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Does diversity undermine the welfare state? Evidence from the provision of local public services in European regions

Abstract

The management of the welfare state in a heterogeneous society is a growing challenge in Europe. This paper investigates the relationship between diversity and the welfare state by studying the citizens' satisfaction about public services across European regions; it also establishes a link between research on diversity and the welfare state, and fiscal federalism theory, by focusing on the provision of *local* public services. We employ region level indicators of the citizens' perception of local public services, regional autonomy, and regional diversity based on nationalities. We find that *i)* diversity is negatively correlated with the quality of local public services; and *ii)* regional autonomy partially improves the quality in the presence of diversity. When using objective measures of public services the results are less robust; this raises an issue about the citizens' perception about the functioning of the welfare state in heterogeneous communities which deserves attention from policy makers.

Keywords: diversity; regional autonomy; local public services; European regions

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I. INTRODUCTION

Dealing with diversity has become imperative in the European Union (EU) and national policy agendas. Diversity within the EU is bound to grow for two main reasons. Firstly, internal mobility is a cornerstone of the EU policy, and it is expected to boost as a result of asymmetric trends in job opportunities across the Member States. Secondly, immigration from outside the EU borders is going to become more relevant. At present, both these mechanisms are already making European countries, regions and cities more heterogeneous places.

One of the consequences of this process is the increasing pressure on the welfare states, particularly regarding the provision of local public services, such as health, public housing, local police and education. Alesina and Glaeser (2004, p. 11) raise a concern about a trade-off between a generous immigration policy and a generous welfare state: “one natural implication of our conclusion that fractionalization reduces redistribution is that if Europe becomes more heterogeneous due to immigration, ethnic divisions will be used to challenge the generous welfare state”. In fact, the rising negative perception about migrants in Europe is driven by concerns that foreigners abuse welfare (Boeri, 2010; 2009). Provided that intra-EU mobility is a cornerstone of the integration process, the relationship between a more diverse society and welfare is going to be one of the most relevant issues to deal with in the coming years for the European countries and regions (Christansen, 2012; Dennison and Geddes, 2018; Freeman, 1986).

The idea that mobility and immigration pose great challenges to the welfare state in European countries has gained in importance in the political debate as well. In the words of the Britain's ambassador to Berlin, Sir Sebastian Wood, “it is freedom of movement for workers, and not freedom of movement for 'welfare shopping’”.² Several recent cases of “welfare chauvinism” have been reported in two champions of welfare states, such as Denmark and Sweden (The Economist, 2018; Nannestad, 2004). This debate is associated with the rising *perception* that immigrants represent a fiscal burden on the European welfare states, and have access to transfers beyond the rules for eligibility. In fact, there is little evidence that immigrants get higher benefits from public policies compared to the natives (Huber and Oberdabernig, 2016; Boeri, 2010). To the contrary, in many countries immigration is often a solution to the pressure on the welfare states in that they tend to be net contributors (Razin and Sadka, 2000). Yet, as Machiavelli already understood several centuries ago, quite often people are driven by perception rather than reality.³ Particularly when it comes to public policy and the quality of institutions, “perceptions matter because agents base their actions on their perceptions, impression, and views” (Kaufmann et al., 2009).⁴

Empirical studies - carried out mostly in the United States and in developing countries - have by and large found that when ethnic diversity grows, both the financing the welfare state, the provision of public goods, and income redistribution become more problematic. There is abundant literature in

² The article can be found here: <https://www.thelocal.de/20160218/uk-asks-german-help-to-stop-welfare-shopping>.

³ In original “*L’universale degli uomini si pasce per quel che pare, come di quello che è; anzi molte volte si muovono più per le cose che paiono che per quelle che sono*”.

⁴ In fact, it can also be argued that objective measures – as for instance in health or education - do not tell us much about the quality of the services as well as about the satisfaction of the citizens/users.

the U.S. showing that citizens in heterogeneous cities and communities are less inclined to redistributive policies and to provide public goods (Alesina and Ferrara, 2005). In general, taxpayers are more tolerant of benefits that are seen to look after similar people: higher aversion to ethnic diversity tends to be associated also to lower tax morale (Belmonte et al., 2018). Experimental research confirms the presence of a tension between diversity and generosity (Stichnoth and Straeten, 2013).

This paper aims to inform this debate by investigating empirically the relationship between diversity and the provision of local public services across European regions. Our first research question is: is diversity associated to a lower performance of local public services?

This paper is the first to analyse this relationship in the European regions. Several studies have enquired whether the presence of a high heterogeneous population reduces the quality of local public policies. The answer is positive in most cases (for a recent review see Stichnoth and Straeten, 2013), although much of the research has addressed ethnic diversity and has been carried out either in the United States or in developing countries, in which ethnic differences are considerable (e.g. Clark et al., 2013; Miguel and Gugerty, 2005; Kyriacou, 2012). Whether these results hold also in the European context cannot be taken for granted. Most of the research that has addressed this issue at the subnational level has been carried out limited to the United States (Cutler et al., 1993; Alesina and Ferrara, 2005). There are two reasons for focusing at the region level in the European case. Firstly, local public services are either provided or managed at the region or local level; therefore, the regions – and the regional governments – play a prominent role. Secondly, as we show below, both the degree of diversity and the performance of the provision of local public services exhibit considerable *within-country* differences.

The second research question we address here is the role of decentralization (or regional autonomy) in this setting. Decentralization and regional autonomy have often been seen as effective institutional settings to provide local public services efficiently and effectively, particularly in the presence of heterogeneous population. It is not by chance that the United States, Canada and Australia, that are countries that have their roots in migration, are among the most decentralized countries in the world, being in fact federal states. Countries where there are ethnic or linguistic minorities also tend to be either federal or highly decentralized, such as for instance Canada, India, and South Africa to name a few. This is also evident in unitary countries – where it takes the form of asymmetric federalism – in which live minorities whose regional governments benefit from specific augmented forms of autonomy, as it is the case in the United Kingdom, Spain, and Italy (Congleton et al., 2003). Our second research question stemming from research on fiscal federalism and decentralization theory is: *does regional autonomy act as a moderator between diversity and the provision of local public services?*

Federalism, fiscal devolution, political decentralization are institutional reforms that have been carried out with the aim of reducing the gap, perceived as increasingly larger by the citizens, between the government and the places (Martinez-Vazquez et al., 2016; Diaz-Serrano and Rodríguez-Pose, 2012). We can mention major constitutional reforms in Italy and Spain, as well as recent reforms in France; but also a stronger ‘voice’ rising from the bottom, through which regions claim for greater autonomy, as the cases of the referendum in Scotland, Cataluña, and those recently experienced in two regions in the North of Italy, suggest. When it comes to the rationale for

decentralization and regional autonomy, local public services play a prominent role. As Serrano and Rodriguez-Pose (2011) put it, the primary aim of decentralization has never been about delivering greater economic growth, lowering inequality or increasing social capital; rather, “the original aim of decentralization is fundamentally to improve the *delivering of public goods and services* to individuals and, consequently, the *level of satisfaction* of the population with government” (p. 2, our emphasis). A few studies have explored the implications of decentralization for the relationship between diversity and the provision of public policies. A second contribution of this paper is that of bringing together these two streams of research that have addressed the provision of local public service and public policies from a different perspective.

The empirical analysis covers 167 European regions. To measure the provision of local public goods at the regional level we employ a composite indicator developed by *The QOG Institute* based on the citizens’ perception about local public services (Quality of Government Institute, 2010; Charron and Lapuente, 2011). Regional autonomy is measured using the *Regional Authority Index* developed by Hooghe et al. (2008a); these two indicators have a number of strengths and have been increasingly employed in this type of studies (e.g. Charron et al., 2014; Ezcurra and Rodríguez-Pose, 2012). An index taking into account the diverse composition of the population is developed following other studies (Alesina and Zhuravskaya, 2011; Kyriacou, 2012; Ozgen et al., 2013; Ozgen et al., 2014); the index is based on the census of 2011 and considers three types of residents: native citizens, foreign EU residents, and foreign non-EU residents. We do not look specifically at ethnic diversity, but we rather address the issue of national diversity; this allows us to extend the research to a wide sample of regions hence addressing a broader phenomenon which is relevant for EU policy.

We find evidence that the presence of a heterogeneous composition of population in the region is associated to a relatively lower quality of local public services; employing objective measures of local public services only moderately confirm the results, hence raising an issue of (mis)perception. Regional autonomy can act, only partially, as a moderating mechanism between diversity and the quality of local public services.

The paper is organized as follows. In the following section we put forward two hypotheses on the ground of research on diversity and public policies, and research on fiscal federalism; section three presents our measures of public services, regional autonomy and diversity. Section four presents the empirical strategy and the results, while section five discusses them and concludes.

II. LOCAL PUBLIC SERVICES, DIVERSITY AND REGIONAL AUTONOMY: THEORY AND TWO HYPOTHESES

This paper bridges two different streams of research: the one dealing with the impact of diversity on the provision of local public services; and the one dealing with role of decentralization and regional autonomy, as desirable institutions to deliver local public policies in the presence of heterogeneous communities. In what follows we derive two hypotheses from these two strands of research which are going to be tested in the empirical part.

Diversity, local public goods and local public policies

The provision of local public policies becomes more problematic in the presence of a heterogeneous population. Alesina and Glaeser (2004), for instance, foresee a reduction of the size of the welfare state in Europe as a result of the increase of immigration and diversity. Empirical research finds that social spending, such as expenditure for public schools, government transfers, health spending etc. tend to be negatively correlated with diversity (Stichnoth and Straeten, 2013). Several studies have addressed the phenomenon of ethnic diversity and the provision of public goods in developing countries, providing empirical evidence that ethnic diversity undermines local public policies, e.g. education and health (e.g. Habyarimana et al., 2007; Miguel and Gugerty, 2005). Alesina et al. (1999) find that the shares of spending on productive public goods in U.S. cities are inversely related to the city's ethnic fragmentation, even after controlling for other socioeconomic and demographic determinants. Cross-country studies tend to confirm these results (Alesina and Ferrara, 2005; Stichnoth and Straeten, 2013)

Various explanations have been put forward to explain the tension in the provision of public services in heterogeneous communities. The first one regards the welfare dependence of immigrants compare to the natives. This is the 'burden' argument, according to which immigration is expected to increase the demand of public welfare. Empirical research shows that *i)* more generous welfare states are more attractive for immigrants; *ii)* when migrants receive more generous benefits from the welfare state, this mostly depends on a composition effect, i.e. age and household size (Huber and Oberdabernig, 2016). To the extent to which this results in stronger competition for local public goods and services, the latter might deteriorate.

The second argument pertains those social (and social psychological) mechanisms connected to collective action, and more precisely those that drive the individual contribution to public resources. The theoretical 'microfoundation' lies in the relationship between ethnic diversity and individual preferences. According to social identity theory, individuals tend to attribute positive utility to the well-being of members of their own group, and negative utility to that of members of other groups, and they tend to connect with like-minded people (Bakker and Dekker, 2012). When an individual perceives that her reference group is alienated from the rest of the community, she feels her social position more threaten by other out-group members and therefore trust towards unknown reduces (Bobo and Hutchings, 1996).

Thus, social diversity increases trust towards in-group members and *reduces* trust towards out-group members (Putnam, 2007); as a result, communities from different ethnicity are associated with lower interaction, trust and social cohesion (e.g. Stolle et al., 2008; Marschall and Stolle, 2004; Camussi et al., 2018; Finseraas and Jakobsson, 2012). This depends on the fact that an individual's behaviour and engagement are affected by the characteristics of her neighbours:

"people (both natives and immigrants) generally prefer to live among people with the same background and are *less likely to be willing to share resources* with those who they perceive as different from themselves. They prefer to interact socially with others who share the same ethnic heritage, the same socioeconomic status, the same lifestyle, and who therefore share common interests, experiences and tastes or, put simply, people they have more to talk about with." (Tselios et al., 2017 our emphasis).

These mechanisms bear relevant consequences when it comes to the citizens' support to the welfare state and to redistributive policies. As Stichnoch et al. (2013, p. 370) explain, "If citizens are more supportive of redistribution when people from their own ethnic group benefit from it, ethnic diversity will reduce the support for redistribution, which in turn will tend to decrease the actual level of redistribution". Alesina and La Ferrara (2005) put forward further theoretical elements which can explain in which situations the more unwilling to share public good or resources are the different groups. Building on social identity theory they show that individual utility from joining a group depends positively on the share of group members of one's own type and negatively on the share of different types. They also point out that "even when individuals have no taste for or against homogeneity, it may be optimal from an efficiency point of view to transact preferentially with members of one's own type if there are market imperfections" (2005, p. 2). They recall Greif (1989) study on traders in medieval times, in which ethnic affiliation was pursued to sustain a reputation mechanism in the presence of asymmetric information. Membership in ethnic groups supports cooperative strategies in that both punishment and reciprocity can be directed not only to the individual but to other members of his/her group.

A substantial body of empirical research has explored the role of ethnic heterogeneity in the history of American cities. This research tends to consistently find that the provision of public goods, as for instance education, is lower in heterogeneous social contexts, not only along the ethnic dimension, but also social and economic (Alesina and La Ferrara 2005). This research corroborates the social capital issue raised by Putnam (2007), in that in American cities individuals of different races are less willing to participate in social activities in mixed communities. These studies have been recently better qualified, although in some cases (notably in European countries) the evidence is less clear-cut (see Stichnoth and Straeten, 2013).

From the discussion above we derive the following hypothesis #1:

Hip#1: the higher the level of diversity in a region, the lower the performance in the provision of local public services.

Regional autonomy, diversity, and public services

A central mechanism which connects diversity with dysfunctionality in public policy is the heterogeneity of preferences, in that heterogeneous tastes across ethnic groups are the channel through which diversity affects collective action (Alesina et al., 1999). If diversity affects the economic choices and the outcome of public policies, by directly entering individual preferences (Alesina and Ferrara, 2005), then decentralization and regional autonomy are natural candidates to address the provision of local public services in the presence of diversity. The idea here is that regions characterized by greater diversity might need a different set of public policies compared to more homogenous regions. For this reason, decentralized policies are expected to be more responsive than centralized policies, and thus welfare-enhancing.

Two fundamental mechanisms have been developed by the theory according to which regional autonomy improves the provision of local public services in the presence of differentiated preferences across jurisdictions. The first goes back to the contributions by Tiebout and Oates. Building on the theory of public goods, Tiebout (1956) makes the argument that by providing public

goods at the local level people will reveal their preferences by moving in the jurisdiction that offers the better set of policies for them. This sorting process will improve allocative efficiency assuring a better matching between the citizens' preferences and local public goods. The fundamental decentralization theorem put forward by Oates (1972), instead, focussed on the production side of public goods. The key point is that, in absence of economies of scale, decentralizing the production of public goods reflecting differences in preferences across the jurisdiction will increase welfare.

A second stream of theoretical literature – the so-called second generation theory – has included the political economy perspective to explore the structure of incentives embodied in federal fiscal and political institutions (Oates, 2005). This literature identifies the most relevant benefit of decentralization in the greater sensitivity of policy makers to local preferences, provided they get elected locally and they are responsible to manage local resources, particularly by levying local revenues and taxes (Weingast, 2014).

By contrast, decentralized settings might raise problems of free-riding and inefficiency due to a lack of coordination in the production of public goods, particularly when the effect of the latter spill over across jurisdiction. Further costs of decentralization might arise from opportunistic behaviour of local officers due to capture from local groups of interest and corruption (Prud'Homme, 1995; Baskaran and Feld, 2013; Tanzi, 2001).⁵ Empirical research shows that countries with centralized governments can also deliver *local* public services as efficiently as decentralized countries do (Filippetti and Cerulli, 2017). However, these criticisms are not directed towards the claim that regional autonomy works better in heterogeneous population.

Research looking at the role of decentralization in diverse communities is scant. In their study on ethnic diversity and public goods in Kenya, Miguel and Gugerty (2005) discuss the implications of decentralization of local public goods in communities characterized by high heterogeneity, and they raise two important arguments against the centralization of public services in these cases. Firstly, in many less developed countries central governments underprovide recurrent expenses. Secondly, centralization of funding could lead to more regional and ethnic favouritism in the allocation of national government funds. However, this cannot be applied to the European case. In a recent paper looking at diversity, tax morale and decentralization, Belmonte et al. (2018) build a theoretical model and provide country-level evidence showing that aversion to diversity reduces tax morale, but decentralization alleviates this problem. In their model they raise a key issue. When regions are different among them, but with no within-region ethnic diversity, decentralization is fully efficient in that it prevents cross-subsidies across groups, since taxes are raised and employed locally. By contrast, in the presence of within-region ethnic diversity, decentralization is not able to fully ensure against aversion to ethnic diversity because of the presence of cross-subsidies. Yet, they find that decentralization increases tax morale in the presence of ethnic diversity.

Our measure of diversity reflects differences in the degree of diversity across regions; that is, it tells us if the population living in region A is more or less diverse of region B. This is expected to be reflected into different set of preferences among the two regions. By making the government closer to the people, regional autonomy is expected to provide local policies that are better able to respond to the differentiated needs of the regions, and in particular to better address the specific needs arising in regions characterized by greater diversity. This is precisely the case regarding

⁵ For a recent review of the empirical literature see (Rodríguez-Pose and Gill, 2003; Espasa et al., 2017).

European regions where we observe considerably *within-country* variation in the degree of diversity (see Section III below).

Following on these lines of reasoning, we put forward the second hypothesis:

Hip#2: regional autonomy is expected to moderate between diversity and the performance of local public services. [Put differently, for any given level of diversity, a higher level of regional autonomy is expected to be associated to a higher performance of local public services].

Hip#2 stems from fiscal federalism theory which claims that decentralization is more efficient in the case of different preferences among the population. However, one can argue that if a region is extremely diverse, and at the same time it retains financial autonomy, citizens might be less inclined to finance welfare to prevent cross-subsidies across groups, consistently with the social psychology theory discussed above, as in Belmonte et al., (2018). Hence, in the case of particularly high levels of diversity in some regions, a decentralized decision-making process about local public services can be less efficient, contrary to Hip#2.

III. DATA: MEASURING THE PERFORMANCE OF LOCAL PUBLIC SERVICES, THE LEVEL OF REGIONAL AUTONOMY AND DIVERSITY

The provision of local public services

The organization for the provision of local public services differs across countries depending in the first place upon formal provisions at the level of the constitution, according to which the type of state can be grouped in three broad categories: federal states, regionalized states, and unitary states. Firstly, we need to distinguish between exclusive competences attributed to the regional and local governments, and competences that are instead shared between the central government and the regional and local governments. Secondly, competences can be divided into legislative and administrative; typically, in unitary states the legislative competences belong to the central government, while the administrative competences can be attributed to different levels of sub-national governments. In decentralized settings, such as federal or regionalized countries, both the legislative competences and the administrative competences of some local services can be attributed to the regional (and local) level. The revenue system for local public services also varies considerably across countries: in federal or regionalised states regional governments often have some taxation power; by contrast, in unitary states local services tend to be financed through a mechanism of transfers from the central government. As a result, one can observe a great deal of heterogeneity when it comes to the regional competences across countries regarding the provision of public services, even when they are local services, such as for instance in the cases of education, public transport, health, local police, etc. (see European Institute of Public Administration (EIPA), 2012). There are countries such as Bulgaria, Estonia, Lithuania, the Netherlands, Slovenia and Sweden where regions have no specific competences on their own; federal countries like Belgium, in which regional governments have no competences on education, or like Germany, in which instead

the *Lands* have competences above a large number of services. Similar patterns can be found for other local public services (e.g. health).⁶

This paper employs a composite indicator of the performance of local public services provided by the *Quality of Government Survey* (Charron et al., 2014; Quality of Government Institute, 2010) based on the citizens' perception of three local public services: education, health and law enforcement. These are also those public services that are usually investigated in decentralization studies (Sacchi and Salotti, 2014). The indicator is a perception-based indicator built from a 34,000-respondents survey from 172 regions within 18 EU member states; to date, this constitutes one of the most comprehensive surveys about the quality of local public goods at the sub-national level.⁷ The survey was undertaken between 15 December, 2009, and 1 February, 2010 and consisted of 34 questions to the approximately 200 respondents per region. Respondents were asked about three general public services in their regions – education, health care and law enforcement. In focusing on these three services, respondents were asked to rate their public services with respect to three related concepts, namely the *quality*, *impartiality* and an inverse measure of the level of *corruption* of these services (the complete questionnaire can be found in the Appendix of Quality of Government Institute, 2010). The Survey also provides a single QoG index for each region obtained by averaging the three pillars - quality, impartiality and (lack of) corruption, each weighted 1/3rd. In our analysis we are going to use both the overall *QoG index* performance as well as the three pillars.⁸ The data have been standardized such that the EU regional mean is '0' and has a standard deviation of '1'.⁹ A series of extensive sensitivity tests to see whether changes in the model alter the final data was done. It arises that "data constructed here are highly robust to multiple changes in weighting and aggregation schemes, the removal of individual questions or alterations in the demographic make-up of the respondents" (Quality of Government Institute, 2010).

The degree of regional autonomy

We employ a comprehensive measure of regional autonomy, the *Regional Authority Index (RAI)* (Hooghe et al., 2008; Marks et al., 2008), which includes fiscal, political, and administrative measures of the authority of a regional government. The RAI measures the autonomy of regional governments in 42 democracies or quasi-democracies on an annual basis over the period 1950–2006. The countries included are twenty-nine OECD countries, the 27 countries that are members of the European Union, plus Albania, Bosnia and Herzegovina, Croatia, Macedonia, Russia, and Serbia and Montenegro.

⁶ A comprehensive report on this issue can be consulted here: <http://www.cesifo-group.de/ifoHome/facts/DICE/Other-Topics/Structural-Policy/Regional-Policy/DP-MC-reg-comp/fileBinary/DP-MC-reg-comp.pdf>.

⁷ Note that the authors call this index "quality of government index" since they use the provision of local public goods as a proxy for the quality of regional government. Our focus here is instead on the quality of local public services themselves, exploiting the heterogeneity in their organizational structure across regions.

⁸ In the paper we will refer to overall performance to refer to the overall index, and to quality to refer to the single pillar 'quality'.

⁹ More precisely, with respect to countries, data have been standardized setting the national average using the external assessment and explain the within-country variance using the regional level QoG data. That is, the unweighted, average regional QoG score for each of the 18 countries has been taken and it has been subtracted from each region's individual score, which then has been added to the national level data for each pillar, thus giving each region an adjusted score (Quality of Government Institute, 2010). In the online Appendix we report a section "Country fixed effects" in which we report the same estimates provided in our empirical section including both country fixed effects and standard errors clustered by country.

The RAI is composed of two pillars, which capture respectively the degree of autonomy exerted by a regional government over its territory (*self-rule*) and over the whole country (*shared-rule*). Self-rule regards the degree of independence of the regional government from the influence of central authorities and the scope of regional decision-making (e.g., the extent to which a regional government is autonomous rather than deconcentrated; the range of policies for which a regional government is responsible; the extent to which a regional government is endowed with an independent legislature and executive). In turn, shared-rule measures the capacity of the regional government to determine central decision-making (e.g., the extent to which regional representatives co-determine national legislation; the extent to which a regional government co-determines national policy in intergovernmental meetings; the extent to which regional representatives co-determine constitutional change).¹⁰

This index has been used in these types of studies replacing measures of fiscal expenditures as proxy of decentralization (e.g. Ezcurra and Rodríguez-Pose, 2012; Rodríguez-Pose and Ezcurra, 2011; Filippetti and Sacchi, 2016). The RAI has a number of strengths. First, it captures the structure of government that “affects political participation, accountability, [...] government spending” (Marks et al., 2008, p. 1). Indeed, the RAI is a composite indicator that takes into account several aspects of autonomy. This makes it suitable to capture the continuum along which administrative autonomy is implemented. Second, by exploring how governments are structured it allows us to consider the variation across countries if the institutional arrangements. Thus, for instance, fiscal autonomy measures the extent to which a regional government can independently tax its population, regardless the level of local revenue, as well as the extent to which regional representatives co-determine the distribution of national tax revenues. Third, it takes into account the degree of accountability of local officers, since it includes a measure of the extent to which a regional government is endowed with an independent legislature and executive. As such, RAI takes into account both the fundamental pillars of the theory of fiscal federalism, namely the sub-national devolution of policies and fiscal autonomy, as well as the representativeness of local policy makers in sub-national governments.

A measure of diversity

We calculated our measure of diversity by taking data from the census of 2011,¹¹ which considers for each region the following categories of citizens: native citizens, foreign EU residents, and foreign non-EU residents (including stateless). A typical measure of diversity can be obtained by subtracting 1 to the Herfindahl index of the variable of interest. In our case, this becomes (1 - Herfindahl index of nationality shares), an approach also followed by others, e.g. Ozgen et al., (2013, 2014). A cursory look at the diversity indicators reveals a normal-shaped distribution with a tail on the right side that reflects the metropolitan areas of London, Brussels, and Wien. We have also calculated another

¹⁰ In checking for the robustness of the *rai*, Marks et al. (2008) show that it can be interpreted as an indicator of a latent construct. They also show that self-rule and shared-rule are two distinct domains that can be therefore used separately. The score of the RAI is obtained as the arithmetical sum of self-rule and shared-rule, which in turn is obtained as the sum of each dimension, with different weights. Country scores are obtained by first calculating a score for each regional tier and then aggregating these scores. Hence, the more regional tiers a country has, the higher is the country score, all other things being equal. Decentralization scores are weighted by population. The RAI can vary from a minimum of 0, while the maximum can vary according to regional scores as well as the number of tiers. Following Marks et al. (2008), we interpret RAI as an ordinal measure of regional autonomy.

¹¹ Data can be found here: <https://ec.europa.eu/CensusHub2/query.do?step=selectHyperCube&qhc=false>.

measure of diversity, which reflects the relative importance of non-EU residents vis-à-vis EU-residents, weighted for the share of foreign residents.¹² This second indicator of diversity allows us to exploit the information about the EU versus non-EU nationality. The pairwise correlation among the two indicators of diversity is equal to 0.69. The picture thus changes, with regions from Greece, Spain and Italy appearing those with the higher share of non-EU residents.

Table A1 in the online Appendix reports the list of the regions and the value for the three indicators.

Within country variation of the three measures

Figure 1 shows the sub-national variation of the main index of public services (*QoG*), and the related three pillars. A key aspect of the former, already emphasized elsewhere (Charron and Lapuente, 2011), is the presence of a considerable variation *within the countries*: the sub-national variation of the *QoG* indicator is either equally or more important than variation between EU countries themselves. This is true for the main composite *QoG* indicator as well as for the three pillars – corruption, impartiality and quality of services. Concerning the degree of regional autonomy (Figure 2), the picture is quite different. In fact, in most countries all the regions have the same level of regional autonomy; this is true both for unitary states, such as Bulgaria, and for federal states, such as Austria and Germany. There is also within-country variation, such as the cases of Belgium, Italy, Portugal and Spain, where some regions retain greater autonomy for various reasons. Finally, Figure 3 reports the sub-national variation of our measure of diversity. Similarly to the case of the index of public services, a considerable degree of variation arises within all countries, with the only exceptions of Bulgaria, Romania and Poland.

All in all, we observe significant inter-regional heterogeneity in terms of public services and diversity, which justifies focusing on the region as a unit of analysis. This is less the case for regional autonomy, something we need to bear in mind when interpreting the results.¹³

¹² This index is calculated as follows: $(non-EUresidents / EUresidents) * (non-EUresidents + EUresidents) / (domestic\ residents)$. The first factor - $(non-EUresidents / EUresidents)$ – reflects the relative importance of extra-EU residents on EU residents; this then get weighted by the share of overall foreign residents - $(non-EUresidents + EUresidents)$ – on total domestic population (domestic residents). In this way the index reflects the relative importance of non-EU residents weighted for the share of foreign residents in the region.

¹³ Note that there is no perfect overlapping among our indicators, since diversity relies on the census undertaken in 2011, while the *QoG* index is based on a survey collected between 2009 and 2010. However, given the structural characteristics of the latter this should not change significantly in such a short span of time.

Figure 1 - Sub-national variation of local public services (main Index and the three pillars)

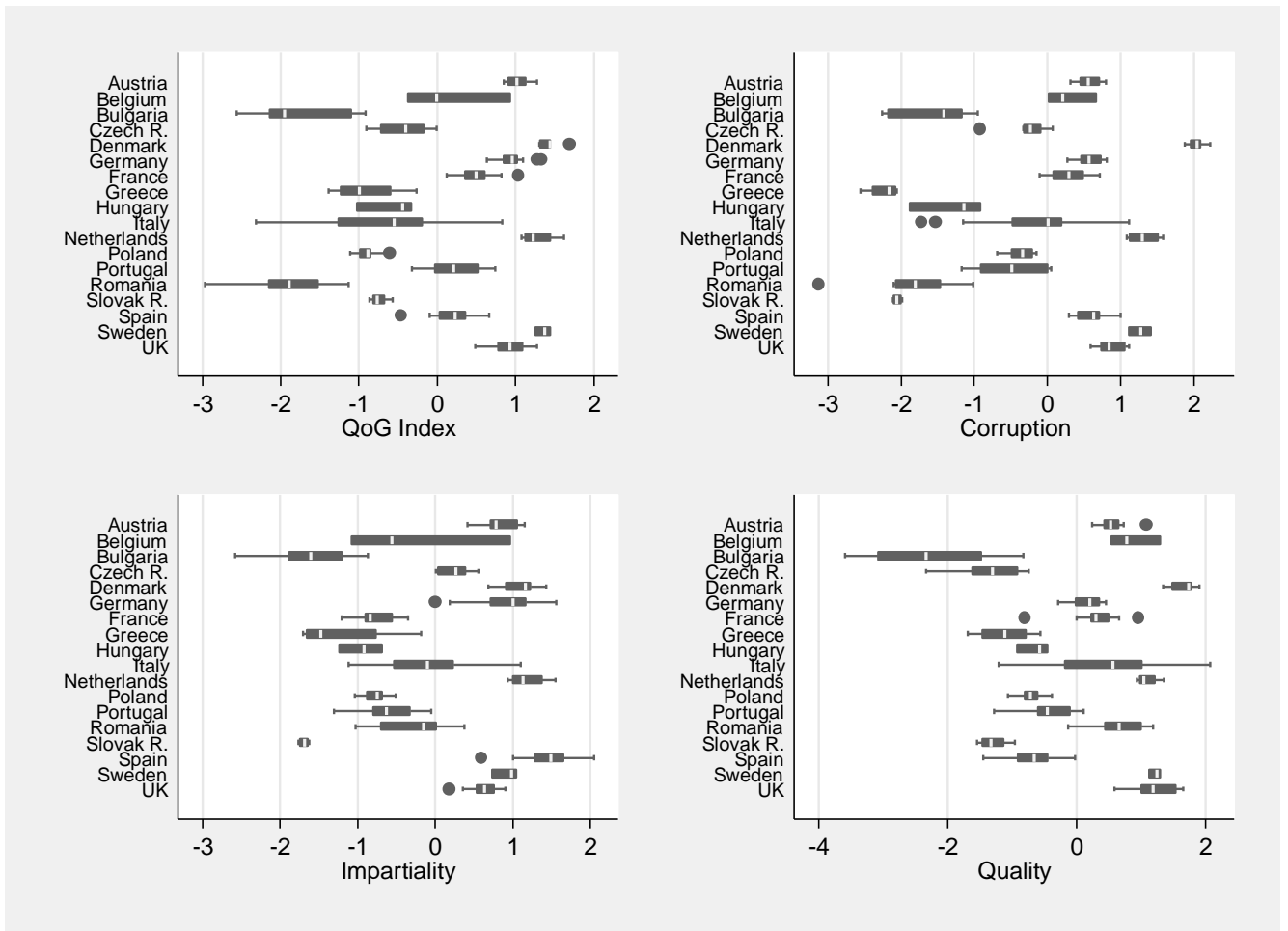


Figure 2 - Sub-national variation of regional authority index (RAI)

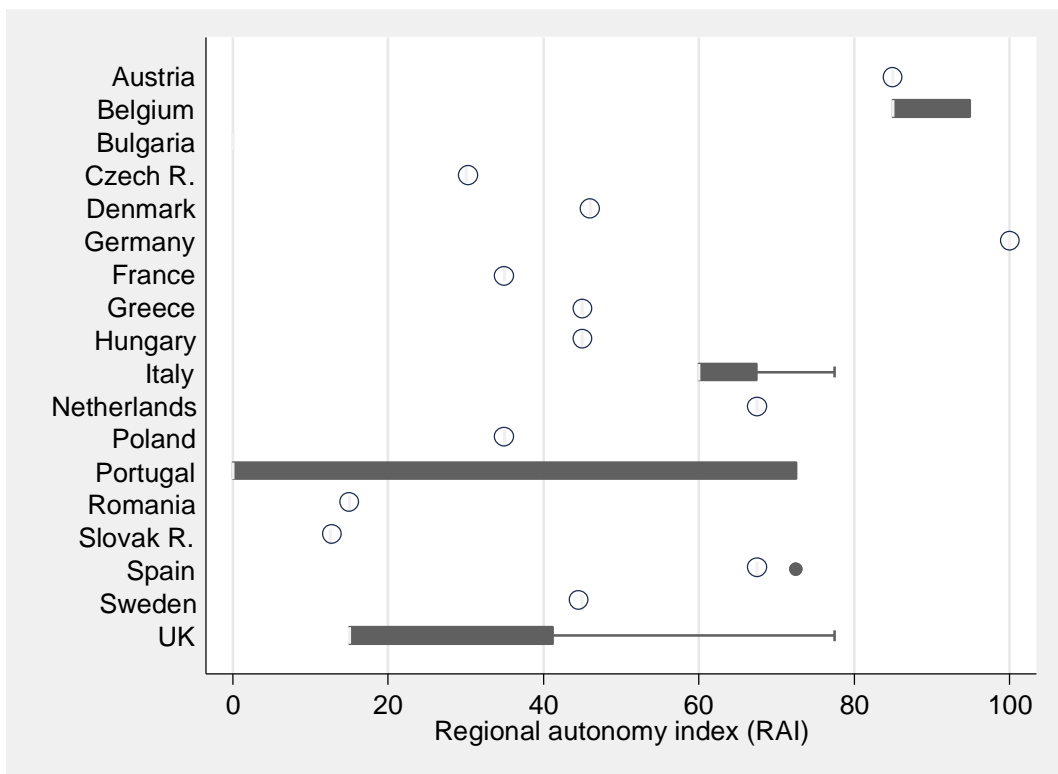
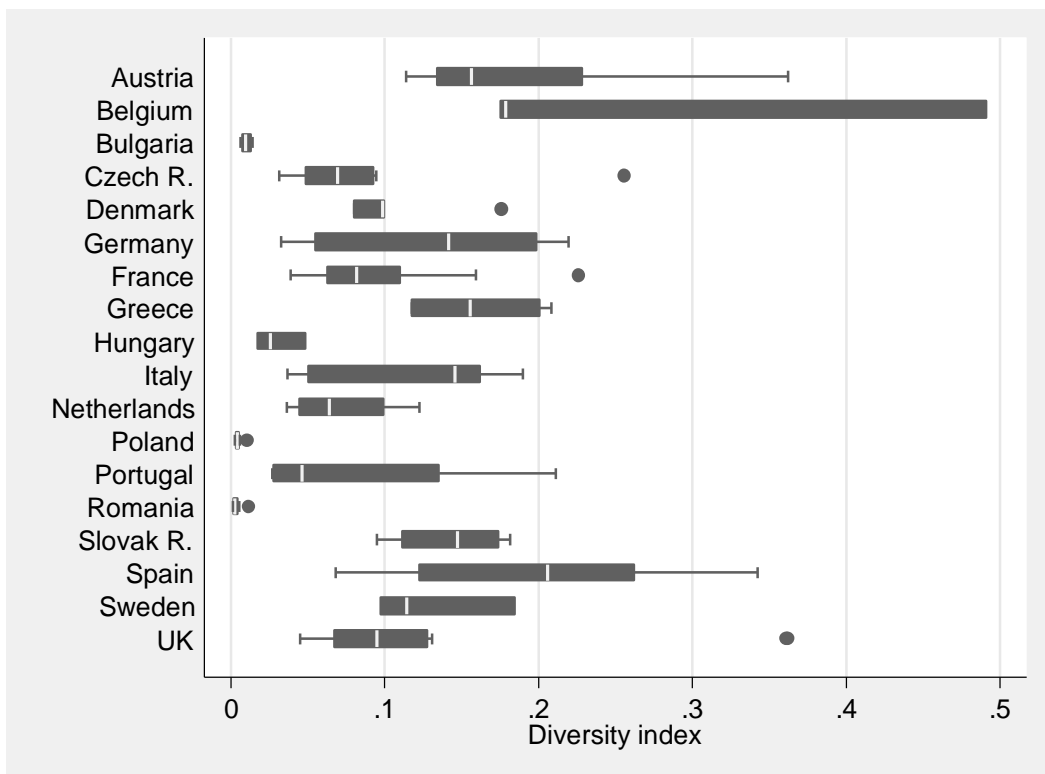


Figure 3 – Sub-national variations of diversity index



IV. ANALYSIS AND RESULTS

Estimation strategy

In order to test our hypotheses, we estimate a cross-section model of 167 regions in Europe employing ordinary least squares (OLS) method, with robust standard errors. The models look as follows:

$$Services_i = \alpha + \beta_1 diversity_i + \gamma_2 controls_i + \varepsilon_i \quad (1)$$

$$Services_i = \alpha + \beta_1 diversity_i + \beta_2 reg_autonomy_i + \beta_3 reg_autonomy_i * diversity_i + \gamma controls_i + \varepsilon_i \quad (2)$$

Eq. 1 tests the first hypothesis (coefficient β_1), while eq. 2, which includes an interaction effect between regional autonomy and diversity (coefficient β_3), tests the second hypothesis.

Several control variables at the region level are included, namely: income per capita (here measured in PPP); three dummies variable controlling for *i*) bilingual region; *ii*) autonomous region¹⁴; *iii*) capital region; the (log of) population. A customary variable which is taken into account in political economy studies is the presence of strong and independent media, since they are considered an important channel through which citizens can monitor the local policy makers. For this reason we have included the variable '*independent media*' which reflects "the strength and effectiveness of the media in the region to expose corruption" and is part of the same QOG Survey. We also employ the share of citizens with tertiary education, as an overall proxy of the level of education of the people living in the region. Finally, we introduce our measure of diversity – the *diversity index*. Eq. 2 includes the same control variables, but it further includes our measure of *regional autonomy* jointly with the *diversity index* (Table A2 in the online Appendix reports the descriptive statistics and the correlation table of our variables).

Local public services and diversity

The scatterplot in Figure 4 shows the overall QoG Index and the diversity index in European regions. At a first glance, a positive correlation arises, which is equal to 0.36. The positive correlation can be explained by the fact that immigration is mostly driven by job opportunities. As such, foreigners would concentrate in richer regions where one can find better services.¹⁵

¹⁴ While this variable is clearly correlated with our measure of regional authority (rate of correlation equal to 0.20), autonomous regions often tend to receive considerable transfer from central states, thus it is important to control for this specific status.

¹⁵ A simple regression between overall QoG Index and the diversity index, controlling for the level of income per capita, provides a negative correlation between overall QoG Index and the diversity index.

Figure 4 – Index of local public services (QoG) and diversity index across regions

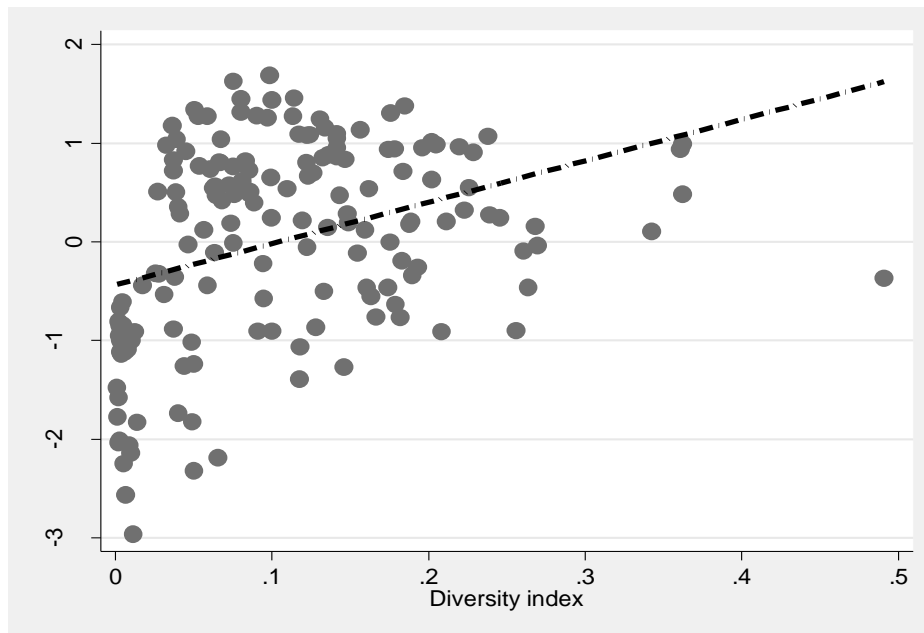


Table 1 reports the results of our estimates of the model (1) above. Column (1) reports the results for the overall index of local services, while the others report the results for each of the pillars, namely impartiality (2), corruption (3) and quality of the services (4). The coefficients of the control variables are in line with what expected. Income per capita predicts high scores in the provision of local services. Autonomous regions seem to be negatively correlated with public services, although the coefficients are never significant. Being a capital region, along with the size of the region (as measured by population), are negatively correlated with services; this might depend on the presence of congestions effects. The presence of independent media is positively correlated with services, while the level of education is instead negatively correlated with the dependent variable; this can depend on the fact that more educated people tend to live in more densely populated urban areas.

By focussing on the explanatory variable - our measure of diversity - the coefficient is negative and significant for the overall index of public services (significant at 5%), corruption (significant at 10%), and their quality (significant at 1%). This supports our hypothesis no. 1.

The results suggest that the coefficient of the overall index is driven by the negative correlation of quality with diversity. The three pillars are positively correlated among themselves (see Table A2 in the online Appendix), as expected from theoretical considerations about the quality of government, but they are capturing different things. Our evidence suggests that citizens in more diverse regions do not raise an issue concerning equal treatment in the provision of public service (impartiality). Problems related to corruption, that in the questionnaire get asked in terms of paying bribes to public officers, do arise, but are relatively weak. By contrast, when asked “how would you rate the quality” of the public services in your area, there is a strong negative correlation with diversity.

One possible explanation is the fact that virtually all the citizens living in an area have a *direct* experience of the local public services, education, health, or local police. As a result, their opinion about the quality of these services is very likely to derive from direct experience. By contrast, their opinion about corruption or impartiality can be derived *indirectly*, as for instance from words of

mouth. The higher standard deviation of quality compared to the other two pillars reflects a larger spectrum of responses on this matter.

There is one additional issue regarding impartiality. The distribution of this variable has two peaks, one for values larger than one, and one for values lower than one – both corruption and quality have a one-peak distribution instead. This polarization reflects the presence of two groups with different opinion. The lack of micro data does not allow further investigation, but one can speculate that having (or not), direct experience in this case can be quite relevant and relatively more important than corruption and quality. This also seems to provide some problems in the fitness of the estimates: the R-square of the estimate of impartiality (column 2 Table 1) is significantly lower than those of the other three estimates.

Table 1 – Estimating the correlation between diversity and public services (main Index and three pillars) (OLS estimates)

Dependent variable:	(1) main Index (QoG)	(2) impartiality	(3) corruption	(4) quality
Diversity index	-1.615** (0.799)	1.559 (1.186)	-1.609* (0.929)	-3.473*** (0.842)
Income per capita	1.453*** (0.108)	0.522*** (0.159)	1.155*** (0.122)	0.865*** (0.170)
Bilingual region	0.200 (0.188)	0.506 (0.314)	0.481*** (0.170)	0.326 (0.265)
Autonomous region	-0.266 (0.230)	-0.149 (0.227)	-0.233 (0.177)	-0.121 (0.259)
Capital region	-0.433* (0.220)	-0.409 (0.259)	-0.516* (0.276)	-0.130 (0.187)
Population of the region	-0.414*** (0.129)	-0.211 (0.157)	-0.277** (0.120)	-0.0911 (0.148)
Independent media	-0.0402 (0.0602)	0.216*** (0.0690)	0.176*** (0.0662)	0.483*** (0.0661)
Population with tertiary education	-0.409*** (0.126)	-0.246 (0.167)	-0.289** (0.129)	-0.172 (0.147)
Constant	-12.47*** (1.154)	-4.576** (1.768)	-10.15*** (1.220)	-8.096*** (1.842)
Observations	167	167	167	167
R ²	0.621	0.365	0.567	0.592

Note: Robust standard errors in parentheses, * p<0.10; ** p<0.05; *** p<0.01.

Addressing endogeneity and the role of perception

There are two issues that can undermine the robustness of our estimates. The first is an issue of endogeneity stemming from the presence of sorting phenomena. In fact, the demographic composition of a jurisdiction can be endogenous to the extent that is affected by decision on public spending; this can be particularly relevant at the region level (Stichnoth and Straeten, 2013).

We tackle the endogeneity issue by employing the following instrumental variable (IV) approach. For each region i , we have obtained a new version of the diversity index calculated as the simple average of the diversity index of the contiguous regions. We employ this as an IV: the correlation of our new diversity index with our diversity index is equal to 0.57. We employ a 2-stage estimate approach (using *ivreg2* Stata routine). Our first stage estimate, which predicts diversity, provides a test of excluded instruments whose $F=11.09$ – according to a rule of thumb an F larger than 10 suggests a “strong” instrument; admittedly in our case this is close to the threshold for “weak” instruments.

Results are reported in Table 2; the signs of the coefficients are the same as those in Table 1. However, the coefficient for the overall index of local services (column 1) and that of corruption (column 3) are no longer statistically significant; the coefficient on impartiality (column 2) is positive and slightly significant, while that of the quality of the services (column 4) is still negative and significant.

Compared to the main estimates, these results confirm that the most severe problem associated to diversity is to the negative perception of the *quality* of local public services. The estimate of impartiality is again problematic, in that the R-square is remarkably lower than the others.

Table 2 – Estimating the correlation between diversity and public services (main Index and three pillars) using an IV approach (IV: simple average of the diversity index of the contiguous regions; 2-stage OLS estimates)

Dependent variable:	(1) Main index (QoG)	(2) impartiality	(3) corruption	(4) quality
Diversity index	-1.087 (1.872)	5.716* (3.120)	-3.178 (2.327)	-5.843** (2.648)
Income per capita	1.378*** (0.157)	0.170 (0.305)	1.261*** (0.204)	1.050*** (0.233)
Bilingual region	0.132 (0.227)	0.119 (0.497)	0.609** (0.249)	0.536 (0.358)
Autonomous region	-0.114 (0.233)	0.0828 (0.293)	-0.207 (0.183)	-0.186 (0.264)
Capital region	-0.730*** (0.240)	-0.719*** (0.274)	-0.636** (0.287)	-0.0936 (0.197)
Independent media	-0.0536 (0.0584)	0.229*** (0.0726)	0.157** (0.0635)	0.468*** (0.0599)
Population with tertiary education	-0.0707 (0.0599)	-0.101 (0.0787)	-0.0501 (0.0656)	-0.0803 (0.0678)
Constant	-13.67*** (1.393)	-2.562 (2.637)	-12.25*** (1.791)	-10.04*** (2.043)
Observations	167	167	167	167
R ²	0.589	0.291	0.539	0.567

Note: Robust standard errors in parentheses, * p<0.10; ** p<0.05; *** p<0.01.

As explained above, the performance of local public services is based on a survey, and thus is a subjective measure. We have already clarified above that, when evaluating public policies, the perception of citizens is considered of the utmost importance. Yet, it can be argued that perception does not reflect the *real* functioning of local public services. More importantly, one can question whether diversity affects the perception of the provision of local public services, and in which direction. So the question becomes the following: are more diverse communities more inclined to have a negative perception of the provision of local public services, for any objective performance in the provision of public services? One issue could be competition among nationalities or ethnic groups. If one nationality, or one ethnic group, is the greatest beneficiary of public services (for example public housing or public school), this could amplify the negative perception of the rest of the community, since citizens are less inclined to share public goods among different ethnic groups (e.g. Alesina and Ferrara, 2005).

To address this issue, we replaced our subjective dependent variable with two objective dependent variables derived from the QoG Report: infant mortality rates – defined as deaths under 1 year of

age / 1000 live births (source: Eurostat), and heart disease deaths per 100,000 inhabitants (source: Eurostat). The QoG Report shows that these two measures are positively correlated with the overall QoG index. Table 3 reports the same estimates as for Table 1. The results show that diversity is positively correlated with infant mortality rates, although only at a 10 per cent level of statistical significance, while it is negatively correlated with heart disease rate, although it is not statistically significant. These results only partially and moderately confirm those obtained above and raise an issue about the potential misperceptions of services provision, which will be further discussed in the final section.

Table 3 – Estimating the correlation between diversity and public services using hard data indicators (OLS estimates)

Dependent variable:	(1) infant mortality	(2) heart disease
Diversity index	3.357* (1.731)	-0.123 (0.372)
Income per capita	-1.658*** (0.615)	-0.190 (0.119)
Bilingual region	-0.380 (0.310)	-0.0667 (0.0905)
Autonomous region	0.0582 (0.355)	0.0996 (0.0665)
Capital region	0.0236 (0.316)	0.0658 (0.0922)
Population of the region	-0.378* (0.206)	-0.0479 (0.0395)
Independent media	-0.182 (0.301)	-0.00269 (0.0362)
Population with tertiary education	-0.479** (0.202)	-0.0207 (0.0323)
Constant	21.71*** (6.058)	5.677*** (1.136)
Observations	167	118
R^2	0.931	0.946

Note: Robust standard errors in parentheses, * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$. Country dummies are also included. Note: the number of observations in the case of heart disease drops because of the presence of missing data.

Diversity and regional autonomy

We now turn to our second hypothesis, which states that the presence of regional autonomy is expected to improve the performance of local public services in the presence of diversity. In order to test the moderating effect of regional autonomy we include the variable *diversity*regional autonomy* (as for model 2 above). Table 4 reports the estimates for the main index of services and the three pillars – impartiality, corruption and quality. The coefficient of the joint effect of diversity and regional autonomy is positive and significant (at 5%) limited to the case of the quality of services (column 4). By looking at Figure 5 reporting the average marginal effect of diversity along the levels of regional autonomy, it arises that the negative correlation of diversity with the quality of local public services gets closer to zero for high levels of regional autonomy. In regions in which regional autonomy is quite high (higher than 18.5), the marginal effect of diversity is still moderately negative but no longer significant. This suggests the presence of some moderating effect of regional autonomy on the relationship between diversity and the quality of local public services.

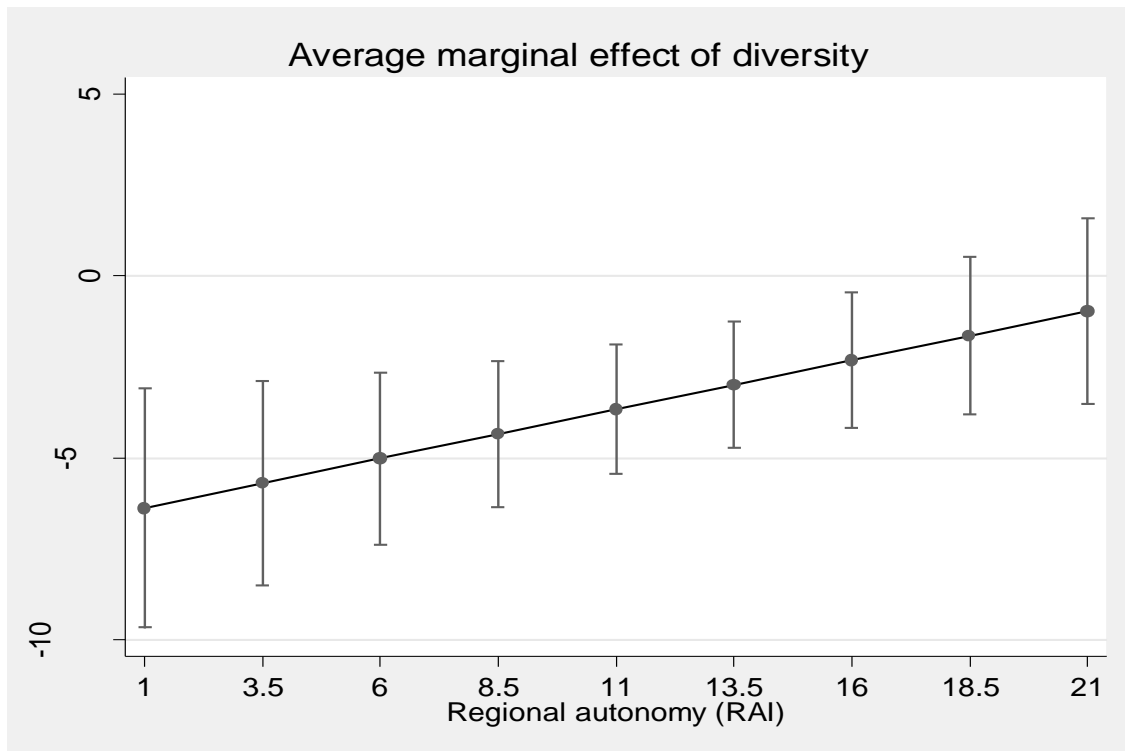
Note that when repeating the same IV approach as for Table 2 also in this case, the coefficient of the interaction term *Diversity index*Regional autonomy* is no longer significant. This calls for further caution about interpreting Table 4 results in terms of causality. That sorting becomes more relevant concerning decentralization is plausible, as for instance larger urban areas are usually more autonomous and at the same time attract foreign people. Further, diversity and regional autonomy cannot be considered completely unrelated. Firstly, federalism and regionalism historically take place in more diverse countries; secondly, in several instances, autonomous regions – as in the case of the UK, Italy and Spain - reflect the presence of minorities. Finally, our measure of regional autonomy exhibits little variation within countries.

Table 4 – Testing the moderating effect of regional autonomy (OLS estimates)

Dependent variable:	(1)	(2)	(3)	(4)
	Main index (QoG)	impartiality	corruption	quality
Diversity index	-1.620 (1.832)	2.704 (2.457)	-2.605 (2.301)	-6.647*** (1.765)
Regional autonomy	-0.00415 (0.0203)	0.0785*** (0.0267)	-0.00374 (0.0180)	-0.0637*** (0.0166)
<i>Diversity index * Regional autonomy</i>	0.0007 (0.136)	-0.141 (0.192)	0.0721 (0.140)	0.270** (0.118)
<i>All controls included as for Table 1</i>				
Constant	-12.48*** (1.196)	-2.406 (1.661)	-10.26*** (1.272)	-9.872*** (1.751)
Observations	167	167	167	167
R ²	0.621	0.446	0.568	0.621

Note: Standard errors in parentheses, * p<0.10; ** p<0.05;*** p<0.01. Robust standard errors.

Figure 5 – Average marginal effect of the Diversity index on the quality of local public services for different levels of regional autonomy



Robustness section using a different measure of diversity

We have also calculated an indicator of diversity that exploits the distinction in the census about foreign EU citizens and foreign non-EU citizens. As explained above this index reflects the relative importance of non-EU residents, weighted for the share of foreign residents in the region. Here the idea is that the category of non-EU residents is ‘more diverse’ than the category of EU residents, for example by language, ethnicity, and level of wealth. According to the theory reviewed above, this should exacerbate the problems for the provision of public goods and local public services.

Table A3 in the online appendix summarizes the same estimates run above with the new index as an explanatory variable. Regarding the overall index of local services the results are similar to those provided above: both the main indicator and quality are negative and significant, impartiality is positive but not significant, and corruption is negative and not significant.

The evidence on the role regional autonomy is different from what obtained above, in that regional autonomy does not seem to affect significantly the relationship between diversity and the index of public services. In the case of corruption, by contrast, the joint coefficient $reg_autonomy_i * diversity_i$ arises as negative, suggesting that in regions with higher autonomy, diversity is associated to higher levels of corruption in the provision of local public services; hence, in this case regional autonomy is harmful.

Summing up, by taking a measure that takes into account the relative weight of non-EU citizens with respect to EU citizens the first hypothesis is still holding, while the second one is not confirmed.

V. DISCUSSION AND CONCLUSION

This paper provides fresh evidence about the relationship between diversity and the provision of local public services at the region level in Europe. It shows that *i)* the presence of a heterogeneous composition of population in the European regions is associated to a relatively worse performance in the provision of local public goods; *ii)* regional autonomy moderately improves the quality of local public services in presence of diversity. The negative relationship between diversity and the provision of local public services is mostly driven by their *quality*. The results about regional autonomy suggest that decentralization works better in presence of diversity compared to centralization; this finding has to be interpreted with caution given the lack of robustness.

The first finding is in line with theories and empirical studies that detected a negative correlation between diversity and the provision of public goods. As a matter of fact, most of this research has been carried out in cities and countries with a high presence of ethnic heterogeneity, as for instance in some American cities, and in some developing countries; to our knowledge this is the first attempt carried out across a comprehensive sample of European regions.

Another difference of this study is that our measure of diversity is not referred to ethnicity, but it is limited to the nationality. On the one hand, this has some clear limitations, in that ethnic diversity is a remarkable source of heterogeneity. However, our broader measure of diversity allowed us to address one of the cornerstones of European integration process, which is internal mobility of the labour force. Internal mobility has been identified by policy makers as a fundamental driver of reciprocal learning, circulation of knowledge, as well as a mean to make labour markets more efficient by narrowing the disparities in the rates of unemployment across Europe.

It is possible that our data underestimate the pressure on the welfare state of illegal immigrants, since they are not captured by data on foreign residents, but at the same time they can benefit from some local public services, particularly public health. Finally, we do not take into account within-country mobility which can represent an additional source of diversity and pressure on local public services.

We also show that regional autonomy can work as a moderator between diversity and the quality of local services. This confirms one of the main claims of fiscal federalism theory about enhancing the efficiency in the provision of local public services, particularly in the presence of marked difference across jurisdictions, as it is the case for European regions. There are counter arguments that are worth mentioning. Firstly, local governments can be more easily captured, as well as corrupted, by local constituencies. Secondly, in times of crisis and budget constraints, regional governments can have fewer resources to devote to the welfare. Hence, central governments can be more effective than regional governments in dealing with a swift increase in the demand for local public services, to the extent that they are able to mobilize a larger amount of resources. Further, more centralized governments can be better equipped in managing migration flows than more decentralized ones, for example by being able to better redistribute immigrants, thus avoiding excessive concentrations in some regions. These are open questions that remain to be explored at greater lengths and with more recent data.

Our evidence is preliminary and certainly requires more research. Yet, we believe there are some important messages for policy makers and insights for future research. Our results confirm the presence of a tension between immigration and the welfare state, at least in the short run. In fact, in the long run there are benefits associated to a more diverse society. For one, immigrants are usually net contributors of the welfare state - this is particularly important in Europe which suffers from ageing population. Secondly, there is growing consensus in research that more diverse environments are conducive to higher performance in creativity and innovation (e.g. Landry and Wood, 2012; Filippetti and Guy, 2015). Hence, investing in public policy today will be repaid by greater returns in the future.

However, the inherent problem is that diversity reduces the willingness of citizens to contribute to the welfare state. This supports the idea about decoupling migration from national welfare state (Boeri, 2010). Our results about the moderator role of decentralisation can be seen in this light. In fact, since diversity tends to concentrate in some specific areas, such as urban areas of regions with job opportunities, this might create specific problems that can be addressed more effectively at the local/regional level, rather than at the national level. One of the additional advantages of decentralisation is that, by devolving autonomy at the local level, it allows to experiment a broader set of policies. To the extent that new creative ways for managing this issue are needed, this also makes the case for decentralization. Further, providing autonomy to the regions allows them to explore trans-borders cooperation to pursue more effective policies in this area. This is so far a quite unexplored area that requires more research.

Our evidence also suggests that policies fostering internal mobility within the EU should be coupled with policies to improve the sustainability of the welfare states in recipients' countries and regions, such as for instance the creation some forms of transnational European welfare to improve the portability of social security rights in the EU; that is, the rights to health insurance and to unemployment, retirement and family-related benefits. Since our data refer to 2011, and given that internal mobility has remarkably improved ever since, this issue is bound to grow in importance. Finally, given the importance of perception, providing official and reliable information about immigration should be pursued.

A final note regards the generalization of our results. The analysis focuses mainly on the perception of the provision of education, health care, and law enforcement. With some caution, we can claim that our evidence can be also related to other public services and public policies, at least at the sub-national level. In fact, the dimensions considered have been explicitly chosen to reflect those factors which, according to studies in the field of comparative politics and development economics, should capture the performance in the *public sector* (Quality of Government Institute, 2010).

REFERENCES

- Alesina, A., Baqir, R. and Easterly, W. (1999) 'Public Goods and Ethnic Divisions', *The Quarterly Journal of Economics*, **114**, 1243–1284.
- Alesina, A. and Ferrara, E. L. (2005) 'Ethnic Diversity and Economic Performance', *Journal of Economic Literature*, **43**, 762–800.
- Alesina, A. and Glaeser, E. L. (2004) *Fighting Poverty in the US and Europe: A World of Difference*, Oxford University Press.
- Alesina, A. and Zhuravskaya, E. (2011) 'Segregation and the Quality of Government in a Cross Section of Countries', *The American Economic Review*, **101**, 1872–1911.
- Bakker, L. and Dekker, K. (2012) 'Social Trust in Urban Neighbourhoods: The Effect of Relative Ethnic Group Position', *Urban Studies*, **49**, 2031–2047.
- Baskaran, T. and Feld, L. P. (2013) 'Fiscal Decentralization and Economic Growth in OECD Countries Is There a Relationship?', *Public Finance Review*, **41**, 421–445.
- Belmonte, A., Dell'Anno, R. and Teobaldelli, D. (2018) 'Tax Morale, Aversion to Ethnic Diversity, and Decentralization', *European Journal of Political Economy*, **55**, 204–223.
- Bobo, L. and Hutchings, V. L. (1996) 'Perceptions of Racial Group Competition: Extending Blumer's Theory of Group Position to a Multiracial Social Context', *American Sociological Review*, 951–972.
- Boeri, T. (2009) 'It Is Migration, Stupid', *VoxEU.org*.
- Boeri, T. (2010) 'Immigration to the Land of Redistribution', *Economica*, **77**, 651–687.
- Camussi, S., Mancini, A. L. and Tommasino, P. (2018) 'Does Trust Influence Social Expenditures? Evidence from Local Governments', *Kyklos*, **71**, 59–85.
- Charron, N., Dijkstra, L. and Lapuente, V. (2014) 'Regional Governance Matters: Quality of Government within European Union Member States', *Regional Studies*, **48**, 68–90.
- Charron, N. and Lapuente, V. (2011) 'Why Do Some Regions in Europe Have Higher Quality of Government?', *QoG WORKING PAPER SERIES*, **1**.
- Christainsen, G. B. (2012) 'Biology, Immigration, and Public Policy', *Kyklos*, **65**, 164–178.
- Clark, T., Putnam, R. D. and Fieldhouse, E. (2013) *The Age of Obama: The Changing Place of Minorities in British and American Society*, Oxford University Press.
- Congleton, R. D., Kyriacou, A. and Bacaria, J. (2003) 'A Theory of Menu Federalism: Decentralization by Political Agreement', *Constitutional Political Economy*, **14**, 167–190.
- Cutler, D. M., Elmendorf, D. W. and Zeckhauser, R. J. (1993) *Demographic Characteristics and the Public Bundle*, National Bureau of Economic Research.
- Dennison, J. and Geddes, A. (2018) 'Brexit and the Perils of "Europeanised" Migration', *Journal of European Public Policy*, **0**, 1–17.

- Diaz-Serrano, L. and Rodríguez-Pose, A. (2011) 'Decentralization, Happiness and the Perception of Institutions', *IZA Discussion Paper No. 5647*. Available at SSRN: <http://ssrn.com/abstract=1812532>.
- Diaz-Serrano, L. and Rodríguez-Pose, A. (2012) 'Decentralization, Subjective Well-Being, and the Perception of Institutions', *Kyklos*, **65**, 179–193.
- Espasa, M., Esteller-Moré, A. and Mora, T. (2017) 'Is Decentralization Really Welfare Enhancing? Empirical Evidence from Survey Data (1994-2011)', *Kyklos*, **70**, 189–219.
- European Institute of Public Administration (EIPA) (2012) 'Division of Powers between the European Union, the Member States and Regional and Local Authorities'.
- Ezcurra, R. and Rodríguez-Pose, A. (2012) 'Political Decentralization, Economic Growth and Regional Disparities in the OECD', *Regional Studies*, **47**, 1–14.
- Filippetti, A. and Cerulli, G. (2017) 'Are Local Public Services Better Delivered in More Autonomous Regions? Evidence from European Regions Using a Dose-Response Approach', *Papers in Regional Science*, forthcoming, doi:10.1111/pirs.12283.
- Filippetti, A. and Guy, F. (2015) 'Skills and Social Insurance: Evidence from the Relative Persistence of Innovation during the Financial Crisis in Europe', *Science and Public Policy*, scv036.
- Filippetti, A. and Sacchi, A. (2016) 'Decentralization and Economic Growth Reconsidered: The Role of Regional Authority', *Environment and Planning C: Government and Policy*, **34**, 1793–1824.
- Finseraas, H. and Jakobsson, N. (2012) 'Trust and Ethnic Fractionalization: The Importance of Religion as a Cross-Cutting Dimension', *Kyklos*, **65**, 327–339.
- Freeman, G. P. (1986) 'Migration and the Political Economy of the Welfare State', *The ANNALS of the American Academy of Political and Social Science*, **485**, 51–63.
- Greif, A. (1989) 'Reputation and Coalitions in Medieval Trade: Evidence on the Maghribi Traders', *The Journal of Economic History*, **49**, 857–882.
- Habyarimana, J., Humphreys, M., Posner, D. N. and Weinstein, J. M. (2007) 'Why Does Ethnic Diversity Undermine Public Goods Provision?', *American Political Science Review*, **101**, 709–725.
- Hooghe, L., Marks, G. and Schakel, A. H. (2008) 'Operationalizing Regional Authority: A Coding Scheme for 42 Countries, 1950–2006', *Regional and Federal Studies*, **18**, 123–142.
- Huber, P. and Oberdabernig, D. A. (2016) 'Decomposing Welfare Wedges: An Analysis of Welfare Dependence of Immigrants and Natives in Europe', *Kyklos*, **69**, 82–107.
- Kaufmann, D., Kraay, A. and Mastruzzi, M. (2009) *Governance Matters VIII: Aggregate and Individual Governance Indicators 1996-2008*, The World Bank.
- Kyriacou, A. P. (2012) 'Ethnic Segregation and the Quality of Government: The Importance of Regional Diversity', *Constitutional Political Economy*, **23**, 166–180.
- Landry, C. and Wood, P. (2012) *The Intercultural City: Planning for Diversity Advantage*, Routledge.

- Marks, G., Hooghe, L. and Schakel, A. H. (2008) 'Measuring Regional Authority', *Regional and Federal Studies*, **18**, 111–121.
- Marschall, M. J. and Stolle, D. (2004) 'Race and the City: Neighborhood Context and the Development of Generalized Trust', *Political behavior*, **26**, 125–153.
- Martinez-Vazquez, J., Lago-Peñas, S. and Sacchi, A. (2016) 'The Impact of Fiscal Decentralization: A Survey', *Journal of Economic Surveys*, **31**, 1095–1129.
- Miguel, E. and Gugerty, M. K. (2005) 'Ethnic Diversity, Social Sanctions, and Public Goods in Kenya', *Journal of Public Economics*, **89**, 2325–2368.
- Nannestad, P. (2004) 'Immigration as a Challenge to the Danish Welfare State?', *European Journal of Political Economy*, **20**, 755–767.
- Oates, W. E. (1972) *Fiscal Federalism New York*, Harcourt Brace Jonanovitch.
- Oates, W. E. (2005) 'Toward a Second-Generation Theory of Fiscal Federalism', *International Tax and Public Finance*, **12**, 349–373.
- Ozgen, C., Nijkamp, P. and Poot, J. (2013) 'The Impact of Cultural Diversity on Firm Innovation: Evidence from Dutch Micro-Data', *IZA Journal of Migration*, **2**, 18.
- Ozgen, C., Peters, C., Niebuhr, A., Nijkamp, P. and Poot, J. (2014) 'Does Cultural Diversity of Migrant Employees Affect Innovation?', *International Migration Review*, **48**, S377–S416.
- Prud'Homme, R. (1995) 'The Dangers of Decentralization', *The world bank research observer*, **10**, 201–220.
- Putnam, R. D. (2007) 'E Pluribus Unum: Diversity and Community in the Twenty-First Century The 2006 Johan Skytte Prize Lecture', *Scandinavian Political Studies*, **30**, 137–174.
- Quality of Government Institute (2010) *Measuring the Quality of Government and Subnational Variation*, Report for the European Commission Directorate-General Regional Policy Directorate Policy Development.
- Razin, A. and Sadka, E. (2000) 'Unskilled Migration: A Burden or a Boon for the Welfare State?', *The Scandinavian Journal of Economics*, **102**, 463–479.
- Rodríguez-Pose, A. and Ezcurra, R. (2011) 'Is Fiscal Decentralization Harmful for Economic Growth? Evidence from the OECD Countries', *Journal of Economic Geography*, **11**, 619–643.
- Rodríguez-Pose, A. and Gill, N. (2003) 'The Global Trend towards Devolution and Its Implications', *Environment and planning C: Government and Policy*, **21**, 333–351.
- Sacchi, A. and Salotti, S. (2014) 'A Comprehensive Analysis of Expenditure Decentralization and of the Composition of Local Public Spending', *Regional Studies*, **50**, 1–17.
- Stichnoth, H. and Straeten, K. V. der (2013) 'Ethnic Diversity, Public Spending, and Individual Support for The Welfare State: A Review of the Empirical Literature', *Journal of Economic Surveys*, **27**, 364–389.

- Stolle, D., Soroka, S. and Johnston, R. (2008) 'When Does Diversity Erode Trust? Neighborhood Diversity, Interpersonal Trust and the Mediating Effect of Social Interactions', *Political Studies*, **56**, 57–75.
- Tanzi, V. (2001) *Pitfalls on the Road to Fiscal Decentralization*, Washington, D.C., Carnegie Endowment for International Peace, Working Paper, 19.
- The Economist (2018) 'The Welfare State Needs Updating - Repairing the Safety Net', accessed at <https://www.economist.com/international/2018/07/12/the-welfare-state-needs-updating> on December 17, 2018.
- Tiebout, C. M. (1956) 'A Pure Theory of Local Expenditures', *Journal of Political Economy*, **64**, 416–424.
- Tselios, V., McCann, P. and van Dijk, J. (2017) 'Understanding the Gap between Reality and Expectation: Local Social Engagement and Ethnic Concentration', *Urban Studies*, **54**, 2592–2612.
- Weingast, B. R. (2014) 'Second Generation Fiscal Federalism: Political Aspects of Decentralization and Economic Development', *World Development*, **53**, 14–25.