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Privatisation, contracting-out and inter-municipal cooperation: new developments in local public service delivery

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ABSTRACT

We briefly review recent advances in the empirical analysis of the privatisation and inter-municipal cooperation of local public services and discuss the potential of these studies. The core issues examined include the identification of factors driving delivery choices and the effects of privatisation and cooperation on service provisions. In addition to reporting the specific empirical findings of each study, we highlight the innovative methodologies that they each adopt. Finally, we outline a number of potential avenues for further research.

KEYWORDS Privatisation; contracting-out; inter-municipal cooperation; empirical studies

Introduction¹

Until recently, the literature on service delivery has focused primarily on the classic 'make or buy' choice. In this regard, studies have sought to examine the outcomes of these choices, focusing their attention above all on whether public or private production results in lower delivery costs (e.g., Bel, Fageda, and Warner 2010). The outcomes of the privatisation of local services have been mixed, given that contracting services out to private producers has not always produced the results expected by their promoters. Potential explanatory factors for this mixed record have been suggested to include the variable transaction costs incurred in the management of direct and privatised service delivery (Brown and Potoski 2005) and the weakening of competition over time for some goods and services or market concentrations (Bel and Costas 2006; Bel and Fageda 2011; Dijkgraaf and Gradus 2007).

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Outside these strictly public and private dimensions, other notable production organisational forms exist, including inter-municipal cooperation (IMC) and delivery by municipality-owned firms (MOCs). For the USA, the International City/County Management Association² surveys measure IMC in relation to various tasks and report that it accounted for almost 20 per cent of service delivery between 1992 and 2007 (Hefetz, Warner, and Vigoda-Gadot 2012). Likewise, in Europe, IMC has gained in importance in recent years. For example, in the Netherlands as a share of total local spending, inter-municipal spending has increased from 7 per cent on average in 2005 to 18 per cent in 2013. In parallel, the literature has begun to examine the outcomes of IMC and its impact on delivery costs, and although the number of studies remains small, an attempt has been made at undertaking a meta-regression (e.g., Bel and Warner 2015). Indeed, an exhaustive analysis of factors driving IMC can be found in Bel and Warner (2016).

In this special issue, we focus our analyses on a number of relevant topics, including a better understanding of why the cost effects of the privatisation of local services have been mixed, and whether IMC is a viable alternative for obtaining better local service delivery outcomes. This issue contains seven contributions: two examine the factors driving privatisation and IMC, two focus on the effects of the privatisation and contracting-out of local public services, and three analyse the effects of IMC.

Studies of the drivers of privatisation and IMC

In the case of, Christian Bergholz examines whether regional spillovers have an impact on the emergence of IMC, by focusing specifically on tourism marketing. Bergholz draws on data from a survey conducted among Western German municipalities merged with official statistics describing the municipalities' fiscal, political and demographic conditions, as well as specific characteristics related to tourism. Bergholz's is the first study to apply a hazard model to explain the emergence of IMC, and he argues that this methodology has important advantages over more commonly employed methods. His results show that especially municipalities with the opportunity to free ride, start inter-municipal cooperation more likely than municipalities without this opportunity. Hence, contrary to expectations, under certain circumstances, municipalities are better off starting IMC than free riding.

Federal and state governments have provided only limited assistance to local governments in the US after the Great Recession, leading the latter to seek out ways to cut costs while they try to maintain their services. Here, a solution frequently adopted has been that of alternative service delivery. Yunji Kim examines whether this form of service delivery is a sustainable solution for local governments, and explores the relationship between procedural and structural barriers to alternative service delivery and actual rates of privatisation and

cooperation. Kim uses census data and 2012 survey data for US municipalities, and finds that procedural barriers (which include political and managerial issues) do not hinder privatisation or cooperation; however, structural barriers of economy, demography and market have a negative effect on their respective rates of adoption. Indeed, both rates are lower in places with lower home values, while rates of privatisation are lower in places with more poverty, or where poverty is increasing. Cooperation may represent a good alternative for places where poverty is increasing, but it can be limited by problems of identifying a willing partner. Overall, the results from this study suggest that alternative service delivery is not the best solution for local governments under stress – in the case of privatisation, because it privileges wealthier municipalities; in the case of cooperation, because it is a spatially constrained tool. An important policy implication emerges from these results: namely, that the cities under greatest stress may be unable to avail themselves of the solutions of privatisation and cooperation, and they should think instead of adopting multilevel solutions to address their structural challenges.

Studies of the effects of privatisation and contracting-out

In 'Contracting out local road and park services: economic effects and their strategic, contractual, and competitive conditions', Andrej Lindholm, Ole Petersen and Kurt Houlberg empirically evaluate the economic effects of contracting-out in the context of local road and park services in Danish municipalities. The authors draw on original survey data from mid-level managers in parks and roads departments, and find that competitive tendering has on average reduced costs by 5.5 per cent. Interestingly, they also find that savings are not associated with lower quality. Furthermore, they find that municipalities that repeatedly contract these services experience smaller savings, suggesting that competitive tendering is subject to declining marginal returns, consistent with results obtained for the Spanish region of Catalonia by Bel and Costas (2006). Finally, Lindholm, Petersen and Houlberg examine several factors contributing to variations in the outcomes of contracting-out, and find that larger municipalities and those that prioritise spending cuts achieve the largest savings, whereas the degree of market competition and the design of contracts do not seem to account for variations in cost savings.

In 'An empirical assessment of market concentration in local services: evidence from Dutch waste collection', Raymond Gradus, Martijn Schoute and Elbert Dijkgraaf examine the relationship between different market concentration indexes and the costs incurred by Dutch waste collection firms. They show that this market was highly concentrated in 2002, 2006, 2010 and 2014. The estimation results for 2002 show that private collection was cheaper than municipal collection and there is some evidence that high market concentration increased the costs of private collection. In 2006, the

savings made from the privatisation of the service and also the effects of concentration disappeared, probably as a result of the introduction of a VAT-compensation fund.³ In 2010, for a small area (i.e., 30-kilometer radius), there is some evidence that high concentration increases costs, but for larger areas this effect disappears. However, in 2014, for most of the estimations, this concentration effect disappears. Overall, these estimation results are quite independent of the concentration indexes used.

Studies of the effects of IMC

In 'Internal factors of inter-municipal cooperation: what matters most and why?', Jana Soukopová and Gabriela Vaceková examine cost reductions in waste collection resulting from IMC in the Czech Republic's South Moravian Region. They use a sample of 658 municipalities of which 205 cooperated between 2012 and 2014. Cost reductions are significantly influenced by the institutional organisation of the IMC, the participation of municipal representatives in management, and professional (independent) managers. Cost increases are found in municipalities with more than 10,000 inhabitants and are associated with the profit-oriented behaviours of waste collection companies. As such, a crucial role in achieving cost reductions seems to be played by internal factors, which, to the best of our knowledge, have been largely neglected in the research literature. Thus, a significant policy implication emerges from this study: namely, the importance of the internal factors of IMC, insofar as they offer an innovative approach to the decision-making process of municipal representatives.

In 'Intermunicipal cooperation, public spending, and service levels', Maarten Allers and Tom de Greef discuss the efficiency of IMC, using Dutch panel data for 2005–2013 for three services (i.e. welfare provision, garbage collection and tax collection). They find no evidence that IMC reduces the total spending of the average municipality. Indeed, IMC seems to increase the spending of small and large municipalities, leaving spending in mid-sized municipalities unaffected. However, in one specific field, tax collection, spending may be reduced through IMC. They hypothesise that instead of lowering spending, municipalities may have used possible cost savings as a result of IMC to improve public service levels; yet they find no direct evidence of this. Overall, Allers and de Greef's study does not provide any evidence that cooperation increases efficiency and they claim that much depends on production technology. However, prospects for cost savings are better for capital-intensive services, such as tax collection. In contrast, in other more labour-intensive services, such as social services, economies of size are negligible or may not exist.

In 'Does intermunicipal cooperation increase efficiency? A conditional metafrontier approach for the Hessian wastewater sector', Frédéric

Blaeschke and Peter Haug analyse the effects of IMC on public service production, especially the potential differences in relative efficiency (input-oriented technical efficiency) between cooperating and non-cooperating municipalities or between different forms of cooperation. The article focuses on the sewage disposal services of a sample of Hessian municipalities (Germany) because of the widespread and time-tested cooperation in German municipal sewage services. In this article, IMC includes joint inter-municipal bodies as well as contractual arrangements or mixed forms of delivery. Relative (technical) efficiency is specified as the relation between aggregated costs and estimated sewage volume. A conditional metafrontier approach is applied (a) to test if different forms of cooperation have access to the same technology set and (b) to detect significant differences in efficiency between different forms of cooperation by comparing the group distributions of the technology gap ratios. Overall, the results reveal only limited returns to scale in sewage services; thus, only smaller municipalities might benefit. Furthermore, only contracting-out municipalities, which are also mostly small municipalities in this sample, turn out to be more efficient (group frontier nearer to metafrontier) than self-providers. Municipalities (mostly larger municipalities) that clean sewage for other municipalities are significantly less efficient than self-providers. The same goes for municipal associations. However, the efficiency differences diminish if environmental variables are taken into account.

Table 1 shows the main characteristics of the different contributions to this special issue, including sample year, country (or region), number of public services, method of sample collection used, regression method employed, and number of observations and municipalities.

These seven articles represent research from five countries (the Netherlands, Germany, the Czech Republic, Denmark and the US), conducted mostly after 2010. Four articles employ panel data and three draw on cross-sectional data. The extant empirical literature has focused largely on cross-sectional data from solid waste. In their meta-regression analyses of solid waste and water services, 38 of 46 observations were solid waste and 41 of 46 observations were cross-sectional (Bel, Fageda, and Warner 2010). In recent years, more and more panel data on this and other services have become available. In particular, there is a greater availability of local government data, which have the added benefit of being highly representative. Some data are based on surveys and, here, some issues of response bias may emerge. This is particularly true for the interesting case of tourism marketing, as examined herein by Bergholz (2018). The papers included in this special issue also present a number of interesting methodological developments. For example, Allers and de Greef use a general method of moments (GMM) to show that municipal expenditure is highly dependent on spending levels in previous years. In his innovative study, Bergholz uses a hazard model to deal with the

Table 1. Different articles with some characteristics.

Authors	Sample year	Country/region	#Public service	A/S ¹	Regression method	#Obs.	#Municipalities
Bergholz	2000–2014	Western-Germany	1	S	Hazard Model	303	303
Kim	2012	US	76	S	Probit	1579	1579
Lindholst,	2014	Denmark	2	S	OLS	82	75
Petersen & Houlberg							
Gradus,	2002, 2006,	Netherlands	1	A	OLS	1610	453/407/392/
Schoute & Dijkgraaf	2010,						358
	2014						
Soukopová & Vaceková	2012–2014	South Moravian (Czech Rep.)	1	A-S	OLS	205	205
Allers & de Greef	2005–2013	Netherlands	4	A	GMM	3332	388/392
Blaeschke & Haug	2006	Hesse (Germany)	1	A	Conditional order-m metafrontier	193	421

A: Administrative data set; S: Survey

response bias in his data. Finally, Blaeschke and Haug use a conditional order-m metafrontier, which has not been widely used to date in the literature.

Privatisation, contracting-out and cooperation: where do we stand and future research?

As the articles in this special issue show, many issues need to be addressed by future research if we are to understand why the cost effects of the privatisation of local services have been so mixed and whether, and under what conditions, IMC may be a viable alternative.

Privatisation and contracting-out

The studies examining privatisation in this issue provide additional evidence of the cost advantages of the privatisation of local public services. The two studies show this effect to be somewhat limited however and they seek to demonstrate how transaction costs, contract design and market concentration can account for this outcome. While generalisations can be misleading, some new, albeit under-researched insights, are emerging. Lindholst, Petersen, and Houlberg (2018) failed to find support for the hypothesis that the cost savings associated with contracting-out are positively linked to the level of market competition in Denmark. Interestingly, in their study, repeated tendering is associated with lower economic gains (as found in Bel and Costas 2006), and as such, this result underlines the importance of transaction costs incurred when contracting out. In addition, most markets for local public services seem to be highly concentrated. For example, the Dutch market for

waste collection contains just two large private firms and some, but not many, small firms. Indeed, in recent years, the number of Dutch private firms in this market dropped sharply. In 2002, in an area with a 70-kilometer radius (i.e., 3850 km²), the number of private firms was 9.9; in 2014 this figure stood at just 5.5. With a total area of 7196 km², the waste market in the South Moravian Region contains only eight private firms. Therefore, we would encourage further empirical research on the relationship between costs and market concentration. Data from recent years should be investigated, as should markets other than that of waste collection.

To understand the fall in number of private firms, it is important that future research examines the phenomenon of re-municipalisation. An earlier analysis of US shifts over time shows not only that privatisation and contracting-out are important, but also that reverse privatisation and contracting-in are gaining in importance (Hefetz and Warner 2004). In a more recent study, Warner and Hefetz (2012) show that for the periods 2002–2007 and 2007–2012, respectively, reverse contracting and new contracting out were almost evenly matched in the United States. Gradus and Budding (2017), based on shifts in Dutch waste collection between 1999 and 2014, show that reverse privatisation is more common than privatisation. Interestingly, for almost half the municipalities, there was a shift from a private to a municipal-owned enterprise. In an evaluation of ideological motivation, Gradus and Budding (2017) show conservative liberals to be in favour of change, particularly towards the market and privatisation; whereas social democrats, above all, are against change. In future research, the impact of re-municipalisation on costs and efficiency should also be examined. For example, Hall, Lobina, and Terhorst (2013) claim that there has been extensive re-municipalisation in the water sector in France and in the energy sector in Germany, so other markets could be investigated as well.

Finally, research should be undertaken into the way that some public service markets have a vertical organisation. This seems to be the case not only of waste collection with large firms in charge of the collection, sorting and recycling of different materials, but also of construction, water and energy. Organising markets vertically can also have some drawbacks as recent research shows. An ex-post evaluation of the effects of competition law enforcement in the German Packaging Waste directive showed that prices fell by more than 60 per cent, which is extremely high for such a measure. The main measure implemented was to break the monopoly of the compliance scheme run by a green dot company by allowing other compliance schemes to enter the market.

Inter-municipal cooperation

In theory, IMC should improve efficiency if the production of public services is characterised by scale economies. In larger organisations, fixed costs can be spread out over higher production volumes. Yet, corporate governance theory predicts that IMC increases agency costs and reduces the degree of monitoring to which public servants are exposed. Based on the three multivariate empirical studies examining costs in this special issue, the cost advantages of IMC remain unclear.

Soukopová and Vaceková (2018) found a cost advantage of IMC in the South Moravian Region (Czech Republic), particularly for small municipalities. Likewise, Blaschke and Haug (2018) reported enhanced efficiency as a result of IMC, again for small municipalities, in this case in the Hessian (Germany) sewage sector. In contrast, Allers and De Greef (2018) found that IMC does not, in general, seem to be an effective method for reducing local government spending. Even in the case of tax collection, where due to its capital-intensive nature savings are expected from IMC, total spending is unaffected, although the size of spending is relatively small. For Dutch waste collection, the outcome reported by Allers and De Greef (2018) is similar to that found by Gradus, Schoute, and Dijkgraaf (2018), who, for the years 2002, 2006 and 2010, show there to be no (significant) cost advantage for implementing IMC. Interestingly, however, in the case of 2014, Gradus, Schoute, and Dijkgraaf (2018) found a significant positive cost-advantage effect of cooperation of 17%. Therefore, future empirical research on the outcomes of IMC in relation to different public services, based preferably on panel data, is to be encouraged. As Kim (2018) stresses, however, citizen interest and service quality should also be included. Finally, as Soukopová and Vaceková (2018) point out, analysing the drivers behind these outcomes also needs to be discussed.

An issue closely related to that of the performance of IMC is that of municipally owned corporations (MOCs). As Voorn, Van Genugten, and Van Thiel (2017) show, MOCs have independent corporate status, permit shared ownership and facilitate extensive cooperation between different local governments. Moreover, based on the review of the existing literature undertaken by these authors, MOCs are increasingly being used to provide local public services and are often more efficient than local bureaucracies. In some countries, such as the Netherlands, a clear distinction can be drawn between IMC and MOCs, where IMC is public and MOCs are private. As a consequence, MOCs operate under commercial law and so their executive boards enjoy greater managerial autonomy. However, in other countries, this difference is less accentuated. Their relationship with local politics, however, is less clear which can limit managerial autonomy. This, according to Voorn, Van Genugten, and Van Thiel (2017), means that MOCs present a high risk of failure as a result of goal conflicts

and agency problems. IMC is not, of course, exempt from these problems and governance research tackling these questions should be encouraged.

Notes

1. The workshop entitled 'Empirical effects of cooperation or privatisation of municipal services' took place on 5 December 2016, in the School of Business and Economics at the Vrije Universiteit Amsterdam. Participants came from Spain, the Czech Republic, Germany, Denmark and the Netherlands. From this workshop, four papers were selected for inclusion in this special issue dedicated to intermunicipal cooperation and privatisation, while a further three papers on the topic, written by colleagues working in the field, have also been chosen. All seven papers were subject to the regular evaluation process in Local Government Studies.
2. The five-yearly International City/County Management Association sample includes all US cities with a population of over 10,000 and counties with a population of over 25,000 and an additional sample of one in eight smaller municipalities (see Hefetz, Warner, and Vigoda-Gadot 2012).
3. This was introduced in the Netherlands in 2003 to create a level playing field between self-supply and the contracting-out of public (local) services. Several EU Member States – Denmark, Finland, the Netherlands, Sweden and the UK – and Norway have also introduced refund schemes to address this distortion, in most cases in parallel with the introduction of the VAT system (see Wassenaar, Dijkgraaf, and Gradus 2010).

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