

Outsourcing and public expenditure: an aggregate perspective with regional data

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The generalisation of outsourcing the provision of public goods and services raises the question of whether this is a cost-efficient measure. There is no consensus about the expected impact of an increase in the outsourcing level on public expenditure from the theoretical literature, and there is little empirical evidence. Thus, we exploit a panel of seventeen Spanish regions from 2002 to 2018 in order to estimate the relationship between the level of outsourcing and public spending. Our estimates suggest that for these regional governments an increase in outsourcing has entailed a rise in public spending.

Governments generally outsource part of the provision of public services and goods to the private sector. They contract private companies to carry out functions that typically belong to the public sector under the belief that the private sector can be more efficient and reduce public spending levels. Nonetheless, there is little empirical evidence on the link between outsourcing and public expenditure.

From the theoretical front, there are two main branches in the literature claiming opposite effects of outsourcing on spending. On the one hand, there are those that claim that outsourcing increases fiscal soundness due to higher efficiency of the private sector as private firms may innovate more and focus on reducing the production cost. Other possible explanation is the misalignment of bureaucrats' incentives with the general public's ones.

On the other hand, the detractors of the expenditure saving impact of outsourcing offer numerous arguments, namely: the existence of transaction costs in the contracting process; the apparition of the so-called "hold-up" problem, an increase in cost that may occur when contracts are complex and the government needs to renegotiate it in case

of unforeseen events; the increase in cost of provision due to asymmetry of information and cost of control; fiscal illusion generated when the services are financed by a source of revenue other than taxes, e.g. fees, reducing the impression of fiscal misbehaving and encouraging an increase in the demand of public services; and the increase in cost due to corruption and the existence of "revolving doors".

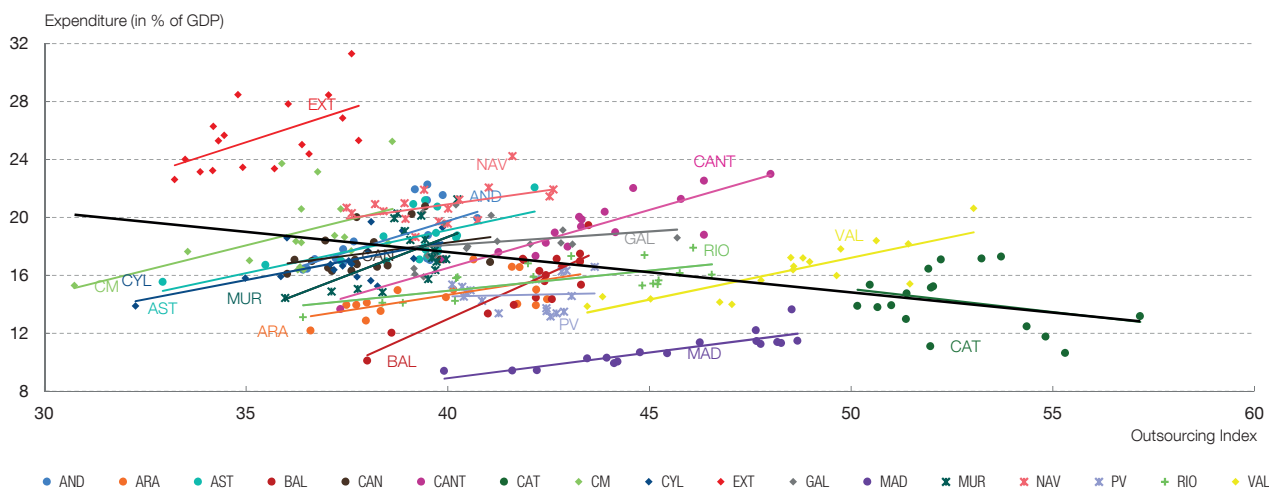
In this paper, we provide some empirical evidence about the relationship between outsourcing and public expenditure in percentage of GDP and in per capita terms. We take advantage of a good laboratory economy, the Spanish regional governments (Autonomous Communities, AC henceforth) over the period 2002 to 2018. ACs are the governmental level responsible for the main part of health and education expenditure, two main essential public services that may be outsourced. Despite the common legal framework, ACs present substantial heterogeneity in their levels of outsourcing and public expenditure (see figure 1). A first glimpse at the data suggests that, with the exception of Catalonia, all ACs present a positive relationship between outsourcing and expenditure (see figure 1).

The outsourcing index is measured following the OECD (2011) definition, that is, the ratio of the sum of intermediate consumption and transfers in kind over total expenditure for each AC.

Based on the cross-country approach in Alonso *et al.* (2017) and Potrafke (2018), we employ two strategies to estimate the effect of outsourcing on public spending. Firstly, we control for country-specific factors affecting both variables including a region fix effect. This strategy is well suited when the omitted characteristics are time invariant. Secondly, we use instrumental variables (IV) regressions to estimate the possible causal effect. In particular, we relax the exogeneity assumption by allowing current spending-to-GDP to affect future outsourcing levels. Specifically we use panel IV estimators using lags as instrumental variables following the estimation strategy of Anderson and Hsiao (1982). Finally, we include in all specifications a rich set of control variables including economic, demographic, political, and public services quality indicators.

Figure 1

REGIONAL GOVERNMENT OUTSOURCING INDEX AND EXPENDITURE OVER GDP BY CCAA (2002-2018)



SOURCE: The General Comptroller of the State Administration (IGAE) and own calculations.

Our findings suggest that higher outsourcing levels are associated to higher public spending at the regional government level. Indeed, according to our preferred IV specification, the long-run effect of a 10 percentage points increase in the outsourcing ratio leads to an increase of 4.6 percentage points in spending-GDP-ratio, and a 84 euros increase in public spending per capita. These results are robust to the inclusion of controls for the quality of the provision of public services such as school dropouts and health status. In addition, we find that those ACs with larger level of outsourcing have not been more fiscally responsible during the years of austerity that follow the European debt crisis. Finally, we test whether an ACs with higher level of outsourcing tends to invest more, as it is the other main expenditure item in ACs budget. We test whether additional resources that may emanate from the efficiency gain produced by the outsourcing of goods and services lead to a higher level of investment. Nonetheless, we do not find any significant impact of outsourcing on investment.

Our work aims to provide empirical evidence to the significant question of whether those governments with higher level of services and goods outsourced tend to have lower spending-to-GDP ratios. We find that, at least

for Spanish ACs, this is not true suggesting that there is probably not a strong gain in efficiency when outsourcing that may compensate the costs bound to the outsourcing process. Nonetheless, there are two caveats for our analysis. First, we need a granular data approach to evaluate case by case the potential gains in efficiency, however this data is not available at the moment. Second, the outsourcing process has occurred in parallel with a technology revolution that has increased the cost of production, especially in the health sector with the utilisation of new treatments and equipments.

REFERENCES

Alonso, J. M., J. Clifton , and D. Díaz-Fuentes (2017). The impact of government outsourcing on public spending: Evidence from European Union countries. *Journal of Policy Modeling*, 39, no. 2, pp. 333-348.

Anderson, T. W., and C. Hsiao (1982). Formulation and estimation of dynamic models using panel data. *Journal of econometrics*, 18, no. 1, pp. 47-82.

OECD (2011). Government outsourcing. In *Government at a Glance 2011*. Organization for Economic Cooperation and Development Publishing, Paris.

Potrafke, N. (2018). Does public sector outsourcing decrease public employment? *Empiricalevidence from OECD countries*. ifo Working Paper, 267.