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A cura di Marco Giuliani

**Electoral benchmarking,
spill-over and contagion
during the Great Recession**

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SUMMARY

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It has been said that arguing against globalization is like arguing against the laws of gravity.

Kofi Annan

1. INTRODUCTION

We live in a global world. Events happening even in remote areas of the planet influence our lives both directly and indirectly, and the same happens the other way round, with what occurs in our close surroundings or farther away. As Held and McGrew put it "Globalization has been variously conceived as action at a distance […]; time-space compression […]; accelerating interdependence […]; a shrinking world […]" (2003: 3). This is the essence of globalization: the reduction of actual distances, the increase in interconnectedness, and the facilitation of mutual leverage. They all bring about an increase in the possibility of comparisons, spill-overs and contagions among countries.

The ties linking different parts of the world may have a different nature. Some of them are economic, because of the presence of multinational firms, the facility of delocalizing industries and services, the importance of international financial markets, etc. Others are technological, thanks to the digitalization process, the acceleration of transport, the multiplication of information, and the spread of forms of know-how that do not require hard structural infrastructures. Others are cultural, linking communities, ethnicities, religious identities, and ways of living in different parts of the globe. Still others are political and institutional, because of the multiplication of more or less effective international and supranational organizations, either positively or negatively regulating their environments, or simply favoring communication and contact between different national experiences.

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The Great Recession is one of the most powerful examples of the levels of interconnectedness achieved by the present world, both for its far-reaching consequences, and for the speed of the spread of its domino effects: from the real-estate bubble to the financial market and to the real economy, from the US, to Europe and to all the other continents, yet admittedly with diverse degrees of severity. In this work we consider the spread of the political consequences of that crisis, where the stress is more on the verb 'spreading' than on its object 'political consequences'. This means three different things: (a) assuming that the economic crisis that affected the world after 2008 had political corollaries, such as those studied even in normal times by the theory of economic voting, and which include effects that extend beyond the simple punishment of incumbents (Giuliani and Massari, 2017; 2018); (b) developing a simple analytical framework distinguishing different forms of that spread; (c) identifying and testing the methodological tools in the array of quantitative instruments that can be applied to investigate those different dynamics empirically.

The paper is a preliminary exercise. Hence we shall not devote much effort to justifying our focus regarding point (a), and even the skeleton developed for point (b) represents only an initial step necessary for imagining the design and apparatus needed for the more methodological point (c), which represents our main interest in this study. In order to accomplish our task, we will test our hypotheses and models using an original dataset including the electoral outcomes of 87 ballots that took place in the 28 EU member states between 2003 and 2015.

2. GLOBALIZING POLITICAL DYNAMICS

"Globalization can be conceptualized as a multidimensional process of international network formation" (Beckfield and Brady, 2008: 332). Starting from the concept of network helps to focus on the idea of nodes and links, without prejudices concerning the type of connections established, and mechanisms activated. Nodes may be firms, organizations, institutions or states, such as General Motors, the CDU party in Germany, the French executive, the IMF, the Federal Reserve, the OPEC, China or Israel, but also events such as an election, a scandal, the diffusion of information regarding the debt of a country, or the growth of an economy. Links represent the relationships among those nodes, and it could be said that the essence of an accelerated globalization consists in the quantity and heterogeneity of those

connections, and in the fact that almost every node may be both a receiver and a sender of the waves and ripples traversing the world.

'Multidimensional' is another useful term in that definition. The fact that economies affect other economies, maybe at a slower pace than in the present, is not necessarily something new or recent. And the same could be said for politics in one country affecting politics in others, war being the most obvious example. Yet, the fact that different arenas are interconnected at the same time, and, even more so, that different arenas cross-influence each other may represent one feature of modern globalization processes. The Great Recession – which from the real estate market paved the way for the subprime crises that corrupted the financial market, led to bank bankruptcy, increasing public debt, fiscal adjustments, decreasing growth, reduction of consumer confidence, losses in employment, increasing mobilization in protest movements, diminishing political trust, (in Europe) increasing Euroscepticism, etc. – is the 'perfect storm' representing how easily a domino chain reaction spreads its effects, impacting on territories and arenas far away from its origin.

Whatever their source, we are here interested only in effects produced during the economic crisis that invested the political arena. Several authors have in fact argued that, given the high degree of interconnectedness of the recent globalized years, the Great Recession impacted similarly on different political systems. It thus produced comparable dynamics, albeit sometimes with different intensities, favoring spill-overs and contagion from country to country. The metaphor of waves, or tides (of populism, Euroscepticism, distrust, political dissatisfaction, etc.) sweeping entire regions has often been used in recent years, including the idea that some elections or leaders – consider Macron in relation to Marine Le Pen in France, Van der Belen twice opposing Hofer in the Austrian presidential election, or even Mark Rutte contrasting Wilders' PVV expansion in Netherlands – could be conceived as shelters or dams containing those common tides. Others have used a medical image, talking about electoral and governmental 'epidemics' (Bosco and Verney, 2012; 2016). At least in the South-European region, but possibly also elsewhere, the malaise exhibited common "patterns of abstention, incumbent punishment and opposition success, including the rise of regional, anti-party, far-right and racist parties" (2012), plus "inconclusive elections […], the emergence of new contenders, […shaky] governments, […and odd] coalitions" (2016).

It is interesting to note that both images share the impression of some direct contamination from one country to the other, i.e. the success of anti-immigration parties in one election favoring the success of that same type of party in another political system. Yet,

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the mechanism that these scholars have in mind is often of a different type: they mostly think in terms of similar reactions in different contexts to a common situation (e.g. the crisis), or a perceived threat or problem (e.g. terrorism or number of migrants). In the former case, it is the investigated phenomenon that directly expands itself, facilitated by the reduced 'distances' assured by globalization, whereas in the latter one, it is the (supposed) cause of that phenomenon which amplifies its impact due to increased interconnectedness. Methodologically speaking, in the former case it is the effect, the dependent variable, that travels from one political system to the other; in the latter one, it is its cause, the independent variable, that jointly, or in succession, moves from one country to another. The two paths may share the same symptoms, but probably need different models to be investigated (and even require different political solutions for those who take a more interventionist attitude).

Consider the classic hypothesis of the theory of retrospective economic voting, which will be extensively used as test bed in the empirical part of this paper. It postulates that the worse the economic situation, the more the incumbent parties will lose in the case of an election. It is probably naïve to think that all of that relationship needs to be endogenously produced within the borders of our unit of analysis, especially during a world-wide crisis like the Great Recession. Yet it is the assumption often made by scholars performing some quantitative cross-country comparative analysis. If we were to relax that assumption, there could be at least two different ways to represent a potentially exogenous influence. We could think that citizens in a specific country may decide to follow the political example of their neighbors, sharing similar concerns and behaviors (e.g. the fear of migrants, or the vote against mainstream parties), independently from a potentially well managed domestic economy or actual internal problems. Otherwise, we could imagine citizens affected not only by their close economic environment, but evaluating economies and communities that go beyond the national borders, adopting an extended sociotropic attitude.

While the first mechanism operates entirely within parallel political arenas (electoral behavior in countries A, B and C affecting voting conduct in country), the second extends the reach of a different arena, the economic one, beyond its traditional borders (the economic situations of countries A, B and C impact not only on the punishment of incumbents in those respective countries, but also on those in country D). And the closer the interconnections among those countries, the deeper and stronger are those possible contagions and spill-over effects. There is a third mechanism that explains the possibility of effects spreading from one country to the other. Citizens, instead of evaluating their own economy in absolute terms, or comparing it to some more or recent past, may assess its

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health by judging it against some external benchmarks. They may look at the best practices/situations in their own region of the world (in Europe, say Germany); or at the worst scenarios (e.g. Greece of the PIGS countries); or simply check their situation against the regional average (be it the Euro area, the European Union, or the OECD countries).

To summarize, we have identified three different mechanisms that help transfer political dynamics between countries. We can provisionally call them 'benchmarking', 'spill-over', and 'contagion'. The first works through the extension of the comparative horizons of citizens (e.g. looking beyond their 'courtyard'. The second does so through amplification of the impact of a cause (e.g. the economy of nearby countries). The last mechanism acts through the emulation of similar effects (e.g. overreacting against incumbents). The more internationalized, globalized, interconnected a country, the more these mechanisms are activated.

It is interesting to note that the literature on retrospective voting disagrees on the effect of globalization. For some authors, a greater level of interconnectedness contributes to the blurring of responsibilities, and to the diversion of the potential punishment outside the observed political system. According to them, due to this lack of clarity, whatever effect we attribute to a poor state of the economy will be diluted and diminished (Duch and Stevenson, 2010; Hellwig, 2001, 2007; Lewis-Beck and Lobo, 2017, 2012). Others, on the contrary, believe that external constraints, such as austerity policies imposed during the crisis on EU member governments because of the stability pact, or due to IMF bailout conditionality, are not significant (Talvin, 2017), or actually reinforce the negative judgements (Armingeon and Guthmann, 2014; Fisher, 2016). Citizens supposedly use the electoral appointment to express their severe evaluations of those constraints, punishing retrospectively the executives that have not fought sufficiently to defend the national sovereignty. By investigating empirically the previously introduced three mechanisms, this work even indirectly evaluates these two different perspectives.

3. INVESTIGATING THE THREE MECHANISMS

Studies on the effects of economic globalization and interconnectedness on electoral politics (more than policies) are fairly recent (Kayser, 2007). We consequently believe that progress can still be made in the way in which that relationship is investigated, and that the Great Recession period represents a fruitful environment for testing novel methodological tools in this regard.

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We posited the existence of three mechanisms that will be analyzed in the broad context of the retrospective voting literature: benchmarking, spill-over, and contagion. In this section we consider them more in detail, briefly reporting some of the evidence produced by the literature so far, and underscoring the type of model needed to investigate each of them. We will then propose some testable hypotheses in their regard, and illustrate the dataset that we will use to verify them.

3.1 Benchmarking

We begin with *benchmarking* (for a first review see Stegmaier, Lewis-Beck and Park (2017), and Healy and Malhotra (2013) for a more nuanced evaluation). A baseline model of economic voting assumes that voters look at the state of the economy in their own country as if it was completely autarkic and behave accordingly. This assumption translates into econometric models regressing a change in politics on a change in the economy (or in level models with a lagged dependent variable but always a delta in the independent one[1]). Something like:

$$\Delta P = \alpha + \beta \Delta E + \varepsilon$$

in which the change Δ in the dependent political variable P – e.g. the propensity to vote for incumbent parties against the previous year, or the level of turnout against the previous election – is a function of a change in some macroeconomic indicator E. For example, in this baseline model, we expect citizens to reward incumbents in the case of positive growth or increasing employment rates, and to punish them in the case of recession or increased unemployment. Each point has a natural absolute benchmark in the status quo: no improvement/decline means no gain and no pain.

In fact, there is nothing in the model *per se* that prevents from thinking at external and relative benchmarks, instead of internal and absolute ones. In a situation in which most countries grow at a 5% rate, a 1% growth rate may dissatisfy citizens because of their relative

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[1] The two types of model are not perfectly the same (Allison 1990), but they can be considered similar for the sake of our argument.

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deprivation, something that may translate into some punishment for incumbents unable to assure the same progress. Yet, it is easier to conceive benchmarks in the case of level models like the following one:

$$P_t = \alpha + \delta P_{t-1} + \beta E_{t-1} + \varepsilon$$

where some political variable P at time t is a function of its lagged level and of the level of some economic index evaluated within some convenient economic horizon, usually the year before. The idea of using levels, e.g. the unemployment rate or GDP *per capita*, instead of its change, has its own value, yet it is more clearly exposed to the necessity of some external comparison. On the one hand, tough times are simply tough times, and a 20% unemployment rate cannot grant incumbents any rewards even if in the previous year it was 21%. On the other hand, it is evident that there is no absolute benchmark for unemployment levels: Spanish citizens may probably be satisfied by unemployment rates twice as high as German ones, i.e., approximately the level of Italian unemployment and half of their own; but that situation would be considered catastrophic for German voters. For this reason, a baseline model should probably account for both dimensions, level and change, as in the following equation, in which the difference in the economic situation against the lagged level may be considered both one of the covariates of interest or simply a control variable:

$$P_t = \alpha + \delta P_{t-1} + \beta_1 E_{t-1} + \beta_2 \Delta E_t + \varepsilon$$

To return to the issue of benchmarking, it is evident that this baseline potentially includes several sources for an external comparative evaluation of the domestic economic situation. In a period such as the Great Recession, not acknowledging that all the advanced economies were stagnating, if not recessing, would be unrealistic, otherwise "incumbents should be punished regardless of whether their economies performed 'less abysmally' than others" (Kayser and Peress, 2012: 667). Thus, the matter becomes where do citizens look when they evaluate their situation, and which yardsticks do they take into consideration[2].

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[2] Though seldom acknowledged, if t in the previous model were election years, a panel dataset including cross-country observations for electoral results, and corresponding values for their economic situation, would mix those different benchmarks, flattening the heterogeneity of the cases, and sometimes liable to produce inaccurate, or difficult to generalize, estimates of the underlying relationships between economy

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Kayser and Peress (2012) try to answer this question by decomposing the actual macro-economic indices – in their case, growth and unemployment – into a local and a global component, and including both terms in a common equation estimating the support for incumbents in order to evaluate which of the two factors mostly drives citizens' behaviors. "Consider first economic growth. If voters focus only on total growth (that is, they do not benchmark across borders), we would expect the coefficients of local and global growth to be equal. If voters fully benchmark, we would expect the coefficient on local growth to be positive and the coefficient on global growth to be zero" (668). And their results are that citizens actually benchmark, since more than following the actual (total) growth, their behavior seems dictated by its difference compared to some wider and common growth level[3].

The idea of using a comparative evaluation of the country's economic performance was first proposed by Powell and Whitten (1993), who used the differences against the average growth, inflation and unemployment as a first refinement of their baseline model of the economic vote. Yet, since their "results (were) somewhat encouraging but far from decisive, (and) none of the economic variables reach(ed) statistical significance" (397), the article became seminal not for its operationalization of the economic variable, but for the authors' more important point on the issue of clarity of responsibility.

The yardstick of benchmarking does not necessarily have to be a global measure, since the performances of some economies have always been more influential than others, and are seen as predictors of general trends, and natural terms of comparison. The US economy had (and partially still has) that role in the world economy, and the 'German locomotive' has always been the reference point for any European economic consideration.

This is why Jérôme, Jérôme-Speziari and Lewis-Beck (2001) decided to include the traditional rivalry between France and Germany as a covariate in their models. "In so doing, the impact on the vote will not be determined by the absolute level of macroeconomic variables (e.g. growth), but even by the comparison between its domestic magnitude and the

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and politics. It is for this reason that the set of contextual control variables to be included, especially institutional ones, is often of such importance (Bengtsson, 2004; Rowe, 2015).

[3] To check this difference, the dataset needs to include economic observations even for non-election years, and, in their case, even for countries not observed electorally, in order to define the common component of the actual economic situation. The three decomposition methods used by the authors took as common global components respectively the median value, a factor loading in principal component analysis, and a trade-weighted measure.

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one measured in its European neighbor". They found an asymmetric relationship in their results, with French citizens caring for the relative performance against the nearby country, but not the other way round.

Another type of asymmetry has been found using survey data in another 'competition' between 'neighbors', with Danish voters looking at Sweden (Hansen, Olsen and Bech, 2015). This time the asymmetry regards differently losses and gains weighting, something already found in non-comparative evaluations of Danish attitudes (Nannestad and Paldam, 1997). Yet the most important conclusion of Hansen and colleagues is precisely that "deprivation relative to other countries should play a much greater role in future studies on public opinion in general, and economic voting in particular. Yardstick theories for social comparisons have been far too absent from existing studies" (Hansen, Olsen and Bech, 2015: 786).

In summary, all these studies point to the necessity of modifying the operationalization of *E*, whatever the equation and model one wants to test, in order to include some appropriate external comparison, be it a common measure of central tendency (like the average or median of some pool of countries) or some more specific benchmark (rival, natural, or contingent points of reference).

3.2 Spill-over and contagion

While benchmarking has at least received some attention in the literature, to the best of our knowledge, spill-over and contagion have not been operationalized within the quantitative production on performance voting. Maybe because the latter two phenomena are actually less relevant than the first one, maybe because benchmarking does not require much modification in our methodological apparatus, the quantitative analysis of spill-over and contagion is an avenue worth exploring and requires specific regression models.

In economic retrospective voting, *spill-overs* happen when the political behaviors of citizens are affected by the state of the economy in nearby areas outside the unit of observation. Whilst in benchmarking, citizens react to the difference between their domestic situation and some external yardstick, in spill-overs they react directly to others' domestic situations. Obviously they are not interested in, nor can they, punish governments beyond their reach, but their perceptions, experience and expectations may still be forged by factors outside their own national borders. And those expectations are all the more possible if we pass from punishing incumbents to other kinds of reaction to external events, like political

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dissatisfaction, increased unconventional mobilization, decreased electoral participation, radicalization, populism, etc.

There are several reasons that can be cited to support the theoretical possibility of external influences on domestic political behaviors. First, if voters do not act only because of pocketbook evaluations, why should we stop at the borders in considering their sociotropic attitudes? We saw that one element of recent globalizing trends is the awareness of a shrinking world in which boundaries have less and less significance. Second, especially in highly interconnected societies stressing common values, cultural attitudes and political arenas – the European Union, for example – citizens move from country to country, and have familiarity with what happens abroad for many different reasons (work, leisure, friends, relatives, etc.). Many economic issues are collectively governed in the European Union, and executives may be held responsible for not doing enough even outside their own borders. Third, by responding to external circumstances, citizens may anticipate the possibility of domino effects, sometimes overreacting to them. The channels for those influences can be manifold,[4] so that the idea of some spatial dependence is an issue that can be adjudicated empirically.

Having established at least the theoretical plausibility of some spill-overs, how do we check them empirically? How do we account for the mutual dependence of our observations? First developed in response to auto-correlation problems in the analysis of proximate units in the field of geography, spatial regression models deal exactly with problems of this kind. "More generally, spatial dependence exists whenever [...] one unit of analysis is influenced by the choices [or the state] of other units of analysis" (Neumayer and Plümper, 2010: 2). In our case, we hypothesized that the behavior of citizens in one unit (country) is affected (also) by the state of the economy in other observed units. This particular type of dependence is handled by spatial-X models in which there is (at least) one (spatial) lag independent variable. To put everything in an equation, adding it to the one in the previous section, we should write:

$$P_{it} = \alpha + \delta P_{it-1} + \beta_1 E_{it-1} + \beta_2 \Delta E_{it} + \beta_3 W E_{jt-1} + \varepsilon$$

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[4] Obviously, in subnational analyses of economic voting, there are even more reasons to imagine spill-overs amongst areas of the same country, and with citizens voting for the same incumbents in the same election. For an example and a brief review of the literature on this topic see Giuliani (2017).

Where P_{it} remains the level of the dependent political variable for country i explained firstly by its lagged value, and by the economic situation the year before the election. WE_{jt-1} is the spatial lag term for that same variables, i.e. the economic situation in other j countries, with W representing the $n \times n$ connectivity matrix linking each of the n observations to the other ones. The way in which the spatial structure is modeled resides in that W, and depends on the researcher's theoretical expectations, i.e. if s/he supposes that spill-overs originate only from contiguous units, or are inversely related to the distance between them, or other types of connectivity and functional forms.

Contagion, in the proposed jargon, is still a different option. In this case the external influence does not stem from an independent variable equivalent to the one measured within the units observed, but directly from the dependent one. The classic example cited in spatial regression modeling regards house prices. In order to establish the value of an apartment, one must consider its size, the period of construction, etc., but an element that one certainly cannot disregard is the location and quality of the neighborhood. Districts within cities have distinct house prices, and, all other things being equal, their values are mutually influenced and reinforced.[5] Thus, the price of a property depends on the prices of properties in the surroundings. The same happens in the case of political phenomena crossing borders and influencing each other, as in the image of waves of Euroscepticism or populism traversing countries. In this case, the equation below the spatial regression model would look like this:

$$P_{it} = \alpha + \delta_1 P_{it-1} + \delta_2 W P_{jt} + \beta_1 E_{it-1} + \beta_2 \Delta E_{it} + \varepsilon$$

With P_{jt} representing the dependent political variable measured in other countries, 'filtered' by the appropriate connectivity matrix W suggested by the hypotheses to be tested.

3.3 Data and hypotheses

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[5] There are specific tests and indices, like the Moran's I, for assessing the degree of geographic/spatial clustering of a phenomenon.

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Having detailed the three mechanisms that could presumably exert an external influence on domestic political phenomena, in this section we translate them into empirical hypotheses, and introduce the dataset used to test them.

We begin with the data. In order to increase the probability of detecting our three mechanisms, we set our scope conditions so that they maximized the degree of geographical, economic, political and institutional interconnectedness. For this reason, we investigated the 87 ballots that took place in the 28 member states of the European Union during the years of the Great Recession. More precisely, we started from the last election before the crisis started in 2008 until the end of 2015.[6] Thus, there were a minimum of two and a maximum of five elections per country included in the dataset.

As regards the economic independent variable, we took the unemployment rate the year before the election, which has been demonstrated to activate the retrospective mechanism in very different ages (Lewis-Beck and Stegmaier, 2013). For the dependent political variable, given the scope of this very provisional exercise, we experimented with six different quantities: incumbents' support, turnout, volatility, votes for new parties, polarization and Euroscepticism. The actual indices were mostly straightforward, with turnout measured as percentage of entitled voters that actually voted, volatility as the half summation of the aggregate switching between two elections, including the extra-system volatility measured as sum of the percentage of votes that went to parties that did not compete in the previous election, and polarization measured with the Dalton index. The only *ad hoc* measure that we used was the one regarding Euroscepticism: we started from the expert survey scale of EU-support proposed by Chapel Hill for classifying parties (Bakker *et al.*, 2015), which ranges from 1 (strongly opposed to EU integration) to 7 (strongly in favour); we then dichotomized that scale, labelling Eurosceptic all the parties with a score less than neutral, i.e. lower than 4; finally we summed up the percentage of votes received in each election by those Eurosceptic parties in order to obtain our systemic index ranging from 0 to 100. There was one more variable that we used, and it measured a country's degree of globalization in a specific year: for its operationalization we applied the KOF economic globalization index

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[6] We decided to exclude from our sample the second elections in the case of repeated ballots, like those that took place in Greece both in 2012 and 2015. Their closeness and peculiarity would not have helped our argument. Some more information on the complete dataset can be found in Giuliani and Massari (2017).

(http://globalization.kof.ethz.ch/). Table 1 summarizes some descriptive statistics regarding all of our variables.

TABLE 1. DESCRIPTIVE STATISTICS

Variable	N	Mean	Std. Dev.	Min	Max
Unemployment	87	9.39	4.50	3.80	26.50
Pct incumbent parties	82	39.22	11.11	12.00	61.00
Turnout	87	68.31	13.12	39.20	95.70
Volatility	87	17.03	10.29	0.28	46.68
Extra-system volatility	87	9.73	12.90	0.00	55.59
Polarization	87	4.01	0.82	1.50	6.39
Euroscepticism	87	15.91	14.17	0.00	79.10
KOF economic globalization	87	81.72	7.70	59.68	99.00

Next, we have to illustrate both the benchmarking procedure and the connectivity matrices chosen. As regards benchmarking, we simply computed the difference between the actual level of unemployment in the chosen year and some relevant yardsticks calculated yearly for the whole time-interval: (a) the median value of the EU member states – like Kayser and Peress (2012) and differently from the average used by Powell and Whitten (1990), in order to reduce the leverage of extreme values –; (b) the mean value for the group of four South-European states – Portugal, Italy, Greece and Spain – considered at most risk of bailout during the Great Recession;[7] and (c) the minimum value amongst the 28 EU countries.[8]

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[7] PIGS countries were also amongst the countries with the highest potential for economic voting (Lewis-Beck and Nadeau, 2012).

[8] These benchmarks are obviously correlated but not equivalent. They should be interpreted singularly, and not uniquely as local components of the economic index as in Kayser and Peress (2012).

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As for the connectivity matrices, we chose what we believe are the most plausible and intuitive ones. For the spill-over effects, we only considered the contiguous EU countries, i.e. those sharing a border with our investigated units, while for the contagion effects we defined an *ad hoc* connectivity matrix taking into account the temporal more than geographical dimension. This second matrix linked each election to all the ones that took place in the preceding 12 months, irrespective of their location.[9]

Finally coming to the hypotheses, we can summarize them in three groups according to the three types of mechanism.

Hp 1. Citizens behave politically even taking external benchmarks into account: the greater the difference in unemployment of a country compared to those benchmarks, the more citizens punish incumbents (negative coefficient for our variable measuring their support), desert the ballot (lower turnout), change party preference (higher volatility), choose a new party (higher extra-system volatility), vote for a more extreme party (higher polarization), and/or a Eurosceptic party (higher Euroscepticism).

Similarly, (without replicating all the details),

Hp 2a. Citizens' electoral behaviours (vote for incumbents, turnout decision, volatility and extra-system volatility, polarization, Euroscepticism) are affected also by economic variables of contiguous countries;

Since we have argued that spill-overs are more probable and intense in highly interconnected countries, we need to further add a conditional hypothesis, i.e.:

Hp 2b. All the preceding effects are systematic and have a greater magnitude in countries with a higher degree of globalization.

Hp 3a. Citizens' electoral behaviours (vote for incumbents, turnout decision, volatility and extra-system volatility, polarization, Euroscepticism) are affected also by the corresponding

[9] Eventually, in order to compute the spatial lagged variables for our regression we row standardized both matrices (Neumayer and Plümper, 2010). The matrices and lagged variables were computed using the new Stata 15 procedures for spatial regression, though the final model run under Stata 14.

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behaviour in temporally proximate and antecedent elections, thus expecting positive coefficients for the matching variable;

Hp 3b. All the preceding effects are systematic and have a greater magnitude in countries with a higher degree of globalization.

4. EMPIRICAL RESULTS

4.1 Benchmarking

We start from the hypothesis of benchmarking, and illustrate thoroughly the models explaining the support for incumbent parties. Table 2 first presents the results of a baseline OLS regression in which the support was explained as a function of that same quantity in the previous election, of the level of unemployment, and of its change against the preceding year (model 1),[10] and then compares it to our three benchmarking models.

The baseline model respects the expectations of the theory of retrospective economic voting. Both indices of unemployment show a negative and highly significant coefficient. For each percentage point of unemployment, incumbents lose ¾ points, plus another 2% for each point of deterioration of the economy. Do these behaviours depend directly and exclusively on the direct experience of the state of the economy, or on some sort of external comparison? And if the latter explanation is the correct one, what are the targets of that comparison?

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[10] We clustered the standard errors by country in order to take the structure of our data into account. We know that the model was probably underspecified, not least because we did not include any further contextual institutional variable. In fact, some of the results presented (e.g. on turnout) do not fit with some of our previous findings (Giuliani and Massari, 2018), but since we consider this as a preliminary account of potential trans-national effects we leave it as it is for the moment.

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TABLE 2. REGRESSION MODELS (BASELINE AND BENCHMARKING) EXPLAINING THE SUPPORT FOR INCUMBENTS

Benchmark	Baseline (1)	Median (2)	PIGS (3)	Minimum (4)
Preceding support	0.65***	0.62***	0.61***	0.64***
	(0.11)	(0.12)	(0.15)	(0.11)
Unemployment	-0.76***	-0.74***	-0.26	-0.75***
	(0.14)	(0.16)	(0.22)	(0.14)
Change unemployment	-2.09***	-1.64*	-0.46	-2.02***
	(0.64)	(0.82)	(0.63)	(0.70)
Constant	15.87***	11.37*	9.88	13.28**
	(5.19)	(5.81)	(6.43)	(5.27)
Observations	82	82	82	82
R-squared	0.49	0.45	0.36	0.48

Clustered standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Model 2 follows Kayser and Peress (2012) by subtracting from the actual rate of unemployment the median value of that same year amongst the EU-28 member states, and substituting that value in the regression. To be noted is that benchmarking does not mean that citizens directly follow the external point of reference, feeling themselves European citizens and behaving on the basis of that common EU median. It means that they use that yardstick in order to ascertain the actual state of their economy and, consequently, give credit where credit is due. This model behaves almost exactly like the baseline one in terms of overall significance, explained variance, and magnitude of the coefficients; only the coefficient regarding the effect of a change in the unemployment rate is partially diminished.

This means that citizens do not evaluate their economy in isolation, but make comparisons, which, in Europe, plausibly means looking at the other fellow member states.[11]

We then tested other types of benchmarks, trying to identify better the type of cognitive activity that guides citizens in their economic assessments and consequent electoral behaviours. Model 3, for example, does not present the same characteristics as the one taking the median European values as yardstick. Apart from the lower explained variance, none of the covariates of interest presents a statistically significant coefficient.[12] It seems that, within the EU, it is not the comparison with the PIGS countries, those amongst which there are usually the highest levels of unemployment, which drives the reward/punishment mechanism of incumbents. Checking the results of these very preliminary models, looking forwards instead of backwards, as in Model 4 that takes the best economy (lower unemployment) as benchmark, seems to be a more plausible cognitive activity. The coefficients almost perfectly capture what was in the baseline model, though not improving upon it as happened both with Powell and Whitten (1993) and Kayser and Peress (2012).[13] This would indirectly confirm the asymmetric findings of Jérôme, Jérôme-Speziari and Lewis-Beck (2001) in their analysis of the 'rivalry' between France and Germany, with the former looking to the best practices of the latter, but not the other way round. Citizens assess their economy by comparing it with the best situation within their political horizons, which in this case are reasonably represented by the common borders of the European Union.

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[11] Compared to Kayser and Peress (2012), we added the change in unemployment to the equations tested, and then followed Powell and Whitten (1990) by not including the value of the (common) 'global' yardstick in the regression. If we had done, with a model presenting two benchmarked 'local' economic coefficients and two 'global' ones (level plus change), the results would still have confirmed the idea of external comparison (and with an explained variance surpassing 50%). More specifically, the equation would be: *Incsup=20.56***+0.67***Lagsup-0.69***Benchunemp-1.80**Benchchange-1.43Medianunemp-3.25***Medianchange.* We note here the negative coefficients of all four economic variables, the high significance of the benchmarked coefficients, but also the fact that citizens responded even to the common dynamics of the Great Recession; something that confirms the global political salience of that phenomenon.

[12] Yet, interestingly, if we applied the same procedure of the previous model, with 2 benchmarked and 2 direct effects (that here cannot be labelled 'global' because the point of reference is not some common measure), things change greatly. For example, looking at the comparison with the South-European PIGS countries, the equation is: *Incsup=17.51***+0.67***Lagsup-0.69***Benchunemp-1.84**Benchchange-0.89***Pigsunemp-2.42***Pigschange.* This would mean that citizens both benchmark and are alarmed by the potential domino effects stemming from the most problematic economies. The difference between models is definitely something that should be investigated better, especially in order to avoid wrong interpretations based on statistical artifacts.

[13] Also here, the full model with double coefficients seems interesting, not least because it has the highest explained variance and best AIC BIC information criteria. The complete equation is the following: *Incsup=25.62***+0.67***Lagsup-0.68***Benchunemp-1.95***Benchchange-3.27Minunemp-0.59*Minchange.*

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Are these types of benchmarking activities and behaviors only typical of the fundamental mechanism of economic voting, or do they apply also to some of its potential correlates: electoral participation, volatility, preference for new parties, polarization of the electorate, and increased Euroscepticism? We cannot follow all the testing as in the previous example, but the overall results with sign and significance of the relevant coefficients are summarized in Table 3. It is important to recall that we expected a negative coefficient for unemployment on turnover, and positive ones for all the remaining variables.

TABLE 3. SIGN AND SIGNIFICANCE OF THE RELEVANT COEFFICIENTS OF THE BENCHMARKING REGRESSION MODELS

	Baseline (1)		Median (2)		Pigs (3)		Minimum (4)	
	Unem	Δ unem	Unem	Δ unem	Unem	Δ unem	Unem	Δ unem
Turnout	-	+	-	+	-	+	-	+
Volatility	+ ***	+ **	+ **	+	+	+	+ ***	+ **
Extra-volatility	+ *	+ *	+ *	+	+	+ *	+ *	+
Polarization	+	+ **	+	+ *	-	+	+	+ **
Euroscepticism	+ **	+	+ **	+	+	+	+ **	+

Clustered standard errors; *** p<0.01, ** p<0.05, * p<0.1

A first inspection of Table 3 confirms that, whenever the baseline model works, then also the median and minimum models work, more or less with the same level of statistical significance. At the basis of citizens' retrospective behaviors there is a comparison with some external reference experience, be it an abstract common European situation, or the best practice of the country with the lowest level of unemployment. However, when the baseline model does not work, benchmarks do not provide any solution for the puzzle, at least not in the analyses that take this form.

For example, turnout levels seem to be the least explained by the state of the economy. This is not entirely surprising, considering that there has been a great deal of debate among scholars, and contrasting empirical results, on the effects of a poor state of the economy in

general, and high rates of unemployment in particular, on turnout (cfr. a brief synthesis in Cebula, 2017, and the evidence produced in Giuliani and Massari, 2018). For some scholars, citizens disappointed with the management of the economy mobilize against the incumbents; whereas for others, the frustration makes them lose interest in political representation.

It is more or less the same process as imagined for voting for new parties, yet this phenomenon seems more connected than electoral participation to the state of the economy. For extra-system volatility we thus expect positive coefficients, something that happens in almost all models, both for the level of unemployment, and for the one measuring change in respect to the previous year. The baseline model is only slightly significant, and that low level of reliability is partially transferred also to our two 'working' benchmarks models (2 and 4). Volatility works much better, with more than 45% of the variance explained by our covariates, and, among them, the two unemployment measures. Once again, the two benchmark models that function are the ones in which citizens compare with the median European case, and with the best country amongst the 28 member states.[14] The comparison with the PIGS countries has little to say concerning our research question.

Polarization and Euroscepticism, the two hypotheses that are actually those farthest away from the original narrowly defined retrospective economic mechanism, follow more or less the same path. Their baseline model found partial confirmation, with one out of two coefficients for unemployment significant at the 5% level. Being mostly interested in benchmarking, what matters most is that the same coefficients are significant even when the effect derives from the comparison of external experiences, and more precisely the median and best practices.

To conclude, and resuming Powell and Whitten's (1993: 396) original intuition, "it seems likely that voters will evaluate governments relative to some expectations about how the economy should have performed" and behave consistently with that evaluation. Our first hypothesis thus found confirmation in the results presented.

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[14] Because of this continuous coincidence, we even suspected an extremely skewed distribution of unemployment, making the best case close to the median one. The distribution is actually right-skewed, so that the median is always lower than the average, but not so much, and there have mostly been 4-5 points of difference between the minimum and the median: enough to cancel the suspicion of a statistical artifact.

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4.2 Spill-over

We have two types of hypothesis regarding spill-over effects of the economy of contiguous countries: one direct and one conditional. We expect negative coefficients for incumbents' support and turnout, and positive ones for the remaining variables, whereas we expect each of those effects to be magnified when the country presents a high level of economic globalization. In Table 4 we present the summary of all the direct models.

Each row represents a different equation reporting sign and significance for our covariates of interest: the level of domestic unemployment the year before the election, its change over the preceding year, and the spatial lag variable representing unemployment in the contiguous countries. In the previous section, we already saw and commented on which of the baseline models works better, and thus we are not surprised to see (a) fully confirmed the effects of the domestic economic variables on incumbent support and volatility (both variables highly significant); (b) weakly confirmed their impact on the vote for new parties (both coefficients significant only at the p = 10% level); (c) partially confirmed that on polarization and Euroscepticism (with only one of the two coefficients presenting some significance); and (d) the absence of any effect on turnout (which is also the only variable presenting the wrong sign in one of the two coefficients regarding unemployment). But here we are mainly interested in the third column, representing the influence of the contiguous economies.

TABLE 4. SIGN AND SIGNIFICANCE OF THE RELEVANT COEFFICIENTS OF THE SPILL-OVER'S SPATIAL REGRESSION MODELS ON SIX DEPENDENT POLITICAL VARIABLES

	Unemployment	Δ unemployment	Spatial lag unemployment
Incumbent support	- ***	- ***	- *
Turnout	-	+	+
Volatility	+ ***	+ **	+
Extra-volatility	+ *	+ *	+
Polarization	+	+ **	-
Euroscepticism	+ *	+	+

Clustered standard errors; *** p<0.01, ** p<0.05, * p<0.1

Each row represents a different equation reporting sign and significance for our covariates of interest: the level of domestic unemployment the year before the election, its change over the preceding year, and the spatial lag variable representing unemployment in the contiguous countries. In the previous section, we already saw and commented on which of the baseline models works better, and thus we are not surprised to see (a) fully confirmed the effects of the domestic economic variables on incumbent support and volatility (both variables highly significant); (b) weakly confirmed their impact on the vote for new parties (both coefficients significant only at the p=10% level); (c) partially confirmed that on polarization and Euroscepticism (with only one of the two coefficients presenting some significance); and (d) the absence of any effect on turnout (which is also the only variable presenting the wrong sign in one of the two coefficients regarding unemployment). But here we are mainly interested in the third column, representing the influence of the contiguous economies.

The results are somewhat disappointing. While four coefficients out of six have the correct sign (except turnout and polarization), only one of them, the one in the equation explaining incumbents' support, is significant, and only at the p = 10% level. There may be different explanations for this misfit. First, contrary to Kofi Annan's quotation at the beginning of this work, we have overestimated the degree of interconnectedness among neighboring countries and the power of globalization. Second, markets and economies are actually integrated, but they do not spill-over into external political arenas. Third, as with benchmarks, it may be that we should have experimented with other types of connectivity matrices, and not just the one checking only first-level neighbor countries. We could have extended the analysis to second-level neighbors, or used some inverse function of the distance, or better identify the origins and asymmetries of the influence. Fourth, we have to complete our models with some relevant institutional or dimensional control variables.[15]

Several refinements – to use Powel and Whitten's (1993) expression – of our very basic models are certainly needed. Yet we would like to partially address the most important underlying issue – the one concerning the actual relevance of interconnectedness and globalization – testing our conditional hypothesis. It may be that the influence of external economies on domestic politics depends on the degree of openness of the 'receiving' country, something that we could establish by interacting the spatial lag variable with the

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[15] For instance, we have assumed that the German economy is able to influence the politics of Luxembourg more or less in the same way as the economy of the latter influences the politics of the former.

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chosen index of globalization. In that event, it may be that the average unconditional effect of the contiguous economies is non-significant, but for open societies, i.e. for some portion of the interacting variable, the effect is actually systematic.

In order to test that intuition, and following the best practices with conditional models, we should not look directly at the coefficients, but instead plot the marginal effects on the complete range of the conditional variable. This is what we did for our six dependent variables in Figure 1.

Let us first make the conditional hypotheses more explicit, so that it is easier to interpret the graphs. The higher the globalization, the larger impact of contiguous economies means that the more we move to the right-hand side of each plot, the stronger the negative impact of the external unemployment on incumbent support and turnout (i.e. below the zero reference line representing the null effect, and with a decreasing slope), and the higher its positive effect on volatility, extra-system volatility, polarization and Euroscepticism (i.e. above the zero line, and further increasing). Without the refinements needed, the results portrayed in Figure 1 are already more interesting than the coefficients of Table 4. We will comment on them without entering in too many details, and maintaining an overall perspective.

First, when the globalization is low, almost all the impacts cannot be distinguished from the null hypothesis, which makes sense because in that case a country is closed in regard to external influences. The overlaid histograms depicting the distribution of the index of economic globalization during the period of the Great Recession reveal that, in spite of their common membership of a pro-market international organization, there are substantial differences among the 28 EU member states. Second, most of the lines representing the marginal effects have the correct slopes, though a couple of times with very tiny gradients. This may mean that the intuition is correct, and that improvements to the results may depend on a better specification of the model. Third, and most important, three variables out of six – incumbents' support, polarization and Euroscepticism – actually exhibit significant relationships with the external economy in the relevant portion of the graph, that is, in the case of high levels of globalization.

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FIGURE 1. MARGINAL EFFECTS OF THE SPATIAL LAG UNEMPLOYMENT VARIABLE ON
DIFFERENT DEPENDENT POLITICAL VARIABLES, AT VARIOUS LEVELS OF GLOBALIZATION
(C.I. 90%)
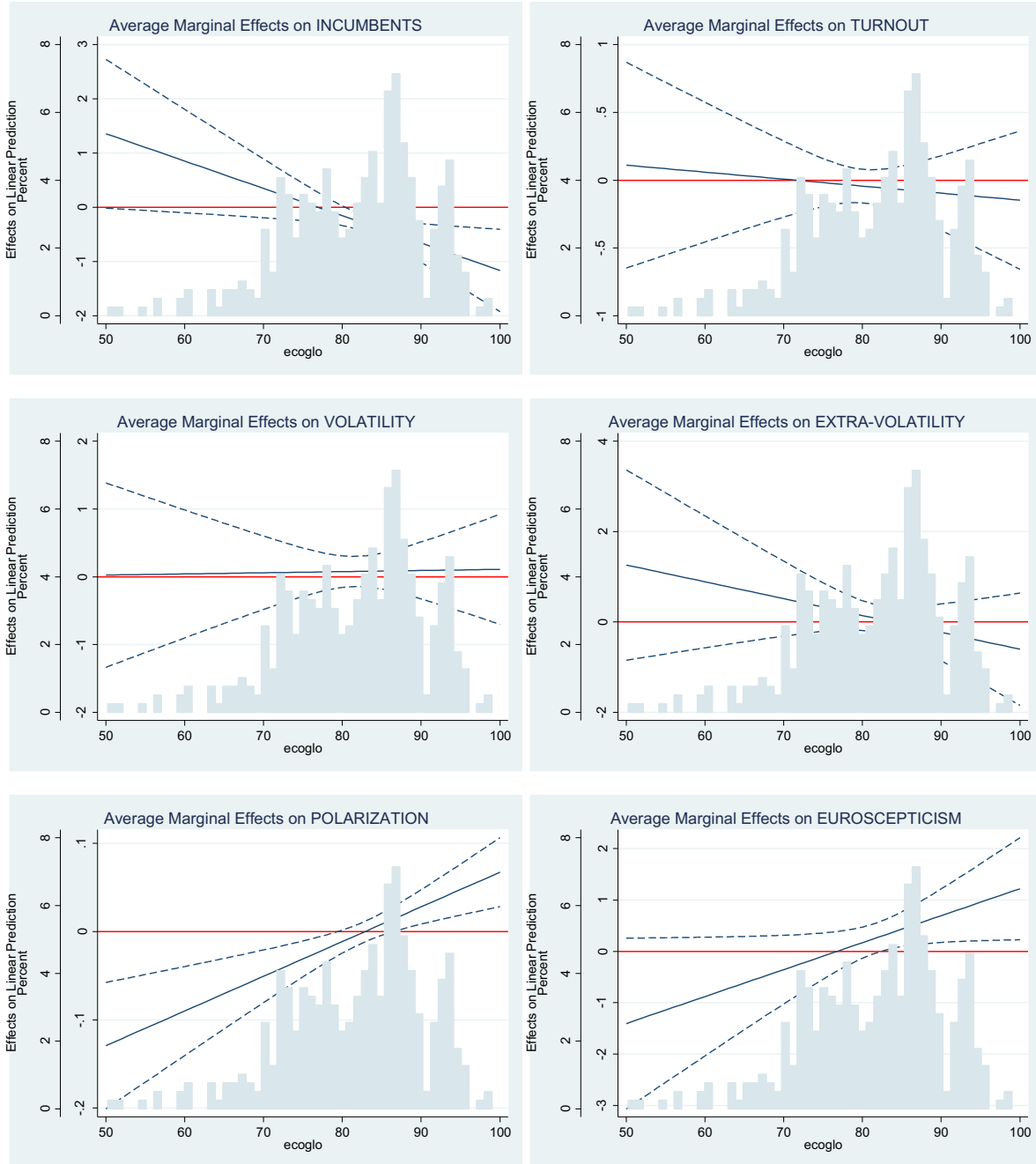
The results regarding polarization and Euroscepticism are particularly intriguing and
warrant deeper investigation: on the one side because they somehow reflect much of the
common qualitative impressions regarding the direct influence of external events; on the
other, because they appeared to be eccentric and almost completely unconnected in some of

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our previous models. For them, we can thus confirm our hypothesis 2b, in spite of the insignificant effects registered while checking hypothesis 2a.

4.3 Contagion

The last two propositions concern a connection between external and domestic political environments, controlled by the state of the economy and, in the case of hypothesis 3b, conditioned by the degree of globalization. The results of the direct models are summarized in Table 5.

TABLE 5. SIGN AND SIGNIFICANCE OF THE RELEVANT COEFFICIENTS OF THE CONTAGION REGRESSION MODELS

	Unemployment	Δ unemployment	Temporal lag dependent variable
Incumbent support	- ***	- ***	-
Turnout	-	+	-
Volatility	+ ***	+ **	+
Extra-volatility	+ *	+ *	-
Polarization	+	+ **	+
Euroscepticism	+ **	+	+

Clustered standard errors; *** p<0.01, ** p<0.05, * p<0.1

The coefficients for the economic variables, here playing only the role of controls for the external political effects, follow the usual patterns: correct and highly significant for incumbent support and volatility, only partially fitting the hypotheses for extra-volatility, polarization and Euroscepticism, and entirely failing to support them for turnout. However, our covariate of interest, the variable representing the level of the same variables in the twelve months preceding our observation, and whose coefficients are reported in the last column of the table, behave even more disappointingly than in Table 4. None of them is significant and, since here we only expected positive associations, half of them also have the wrong sign.

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We thus tried the same refinements that succeeded for spill-overs, i.e. interacting the lag variable with the openness of a country, with the prospect of having all marginal effects with a positive slope, and confidence intervals far from the null hypothesis in the right-hand side of each graph (Figure 2).

FIGURE 2. MARGINAL EFFECTS OF THE TEMPORAL LAGGED POLITICAL VARIABLE ON ITS DOMESTIC CORRESPONDENT DEPENDENT POLITICAL VARIABLES, AT VARIOUS LEVELS OF GLOBALIZATION (C.I. 90%)

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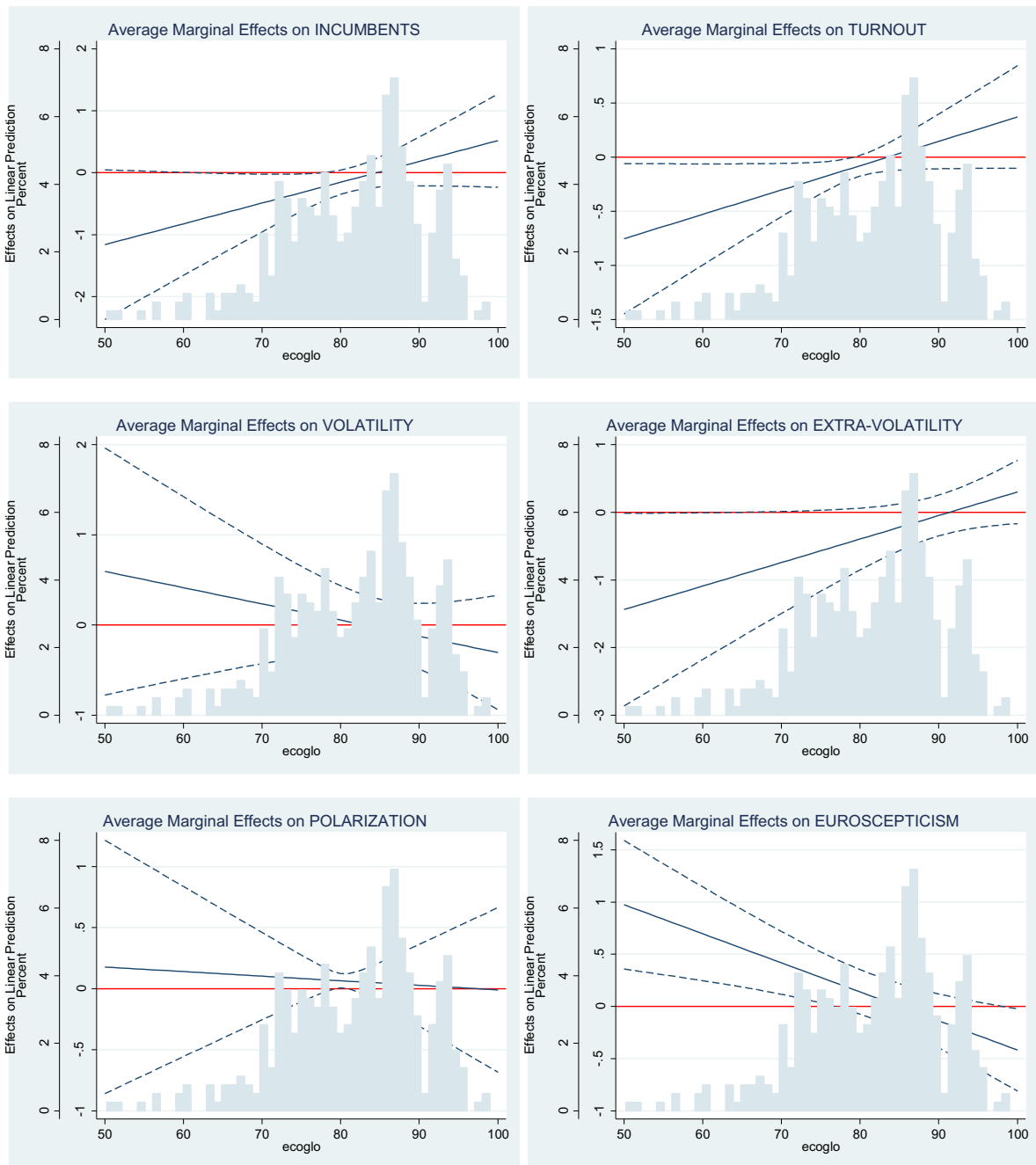
However, in this case, the results are far from encouraging. Only three models out of six present the right slope (incumbents' support, turnout and extra-system volatility), and none of them is actually significant in any portion of the conditional variable, thus completely falsifying the initial hypotheses of contagion. Here, it is not only the econometric model or the type of connectivity that should be reviewed, but probably the whole theory and hypotheses. The mechanism of transferring something somewhere else in the form of contamination cannot be taken for granted, even in contexts in which there seem to be common trends across a continent, as in the case of the success of radical, Eurosceptic and populist parties during the Great Recession. For example, bouncing back and contagion mechanisms may coexist in different countries, depending on the state of other variables. The situation of the economy is, once again, one potential candidate of that conditional effect, leaving the role of control variable assigned to it in the models we tested, and re-entering in a much more central stage. The political and institutional set-up is a second one, with its degree of permissiveness favoring or inhibiting the import of practices and behaviors that succeeded elsewhere.

5. CONCLUSION

In this paper we have relaxed the assumption that citizens are indifferent to what happens beyond the borders of their own country, and operationalized the potential for external influences. Before doing so, we identified three different mechanisms linking the domestic arena to the international one. Benchmarking assumes that citizens evaluate their own economic systems by comparing them to some exogenous yardstick. Spill-over hypothesizes that the economy has leverage beyond the boundaries of the observed unit. Contagion presumes that political dynamics can be transmitted like waves on a surface made by contiguous events.

We then verified each of these three mechanisms by taking a set of diverse political phenomena, often associated with the state of the economy, as dependent variables. We found that citizens actually evaluate the condition of the economy discounting some common global dynamics, and looking ahead to the gap between their own experience and that of the best country. This is important for at least two reasons. First, because it helps make sense of elections in which incumbent parties are rewarded in spite of some relative deterioration of the economy, exactly because they have been able to perform less badly than

other governments. Second, because it is indirect proof that citizens have sufficient cognitive abilities to discount common economic dynamics, and that responsibilities are not blurred by globalization.

We further found some traces of the spill-over effect of neighbors' economies on some domestic political dynamics, such as incumbents' support, polarization and Europeanization, though only in the case of highly globalized countries. The same cannot be said for the direct contagion of temporally close political phenomena, an avenue of research that is still worth exploring with more precise and conditional hypotheses.

We believe that there is a gap in the literature between the widespread recognition that the level of interconnectedness and globalization reached by most social systems cannot leave the political arena unaffected, the qualitative perception and reconstruction that many political events cannot be explained without considering wider horizons, and the efforts made in order to provide operationalizations and models useful for better generalizing those relationships. This paper is a first attempt in that direction.

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ABSTRACT

The level of interconnectedness among economic, political and social systems is remarkable, and has become even more visible in the context of the Great Recession, with its evident domino effects. In this paper we seek to distinguish analytically three types of mechanism through which those effects are transmitted from country to country: benchmarking, spill-over, and contagion. We then try to operationalize them in the context of the theory of retrospective economic voting by explaining the electoral behavior of citizens within the 28 EU member states during the economic crisis. Our results confirm that voters evaluate the national economic situation using external reference points, that the impact of the state of the economy spills over to highly globalized countries, but the hypothesis of direct contagion effects is contradicted.

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