

## Chapter 4

# Subnational Authority and the Quality of Government in European Regions<sup>1</sup>

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## 4.1 Introduction

Recent research on the determinants of regional QoG does not find much support for a significant role of regional authority in explaining regional variation in levels of QoG (Charron et al., 2014, Charron and Lapuente, 2013). This is surprising as strengthening subnational authority is considered a way to improve QoG that is well-promoted by international organizations such as the European Union and the Organization for Economic Cooperation and Development (OECD). Therefore, this article unpacks decentralization and gives particular attention to the relationship between regional self-rule and the QoG.

I argue that decentralization can be both a blessing and a curse for a regions quality of government (QoG) because regional authority reinforces what is in place: a region providing favorable conditions profits from the autonomous authority, that is to say, the self-rule, bestowed on it. In contrast, in a region with poor preconditions regional self-rule worsens QoG through mismanagement and the misuse of authority. This argument emphasizes the effect of self-rule or the authority of a regional government to determine the policies in its territory—as distinct from shared rule or the authority of a regional government to co-determine the policies in the country as a whole.

The effect of self-rule depends on a region's preconditions: favorable conditions for an efficient, impartial, and non-corrupt government are a competent bureaucracy, little incentives for corruption, and functioning oversight mechanisms to prevent corruption. In prospering, well-managed regions, public officials are responsive and are well-placed to make good use of extensive self-rule authority: they improve public goods to meet the preferences of the citizens, they treat people fairly and equally, and do not engage in corruption. Because governments with self-rule have extensive authority, their good preconditions have a significant and positive impact on how people perceive the QoG. On the other hand, in regions with poorly paid, poorly trained, poorly equipped, and poorly controlled officials, government is inefficient and has a higher risk of collusion and giving preferential treatment to particular

people. Hence, this paper tests the hypothesis that regional self-rule reduces the QoG in regions with bad preconditions and increases the QoG under favorable circumstances.

Empirical evidence marshalled from a cross-sectional sample of 196 regions from 21 European countries supports the hypothesis. Hence, contrary to recent findings, regional authority plays a significant role in shaping a region's QoG provided one takes into account the conditionality of the effect.

After a review of the literature, I will outline my theoretical argument, next describe the data, sample, and method used in the analysis. Finally, I present the results and conclude with some discussions and implications for future research.

## 4.2 A Review of the Literature

There exists an extensive body of research theorizing and explaining quality of government, government effectiveness, or political corruption.<sup>2</sup> For the purpose of this article, I follow the conceptualization of QoG outlined and applied in the research closest to this study, namely Charron et al. (2014), Charron and Lapuente (2013), Charron et al. (2013) (based on Rothstein and Teorell 2008): a high quality of government requires impartiality of government institutions in their exercise of authority, control of corruption, and government effectiveness. Subnational authority is understood to consist of two dimensions: regional self-rule and shared rule (Elazar, 1987, Hooghe and Marks, 2013, Hooghe et al., 2010, forthcoming). Self-rule refers to a region's authority to make decisions affecting the people living in its territory; shared-rule measures the extent to which regional governments control and co-determine decision-making on the national level (Hooghe et al., 2010, 7f). This article focuses on the impact of self-rule on regional QoG.

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<sup>2</sup>See, for example, Adserà et al. (2003), Agnafors (2013), Anderson and Tverdova (2003), Andrews (2010), Charron et al. (2014), Charron and Lapuente (2013), Charron et al. (2013), Keefer (2007), Knack (2002), La Porta et al. (1999), Putnam (1993), Rose-Ackerman (1999, 2006a), Rothstein and Teorell (2008), Shleifer and Vishny (1993), Treisman (2000, 2007b).

When discussing the literature on regional authority, mediating ‘preconditions,’ and the outcome of QoG, two distinctions are crucial: one refers to studies of QoG as a broader concept as opposed to research focusing on one of its aspects, political corruption. The other distinction concerns the level of analysis, national or regional. Although this article analyzes QoG in a broad sense, this discussion covers research on political corruption to a great extent because it has received much attention in the literature. Likewise, although my argument and analysis focus on the regional level of government, much of the research discussed here analyzes countries. Again, the reason is the dominance of country-level studies.

#### 4.2.1 Determinants of Quality of Government

In the context of this article, three determinants of (regional) QoG are especially relevant: cultural traditions, historical institutions, and decentralization. The *culturalist* approach suggests that factors associated with culture or ‘civic virtues’ and social capital shape the quality and effectiveness of institutions. In his seminal study on “Civic Traditions in Modern Italy,” Robert D. Putnam (1993) focuses on institutional performance across Italian regions. He demonstrates that there clearly is a relation between a region’s economic wealth and its government effectiveness. Yet, ‘economic modernity’ is not able to explain differences in QoG among either poor or rich regions. Putnam concludes that QoG and wealth appears to be determined by a common factor: *civic traditions* (Putnam, 1993, 86, 157).<sup>3</sup> Proponents of a socioeconomic argument base their theory on cultural values as well: social and political equality (and the policies promoting them, e.g. redistribution) support social solidarity and a sense of community which strengthen the QoG (Boix and Posner, 1998, Rothstein and Uslaner, 2005).

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<sup>3</sup>Research focusing on economic outcomes rather than the QoG suggests that culture affects wealth: historical levels of education and executive constraints determine cultural variables such as trust and respect and these, in turn, affect economic development across regions (Tabellini, 2010). Similarly, trust has been associated with economic growth rates (Knack and Keefer, 1997, Zak and Knack, 2001).

An *institutional* approach argues that regions where executives lacked strong constraints over an extended period in the past developed networks of patronage and clientelism governing people's fate in terms of their economic and social status and well-being (Charron and Lapuente, 2013, 570f). These informal institutions triggered path-dependencies that continue to exist today so that in those regions with weak constraints on the executives during past centuries current QoG is low compared to regions that had constraints on their executives preventing the development of corrupt networks and institutionalized practices.

#### 4.2.2 Decentralization and the Quality of Government

Decentralization has been extensively studied as a determinant of the quality of government, particularly (but not exclusively, see e.g. La Porta et al. 1999) in the literature on the causes of political corruption. Based on a recently developed indicator, two articles take the link between regional authority and quality of government in Europe into account: on the national level, two dimensions of shared rule (law-making and constitutional reform) tend to increase a country's QoG (Charron et al., 2014). On the regional level, regional autonomy (coded as dichotomy) does not alter the QoG (Charron and Lapuente, 2013). Yet, since Charron and Lapuente focus on historical executive constraints and merely control for regional autonomy, this is not an extensive test of the relationship between decentralization and QoG.

Studies focusing on the link between decentralization and political corruption have outlined various arguments that relate regional authority to corruption. According to the logic of *accountability*, decentralization brings the government closer to the people, which facilitates holding officials accountable for their actions and reduces corruption (see e.g. Fisman and Gatti, 2002a). Critics of the accountability argument claim that decentralization *fragments* the political system and thereby hinders control of government activities making corruption more difficult to detect and punish so that corruption levels increase (see e.g. Gerring and Thacker, 2004). Another

counterargument suggests that the fact that decentralization reduces the distance between government officials and the people facilitates *local collusion* between elites and public officials (who build corruption networks) rather than accountability towards all people (see e.g. Fan et al., 2009, Neudorfer and Neudorfer, forthcoming, Prud'homme, 1995, Tanzi, 1995, Véron et al., 2006).

Proponents of the *interregional competition* argument suggest that decentralization allows regions to compete for (mainly) capital and business. To attract them, governments have to abstain from rent-extraction (see e.g. Arikian, 2004). Others advocate a mechanism of vertical rather than horizontal competition: each level of government tries to extract rents, *overgrazing* or *double marginalization* takes place, and corruption levels increase (see e.g. Cai and Treisman, 2004, Shleifer and Vishny, 1993, Treisman, 2000).

Empirical evidence supports both views: decentralization either increases or decreases corruption. Yet, most of these studies compare country-level data. Analyses looking at subnational governmental tiers typically are case studies because of a lack of available data sets for comparative purposes below the national level. Such regional-level analyses of *single* countries suggest that the effect of decentralization on corruption is conditional on some other factor.<sup>4</sup>

### 4.2.3 Unpacking Decentralization

Recently, scholars have started unpacking decentralization to refine arguments about its consequences for various outcomes. For example, a recent article argues that regional self-rule increases levels of political corruption while shared rule controls corruption (Neudorfer and Neudorfer, forthcoming). Further, scholars find regional self-rule (but not shared rule) to stimulate regional variation in levels of economic development, i.e., to increase regional inequality (Ezcurra and Rodriguez-Pose, 2013).

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<sup>4</sup>One such case study discusses decentralization and corruption in the Indian state West Bengal (Véron et al., 2006): the authors conclude that decentralization in the form of accountability of local officials to the local civil society can easily develop into corruption networks (i.e., local collusion) if not accompanied by upward accountability, e.g. to political parties. For a—quantitative—analysis of US states, see Fisman and Gatti (2002b).

Similarly, regional self-rule (but not shared rule) strengthens regional representation at the European Union institutions in Brussels (Donas and Beyers, 2013, Tatham and Thau, 2014).

The analysis of the existing literature shows, first, that comparative studies of QoG at the regional level across many cases are a recent but fruitful development (made possible only by the collection of new data). Scholars should further try to better understand the causes of variation in regional QoG. Second, corruption research suggests that it may be worthwhile to examine how regional authority may affect the quality of government. Third, there is a nascent literature that unpacks decentralization into self-rule and shared rule. These can have significant, and robustly, directionally contrasting effects on policy outcomes in general, and quality of government in particular. One robust finding is that self-rule tends to increase variation in outcomes. Accordingly, combining the study of regional-level QoG and the use of refined data on decentralization could improve our understanding of variation in QoG in Europe.

I build on this literature to show the *conditional* effect of self-rule on the quality of government: transferring authority to lower levels of government can increase the quality of government performance in regions provided that the right ‘preconditions’ are in place.

### 4.3 Theory

Recent decades have seen a “rise of regional authority” in many countries (Hooghe et al., 2010, forthcoming). This process multiplied the number of subnational tiers of government and gave them substantial authority over policy-making, public borrowing and spending, and subnational representation and the election of executives. Such self-rule authority brings regional public officials in a position where they do no longer administer their territory as the agents of national governments. Rather, in decentralized countries they have their own authority and influence. At the same

time, regions with strong self-rule have also more responsibilities. Many public goods and services provided by the national government in unitary countries will be demanded from the regional government in decentralized countries. Nowadays, regions in many European countries have extensive self-rule authority. This can enhance citizen's perceptions of the QoG if the government meets the preferences of its constituency and uses its authority and resources well. It can, however, also worsen the QoG if the government does not assume its responsibilities, does not exercise its authority in a fair manner, or wastes taxpayers' money.

The prominent work on regionalization in Italy by Robert D. Putnam (1993) supports the idea that clientelistic networks go hand in hand with poor regional economic and institutional performance. Putnam (1993, 23) describes how in the context of regionalization in the 1970s the wealthy northern regions were concerned about the 'rulebook,' i.e. formal authority. In contrast, the southern regions were concerned about the 'pocketbook,' i.e. receiving control over financial resources. Yet, in order to achieve their goals, "Southerners depended more on "vertical" strategies, such as private petitions to sympathetic national patrons, while northerners were readier to resort to "horizontal" collective action by a broad, regionalist front." (Putnam, 1993, 23) Unsurprisingly, the ambitious and rich northern regions that were able to play by the rules rather than to resort to clientelism experienced economic and institutional success. In contrast, the clientelistic southern regions provided poor preconditions and were comparably poor and lacked a good government.

As the example from Italy indicates, governments in regions with good preconditions can more easily make good use of their authority and adhere to the rules of the game, i.e., achieve a high QoG. Governments in regions with poor preconditions depend on clientelism rather than formal procedures in order to achieve their goals. Likewise, they aim to increase the financial resources available to them rather than extending the formal scope of decision-making authority for shaping regional development. From clientelism as a means to getting funds from the national government it is not a big leap to corruption networks as a means to distributing money. In



other words, a regional government that is used to running things via clientelistic networks with patrons on the national government level will not hesitate to use similar methods when dealing with its local/regional constituency.<sup>5</sup>

#### 4.3.1 The Elements of QoG and their Preconditions in a Self-Rule Context

Quality of government comprises government effectiveness (in public goods provision), impartiality of public institutions, and control of corruption. *Effective* self-rule government requires the precondition of a high-quality regional bureaucratic apparatus. Such a bureaucracy has competent staff and sufficient resources to do its work. Wealth might be considered a ‘pre-precondition’ of effective government because it is particularly helpful in building up a competent administration: rich regions tend to have higher levels of education. Because of a better educational system and training on the job, public officials will have higher skills. Wealthy regions can also attract higher qualified applicants with higher salaries compared to poor regions. Arguably, a region with highly skilled public servants provides good conditions for high-quality self-government. Further, wealthy regions can provide their bureaucrats with better equipment and support. Think of, for example, computer software to register files instead of using paper archives. Anecdotal evidence supports this intuition (see, for example, Putnam, 1993, 85f). In addition, wealthy regions can afford a larger number of public employees. It is plausible to argue that the quality of, for example, law enforcement—as perceived by citizens—is larger when the size of the police force or the number of prosecutors and judges is larger and the duration of trials is shorter.

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<sup>5</sup>One reason for such a behavior might be that public officials in regions with a bad QoG are overstrained by following formal procedures and complying with the rules that have come upon them in the process of decentralization. If a region has not been able to build up a competent administration and well-managed economy before substantial decentralization takes place there is a lack of common knowledge about efficient administration so that its public servants view informal procedures such as clientelism and corruption as a convenient way out.

*Corruption* is the abuse of an official position for one's own private benefit or the benefit of a certain individual or group in society (see e.g. Kunicová and Rose-Ackerman, 2005, Rose-Ackerman, 1999, Shleifer and Vishny, 1993).<sup>6</sup> In a corrupt society, local/regional elites (individuals or groups, defined as having substantial influence because of money, business, or societal rank) seek to profit from government activities and extract rents. Rents are, for example, government contracts, nepotism (i.e., the appointment of 'friends' or relatives to certain influential positions), educational degrees for family members, legislative or administrative decisions favoring their interests regarding buildings, permits, and business, preferential medical treatment, or protection from law enforcement. To get these rents, elites need to cooperate with high-ranking politicians and bureaucrats such as a member of the regional assembly, a mayor, judge, or deputy.

Preconditions for a negative effect of self-rule on overall QoG consist of incentives for corruption and lack of control mechanisms of corruption. *Incentives* for corruption are higher in poorer regions because underpaid public officials are forced to supplement a low income by taking bribes (Montinola and Jackman, 2002, Treisman, 2000). In badly managed regions with poorly paid officials and a culture of mismanagement and fraud rather than 'civicness' and adherence to rules, public officials act to a certain degree utility-maximizing: they try to find ways to link their own (economic) well-being and success with decisions they make for the public. Likewise, *control* of corruption is lower in poorer regions because rudimentary bureaucracies lack the procedures and professionalism to effectively control corruption.

*Impartiality* is the implementation of policies and laws without preferential treatment other than determined by the policy or law (Rothstein and Teorell, 2008, 170). Although not identical, the absence of impartiality and the presence of

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<sup>6</sup>Gardiner (2002, 27) summarizes Kenneth Gibbons' definition of abusing a position: "A civil servant gives a position in his office to a relative rather than to a better-qualified applicant. (*Nepotism*) A political party wins an election and then removes all office-holders who supported the opposition party. (*Patronage*) A legislator owns stock in a mining company, and votes for a bill which will give tax concessions to the company. (*Legislative conflict of interest*) Government bureaucrats use their knowledge and contact to establish a part-time consulting firm which gives advice to private clients. (*Bureaucratic conflict of interest*)."

corruption are strongly related in that they constitute a misuse of an official position that leads to unequal treatment of citizens. Such a misuse of public authority might occur deliberately (corruption with partiality) or not (partiality but not corruption). Bribes or other favors (corruption) as well as personal relations (partiality) can lead to unequal treatment. Yet, preferential treatment can also take place because, for example, strict rules and procedures, competent staff, or effective oversight are missing that promote equal treatment and opportunities. Therefore, I argue that preconditions for impartiality have elements of both, effectiveness and control of corruption: a well-developed bureaucracy and competent staff as well as control and oversight mechanisms.

In summary, a regional government with strong self-rule has poor conditions for providing public goods effectively, impartial, and free from corruption if it is poor, lacks a qualified, well-functioning administration (including control and oversight procedures) and if there are strong incentives to engage in corruption. The following paragraphs will take a closer look at how self-rule can affect the QoG in regions with good preconditions compared to regions with poor preconditions.

#### **4.3.2 Subnational Authority under Good Preconditions**

When public officials are competent, well-equipped, and put the public good first (instead of their private benefit), the QoG in a region can be *high*. They decide and act in the interest of the common good without favoring particular interests. The government makes efficient use of its resources and the services it provides are of good quality. In practical terms, this means that they do not demand bribes in order to hand out permits, they hand out public contracts to companies offering the best quality for the lowest price (instead of a bad quality for a high price while offering bribes), and they give no preferential treatment to anyone in their jurisdiction. In short: they have a ‘public-spirited’ attitude, they are competent, and make the most out of their resources for the benefit of the region. These constitute good preconditions for a positive effect of self-rule on the QoG.

Some regions have little authority, its officials are only the agents of the national government and have little room for maneuver to improve the well-being of their constituency. Other regions, however, possess considerable authority over governing their territory and people. Public servants are not only the administrative agent of the national government but can decide over (certain parts of) policy-making, revenue collection or public expenditure. In such a decentralized region, responsive public servants use their authority well for the benefit of the region: they have room for maneuver, access to resources (regarding money and decision-making), and apply high standards and ‘work ethics’ in order to provide the people with the best policies and services possible. Therefore, public officials will tailor public goods to the particular preferences of their constituency and contribute to further improving the region’s well-being and QoG. In practical terms, regional governments will continuously work on e.g. improving public safety, law enforcement, and infrastructure, service provision in e.g. education or health care, and favorable conditions for businesses. In short: given a well-functioning, efficient, responsive government and administration, a region with a high level of authority can be expected to have a higher QoG than a region that is merely the agent of the national government.

### **4.3.3 Subnational Authority under Poor Preconditions**

Analogous to the good preconditions outlined above, there are poor circumstances that condition self-rule to *reduce* a region’s perceived QoG: poor administrative quality (bad education/training of officials, lack of equipment, understaffed authorities) as well as incentives for and lack of control of clientelism, collusion, and corruption. I will discuss these in turn.

If a region’s public servants are poorly educated and the government does not properly train them (e.g. because of a lack of money) they will lack sufficient competences to efficiently provide public goods (such as education or urban planning and transport systems). Similarly, if the government has little financial resources

and cannot equip its personnel with the best tools to do their work, their output will not achieve highest standards. For example, tax revenues are likely to be lower if tax authorities have to work with paper archives instead of electronic files because the manual work is less efficient. A lack of money might cause an under-provision of, e.g., fire engines that leads to a larger number of severe fire catastrophes. Further, if a government agency, like the police, is understaffed it cannot properly fulfill its tasks (e.g. crime prevention by frequently patrolling the streets).

These problems of poor administrative quality are less severe in centralized states where public officials are the agents of the national level (controlled by it) and not quite independent actors. Decentralization, on the other hand, not only expands the rights of subnational governments but also their responsibilities: transferring rights and responsibilities to regional levels of government can be expected to limit nation-wide regional redistribution and the provision of public goods by the national government. Rather, in a decentralized setting, regional governments have the responsibility to fund and organize many goods and services. Regions with poor preconditions will lack both the competencies and the resources to provide public goods at the same standards as the national government with the help of regional redistribution at the expense of rich regions. Hence, the QoG in administratively and economically poorly performing regions will suffer from decentralization. Well-performing regions, in contrast, profit from the supposedly reduced level of redistribution because they have more money left and can tailor the provision of public goods to the needs of their constituency. This implies that even if public officials do not fraudulently abuse their positions but only keep administering their region it will fall behind in the long run as other regions—with better preconditions—strive to improve their QoG.

I follow the ‘local collusion’ argument to explain how decentralization can—in the presence of incentives and absence of control—promote clientelistic networks (see Fan et al., 2009, Neudorfer and Neudorfer, forthcoming). Local collusion leads to interest capture, corruption, and, more generally, lower QoG. Decentralization in

the form of self-rule brings public decision-making closer to the people and multiplies the number of influential officials. Yet, the ones profiting the most from this smaller distance between politics and its people are the privileged groups. Societal and political elites have an interest to join forces so that political and financial power may go hand in hand—for the sake of both of them. With political authority decentralized, this interest meets opportunity—the opportunity for elites to form networks of collusion and to engage in clientelistic rent-seeking.

Local and regional elites outside the political arena are aware of institutional differences and how they determine the perimeters of their actions. In a decentralized environment, elites try to take advantage of the authority of public officials who might be part of their network or to whom they can establish a relation relatively easily compared to decision-makers on the national level. Elites inside and outside of politics may interact with each other by means of corruption in order to extract rents that increase their personal benefit. Such corruption behavior can be defined as the misuse of an official position (by the bribe-taker) for ones own private benefit or the benefit of other individuals or selected groups in society (the bribe-payer) (see e.g. Tanzi, 1998). Yet, the degree to which such attempts to form networks of local collusion are successful depends on the preconditions for corrupt interactions. If, as outlined above, public officials are poorly paid they have incentives to take bribes. Likewise, if the administration is not well-developed control mechanisms will be weak or completely missing. Incentives and lack of control will stimulate corruption.

Furthermore, regions with substantial self-rule authority experience less oversight by the national government than regions that are merely agents of the national government. The lack of central national-level monitoring makes mismanagement more likely if no effective control mechanisms are in place (as would be the case in well-managed regions).

Based on this argument I hypothesize that in regions with good preconditions high levels of regional authority improve the QoG whereas in regions with poor preconditions decentralization worsens the QoG.

#### 4.3.4 Illustrations

To illustrate my argument, I add a short example that outlines how a region's preconditions can mediate the effect of regional self-rule on the quality of government. The example comes from the extensive evidence on regionalization and government performance in Italy collected by Putnam (1993). When Italy started to regionalize its authority in 1970, both, northern and Mezzogiorno regions, had to newly build up their administrative apparatuses and, in the beginning, were forced to employ poorly trained personnel transferred from national-level offices (Putnam, 1993, 49f).<sup>7</sup> Yet, northern and southern regions had vastly different preconditions for their future development. Officials in the southern regions had poor working conditions (p. 86), politicians resorted to clientelistic strategies to achieve their goals (p. 23), and relied on patronage in the distribution of jobs and funds in order gain electoral support (p. 50). Differences in infrastructure between the north and the south were so immense that even redistribution favoring the poor south could not close the gap (p. 86). Putnam further describes the Mezzogiorno regions as poor compared to the north, lacking a civic tradition (p. 114), and having ineffective regional governments (p. 81f). He observes that "regional reform appears to be exacerbating, rather than mitigating, the historical disparities between North and South. The reform freed the more advanced regions from the stultifying grasp of Rome, while allowing the problems of the more backward regions to fester." (Putnam, 1993, 61) This case-study evidence illustrates quite well my argument that regions can profit from self-rule but only in the presence of favorable preconditions.

The, compared to Putnam's, more recent data used in the empirical analysis below suggest that his observations are still valid: seven Italian regions with an average GDP per capita below 20,000 Euro (between 2000 and 2010) have an average

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<sup>7</sup>Although Putnam (1993) does not mention the development of staff competence after regionalization, arguably the rich north was able to profit from its resources to train public officials and improve their competence.

score of QoG equal to -1.65. Seven regions with an average GDP per capita above 28,000 Euro have an average score of QoG equal to 0.04.<sup>8</sup>

Another example—though not presenting causal evidence but merely stylized facts—shows that Putnam’s Italian regions are not the only regions that the argument applies to. Based on the data used in this article, I compare the Flemish community with the Walloon region.<sup>9</sup> They are suitable examples because, first, they are part of a small country and, presumably, have a relatively stable influence of country-specific characteristics;<sup>10</sup> second, while the scope of this article does not allow pursuing an in-depth case-study, there is interesting case-specific information available (see Charron et al. 2013 on QoG and Hooghe et al. forthcoming on regional authority).<sup>11</sup>

The Flemish community and the Walloon region have a very similar tradition of self-rule that incrementally grew to a very high level (value 14 in 2010). However, they have markedly different levels of economic development. Although the Walloon region was originally (until the mid 1960s) “(...) economically [the] strongest region with large coal reserves and the region was among the earliest in Europe to industrialize,” (Charron et al., 2013, 176) Flanders has been the more prosperous region since then (Charron et al., 2013, 177). Indeed they are substantially different with respect to their wealth (average values for 2000-2010): Flanders has a GDP per capita of about 26.700 Euro (around the 80<sup>th</sup> percentile of the sample) and Wallonia of 19.500 Euro (roughly around the 45<sup>th</sup> percentile of the sample).

According to my theoretical argument, the difference in economic performance (as a proxy for a region’s preconditions) can explain how self-rule leads to good QoG

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<sup>8</sup>All Italian regions score 16, i.e. very high, on the measure of regional self-rule.

<sup>9</sup>Other regions to illustrate the argument further are, for instance, Nord-Pas-de-Calais (poorer) and Rhône-Alpes (richer) in France, or the Spanish regions Andalusia (poorer) and Catalonia (richer).

<sup>10</sup>This manifests itself in, for example, the same level of historical executive constraints as coded by Tabellini (2010).

<sup>11</sup>I do not include the capital region of Brussels in the comparison because “(...) [a]s Brussels Capital region has a mixed status encompassing both Flemish and Walloon municipalities, it does not enable a distinct regional comparison.” (Charron et al., 2013, 179)



in Flanders but substantially worse QoG in Wallonia. Citizens in Flanders perceive the quality of government to be substantially higher (perceived QoG = 1.32) than citizens in Wallonia (perceived QoG = 0.16).<sup>12</sup>

The statistical analysis in the remainder of this article will test whether self-rule indeed has a significant effect on QoG dependent on a region's preconditions.

## 4.4 Data and Method

Table 5.A.1 provides an overview of variables, operationalizations, and data sources. Table 4.2 summarizes information on the main variables by country and Table 5.A.2 provides standard summary statistics.

### 4.4.1 Quality of Government

As operationalization of the dependent variable, I use regional-level data on QoG from the European Quality of Government Index (EQI) (see Charron and Lapuente, 2013, Charron et al., 2013). Data are based on interviews with individuals from more than 200 regions covering all 28 EU member states as well as Serbia and Turkey. A first round of interviews have been held in 2009/2010, a second round in 2013. The analysis in this article concentrates on the 2013 wave of the data (which is highly correlated with the measure from 2010 at *Pearsons' r* > 0.9). To form the index, people have been asked a total of sixteen questions on quality, impartiality, and corruption focusing on public education, public health care, and law enforcement. Depending on the country, data have been aggregated to the NUTS 1 (e.g. Germany or Greece) or NUTS 2 level (e.g. Bulgaria or Italy).<sup>13</sup> EQI data are standardized

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<sup>12</sup>The agreement of experts on the QoG ranking through the citizens of Wallonia is mixed: "(...) experts in Flanders disagreed on the ranking of Wallonia: some interviewees thought the Walloon region had been evaluated unjustly, while others thought that the ranking was fair." (Charron et al., 2013, 192). Yet, the results are very similar in both waves, 2010 and 2013: Flanders receives substantially higher values (EQI 2013: Flanders 1.32 versus Wallonia 0.16; EQI 2010: Flanders 0.98 versus Wallonia -0.03). Yet, this stylistic evidence can in no way make a causal claim and serve as a replacement for respective case-specific evidence.

<sup>13</sup>NUTS = Nomenclature of territorial units for statistics.

with mean zero and a standard deviation of one. Data from 2013 range from about -2.66 (Bati Anadolu in Turkey, low QoG) to 1.76 (Midtjylland in Denmark, high QoG).

#### 4.4.2 Regional Authority

To operationalize the extent of a region's authority, I employ a recent, fine-grained measure of decentralization, the Regional Authority Index (RAI) (Hooghe et al., 2010, forthcoming). The RAI measures authority primarily based on official documents such as constitutions and conceptualizes regional authority as the two complementary domains of regional self-rule and shared rule (see above). The theoretical argument outlined above requires that the analysis focuses on the effect of regional self-rule. Yet, the analysis still controls for the effect of shared rule. The Self-rule measure provides a score for each region that is aggregated from five components: institutional depth, policy scope, fiscal autonomy, borrowing autonomy, and representation. Shared rule combines the regional role in national-level law-making, executive control, fiscal control, borrowing control, and constitutional change.<sup>14</sup>

Given the conceptualization of QoG, an immediate effect of regional authority on the EQI is implausible. The EQI aims to evaluate the quality of institutions and public services in 2009/2010 and 2013. Hence, a test of the hypothesis based on long-term temporal variation in QoG (such as a pooled cross-section time-series analysis) is not possible. Political decisions that might have had affected the QoG assessed by respondents at these two time-points most likely took place several years before the evaluation. For example, an educational reform that affects the quality of schools requires several years of planning, implementation, and probably some more time to actually affect citizens' perceptions. Likewise, current practices in law enforcement, impartial treatment of all citizens, and corruption practices in bureaucracy are not the consequences of decisions taken and institutional settings

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<sup>14</sup>For more detailed information about the coding of these dimensions, see Table 5.A.1 and Hooghe et al. (2010, 8, 13-31).

in place immediately prior to the evaluation of QoG. Rather, they are determined by rules, norms, and ‘common practices’ formed years ago and shaped over time.<sup>15</sup>

The estimation strategy cannot simply ignore this and look at the degree of regional authority at the time data for the EQI were collected. Instead, I assume that it takes at least three to four years from the (hypothetical) initiation of a reform process to affect outcomes. In practical terms, the quality of public health care assessed in 2013 might have been affected by a reform that entered into effect in 2012 but required bureaucratic and legislative preparations of two years. Decentralization that transferred authority to regions in, for example, 2012 most likely could not have affected QoG in 2013. It is, then, a region’s level of self-rule in 2010 (or prior) that is decisive in assessing whether regional authority affects QoG in 2013. At the same time, it is plausible to argue that the time lag should not exceed a government’s term much: in their assessment of QoG, citizens will give credit to or blame the current government or its predecessor and, arguably, not the government in place several decades ago. Therefore, a four year lag between the level of a region’s self-rule and its QoG is a sensible and useful implementation. I use self-rule data from 2009 to explain the EQI 2013.<sup>16</sup>

Across all regions, self-rule varies between one and 16, shared rule ranges from zero to 11.5 with higher values indicating stronger regional authority. Most countries

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<sup>15</sup>In fact, both the quality of public services as well as the quality of the bureaucracy are likely to be determined in parts by path dependency of political decisions—which are themselves determined by former distribution of authority—and cultural traditions. At the same time, while decisions taken (and, hence, former institutional settings) and practices common several decades ago may still have an effect on today’s QoG, the more recent distribution of authority between levels of government is important as well. The past 60 years have seen a probably unprecedented shift in governmental power strongly motivated by the desire to improve the quality of government and public policy-making. This is true for both directions of multilevel governance, supra- and subnational. As parts of EU member or accession states, all regions in this sample are subject to certain EU norms aimed to improve, for example, accountability of institutions (as outlined, for instance, in the Copenhagen criteria for accession, new member states must meet the following political criteria: “political: stability of institutions guaranteeing democracy, the rule of law, human rights and respect for and protection of minorities” [source: [http://europa.eu/legislation\\_summaries/glossary/accession\\_criteria\\_copenhagen\\_en.htm](http://europa.eu/legislation_summaries/glossary/accession_criteria_copenhagen_en.htm)]). Likewise, decentralization has been a response to bad governance. Therefore, the more recent distribution of authority should be taken into account when estimating the effect of regional self-rule on the QoG.

<sup>16</sup>Using data from 2010 or 2008 gives basically the same results.

have no or little within-country variation with regard to levels of regional authority. For example, all German *Länder* score 15 on self-rule in 2009. Yet, Portugal's regions have extremely different levels of self-rule in 2009: the special autonomous regions, Azores and Madeira, score 15 on self-rule whereas the five planning regions on the mainland score only one on self-rule. Similarly, there is within-country variation in Spain and the United Kingdom. Shared rule shows within-country variation in six out of 21 countries in the year 2009 (Belgium, France, Italy, Portugal, Spain, United Kingdom).

#### 4.4.3 A Region's Preconditions

Because the measure of regional authority shows little variation on the regional level of government within most countries, the within-country variation in regional QoG cannot be explained by self-rule alone. Rather, it depends on within-country variation in what conditions the effect of self-rule: I have labeled this 'preconditions' in the theoretical argument above. To recall, these preconditions for an effective, impartial, and non-corrupt government are a professional, competent bureaucracy (and wealth as a pre-precondition) as well as limited incentives for and control of corruption.

No straightforward operationalization for these preconditions is available. Yet, the concept is closely linked to the dependent variable, quality of government. I use regional GDP per capita (mean value from 2000 to 2010; source: Eurostat) as a proxy for a region's preconditions—i.e., how well a region has been doing in economical terms—for the following reasons: first, as outlined above, a region's level of wealth affects the competence of its public officials and the quality of their work. GDP is then an overarching operationalization encompassing aspects such as the level of education, staffing of government, or quality of equipment. Second, GDP per capita captures a lower risk of corruption due to higher salaries of public servants and a more professional bureaucracy (including control mechanisms). Third, unlike other potential operationalizations of preconditions (e.g. the perceived functioning

of government), data on GDP per capita are available on the regional level for all regions in my sample.<sup>17</sup>

#### 4.4.4 Control Variables

The analysis controls for the influence of regional shared rule, the level of female employment as a proxy for culture, and unobserved country-specific characteristics (country dummies). Together with self-rule, shared rule forms the RAI. Country-level comparative analysis indicates that shared rule can limit corruption because it leads to more control of the national government (Neudorfer and Neudorfer, forthcoming). Yet, this effect may be reversed under the conditions of a presidential system (Neudorfer and Neudorfer, 2014). The regional-level relationship between shared rule and corruption or quality of government in general has not been studied yet. I include shared rule because it complements self-rule as a measure of decentralization and because it is strongly correlated with the EQI ( $r = 0.42$ ).<sup>18</sup>

As mentioned above, not only the institutional setting but also culture and societal conditions may determine regional variation in the quality of government. Presumably, this is especially relevant for the ‘corruption’ pillar of the EQI. *Country-level* corruption studies operationalize culture as ‘Protestant tradition,’ or control for colonial history and legal tradition (see Kunicová and Rose-Ackerman, 2005, La Porta et al., 1999, Treisman, 2000). Similarly, women’s representation in parliaments or share of the workforce have been studied as a socio-economic variable reducing corruption levels arguing that women are more public-spirited (Dollar et al., 2001, Swamy et al., 2001) or reduce the budget available for private goods spending (Neudorfer, forthcoming). Recent *regional-level* research relies on World Values

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<sup>17</sup>Some measures are available for a very limited number of regions from few European countries only and not at all time-points. Other measures are available only on the individual or, aggregated, country-level. Examples are data from the World Values Survey on people’s confidence in various institutions, the functioning of government, meritocracy, civil society, law enforcement, or corruption.

<sup>18</sup>*Pearson’s r* for self-rule and shared rule equals about 0.63. Excluding shared rule does not substantially change the results.

Survey data on trust, obedience, respect, and tolerance to operationalize culture (Charron and Lapuente, 2013). However, data availability of these variables is very limited both across time and space.

I operationalize culture as the percentage of employed women relative to all women aged 15 to 64.<sup>19</sup> Arguably, female employment is lower in patriarchal societies. Patriarchies emphasize hierarchy, dominance, and clientelism rather than fairness and equal opportunities<sup>20</sup> It is then plausible to assume that regions with low shares of women in the workforce lack impartiality and suffer from clientelism, corruption, and bad governance compared to regions with high levels of employed women. Hence, I expect higher female employment to be associated with a better QoG.<sup>21</sup>

Finally, I include country dummies to capture remaining country-specific characteristics that are difficult to control for by additional variables.

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<sup>19</sup>I prefer this operationalization compared to others mentioned above because it provides valuable cross-regional variation and is available for all regions in my sample. Data for the year 2009 are obtained from Eurostat. In the robustness section, I add further country-level (e.g. Protestantism) and regional-level (e.g. trust) variables associated with a country's culture and tradition; the results are robust.

<sup>20</sup>See Dollar et al. (2001), Swamy et al. (2001) on women's public-spiritedness and lower risk of corruption among women. Similarly, Putnam (1993, 114) concludes that "[t]he least civic areas of Italy are precisely the traditional southern villages (...) Life in much of traditional Italy today is marked by hierarchy and exploitation, not by share-and-share-alike."

<sup>21</sup>Stylistic evidence supports this view: the eight Italian regions with shares of working women below 50 percent (between 31 and 48 percent) have an average EQI of -1.58 (on a scale ranging from -2.66 to 1.76). The 13 Italian regions with high levels of working women (between 54 and 65 percent) have an average EQI of -0.19. The five Danish regions, on the other hand, score between 74 and 79 percent on female employment with an average EQI of 1.66. The correlation between the two variables for the full sample equals about 0.77.

Table 4.1. Operationalizations and data sources

Variable	Operationalization	Source
<i>Dependent variable</i>		
QUALITY OF GOVERNMENT	QoG is the average of its components <i>quality</i> , <i>impartiality</i> , and <i>corruption</i> . These three components aggregate a total of sixteen questions/indicators by means of factor analysis. They focus on public education, public health care, and law enforcement.	Charron et al. (2014, 2013)
<i>Explanatory variables</i>		
SELF-RULE	aggregate country-level data; combines five dimensions: institutional depth, policy scope, fiscal autonomy, borrowing autonomy, representation <i>institutional depth</i> : “extent to which a regional government is autonomous rather than deconcentrated” (0-3) <i>policy scope</i> : “range of policies for which a regional government is responsible” (0-4) <i>fiscal autonomy</i> : “extent to which a regional government can independently tax its population” (0-4) <i>borrowing autonomy</i> : “extent to which a regional government can borrow” (0-3) <i>representation</i> : “extent to which a regional government is endowed with an independent legislature and executive” (0-4)	Hooghe et al. (2010, forthcoming)
SHARED RULE	aggregate country-level data; combines five dimensions: law making, executive control, fiscal control, borrowing control, constitutional reform.	Hooghe et al. (2010, forthcoming)
ECONOMIC DEVELOPMENT	Gross domestic product (GDP) at current market prices by NUTS 3 regions; values in Purchasing Power Standard per inhabitant; average values for the 2000-2010 period, measured in 1000.	Eurostat (variable nama_r_e3gdp)
FEMALE EMPLOYMENT	Economic activity rates by sex, age and NUTS 2 regions (%); values from 2009	Eurostat (variable lfst_r_lfp2actrt)

**Table 4.2.** Descriptive Statistics by Country

Country	Variable	Obs.	Mean	Std. Dev.	Minimum	Maximum
AUSTRIA	Quality of Government	9	0.93	0.29	0.47	1.37
	Self-Rule	9	14.00	0.00	14.00	14.00
	GDP	9	27.35	5.53	19.01	37.55
BELGIUM	Quality of Government	3	0.56	0.66	0.16	1.32
	Self-Rule	3	14.00	0.00	14.00	14.00
	GDP	3	32.87	17.36	19.45	52.47
BULGARIA	Quality of Government	6	-1.44	0.86	-2.60	-0.11
	Self-Rule	6	1.00	0.00	1.00	1.00
	GDP	6	7.62	2.68	6.00	12.96
CROATIA	Quality of Government	2	-1.21	0.10	-1.28	-1.13
	Self-Rule	2	10.00	0.00	10.00	10.00
	GDP	2	12.61	0.36	12.35	12.86
CZECH REPUBLIC	Quality of Government	8	-0.32	0.24	-0.82	-0.07
	Self-Rule	8	8.00	0.00	8.00	8.00
	GDP	8	17.65	7.73	13.85	36.67
DENMARK	Quality of Government	5	1.66	0.13	1.45	1.76
	Self-Rule	5	7.00	0.00	7.00	7.00
	GDP	5	25.89	4.82	20.25	33.56
FRANCE	Quality of Government	26	0.52	0.40	-0.53	1.15
	Self-Rule	26	10.00	0.00	10.00	10.00
	GDP	26	20.87	4.62	12.09	38.91
GERMANY	Quality of Government	16	0.81	0.23	0.37	1.09
	Self-Rule	16	15.00	0.00	15.00	15.00
	GDP	16	25.20	7.77	17.15	45.93
GREECE	Quality of Government	4	-0.90	0.18	-1.07	-0.65
	Self-Rule	4	2.00	0.00	2.00	2.00
	GDP	4	19.72	3.92	16.50	25.25
HUNGARY	Quality of Government	3	-0.57	0.19	-0.76	-0.37
	Self-Rule	3	1.00	0.00	1.00	1.00
	GDP	3	14.60	6.99	9.15	22.48
IRELAND	Quality of Government	2	0.83	0.10	0.76	0.91
	Self-Rule	2	3.00	0.00	3.00	3.00
	GDP	2	27.57	9.29	21.00	34.14
ITALY	Quality of Government	21	-0.72	0.93	-2.24	1.04
	Self-Rule	21	16.00	0.00	16.00	16.00
	GDP	21	23.71	5.96	15.21	33.18
NETHERLANDS	Quality of Government	12	1.34	0.12	1.20	1.64
	Self-Rule	12	10.00	0.00	10.00	10.00
	GDP	12	27.94	5.00	21.60	36.64
POLAND	Quality of Government	16	-0.38	0.23	-0.73	0.00
	Self-Rule	16	9.00	0.00	9.00	9.00
	GDP	16	10.87	2.58	8.19	18.75
PORTUGAL	Quality of Government	7	0.28	0.41	-0.12	1.00
	Self-Rule	7	5.00	6.83	1.00	15.00
	GDP	7	18.23	4.04	14.07	24.88
ROMANIA	Quality of Government	8	-1.66	0.34	-2.23	-1.06
	Self-Rule	8	2.00	0.00	2.00	2.00
	GDP	8	8.77	4.30	5.41	19.05
SLOVAKIA	Quality of Government	4	-0.56	0.14	-0.71	-0.43
	Self-Rule	4	7.00	0.00	7.00	7.00
	GDP	4	16.71	10.57	9.93	32.44
SPAIN	Quality of Government	17	0.22	0.31	-0.40	0.60
	Self-Rule	17	13.88	0.78	11.00	15.00
	GDP	17	22.40	4.34	14.98	29.78
SWEDEN	Quality of Government	3	1.48	0.08	1.38	1.54
	Self-Rule	3	12.00	0.00	12.00	12.00
	GDP	3	27.16	3.80	24.55	31.52
TURKEY	Quality of Government	12	-1.13	1.04	-2.66	0.15
	Self-Rule	12	1.00	0.00	1.00	1.00
	GDP	12	10.39	3.86	5.55	17.45
UNITED KINGDOM	Quality of Government	12	0.76	0.20	0.39	1.06
	Self-Rule	12	6.25	3.67	4.00	15.00
	GDP	12	24.34	6.68	18.67	43.91



#### 4.4.5 Sample and Method

The sample consists of a cross-section of 196 regions from 21 countries.<sup>22</sup> Quality of government is measured in the year 2013. I use data on self-rule, shared rule, and female employment from 2009 and average values of GDP per capita (2000-2010). I analyze the cross-sectional data set using linear ordinary least squares regression with robust standard errors clustered by countries.

### 4.5 Results

Model 1 in Table 4.3 presents a baseline model regressing the EQI on self-rule, GDP per capita, their interaction, and country dummies. Model 2 adds the control variables shared rule and female employment. The coefficients of self-rule and GDP per capita are both negative and significant. The interaction term has a positive and significant coefficient. These results lend preliminary support to the hypothesis of a conditional effect of self-rule and economic development on levels of QoG in European regions.

The coefficients of the control variables show the expected signs and are both significant. Regional shared rule improves regional QoG. This is in accordance with the country-level findings on two components of shared rule—law-making and constitutional reform—presented by Charron et al. (2014). It also supports the cross-country findings that shared rule contributes to reducing corruption (see Neudorfer and Neudorfer, forthcoming). The ‘cultural’ variable on female employment contributes to higher QoG as well. Altogether, the main model explains about 83 percent of the variation in regional QoG.

I use coarsened exact matching (*cem*, see Blackwell et al. 2009) to test the robustness of my results. Matching trims the sample by selecting observations that “have better *balance* between treated and control groups, meaning that the empirical

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<sup>22</sup>Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Poland, Portugal, Romania, Slovakia, Spain, Sweden, Turkey, United Kingdom.

**Table 4.3.** The Effect of Regional Self-Rule on Quality of Government, Dependent on Economic Development

	<i>Standard OLS</i>		<i>Matching</i>	
	(1)	(2)	(3)	(4)
SELF-RULE	-0.139+	-0.139*	-0.177*	-0.148*
	(0.073)	(0.052)	(0.073)	(0.059)
GDP PER CAPITA	-0.061*	-0.064*	0.021	-0.050*
	(0.028)	(0.024)	(0.022)	(0.021)
SELF-RULE $\times$ GDP P. C.	0.007+	0.006 **	0.008*	0.006*
	(0.003)	(0.002)	(0.003)	(0.003)
SHARED RULE		0.096+		0.034
		(0.049)		(0.031)
FEMALE EMPLOYMENT		0.039 **		0.059 **
		(0.008)		(0.010)
OBSERVATIONS	196	196	66	66
COUNTRIES	21	21	21	21
ADJ. $R^2$	0.776	0.832	0.247	0.529

*Note:* OLS regression of quality of government on regional self-rule, GDP per capita, and their interaction; control variables added in Models 2 and 4. Standard OLS models with country dummies (not shown) and clustered robust standard errors in parentheses; +  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ .

distributions of the covariates ( $\mathbf{X}$ ) in the groups are more similar.” (Iacus et al., 2012, 1) *Coarsened* exact matching matches observations not on exact values but on the basis of a range of values of the matching variables.<sup>23</sup> This technique allows more observations to be matched as in exact matching (Blackwell et al., 2009). As treatment effect, I generate a dummy that takes on the value one for regions that score at least twelve on the self-rule variable. I choose this cut-off value because it is the sum of all second-highest scores on the five self-rule dimensions. This ensures that a region scores relatively high on all dimensions of self-rule. Further, this cut-off affects regions from those countries having cross-regional variation in self-rule because some regions in the respective countries score below twelve (e.g. the Basque Community in Spain), others above (all other Spanish regions). In the distribution of self-rule in the sample, this cut-off equals about the 64<sup>th</sup> percentile and codes 71 observations as treatment group.

<sup>23</sup>“In coarsened exact matching, users temporarily coarsen their data, exact match on these coarsened data, and then run their analysis on the uncoarsened, matched data.” (Blackwell et al., 2009, 524)

I match observations based on the explanatory variables identified in my traditional OLS regression (self-rule, shared rule, GDP, female employment) but exclude the country dummies. The L1 imbalance statistic of 0.296 after the matching process is, compared to 0.862 before the matching, a substantial improvement.

My theoretical argument particularly distinguishes countries with a tradition of good preconditions (operationalized through a high GDP) and those of bad institutions (operationalized through low GDP). Therefore, I use two dummy variables to identify poor (equal or below the 25th percentile) and rich (equal or above the 75th percentile) regions and thereby ‘force’ the matching process to put particular emphasis on this grouping of observations. Besides this, I use automated coarsening.

The 66 weighted matched observations then constitute the sample of another OLS regression. The explanatory variables are included using the original measurement level (not the dummy coding used for the matching process).<sup>24</sup> I run two regressions. One including all variables also used for the matching process apart from country dummies (following the approach by Beardsley and Lo 2014)<sup>25</sup> and one including only self-rule, GDP, and the interaction between the two.

Models 3 and 4 mimic the first two models using the weighted observations following the matching process. The results support the findings from the pre-matching models.<sup>26</sup>

To determine and illustrate the actual effect of self-rule on regional QoG conditional on GDP, I provide margins plots in Figure 4.1. The six graphs show the effect of increasing levels of regional self-rule on QoG at six levels of GDP per capita: the sample minimum, the 10<sup>th</sup>, 25<sup>th</sup>, 75<sup>th</sup>, and 90<sup>th</sup> percentiles, and the sample maximum.

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<sup>24</sup>“The idea of CEM is to temporarily coarsen each variable into substantively meaningful groups, exact match on these coarsened data, and then retain only the original (uncoarsened) values of the matched data.” (Blackwell et al., 2009, 527)

<sup>25</sup>“Since the matching produces treatment and control groups that are not perfectly balanced, we also include the variables that were used for the matching as independent variables.” (Beardsley and Lo, 2014, 374)

<sup>26</sup>Although the coefficient of GDP is positive in Model 3, the substantive conditional effect—graphed in margins plots not shown here—stays the same.

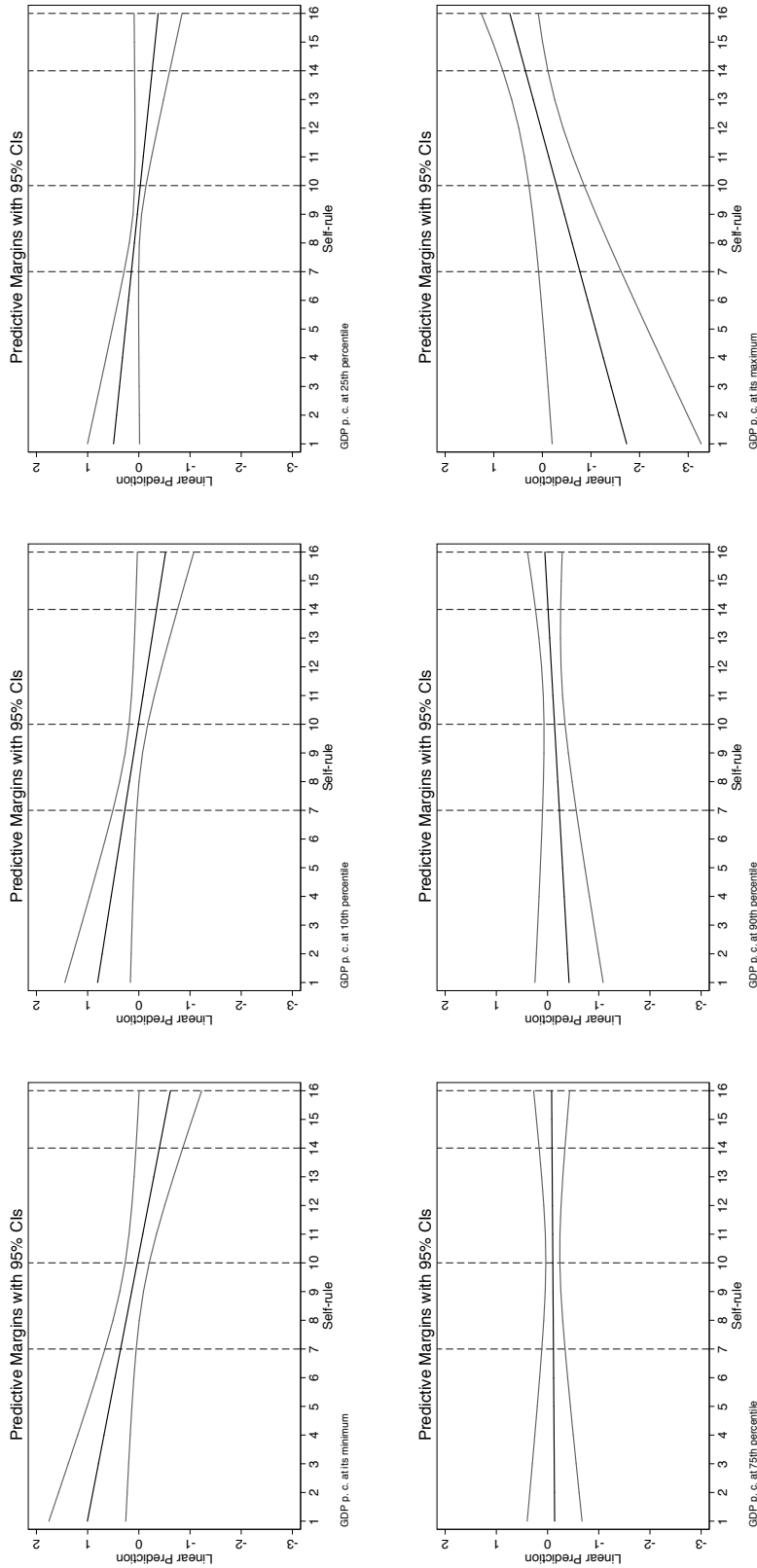
As predicted by the theoretical argument, the direction of the effect of self-rule on regional QoG switches when the preconditions for effective self-government improve. Accordingly, self-rule has a significant negative effect on QoG in regions with a very low level of GDP. Medium-rich regions have a medium level of QoG independent of their level of self-rule, i.e. self-rule has no significant influence. In very rich regions, self-rule leads to higher levels of QoG. These results support the hypothesis that self-rule improves QoG in well-performing regions and further reduces QoG in regions that do not perform well.

The predictions of my main model for the two example regions, Flanders and Wallonia, further illustrate the results. The residual for Wallonia is extremely small (-0.015) indicating that my model explains the case of Wallonia very well. For Flanders, the residual is bigger (0.575) showing that my model underestimates the QoG in this region. Still, the two predictions are substantially different (Flanders has a predicted value of 0.742 and Wallonia a predicted value of 0.176) and indicate that, overall, my model is a useful model to explain higher and lower levels of QoG.

#### **4.5.1 Robustness**

The results presented above pass a number of robustness tests. In Table 4.A.2, self-rule is disaggregated into its five dimensions ('institutional depth,' 'policy scope,' 'fiscal autonomy,' 'borrowing autonomy,' 'representation'). The results using these disaggregated data support the overall conclusion of a conditional effect: the signs of the coefficients do not change, they are all significant, and the model fit is very similar to the main model.

I add various control variables to the main Model 2 in Table 4.3: a variable on Protestant tradition (country-level), regional population size, infant mortality, inequality, trust, dummy variables for capital regions and Mezzogiorno regions, and several regional-level institutional variables (single party government, minority government, consecutive years in power, electoral threshold). The results are robust (see Tables 4.A.3 and 4.A.4).



**Figure 4.1.** The Effect of Regional Self-Rule on Regional Quality of Government in 196 European Regions in 2013, Dependent on Levels of Regional Economic Development (Based on Model 1 in Table 4.3). Vertical Dashed Lines Indicate 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup>, and 90<sup>th</sup> Percentiles.

The results are also robust to bootstrapping (results not reported) and to a country-wise jackknife—i.e. the country-wise exclusion of regions (see Table 4.A.5).

### 4.5.2 Discussion

The results presented above consistently support the hypothesis that regional self-rule improves the QoG in regions with good economic performance but worsens QoG in regions with low levels of economic development. Coarsened exact matching as well as various robustness tests give further credit to the findings.

In terms of the theoretical argument, the analysis supports the prediction that in regions with good preconditions, *ceteris paribus*, the QoG is on average higher where self-rule is extensive compared to a region with little self-rule. This is the case because regional governments and their administrative bodies are well-functioning, well-prepared, competent, and less collusive so that public officials make good use of their authority. In contrast, regions lacking those vital preconditions will suffer from worse QoG when they have strong self-rule compared to regions with little self-rule. When public officials are not well-educated, badly equipped to do their tasks, and have low salaries, they are not able to handle their authority well for the benefit of the region. Rather, collusion and mismanagement waste public resources and lead to higher corruption levels as well as less impartiality of the administration and a lower quality of public services.

Previous analyses of the determinants of regional QoG found little consistent evidence for an effect of decentralization (see Charron et al., 2014, Charron and Lapuente, 2013). This article, however, demonstrates the significance of regional authority for QoG both theoretically and empirically.

## 4.6 Conclusion

This article shows that subnational authority has a palpable effect on the quality of regional government. Using empirical evidence from a cross-section of 196 regions

from 21 European countries, it demonstrates that regional self-rule improves or worsens QoG conditional on a region's preconditions. Regions with a professional administration (backed by good economic performance) and little incentives for corruption provide favorable conditions for self-rule. Under these conditions, public officials are able to make good use of their authority. This makes public goods provision more effective, enhances impartiality, and keeps corruption levels low. QoG is, therefore, higher in regions with good preconditions that exercise extensive self-rule compared to regions with good preconditions but little self-rule. The reverse is true in regions with a bureaucratic apparatus that lacks competence, equipment, and sufficient staffing, where civil servants have incentives to engage in corruption, and risks of punishment are low. Officials can be expected to intensify informal, clientelistic, and collusive behavior under conditions of self-rule, and this depresses the quality of regional government in self-governing regions. Self-rule seems a bad medicine for a sick patient, but it boosts the well-being of the strong.

The conclusions suggest two major tasks for future research: first, an analysis including a temporal component would allow the monitoring of the development of QoG over time and could relate this to changes in subnational authority. So far, this is not possible because of a lack of data on regional QoG over an extended time period. Second, research might want to unpack the conditions for the effect of regional self-rule on QoG. GDP per capita is, arguably, a suitable measure that captures a variety of preconditions for good self-government. Yet, an analysis could, for example, focus on specific aspects of a functioning bureaucracy or anti-corruption instruments and relate these to QoG and its components.

## 4.7 *Appendix*

**Table 4.A.1.** Summary Statistics

Variable	Mean	Std. Dev.	Min.	Max.	N
Qual. of gov.	0.06	1	-2.66	1.76	196
Self-rule	9.43	5.08	1	16	196
Institutional depth	2.15	0.74	1	3	196
Policy scope	1.82	1.13	0	3	196
Fiscal autonomy	1.19	1.21	0	4	196
Borrowing autonomy	1.35	1.1	0	3	196
Representation	2.91	1.46	0	4	196
Shared rule	3.19	4.33	0	11.5	196
GDP per capita	20.21	8.35	5.41	52.47	196
Female employment	61.54	11.95	10.2	79.2	196



Table 4.A.2. Disaggregating Regional Self-Rule

	Original Model	Inst. Depth	Policy Scope	Fiscal Aut.	Borrowing Aut.	Representation
SELF-RULE	-0.139* (0.052)					
INSTITUTIONAL DEPTH		-0.838* (0.380)				
POLICY SCOPE			-0.558* (0.229)			
FISCAL AUTONOMY				-0.394+ (0.210)		
BORROWING AUTONOMY					-0.628** (0.203)	
REPRESENTATION						-0.559* (0.227)
GDP PER CAPITA	-0.064* (0.024)	-0.078* (0.036)	-0.049* (0.021)	-0.024 (0.016)	-0.038* (0.016)	-0.077* (0.030)
INTERACTION	0.006** (0.002)	0.032* (0.014)	0.022* (0.008)	0.015+ (0.009)	0.024** (0.007)	0.022* (0.008)
SHARED RULE	0.096+ (0.049)	0.101* (0.045)	0.100+ (0.049)	0.092 (0.054)	0.092+ (0.050)	0.110* (0.040)
FEMALE EMPLOYMENT	0.039** (0.008)	0.040** (0.010)	0.041** (0.009)	0.038** (0.011)	0.039** (0.007)	0.042** (0.010)
OBSERVATIONS	196	196	196	196	196	196
COUNTRIES	21	21	21	21	21	21
ADJ. $R^2$	0.832	0.826	0.828	0.818	0.832	0.832

Note: OLS regression of quality of government on regional self-rule and its components, GDP per capita, their interaction, and control variables. All models with country dummies (not shown); coefficients with clustered robust standard errors in parentheses; +  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ .

Table 4.A.3. Additional Control Variables, Part 1

	Protestant	Population	Infant Mortality	Inequality	Trust
SELF-RULE	-0.139* (0.052)	-0.136** (0.046)	-0.148* (0.057)	-0.090+ (0.048)	-0.034 (0.032)
GDP PER CAPITA	-0.064* (0.024)	-0.062* (0.024)	-0.071* (0.026)	-0.045 (0.026)	-0.008 (0.024)
SELF-RULE × GDP P. C.	0.006** (0.002)	0.005** (0.002)	0.006** (0.002)	0.004+ (0.002)	0.000 (0.002)
SHARED RULE	0.096+ (0.049)	0.063 (0.049)	0.091+ (0.051)	0.055 (0.044)	0.098* (0.028)
FEMALE EMPLOYMENT	0.039** (0.008)	0.039** (0.008)	0.034** (0.007)	0.031+ (0.016)	0.049** (0.006)
PROTESTANT TRADITION	1.634** (0.572)				
POPULATION		-0.188* (0.082)			
INFANT MORTALITY			-0.247+ (0.131)		
WAGE INEQUALITY				-0.030 (0.166)	
TRUST					0.021+ (0.010)
OBSERVATIONS	196	196	194	146	69
COUNTRIES	21	21	21	14	6
Adj. R <sup>2</sup>	0.832	0.836	0.834	0.808	0.806

Note: OLS regression of quality of government on regional self-rule, GDP per capita, their interaction, and control variables. All models with country dummies (not shown); coefficients with clustered robust standard errors in parentheses; + p<0.10, \* p<0.05, \*\* p<0.01.

Table 4.A.4. Additional Control Variables, Part 2

	Capital	Mezzogiorno	Minority Gov.	Elect. Thresh.	Single Party	Years in Power
SELF-RULE	-0.099+ (0.052)	-0.121* (0.052)	-1.435** (0.143)	-1.194** (0.183)	-1.225** (0.178)	-1.099** (0.178)
GDP PER CAPITA	-0.024 (0.032)	-0.054+ (0.028)	-0.604** (0.060)	-0.580** (0.090)	-0.578** (0.093)	-0.536** (0.088)
SELF-RULE × GDP P. C.	0.004 (0.002)	0.005* (0.002)	0.042** (0.004)	0.040** (0.006)	0.040** (0.006)	0.037** (0.006)
SHARED RULE	0.090+ (0.045)	0.096+ (0.051)	0.145** (0.011)	0.142** (0.010)	0.136** (0.012)	0.142** (0.012)
FEMALE EMPLOYMENT	0.039** (0.007)	0.032* (0.013)	0.025* (0.006)	0.027* (0.008)	0.027* (0.007)	0.028* (0.007)
CAPITAL REGION	-0.509** (0.144)					
MEZZOGIORNO		-0.495 (0.321)				
MINORITY GOVERNMENT			-0.641+ (0.292)			
ELECTORAL THRESHOLD				0.025 (0.030)		
SINGLE PARTY GOVERNMENT					0.134 (0.101)	
CONSECUTIVE YEARS IN POWER						-0.500 (0.488)
OBSERVATIONS	196	196	66	66	66	66
COUNTRIES	21	21	5	5	5	5
ADJ. $R^2$	0.845	0.835	0.861	0.847	0.848	0.850

Note: OLS regression of quality of government on regional self-rule, GDP per capita, their interaction, and control variables. All models with country dummies (not shown); coefficients with clustered robust standard errors in parentheses; + p<0.10, \* p<0.05, \*\* p<0.01.

Table 4.A.5. Countrywise Jackknife

<i>Excluded Country</i>	<i>Self-Rule</i>	<i>Std. Err.</i>	<i>GDP p. c.</i>	<i>Std. Err.</i>	<i>Interaction</i>	<i>Std. Err.</i>	<i>Obs.</i>	<i>Adj. R<sup>2</sup></i>
AUSTRIA	-0.147*	-0.052	-0.065*	-0.024	0.006**	-0.002	187	0.831
BELGIUM	-0.148*	-0.053	-0.066*	-0.024	0.006**	-0.002	193	0.835
BULGARIA	-0.126*	-0.051	-0.056*	-0.024	0.005*	-0.002	190	0.841
CROATIA	-0.139*	-0.052	-0.064*	-0.024	0.006**	-0.002	194	0.83
CZECH REPUBLIC	-0.141*	-0.053	-0.066*	-0.026	0.006**	-0.002	188	0.832
DENMARK	-0.140*	-0.052	-0.065*	-0.024	0.006**	-0.002	191	0.821
FRANCE	-0.144*	-0.053	-0.067*	-0.025	0.006**	-0.002	170	0.832
GERMANY	-0.136*	-0.059	-0.065*	-0.025	0.006*	-0.002	180	0.831
GREECE	-0.140*	-0.053	-0.065*	-0.025	0.006**	-0.002	192	0.829
HUNGARY	-0.142*	-0.054	-0.066*	-0.026	0.006*	-0.002	193	0.831
IRELAND	-0.142*	-0.053	-0.066*	-0.025	0.006**	-0.002	194	0.832
ITALY	-0.068	-0.046	-0.055+	-0.029	0.005+	-0.002	175	0.83
NETHERLANDS	-0.139*	-0.052	-0.065*	-0.025	0.006**	-0.002	184	0.812
POLAND	-0.137*	-0.052	-0.063*	-0.024	0.006**	-0.002	180	0.834
PORTUGAL	-0.220**	-0.051	-0.072**	-0.024	0.006**	-0.002	189	0.845
ROMANIA	-0.138*	-0.055	-0.064*	-0.027	0.006*	-0.002	188	0.811
SLOVAKIA	-0.139*	-0.053	-0.064*	-0.026	0.006*	-0.002	192	0.831
SPAIN	-0.142*	-0.052	-0.066*	-0.024	0.006**	-0.002	179	0.842
SWEDEN	-0.139*	-0.052	-0.064*	-0.024	0.006**	-0.002	193	0.827
TURKEY	-0.113*	-0.047	-0.044*	-0.018	0.004*	-0.002	184	0.855
UNITED KINGDOM	-0.133**	-0.032	-0.076**	-0.022	0.006**	-0.002	184	0.843

*Notes:* Results of twenty-one estimations of Model 2 in Table 4.3 when excluding one country at a time. For reasons of space, I only present the coefficients and standard errors of self-rule, GDP p.c., and their interaction as well as the number of observations and adjusted  $R^2$  of each estimation; +  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ .