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Did New Public Management Matter? An empirical analysis of the outsourcing and decentralization effects on public sector size

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Abstract

Did New Public Management (NPM) actually lead to a smaller public sector? NPM has been the subject of extensive academic debate as to its successes and failures. However, empirical assessments of whether NPM reached its stated objectives are relatively scarce, mainly due to the difficulty of quantifying the impact of such reforms. This article attempts to do this, focusing in particular on outsourcing and decentralization. Our findings suggest that government outsourcing did not reduce public sector size, though decentralization policies resulted in a smaller public sector, particularly with regard to government expenditure.

Key words

New Public Management, outsourcing, decentralization, public sector size

DID NEW PUBLIC MANAGEMENT MATTER?

An empirical analysis of the outsourcing and decentralization effects on public sector size

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INTRODUCTION

Because of the ongoing global financial and economic crisis, governments across the European Union (EU) are engaged in deep public spending cuts as part of broader austerity drives, which aim to reduce the deficit and public debt. Cutting public expenditure is back on the agenda with renewed intensity. Drives to slim down the public sector can be traced back to the 1980s, both through outright sales (Clifton et al. 2006) and through the application of management techniques borrowed from the private sector. Such policies came to be labelled New Public Management (NPM) (Hood 1991). In general terms, NPM aimed to correct some of the perceived pathologies associated with the public sector, including the view that it was inefficient and too large. As the NPM doctrine emerged, its proponents emphasized strategies to minimize and downsize the size of the government (Pollitt and Bouckaert 2003: 21; Van de Walle and Hammerschmid 2011: 24).

It is both interesting and ironic that, though NPM proponents claimed one of its major advantages over traditional public management was that it promoted the improvement of measurement techniques to better evaluate public sector performance, scholars, and government agencies have produced relatively little in the way of evaluating NPM itself (Clifton et al. 2005). Indeed, there are relatively few systematic attempts to evaluate the effects of NPM-style reforms on public sector size (exceptions include Ferlie et al. 1996; Kettl 2000 and Pollitt and Bouckaert 2004). However, these studies are limited in two main ways. First, they examine changes in public sector size at the macro level but fail to establish a correlation between NPM reforms and public sector size. Second, they cover a limited number of countries and time periods, largely due to the scarcity of key data (Van de Walle and Hammerschmid 2011). Fortunately, data availability has improved recently, thanks to efforts by organizations – including the European Commission (EC) and the Organization for Economic Cooperation and Development (OECD) – to improve the quality and cross-national comparability of public sector statistics.¹

The popularity of NPM has faded somewhat since the initial enthusiasm displayed during the 1980s and the 1990s (Osborne et al. 2013). However, the relationship between NPM practices and public organization performance is still important, especially since governments continue to search for means of reducing public sector budgets in the ongoing crisis (Andrews and Van de Walle 2012). It is interesting, therefore, to enquire whether, after two – and, in the cases of some countries, three – decades of reform, NPM can be found to be associated with reduced government size, as predicted by its proponents. This article seeks to answer this question.

To evaluate the effect of NPM on public sector size, we selected two major policies associated with NPM for study: outsourcing and decentralization. Two main reasons justify their selection. First, substantial theoretical literature exists, which argue that both policies may affect public sector size. Second, thanks to data availability and

suitability, these policies can be analysed using quantitative methods. After deriving two sets of hypotheses about the relationship among outsourcing, decentralization, and public sector size from the theoretical literature, we test these hypotheses using a panel data model for the EU-15 Member States over the period 1983 to 2011.

Some of the limitations of our research design should be stated at the outset. First, this article does *not* evaluate the effects of a whole range of reforms associated with NPM on public sector size. NPM is a wide-ranging concept, which is often associated with multiple, distinct, and even contradictory policies (Dunleavy *et al.* 2006). Some of the policies promoted by NPM are exceedingly difficult, if not impossible, to quantify. Our research is more modest, seeking only to evaluate the effects of outsourcing and decentralization on public sector size. Second, this article only seeks to answer whether outsourcing and decentralization led to a reduction in the size of the public sector. No conclusions are drawn as to whether a reduction or otherwise of government expenditure led to greater public sector efficiency and effectiveness, whether the services provided were improved or worsened, or the effects on social welfare. Despite our limited aims, it is still worthwhile testing for the effects of outsourcing and decentralization on public sector size, because these remain a popular tool for governments around the world.

NEW PUBLIC MANAGEMENT: A FRAMEWORK FOR ANALYSIS

NPM has become an umbrella term covering a set of public sector reforms carried out from the 1980s across most OECD countries (Hood 1991; Pollitt 1993; Pollitt and Dan 2011). Most scholars agree that NPM began as a phenomenon in Anglo-Saxon countries, and was then picked up, adapted, and promoted globally by international organizations, most prominently the OECD (Clifton and Díaz-Fuentes 2011). However, pinning down what NPM actually means, when translated into discrete policies, is difficult (Dunleavy and Hood 1994). Even Christopher Hood, widely acclaimed as one of the inventors of the label NPM, admitted the term has been overused to the point of concept-overstretch (Hood 2000). Moreover, the implementation of NPM-style reforms has differed substantially across countries (Ferlie *et al.* 1996; Pollitt and Bouckaert 2011). Despite these difficulties, in this section, we synthesize some of the key literature that defines NPM, before justifying our focus on outsourcing and decentralization.

Scholars broadly concur that NPM involves an ‘attempt to implement management ideas from business and private sector into the public services’ (Haynes 2003: 9). Pollitt (2007a: 110) usefully suggested that NPM is a two-level phenomenon, consisting of, on the top layer, a general motivation to improve the public sector and, on the second-tier layer, a set of specific concepts, policies, and practices aiming to reform the public sector. Remaining on this second-tier layer, a synthesis of core NPM literature reflects there are ten major policy areas, which are mentioned in Table 1.

Table 1: Main NPM components

<i>NPM component</i>	<i>Authors</i>
Introducing greater competition into the public sector	Hood (1991) Dunleavy and Hood (1994)
Downsizing	Ferlie et al. (1996) Pollitt and Bouckaert (2003)
Introducing private-sector styles of management practices	Hood (1991) Osborne and Gaebler (1992)
Replacing input control by output control	Hood (1991) Dunleavy and Hood (1994) Osborne and Gaebler (1992)
Decentralization	Pollitt (1993) Ferlie et al. (1996) Osborne and Gaebler (1992) Kettl (2000)
Disaggregating centralized bureaucracies into agencies	Pollitt (1993), (2007a)
Outsourcing	Kettl (2000) Pollitt (2007a)
Separating purchaser/provider	Pollitt (1993), (2007a)
Customer orientation	Osborne and Gaebler (1992) Pollitt (1993) Kettl (2000)
Separating political decision-making from the direct management of public services	Osborne and McLaughlin (2002)

Quantifying new public management

Our aim is to determine whether NPM-style reforms rendered the public sector smaller. Clearly, a full-scale, comprehensive response would require, at least, quantification of all the ten major practices associated with NPM. The problems here, as noted by OECD (2010: 22), are twofold. First, some of the NPM-related policies are difficult, if not impossible, to quantify. For many of the other policies, the major problem is the lack of data. It would indeed be interesting to quantify the effect of NPM-related instruments such as the use of ‘performance related pay’, ‘performance budgeting’, and ‘agentification’. Unfortunately, however, there is only limited available data for short periods of time, such a couple of years (OECD 2011). This prevents us from using panel data or time series methods to analyze the effect of the reforms, making it impossible to assess patterns through time. Thus, we opted to use just two, major practices, associated with NPM: outsourcing and decentralization. We first discuss outsourcing.

Outsourcing and its possible effects on public sector size

Government outsourcing – or contracting out – is commonly defined as the delivery of public services by agents other than government employees (Minicucci and Donahue 2004). The NPM doctrine promotes market-based management practices to increase public sector efficiency and citizens' choice. Government outsourcing represents an explicit effort to inject private sector management practices into public service delivery, and it is commonly regarded as one of NPM's primary market-type mechanisms.

Different conceptual bases have been suggested as underpinning outsourcing processes (Hodge 2000). Here, we focus on two key theoretical reasons as to why government outsourcing should incur cost savings for governments: the pressure from competition and the discipline of private ownership. These two issues have been extensively addressed by the public choice and property rights theories, both of which are commonly used in the theoretical literature to justify NPM.

The public choice literature critiques traditional arrangements whereby governments provide public services. These services will be over-supplied and public administration over-staffed, since politicians and bureaucrats use service provision as a tool to maximize their own individual personal utility or political power (Savas 1987). To avoid this, NPM proponents argue that outsourcing is a highly effective means of reducing public sector size. Outsourcing forces activities previously guarded in-house by bureaucrats to be subjected to new, positive incentives provided by competition and market discipline (Kettl 2000; Osborne and Gaebler 1992). Competition amongst potential public service suppliers will reduce costs and increase efficiencies, thus reducing government expenditure and staff numbers.

While the public choice literature focuses on the incentives guiding politicians and bureaucrats' behaviour, the property rights literature compares these incentives with those faced by private sector owners. The property rights theory approach (Alchian and Demsetz 1972; Grossman and Hart 1986; Hart and Moore 1990) claims that private firms have incentives to reduce costs because, unlike the public sector, cost reductions may generate profits (Shleifer and Vishny 1994). Incentives to save on service delivery costs, alongside the introduction of competition among public service suppliers, may reduce government size.

However, a considerable body of scholars has expressed scepticism about the presumed advantages government contracting has on cost savings from multiple perspectives. From the lens of transaction costs, competition may not always lead to cost savings if costs incurred in so doing outweigh the benefits obtained (Williamson 1979). Sources of potentially high costs associated with contracting out include asymmetric information; the management and supervision of contracts; 'non-contractible' elements related to service delivery; contractual incompleteness; and limited availability of competitive suppliers in the market (Hefetz and Warner 2012).

Hence, some authors have suggested that, even if outsourcing is associated with a reduction in public sector expenditure in the first instance, over the long term, these

positive effects may be reversed due to the dynamic nature of contractual relationships between governments and the private companies providing the outsourced services. Potential savings from outsourcing may diminish or disappear over time by rising prices of the private sector companies (Williamson 1979). Private sector companies – with their incentives to maximize profits – may increase the price they charge to the government for service delivery during the course of the contracts' renegotiation. This phenomenon is referred to as 'hold-up'.

Regarding ownership, some scholars have argued that incentives under public ownership may be just be as powerful as those incentives under a scheme of private property rights: public sector workers and managers are often intrinsically motivated to work efficiently. Following Francois (2000), 'public service motivation' may be a powerful reason to justify government provision of public services – in terms of costs and government expenditure – instead of private provision.

Based on these arguments, we derive our first hypothesis:

H1a: Government outsourcing policies lead to a reduction in public sector size.

The corollary of this would not necessarily be that outsourcing has the opposite effect (leads to a larger public sector), rather:

H1b. Government outsourcing does not necessarily entail a reduction in public sector size.

We now turn to develop our hypothesis for the second NPM policy under analysis: decentralization.

Decentralization: A key concept in public management

Although decentralization predates the NPM movement, it played a central role in the public management debate, including the NPM ideology (Pollitt 2007b: 372). Pollitt argues that one reason decentralization became popular was its ability to be used as an instrument to satisfy many distinct agendas simultaneously, beyond NPM objectives. Decentralization has often been associated with political processes that have little to do with NPM. Moreover, the term 'decentralization' itself is a very broad concept that has been defined by different scholars in various ways. Here, we follow Falleti (2005: 328), who defines decentralization as a process or reform consisting of a number of public policies that transfer responsibility, resources, or authority from a higher to a lower level of government. There are many ways in which responsibility, resources, and authority may be diffused (for a comprehensive overview, see Pollitt 2007b). Here, we focus on one of these ways: administrative decentralization and/or political decentralization.

Administrative decentralization involves the transfer of autonomy for service delivery to lower levels of government. The lower level assumes autonomy for public policy management, personnel, and public finance control, including fiscal issues (Rondinelli *et al.* 1984). Political decentralization refers to the transfer of political authority or electoral power to sub-national actors (Falleti 2005). This analysis will focus mainly on administrative decentralization, though the two forms of decentralization are not mutually exclusive, since political decentralization often sets the frame for administrative decentralization (Pollitt 2007b).

Scholars have intensely debated the advantages and disadvantages of administrative decentralization. NPM used decentralization as an essential practice in its toolkit toward rendering the government more efficient (Osborne and Gaebler 1992). NPM advocates argued that administrative decentralization would facilitate the provision of public goods and services. Red tape could be cut, coordination and control could be enhanced (Niskanen 1971), and, consequently, the public sector size would be reduced (Brennan and Buchanan 1980). Furthermore, many scholars argued that decentralization may lead to other administrative benefits, resulting in lower government expenditure, first, by its promotion of innovation at local levels and, second, by increasing staff motivation, assuming it is easier to motivate inside a local organization than from a 'distant' central government (Pollitt 2007b).

Prud'homme (1995) disagreed, however, arguing that although the effects of economies of scale in local public service provision may appear minimal, economies of scope may exist. In this case, central bureaucratic providers may be more efficient than local ones, because they have greater capacity to invest in technology, research, development, promotion, and innovation. Prud'homme (1995) also observed that, because national government bureaucracies are more likely to offer good careers and better promotion opportunities, they tend to attract more qualified staff, to the detriment of sub-national governments. This may also dilute the potential benefits of decentralization. Likewise, decentralization can lead to a loss of coordination between different levels of government (Peters and Savoie 1996), with the associated costs for governments that a lack of coordination can produce.

On this basis, our second hypothesis is:

H2a. A greater degree of decentralization leads to reduced public sector size

With the corollary:

H2b. A greater degree of decentralization leads to a larger public sector size

In sum, the research questions motivating this study focus on the connection between outsourcing, decentralization, and public sector size.

METHODOLOGY

To evaluate the impact of the selected NPM-related policies on public sector size we use an unbalanced panel data set² of the EU-15 countries over the period 1983 to 2011. The following subsections are a description of the variables used in the analysis and the empirical specification.

Data

The variables used in the empirical analysis are annual observations at the national level for the years between 1983 and 2011. The main variables are classified into three categories: public sector size indicators, NPM indicators, and control variables. The main data sources are Eurostat, OECD, and the World Bank. Table 2 presents the data sources and descriptive statistics.

Public sector size

Public sector size can be measured in different ways. Here, we use the most common method of measuring public sector size: the expenditure ratio and the number of

Table 2: Data sources and descriptive statistics

	<i>Source</i>	<i>N</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Min.</i>	<i>Max.</i>
<i>Dependent variables</i>						
1. Government expenditure ratio	A	348	49.16839	6.608224	31.2	71.7
2. Government employment	B	352	12.1087	5.42143	5.335741	26.71761
<i>Independent variables</i>						
<i>A. NPM-related policies</i>						
3. Government outsourcing	A	396	44.79422	9.047319	23.34989	68.06139
4. Expenditure decentralization	A	371	33.56299	14.09318	5.201096	64.47494
5. Sub-national government autonomy	A	343	43.81195	19.424	7.30266	79.2896
<i>B. Control variables</i>						
6. Real GDP <i>per capita</i>	A	364	26,641.21	9,698.482	12,000	70,400
7. Unemployment rate	A	392	7.935969	3.735768	1.6	21.7
8. Age dependency ratio	C	435	50.08753	3.786093	43.35448	68.38433
9. Urbanization	C	435	74.19854	11.58483	44.2928	97.4854

Note: All the variables constructed from data collected from three different data sources: (A) EUROSTAT 'Government revenue, expenditure, and main aggregates' database, (B) OECD's Economic Outlook no. 77, and (C) World Bank's 'World Development Indicators' database.

employees. Our first dependent variable is an aggregate indicator of general government expenses, consisting of the ratio of total general government expenses as a share of Gross Domestic Product (GDP), whereas our second dependent variable, public sector employment, is measured using the ratio of government employees as a share of the working-age population.

NPM indicators³

Our analysis focuses on outsourcing and administrative decentralization. Governments can outsource public service provision in two main ways: either by purchasing goods and services from the private sector or non-governmental organizations to include them in their own production chain or by hiring a company to provide public goods and services directly to the final consumer (OECD 2011). From this definition, we can derive an indicator of government outsourcing based on a simple combination of standard statistical series: we derive the indicator as the sum of intermediate consumption plus social transfers in kind through market producers as a share of final government consumption. This indicator is based on the outsourcing indicator developed by OECD (2011).

To measure the extent of decentralization we use two indicators based on statistical series ratios: a first indicator of the decentralization degree is the share of sub-national public expenditure in consolidated national public expenditures, referred to here as expenditure decentralization. We employ a second indicator to capture the extent of sub-national governments' autonomy, which is measured as the percentage of total sub-national revenues not accounted for by transfers, i.e. the share of central government transfers to state and local governments in the total sub-national government revenues.

Control variables

We also include in our model a set of control variables that could affect government expenditure: two macrovariables; GDP *per capita* and the unemployment rate; and two demographic variables, people living in urban areas and the age dependency ratio, which is the population under 15 years old and over 65 years old as a share of the population between 15 and 64 years old. The first two control variables, GDP *per capita* and the unemployment rate, can be used to identify the economic cycle, whereas the other two should be positively associated with government expenditure, unless there are economies of scale, in which case the coefficient associated with the urbanization indicator should be negative.

Empirical specification

Our basic model is formulated from a variable relative to the extent of public sector size (y) in country i at time t , which depends on a linear combination of a number of

explanatory variables, including the NPM-related variables of interest (NPM), a vector of control variables (Z), unobservable country (α_i) and time (δ_t) specific effects, and the remainder error term (ε_{it}). Mathematically, the model can be expressed as follows:

$$y_{it} = \beta_1 \text{NPM}_{it} + \beta_2 Z_{it} + \alpha_i + \delta_t + \varepsilon_{it} \quad (1)$$

where β_1 and β_2 are the estimable parameter vectors. Equation (1) is estimated by Beck and Katz's (1995) OLS with panel-corrected standard errors (PCSE) estimator and Parks' (1967) Feasible Generalized Least Squares (FGLS) estimator, to deal with possible heteroskedasticity, cross-section correlation, and serial correlation issues. The use of a moderately large time series implies that we should be concerned with non-stationary issues. To assess the presence of unit root processes in our data, we perform the Maddala and Wu (1999) and the Pesaran (2007) unit root tests. Test results⁴ suggest that we cannot reject the presence of unit root processes in our data; hence, to avoid spurious regressions, we simply transform Equation (1) into a first differences model.

RESULTS AND DISCUSSION

We first examine the evolution of our NPM indicators on selected countries⁵ before presenting and discussing the econometric regression results.

Outsourcing and decentralization trends

Table 3 shows the main temporal trends on government outsourcing, expenditure decentralization, and sub-national government's autonomy. Government outsourcing increased across all the countries under consideration between 1983 and 2011 at an average of 12.72 per cent, led by the Netherlands, followed by Finland, and then Portugal.⁶ In 2011, outsourcing constituted on average 54.04 per cent of the final government consumption. Countries with the highest outsourcing ratios in 2011 were the Netherlands, Germany, Finland, and the United Kingdom; those with the lowest outsourcing ratios were France, Italy, and Portugal.

Regarding the decentralization indicators, expenditure decentralization increased significantly only in Belgium, possibly due to the federalization of this country. Italy and France also considerably increased their expenditure decentralization ratios, because of the devolution of powers to the regions that has occurred over the last two decades (Ongaro 2009). The remaining countries remained relatively stable.

Regarding the sub-national government's degree of autonomy, we observe that the country with the lowest ratio, i.e. the one with the greatest autonomy according to our

Table 3: Government outsourcing and decentralization trends

	<i>Government outsourcing</i>			<i>Expenditure decentralization</i>			<i>Autonomy degree</i>		
	1983	1993	2011	1983	1993	2011	1983	1993	2011
Belgium	39.28	41.94	47.96	15.32	38.07	42.27	51.61	54.79	50.42
Germany	54.42	57.55	66.88	58.95	59.82	58.93	15.02 ^b	12.59	9.51
Finland	39.24	43.03	57.40	42.48	37.12	44.94	32.31	37.63	29.57
France	42.49	45.96	47.28	25.61	27.16	34.42	n/a	27.93	26.86
Italy	34.91	37.79	42.01	26.04	25.11	35.23	78.67	64.95	43.20
The Netherlands	46.62	58.54	68.06	38.03	35.91	36.33	71.98	65.90	70.08
Portugal	27.17	26.08	46.68	12.50	13.48	16.20	57.85	35.01	31.49
The United Kingdom	46.46	43.86	56.06	24.50 ^a	22.42	22.80	63.48 ^c	73.90	70.46

Note: ^aFirst year available is 1987; ^bFirst year available is 1991; ^cFirst year available is 1990.

indicator is – perhaps unsurprisingly – federal Germany. Belgium and Portugal are interesting for the opposite reason: although Belgium is a federal country, its degree of autonomy is not high; indeed, the degree of autonomy of sub-national governments in Belgium is actually lower than the average of the eight selected countries. One possible explanation for this could be that revenues of regions may be dominated by transfers from the central government. The case of Portugal is the opposite: although Portugal remains highly centralized, the degree of autonomy of sub-national governments (local in this case) is above average, indicating a relatively low level of dependence by the local government on subsidies and transfers from the central government. Regarding the evolution of the degree of autonomy, different patterns can be observed. On the one hand, there is a group of countries whose autonomy increases between 1983 and 2011, particularly, Italy and Portugal and, to a lesser extent, Germany. The other countries remained stable during this period except the United Kingdom, where the autonomy of sub-national government decreased.

Estimation results

Regression results are shown in Tables 4 and 5. Although we report PCSE and FGLS estimations to test our results' robustness, we rely primarily on the former for hypotheses testing. The reason is FGLS can prove inaccurate when estimating confidence intervals, whereas PCSE standard errors are more conservative and reliable (Beck and Katz 1995; Reed and Ye 2011). However, our key findings are independent of the estimation method.

Table 4: First differences model estimates on government expenditure

	PCSE		FGLS	
<i>A. NPM-related policies</i>				
Government outsourcing	0.3377***	(0.1281)	0.2279***	(0.0826)
Expenditure decentralization	-0.3752***	(0.0991)	-0.3270***	(0.0466)
Sub-national government autonomy	0.1076**	(0.0450)	0.0368	(0.0255)
<i>B. Control variables</i>				
Real GDP <i>per capita</i>	-0.0008***	(0.0002)	-0.0007***	(0.0001)
Unemployment rate	0.2483**	(0.1385)	0.1908**	(0.0869)
Age dependency ratio	0.0590	(0.6655)	-0.0107	(0.2825)
Urbanization	-0.3888*	(0.2102)	-0.0961	(0.2977)
Observations	291		291	
Groups	15		15	
Time period	1983–2011		1983–2011	
R^2	0.5215			
Wald-Chi ²	403.98		490.58	

Note: The asterisks ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Robust standard errors are reported in parentheses.

Table 5: First differences model estimates on government employment

	PCSE		FGLS	
<i>A. NPM-related policies</i>				
Government outsourcing	-0.0178	(0.0143)	-0.0127	(0.0098)
Expenditure decentralization	0.0097*	(0.0058)	0.0023	(0.0047)
Sub-national government autonomy	-0.0026	(0.0044)	0.0004	(0.0037)
<i>B. Control variables</i>				
Real GDP <i>per capita</i>	0.0001***	(0.0000)	0.0001***	(0.0000)
Unemployment rate	-0.0700***	(0.0155)	-0.0426***	(0.0141)
Age dependency ratio	0.0573**	(0.0253)	0.0261	(0.0306)
Urbanization	0.0751	(0.0508)	0.0160	(0.0348)
Observations	216		216	
Groups	15		15	
Time period	1983–2006		1983–2006	
R^2	0.2841			
Wald-Chi ²	1114.08		99.25	

Note: The asterisks ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Robust standard errors are reported in parentheses.

What is the impact of the variables of interest? Our empirical results are ambiguous regarding the effect of NPM-style reforms analysed on government outlays. With respect to the impact of outsourcing on public expenditures, the positive correlation between the outsourcing and the public expenditure ratio could indicate that the outsourcing of public service delivery to private or non-profit sectors did not end up translating into a more cost-effective provision of public services. This would seem to confirm hypothesis 1b: outsourcing does not necessarily lead to reductions in public sector size with regard to government spending. Focusing now on the outsourcing effect on the amount of government employees, we find a negative correlation between both variables; however, this effect does not seem to be significant, which leads us to reject hypothesis 1a in favour of hypothesis 1b.

Turning now to decentralization, we find evidence of a short-term relationship between expenditure decentralization and government expenditure, this effect being negative, i.e. the greater the degree of expenditure decentralization, the lower the government expenditure. This may confirm hypothesis 2a with regard to administrative decentralization. As for the variable measuring the degree of autonomy of sub-central governments, we find this is positively associated with government spending; hence, the lower the autonomy of sub-central governments, the higher the aggregate government expenditure. This would seem to confirm again hypothesis 2a in relation to administrative decentralization.

Regarding the decentralization effect on government employment, we find no significant evidence supporting the existence of any relationship between administrative decentralization – considering both indicators – and public employment, both effects being statistically not different from zero. We do not find, therefore, empirical evidence to support either hypothesis 2a or 2b, with regard to public employment.

Turning to our control variables, the unemployment rate has a positive and statistically significant correlation with the increase of public expenditure. An increase in the rate of unemployment tends to lead to increased spending on passive and active employment policies, which might generate more public expenditure. GDP *per capita* is also negatively correlated with public expenditures. These results suggest a counter-cyclical public expending policy pattern may exist. Regarding the demographic variables, the age dependency ratio has the expected positive effect on public sector size; however, this effect does not seem to be significant. As for the urbanization indicator, the negative sign associated with the estimated coefficient may indicate the existence of economies of scale in public goods provision. That is, the higher the degree of urbanization, the lower the cost for government to provide public goods. Regarding the impact of the control variables on government employment, it appears that only GDP *per capita* and the unemployment rate have had any effect – albeit slight – on public employment. Our results suggest that a pro-cyclical pattern may exist with regard to government employment fluctuations.

CONCLUSIONS

Outsourcing and decentralization were introduced as part of a broader NPM movement from the 1980s, purportedly to reduce the size of the public sector. However, relatively little scholarship has been dedicated to identifying how NPM has performed against its own targets, including reducing the size of the public sector. We stressed the caveat at the outset that reducing the size of the public sector was not a guarantee of greater public sector efficiency, since cost savings may occur for many reasons, including a decline in the quality of public service delivery or labour conditions (Jensen and Stonecash 2005). Despite this, we argued it is worthwhile investigating the consequences of NPM on public sector size, not least because, during the ongoing financial and economic crisis, governments are turning again to NPM-style policies, particularly outsourcing, in the name of cutting costs. Our analysis sought to quantify the effects of outsourcing and decentralization for the public sector size in 15 EU countries over the last two to three decades.

What policy lessons can be extracted from our findings? First, we found that outsourcing was not associated with a reduction in public sector size regarding expenditure and employment. Second, and in contrast, we found that administrative decentralization (measured as the ratio of expenditure decentralization and the autonomy of the sub-central government) *did* seem to lead to a smaller public sector with regard to expenditure. We did not find, however, that decentralization led to a reduction in public sector employment. Regarding policy lessons, our finding on outsourcing should *not* be used to argue outsourcing *never* reduces costs. Outsourcing is a broad concept embracing multiple and differentiated forms, whereby governments contract services from outside the government, including voucherization, public procurement, and so on. There will be multiple occasions where outsourcing cuts costs and yet many situations where it does not. Our findings are at the aggregate level, providing evidence from Europe that, overall, we do not find that outsourcing reduced government spending. Our results are broadly in line with recent studies on outsourcing. In Australia and Italy, Young and Macinati (2013) found that outsourcing was reversed (insourcing) due to cost increases, lack of control, and workforce rigidities in the health sector. Hefetz and Warner (2012) showed outsourcing and insourcing were roughly equal across the United States between 2002 and 2007 for various reasons, including lack of cost savings. As for decentralization, our analysis suggests that cost savings may be possible, particularly when resources decentralization is accompanied by greater autonomy; however, this does *not* mean that decentralization *always* guarantees cost savings with regard to government expenditure, since we are working at the aggregate level. Moreover, decentralization may have little or nothing to do with NPM; rather, this may be a product of political decisions.

Other limitations of the use of these findings for policymaking should be stressed. Here, we only sought to assess the consequences of two NPM-style reforms on public sector size. It should not be overlooked that NPM pursued a broader agenda than cutting

public expenditure: it also sought to forge a more efficient and effective public sector, aimed at increasing consumer satisfaction and choice. Even if outsourcing did not lead to a smaller public sector, it could be deemed to have worked if it fulfilled other objectives, such as improving public sector working conditions, service quality, and/or social welfare. However, if increased government spending was not accompanied by such improvements, this could suggest the existence of high transaction and coordination costs and the appropriation of social income by the private sector, or that the private provision of public goods did not lead overall to efficiency gains. Regarding the use of data in this study, as discussed by Pollitt and Bouckaert (2003), the ratios using GDP as the denominator may be significantly influenced by the use of this indicator. For example, between 1990 and 2000, a period of strong economic growth, the steady growth of GDP could mask increases in public spending and debt and the opposite in times of recession. Finally, given the OECD's recent work on outsourcing and decentralization indicators, future scholarship on the comparative effects of NPM can probe deeper into the effects of outsourcing and decentralization by sector and country, to identify when and where policies work and fail, regarding cost savings, but also social welfare and service quality.

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NOTES

- 1 Eurostat started using the new *System of National Accounts* from 1995, which facilitated the standardization and comparability of statistical data reliably across countries.
- 2 In an unbalanced panel, the number of time periods t is not the same for all countries i .
- 3 For a more detailed explanation of these indicators, see Appendix A.
- 4 Unit root tests available on request.
- 5 To assess changes over time, we selected those countries for which we have data for the entire period as well as those for which we do not have complete data but are considered representatives of the major European administrative traditions, such as Germany, France, and the United Kingdom.
- 6 Portugal appears to be a latecomer because the outsourcing ratio started to develop from 1993 onward.

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APPENDIX A. GOVERNMENT OUTSOURCING AND DECENTRALIZATION INDICATORS

Measuring government outsourcing

We use a simple method to approximate government outsourcing levels based on a combination of national statistical series. Our study is facilitated by OECD's ongoing work on constructing indicators of government outlays, particularly as found in *Government at a Glance* (OECD 2011) from which we derive our outsourcing indicator. We follow Minicucci and Donahue's (2004) defining public sector outsourcing as the

delivery of public services by agents other than government employees. Hence, we approximate outsourcing levels as the percentage of goods and services bought by the government from the non-government sector to produce output (termed *intermediate consumption*) – such as the use of private entities to provide support services (OECD 2011) – and goods and services bought from market producers and supplied to households without any transformation (termed *social transfers in kind via market producers*), such as health and education services (for further information on this definition, see the *Manual on sources and methods for the compilation of COFOG Statistics*, from Eurostat). Mathematically:

$$\text{Government Outsourcing} = \frac{IC + ST}{FC} \times 100$$

where *IC* refers to *intermediate consumption*, *SC* refers to *social transfers in kind via market producers*, and *FC* refers to *final government consumption*, which is the sum of total government consumption of labour, goods, services, and fixed capital.

Measuring decentralization

We use two different variables to proxy decentralization: the expenditure decentralization indicator and the sub-national government autonomy index. Assuming that decentralization is a reform whereby public policies transfer responsibility, authority, and resources from a higher to a lower level of government (Falleti 2005), our first indicator to approximate the level of decentralization is based on the share of sub-national government expenditure on total government expenditure. Mathematically:

$$\text{Expenditure Decentralization} = \frac{TE[Loc] + TE[State]}{TE[Centr] + TE[Loc] + TE[State]} \times 100$$

where $TE[Loc]$, $TE[State]$, and $TE[Centr]$ are the amount of total government expenditure at the local, regional, and central government levels, respectively.

Additionally, and in view of the fact that the former indicator does not provide enough information on sub-national government actual autonomy, we use a second indicator consisting of the share of central government transfers to sub-national governments on total sub-national governments revenue, which may reflect the sub-national government's degree of autonomy. Mathematically:

$$\text{Autonomy} = \frac{\text{Trans}[Loc] + \text{Trans}[State]}{\text{TR}[Loc] + \text{TR}[State]} \times 100$$

where $\text{Trans}[Loc]$ and $\text{Trans}[State]$ are capital and current transfers from central to local and regional governments, respectively, and $\text{TR}[Loc]$ and $\text{TR}[State]$ are the amount of total local and regional government revenues, respectively.