

Styles of Inter-municipal Cooperation and the Multiple Principal Problem:

A Comparative Analysis of European Economic Area Countries

Germà Bel, Ivo Bischoff, Sara Blåka, Mattia Casula, Jakub Lysek, Pawel Swianiewicz, António F. Tavares & Bart Voorn

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Abstract

Cooperation in the delivery of public services is generally framed as desirable, but it is often hindered by serious collective action problems. The article compares inter-municipal cooperation in seven countries with different institutional settings. It investigates the rules of governance characterizing these diverse institutional settings and assesses how they deal with the multiple principal problem. The authors find that in almost all cases, all participating municipalities are represented on the supervisory board of the cooperative entity. In contrast, in other less frequent cases cooperation is frequently managed through a different tier of local government, thus circumventing the multiple principal problem affecting inter-municipal arrangements in the other countries.

Keywords: Intermunicipal cooperation; Local government; Multiple principal problem; Comparative; Europe

Introduction

By means of cooperation in the delivery of public services, risk can be shared, expertise pooled, and economies of scale captured (Bel and Warner, 2015). For these reasons, inter-municipal cooperation (IMC) in public service delivery has become frequent (Bel and Warner, 2015; Tavares and Feiock, 2018), both in developed countries and in developing

countries (Silvestre et al, 2020; Muraoka and Avellaneda, 2021). Many studies have found cost savings with cooperation, particularly for services for which scale economies are relevant and for small municipalities (Bel and Sebó, 2021). However, this result is not unanimous, and more research is still needed, particularly regarding extended costs involved by cooperation (Drew, McQuestion and Dolley, 2019) and costs implied by more complex governance (Sørensen, 2007; Garrone, Grilli and Rousseau, 2013).

In this article, we focus on horizontal inter-municipal cooperation, i.e., collaborative arrangements between local governments at the same level that go beyond organizational borders to achieve specific results, including information sharing, joint service delivery, and/or common policy actions (Teles, 2016). Problems occur because IMC requires partial externalization or delegation of decision making, both of which entail various complexities related to collective action. In the literature, Sørensen (2007) reports insufficient monitoring and Garrone, Grilli and Rousseau (2013) find insufficient steering. Unwillingness to share power over policies in situations of strong political cleavages can also be an important obstacle for an appropriate functioning of IMC (Swianiewicz 2011). Voorn, Van Genugten and Van Thiel (2019) provide a theoretical reason for all these problems based on principal-agent theory, pointing out a multiple principal problem that can seriously hamper cooperation in the public sector.

Fortunately, this problem can be solved, at least partially. Economic studies such as Varian (1990) argue that inefficiencies in collective action can be wholly or partially mitigated through cooperative decision making, provided that actors' incentives to 'play the system' can be circumvented. Applying this to the public sector, Voorn, Van Genugten and Van Thiel (2019), and Bel and Sebó (2021) proposed that one solution could be an electoral mechanism creating an interface between the principals and the board that would avoid this multiple principal problem by maximally aligning the interests of the board with those of the median

principal.

In this paper we undertake a comparative analysis of the most common forms of institutionalized cooperation in a representative set of European countries: what is known of the relationships between different types of cooperation, their governance arrangements, and the implications for the treatment of the multiple principal problem. We address two interconnected research questions: 1) how do different IMC governance arrangements address the multiple principal problem? And 2) what are the implications for performance in terms of cost and efficiency in the delivery of public services through IMC? In this way, we seek to compare and contrast the different IMC governance arrangements adopted in practice and improve our understanding of their implications for efficiency in inter-municipal service delivery. The absence of systematic comparative data prevents a statistical test, but the comparative case analysis serves as an exploratory assessment of empirical regularities from which theoretical propositions can be derived linking the multiple principal problem, IMC governance arrangements and their performance.

We investigate the prevalence of the multiple principal problem and assess how alternative IMC governance institutions perform in addressing it by comparing seven countries from the European Economic Area (EAA) with differing approaches to inter-municipal cooperation: the Netherlands, Germany, Poland, the Czech Republic, Norway, Italy, and Spain. Selected cases are the most representative of their respective areas in terms of legal origin (La Porta, Lopez-de-Silanes and Shleifer, 2008). We find that the main IMC structures in all countries tend to include a supervisory board (assembly or council) with representatives of all the municipalities involved. In contrast, in the case of the regions of Aragon and Catalonia, in Spain, cooperation is frequently managed through a different tier of local government, which works as an interface between the cooperating municipalities and the service delivery organization. This governance arrangement circumvents the multiple principal problem that

affects IMC formations in the other countries and is likely to provide additional cost savings.

The remainder of this article is organized as follows. Section 2 explains the background to the multiple principal problem and the governance arrangements of IMC. Section 3 provides descriptions of the seven cases selected for this study. Section 4 discusses the cases from a comparative perspective, describes the limitations of this research and suggests implications for the literature. Section 5 concludes.

Background

The multiple principal problem

Governance of inter-municipal cooperation is not straightforward. Engaging in IMC requires partial externalization or delegation of decision making (Argento, Grossi, Tagesson and Collin, 2009), entailing various complexities related to collective action (Silvestre, Marques and Gomes, 2018), and resulting in some inefficiencies in governance (Allers and De Greef, 2018; Allers and Van Ommeren, 2016; Bel and Warner, 2015, 2016; Garrone, Grill and Rousseau, 2013; Sørensen, 2007; Tavares and Feiock, 2018). These collective action problems have together become known as the multiple principal problem in governance (Voorn, Van Genugten and Van Thiel, 2019).

The multiple principal problem is a conflation of the various governance problems that can exist in joint service delivery, explained through principal-agent theory. It refers to the difficulties inherent in collective action arising in joint service delivery in the face of either homogeneous or heterogeneous interests among municipalities. Heterogeneous interests may arise due to differences between municipalities in terms of population size, economic performance and/or ideological positioning, likely to introduce conflicts between the principals that can complicate general governance (Camões et al., 2021). More problematically, heterogeneous interests may also induce the withholding of information or

lobbying of the service agent. Conversely, homogeneity of interests among municipalities – typically framed as beneficial in joint service delivery – can induce other types of collective action problems such as insufficient monitoring (Sørensen, 2007) or duplication of governance.

These problems are inherent to joint service delivery and therefore difficult to overcome. Two governance solutions have been proposed, based on stewardship and agency theory applied to service delivery ‘at arm’s length’.

First, stewardship theory presumes that autonomous managers will generally act as responsible stewards of their organization. When given a choice between self-serving behaviour and the collective good, stewards will generally prefer the latter. In other words, the first solution to the multiple principal problem is to use forms of governance that induce stewardship, and trust and reciprocity are key (Van Thiel, 2016).

However, this solution has the downside that it can be exploited by opportunistic agents. Therefore, a second form of governance that can help solve the multiple principal problem is needed, based in agency theory, which assumes the possibility of self-serving behaviour instead. This solution is the focus of this article.

Governance arrangements and their problems

The governance of inter-municipal cooperation can be organized in a variety of ways: through informal agreements, formal contracts (inter-municipal contracting), delegation or centralization (Bel and Warner, 2015, 2016). Each of these governance forms faces its own problems.

Informal cooperation, popular worldwide but particularly in the United States (Feiock, 2009), potentially brings about collective action problems in steering and monitoring. Varian (1990)

demonstrates that unorganized joint service delivery could result in the level of oversight being insufficient to guarantee the joint interests of principals, even when these are homogeneous, due to the potential for free riding. In the case of heterogeneous interests, there may be additional problems, such as lobbying of the organization or the withholding of information by individual principals, again resulting in inefficiencies. Long-held relationships based on trust can mitigate these problems, but they are no real solution.

Formal cooperation through contracts, often manifesting as inter-municipal contracting (Bel and Warner, 2015), alleviates transactions costs related to monitoring and enforcement but introduces transaction costs related to formalization. As contracts are inevitably incomplete (Grossman and Hart, 1986), they cannot cover all possible situations. While lobbying may be limited by contract stipulations, it will persist and may intensify for items outside the terms of the contract. Furthermore, costs associated with drafting and enforcing contracts reduce efficiency; to account for changing circumstances, contracts might need to be perennially rewritten, and such continued investment leads to ex-post haggling, placing the agent in a continually stronger bargaining position (Marques and Berg, 2011).

Delegation –without electoral mechanisms– also causes problems, as it creates a ‘controlling party’ who gains additional power to dictate the terms of service delivery. This so-called ‘benefit from control’ implies that the individual shareholder tasked with monitoring has greater access to information, which may entice them to seek an advantage by not sharing important details about the firm with their fellow shareholders. If a larger shareholder is appointed for monitoring, this can exclude minority shareholders from effective corporate control, worsening overall performance (Yeh and Woidtke, 2005).

Lastly, centralization is a suboptimal solution, for reasons that are frequently addressed in the literature on centralization and amalgamation (Swianiewicz, 2018a; Tavares, 2018; Tavares and Feiock, 2018). Centralization is involuntary, it removes municipalities’ ability to opt out,

it may prevent the tailoring of services to local preferences, and it creates a centralized organization that is easier to lobby. Thus, while centralization is a potential solution to the multiple principal problem, it often leads to inefficient and undesirable outcomes.

An efficient solution to the multiple principal problem must comprehensively avoid (1) multiple ownership, (2) dependency on contracts, and (3) dominance of one principal whose interests are not necessarily aligned with the interests of all principals taken together. Voorn, Van Genugten and Van Thiel (2019), and Bel and Sebő (2021) propose one such strategy: using an ‘interface’ board, selected through electoral processes, positioned between the multiple principals and the service organizations. Such an interface board, (1) creates unitary ownership, (2) is not necessarily dependent on contracts, and (3) should align the interests of the board with the median principal, which, in aggregate, may be a good proxy for the collective interests of the principals. This use of *electoral* delegation has been found to be associated with cost reduction of service delivery in the meta-regression conducted by Bel and Sebő (2021).

Case Selection and Research Design

In this study, we address two related questions: 1) how do different IMC governance arrangements address the multiple principal problem; 2) what are the implications for performance in terms of cost and efficiency in the delivery of public services through IMC? To investigate the link between the multiple principal problem, alternative IMC governance institutions, and the effects on performance, we employ a selection of countries based on three criteria. First, all traditions of the European Economic Area (EEA) must be represented (that

is, the French, German and Scandinavian administrative traditions).¹ Second, all regions of the EEA must be represented (North and South, West, and East). Finally, there must be wide availability of institutional and empirical literature on inter-municipal cooperation in each country. Following these criteria, we study the Netherlands and Germany, representative of western central-northern continental Europe; Poland and the Czech Republic, representative of central-eastern continental countries. Next, Norway is the best studied country so far among those of Scandinavian administrative tradition and Northern region, and therefore represents this tradition and region. Italy and Spain are representative of southern Europe, where the French administrative tradition applies. The selected cases also secure substantial cross-country variation in terms of the average and median size of local governments, degree of local autonomy, and types of services delivered through IMC organizations, which should strengthen the representativeness of the analysis in terms of country cases.

Country case studies

The Netherlands

The Netherlands has strict legislation that obligates public law forms of IMC to have all municipalities on the board. The literature has tentatively suggested that this can cause a multiple principal problem, and, indeed, findings suggest that IMC tends to have lower cost savings in these cases (Bel and Warner, 2015).

The prerequisite for flood defence in the Netherlands has historically forced local governments to cooperate. IMC forms called the *waterschappen* ('water boards') date back to the thirteenth century. While originally imperfect – free riding by those far from the defence

¹ We did not include the Anglo-Saxon tradition as it only applies in Ireland. See Elston and Dixon (2020) for a study of the Anglo-Saxon case.

systems created collective action problems that caused frequent floods – the Dutch water boards provided a framework for other types of inter-municipal cooperation. Today, IMC in the Netherlands is present in many areas, ranging from operational and backroom tasks to tax collection and waste management.

In the Netherlands, two types of IMC exist. IMC under public law is the most common form, actively encouraged by the central government, which aimed to bring more uniformity to Dutch IMC (Klok, Denters, Boogers, & Sanders, 2018). However, the law explicitly allows for the creation of, and participation in, private law organizations for the management of public service provision (article 160.2. of the Dutch *Gemeentewet* -municipal law-). Private law organizations are used increasingly for IMC, as they allow more autonomy, and have easier personnel management. Lastly, public-law IMC may invoke a multiple principal problem because Dutch public law mandates the presence of all principals in boards (Voorn, Van Genugten, & Van Thiel, 2019).

Theoretically, a multiple principal problem may exist in the Netherlands. Empirically, evidence is mixed. Allers and Van Ommeren (2016) report that IMC leads to higher spending, primarily linking this to the governance costs of dealing with multiple principals. Voorn (2020) finds that executive managers of IMC organizations rate themselves higher and perceive fewer governance problems under private law. However, there are also some opposite findings. Dijkgraaf and Gradus find that IMC does lead to cost savings, primarily due to scale economies. And Klok et al. (2018) find that CEOs of municipalities generally rate public-law IMC better than private-law IMC. The Dutch experience of IMC is ambiguous overall, and generally not as uniformly positive as that of other countries (Bel and Warner, 2015).

Germany

German municipalities provide important public services and account for one quarter of public expenditure (Wolfschütz, 2020) –mostly funded by vertical tax sharing and a formula-based fiscal equalization system.

Many German IMC arrangements date back to the 1960s. Since 2000, cooperation has intensified continuously (Rosenfeld et al., 2016). Most arrangements are formalized in inter-municipal agreements (*Zweckvereinbarung*) or in special-purpose associations (*Zweckverband*) –both institutions under public law. Inter-municipal agreements are typically used for arrangements in which one municipality executes a task on behalf of others. Operational aspects are decided by the partner providing the service while strategic decisions (e.g., new members) generally require consensus. Partners frequently agree to accept the ruling of arbitrational boards in the case of disputes. By default, the board is installed in the upper-tier licencing authority. This helps to settle severe disputes but is unlikely to solve general agency problems.

Special-purpose associations are used to formalize more intensive cooperation often involving joint investments. They are independent legal entities with their own budget, staff and the capacity to bear legal rights and duties. They provide services on behalf of their members and can levy fees and contributions (Schmidt, 2005). All major decisions are made by the general assembly of members by voting. Each municipality sends at least one delegate to the assembly. The mayors are members of the assembly by law. Delegates are bound by instructions of their municipal council (if exercised). The managing board is appointed by and responsible to the assembly. Some states allow assembly members to be members of the managing board while others do not. Assembly meetings are usually held in public. Beyond that, disclosure obligations are weak (Schmidt, 2005).

Blaeschke and Haug (2018) investigate the impact of IMC on efficiency in wastewater disposal in the German state of Hesse. They find special-purpose associations to be less

efficient than self-providers, while efficiency is higher for typically small municipalities that delegate the task to larger municipalities through inter-municipal agreements. This suggests that the special-purpose associations entail substantial multiple principal problems while delegating tasks does not result in hold-up problems. On the other hand, Wolfschütz (2020) finds special-purpose unions aimed at promoting local business development to have a positive impact on local business development. Thus, while special-purpose associations may benefit from regulatory changes, including far-reaching disclosure requirements, the results of Wolfschütz (2020) suggest that they –even without these regulatory changes –play a positive role by providing a platform to coordinate local government activities and internalize regional spill overs.

While IMC arrangements can be misused to impair inter-local competition (e.g., Di Liddo and Giuranno, 2016), Bischoff and Kosfeld (2021) find no evidence that IMC is used for collusive tax coordination.

Poland

The most frequently form of IMC in Poland is the inter-municipal union (IMU) (*Związek międzygminny*), which is a single-purpose legal entity regulated by the law on local governments, financed by member contributions and revenues from the services provided. IMU may also apply for grants or borrow money from the banks. Currently there are about 150 IMUs. Another important form is the inter-municipal company, which is regulated by commercial law. Estimations from 2012 indicate that there were over 150 inter-municipal companies (Swianiewicz et al., 2016). Much less important is the use of inter-municipal agreements (contracts) in which one local government provides services on behalf of another local government.

IMC in Poland is always a bottom-up voluntary undertaking by municipalities and its role in service provision is limited. Total spending through various forms of IMC does not exceed 3% of municipal budget spending, with inter-municipal companies ranking first and inter-municipal unions second. However, in selected sectors, spending through IMC can be much more important. Waste management is a peculiar sector in this respect – data provided by Kołsut (2016) and Picej (2018) suggests that about half of the related expenditure is allocated through the various forms of IMC.

During the last two decades, the major incentive for IMC has been provided by EU funding. Since individual municipalities are often too small to generate projects which would be sufficiently complex to qualify for funding, this stimulates the organization of new IMC entities. The EU programs also led to new forms of IMC, such as the Local Action Groups (which combine inter-municipal with inter-sectoral cooperation in rural areas) or the Integrated Territorial Investments.

The multiple principal problem has similar traits in both major forms of IMC. In IMUs the board is appointed by the IMU Assembly (delegates of member municipalities). In inter-municipal companies it is appointed and monitored by the supervisory board representing shareholder municipalities. In the main scenarios for the relationship among “principals” (involved municipalities) and between multiple-principals and agent are: (1): One dominant partner of the IMU or company shareholder, and the principal follows its instructions; it is especially frequent among inter-municipal companies and less often among IMU; (2) A more balanced power structure of principals, who agree on the most important issues, so the principal follows the agreed policies.

Szmigiel-Rawska, Łukomska and Tavares (2020) suggest that due to the multiple principal problem, IMC in Poland is more common for services which are easier to monitor, and thus involve fewer transaction costs. IMC institutions are usually dominated by the mayors of the

municipalities involved, which is a consequence of the powerful mayoral role in local political leadership in Poland (Swianiewicz 2018b). IMC is often an arena of political gamesmanship in which mayors vie for dominance over each other, trying to secure the benefits of cooperation for their own municipalities (Gendźwiłł and Swianiewicz, 2018).

Empirical studies of effects of IMC in Poland are relatively scarce. Banszewska et al. (2021) find moderate positive impact on economic development, especially on the reduction of unemployment rates. Picej (2021) finds savings in operating costs of waste management, but mostly cancelled by additional costs related to the operation of IMC institution.

The Czech Republic

The Czech Republic has two types of institutionalized IMC: Voluntary Associations of Municipalities (VAMs) (*Dobrovolné svazky obcí*) and Local Action Groups (LAGs). While LAGs are a result of a European funding program and are not specifically defined in Czech law, VAMs are legal entities defined in municipal law (§49–53, Act No. 128/2000 on municipalities). Czech municipal law (§ 54) vaguely defines additional forms of IMC based on contracting derived from the general Civic or Commercial Code (Lysek and Šaradín 2016), but these are typically temporary and less frequent.

There are approximately 700 VAMs. Only municipalities can be members of the associations, and a single municipality can be a member of multiple VAMs. Generally, VAMs are vaguely defined in municipal law but have more competencies and legislative powers than contract-based IMC bodies. Most VAMs are multipurpose and deal with services such as tourism promotion, local development or environmental protection. However, VAMs for the local services with the strongest financial impact, such as waste management or water distribution, are of single-purpose nature. Statutory bodies are not predefined in the national law so a VAM can decide its own governance arrangement. As a result, there is high heterogeneity in

the scope, areas of activity, degree of cooperation and governance arrangements across VAMs (Sedmihradská, 2018). Most commonly, there is an executive board composed of delegated members of the municipalities (typically the mayor or deputy mayor but it can be any person the municipality has so empowered or authorized), that is controlled by a general assembly (supervisory body) composed of representatives of all member municipalities. The Municipal Law stipulates that the assembly can change the statute by at least of 2/3 of votes of all member municipalities. The VAM institutional settings may thus partly overcome the multiple principal problem. All municipalities are included, the executive board approaches unitary ownership, and the positions of the board are more likely to be congruent with the position of the median principal.

A study by Soukopová and Vaceková (2018) shows that in the case of a VAM cooperating in the area of waste management, savings are significantly higher than when municipalities cooperate without an institutional background, on a simple contractual basis. The study found that IMC was more efficient when municipal representatives participated in the management and the IMC body was administered by professional managers.

The general tendency in the Czech Republic supports the claim that successful cooperation, measured by efficiency gains, is associated with those IMC bodies that have a formal structure with an executive board, as opposed to informal or contract-based IMC. However, the effects of various VAM governance arrangements (the varying distribution of delegated power to professional management) on IMC functioning remains under researched.

Norway

Norway represents the Scandinavian tradition, characterized by a decentralized administrative welfare model, making local government the largest provider of public services (Jacobsen, 2020). On average, municipalities are included in 11 different IMCs who generate

approximately ten percent of each municipality's expenses to service provision. Shared service delivery is organized as single services and the scope of IMC varies between service areas. We outline four main legal forms of cooperation. The first three entail creating an IMC-organization and the last one is delegation (no IMC-organization is created).

First and most commonly, municipalities engage in inter-municipal companies, either with limited liability regulated by private law or with unlimited liability regulated by public law. This second company form was created to facilitate stronger control by owners than the general firm allowed by making the supervisory board more influential. The third type, «Task communities» («Oppgavefellesskap»), was incorporated in the municipal act in 2020. While companies always are legal entities, «task communities» can choose whether the IMC shall have own legal status. It is subordinated to a board consisting of representatives from the participating municipalities. While the company models are aimed at extensive service provision, «task communities» are aimed at less formalized, smaller scale cooperation. The fourth type represents delegation of tasks and is regulated by the municipal act as administrative «host» municipality cooperation where member municipalities delegates responsibility for a task to one municipality.

Empirical studies conducted so far have shown that there exist significant multiple principal problems linked to cooperation. The scope of these problems may however vary between organizational form of the cooperation, task characteristics and type of performance. Sørensen (2007) reports that cooperation increases cost in solid waste services. Blåka (2017a, 2017b) shows that in fire services cooperation compared to single municipal production may increase performance, but an increase in number of cooperating partners impairs service quality and increases cost. It also shows significant cost benefits linked to entering contractual agreements, indicating lower transaction costs with delegation. Studies on emergency primary care services show that the effect of cooperation depends on the type of performance.

Arntsen, Torjesen, and Karlsen (2021) find that smaller municipalities score higher on perceived quality due to cooperation than larger ones. Blåka, Jacobsen, and Morken (2021) show that cooperation has diverging results on input quality. Johnsen (2021) finds that mixing intermunicipal cooperation and privatization was related to lowest cost in auditing services.

Italy

Municipalities are responsible for providing most local public services. During the last decades, a structured national framework for IMC has been introduced. According with the decree-law 78/2010, municipalities below 5,000 inhabitants –approximately the 70% of the total– must co-manage all their basic functions through a convention and/or a Municipal Union -MU- (cooperation for municipalities above 5,000 is voluntary).

The current regulation allows smaller municipalities to create different IMC arrangements, albeit not being able to participate in more than one MU. This has increased multiple principal problems for the basic organization of local government in Italy, which are also accentuated by the strong role regional governments have on this issue (Casula 2020). Regions can identify the optimal territorial levels for the co-management of municipal functions, and they can promote different IMC forms through financial incentives.

The MU is the primary IMC form, with 565 MUs in Italy by the end of 2021

(https://dait.interno.gov.it/territorio-e-autonomie-locali/sut/elenco_unioni_comuni.php) .

Their creation raises multiple principal problems as it implies a strong political agreement between municipalities. MUs have own legal status and own political and administrative bodies. While their political governance must include a president, an inter-municipal council, and an executive body (the *giunta*), municipalities are free to decide the votes' mechanisms as agreed within the statute. MUs can therefore become an arena for local political leadership,

and their creation results in a deficit of democratic legitimacy since no form of direct election is present. The president is in fact chosen among the mayors of the associated municipalities, with the election method that is decided in the statute – e.g., sometimes this role is held by the mayor of the largest municipality, sometimes there is a rotation on an annual basis. This heterogeneity also concerns the internal organization of the *giunte* and the inter-municipal councils. The only constraint regarding the composition of the latter: their members must be elected by the councils of the associated municipalities from among their members. Representation of minorities and of each municipality must be guaranteed. Once these organs are established, local politicians can continue to act as veto-players.

The multiple-principal problem is less present in conventions, which are mere agreements between two or more municipalities for the co-management of one or more functions. No political body is present, and organizational structures remain in the hands of the municipalities.

Empirical studies on IMC effects in Italy are rare, and only concern MUs. They yield mixed results. Luca and Modrego (2021) fail to find any strong, significant effect on local efficiency. In contrast, Ferraresi *et al.* (2018) find that being member of a MU reduces the total per capita current expenditure by around 5 percent. This reduction is driven by the number of municipalities in the MU, and not by their size.

Spain

In Spain, municipalities are responsible for the provision of most locally based public services according to the law that regulates the basic organization of local government (*LRBRL*, Law 7/1985). However, local governments are free to decide what type of arrangement they use to deliver these services. In the same vein, municipalities are free to cooperate with other municipalities to deliver local services. They can do so by engaging in direct bilateral or

multilateral cooperation by means of ad hoc cooperation organizations (*Mancomunidades*, consortia), jointly governed by municipalities. Mancommunities is the most frequent form of cooperation in Spain, as it is used all over the country and is formed exclusively by local governments. However, two regions, Aragon and Catalonia, have created another tier of local government, *Comarcas* (counties, henceforth). Although mancommunities and consortia are also used in these two regions, cooperation through counties is by far the most frequent cooperative arrangement and has greatly spurred the expansion of cooperation.

Here we focus on cooperation via counties, as conducted in Aragón and Catalonia, both regions having almost identical regulation. Municipalities are compulsorily ascribed to a county. However, they are free to delegate the delivery of local services to the county, or to keep provision at the municipal level. They can also freely withdraw from the cooperation.

The county governments are indirectly elected. County councils are formed based on the results obtained by all the parties/coalitions in the municipal. Political parties/coalitions elect their corresponding portion of representatives on the county council; only members of city councils can form the county council, which elects the president. She is responsible for appointing members of the county government, all of whom must be members of the council. Recall that members of the county council do not represent their own municipalities, nor do members of the county government. Consequently, county governments answer to the county council, but they do not have any relationship of dependence with either municipal councils or municipal governments. Hence, cooperation by means of counties escapes the multiple principal problem typical of other forms of IMC, particularly in collaborative organizations where municipal governments participate in the governing boards.

Because they have jurisdiction over provision of the delegated services, county governments can choose between different delivery forms. When IMC is used for a joint purchase from private vendors the transaction costs associated with the contracting process and private

delivery are shared by the cooperating municipalities. However, counties also frequently use public delivery by means of fully or partially county-owned firms.

The primary driver for municipalities to engage in cooperation has been to exploit scale economies and achieve cost savings, while maintaining high quality standards. Empirical evaluations conducted have persistently found cost savings associated with cooperation in Aragon (Bel and Mur, 2009; Bel, Fageda and Mur, 2014) and in Catalonia (Bel and Costas, 2006), in both cases controlling for the effect of joint purchasing to private producers.²

Discussion

The analysis of the main characteristics of IMC forms in the selected countries (see summary in Table 1) shows that single purpose inter-municipal firms or agencies are the most common. In the case of the Czech Republic, it should be noted that multipurpose association of municipalities are relatively more frequent, especially among the smallest municipalities, but these multipurpose associations cover services with reduced financial impact. IMC organizations for the most important local services –such as waste management and water distribution– tend to be single-purpose associations. In contrast, in the case of southern countries, a supra-municipal local tier of government (Italy and Spain) has become a much frequent form. Furthermore, it is worth noting that inter-municipal firms or inter-municipal contracts are of relevance in most of the countries studied.

² See empirical evidence on the effect of IMC on efficiency in local services Spanish-wide in, e.g., Pérez-López et al (2019) for waste services, and Campos-Alba et al (2020) for urban public transit.

Table 1. Main characteristics of Intermunicipal (IM) Cooperation forms in the selected countries

	Netherlands	Germany	Poland	Czech Republic	Norway	Italy	Spain
Primary IMC Form	IM agencies (public law)–roughly 80% of cases. Single purpose	Special purpose associations (public law). Single purpose	IM unions (agencies, public law). Single purpose	Voluntary associations of municipalities (public law) (both single and multipurpose)	IM companies (public law) Single purpose	Municipal Unions (public law – multipurpose)	Mancomunidades: Voluntary associations of municipalities (single purpose, administrative law)
Governance	All municipalities involved participate in the supervisory board; a selection participate in daily boards	Assembly of delegates from all municipalities elects board. The managing board is appointed by and responsible to the assembly	Meeting of partner municipalities (mayors) appoints union’s executive board. Number of votes held by each municipality depends on the union’s constitution	Board formed with representatives of municipalities, controlled by a general assembly composed of representatives of all municipalities	Supervisory board formed with all owner municipalities, who appoint an executive board with a minimum of three members	All municipalities participate in the IM council and the <i>giunta</i> . Statutory autonomy for the votes’ mechanisms, and the president’s appointment.	Board formed with all municipalities involved. The managing board is appointed by and responsible to the assembly
Other relevant IMC Forms	IM firms (private law)–20% of cases. IM contracting exists but is relatively rare	a) IM contracts (public law) b) non-profit or cooperative association (private law)	IM firms (private law)	Local action groups (public-private associations, private law)	a) IM companies with limited liability (private law) b) “Host” municipality (public law)	Conventions (public law – both single and multipurpose)	Counties: different tier of government; use public firms or contract out for delivery (multipurpose)
Governance	In firms, municipalities typically select an independent	a) Leading municipality governs the collaboration	Executive board appointed by supervisory board representing all	Board formed with representatives of all entities	a) Municipalities are shareholders and exercise authority through	Multiple forms of governance, as agreed in the contract.	Independent county government elected by

	supervisory board. All retain a vote in shareholders' meetings	b) like special purpose associations, often including private firms as members	shareholding municipalities (a municipality holding majority of shares can dominate decision making)	involved (mayors, representatives of NGOs and local entrepreneurs)	the "Annual General Meeting" b) Delegation of task to one municipality (the "host")	Organizational structures stay in the municipalities. A single office can be created in a municipality.	county council (formed according to electoral results in the county)
Cost or efficiency effects	Mixed evidence	Mixed evidence	Mixed evidence	Cost reduction with institutionally organized cooperation	Mixed evidence. More municipalities in a cooperation increases cost.	Mixed evidence	Cost reduction with cooperation
Average municipal population	43,152	7,140	15,529	1,680	12,066	7,499	5,688
Median municipal population	27,490	1,711	7,541	433	4,675	2,516	514
Local Autonomy Index	60,1	73,6	74,1	64,4	73,9	68.2	57,9

Notes: IM: Intermunicipal. For Spain we study counties.

Sources: Country subsections for country IMC characteristics. Web page of the Council of European Municipalities and Regions (CEMR <https://www.ccre.org/en/pays/map>) for average population of municipalities (2016-2018). Median population (2017 and 2018) was computed within the project, "Territorial reforms in Europe-international comparative perspective" (National Science Centre, Poland, Grant Number 2017/26/M/HS5/00152). Local Autonomy Index, 2010-2014 (Ladner et al., 2019).

In all cases except in the case of Spain's counties, all municipalities involved in the cooperation are included in the supervisory board (assembly or council) of the cooperative form. The executive board is appointed by the assembly or the council of municipalities. Therefore, the multiple principal problem is potentially present in all cases, except in the case of counties in Spain. In this last case, cooperation is managed by a different tier of local government, which is formed according to election results in the municipalities forming the county. The members elected to the county council do not represent the municipalities as such, but their respective political parties. Hence, it is not compulsory for members of all municipalities to be present on the council (and this is, in fact, what happens in many counties). The council elects a president, based on an agreement between political parties, and the president of the council appoints the members of its government, who belong to the party or parties that achieved the majority in the county council. Hence, this type of institutional design largely prevents the problem of multiple principals, as it formally separates governance of the cooperative body from the governments of the municipalities included in the county.

Professional management appears to play a mitigating role to multiple principal problems in the Czech Republic. In the Czech Republic successful IMC is reportedly associated with steering of executive bodies by professional managers. This aims to introduce professionalization in IMC by removing politicians (mayors) from the management of daily affairs, but it remains unclear whether these governance solutions can solve multiple principal problems, particularly the lobbying of the agent (manager) by the principals (mayors).

Concerning cost reduction associated with cooperation, for the Netherlands, Germany, Poland, Norway, and Italy evidence is mixed, whereas studies conducted for Spain and the Czech Republic tend to find lower costs with cooperation. In both Spain and the Czech Republic cooperation is implemented through multipurpose institutions, which is likely to

entail economies of scale in coordination and governance costs (as these are divided between several services). Second, they have the lowest figures for average population of municipalities, and more importantly, for median population. In both cases the median population is below 1,000, far below the other countries on our study. This implies that the percentage of very small municipalities is bigger. Hence, the benefits from exploitation of economies of scale via cooperation are likely to be higher in both cases.

In contrast to Spain and Czech Republic, in Norway, the multiple-principal problem may be particularly severe, since the empirical evidence suggests the increase in the number of municipalities in IMC organizations increases costs. Findings for Italy and Poland are very recent, still scarce and somewhat mixed, but suggest that small cost reductions are neutralized by the operation of IMC organizations themselves.

The characteristics of the cases reviewed suggest that multipurpose collaborative institutions (which reduce coordination costs, as these are divided between different services) and small dimensions of municipalities (which gives more relevance to economies of scale) show an association with cost savings. These characteristics are more frequent in countries with the French administrative tradition (recall, also, *Communautés d'Agglomération* in France and *Unioni di Comuni* in Italy), or countries with many municipalities of very small dimensions. When both characteristics coincide (French administrative tradition and many, very small municipalities), this seems to trigger delegation to a different tier of local government (as it happens in Spain's counties), creating an interface between the municipalities and the mechanism of joint service delivery, which alleviates the multiple principal problem.

This analysis is subject to several limitations, three of which merit explication. First, heterogeneity across countries of the institutional designs of cooperative institutions poses difficulties for generalizing organizational and governance patterns. In addition, the risk of an omitted variable bias exists –meaning that the inter-country differences in performance may

stem from other factors beyond the realm of this study of IMC arrangements. Second, available empirical evidence on cooperation and costs is still scarce for many European countries (even more so worldwide). Much more research in this area is desirable, so that more systematic and robust conclusions can be obtained. In this regard, our article suggests specific topics for future research by scholars interested in local government reform and public service delivery. Third, given article length limitations, we could not provide extensive information on the specific contexts and IMC characteristics in each country, which would be required if we had conducted single or pair-wise country case studies. More information on each country and on empirical studies on costs is presented in an online appendix.

Conclusion

Inter-municipal cooperation has different ‘styles’ across European countries, largely due to variations in legal origin and administrative tradition. The aim of this article was two-fold. First, we mapped the dominant forms of IMC governance arrangements in a representative set of countries belonging to the EEA and discussed how these arrangements tackle the multiple principal problem. Second, based on a review of the extant empirical literature, we attempted to explore the implications of these arrangements for the performance of IMC organizations. We found that in Spain the presence of an interface organization – a supra-municipal tier of government – between the cooperating municipalities and the service delivery organizations helps to mitigate multiple principal problems. The combination of having this interface organization and generally smaller-sized municipalities seems to produce increased cost savings in the Spanish case.

In contrast, none of the IMC forms in the other countries displays a governance regime capable of avoiding conflicts in multiple principal settings. In the Czech Republic governance regimes value a dual executive solution with the separation between the executive bodies

composed of elected officials representing the municipalities and professional managers who run daily affairs. Besides Spain, the only other country reporting significant cost savings is the Czech Republic, but this result is most likely due to the extremely small median size of the municipalities and not to the governance regime. Given the mixed evidence regarding cost reductions in Germany, the Netherlands, and Norway and the limited research conducted in Italy and Poland, it is safe to conclude that additional research is still needed to evaluate these preliminary findings.

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