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Working Paper What Happens when Municipalities Run Corporations? Empirical Evidence from 290 Swedish Municipalities

IFN Working Paper, No. 1353

Provided in Cooperation with: Research Institute of Industrial Economics (IFN), Stockholm

Suggested Citation: Bergh, Andreas; Erlingsson, Gissur Ó.; Wittberg, Emanuel (2020) : What Happens when Municipalities Run Corporations? Empirical Evidence from 290 Swedish Municipalities, IFN Working Paper, No. 1353, Research Institute of Industrial Economics (IFN), Stockholm

This Version is available at: https://hdl.handle.net/10419/240496

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IFN Working Paper No. 1353, 2020

What Happens when Municipalities Run Corporations? Empirical Evidence from 290 Swedish Municipalities

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What happens when municipalities run corporations? Empirical evidence from 290 Swedish municipalities^{*}

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Abstract

Across the globe, local governments have increasingly begun to rely on municipally owned corporations (MOCs) to provide public services, mounting to what scholars describe as a burgeoning corporatization in local government. Some studies have described this development as a rational response to financial stress and contemporary austerity challenges, and emphasise the cost-efficiency of MOCs (the optimistic view). However, several scholars have identified problems associated MOCs relating to weak steering and supervision, lack of accountability, and heightened corruption risks (the sceptical view). Hitherto, no studies have tested these diametrically opposing expectations on the effects MOCs in the one and same analysis. This paper addresses the competing views by studying Sweden, a country with a dramatic growth in the number of MOCs since the 1970s. We examine the association between the number of MOCs, citizen satisfaction with local government, local tax rates and a survey-based corruption measure for all 290 Swedish municipalities. Ultimately questioning the 'optimistic view', the results indicate that municipalities that rely heavily on MOCs in service delivery have higher taxes, not more satisfied citizens, and are associated with higher corruption levels.

Keywords: municipally owned corporations, corruption, arms-length principle, hybridorganizations, quasi-privatization, new public management

JEL-codes: D73, H79

^{*} Financial support from the Swedish Research Council (VR, grant 2014-01478) and Jan Wallanders och Tom Hedelius stiftelse (grant P2019-0180) is gratefully acknowledged.

Introduction

Across the globe, municipally owned corporations (MOCs) are increasingly being used by local governments to provide services. This development has come to be described as a burgeoning 'corporatization' of local government services (e.g. Andrews et al. 2019; Torsteinsen 2019; Ferry et al. 2018; Tavares 2017; Citroni et al. 2013; Tavares and Camôes 2010; Grossi and Reichard 2008) – and some have even gone so far as to speak of an 'enterprise fever' in the public sector (Aars and Ringkjøb 2011). However, as lamented in several recent literature reviews (e.g. Krause and van Thiel 2019; Torsteinsen 2019; Voorn et al. 2017), this silent re-adjustment of local government's internal organisation has largely been overlooked.

Curiously, however, the few studies that exist are highly ambiguous on how this development should be evaluated and interpreted. From what is often referred to as the New Public Management (NPM) perspective, semi-autonomous hybrid organizations, such as MOCs, are viewed as rational responses to contemporary fiscal stress in the public sector, particularly in local government (Andrews et al. 2019; Ferry et al. 2017; Kruijf and van Thiel 2017; see also Pollitt et al. 2004). Compared to the traditional bureaucratic model, the upshot with MOCs is that they have more legal and managerial autonomy, and are typically less constrained by laws that regulate use of public resources. Such organizational peculiarities have the potential to enable MOCs to operate more efficiently than traditional bureaucracies. Supporting such an optimistic view on MOCs, a literature review by Voorn et al. (2017) found that MOCs tend to be somewhat more efficient than local bureaucracies in the provision of services, such as refuse collection, water distribution, and transit services.²

² Despite recurrent claims to the opposite, case-studies have demonstrated that this is true for state-owned corporations as well (e.g. Harris & Nikolakis 2012; Bozec & Breton 2003).

On the other hand, when MOCs are analysed through theoretical perspectives that account for rent seeking and principal-agent relations, or focus on public sector ethics, adverse aspects of MOCs are emphasised. For example, Bergh et al. (2019) found that the use of MOCs tends to lower transparency by creating nested principal-agent problems that, in turn, undermine conditions for accountability and subsequently increase corruption risks. Similarly, Torsteinsen and Bjørnå (2012) identified problems related to weak contractualisation between the local public sector and MOCs, complex ownership structures, lack of interest among local politicians and side-lined municipal administrations. Closely related to such arguments, the broader literature on the side-effects of NPM argues that blurring boundaries between the private and public sector adversely affects public ethics and undermines public sector accountability (Aars and Fimreite 2005; Kersbergen and Waarden 2004; Box et al. 2001; Hondeghem 1998).

These two strands of literature give rise to diametrically opposing expectations as to how local governments that rely heavily on MOCs should differ from those that have few or none. If MOC is an organizational form that increases efficiency in service delivery, we should expect local governments with relatively more MOCs to have more satisfied citizens and/or offer lower local taxes. In a best-case scenario, where MOCs give rise to significant efficiency gains, MOCs could enable municipalities to levy lower taxes at the same time as their inhabitants – relative to municipalities with fewer MOCs – are more satisfied with their local governments.

If, on the other hand, the literature which emphasise principal-agent problems and adverse effects of NPM-reforms are more adequate descriptions of the effects MOCs have, the association with taxes and citizen satisfaction should be the opposite. Most importantly, one would expect local governments with many MOCs to be associated with more irregularities related to corruption.

This paper contributes to the debate on the pros and cons of the 'corporatization' in local government by empirically examining the 290 Swedish municipalities when it comes to how ownership of MOCs is associated with 1) citizen satisfaction with local government, 2) the local tax rates and 3) a corruption index – developed for each municipality – based on a survey submitted to over 13,000 local councilors. Firmly rejecting the 'optimistic view' in the Swedish setting, our results indicate that municipalities with relatively more MOCs have higher taxes, do not have more satisfied citizens and, in addition, are more associated with higher perceived corruption levels. These correlations support the 'sceptical view', confirming a public choice perspective on MOCs as well as the literature that highlight the adverse effects of NPM. More precisely, in Sweden – which has experienced a massive introduction of MOCs the past decades – our findings do not support the notion that MOCs help local governments provide good value for money to taxpayers.

The paper proceeds as follows. The next section provides a background by reviewing the relevant literature and describing the context of local government in Sweden. Section 3 presents the data employed, and in section 4, results are presented. The paper concludes with a summary of our findings and a discussion about future research avenues as well as policy implications.

Theoretical and empirical context

The increasing use of MOCs has been described as an integral part of the public management trend often referred to as New Public Management (NPM). MOCs are said to be manifestations of the trend towards a 'quasi-privatization', 'middle ground' or 'hybridization' in public sector (Denis et al. 2015; Christensen and Laegreid 2003; Wettenhall 2001). One strand in this literature argues that the use of MOCs may have had unintended and undesirable side-effects, for instance increasing corruption risks (e.g. Andersson and Erlingsson 2012; André 2010; similar argument for state-owned enterprises are found in OECD 2018; World

Bank 2014; Luke 2010). Curiously, the United Nations Development Programme (UNDP) has gone so far as to pinpoint MOCs as particularly susceptible to corruption. Intimately related to corruption risks, several scholars maintain that NPM may have negatively affected conditions for political accountability (Bergh et al. 2019; Papadoupolos 2007; Kersbergen and Waarden 2004), and that the philosophy to operate the public sector like a private enterprise ultimately threatens core public-sector values of the civil servant as a servant of the public interest (Box 1999).

However, when it comes to efficiency, a case can be made for MOCs because they typically operate under commercial law, thereby avoiding public laws surrounding local governments intended to safeguard public money (Voorn et al. 2017, Bel et al. 2010). Moreover, at least in theory, the introduction of MOCs has aimed at giving extensive managerial autonomy and flexibility in the delivery of services (Garrone et al. 2013; Bel and Fageda 2010) by removing political interference from service provision (Bourdeaux 2008). This is in line with the NPM philosophy that operations will work more effectively when politicians rule at 'arm's length' (Majone 1997; Hood 1991). As noted above, supporting this optimistic view, efficiency gains have also been observed empirically in several cases (Voorn et al. 2017).

These two diametrically opposing lines of arguments regarding MOCs – the 'optimistic' and the 'sceptical' view – have lived in separate worlds. To our knowledge, they have never been jointly examined in the one and same study, at least not in the manner we go about in this paper.

Before describing the Swedish setting, it is important to note that MOCs by no means are a peripheral phenomenon. When Dexia Crediop (2004) gathered information about MOCs in Europa, they showed that they exist in all EU countries (except Luxembourg), with more recent comparisons and surveys of the rest of the world unfortunately lacking.

We believe that Sweden is a particularly well-suited case for quantitative studies on MOCs. Sweden is a divided into 21 regions and 290 municipalities. Accounting for roughly 60 per cent of all public employment, Swedish municipalities are financed mainly by a proportional income tax of approximately 20 per cent. Municipalities are responsible for the provision of schooling, childcare, and elderly care, leaving mainly the provision of health care and public transport to regions and social insurance, higher education, and defence to the central government. Municipalities also handle welfare provision, zoning issues, including e.g. building permits, and issues relating to culture. Total public municipality consumption accounts for roughly 20 per cent of national GDP, compared to 7 per cent of GDP for the central government. Unsurspringly, then, when indices have been constructed gauging decentralization, local government capacity and autonomy, Sweden regularly ranks very high (e.g. Ladner et al. 2016).

In Dexia Crediop's study, Sweden was the EU country with the second most MOCs per capita. Since that study was conducted, the number of Swedish MOCs has continued to grow, from 1,256 in 2003 to 1,686 in 2018. This means that the number of MOCs has grown consistently the past 40 years, as shown in Figure 1. While the number of municipalities have increased from its lowest vale (277) in 1977 to todays 290, the number of MOCs per municipality has still increased from 2,2 to 5,8. The rapid development since the early 2000s means that MOCs now constitute a significant share of the Swedish local government sector. In 2018, 55,000 individuals were employed by MOCs (6 per cent of all employed by local governments) and their total turnover amounted to approximately 4,3 per cent of GDP.





Traditionally and in general, MOCs operate in sectors where they produce various public goods and services. More than half of them deal with either 1) management of social housing, 2) electricity and heating, or 3) water and sewerage. However, the more MOCs have grown in numbers, the more they have started to operate in other areas: today, almost 40 per cent are active within such varying areas as culture, recreation, tourism, and vehicle repairs.

In general, the use of MOCs has not been controversial or politically contested in Sweden. However, some critical accounts exist. The Swedish Competition Authority has repeatedly criticised MOCs for competing with private firms in already established markets (Konkurrensverket 2020, 2014), and the Swedish National Council for Crime Prevention (BRÅ 2012) found that MOCs tend to be overrepresented in corruption cases brought to the prosecutor. In addition, the Swedish Tax Agency has claimed that local governments use arrangements of MOCs to avoid taxes, estimating that by creating MOCs, municipalities avoid paying circa 1bn SEK each year to the state (Skatteverket 2013). All in all, then, we maintain that Sweden is a near perfect case to analyse if one wants to further the knowledge on the effects of large-scale introduction of MOCs in the local government sector.

Data and methods

Our main independent variable is the number of corporations for which the municipality owned at least 50 per cent of the shares in 2013.³ The number of MOCs varies substantially across Swedish municipalities: The standard deviation is 7.1, and 7 municipalities own no MOCs whatsoever, whilst 8 municipalities own more than 20. We examine how the number of MOCs correlates with three characteristics: An index of citizen satisfaction, the municipal tax rate and an index that attempts to gauge corruption problems locally. These, and other theoretically relevant control variables, are described in more detail below.

The satisfaction index measures local citizens' subjective satisfaction with their municipality based on a citizen survey which was conducted by Statistics Sweden. Municipalities must voluntarily opt-in to participate, and hence, data exist only for 132 of the 290 municipalities. The number of respondents per municipality in these surveys vary between 233 and 855. The survey included a wide range of questions concerning how the citizen perceives its municipality. The index we employ here is based on the following survey questions:

- How satisfied are you with the way the municipality is running its operations?
- How well do your municipality's operations fulfil your expectations?
- Imagine a municipality that runs its operations perfectly how close does your municipality come to such an ideal?

These questions were answered by citizens on a scale from 1 to 10. The values of the three questions were then added and divided by 3, with the resulting mean constituting the 'satisfaction index' employed here.

³ According to Hansson (2006), MOCs that are not majority-owned by the municipality represented only 10 percent. In our preferred model we use the total number of MOCs, but main results are robust to using instead MOCs per capita (see appendix A1).

The municipal tax rate is a flat rate income tax paid by all inhabitants and caters for two thirds of the revenue for all municipalities (with grants from central government and user fees accounting for most of the rest).

For the measurement of corruption, we adhere to the standard definition of corruption as 'abuse of public office for private gain' (e.g. Rose-Ackerman 1978; see also definitions used by *Transparency International* and *The World Bank*). We employ an original index created by Dahlström and Sundell (2013), which is based on an anonymous web survey sent to 13,361 councilors in all of Sweden's 290 municipalities throughout 2012–2013. It included two questions relating to bribes, asking respondents whether the following had taken place in their municipality of residence during sometime between 2010 and when they received the survey:

- A representative of a business has offered a gift or service to a civil servant in connection with a public procurement
- A civil servant has demanded payment for performing a service that is part of his/her duties

These questions were answered with alternatives on a scale from 1 to 7, with 7 corresponding the highest perceived frequency of perceived corruption. Answers were combined additively to a corruption index that also ranges from 1 to 7. The overall response rate was 78 per cent, which is satisfactory considering that response rates have decreased substantially in the developed world the past decades (e.g. Williams and Brick 2018), and the response rate was at least 50 per cent in 288 of 290 municipalities. Reassuringly, in an attempt to validate the quality of this index, Dahlström and Sundell (2013) found that answers to the questions used not only correlated significantly with answers to similar questions in the index – based on a total of less than 1,000 respondents – used by Bergh et al. (2017), but also with newspaper articles about bribery as well as legal bribery charges.

Following a recent study on corruption in Swedish municipalities by Bergh et al. (2017), we include several theoretically grounded controls for municipality population and median income, the share of the municipal population with tertiary education, the presence of local newspapers and the share of women in the municipal council. Because lack of political competition is sometimes thought to aggravate corruption, we also include a dummy for municipalities where one party has held power from 1973–2013. The control variables are described in Table 1. It shows that the perceived corruption varies between 1.04 and 3.545, with the average value of 1.661 on a scale that ranges between 1–7. In addition, the table shows that the variation in MOC-ownership is significant: it ranges from 0 MOCs to 71. At the point when data was collected, a municipality owned and operated on average 5.73 MOCs. The distribution of population size is skewed due to many small and medium sized municipalities in the range of 10,000 to 50,000 inhabitants and a few very large cities with several hundred thousand inhabitants.

	Ν	Mean	St. dev.	Min	Max	Comment (source for all data is official statistics from Statistics Sweden unless otherwise stated)
Corruption index	290	1.66	0.38	1.05	3.55	Survey-measured corruption index created by Dahlström and Sundell (2013).
Municipality tax rate	290	21.51	1.22	17.12	23.90	Flat-rate income tax set by municipalities
Satisfaction index	132	53.37	5.81	40	67	See explanation in running text
Number of MOCs	290	5.74	7.12	0	71	Number of enterprises for which the municipality owned at least 50 per cent of the shares in 2013 (data collected by the authors).
Population (logged)	290	9.83	0.96	7.80	13.71	Number of inhabitants in 2013
Median income (kSEK)	290	241.48	24.17	196.30	336.70	Median labour income
Education.	290	0.14	0.06	0.06	0.44	Share of municipal population with at least three years tertiary education in 2013
Local news media	290	0.56		0	1	Dummy indicating presence of at least one local (newspaper) editorial (from Bergh et al. 2017)
Share women in council	290	42.23	4.33	30	53	Share of women in the municipal council that were elected in 2010
Stronghold over local power	290	0.24	0.43	0	1	Dummy for municipalities where one party held power between 1973–2013

 Table 1 Descriptive statistics and variable definitions

Results

We start by visualising the correlations of interest (figure 2a-c). Most municipalities have fewer than 10 MOCs. In this range, we observe no correlation between the number of MOCs and perceived corruption. In the full sample, however, a positive correlation reveals itself. The correlation is weaker, but remains positive, when we exclude the four visible outliers regarding corruption levels, as well as the two outliers regarding number of MOCs – Sweden's two largest municipalities, Stockholm and Gothenburg.

The correlation between MOCs and the tax rate is negative. However, this correlation is driven by municipalities with 15 MOCs or more. There does not seem to be any correlation between MOCs and perceived corruption among municipalities with few MOCs. The negative

correlation remains but becomes much weaker when the municipalities with the four lowest tax rates or the two outliers in MOCs are excluded.

The correlation between MOCs and citizen satisfaction is weak. Nevertheless, there is a small tendency of higher satisfaction among municipalities with 10 MOCs or more. Moreover, the positive slope becomes weaker but remains when the three municipalities with the most MOCs are excluded.

Running standard OLS-regressions with perceived corruption, tax rate and citizen satisfaction as dependent variables gives the results presented in Table 2. Conditional on other characteristics municipalities with more MOCs have significantly more corruption and significantly higher taxes – but do not have more satisfied citizens. A one standard deviation increase in the number of MOCs is associated with roughly a quarter of a standard deviation increase in taxes and perceived corruption.

For the control variables, several associations are as expected: rich municipalities and municipalities with well-educated citizens have lower taxes. For perceived corruption, the control variables have signs similar to those reported in Bergh et al. (2017). Some of these results are in line with theoretical expectations, such as perceived corruption being slightly lower where local newspapers are present. Interestingly, and contrary to theoretical expectations, perceived corruption is lower in politically less contested municipalities, and we find no support that more women in politics implies less corruption.

Figure 2a MOCs and perceived corruption



Figure 2b MOCs and municipal tax rate



Figure 2c MOCs and citizen satisfaction



	Model 1	Model 2	Model 3
	Corruption	Tax rate	Citizen
			satisfaction
Number of MOCs	0.012***	0.038***	0.037
	(0.004)	(0.010)	(0.118)
(ln) Population size	0.057	-0.457***	1.253
	(0.035)	(0.092)	(0.826)
Median income	-0.002	-0.010***	0.028
	(0.001)	(0.003)	(0.030)
Share with university	0.542	-6.363***	30.828**
educ.	(0.575)	(1.482)	(13.658)
Local newspaper	-0.081*	0.173	1.155
	(0.044)	(0.115)	(1.042)
Female rep in council	0.007	0.027**	-0.177*
	(0.005)	(0.012)	(0.103)
Stronghold over power	-0.142***	0.151	1.155
in council	(0.048)	(0.125)	(1.102)
Intercept	1.148***	27.686***	35.962***
	(0.425)	(1.096)	(9.303)
N	290	290	132
R ² (adjusted)	0.196	0.479	0.213

Table 2 The association between MOCs, corruption, tax rate and citizen's satisfaction.

Notes: Unstandardised coefficients; standard deviations within parentheses.

Significance: **p* < 0.05; ***p* < 0.01; ****p* < 0.001.

Do these results hold after robustness checks? It turns out that our overarching finding municipalities with more MOCs are associated with higher perceived corruption levels - is robust to several changes in our empirical approach. The positive association with both perceived corruption and tax level remain also when using the number of MOCs per capita instead of the number of MOCs (see Appendix, Table 1A). Moreover, to ensure that our main results do not suffer from over-controlling, we re-run models 1 and 2 with population as the only control variable. Doing so produces significant results in the same direction and of somewhat larger magnitude. Introducing a dummy variable for the three major cities or rerunning regressions without outliers does not change our results substantially.

Regarding model 3, which analyses the association between MOCs and the satisfaction index, the coefficient is small and varies between positive and negative in different specification. One potential explanation is that this dependent variable is available for only 132 municipalities. We examined the possibility of self-selection of these municipalities to the citizen survey that was used to collect the satisfaction data by running models 1 and 2 on the 132 municipalities for which the satisfaction index is available. The association between MOCs and tax level is still positive and significant in this estimation, but the significant positive association between MOCs and perceived corruption disappears. Thus, the municipalities that choose to participate in the satisfaction survey are not only relatively richer than those that do not – which we have confirmed that they are – but are also relatively less corrupt. The negative association between MOCs and perceived corruption is thus driven by the municipalities that have chosen not to participate in the satisfaction survey.⁴

⁴ Regression results for all robustness tests are available from the authors on request.

Conclusion

Using data from all 290 Swedish municipalities, we demonstrated that local governments that have more MOCs tend to have higher taxes and are relatively more associated with perceived corruption problems. In addition, in a sub-sample of 132 municipalities, we found no association between MOCs and citizens being satisfied with the way their municipality runs its operations. Our findings thus support previous studies that have warned against adverse aspects of 'quasi-privatization', 'middle ground' or 'hybridization', i.e. various organizational peculiarities associated with NPM.

Our results should not be interpreted as to say that MOCs necessarily causally increases corruption. An equally plausible, and in our view interesting, interpretation of our findings is the reverse: municipalities that are more prone to a culture of corruption might tend to rely more heavily on MOCs – precisely for the reasons that other studies have highlighted: weaker conditions for accountability, less transparency and greater managerial autonomy. Nonetheless, irrespective the direction of causality, there are at least four reasons to be wary towards a large-scale introduction MOCs in a country's municipal sector, as hitherto experienced in Sweden.

First, they have increasingly become used to provide public services that have been deemed as 'high-risk sectors' (Andersson and Erlingsson 2012): they are involved in zoning, construction projects, operate power and water distribution, as well as transportation. In addition, they are frequently employed in high economic output areas and are engaged in much public procurement. *Second*, although initially intended to be 'arm's length bodies' (Genugten et al 2020), in the Swedish case, almost all board members of MOCs are local councillors as well. As emphatically argued by the World Bank (2014), OECD (2018) and UNDP, in situations where there is a near perfect overlap of representatives of the 'owners' and the boards of publicly owned enterprises (in our case, local councillors), the risk of

political interference is omnipresent in addition to overlaps constituting a short-circuit of accountability chains. This, in turn, as demonstrated by Bergh et al. (2019), make MOCs particularly susceptible to corruption. *Third*, scholars have associated MOCs with lower transparency and as 'hybrid organisations' they blur boundaries between the public and the private spheres. This tends to make norms fuzzy for decision makers, and ultimately deteriorate traditional accountability mechanisms and local integrity systems (cf. Grossi and Thomasson 2015). *Fourth*, and importantly, the boards of MOCs are notorious for not including women, only having approximately 20–25 per cent female representatives present. This should be compared to most other boards and committees in Swedish politics where the share of women is regularly well above 40 per cent. Since a consistent finding is an association between a high share of females in elected office and a low level of corruption, the low share of women present in MOC boards is an obvious warning signal (e.g. Bauhr et al. 2019).

How, then, do our results fit with the results presented by Voorn et al. (2017), that MOCs generally have an advantage in cost efficiency? We believe that the findings reported there (representing an optimistic view) and our more sceptical findings, need not necessarily be irreconcilable. Note that the author's literature review focussed on MOCs dealing with refuse collection, water distribution, and transit services as sources. One possibility, that fits our data, is that a having a few MOCs that operate in technical areas, might be far less problematic from a corruption perspective and, in addition, beneficial from an efficiency point of view. In municipalities with more than just a handful of MOCs, some of them will inevitably be operating in areas that furthered away from the core tasks of the public sector, and consequently, more likely to distort competition between private firms, which might be problematic.

Another possibility is that the efficiency gains created can be put to public use or diverted for personal gains – and the choice is affected by the institutional context. An aggravating circumstance, which could have tweaked Swedish MOCs away from efficiency towards inefficiency – or even corruption – is that the growth in MOCs has not adequately been accompanied by high-quality auditing and supervision (e.g. Andersson 2002). From previous studies, we know that the corruption scandals are often exposed by private individuals and investigative journalists (BRÅ 2013). In Sweden – but not only there – almost a third of all local news outlets have been shut down over the past 15 years (e.g. Nygren and Althén 2014). Furthermore, the quality of local media investigations has come to be increasingly questioned by several scholars (Nord and Nygren 2007).

If one adheres to the idea institutional design might influence the probability of individuals engaging in shady activities, we should expect that when the institutions are designed in such a manner that they are favourable for corruption, risks for corruption are naturally heightened. Hence, for Sweden, we suggest that the movement towards corporatization in local government has simultaneously implied that 1) the opportunities to appropriate resources through corrupt behaviour has increased, that 2) the degree of auditing, oversight as well as media scrutiny has decreased, and that 3) the 'hybrid' character of MOCs has created an unfamiliar, blurry system of rules and regulations, so that individuals operating within these organisations are not always aware what the lawful or appropriate behaviour is. Taken together, these factors contribute to make our findings more intelligible and should make local politicians wary to create, own and operate an increasing number of MOCs that are far removed from the core activities of the public sector.

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Appendix

	Model 1	Model 2	Model 3	
	Corruption	Tax rate	Citizen	
			satisfaction	
MOCs per capita	0.030**	0.066**	-0.159	
	(0.012)	(0.030)	(0.279)	
(ln) Population size	0.148***	-0.196**	1.298*	
	(0.030)	(0.078)	(0.663)	
Median income	-0.002*	-0.012***	0.020	
	(0.001)	(0.003)	(0.030)	
Share with university	0.659	-5.989***	31.855**	
educ.	(0.576)	(1.502)	(13.636)	
Local newspaper	-0.078*	0.173	1.084	
	(0.045)	(0.117)	(1.038)	
Female rep in council	0.008	0.029**	-0.180*	
	(0.005)	(0.013)	(0.104)	
Stronghold over power	-0.145***	0.151	1.222	
in council	(0.049)	(0.127)	(1.097)	
Intercept	0.308	25.525***	38.280***	
	(0.425)	(1.186)	(10.435)	
N	290	290	132	
R ² (adjusted)	0.188	0.462	0.215	

Table A1 Association between MOCs per capita, corruption, tax rate and citizen's satisfaction

Notes: Unstandardised coefficients; standard deviations within parentheses. Significance: *p < 0.05; **p < 0.01; ***p < 0.001.