-0.169	1.007	0.978
ES	Spain	Yes	3.944	0.495	0.427	1.086	0.943
SE	Sweden	No	0.000	-0.452	-0.497	0.000	0.000
CH	Switzerland	No	0.000	-0.452	-0.497	0.000	0.000
UK	United Kingdom	No	0.000	-0.452	-0.497	0.000	0.000

The PSJ^{mp}, $PSJ^{macro}07$, and PSJ^{macro}_{05-07} columns report mean values over the 2008-2014 period, while PSJ^{ex}_{07-95} and PSJ^{ex}_{00-95} are country-specific, time-invariant measures. For a detailed description of each indicator refer to Section 3.

Table 5: Globalization and populist vote

	(1)	(2)	(3)	(4)	(5)
	Colantone & Stanig		Full sample (excl. SE, NO, UK)		
	Populist %	Populist %	Populist %	Populist %	Populist %
GS	0.753*	3.966***	0.528	2.802**	-45.214**
	(0.429)	(1.066)	(0.446)	(1.382)	(18.299)
GS × EZ					49.897***
					(18.246)
Obs.	1,779	1,755	1,541	1,511	1,511
Adjusted-R^2	0.907	0.905	0.919	0.918	0.918
NUTS level	3	3	3	3	3
FE	Country × Year	Country × Year	Country × Year	Country × Year	Country × Year
Cluster SE	NUTS3	NUTS3	NUTS3	NUTS3	NUTS3
Kleibergen-Paap F	.	.	.	.	17.55

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The dependent variable *Populist %* is the vote share of populist parties (see section 3). *GS* is the globalization shock index (see section 3). *GS* × *EZ* is the interaction term between the globalization shock and the Eurozone dummy, equal to 1 if the country belongs to the Eurozone in the election-year. All columns are controlling for GDP per capita growth rate at 1 year. Columns (1)-(2) use a sample of countries as close as possible to Colantone and Stanig (2017), namely Austria, Germany, Greece, Spain, France, Italy, The Netherlands, Norway, Sweden, and the UK. Columns (3)-(5) use our own sample of Austria, Germany, Greece, Spain, France, Italy, The Netherlands, Poland, Romania, and Slovakia, excluding Sweden, Norway, and the UK. Columns (2), (4), and (5) instrument the globalization shock with imports from China to the US (*GS (US)*).

Table 6: Sensitivity analysis globalization and populist vote

	(1)	(2)	(3)	(4)
	East	West	GDP per capita (pre-sample)	EU membership
	Populist %	Populist %	Populist %	Populist %
GS	-41.568**	-1.445	-45.315**	16.531
	-20.397	(2.364)	(18.446)	(19.031)
GS × EZ		6.118**	49.879***	78.073***
		(2.643)	(18.389)	(25.696)
GS × EU				-89.933***
				(29.619)
Obs.	233	1,755	1,511	1,511
Adjusted-R^2	0.908	0.904	0.918	0.916
NUTS level	3	3	3	3
FE	Country X Year	Country X Year	Country X Year	Country X Year
Cluster SE	NUTS3	NUTS3	NUTS3	NUTS3
Kleibergen-Paap F	.	305.2	17.55	6.097

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The dependent variable *Populist %* is the vote share of populist parties (see Section 3). *GS* is the globalization shock index (see Section 3). *GS* × *EZ* is the interaction term between the globalization shock and the Eurozone dummy, equal to 1 if the country belongs to the Eurozone in the election-year. All columns are controlling for GDP per capita growth rate at 1 year and the globalization shock is instrumented with imports from China to the US (*GS (US)*). Column (1) restricts the sample to Eastern countries, namely Poland, Romania and Slovakia. Conversely, column (2) only uses Western countries: Austria, Germany, Greece, Spain, France, Italy, The Netherlands, Norway, Sweden, and the UK. Column (3) adds the GDP per capita at the first available year as control. Finally, column (4) introduces an additional interaction with *EU*, a dummy equal to 1 if the country belongs to the EU in the election-year.

Table 7: Exclusion restriction globalization and populist vote

	(1) excl. DL	(2) excl. DI-DJ	(3) excl. DF	(4) excl. DB-DC
	Populist %	Populist %	Populist %	Populist %
GS	-33.775*	-49.675***	-45.678**	-65.882***
	(17.902)	(18.853)	(18.450)	(18.904)
GS × EZ	42.228**	53.988***	50.424***	69.771***
	(17.914)	(18.772)	(18.397)	(18.913)
Obs.	1,511	1,511	1,511	1,511
Adjusted-R^2	0.913	0.918	0.918	0.917
NUTS level	3	3	3	3
FE	Country × Year	Country × Year	Country × Year	Country × Year
Cluster SE	NUTS3	NUTS3	NUTS3	NUTS3
Kleibergen-Paap F	19.32	17.23	17.00	20.11

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The dependent variable *Populist %* is the vote share of populist parties (see Section 3). *GS* is the globalization shock index (see Section 3). *GS × EZ* is the interaction term between the globalization shock and the Eurozone dummy, equal to 1 if the country belongs to the Eurozone in the election-year. All columns are controlling for GDP per capita growth rate at 1 year. All columns use our own sample of Austria, Germany, Greece, Spain, France, Italy, The Netherlands, Poland, Romania, and Slovakia, excluding Sweden, Norway, and the UK. Column (1) instruments the globalization shock with import from China to the US excluding the DL sector. Column (2) excludes instead sectors DI-DJ. Column (3) excludes sector DF and finally, column (4) excludes sectors DB-DC.

Table 8: Policy strait-jacket effects and the globalization shock

	(1) SE	(2) SE, UK	(3) SE, UK, NO	(4) PSJ^{ex}	(5)
	Populist %	Populist %	Populist %	Populist %	Populist %
GS	-45.240**	-44.839**	-44.844**	-44.620**	-44.561**
	(18.324)	(18.294)	(18.297)	(18.287)	(18.284)
GS × EZ	49.925***	49.506***	49.512***	44.950**	44.348**
	(18.271)	(18.241)	(18.245)	(18.283)	(18.276)
GS × Western (1)	46.371**				
	(18.345)				
GS × Western (2)		43.210**			
		(18.449)			
GS × Western (3)			43.430**		
			(18.449)		
GS × PSJ^{ex-75}_{07-95}				12.782***	
				(3.462)	
GS × PSJ^{ex-75}_{00-95}					13.608***
					(3.366)
Obs.	1,574	1,969	1,988	1,511	1,511
Adjusted-R^2	0.918	0.916	0.916	0.907	0.906
NUTS level	3	3	3	3	3
FE	Country × Year	Country × Year	Country × Year	Country × Year	Country × Year
Cluster SE	NUTS3	NUTS3	NUTS3	NUTS3	NUTS3
P-value	0.015	0.019	0.022	.	.
Kleibergen-Paap F	11.65	11.62	11.61	11.70	11.70

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The dependent variable *Populist %* is the vote share of populist parties (see Section 3). *GS* is the globalization shock index (see Section 3). *GS* × *EZ* is the interaction term between the globalization shock and the Eurozone dummy, equal to 1 if the country belongs to the Eurozone in the election-year. All columns are controlling for GDP per capita growth rate at 1 year. All columns instrument *GS* with imports from China to the US (*GS (US)*). Column (1) adds Sweden to the standard sample of Austria, Germany, Greece, Spain, France, Italy, The Netherlands, Poland, Romania, and Slovakia. *Western (1)* is a dummy for Sweden, interacted with the globalization shock. Column (2) adds Sweden and the UK, with *Western (2)* being the corresponding dummy. Finally, column (3) adds Sweden, the UK and Norway, with *Western (3)* being the corresponding dummy. P-value refers to the test of statistical difference between the *GS* × *EZ* and the *GS* × *Western* coefficients. Columns (4)-(5) interact the globalization shock with PSJ^{ex-75}_{07-95} and PSJ^{ex-75}_{00-95} respectively (see Section 3) on the usual sample of Austria, Germany, Greece, Spain, France, Italy, The Netherlands, Poland, Romania, and Slovakia.

Table 9: Populism and the financial crisis

	(1) Populist %	(2) Populist %	(3) Populist %
Findep	28.747***	-0.502	-0.508
	(6.036)	(3.927)	(3.927)
Findep × Crisis		88.087***	39.070*
		(12.831)	(20.051)
Findep × Crisis × EZ			71.573***
			(25.290)
Obs.	2,131	2,131	2,131
Adjusted-R^2	0.928	0.931	0.932
NUTS level	3	3	3
FE	Country × Year	Country × Year	Country × Year
Cluster SE	NUTS3	NUTS3	NUTS3

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The dependent variable *Populist %* is the vote share of populist parties (see Section 3). *Findep* is the financial dependence indicator (see Section 3). *Crisis* is a dummy for years after 2008 (included). *EZ* is the Eurozone dummy, equal to 1 if the country belongs to the Eurozone in the election-year. All columns control for GDP per capita growth rate at 1 year and include all available countries: Austria, Bulgaria, Czech Republic, Germany, Estonia, Greece, Spain, Finland, France, Hungary, Italy, Latvia, The Netherlands, Norway, Poland, Romania, Sweden, Slovakia, and the UK.

Table 10: Policy strait-jacket effects and the financial crisis shock

	(1) Populist %	(2) Populist %	(3) Populist %	(4) Populist %
Findep	-0.915	-0.478	-0.914	-0.478
	(6.214)	(3.974)	(6.214)	(3.974)
Findep × Crisis	39.515*	39.069*	39.507*	39.069*
	(20.595)	(20.075)	(20.593)	(20.075)
Findep × Crisis × EZ	-10.657	-17.547	-17.548	-17.547
	(35.798)	(29.935)	(29.936)	(29.935)
Findep × $PSJ_{07}^{macro-75}$	1.155			
	(6.293)			
Findep × $PSJ_{07}^{macro-75}$× Crisis × EZ	96.064***			
	(32.910)			
Findep × $PSJ_{07}^{macro-90}$		-1.554		
		(7.649)		
Findep × $PSJ_{07}^{macro-90}$× Crisis × EZ		114.812***		
		(28.454)		
Findep × $PSJ_{05-07}^{macro-75}$			1.144	
			(6.292)	
Findep × $PSJ_{05-07}^{macro-75}$× Crisis × EZ			112.114***	
			(27.740)	
Findep × $PSJ_{05-07}^{macro-90}$				-1.554
				(7.649)
Findep × $PSJ_{05-07}^{macro-90}$× Crisis × EZ				114.812***
				(28.454)
Obs.	2,123	2,123	2,123	2,123
Adjusted-R^2	0.932	0.932	0.932	0.932
NUTS level	3	3	3	3
FE	Country × Year	Country × Year	Country × Year	Country × Year
Cluster SE	NUTS3	NUTS3	NUTS3	NUTS3

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The dependent variable *Populist %* is the vote share of populist parties (see Section 3). *Findep* is the financial dependence indicator (see Section 3). *Crisis* is a dummy for years after 2008 (included). *EZ* is the Eurozone dummy, equal to 1 if the country belongs to the Eurozone in the election-year. All columns control for GDP per capita growth rate at 1 year and include all available countries: Austria, Bulgaria, Czech Republic, Germany, Estonia, Greece, Spain, Finland, France, Hungary, Italy, Latvia, The Netherlands, Norway, Poland, Romania, Sweden, Slovakia, and the UK. The columns alternatively add interactions with the PSJ^{macro} measures described in Section 3: both computed at 2007 or as mean of 2005-2007 and both at the 75th or 90th percentiles.

Figures

Figure 1: Trust in EP (2000 = 100)

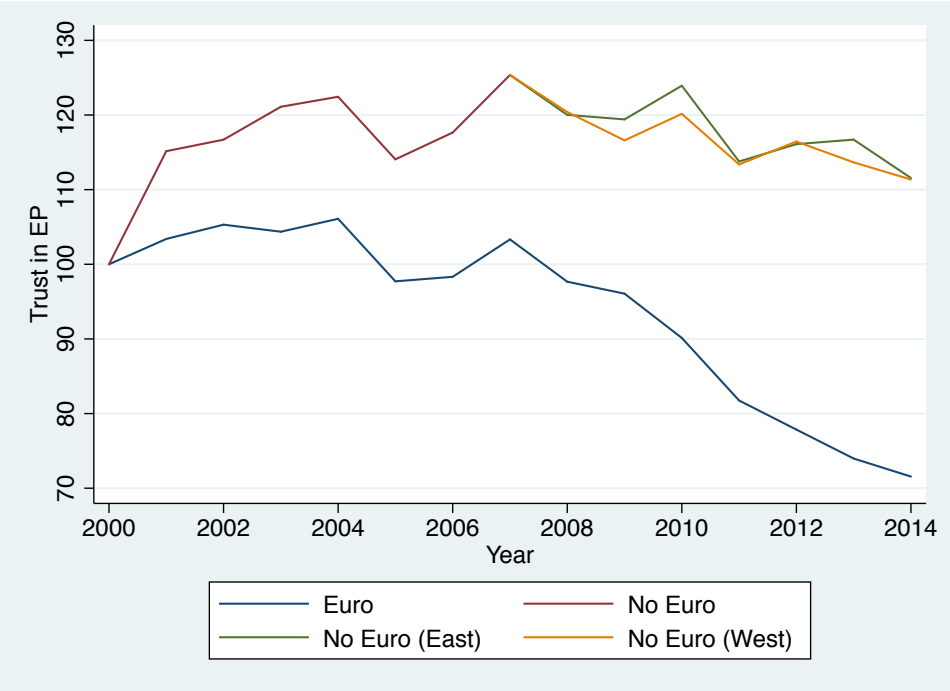


Figure 2: Trust in ECB (2000 = 100)

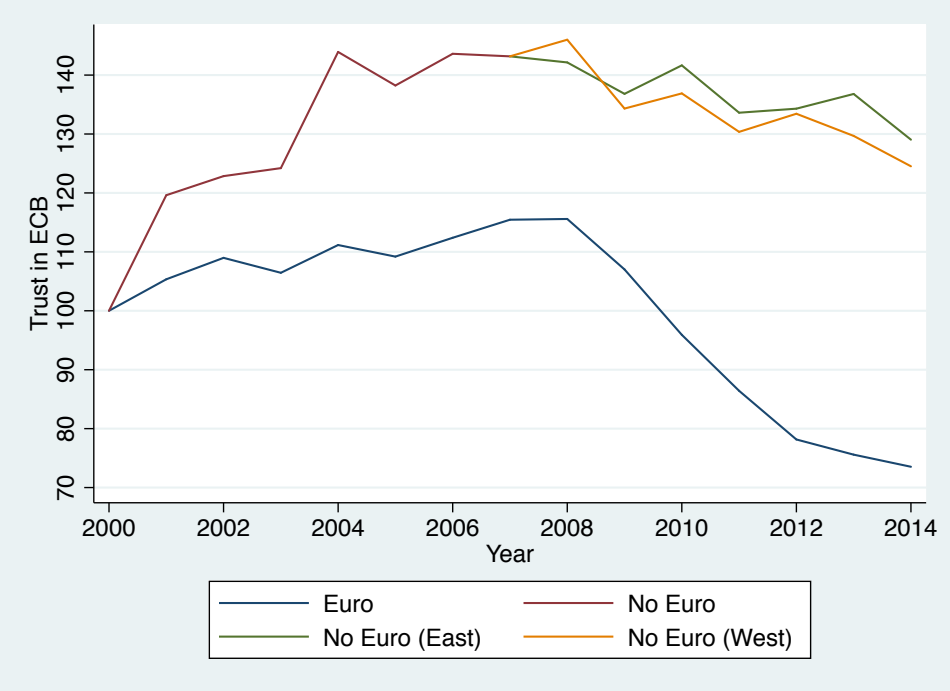


Figure 3: Trust in EC (2000 = 100)

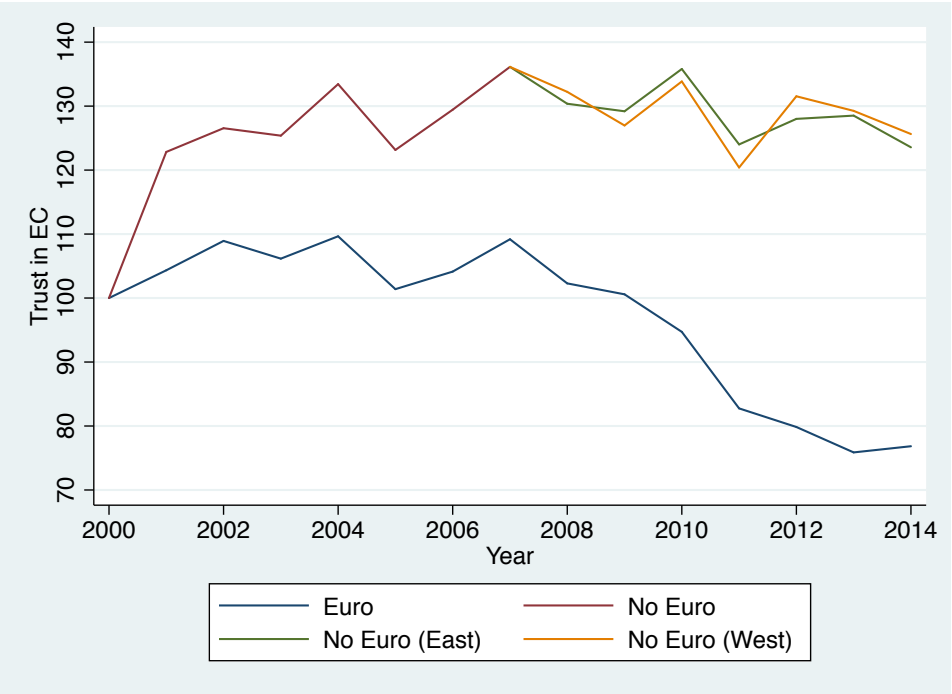


Figure 4: Membership in EU good (2000 = 100)

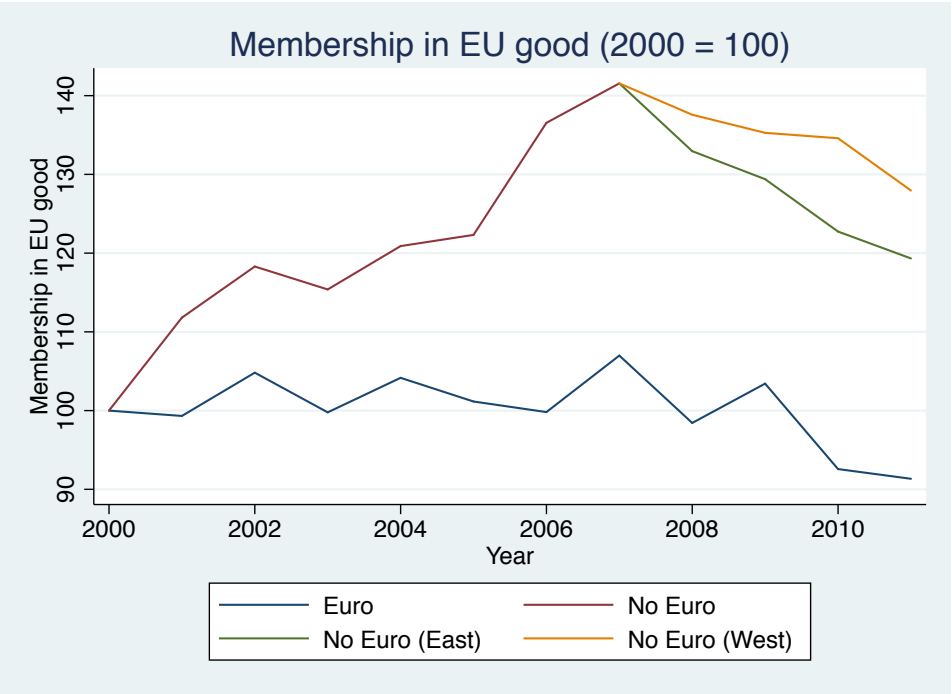


Figure 5: Trust in EP (rate 2014-2007) over PSJ^{macro}

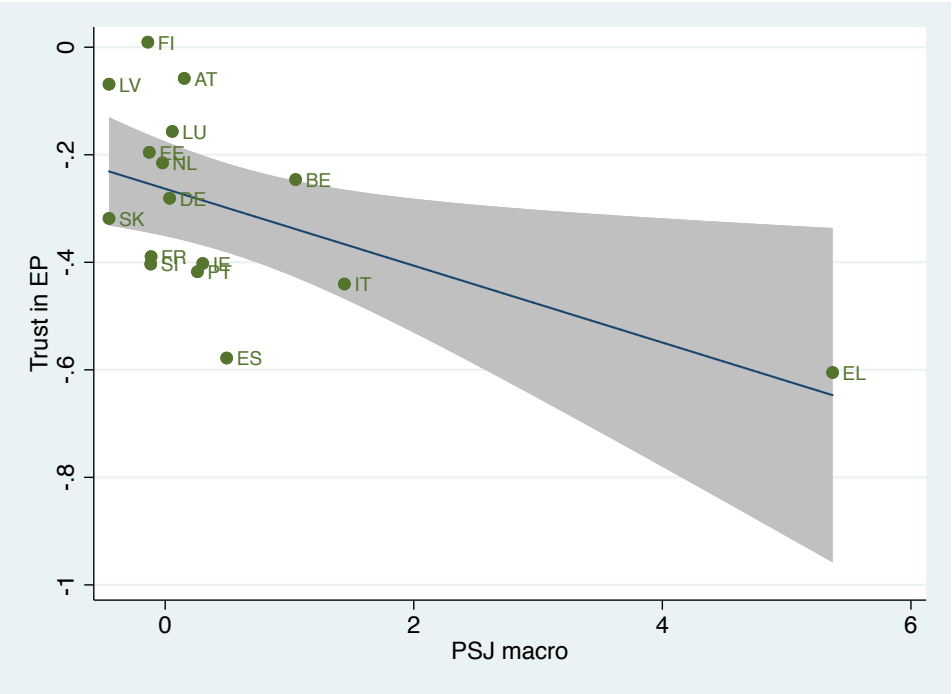


Figure 6: Trust in ECB (rate 2014-2007) over PSJ^{macro}

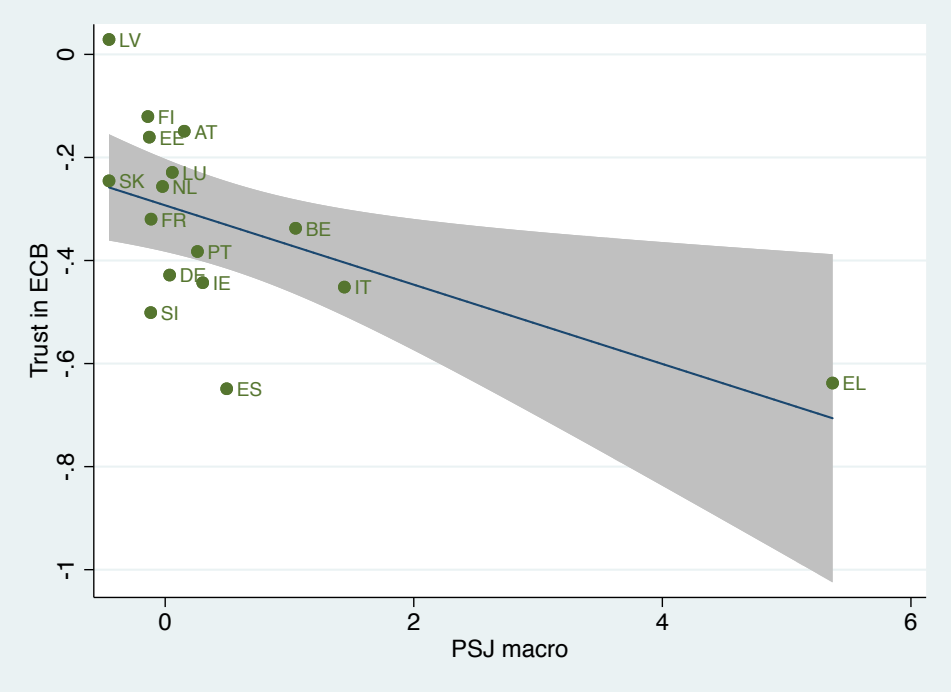


Figure 7: Trust in EC (rate 2014-2007) over PSJ^{macro}

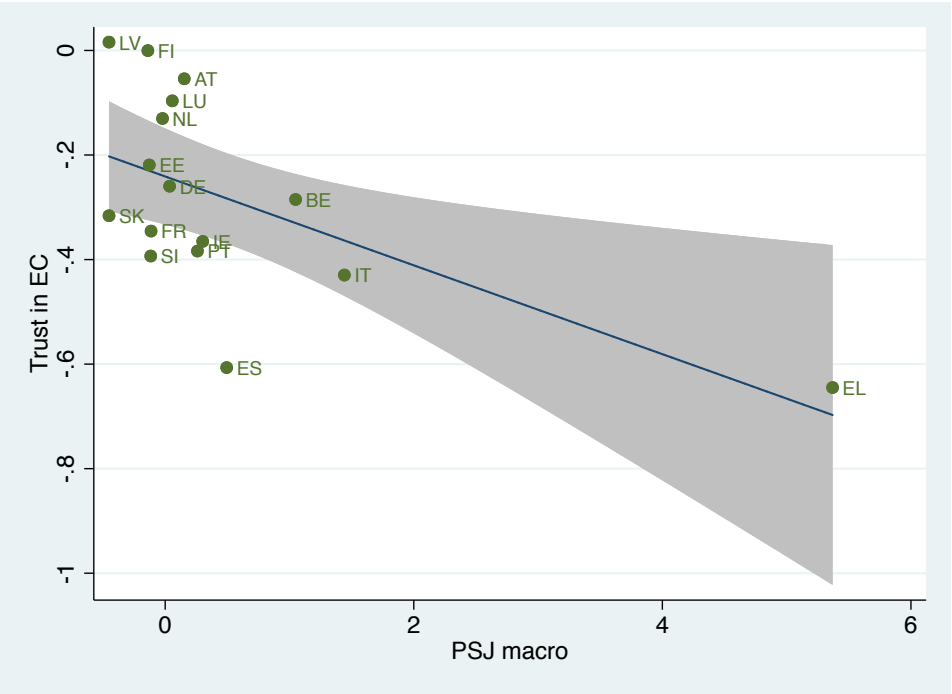


Figure 8: Membership in EU good (rate 2014-2007) over PSJ^{macro}

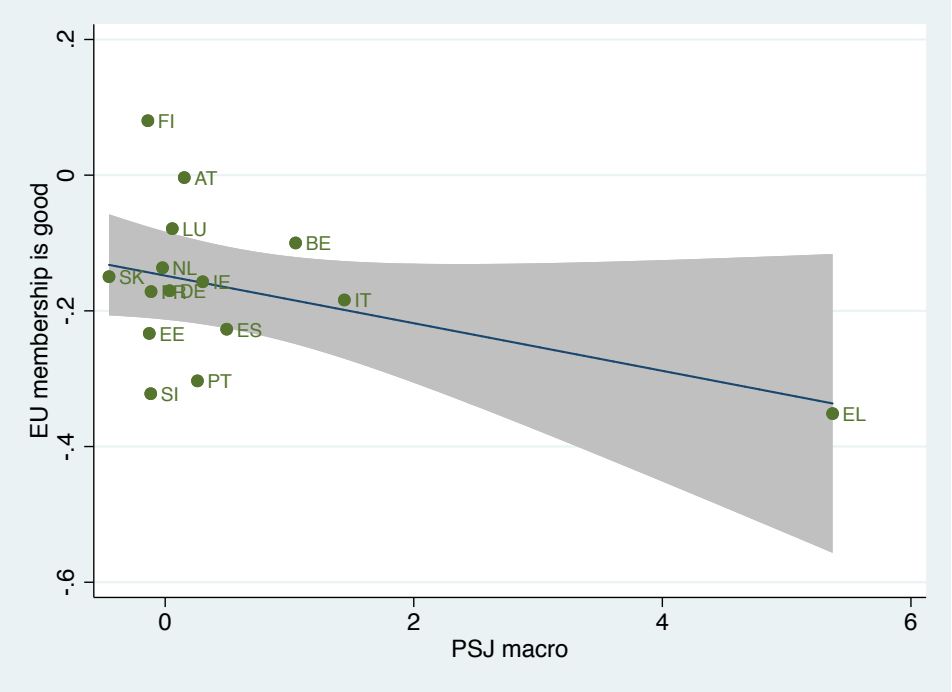


Figure 9: Trust in EP (rate 2014-2007) over PSJ^{mp}

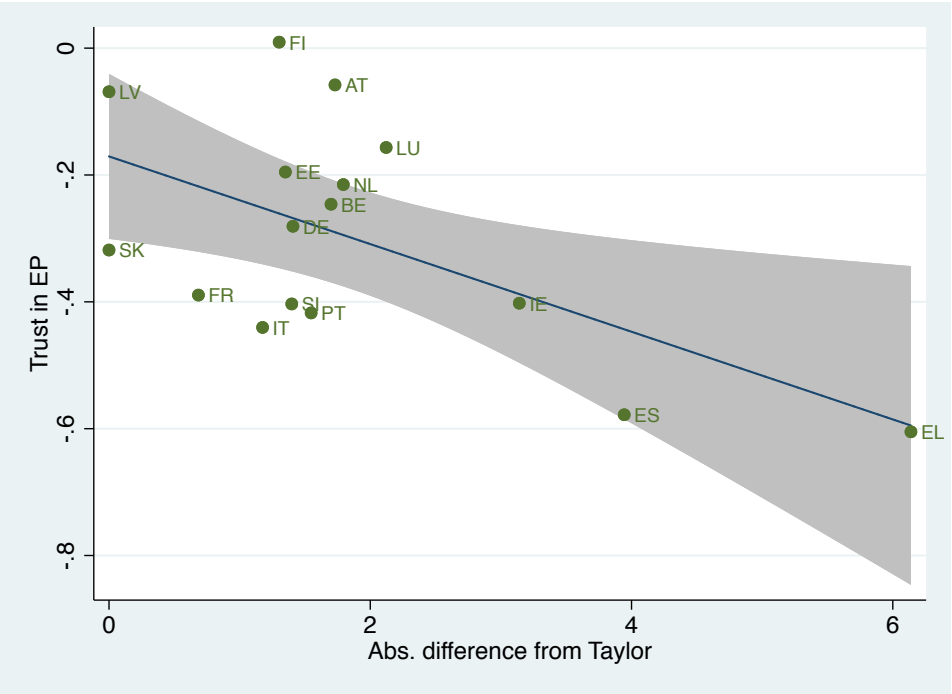


Figure 10: Trust in ECB (rate 2014-2007) over PSJ^{mp}

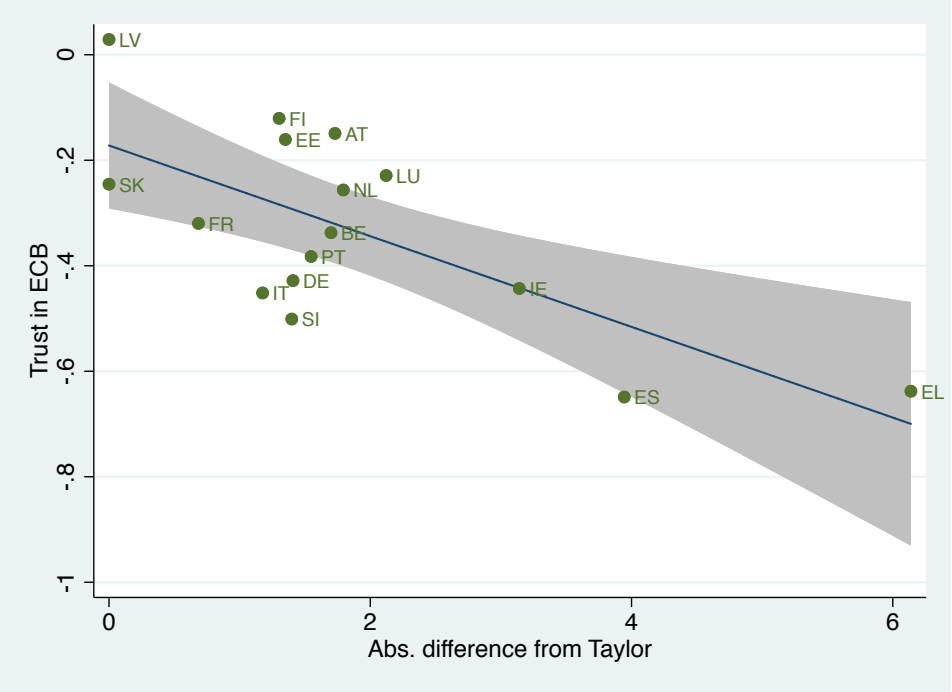


Figure 11: Trust in EC (rate 2014-2007) over PSJ^{mp}

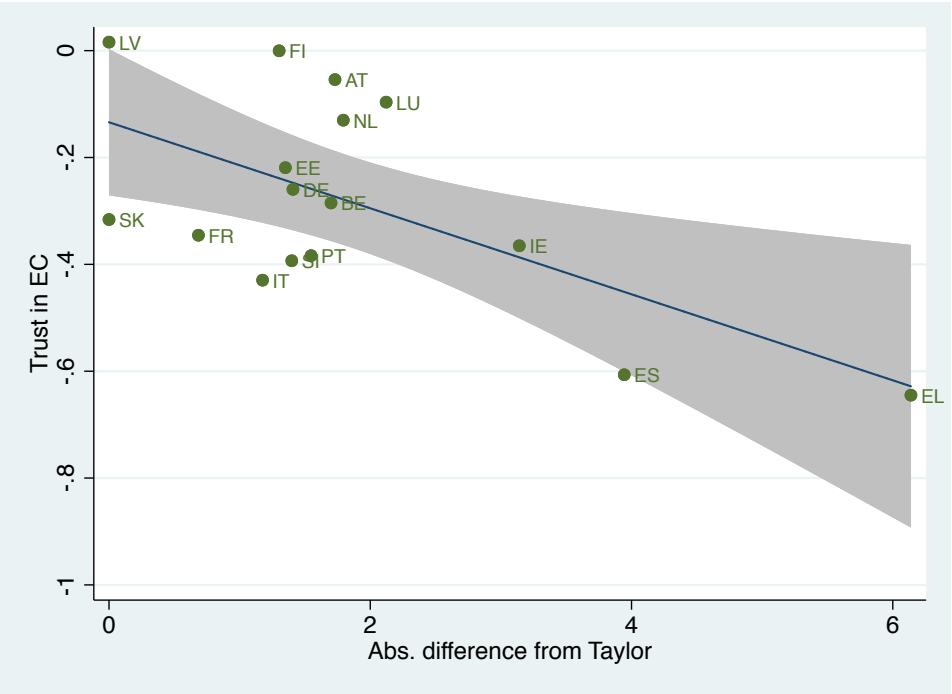
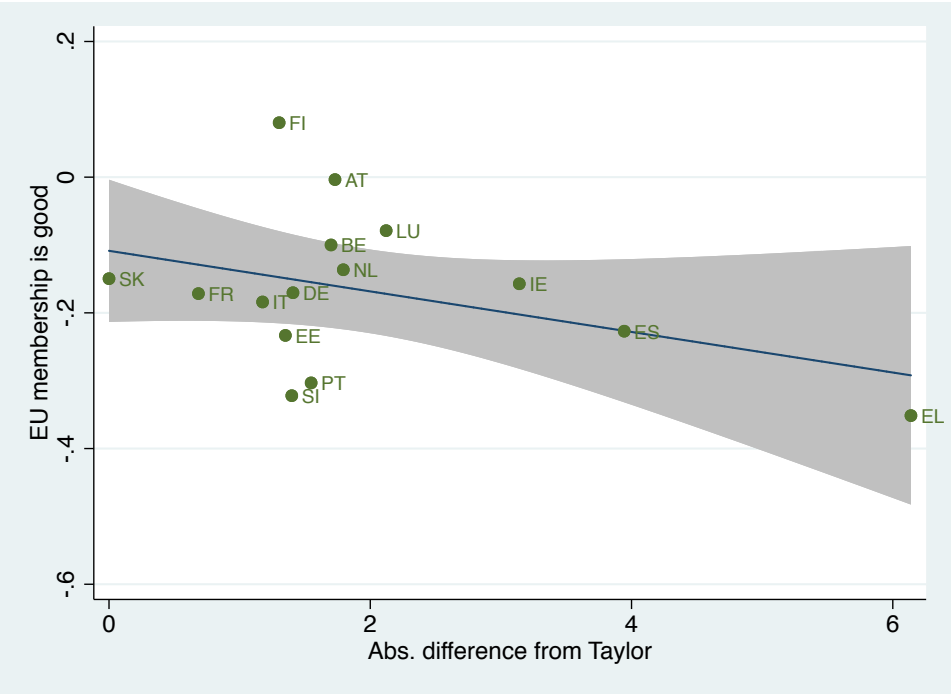


Figure 12: Membership in EU good (rate 2014-2007) over PSJ^{mp}



Appendix

A A simple model

The purpose of this model is to show that, under simple assumptions, after Chinese entry (in both markets, WE and EE) firm relocation incentives (from one market to the other) increase, moreover the exit incentives are higher within the Eurozone.

The relocation argument outlined in the text can be summarized by the following table:

	Profits in WE	Profits in EE	Differential
Before Chinese Entry	$\pi^{WE} > 0$	$\pi^{EE} > 0$	$\pi^{EE} - \pi^{WE} < R$
After Chinese Entry	$\pi_C^{WE} < \pi^{WE}$	$\pi_C^{EE} < \pi^{EE}$	$\pi_C^{EE} - \pi_C^{WE} > R$

where π are the firm's profits and R its relocation costs.

In sum, competition from China erodes profits everywhere, but if the erosion of profits is *larger* in WE than in EE, then relocation from west to east is more likely after Chinese entry. More specifically, more firms are likely to have a relocation cost in this profit differential, the larger this gap is:

$$R \in \left(\pi^{EE} - \pi^{WE}, \pi_C^{EE} - \pi_C^{WE}\right)$$

In other words, the likelihood of relocation is increasing in the gap size:

$$\Gamma := \left(\pi_C^{EE} - \pi_C^{WE}\right) - \left(\pi^{EE} - \pi^{WE}\right) = \Delta\pi^{WE} - \Delta\pi^{EE}$$

where

$$\Delta\pi^{WE} := \pi^{WE} - \pi_C^{WE}, \quad \Delta\pi^{EE} := \pi^{EE} - \pi_C^{EE}$$

is the profit erosion in each country after Chinese entry.

Simple standard assumptions, such as monopoly power, linear demand and constant marginal costs, generate the results above. Namely, assume the global market demand for a given product is linear, namely:

$$q = a - p$$

Assume, before Chinese entry, a WE firm acts as monopolist of this product. This firm will experience different production costs in different countries: in WE the marginal cost is constant and equal to c_{WE}. Thus, the optimal monopoly pricing and profits are:

$$\begin{aligned} \pi^{WE} &= (a-p)(p - c_{WE}) \\ p^{*WE} &= \frac{a + c_{WE}}{2} \quad \rightarrow \quad \pi^{*WE} = \left(\frac{a - c_{WE}}{2}\right)^2 \end{aligned}$$

Assume Chinese entry disciplines prices downward, so that the firms cannot sell above a certain price k. Namely profits become:

$$\pi_C^{WE} = (a-k)(k - c_{WE})$$

Hence, the (absolute value of the) drop in profits in WE due to Chinese entry becomes:

$$\Delta\pi^{WE} = \left(\frac{a - c_{WE}}{2}\right)^2 - (a - k)(k - c_{WE})$$

Likewise in EE, where the production costs are lower, namely the marginal cost is $c_{EE} < c_{WE}$.

The optimal monopoly pricing and profits are:

$$p^{*EE} = \frac{a + c_{EE}}{2} \quad \rightarrow \quad \pi^{*EE} = \left(\frac{a - c_{EE}}{2}\right)^2$$

Thus, likewise the drop in profits in EE after Chinese entry becomes:

$$\Delta\pi^{EE} = \left(\frac{a - c_{EE}}{2}\right)^2 - (a - k)(k - c_{EE})$$

Hence, after Chinese entry the profit loss in WE is larger than the profit loss in EE if:

$$\begin{aligned} \Delta\pi^{WE} - \Delta\pi^{EE} &= (c_{WE} - c_{EE})\left(\frac{2a + c_{WE} + c_{EE}}{4} - k\right) > 0 \\ &\rightarrow \quad k < \frac{2a + c_{WE} + c_{EE}}{4} \end{aligned}$$

In sum, if Chinese produces are competitive enough, namely if the price ceiling imposed by Chinese entry k is low enough, then profit erosion due to Chinese entry is larger in WE than in EE, thus after entry relocation to EE becomes a more profitable strategy. This simple framework also delivers another prediction: the *chance of firm relocation* increases in the competitiveness of Chinese products, lower k, and on the cost differential between WE and EE $(c_{WE} - c_{EE})$.

If, after Chinese entry, the loss of competitiveness and consequent currency depreciation generates a cost differential between Euro Zone countries (EZ) and not (NEZ) $c_{EZ} > c_{NEZ}$, then EZ countries, such as Italy, will suffer more from relocation than NEZ countries, such as the UK, whose currency, being not part of the Euro Zone, will depreciate more.

B Detailed descriptive statistics

Table A1: Summary statistics by EZ and non-EZ area

	N	mean	sd	min	max
Full sample (excl. SE, NO, UK) - Eurozone					
Populist %	1942	6.331	13.215	0.000	66.883
Eurozone (EZ)	1942	1.000	0.000	1.000	1.000
EU	1942	1.000	0.000	1.000	1.000
GDP per capita (1 yr rate)	1688	1.625	4.156	-29.260	21.786
GDP per capita (pre-sample)	1736	21.357	9.395	2.500	81.100
GS	1310	0.209	0.303	-0.377	1.880
GS (US)	1329	0.487	0.450	-0.186	2.220
GS (US, excl. DL)	1329	0.296	0.260	-0.186	1.847
GS (US, excl. DI-DJ)	1329	0.442	0.414	-0.145	2.102
GS (US, excl. DF)	1329	0.487	0.449	-0.186	2.220
GS (US, excl. DB-DC)	1329	0.413	0.403	-0.119	2.144
PSJ^{ex}_{07-95}	1942	0.962	0.117	0.872	1.755
PSJ^{ex}_{00-95}	1942	0.890	0.076	0.825	1.236
Full sample (excl. SE, NO, UK) - No Euro					
Populist %	774	19.867	18.191	0.000	73.563
Eurozone (EZ)	774	0.000	0.000	0.000	0.000
EU	774	0.612	0.488	0.000	1.000
GDP per capita (1 yr rate)	502	9.519	9.158	-26.829	42.857
GDP per capita (pre-sample)	584	4.217	5.268	0.800	46.300
GS	231	0.050	0.101	-0.251	0.385
GS (US)	225	0.729	0.521	0.051	2.149
GS (US, excl. DL)	225	0.608	0.452	0.035	1.982
GS (US, excl. DI-DJ)	225	0.669	0.493	0.022	2.067
GS (US, excl. DF)	225	0.725	0.521	0.051	2.149
GS (US, excl. DB-DC)	225	0.395	0.249	0.063	1.166
PSJ^{ex}_{07-95}	774	1.456	0.324	0.835	1.848
PSJ^{ex}_{00-95}	774	1.190	0.170	0.855	1.385
Full sample (incl. SE, NO, UK) - Eurozone					
Populist %	1942	6.331	13.215	0.000	66.883
Eurozone (EZ)	1942	1.000	0.000	1.000	1.000
EU	1942	1.000	0.000	1.000	1.000
GDP per capita (1 yr rate)	1688	1.625	4.156	-29.260	21.786
GDP per capita (pre-sample)	1736	21.357	9.395	2.500	81.100
GS	1310	0.209	0.303	-0.377	1.880
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GS (US, excl. DF)	1329	0.487	0.449	-0.186	2.220
GS (US, excl. DB-DC)	1329	0.413	0.403	-0.119	2.144
PSJ^{ex}_{07-95}	1942	0.962	0.117	0.872	1.755
PSJ^{ex}_{00-95}	1942	0.890	0.076	0.825	1.236
Findep	1441	0.047	0.029	0.005	0.134
PSJ^{macro}_{07}	1933	0.669	1.492	-0.395	5.624
PSJ^{macro}_{05-07}	1933	0.699	1.381	-0.441	5.208
Full sample (incl. SE, NO, UK) - No Euro					
Populist %	1566	12.974	15.225	0.000	73.563
Eurozone (EZ)	1566	0.000	0.000	0.000	0.000
EU	1566	0.769	0.422	0.000	1.000
GDP per capita (1 yr rate)	1084	6.664	7.730	-26.829	45.000
GDP per capita (pre-sample)	1376	19.971	23.010	0.800	255.800
GS	883	0.180	0.156	-0.251	0.740
GS (US)	864	0.456	0.432	-0.162	2.149
GS (US, excl. DL)	864	0.282	0.360	-0.317	1.982
GS (US, excl. DI-DJ)	864	0.432	0.386	-0.126	2.067
GS (US, excl. DF)	864	0.456	0.430	-0.161	2.149
GS (US, excl. DB-DC)	864	0.335	0.294	-0.166	1.542
PSJ^{ex}_{07-95}	1566	0.000	0.000	0.000	0.000
PSJ^{ex}_{00-95}	1566	0.000	0.000	0.000	0.000
Findep	1011	0.040	0.023	0.005	0.130
PSJ^{macro}_{07}	1399	-0.452	0.000	-0.452	-0.452
PSJ^{macro}_{05-07}	1399	-0.497	0.000	-0.497	-0.497

C First stages

Table A2: Globalization and populist vote - First stages Table 5

First stage: GS	(2)	(4)	(5)
GS (US)	0.396***	0.318***	0.048***
	(0.014)	(0.016)	(0.008)
GS (US) × EZ			0.360***
			(0.019)
First stage: GS × EZ			
GS (US)			-0.001
			(0.002)
GS (US) × EZ			0.409***
			(0.017)
Kleibergen-Paap F	.	.	17.55

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. *GS* is the globalization shock index (see Section 3), based on imports from China to the European countries in our sample, and it is instrumented using imports from China to the US (*GS (US)*). *GS × EZ* is the interaction term between the globalization shock and the Eurozone dummy, equal to 1 if the country belongs to the Eurozone in the election-year, instrumented with the same interaction using imports from China to the US instead of European countries (*GS (US)*). The column number refers to the corresponding column in Table 5.

Table A3: Sensitivity analysis globalization and populist vote - First stages Table 6

First stage: GS	(1)	(2)	(3)	(4)
GS (US)	0.052***	0.315***	0.048***	0.033***
	(0.008)	(0.010)	(0.008)	(0.005)
GS (US) × EZ		0.094***	0.362***	0.348***
		(0.019)	(0.019)	(0.022)
GS (US) × EU				0.026*
				(0.016)
First stage: GS × EZ				
GS (US)		-0.001	-0.001	-0.001
		(0.001)	(0.002)	(0.002)
GS (US) × EZ		0.409***	0.411***	0.409***
		(0.017)	(0.017)	(0.017)
GS (US) × EU				0.000
				(0.001)
First stage: GS × EU				
GS (US)				-0.001
				(0.002)
GS (US) × EZ				0.348***
				(0.022)
GS (US) × EU				0.060***
				(0.014)
Kleibergen-Paap F	.	305.2	17.55	6.097

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. *GS* is the globalization shock index (see Section 3), based on imports from China to the European countries in our sample, and it is instrumented using imports from China to the US (*GS (US)*). *GS* × *EZ* is the interaction term between the globalization shock and the Eurozone dummy, equal to 1 if the country belongs to the Eurozone in the election-year, instrumented with the same interaction using imports from China to the US instead of European countries (*GS (US)*). Similary, *GS* × *EU* is the interaction between the globalization shock the EU dummy, equal to 1 if the country belongs to the EU in the election-year, instrumented with the same interaction using imports from China to the US instead of European countries (*GS (US)*). The column number refers to the corresponding column in Table 6.

Table A4: Exclusion restriction globalization and populist vote - First stages of Table 7

First stage: GS	(1)	(2)	(3)	(4)
GS (US, excl. DL)	0.053***			
	(0.009)			
GS (US, excl. DL) × EZ	0.429***			
	(0.039)			
GS (US, excl. DI-DJ)		0.047***		
		(0.008)		
GS (US, excl. DI-DJ) × EZ		0.382***		
		(0.020)		
GS (US, excl. DF)			0.047***	
			(0.009)	
GS (US, excl. DF) × EZ			0.360***	
			(0.019)	
GS (US, excl. DB-DC)				0.126***
				(0.020)
GS (US, excl. DB-DC) × EZ				0.357***
				(0.027)
First stage: GS × EZ				
GS (US, excl. DL)	-0.000			
	(0.002)			
GS (US, excl. DL) × EZ	0.482***			
	(0.038)			
GS (US, excl. DI-DJ)		-0.001		
		(0.002)		
GS (US, excl. DI-DJ) × EZ		0.430***		
		(0.019)		
GS (US, excl. DF)			-0.001	
			(0.002)	
GS (US, excl. DF) × EZ			0.409***	
			(0.017)	
GS (US, excl. DB-DC)				-0.002
				(0.002)
GS (US, excl. DB-DC) × EZ				0.485***
				(0.018)
Kleibergen-Paap F	19.32	17.23	17.00	20.11

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. *GS* is the globalization shock index (see Section 3), based on imports from China to the European countries in our sample, and it is instrumented using imports from China to the US (*GS (US)*). *GS × EZ* is the interaction term between the globalization shock and the Eurozone dummy, equal to 1 if the country belongs to the Eurozone in the election-year, instrumented with the same interaction using imports from China to the US instead of European countries (*GS (US)*). The instruments alternatively exclude the DL, DI-DJ, DF, or DB-DC sectors from the computation of *GS (US)*. The column number refers to the corresponding column in Table 7.

Table A5: Policy strait-jacket effects and the globalization shock - First stages Table 8

First stage: GS	(1)	(2)	(3)	(4)	(5)
GS (US)	0.048***	0.048***	0.048***	0.048***	0.048***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
GS (US) × EZ	0.360***	0.360***	0.360***	0.341***	0.340***
	(0.019)	(0.019)	(0.019)	(0.012)	(0.012)
GS (US) × Western (1)	0.274***				
	(0.025)				
GS (US) × Western (2)		0.266***			
		(0.012)			
GS (US) × Western (3)			0.268***		
			(0.013)		
GS (US) × $\text{PSJ}^{ex-75}_{07-95}$				0.059	
				(0.053)	
GS (US) × $\text{PSJ}^{ex-75}_{00-95}$					0.060
					(0.051)
First stage: GS × EZ					
GS (US)	-0.001	-0.001	-0.001	-0.001	-0.001
	(0.002)	(0.001)	(0.001)	(0.002)	(0.002)
GS (US) × EZ	0.409***	0.409***	0.409***	0.391***	0.390***
	(0.017)	(0.017)	(0.017)	(0.008)	(0.008)
GS (US) × Western (1)	0.001				
	(0.002)				
GS (US) × Western (2)		0.001			
		(0.001)			
GS (US) × Western (3)			0.001		
			(0.001)		
GS (US) × $\text{PSJ}^{ex-75}_{07-95}$				0.059	
				(0.053)	
GS (US) × $\text{PSJ}^{ex-75}_{00-95}$					0.059
					(0.051)
First stage:	GS × Western (1)	GS × Western (2)	GS × Western (3)	GS × $\text{PSJ}^{ex-75}_{07-95}$	GS × $\text{PSJ}^{ex-75}_{00-95}$
GS (US)	-0.000	-0.000	-0.000	-0.001	-0.001
	(0.000)	(0.000)	(0.000)	(0.002)	(0.002)
GS (US) × EZ	0.000	0.000	0.000	0.002	0.002
	(0.000)	(0.000)	(0.000)	(0.002)	(0.002)
GS (US) × Western (1)	0.321***				
	(0.024)				
GS (US) × Western (2)		0.314***			
		(0.009)			
GS (US) × Western (3)			0.316***		
			(0.009)		
GS (US) × $\text{PSJ}^{ex-75}_{07-95}$				0.448***	
				(0.053)	
GS (US) × $\text{PSJ}^{ex-75}_{00-95}$					0.447***
					(0.050)
Kleibergen-Paap F	11.65	11.62	11.61	11.70	11.70

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. *GS* is the globalization shock index (see Section 3), based on imports from China to the European countries in our sample, and it is instrumented using imports from China to the US (*GS (US)*). *GS × EZ* is the interaction term between the globalization shock and the Eurozone dummy, equal to 1 if the country belongs to the Eurozone in the election-year, instrumented with the same interaction using imports from China to the US instead of European countries (*GS (US)*). *Western (1)* to *(3)* are dummies for Sweden, Sweden and UK, Sweden, UK and Norway respectively. $\text{PSJ}^{ex-75}_{07-95}$ and $\text{PSJ}^{ex-75}_{00-95}$ are alternative measures of PSJ described in Section 3. The column number refers to the corresponding column in Table 8.