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# Does the winner take it all? Federal policies and political extremism\*

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# 1. Introduction

Federal governments can successfully manage complex and diverse societies but are not always immune to the political instability that is increasingly putting democracies under pressure. Polarisation and extremism have been on the rise due to a multitude of factors: we argue that a federal structure of governance produces additional motives for voters to elect extreme candidates. We look for possible strategic motives in the specific way a federal, or multi-level system of government is set up, for two reasons. First, voters separately cast their votes for different levels of government, hence, they can use different strategies in each political arena. Second, nationwide (federal) policies inevitably affect lower-level voting districts (regions), which can lead to competing interests across regions.

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# ABSTRACT

Whether citizens like or dislike federal policies often depends on regional differences. Because of geography, (economic) history or other path-dependent factors, certain regions are perceived to get more out of the union than others. We show that citizens, therefore, have a strategic incentive to elect Federal delegates that are more extreme than the representative voter. The intensity of such strategic delegation is U-shaped in expected benefits. The predictions of our model hence rationalise the voting differences we observe in the data between national and EU elections.

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<sup>&</sup>lt;sup>1</sup> Federalism can combine scale advantages with the flexibility to tailor policies to local needs and preference heterogeneity (Oates, 1972). It may also improve political accountability, however, the optimal (feasible) balance between centralisation and decentralisation depends on the type of policies (uniform or region-specific) that the federal government can implement (Alesina et al., 2005; Boffa et al., 2016).

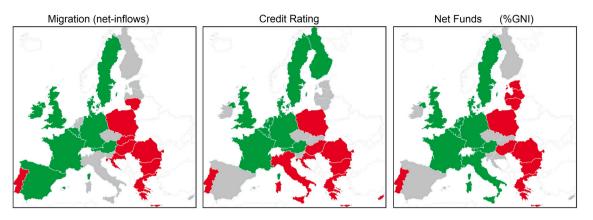


Fig. 1. Maps of the EU depending on Mobility (left), Credit Rating (middle), EU Net-Funds (right). The 28 countries are divided into 3 groups: 10 Green, 9 Grey, and 9 Red. Red and Green countries are at each extreme of the spectrum, while Grey refers to countries in the middle. Workers' mobility (net inflow — Green highest) is computed from Fries-Tersch et al. (2018). S&P credit rating (Green highest) is taken from www.countryeconomy.com/ratings EU net-funds (Red — highest) are computed as a % of GNI in the period 2000–2015 (see Section 3 for more details). (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)

Although federations are better equipped to absorb externalities or to exploit economies of scale, voters often perceive such benefits as unevenly shared across regions, especially when federal policies are inherently uniform (i.e. they cannot be region-specific).<sup>1</sup> Heterogeneous underlying fundamentals such as economic background, natural resources or social capital inevitably translate into different (perceived) impacts of federal policies. For example, the balance of environmental policies is likely to be negative in regions that rely heavily on emissionintense industries, while positive for regions relying on nature-tourism. Similarly, regions with a lot of start-up firms or non-competitive firms may benefit from some level of protectionism, while internationally competitive firms would benefit from free trade. Other compelling examples would include labour-market and financial-market regulations, migration policies, as well as debt and fiscal policies or tax harmonisation.

For instance, looking at the EU, several federal policies have opposite perceived impacts on members. Among others, as long as incoming migrants represent a positive asset for the economy, attractive regions (in green in the left panel of Fig. 1) will benefit from any federal policy supporting the free movement of workers, while less attractive regions (in red in the same panel) will be harmed by outflows. A similar demarcation appears in the central or right panels of Fig. 1, looking at the credit ratings of EU countries or EU cohesion and agricultural funding, respectively. In both cases, periphery countries (in red) stand to gain as net recipients from such programmes, while core countries (in green) are contributors. Similar demarcations have emerged during the Eurocrisis in 2012–2015 and in the handling of the COVID-19 crisis.<sup>2</sup>

Divisive policies drive regions' interests in opposite directions, leading to the formation of two opposing camps, which we will call 'winning' and 'losing' regions even when every camp benefits from the policy, but to varying degrees. This gives voters good reason to act strategically if, as we do in this paper, we assume that all regions benefit enough from the federation (through non-divisive policies and transfers) not to question their region's participation.

Persistent spatial heterogeneity, which at best only changes in the medium to long run, often explains citizens' perception that certain regions benefit more than others from federal policies. Such underlying fundamentals are usually economic and geographical — related to the divide between 'rust belt' (rural areas) on the one side and successful urban agglomerations on the other. They could also be related to regionally concentrated natural resources or other endowments such as social and human capital, or follow from a complex set of national laws and regulations or institutional drift.<sup>3</sup>

Two key features of our model are that federal policies cannot be region-specific and that spatial heterogeneity directly maps onto the impact of federal policies: the split of costs and benefits across regions is exogenous. A region's benefit depends both on the distance of its own bliss point from the federal policy and on the magnitude of the policy, but only the latter element is endogenous.<sup>4</sup> This changes how bargaining is conducted at the federal level, with the focus on the policy reach and magnitude, instead of the division of benefits across regions. This, in turn, affects voting behaviour. Both in winning and losing regions, the representative voter has similar incentives to elect extremely protective federal representatives: to stake out a stronger bargaining position at the higher level to influence the size of the policy. As a result, voters are willing to incur the ideological, reputational and efficiency costs of electing a tough negotiator with more extreme preferences than their own.

In our model, citizens in each region elect the delegate that will represent them within the federal government. Regionally-elected politicians act cooperatively, seeking a mutually advantageous agreement on policies while defending the interests of their respective regions. Bargaining in the federal legislation thus reflects regional considerations, which is often observed in real-world federations (Rodden et al., 2003). Indeed, we can expect region-oriented bargaining to direct most federal policy-making whenever federal decisions follow more from consensus than a simple majority voting rule if (locally elected) federal politicians behave as regional representatives. The direct representation of regions in any central government can be seen as a by-product of the electoral process. Federal MPs are elected in each region of the federation: if a coalition forms around a given political platform, most likely it would include all MPs of a political colour/party elected in different regions. As such, most or all regions will be represented.

<sup>&</sup>lt;sup>2</sup> Computations of net flows are based on Table 30 in Fries-Tersch et al. (2018). Migrations have indeed led to regional disparities (Goldin et al., 2018). The current situation in Europe may even be seen as a result of the voting behaviour we describe: representatives of southern member states are in favour of radical EU stimulus and mutualising incurred debts to cushion the COVID-19 shock, whilst delegates of northern 'frugal' countries are slow to accept these proposals.

<sup>&</sup>lt;sup>3</sup> These factors are very hard to change even in the medium run. E.g. federal regulation aimed at promoting pro-civic behaviour comes at the cost of restricting individual freedoms and has high enforcement costs. The initial level of social capital implies that the regulation may be either beneficial or costly and redundant.

<sup>&</sup>lt;sup>4</sup> Our model only considers one federal policy. The model easily extends to a vector of policies (e.g. migration, environmental regulation), so that voters build their perception on gains or losses for their district from *each* policy, based on the relative weight assigned to each of them.

Our theoretical model refers to any divisive policy, including nonmonetary ones. We show that voters have an incentive to strategically elect what we will call 'extremely protective' politicians: to defend their interests in federal negotiations.<sup>5</sup> Interestingly, whether they believe their region is winning or losing from the Federal policy does not affect these extreme choices differently. Even though voters from 'winning' regions want to scale the policy up and voters from 'losing' regions want to scale it back, both types elect similarly extreme politicians to bring this about. That happens even if the election of such a tough negotiator comes at an ideological cost.

Through this lens, our model rationalises a puzzle that emerges when comparing national and European Parliamentary elections. Even though 'winning' countries are more pro-European across the board when it comes to both citizen preferences as well as political behaviour of MEPs (Members of the European Parliament), the decisions of voters at the ballot box are not. Our empirical analysis finds that, on both ends of the 'winning–losing' spectrum, voters select more extreme representatives when it comes to supranational elections.

Our empirical analysis focuses on European data for several reasons. To begin with, the EU is the largest supranational federation and, more importantly, it is extremely diverse both in terms of the countries that belong to it (hence, their interests are often diverging) and in terms of the set of political parties that run for election. The European Parliament, directly elected by all citizens of the union, shares legislative and budgetary powers with the Council and the European Commission.<sup>6</sup> By being the only elected European institution, the Parliament is the only instrument that citizens may use to directly influence European politics.<sup>7</sup>

In the empirical analysis, we cluster EU member states into three groups: losers (1st tertile), neutral (2nd tertile) and winners (3rd tertile). In our main specification, we use the net flows of funding that member states receive out of EU budget, as depicted in the right panel of Fig. 1. We argue that funds, being easier to observe than other policies, are a good proxy for voters' winning/losing perceptions of EU policies. What matters is voters' perceptions about winning or losing, regardless of how congruent with reality those are. Our assumption here is that the benefit for core countries of being part of the single market far outweighs the cost of contributing to the EU budget, but the latter is far more salient than the former.8 To underpin this assumption, we replicate our main results using Eurobarometer survey data, grouping countries according to average beliefs of benefitting from EU membership, as such having a general and strictly-perception driven perspective. For robustness, lastly, we also replicate our main result using GDP per capita.

We find that voters elect relatively more extreme delegates to the European Parliament as compared to national elections. This is true for both sides of the political spectrum and robust to different specifications, definitions of the key variables and a broad set of controls. Crucially, and fully in line with our predictions, we only find this extreme support differential in net losing and net winning member states, but *not* in countries where EU benefits and contributions are more or less balanced. We thus uncover a U-shaped relationship between the degree of (perceived) gains from EU membership and the extreme vote.

We also investigate whether people splitting their ticket (i.e. voting for different parties) are doing so because of the strategic reasons we propose: our small online survey, rolled out in Italy, France and Finland, suggests that this explanation is at play.

Our analysis has a policy implication: it is possible to reduce polarisation by removing the incentive to vote for extreme representatives induced by the federal structure. One way is to cut the ties between federal MPs and regions, for example by introducing a union-wide electoral district.<sup>9</sup> Another is to decrease the ex-ante pivotal character of elected representatives, by reducing the required qualification for a majority to act.

We present our model in Section 2 followed by the empirical analysis in Section 3. In Section 4 we explicitly discuss the link between theory and evidence, whilst Section 5 concludes. Finally, Appendix A complements and extends the empirical analysis while the online survey results are set out in Appendix B. Before moving forward, we discuss the related literature.

### Related literature

Our model shows how voters' strategic behaviour can lead to a different (more polarised) electoral result at federal elections, compared to the electoral outcome that we observe at local elections, where the incentive to act strategically is absent. The existing literature on this issue is quite thin.

In the EU context, there is some evidence suggesting that voters vote for different parties at the national and European level. Studying regularities first observed by Reif and Schmitt (1980), the 'Second-Order' conjecture suggests that voters send signals to their representatives using elections that they consider to be of second-order relevance.<sup>10</sup> This leads to a general punishment of the large national parties, especially when the European elections take place during the mid-term of the national election cycle. Schulte-Cloos (2018) and the literature therein support the second-order conjecture in an empirically non-causal manner. We propose a theoretical framework based on strategic delegation, which provides a complementary explanation for why voters should act differently depending on the type of election. Our empirical test is fully aligned with the theoretical predictions, including the U-shaped distortion that the second-order theory would not be able to explain. In our empirical analysis, we control for the tenets of the second-order theory - turnout, party size and incumbency - and show that our results are not driven by them.

A similar pattern has been also observed in the US by Bafumi and Herron (2010), who documents that elected members of Congress are more extreme than their constituency. The authors mainly focus on the lack of convergence towards the median voter, showing that extremists are over-represented on both sides of the spectrum. The authors neither relate their results to the second-order conjecture nor to any specific attitude or characteristic of voters. The theoretical analysis in Krasa and Polborn (2018) explains the difference in extremism between local and national policy positions when the end-goal of voters is securing a national majority. Inversely, in our model, the strategic reflex of voters is to mitigate the objectives of federal coalition partners that are in the

<sup>&</sup>lt;sup>5</sup> With 'extremely protective' politicians, we refer to candidates or parties (typically the extreme ones) who market themselves as the ones most concerned by the federal policy and willing to do what it takes to protect the regional interests. In other words, we think of the marketing strategy of extremely protective (populist) parties, with their slogan 'our country first' and the image of strong leaders that will not compromise and will protect the national interest above and beyond their duty. For our narrative, it suffices that voters perceive them that way.

<sup>&</sup>lt;sup>6</sup> MEPs continuously bargain over common policies, ranging from regulation of labour migration to a common budget to the integration of bailout mechanisms such as the European Stability Mechanism (ESM) into Community law.

<sup>&</sup>lt;sup>7</sup> The EU legislative process, based on its trilogue proceedings between Council, Parliament and Commission, is highly complex. However, voters generally assume their vote for parliament will at some point affect this process, even if they do not fully comprehend it.

<sup>&</sup>lt;sup>8</sup> Similarly, most citizens have rooted opinions about external migration (Alesina et al., 2018): EU within-migration still casts receiving countries as 'losers'.

<sup>&</sup>lt;sup>9</sup> See e.g. Stojanović and Bonotti (2020). We discuss this and other reforms in more detail in our conclusion.

<sup>&</sup>lt;sup>10</sup> Its tenets are: (i) turnout is lower in the European than in the national elections; (ii) citizens prefer smaller parties at the European level, and (iii) they tend to penalise parties which are part of their respective national government.

opposite camp. The two driving forces nicely complement each other. Our predictions coincide with those of Enikolopov and Zhuravskaya (2007) to the extent that stronger national parties undercut the regional ties of federal representatives. This kind of stronger political centralisation would indeed better align local political incentives with national interests, as federal legislators in our model become less malleable to regional electoral pressures.

Our paper also links into the recent literature on populism,<sup>11</sup> by providing an additional and complementary rationale for why voters might elect politically extreme candidates and, hence, why populism is on the rise. This literature includes both economic and non-economic arguments as a possible explanation for the rise in populism. The economic ones include globalisation (Colantone and Stanig, 2018), austerity (Fetzer, 2019), public finance mismanagement (Daniele et al., 2018), recessions and financial crises (Algan et al., 2017), historical heritage and identity (Cantoni et al., 2019; Edo et al., 2019), immigration (Edo et al., 2019) or a combination of many of them (Guriev, 2018; Rodrik, 2018a). The non-economic ones include the informativeness of the electoral campaign (Boleslavsky and Cotton, 2015) and cultural insecurity (Margalit, 2019; Guiso et al., 2020). In any case, once populist demand is rising, parties on both sides of the political spectrum are formed or re-positioned to jump into the niche (Rodrik, 2018b).<sup>12</sup> In our model, we provide a complementary explanation, where demand for extremely protectionist delegates is a direct consequence of the multi-level governance that provides incentives to voters to reward more extreme politicians.

Our paper also relates to the literature on strategic voting (see Kawai and Watanabe, 2013, and the literature therein). We estimate the magnitude of the incentive to vote strategically in our empirical section which, according to the definition in Kawai and Watanabe (2013), measures the degree of misaligned voting.<sup>13</sup> Our estimates are consistent with those in the literature, which are in the order of magnitude of 1 to 3%. While we focus on the incentives to vote strategically in federal elections, similar motivations may also lead to distortions at the level of local elections. In particular, Saarimaa and Tukiainen (2016) find that after the merge of two municipalities, voters within each of the formerly separated municipalities concentrate their votes on strong local candidates, so to ensure that their area will be properly represented in the after-merger council and that their interests will be protected. Their results nicely complement and reinforce ours.

Looking more broadly to the literature on electoral competition, politicians usually dispose of a budget to share across constitutions. In this literature, public spending generally takes the form of public goods or pork-barrel (Lindbeck and Weibull, 1987; Dillen and Lundholm, 1996; Lizzeri and Persico, 2005; Knight, 2008; Primo and Snyder, 2008; Maskin and Tirole, 2019). This usually leads to an inefficient amount of public spending or to the use of public funding that is not welfare maximising. Our work substantially differs from that: our focus and interest is on public policies that, by their nature, are divisive: their marginal utility is positive in some regions and negative in others, with the two sets being exogenously fixed. Hence, the legislator can scale the policy up or down, but it cannot change the way in which benefits are shared (at least in the short run).

Our paper lies at the intersection of fiscal federalism, legislative bargaining, and strategic delegation. Diermeier et al. (2007), Bowen et al. (2014) and Bouton et al. (2020), just to cite a few, study different situations in which members of a government bargain on how to share some resources, with a primary focus on the bargaining process within the legislative body. Diermeier et al. (2007) is primarily interested in the case of bicameral systems. Bowen et al. (2014) focuses on the difference between mandatory and discretionary public good spending. Bouton et al. (2020) is looking at intertemporal choices and the interplay between entitlements and debt. In our case, we have a one-period cooperative bargaining game amongst representatives from different regions that formed a coalition. Knight (2008) recognises that grant receipts are the outcome of a bargaining game at the federal level, and may reflect underlying constituent preferences through their elected representatives. His model shows that, when forming majority coalitions, the committee chair (formateur) prefers to include those delegates with relatively strong preferences for public goods since their vote is cheaper to secure. The latter are not elected strategically, however. In Besley and Coate (2003), Harstad (2010), Beath et al. (2016) and Buisseret and Bernhardt (2018) strategic delegation does enter the electoral decision-making of voters in a setting similar to ours.

## 2. Theoretical framework

We focus on the set of federal policies for which the distribution of net benefits across regions is heterogeneous and fixed, at least in the medium term. Negotiations are therefore conducted mainly on the policy's scope or magnitude, but not on the distribution of its costs and benefits. A typical example would be a federal parliament deciding how strict to be with its green-energy policy: regions' net benefit depends on their current energy mix, which can only be modified in the long term.

Such policies may materialise in different forms (e.g. redistribution, bailouts or provision of public good) but, importantly, negotiations aim at scaling the policy up or down, keeping the relative split unchanged. Over-simplifying, one could think of a dichotomous policy with a negative impact on some regions (hence, their preferred option is to shut it down), while some regions benefit from it and would want to expand it as much as possible. The model that we present is less extreme, allowing regions in the same camp to disagree on the optimal policy, but keeping the idea that they bond around the desire to push the policy in the same direction. With our model, we wish to capture negotiations both across parties and within them, i.e. among same-party MPs that represent different regions.

We developed a stylised theoretical model of strategic delegation that produces sharp predictions to aid us in interpreting our empirical findings. Notably, as discussed in Section 4, the model clarifies the puzzling phenomenon that even in pro-EU regions, Eurosceptic parties exhibit a comparative advantage (over non-Eurosceptic parties) in EU elections compared to national elections.

Consider a federation with  $r \in \mathcal{R}$  regions. Every region sends a delegate to form the federal government, which is responsible for setting a policy  $p \in \mathbb{R}$ . The representative citizen in each region selects the regional delegate and has concave preferences over the policy. More specifically, any region r reaps benefits  $v_r F(p, \theta_r)$ , with  $v_r \ge 0$ being the importance of the policy for the region<sup>14</sup> and  $\theta_r$  being the region-specific bliss point (coinciding with the region's 'type'). Hence,  $F'(p, \theta_r) \ge 0$  if and only if  $p \le \theta_r$ .

We solve the model backwards, considering first the federal choice over the policy and, later, moving to the selection (at the regional level) of the delegate.

<sup>&</sup>lt;sup>11</sup> See Rovira Kaltwasser (2018) for a concise survey on populism.

<sup>&</sup>lt;sup>12</sup> If this is done successfully, and social stigma attached to radical ideologies is mitigated as a result, demand for such platforms can moreover be reinforced, as shown by Bursztyn et al. (2020) and Cantoni et al. (2019).

<sup>&</sup>lt;sup>13</sup> Misaligned voters are the subset of strategic voters that in equilibrium find it optimal to distort their vote. Hence, it excludes those strategic voters for whom the best strategic behaviour implies voting their preferred candidate.

<sup>&</sup>lt;sup>14</sup> One possible interpretation of  $v_r$  is the importance that the representative voter in the region assigns to the policy.

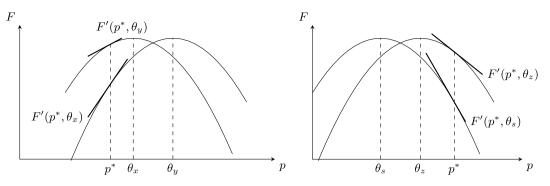


Fig. 2. Slope of F' for W-regions (left) and for  $\mathcal{L}$ -regions (right).

# 2.1. The federal policy

The equilibrium policy is decided by cooperative bargaining among regional delegates, who maximise the weighted utilitarian welfare function:

$$\max_{p} \sum_{r \in \mathcal{R}} (1 + n_r) v_r F(p, \theta_r)$$
(1)

where  $(1 + n_r)$  measures the intensity of preferences of region *r*'s delegate, with  $n_r \ge 0.15$  The problem is well-behaved and the first-order condition implicitly defines the equilibrium policy  $p^*$ :

$$\sum_{r\in\mathcal{R}} (1+n_r) v_r F'(p^*,\theta_r) = 0. \tag{2}$$

By definition, the marginal utility  $F'(\cdot)$  computed at the bliss point is null:  $F'(\theta_r, \theta_r) = 0$ , while it is positive  $(F'(p^*, \theta_r) > 0)$  if  $p^* < \theta_r$  and negative  $(F'(p^*, \theta_r) < 0)$  if  $p^* > \theta_r$ .

Then, we define  $w \in W$  the 'winners', hence, the subset of regions that would (weakly) benefit from an increase in the equilibrium policy  $p^*$ , which are characterised by having  $p^* \leq \theta_r$ . Instead, we define  $\ell \in \mathcal{L}$  the 'losers', hence, the subset of regions that would benefit from a reduction in  $p^*$ , which are characterised by having  $p^* > \theta_r$ . Clearly,  $W \cup \mathcal{L} = \mathcal{R}$ . This additional notation allows us to rewrite Eq. (2) as

$$\sum_{w \in \mathcal{W}} (1+n_w) v_w F'(p^*, \theta_w) = -\sum_{\ell \in \mathcal{L}} (1+n_\ell) v_\ell F'(p^*, \theta_\ell).$$
(3)

For a more compact notation, we denote by  $\hat{v}_r = (1 + n_r)v_r$  the weight placed on region *r*. In this light, we can interpret  $n_r$  also as an indicator of a delegate's negotiating power. We can implicitly compute the impact of a change in the negotiating power on the equilibrium policy  $p^*$ .

$$\frac{\partial p^*}{\partial n_r} = \frac{v_r F'(p^*, \theta_r)}{-\sum_{r \in \mathcal{R}} \hat{v}_r F''(p^*, \theta_r)}.$$
(4)

Clearly, the sign depends on the marginal utility of the policy, i.e. sgn  $\left(\frac{\partial p^*}{\partial n_r}\right) = \operatorname{sgn}\left(F'(p^*,\theta_r)\right)$ . By definition of subsets  $\mathcal{W}$  and  $\mathcal{L}$ , it follows that  $\frac{\partial p^*}{\partial n_w} > 0$  and  $\frac{\partial p^*}{\partial n_\ell} < 0$ . That is, the equilibrium policy is more generous (i.e.  $p^*$  increases) when delegates of winning regions have more intense preferences (i.e. larger  $n_w$ ), while it is more modest (i.e.  $p^*$  decreases) when delegates of losing regions have more intense preferences (i.e. larger  $n_\ell$ )

## 2.2. The regional vote

Regional delegates are selected locally by each representative agent. Delegating to a tougher negotiator produces a cost on voters that we interpret as the psychological nuisance of electing a more extreme delegate, i.e. with more intense preferences ( $n_r > 0$ ). Such cost is

described by the monotonically increasing and convex function  $D(n_r)$ , with D'(0) = 0.

In each region, the representative voter maximises  $U_r = v_r F(p^*, \theta_r) - D(n_r)$  with respect to  $n_r$ , anticipating the outcome of the bargaining process taking place at the federal level. This leads to the FOC  $D'(n_r^*) = v_r F'(p^*, \theta_r) \frac{\partial p^*}{\partial n_r}$ , which translates into:

$$D'(n_w^*) = \frac{\left(v_w F'(p^*, \theta_w)\right)^2}{-\sum_{r \in \mathcal{R}} \hat{v}_r F''(p^*, \theta_r)}$$
(5)

$$D'(n_{\ell}^{*}) = \frac{\left(v_{\ell}F'(p^{*},\theta_{\ell})\right)^{2}}{-\sum_{r\in\mathcal{R}}\hat{v}_{r}F''(p^{*},\theta_{r})}$$
(6)

Notice that the right-hand side of both Eqs. (5) and (6) is positive.

**Proposition 1.** For any  $v_r > 0$ , both types of regions elect an extreme negotiator (i.e.  $n_r^* > 0$ ), despite its cost  $D(n_r)$ . Furthermore, the optimal negotiator is increasingly tougher in the intensity of preferences of regions (i.e.  $\partial n_r^*/\partial v_r > 0$ ).

If  $v_r = 0$ , there is no incentive to elect an extreme negotiator (i.e.  $n_r^* = 0$ ).

**Proof.** The right-hand side of Eqs. (5) and (6) is positive. By the assumptions that D'(0) = 0 and  $D(n_r)$  monotonically increasing, it immediately follows that, in equilibrium,  $n_r^* > 0$ .

From the implicit definition of  $n_w^*$  and  $n_\ell^*$  in Eqs. (5) and (6), we can compute

$$\frac{\partial n_w^*}{\partial v_w} = \frac{v_w F'(p^*, \theta_w)^2 \left( w_w F''(p^*, \theta_w) - 2 \sum_{r \in \mathcal{R}} \hat{v}_r F''(p^*, \theta_r) \right)}{\left( -\sum_{r \in \mathcal{R}} \hat{v}_r F''(p^*, \theta_r) \right)^2 D''(n_w^*) - v_w^3 F'(p^*, \theta_w)^2 F''(p^*, \theta_w)} > 0$$
(7)

$$\frac{\partial n_{\ell}^{*}}{\partial v_{\ell}} = \frac{v_{\ell} F'(p^{*}, \theta_{\ell})^{2} \left(w_{\ell} F''(p^{*}, \theta_{\ell}) - 2 \sum_{r \in \mathcal{R}} \hat{v}_{r} F''(p^{*}, \theta_{r})\right)}{\left(-\sum_{r \in \mathcal{R}} \hat{v}_{r} F''(p^{*}, \theta_{r})\right)^{2} D''(n_{\ell}^{*}) - v_{\ell}^{2} F'(p^{*}, \theta_{\ell})^{2} F''(p^{*}, \theta_{\ell})} > 0 \quad \Box$$

$$\tag{8}$$

Proposition 1 identifies the two main predictions of the model. First, both winning and losing regions have a clear incentive to elect extreme negotiators that will pull the equilibrium policy closer to the region's preferred policy. Second, regions with more intense preferences will elect more extreme negotiators, both because there is more at stake and because  $v_r$  and  $n_r$  are complementary.

Remember that the weight  $\hat{v}_r$  placed on a region during negotiations coincides with the intensity of preferences of the elected delegate and, therefore, the 'type' of the utility-maximising delegate is  $\hat{v}_r^* = (1 + n_r^*)v_r$ . In other words, the ideal delegate is an agent with exceptionally high preference intensity, where  $n_r^*$  is exactly representing the markup  $(\hat{v}_r^* - v_r)/v_r$ , i.e. the percentage increase in the strength of preferences between the regional delegate and the representative agent. The result hinges on the assumption that D'(0) = 0. Should the cost of strategic delegation increase too fast, it may be preferable not to act strategically.

<sup>&</sup>lt;sup>15</sup> Interestingly,  $n_r$  captures the negotiating power of the delegate.

Table 1

Pro vs. Anti Europe Union: Citizens.

	(1) EU Trust	(2) EU image	(3) EU Protective	(4) EU Efficient	(5) EU Integration	(6) EU Identity	(7) EU Common	(8) EU Speed	(9) National Interest
1st tertile	-0.0385**	-0.0762***	-0.0452***	-0.388***	-0.219***	-0.0311**	-0.135***	-0.250***	0.142***
	(0.0157)	(0.0149)	(0.0156)	(0.0151)	(0.0155)	(0.0151)	(0.0153)	(0.0152)	(0.0155)
3rd tertile	0.199***	0.120***	0.0787***	0.179***	0.0798***	0.0597***	0.0278*	0.133***	0.0585***
	(0.0161)	(0.0152)	(0.0159)	(0.0155)	(0.0159)	(0.0154)	(0.0157)	(0.0156)	(0.0158)
Observations	24,509	27,069	25,034	24,839	24,941	26,864	25,901	25,704	25,493
R-squared	0.029	0.036	0.024	0.087	0.037	0.019	0.019	0.042	0.018
Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES

Note: The Table reports OLS coefficients and Robust Standard errors. *tertiles* split countries in three groups based on their level of net contributions to the EU budget. The omitted category is the second tertile. We control for age, gender, years of education, marital status and type of occupation (not displayed). The outcomes are standardised. "EU Trust" measures trust in the European Union with higher values corresponding to higher trust; "EU image", "EU protective", "EU efficient" measure levels of agreement on those dimensions with higher(lower) values for positive(negative) evaluations. "EU integration" measures preference over strong integration with higher(lower) values for positive(negative) preferences. "EU integration" measures preferences over the speed of EU integration with higher(lower) values for positive(negative) preferences. "EU integration with higher(lower) values for positive(negative) preferences. "National Interest" measures whether national interests are respected at the EU level with higher(lower) values for positive(negative) preferences. "National Interest" measures whether national interests are respected at the EU level with higher(lower) values for positive(negative) preferences. "National Interest" measures whether national interests are respected at the EU level with higher(lower) values for positive(negative) preferences. "National Interest" measures whether national interests are respected at the EU level with higher(lower) values for positive(negative) preferences. "National Interest" measures whether national interests are respected at the EU level with higher(lower) values for positive(negative) preferences. "National Interest" measures whether national interests a

**Proposition 2.** Regions with a more extreme bliss-point select a more extreme delegate. More precisely,  $n_w^*$  is increasing in the bliss-point  $(\theta_w)$  for W-regions, while the opposite is true for  $\mathcal{L}$ -regions:  $n_{\ell}^*$  is decreasing in the bliss-point  $(\theta_{\ell})$ .

**Proof.** Take two regions  $x, y \in W$  such that  $p^* < \theta_x < \theta_y$ . As illustrated by Fig. 2, the concavity of *F* immediately implies that  $F'(p^*, \theta_x) < F'(p^*, \theta_y)$ . Similarly, for any couple  $s, z \in \mathcal{L}$  such that  $\theta_s < \theta_z < p^*$  it immediately follows that  $|F'(p^*, \theta_y)| > |F'(p^*, \theta_z)|$ .

The left-hand side of Eqs. (5) and (6) is increasing in  $n_r^*$ , by the convexity of *D*. The right-hand side is increasing in  $|F'(p^*, \theta_r)|$ . Hence, the equilibrium value  $n_r^*$  is increasing in  $|F'(p^*, \theta_r)|$ .

We can then conclude that  $n_w^*$  is increasing in the bliss-point  $\theta_w$ , while  $n_e^*$  is decreasing in the bliss-point  $\theta_c$ .  $\Box$ 

**Proposition 2** stresses that, within each group  $\mathcal{W}$  and  $\mathcal{L}$ , the farther away the federal policy  $p^*$  from the preferred policy  $\theta_r$  and the more the region is willing to delegate to an extreme candidate.

### 3. Empirical analysis

In this section, we explore our interest in voting for different levels of government in the context of the winning and losing camps of the European Union. This is an ideal setting since: (i) the EU is the world's largest supranational federation, enveloping the policies of 27 different countries with respect to justice, home affairs, trade, agriculture and regional development, so inevitably will produce winners and losers; and (ii) EU citizens are called to elect national as well as European delegates. After defining the winning and losing camps in Section 3.1, we look at citizens' attitudes towards the EU in Section 3.2, then at the behaviour of politicians in EU parliament in Section 3.3, and finally at different aspects of the voting behaviour at the national and the EU elections in Sections 3.4 and 3.5.

### 3.1. Winners and losers: defining the tertiles

Since we are interested in voting patterns in winning and losing jurisdictions, we first classify EU countries into clear sets of both. A first way to approximate this would is via the net-funding of member states out of the EU budget that, we argue, can serve as a salient proxy for voters' winning/losing perceptions of EU policies.

The EU budget, which in 2015 was 145 billion Euros, represents a crucial source of financing for the poorest EU members, as well as for firms in several economic sectors (e.g. energy and agriculture) across all EU countries. Some countries – such as Germany, the Netherlands and Sweden – are net contributors to the EU budget, others are net receiving members and others contribute as much as they receive. For instance, in the period 2000–2015, the net funds received from the EU represented 3,53% of the GNI for Lithuania, 2,9% for Bulgaria and 2,11% for

Poland.<sup>16</sup> Conversely, based on this measure, the Netherlands was the main EU net contributor (-0.41% of GNI). Fig. 3 shows net-funds from the EU as a share of GNI for each EU member.

Using the shares of EU net contributions as a percentage of the gross national income (GNI) in the period 2000–2015, we split EU countries up into three groups, as depicted in Fig. 3. The top 33% includes the most generous net contributors, perceived as 'losers', such as the Netherlands, Germany and Sweden, while the bottom 33% includes the largest net receivers, or 'winners' from EU policy.

Of course, our scope can relate more generally to any divisive policy, beyond the simple redistribution of EU funds. What matters is voters' perceptions about winning or losing, regardless of how congruent with reality those are. Our main assumption here is that countries lose from the observable transfer mechanism, whilst their wider benefits such as single-market membership are less salient. Conditional on being a member and taking these less salient benefits for granted, they hence have an interest in fighting on the salient losses to make their balance more positive.<sup>17</sup> For robustness, in Section 3.5 we replicate our result, grouping countries according to average beliefs of benefitting from EU membership using Eurobarometer survey data. Such beliefs are more general and can encompass any kind of gains from EU policies, ranging from transfers to non-monetary benefits. As further robustness checks, we also replicate our analysis using countries' GDP or the state contribution to the union in absolute level (Table A.6 in Appendix A).

In our baseline analysis, we keep the division into tertiles fixed over time and it corresponds to the one depicted in Fig. 3. For robustness, we produced Figs. A.7 and A.8 (Appendix A) confirming that a country's position in a certain tertile is rather stable over time, as it reflects underlying spatial heterogeneity. In particular, for each electoral period, we split countries into tertiles depending on their net-funds to the EU in the period 2000–2015 (Fig. A.7) or the perceived benefits from being into the EU in the period 1983–2011 (Fig. A.8). Then, we calculate each country's average position across tertiles in the entire period (blue dots) and the standard deviation (red dots). Both figures report very low values of the standard deviations, in absolute as well as relative terms compared to the mean, which highlights countries' stickiness to a specific tertile across time. Specifically, in the case of Fig. A.7 changes of tertile are extremely rare, with only a few countries changing tertile once. In the case of Fig. A.8, three countries changed tertile twice

<sup>&</sup>lt;sup>16</sup> Data available at http://ec.europa.eu/budget/financialreport/2015/revenue/index\_en.html.

<sup>&</sup>lt;sup>17</sup> For this reason the benefits enjoyed by core countries of being part of the single market often play a smaller part in voter perceptions, even though they far outweigh the costs of contributing to the EU budget. Similarly, and much like external migration of which most citizens have rooted opinions (Alesina et al., 2018), EU within-migration still casts receiving countries as 'losers', despite the clear economic gains.

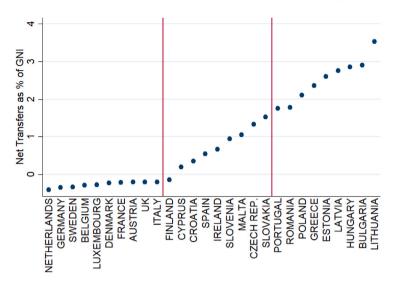


Fig. 3. Net Funds from the EU as % of GNI (2000–2015). The figure shows the net funds received from the EU budget as % of GNI in the period 2000–2015 for each EU country: the two red lines split countries in three tertiles.

(i.e. Denmark, Greece and Spain) and that happened during the 2008 economic crisis, due to a temporary decline in the perceived benefit of being in the EU.

### 3.2. Citizen preferences across tertiles

Before sizing up the ties between actual voting decisions and the (perceived) degree of benefiting from EU policies, as expressed by our tertiles, we first look at the underlying preferences. For this, we use Eurobarometer survey data (edition 92.3, 2019) as it includes a rich group of variables mapping attitudes towards the EU.

In Table 1 below, we explore the correlation between our tertiles – grouping winners and losers as defined above in Section 3.1 – and a set of Eurobarometer outcomes. These express attitudes towards a stronger and more integrated European Union, and are standardised for ease of interpretation. We run OLS models controlling for age, gender, years of education, marital status and type of occupation fixed effects. All summary statistics are reported in Table A.7 in Appendix A.

What we learn from Table 1 is intuitive yet striking. Attitudes in favour of the EU are increasing across tertiles: at their lowest level in the first 'losing' tertile, and at their highest in the third 'winning' tertile. Citizens in the latter tertile are hence more satisfied with the EU, more trustful, feel more European and want stronger EU integration. This is true across all outcomes with the exception of the last one: national interest, i.e. whether the national interest is respected at the EU level (we report in the table footnote the exact definition of each variable). We will later discuss this specific result in Section 4.

In Table A.8 we report a test along a similar line, by exploiting within-country allocation in EU funds. We specifically differentiate between regions with a GDP per capita below 75% of the EU average, hence eligible for the *Convergence* objective, and the others.<sup>18</sup> This analysis is restricted to countries with both *Convergence* and not-*Convergence* regions, i.e. Greece, Italy, Portugal and Spain. *Convergence* regions received extra EU funding during the period 2014–2020 and, hence, should be perceived as winners. The results are overall similar to the ones in Table 1: in most cases, citizens in *Convergence* regions report higher pro-EU attitudes.

# 3.3. Voting of members of the european parliament across tertiles

To investigate whether political behaviour in parliament mirrors citizen preferences shown in the previous section, we collect European MEPs voting data based on Martin (2021) for the period 1979–2009. Martin (2021) calculates DW-Nominate scores, which assign to each member of the EU parliament a set of coordinates, placing them in a two-dimensional policy space for each session. This process is repeated for both the ideological left (low values) versus right (high values) dimension, and the pro-Europe (high values) versus anti-Europe (low values) dimension.<sup>19</sup> The data are then aggregated at the electoral term level and also include individual MEP characteristics.

In Table 2, we replicate the previous analysis of Section 3.2 with this data set: the dependent variable is the DW-Nominate pro/anti Europe score. In column 1, we only control for year and European Groups fixed effects. We are therefore comparing MEPs from different countries within the same EU political family-year. In column 2, we include individual controls, i.e. age, gender, tenure in the EU parliament and a dummy for countries with an open list electoral system. In column 3, we additionally control for the DW-Nominate left/right score. Standard errors are clustered at the MP level as many of them are in charge for more than one electoral term.

Table 2 shows similar results to Table 1: pro-European voting is increasing across tertiles, with the lowest values in the first tertile, and the highest in the third one. The shifts across tertiles are considerable as the mean value of the *Pro-EU Score* is 0.038.

# 3.4. Voting at national elections across tertiles

When considering citizens and EU politicians above, we find a clear correlation between EU preferences and country positioning across the winning/losing dimension: citizens and politicians in receiving countries are substantially more in favour of the EU across many dimensions. Turning our attention back to the choices of voters at the ballot box, we would expect a similar outcome to complete the mapping from voter to political outcome.

To test whether this is the case, we size up national voting behaviour in this section and compare it with EU elections in the next section. To undertake both analyses, we build an original dataset linking political party ideology data to voting data for national and European elections

<sup>&</sup>lt;sup>18</sup> https://ec.europa.eu/regional\_policy/policy/how/is-my-regioncovered/2014-2020\_en.

<sup>&</sup>lt;sup>19</sup> See Martin (2021) for a detailed description of both dimensions.

### Table 2

### Pro vs. Anti Europe Union: EU MEPs.

	(1)	(2)	(3)
	Pro-EU score	Pro-EU score	Pro-EU score
1st tertile	-0.0156*	-0.0155*	-0.0206**
	(0.00870)	(0.00866)	(0.00821)
3rd tertile	0.0176*	0.0201*	0.0232**
	(0.0106)	(0.0109)	(0.0105)
Observations	3477	3472	3472
R-squared	0.710	0.712	0.743
Year FE	YES	YES	YES
Political groups FE	YES	YES	YES
Controls	NO	YES	YES
Ideology	NO	NO	YES

Note: The Table reports OLS coefficients. *tertiles* split countries in three groups based on their level of net contributions to the EU budget. The omitted category is the second tertile. The sample includes MP-electoral term data from 1983 to 2009. The dependent variable *Pro-EU Score* measures DW-Nominate score on pro/anti Europe scale. Controls include: DW-Nominate ideology score, age, gender, electoral system rule, MP tenure. Standard errors are clustered at the MP level. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1.

### Table 3

### Eurosceptic voting at national elections: NUTS level.

1 0			
	(1)	(2)	(3)
	National Elec.	National Elec.	National Elec.
Eurosceptic	-0.0462***	-0.0473***	-0.0446***
	(0.00155)	(0.00323)	(0.00318)
Euroscepti*1st tertile		0.00968***	0.00520
		(0.00368)	(0.00362)
Eurosceptic*3rd tertile		-0.0267***	-0.0311***
		(0.00449)	(0.00458)
Observations	53,989	53,989	53,989
R-squared	0.056	0.058	0.215
NUTS FE	YES	YES	YES
Year FE	YES	YES	YES
Country*Year FE	NO	NO	YES

Note: The Table reports OLS coefficients and Robust Standard errors. *tertiles* split countries in three groups based on their level of net contributions to the EU budget. The omitted category is the second tertile. The dependent variable National Elec. measures the share of votes for a party in a specific election at the NUTS3 level. Standard errors are clustered at the NUTS3 level. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1.

in all EU countries. Our data on political party ideology are based on the 'PopuList 2.0', which provides an overview of populist, far right, far left and Eurosceptic parties in Europe since 1989. This data set is widely used in social sciences to classify parties and it is linked with the Party Facts archive, which facilitates merging across different sources. We then merge those data with EU-NED, a new dataset on subnational level election data that consistently covers national and European parliamentary elections for European countries over the past 30 years (Schraff et al., 2022). Our final dataset, hence, includes voting data for 1028 European districts in the period 1989–2020.

Different from earlier sections, we now look at correlations between tertiles and a *Eurosceptic* perspective. Even though we focused on pro-European attitudes and behaviour before, both perspectives can be seen as different sides of the same coin. The advantage of our Eurosceptic approach in this section is identification: the PopuList 2.0 index defines Eurosceptic parties as those that express the idea of contingent or qualified opposition, as well as incorporating outright and unqualified opposition to the process of European integration. Taggart and Szczerbiak (2004). Specifically, we estimate an OLS model (Table 3), in which the dependent variable measures the share of votes for a party in a specific national election at the NUTS3 level. We are interested in how Eurosceptic parties perform across different tertiles. We therefore look at the interaction between the *Eurosceptic* dummy identifying Eurosceptic parties and the tertiles variables.

We start by including NUTS3 and year fixed effects (column 1), and we then differentiate across tertiles (column 2). In column 3, we also include Country-Year fixed effects to only exploit variation within a specific country-election. Eurosceptic parties receive on average fewer votes (column 1). However, column 2 shows that this is more likely in the third tertile and much less likely in the first tertile. In other words, voting for national elections follows a similar pattern as attitudes and MEP voting behaviour, set out in the previous sections. Also in this case, voters in the third tertile vote more pro-European (less Eurosceptic) and voters in the first one, instead, vote less pro-EU (more Eurosceptic) compared to the second tertile.

### 3.5. Voting at the EU level vs national level

Following the evidence on European attitudes, MEP voting behaviours and voting for national parliaments, we would expect a similar pattern for European elections. However, as shown in our analysis of EU parliamentary elections below, this is not the case. We present here the details of this puzzle that we rationalise in Section 4 through the lens of our theoretical model.

The EU parliament is elected every 5 years, while national elections follow heterogeneous schedules across countries. For this reason, EU and national elections often take place in different years. To maximise the number of party-observations in the data, we consider 10-year time windows, 1989–99, 1999–09, 2009–19. Within each window, we then compute the difference between a party's vote share for the EU and national elections (*EU-Nat Diff*): positive (/negative) values imply that a party performed better for the European (/national) elections. Whenever, in a given country, several national elections took place within the same window, we average the national vote share per party. Should a party run only for one type of election (national or European) within a window, we would have a missing observation.

Fig. 4 reports the distribution of our dependent variable (*EU-Nat Diff*). The figure highlights a different distribution for parties considered as Eurosceptic, which generally obtain a higher vote share in European than in national elections. To validate this descriptive evidence, we estimate the following OLS model:

$$EU - NatDiff_{jict} = \delta_i + \lambda_t + \beta_1 \text{Eurosceptic}_{jic} + \gamma \mathbf{X}_{jict} + \epsilon_{jict}$$
(9)

in which the dependent variable  $(EU - NatDiff_{jit})$  is the difference between a party vote share at the European and at the national elections within a 10-year period: *j* refers to a party, *i* refers to a NUTS3, *c* to a country, and *t* refers to the 10-year window. The main explanatory variable is Eurosceptic<sub>*jic*</sub>, a dummy set equal to 1 for Eurosceptic parties. To control for differences across countries and common time trends, we include (10-year) time-windows ( $\lambda_i$ ) and NUTS3 fixed effects ( $\delta_i$ ). In some specifications, we include time-country fixed effects to control for all potential country level time-varying changes.

Because lower turnout for European elections may affect the electoral success of Eurosceptic parties differently, we control for turnout differences between national and European elections and for the interaction among Eurosceptic, Tertiles and turnout differences. A related potential source of bias is inherent to differences in electoral systems across levels of government. Some countries, holding national elections under a majoritarian system and European elections under a proportional system, might differentially reward small and/or Eurosceptic parties across the two types of elections.<sup>20</sup> We tackle this issue by testing the model without countries with a mixed or a majoritarian system at the national elections. Moreover, Eurosceptic parties are often small ones: if small parties are more likely to be voted for at the European level, we might just be capturing this effect. Therefore, we include a dummy for parties receiving less than 5% in the previous national elections. Lastly, Eurosceptic parties might be systematically punished (/rewarded) if they are part of the incumbent (/opposition)

 $<sup>^{20}\,</sup>$  In the period of interest, all EU countries held European elections under some form of proportional representation.

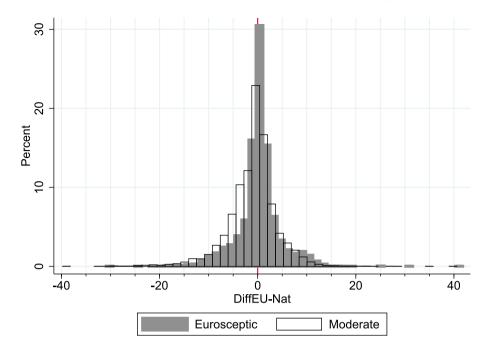


Fig. 4. Differences in Voting between EU and National Elections across Eurosceptic and not-Eurosceptic Parties. The figure shows the distributions of votes for parties participating in European and National elections in the period 1990–2019, differentiating between Eurosceptic and non-Eurosceptic Parties.

coalition. To reduce this concern, we include a dummy set equal to 1 for incumbent parties in the previous national election.

We report our main findings in Table 4, in which we gradually include our sets of controls. Column 1 shows that, in general, political parties in the first and third tertiles do not perform differently across EU and national elections (compared to the second tertile). Conversely, in the next columns, our results strongly suggest the electoral performance of Eurosceptic parties is stronger at the European level. There is a strong heterogeneity, however: while the effect is slightly negative for countries in the second tertile, it turns sharply positive for the first and the third tertiles on lines 4 and 5 of Table 4, where we interact the *Eurosceptic* dummy with the *tertile*. As we can see in column 3, this effect is sizeable (0.0306-0.0168 = 0.0138, i.e. 1.4 ppt. for the first tertile and 0.0327-0.0168 = 0.0159, i.e. 1.6 ppt. for the third tertile) and statistically significant across all models.

In a nutshell, the electoral success of Eurosceptic parties at the EU level compared to the national level materialises both in the winning and losing camps, but not in the middle. Again, line 4 suggests that belonging to the 1st tertile explains a better performance of Eurosceptic parties at European elections and this increase is highly significant. Line 5 marks a similar effect for the 3rd tertile. Hence, also for net-receiving countries the performance of Eurosceptic parties is statistically superior at the EU level than at the national one. A similar pattern emerges in columns 4 to 6 with the gradual inclusion of controls and in column 7 when excluding countries with a mixed or majoritarian electoral system: France, Germany, Italy and United Kingdom, Hungary and Lithuania.<sup>21</sup>

In column 8, we consider a possible alternative explanation, i.e. that Eurosceptic parties might be more successful during EU elections simply because their manifesto focuses on EU-related matters that, by definition, are more salient around EU elections. The greater prominence of their manifesto's main topics may lead to more media exposure and, possibly, to more votes. However, should this be true, it would also apply to strongly pro-EU political parties. In column 8, we restrict the sample to pro-EU and Eurosceptic parties to reduce concerns related to this argument. We classify pro-EU parties using the Chapel Hill Expert Survey.  $^{\rm 22}$ 

The Union went through two enlargement processes. On 1st May 2004, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia became members, while Bulgaria and Romania joined the Union on 1st January 2007. We define *Expansion* as a dummy equal to 1 for all periods after the 2004 enlargement. *Expansion 2007*, instead, is equal to 1 for all periods after the 2007 enlargement.

Then, in column 9, we look at the behaviour before/after the 2004 expansion of the pool of countries that belonged to the Union before 2004. For that, we consider the triple interactions *EUsceptic*\*1sttert.\*Expansion and *EUsceptic*\*3rdtert.\*Expansion. Interestingly, we find that our overall results come out strengthened after the EU enlargement. We later elaborate on this finding.

We introduce two additional triple interactions, *Eurosceptic\*1sttertile \*Expansion 2007* and *Eurosceptic\*3rdtertile\*Expansion 2007*, in Column 10. The first European election after the 2007 expansion took place in 2009. Therefore, the interpretation of the triple interactions *Eurosceptic\*1sttertile\*Expansion* and *Eurosceptic\*3rdtertile\*Expansion* differs between columns 9 and 10: in column 10 the coefficients represent the relative effect of the 2004 European election and national elections in the period 1999–2003. Results show that the effects are driven by the 2007 expansion, while the coefficients of the 2004 Expansion are not significant or even negative. This could be due to an adjustment factor, implying that the first enlargement wave in 2004 did not substantially affect the negotiating equilibria.

In Fig. 5 we provide a graphical view of the findings: we plot the data distinguishing between Eurosceptic and moderate parties. On the vertical axis, we plot the data of the dependent variable (EU-Nat Diff) for the two groups of parties with Eurosceptic (Moderate) parties on

<sup>&</sup>lt;sup>21</sup> This classification is based on the International Institute for Democracy and Electoral Assistance (International IDEA). At the European level, all countries use a proportional system with national specificities.

 $<sup>^{22}</sup>$  Specifically, we classify pro-EU parties using the question: 'Overall orientation of the party leadership towards European integration', whose answers range from 1 (strongly opposed) to 7 (strongly in favour). We classify as pro-EU, parties scoring 6 or 7. The question is available for the period 1999–2014.

(10)

EU-Nat Diff

0.834\*\*

(0.376)

0.699\*

(0.410)

(0.430)

(1.681)

-2.381

(1.701)

7.387\*\*\* (1.702) 4.584\*\*\*

(1.713)

36,242

0.115

YES

YES

NO

NO

NO

2.499\*\*\*

-3.985\*\*

Old members

### EU-Nat Diff Proportional Pro/Anti EU Old members 1st tertiles -0.0165(0.102)3rd tertile 0.00933 (0.105)Eurosceptic 1.134\*\*\* -1.677\*\*\* -1.696\*\*\* -3.510\*\*\* -1.557\*\*\* -1.722\*\*\*-3.002\*\*\* 0.826\*\* (0.0705) (0.257) (0.256) (0.253) (0.256) (0.377)(0.640) (0.443)3.050\*\*\* 2.548\*\*\* 2.273\*\*\* 5.387\*\*\* Eurosceptic\*1st tertile 3.057\*\*\* 3.978\*\*\* 0.707\* (0.268)(0.267)(0.665) (0.268)(0.320)(0.450)(0.411)3.274\*\*\* 3.291\*\*\* 5.449\*\*\* 2.853\*\*\* 3.198\*\*\* 7.348\*\*\* 2.505\*\*\* Eurosceptic\*3rd tertile (0.286)(0.286)(0.654)(0.283)(0.276)(0.503)(0.430)Eurosceptic\*1st tertile\*Expansion 3.518\*\*\* (0.524)2.360\*\*\* Eurosceptic\*3rd tertile\*Expansion (0.547)Eurosceptic\*1st tertile\*Expansion 2007 Eurosceptic\*3rd tertile\*Expansion 2007 Observations 41,076 41,076 41,076 41,076 41,076 41,076 17,341 15,672 36,242 R-squared 0.009 0.062 0.067 0.067 0.071 0.105 0.173 0.343 0.110 NUTS FE YES YES YES YES NO YES YES YES YES Year FE YES YES YES YES YES YES YES YES YES Turnout Diff. NO NO NO YES YES+INT YES YES YES NO

NO

NO

(4)

(5)

(6)

YES

YES

(7)

YES

YES

(8)

YES

YES

(9)

NO

NO

Note: The Table reports OLS coefficients and Robust Standard errors. *tertiles* split countries in three groups based on their level of net contributions to the EU budget. The omitted category is the second tertile. The dependent variable EU-Nat Diff is the difference between a party vote share at the European and at the national elections within a 10-year period. *Turnout Diff*. is the turnout difference between EU and national elections in a specific election period at NUTS3 level. In column 4, we control for turnout differences between national and European elections, as well for the interaction between *Eurosceptic, Tertiles* and turnout differences. Controls (not displayed) include: a dummy for parties receiving less than 5% in the previous national elections; a dummy set equal to 1 for incumbent parties in the previous national elections. *Expansion* is a dummy equals to 1 in the period after the 2004 EU enlargement. Standard errors are clustered at the NUTS3 level. \*\*\* p < 0.05, \* p < 0.1.

NO

NO

(1)

NO

NO

(2)

NO

NO

(3)

NO

NO

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10

Controls

Country\*Year FE

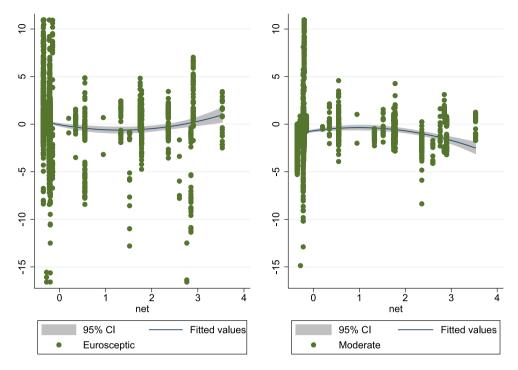


Fig. 5. Scatter plot by type of party. On the vertical axis, we plot the country-level electoral term average of the dependent variable (*EU-Nat Diff*) for Eurosceptic(moderate) parties on left(right) side. Moderate includes all parties not classified as Eurosceptic. On the horizontal axis, the figure shows the net funds as % of GNI, similarly to Fig. 3.

the left (right) side. On the horizontal axis, we plot the net-funding out of the EU budget as % of GNI. The figure quite clearly shows the U-shaped pattern for the Eurosceptic plot (the quadratic term is statistically significant, p-value = 0.01), and an inverse trend is visible for moderate parties (on the right side). The results of this analysis are reported in the Appendix in Table A.9.

Our approach highlights that a Eurosceptic party profile is a salient dimension to determine differential strategic voting at the EU level. An alternative approach could be to consider the traditional ideological dimension, comparing moderate and extreme right/left parties, or populist ones, as defined by the PopuList 2.0 data. We show the results of this analysis in Table A.10 (Appendix A), which paints a similar picture. The same heterogeneous effect across tertiles takes place when considering these alternative definitions of non-mainstream parties. This is not surprising considering the high levels of overlap across these variables. The correlations between the *Eurosceptic* dummy and these variables are all very high and statistically significant: 0.70 with populist parties, 0.62 with far-right and 0.58 with far-left parties.

As previously mentioned, in Table A.6 (Appendix A) we report a set of robustness tests by considering alternative measures to define the tertiles. The first one relies on people's perceptions, the other two are different objective measures. In particular, in columns 1 to 3 we use the share of individuals agreeing with the statement "Taking everything in consideration, would you say your country has benefited from being a member of the European Union?". The question was collected across EU countries (since 1983) by the Eurobarometer survey.<sup>23</sup> For each country, we calculate the average response over time. This classification allows a split in tertiles based on citizens' perception of their country as benefitting from or being harmed by the EU project. In columns 4 to 6, we rely on an alternative objective economic measure: countries' absolute average contribution in the period 2000–2015 (in this case, Germany is the top net-contributor with a yearly contribution of almost 9 billion Euros) depicted in Fig. 6. Finally, in columns 7 to 9, we consider the GDP per capita to split countries into three groups. The results are similar to the baseline across all specifications.

Finally, in Table A.11 we replicate the results in Table 4, restricting the sample to countries that had the EU and national elections in the same year. This increases the degree of comparability between the two types of elections. Previous findings are confirmed.

# 4. Discussion

In this section we further rationalise our empirical observations using our theoretical framework, with an eye on deepening our understanding of the political game that can take place within federations.

**Proposition 1** states that regions with little stakes in the federation  $(v_r = 0)$  have no specific interest in electing a delegate with more intense preferences than the region's representative citizen. However, every other region  $(v_r \neq 0)$  benefits from strategically electing a delegate with more extreme preferences than the representative citizen  $(n_r > 0)$ , and this is true irregardless of whether the region is perceived to belong to the winning or to the losing camp.

We divided the EU states into three groups, where the 1st tertile refers to countries that are perceived as losers, the 2nd tertile is for neutral countries and, finally, the 3rd tertile refers to those that are perceived as winners.<sup>24</sup> Table 1 supports our division into tertiles, by showing that citizens of countries in the 1st tertile are systematically less satisfied with the union, when compared with citizens in countries in the 2nd tertile. For instance, they trust the union less, they are much less enthusiastic about stronger integration and about the level of efficiency of the union. Instead, those in the 3rd tertile are systematically the most satisfied with the union.

Such pro- and anti-EU attitudes are observed in the behaviour of each country's elected delegates in the European Parliament as well, as shown in Table 2, and they are also consistent with the way citizens

<sup>&</sup>lt;sup>23</sup> www.gesis.org/eurobarometer-data-service/search-data-access/ebtrends-trend-files/list-of-trends/membership-benefit.

<sup>&</sup>lt;sup>24</sup> For robustness, we computed the tertiles using different possible proxies of voters' perception. These include monetary contributions to the EU budget as a share of GNI, absolute transfers to the EU budget, national GDP and voters perception based on the Eurobarometer survey.

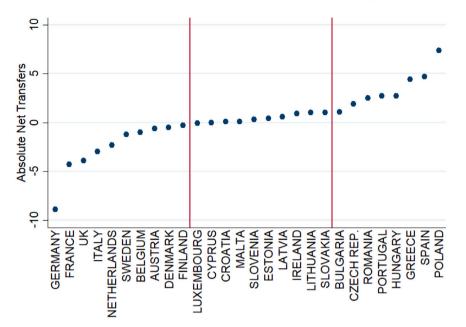


Fig. 6. Net Funds from the EU in billion euros (2000–2015). The figure shows the net funds received from the EU budget in billion euros in the period 2000–2015 for each EU country: the two red lines split countries in three tertiles.

vote for national elections, as shown in Table 3. However, Proposition 1 predicts that elected delegates should be more extreme in the intensity of their preferences, compared to the citizens that elect them. In Table 4 we compare the performance of Eurosceptic parties for the European Parliament elections with their performance for their national Parliament. As explained by the model, we observe that extreme parties perform systematically better at the EU than at the national level and this remains true when we control for the tenets of the 'second order' conjecture and the national electoral system.

In our main specification, we consider the performances of Eurosceptic parties as a proxy for the extremely protective political type. However, we show in Table A.10 that a broader interpretation is possible, including radical and populist parties.

Voting for Eurosceptic parties might be considered as casting a preference for politicians who aim to undermine the European integration project as a whole, rather than bringing about more favourable conditions for their constituencies — which is our interpretation here.

It is undeniable that some voters in each country are against the union (and that is measured by the anti-EU vote at national elections) but, based on our model, we claim that the strategic behaviour is a significant driver of the spread in favour of extreme parties that we observe when comparing the EU and national elections. The narrative behind the model suggests that, overall, every member of the federation is satisfied with membership. Column 9 in Table 1 indicates that citizens both in the 1st and 3rd tertile are significantly more convinced than those in the 2nd one that the Union protects their national interest. We interpret this U-shaped perception of citizens as a further suggestive evidence that also citizens in the 1st tertile recognise the overall benefits of the union and are mostly playing a game where they try to pull the policy further in their favour.

Therefore, we consider that the most extreme parties are pursuing a hard bargaining strategy precisely to obtain more favourable conditions for their countries, in line with the interpretation of Vasilopoulou (2013).

In our model,  $\hat{v}_r^* = (1 + n_r^*)v_r$  is the intensity of preferences of the delegate. However, as previously mentioned, *de facto*, a larger  $n_r$  directly translates into delegates being more effective when they negotiate within the federal government. Table 5 provides some suggestive evidence that is consistent with that.

Assessing whether Eurosceptic politicians have a bigger say in the EU Parliament is a challenging task. To explore this question, we

Fable 5	
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EU MEPs chair or vice-chair of a committee.

	(1)	(2)	(3)
	Chair	Chair	Chair
1st Tertile	-0.0113	-0.0120	-0.0120
	(0.0161)	(0.0161)	(0.0161)
3rd Tertile	0.0165	0.0158	0.0158
	(0.0212)	(0.0213)	(0.0213)
Eurosceptic*1st Tertile	0.102***	0.108***	0.108***
	(0.0364)	(0.0369)	(0.0370)
Eurosceptic*3rd Tertile	0.125**	0.140**	0.140**
	(0.0580)	(0.0583)	(0.0582)
Observations	3477	3472	3472
R-squared	0.064	0.067	0.067
Political groups FE	YES	YES	YES
Controls	NO	YES	YES
Ideology	NO	NO	YES

Note: The Table reports OLS coefficients. *tertiles* split countries in three groups based on their level of net contributions to the EU budget. The omitted category is the second tertile. The sample includes MP-electoral term data from 1983 to 2009. The dependent variable *Chair* is a dummy equals to 1 if a politician is a chair or a vicechair of Committee. DW-Nominate score on pro/anti Europe scale. Controls include: DW-Nominate ideology score, age, gender, electoral system rule, MP tenure. Standard errors are clustered at the MP level. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1.

consider their relative position within the Parliament. To prepare the voting sessions, MEPs are divided in 20 specialised standing committees. A committee consists of between 25 and 88 MEPs, and has a chair, and a vice-chair. The political composition of the committees reflects that of the plenary assembly.

In Table 5, we replicate the analysis of Table 2, considering as the dependent variable a dummy taking value 1 if a politician is chair or vice-chair of a Committee of the EU Parliament. Similarly to Table 2, we control for political groups (which are collinear to the un-interacted Eurosceptic dummy). In line with the idea of Eurosceptic politicians holding more power when it matters, they are more likely to be the chair of a committee relatively more in the 1st and 3rd tertile compared to the 2nd one.

Following Proposition 1, we expect support for Eurosceptic parties to be differentially stronger at the European elections (compared to national elections) both in net contributing member states and also in net receiving ones. Such effect should vanish in countries contributing about as much as they receive. Proposition 2 predicts that the distortion should be U-shaped in the benefit. Fig. 5 and Table A.9 support this result.

Such a result provides us with one additional argument backing our claim that the two most reasonable alternatives cannot rationalise the observed behaviour. Eurosceptic parties' better performances during the European elections could have been either consistent with the tenets of the second order theory (i.e. protest voting) or explained by their political manifesto becoming more salient during European elections. However, in both cases, the argument should hold for all the countries, whereas our data show a different pattern for the second tertile and even a U-shaped effect.

In Table 4, column 9 looks at how the coefficients vary with the enlargement of the EU in 2004. All the new members that joined the union would belong to the winner group (3rd tertile). In our theoretical model we do not explicitly deal with a change in the size of the federation. However, we can use the model to predict some results that we can contrast with what is observed in the data. In particular, if all the new members belong to the winner group, the model inevitably would imply an expansion of the equilibrium policy. Such expansion has ambiguous effects on the optimal strategy of the members of the winning group (W), while it has unquestionable consequences on the behaviour of the losing group, that should become more aggressive (i.e. it should elect more extreme delegates). We can immediately appreciate (Table 4) that, within the 1st tertile, the spread (between national and EU elections) in favour of extreme parties increased by 3.5 p.p. after the 2004 expansion.

### 5. Final remarks

In multi-tiered countries and political unions, central policies often have heterogeneous effects across its constituent units. For instance, the cost–benefit balance of environmental policies may have opposite signs depending on the regional economic structure. We show how this can bring about political extremism precisely at the highest level of government.

Sophisticated voters anticipate the bargaining process that leads to the design of federal policies. Proposition 1 shows that they cast their ballot strategically, to move the bargaining point closer to their bliss point. In particular, voters in each region select elected delegates with more extreme preferences than the representative voter. This process leads to an increase in political extremism and polarisation. In the data, we observe indeed that extreme political parties (including Eurosceptics, but also far-left, far-right, populists or radicals) are more successful at the elections for the European parliament than at their national elections (Table 4).

According to Propositions 1 and 2, strategic voting should be more pronounced when stakes are higher, which means, when the equilibrium policy of the union is farther away from the preferred by the region. We group countries into three tertiles, based on different proxies of the perceived benefits from the union: our main proxy is the nettransfers to/from the EU as a share of GNI. In the data, we observe that our division in tertiles is strongly predictive of the lack of support for the EU and for the support of Eurosceptic parties measured at national elections or through the Eurobarometer. However, fully in line with the model, the vote at the EU level depicts a U-shaped support for extreme parties. In other words, the spread in favour of extreme parties is larger in countries that are at the extremes in terms of net-funding (Fig. 5 and Table A.9) while it reaches its minimum for countries where the net balance is close to zero.

Our results suggest that one unintended consequence of federalism may be an increase in political polarisation. Such effect may grow larger when the number of members increases, either because new members enter the federation, or because of a change in the number of voting districts. A clear policy recommendation is, therefore, to create as few voting districts as possible for the election of the federal delegates. More generally, the solution would be to weaken the regional ties of federal politicians, who would then have the incentive to design policies benefitting the entire federation and not just their own constituency. This can be achieved by choosing a mixed electoral system, similarly to other federal entities as Mexico, Germany, Italy or South Africa, in which both proportional and majoritarian electoral systems coexist.

# CRediT authorship contribution statement

Gianmarco Daniele: Conceptualization, Data curation, Methodology, Writing – original draft, Writing – review & editing. Amedeo Piolatto: Conceptualization, Formal analysis, Funding acquisition, Methodology, Writing – original draft, Writing – review & editing. Willem Sas: Conceptualization, Formal analysis, Methodology, Writing – original draft, Writing – review & editing.

# Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Data availability

Data available at https://doi.org/10.7910/DVN/OQP2YQ.

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## Appendix A. Additional empirical results

See Tables A.6-A.11 and Figs. A.7 and A.8.

### Table A.6

Eurosceptic voting at EU vs. National elections: robustness tests

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Eurosceptic	-0.634***	-0.772***	-1.529***	-0.951***	-0.975***	-0.972***	0.284**	0.226*	-0.190
	(0.112)	(0.108)	(0.122)	(0.350)	(0.356)	(0.335)	(0.121)	(0.126)	(0.148)
Eurosceptic*1st*Win/Lose	2.445***	2.584***	3.092***						
	(0.140)	(0.137)	(0.148)						
Eurosceptic*3rd*Win/Lose	2.248***	2.378***	2.854***						
	(0.184)	(0.189)	(0.189)						
Eurosceptic*1st*Abs. Transfers				2.326***	2.326***	1.958***			
				(0.358)	(0.364)	(0.345)			
Eurosceptic*3rd*Abs. Transfers				1.706***	1.726***	1.533***			
				(0.392)	(0.397)	(0.373)			
Eurosceptic*1st*GDP							1.261***	1.315***	1.451***
							(0.175)	(0.179)	(0.195)
Eurosceptic*3rd*GDP							1.484***	1.537***	1.662***
							(0.150)	(0.155)	(0.178)
Observations	40,642	40,642	40,642	41,076	41,076	41,076	41,076	41,076	41,076
R-squared	0.069	0.069	0.111	0.063	0.063	0.102	0.065	0.065	0.105
NUTS FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Controls	NO	NO	YES	NO	NO	YES	NO	NO	YES
Country*Year FE	NO	NO	YES	NO	NO	YES	NO	NO	YES

Note: The Table reports OLS coefficients and Robust Standard errors. *tertiles* split countries in three groups based on their level of net contributions to the EU budget. The omitted category is the second tertile. The dependent variable *EU-Nat Diff.* is the difference between a party vote share at the European and at the national elections within a 10-year period. *Turnout Diff.* is the turnout difference between EU and national elections in a specific election period at NUTS3 level. Controls (not displayed) include a dummy for parties receiving less than 5% in the previous national elections and a dummy set equal to 1 for incumbent parties in the previous national elections. *Win/Lose, Abs. Transfers* and *GDP* split countries in tertiles, respectively, based on: perceived benefit from EU membership; absolute value of EU net contributions; GDP per capita. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1.

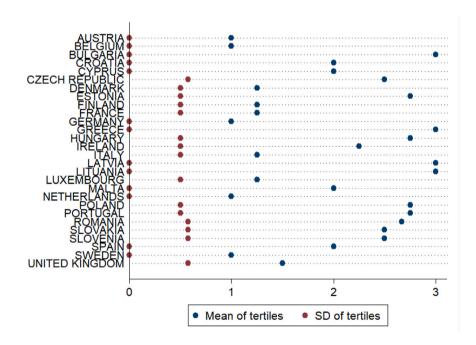


Fig. A.7. Net funds *from* the EU as % of GNI (2000–2015): mean and standard deviation across tertiles. For each electoral period, we place a country in a tertile depending on EU net-funds. We then calculate the average position across tertiles in the entire period (blue dots) and the standard deviation (red dots). The very low values of the standard deviations highlight countries' stickiness to a specific tertile across time. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)

# Appendix B. Survey evidence: Strategic Eurosceptic voting

In Section 3, we show that Europeans tend to vote more for Eurosceptic parties at the European level than at the national level, especially when they live in net receiving or contributing countries. Our key prediction is that this pattern is due to strategic considerations, with rational voters trying to steer federal/EU negotiations in their national favour. Testing this prediction, we used Eurosceptic parties as a proxy for parties that are extremely protective of national interests in federal negotiations.

To further validate this prediction we ran an online survey in cooperation with Qualtrics XM. Our aim was to fully understand the reasons why some individuals would vote differently depending on the level of government, and whether these reasons were strategic in nature. More precisely, we queried why respondents voted for a Eurosceptic party during the last EU parliamentary elections (26th May 2019) and for a moderate party in the most recent national/subnational elections. We could not rely on existing surveys for this since, to the best of our knowledge, there is no survey including both: (i) respondents' voting behaviour in national and European elections and (ii) data on voter intentions or motives when voting for specific parties.

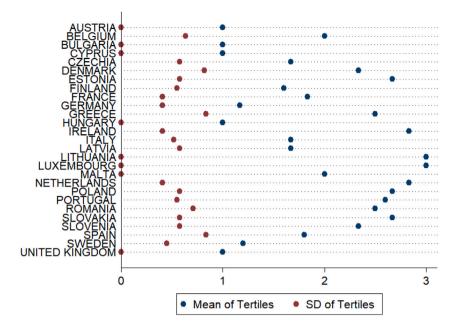


Fig. A.8. Perceived benefit from EU membership: mean and standard deviation across tertiles. For each electoral period, we place a country in a tertile depending on the perceived benefits from being into the EU (i.e. similarly to Table A.6). We then calculate the average position across tertiles in the entire period (blue dots) and the standard deviation (red dots). The very low values of the standard deviations highlight countries' stickiness to a specific tertile across time. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)

<b>A.</b> 7

Summary statistics.

Variable	Mean	Std. Dev.	Ν
Eurobarometer Data			
EU Trust	0	1	24 509
EU Image	0	1	27 069
EU Protective	0	1	25 034
EU Efficient	0	1	24839
EU Integration	0	1	24941
EU Identity	0	1	26 864
EU Common	0	1	25 903
EU Speed	0	1	2570
National Interest	0	1	25 493
Age	51.84	18.207	27 382
Gender	1.545	0.498	27 382
Marital Status	5.451	6.233	27 38
Age Education (Last Year)	26.077	22.15	27 382
Occupation Scale	4.825	2.163	27 382
DW-Nominate Data			
DW-Nominate EU Score	0.038	0.26	3974
Chair	0.11	0.314	3974
MEP Tenure	2.076	1.157	3974
Open Lists Country	0.349	0.477	3974
Female	0.244	0.43	3974
Age	50.675	9.887	3969
DW-Nominate Political Score	0.029	0.403	3974
NUTS3 Voting Data			
Diff EU-Nat	-0.816	4.96	41 07
Nat Elections	0.108	0.127	53 98
Eurosceptic	0.223	0.416	41 070
Populist	0.194	0.395	41 07
Far-left	0.105	0.306	41 070
Far-right	0.109	0.311	41 070
Tertiles (GDP share)	1.439	0.771	41 07
Tertiles (win-lose)	1.494	0.709	40 642
Tertiles (abs. transfers)	1.449	0.810	41 070
Turnout Difference	0.202	0.109	41 07
Small Party	0.113	0.316	41 07
Incumbent	0.396	0.489	41 07

Our final sample includes 341 such respondents: 51 from Finland, 209 from France and 81 from the Italian region of Piedmont.<sup>25</sup> The choice of areas where to run the survey was made taking into account the time lag between European and national/subnational elections. While the election of the European Parliament took place on 26th May 2019 in all three areas, at the national/subnational level we registered voting behaviour for the Finnish Parliament (14th April 2019) and President (28th January 2018), the French Parliament (11th June 2017) and President (23rd April 2017) and, in the case of Italy, the Piedmontese Parliament, whose elections took place on the same day as the European Parliament elections (26th May 2019), hence, our Italian respondents voted simultaneously for both European and regional elections and, yet, they voted for different parties.

We first screened respondents by asking for which party they voted at the above-mentioned elections. Individuals were selected only if they split their vote, by choosing a Eurosceptic party at the EU elections and a moderate party at least in one of the other elections. The survey continued with some additional questions, aimed at understanding why they cast their vote in favour of a Eurosceptic party only at the European elections.

Specifically, we asked them how much they agreed with the following statements on a scale from 1 (fully disagree) to 7 (fully agree):

- 1. whether the Eurosceptic party they voted for will be able to better:
  - (a) protect the interests of their country at the European Level
  - (b) attract more European funds to their country
  - (c) lead their country out of the European Union
- whether they voted for the Eurosceptic party to express their discontent with the current national government and/or president.

Questions (1a) and (1b) are aimed at capturing our mechanism, i.e. the idea that voters might strategically vote for Eurosceptic parties only at

<sup>&</sup>lt;sup>25</sup> The relatively small sample size is due to the effort in selecting individuals with such specific voting requirements.

### Table A.8

Pro vs. Anti Europe Union: Citizens - Subsample of PIGS Countries.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	EU Trust	EU image	EU Protective	EU Efficient	EU Integration	EU Identity	EU Common	EU Speed	National Interest
Convergence	0.0352	0.0861***	0.0626*	0.181***	-0.158***	-0.207***	-0.00126	0.230***	0.0589*
	(0.0349)	(0.0332)	(0.0358)	(0.0336)	(0.0322)	(0.0338)	(0.0354)	(0.0317)	(0.0357)
Observations	3730	3988	3740	3690	3692	3999	3801	3836	3823
R-squared	0.024	0.044	0.030	0.039	0.033	0.052	0.021	0.035	0.028
Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES

Note: The Table reports OLS coefficients and Robust Standard errors. *Convergence* is a dummy equal to 1 for regions included in the "Convergence" objective and therefore eligible for additional EU funding in the period 2014–2020. The sample is restricted to Greece, Italy, Portugal and Spain. We control for age, gender, years of education, marital status and type of occupation (not displayed). The outcomes are standardised. "EU Trust" measures trust in the European Union with higher values corresponding to higher trust; "EU image", "EU efficient" measure levels of agreement on those dimensions with higher(lower) values for positive(negative) evaluations. "EU integration" measures preference over strong integration with higher(lower) values for positive(negative) evaluations. "EU identity" and "EU common", with similar scales, measure perceived EU identity and whether European have a lot in common. "EU speed" measures preferences over the speed of EU integration with higher(lower) values for positive(negative) preferences. "National Interest" measures whether national interests are respected at the EU level with higher(lower) values for positive(negative) preceptions. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1.

### Table A.9

U-shaped pattern: Eurosceptic Vs. Moderate parties.

	(1) EU-Nat Diff Eurosceptic	(2) EU-Nat Diff Moderate
Net funds	-0.858***	0.666***
	(0.185)	(0.097)
Net funds <sup>2</sup>	0.326***	-0.334***
	(0.090)	(0.049)
Observations	2692	2776
R-squared	0.009	0.011

Note: The Table reports OLS coefficients and Robust Standard errors clustered at the country level in brackets. The dependent variable is EU-Nat Diff (i.e. the difference in party vote shares between European and National elections) for Euroscpetic parties (column 1) and moderate parties (column 2); the observation units are NUTS3 10-year average. The independent variable NetFunds measures the net funds as % of GNI. \*\*\* p < 0.05, \* p < 0.1.

the EU level, since they expect a better deal for their member state in all kinds of EU-level negotiations by electing them. Questions (1c) and (2) are intended to capture alternative reasons for voting for such parties only at the EU level. Furthermore, for each of the voted parties, we asked which party represents their views better, as compared to other parties. The order of questions was randomised.

Finally, we collected the answers to a set of standard demographic questions and a few questions on media use and interest in politics. The survey, with a duration of approximately 10 min, was translated into each of the respective national languages. We coded Eurosceptic and moderate parties based on the same methodology outlined in the previous section.

We report our results in Table B.12. The first four lines represent the above four options. The fifth line represents the difference in support between the voted Eurosceptic and the voted moderate party(ies). Positive (/negative) values imply higher support for the Eurosceptic (/moderate) party(ies). The table reports the total number of observations for each question (columns 1 and 3) and the average support for each statement (columns 2 and 4), distinguishing by the level of political interest (low interest in columns 1 and 2, high interest in 3 and 4). We highlight this differential, as it appears to be the only dimension along which preferences consistently change across individuals. Column 5 shows the difference (4-2), that is, by how much Table A.10

Eurosceptic voting at EU vs. National elections: NUTS level & Ideology

	(1)	(2)	(3)
	EU-Nat Diff	EU-Nat Diff	EU-Nat Diff
Populist	-4.637***		
	(0.418)		
Populist*1st tertile	5.300***		
	(0.427)		
Populist*3rd tertile	4.200***		
	(0.463)		
Farleft		0.206	
		(0.327)	
Farleft*1st tertile		0.843**	
		(0.348)	
Farleft*3rd tertile		1.135***	
		(0.342)	
Farright			-3.573***
			(0.446)
Farright*1st tertile			5.136***
			(0.453)
Farright*3rd tertile			4.648***
			(0.475)
Observations	41,076	41,076	41,076
R-squared	0.109	0.101	0.108
NUTS FE	YES	YES	YES
Year FE	YES	YES	YES
Controls	YES	YES	YES
Country*Year FE	YES	YES	YES

Note: The Table reports OLS coefficients and Robust Standard errors. *tertiles* split countries in three groups based on their level of net contributions to the EU budget. The omitted category is the second tertile. The dependent variable *EU-Nat Diff.* is the difference between a party vote share at the European and at the national elections within a 10-year period. *Turnout Diff.* is the turnout difference between EU and national elections in a specific election period at NUTS3 level. Controls (not displayed) include: a dummy for parties receiving less than 5% in the previous national elections; a dummy set equal to 1 for incumbent parties in the previous national elections. *Populist, FarLeft* and *Far-Right* are dummies equal to 1, respectively for, populist, extreme left and extreme right political parties. Standard errors are clustered at the NUTS3 level. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1.

preferences are more intense for agents with a high interest in politics. The last columns reports a t-test comparing the two groups.<sup>26</sup>

 $<sup>^{26}\,</sup>$  Specifically, we consider as having high political interest those individuals replying 4 or above on a scale from 0 to 7. Conversely, we do not find any

### Table A.11

Eurosceptic voting at EU vs. National elections: NUTS Level -	Subsample of national and EU elections in the	he same year.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1st tertile	-0.591***								
	(0.178)								
3rd tertile	-0.452***								
	(0.140)								
Eurosceptic		0.359**							
		(0.141)							
Eurosceptic			-8.000***	-8.016***	-11.49***	-8.072***	-8.072***	-11.22***	-2.159***
			(0.717)	(0.717)	(0.720)	(0.714)	(0.718)	(0.834)	(0.814)
Eurosceptic*1st tertile			8.050***	8.058***	11.49***	7.927***	7.947***	12.81***	2.103**
			(0.722)	(0.722)	(0.740)	(0.719)	(0.727)	(0.845)	(0.820)
Eurosceptic*3rd tertile			9.949***	9.955***	13.51***	9.979***	10.31***	16.86***	3.201***
			(0.735)	(0.735)	(0.765)	(0.731)	(0.723)	(0.852)	(0.824)
Eurosceptic*1st tertile*Expansion									6.375***
									(1.117)
Eurosceptic*3rd tertile*Expansion									8.092***
									(1.116)
Observations	16,136	16,136	16,136	16,136	16,136	16,136	6,224	6,611	14,920
R-squared	0.009	0.068	0.109	0.110	0.121	0.123	0.229	0.432	0.144
NUTS FE	NO	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Turnout Diff.	NO	NO	NO	YES	YES+INT	YES	YES	YES	NO
Controls	NO	NO	NO	NO	NO	YES	YES	YES	NO
Country*Year FE	NO	NO	NO	NO	NO	YES	YES	YES	NO

Note: The Table reports OLS coefficients and Robust Standard errors. *tertiles* split countries in three groups based on their level of net contributions to the EU budget. The omitted category is the second tertile. The dependent variable *EU-Nat Diff.* is the difference between a party vote share at the European and at the national elections within a 10-year period. *Turnout Diff.* is the turnout difference between EU and national elections in a specific election period at NUTS3 level. In column 5, we control for turnout differences between a further and turnout differences. Controls (not displayed) include: a dummy for parties receiving less than 5% in the previous national elections; a dummy set equal to 1 for incumbent parties in the previous national elections. *Expansion* is a dummy equals to 1 in the period after the 2004 EU enlargement. Standard errors are clustered at the NUTS3 level. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1.

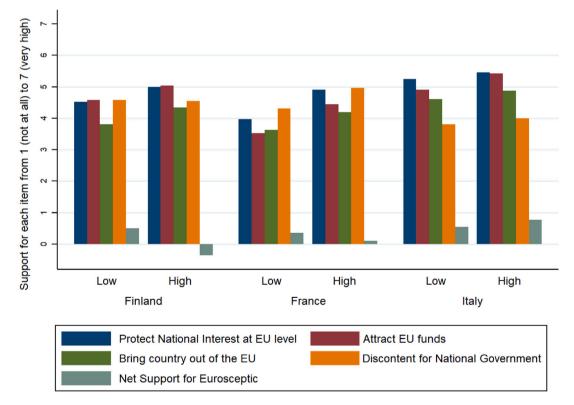


Fig. B.9. Online Survey results. The figure shows the distributions of replies across countries and levels of political interest.

We find that respondents with high levels of political interest tend to agree more with all four statements, while they are not different in terms of their support for Eurosceptic parties.<sup>27</sup> However, such differences are higher and statistically more significant for the two strategic

 $<sup>^{27}</sup>$  This validates the idea that, on average, voters do not systematically feel closer to the Eurosceptic parties the more they are politically informed. Hence, it provides additional validation of the informed voter being even more strategic.

heterogeneity across other dimensions, such as gender, age, education, job status and media consumption.

### Table B.12

Online survey: descriptive statistics and t-test by political interest

on the survey. descriptive statistics and elest by pointear interest.										
	N Low-Int	Mean Low-Int	N High-Int	Mean High-Int	Diff.	<i>p</i> -value				
National Interest	136	4.24	170	5.01	0.775	0.000				
Attract EU Funds	136	3.88	170	4.71	0.827	0.000				
Out of EU	136	3.79	170	4.34	0.547	0.014				
National Discontent	136	4.27	170	4.71	0.438	0.060				
Support Eurosceptic	122	.413	147	0.17	243	0.323				

Note: This table reports descriptive statistics on the online survey. We report the number of observations and the mean for the entire sample and differentiating between respondents with high and low political interest. The last two columns report a t-test comparing the average support for each statement between low and high respondents in terms of political interest.

statements, both if we conceptualise it in abstract terms (protecting the national interest) or in more concrete terms (attracting EU funds). Fig. B.9 (Appendix B) shows the average support for each statement differentiating by country and levels of political interest.

Overall, these results suggest that strategic voting plays a role in this decision-making process and that such sophisticated voting behaviour is indeed typical of voters more involved in the political arena and its discourse.

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