



**Abstract ampliado**

## RESUMEN AMPLIADO

**Título:** Public management quality and municipal growth. Evidence from the Spanish municipalities.

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**Área Temática:** (*indicar el área temática en la que se inscribe el contenido de la comunicación*): 02.- Eficiencia, productividad, competitividad y espacio

**Resumen:** (*mínimo 1500 palabras*)

Institutions have been recognized as a central factor to explain economic growth and economic performance, particularly some outstanding scholars such as Douglas North, Oliver Williamson and Daron Acemoglu, among others.<sup>1</sup> They are viewed as those rules and norms governing economic systems, embodying the structure of incentives in societies via the creation of markets and other growth-enhancing activities (Fernández and Tamayo, 2017). Indeed, the relevance of the contributions to the field has been substantial, showing positive views on institutions as a fundamental cause of economic development and growth (Jones, 2003; North, 1981, Easterly and Levine, 2003; Rodrik et al., 2004; Clague et al., 1999; Keefer and Shirley, 2000; Keefer and Knack, 2008; La Porta et al., 2008; Acemoglu and Johnson, 2005).

Regardless of the views on how institutions may affect economic growth and economic performance, an important issue is how we exactly define and measure institutions and, more specifically, quality of government as well as other measures of government effectiveness (La Porta et al., 1999). Indeed, poor quality of government, corruption and lack of transparency are usually strongly associated with either the absence of institutions, or poor-quality and inefficient institutions. More specifically, some seminal papers (La Porta et al., 1999) have evaluated government performance using measures of government intervention, public sector efficiency, public good provision, size of

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<sup>1</sup> See, for instance, North (1990, 1994, 1989), Williamson (1985, 1983, 1979) and Acemoglu et al. (2005).



government, and political freedom. In more recent contributions such as, for instance, Charron et al. (2019), the dimensions measured are similar—control of corruption, rule of law, government effectiveness, and protection of property rights. Yet, as indicated by Kaufmann et al. (2011), regardless of the type of data or methodology employed to construct the different indicators of quality of government, they are usually highly correlated (see also Kaufmann et al., 2011).

Unfortunately, most of the measures available so far to evaluating institutions and/or quality of government are only available at limited levels of disaggregation—usually country level (La Porta et al., 1999) and, less frequently, regional level (Charron et al., 2019). Therefore, the analysis of the effect on economic performance is necessarily constrained to the highest layers of government, due to the lack of measures for lower levels such as, for instance, municipalities. The exceptions are few, and almost entirely constrained to the recent studies by Rodríguez-Pose and Zhang (2019) and Hortas-Rico and Rios (2019), focusing on the case of China and Spain. As we shall see in Section 2, both studies make important contributions to the field, but can be complemented in some respects, particularly in terms of the quality of government measures proposed.

We argue that, given one of the proposed measures for government quality and government performance by the literature is public sector efficiency (see, for instance La Porta et al., 1999) we should, ideally, measure it as explicitly and accurately as possible. Given we are focusing on the municipal level, we should therefore look for measures of public sector efficiency at this level, which in this case would be local government efficiency. It turns out to be that there is a large literature dealing with this issue, namely, the literature on measuring local government performance, in which the number and relevance of the contributions is already remarkable (see, for instance De Borger and Kerstens, 1996; Balaguer-Coll et al., 2007), to the point that some surveys have just been published (Narbón-Perpiñá and De Witte, 2018a,b; Aiello and Bonanno, 2019). This literature proposes measuring local government performance (as well as a variety of related issues) using, in general, frontier techniques (Färe et al., 1994b; Kumar and Russell, 2002). Despite the richness of this literature, and the accuracy of the estimations, they have never been considered by the literature on institutions and quality of government.

Likewise, the analysis of economic growth and convergence has also been relatively limited in terms of the layers making up each country's territorial organization or levels of government. The sub-national layers whose economic performance have been more frequently studied are those immediately below the country level—such as, for instance, states in the case of US, and NUTS2, in the case of the European Union. However, if the analysis is extended to lower layers, then the available empirical evidence becomes scarcer, regardless of the context being evaluated or how devolved each country is. When the analysis is focused on the smallest units for which information is—in general, the municipality or local government level—then the empirical evidence is virtually non-existent for many contexts.

Therefore, in this paper we combine the literatures on government performance or quality of government and efficiency performance at the local level. Specifically, we analyse how the quality of institutions at the local level (municipalities), measured via their efficiency, might impact on economic growth (income per capita growth) at municipal level. For this, we measure a quality of government indicator via the public



sector (local government) efficiency, considering frontier analysis methodologies from benchmarking literature, namely, Data Envelopment Analysis (Charnes et al., 1978). Our novel approach allows overcoming the limitations found in previous literature regarding the lack of data for quality of government at the local level.

The study is carried out for Spanish municipalities with a population between 1,000 and 50,000 inhabitants for the period 2008-2015. We focus on the particular case of Spain, for a variety of reasons. Interestingly, it is a context for which detailed information at the municipal level exists. Specifically, the survey on local infrastructures and facilities provides detailed information on the goods and services (outputs) that each population provides to their constituencies. This allows measuring public sector efficiency at the local level with detail. We also have information on municipalities per capita income, which is also rarely found in studies at the local level.

The empirical strategy proceeded in two stages, measuring in the first one municipal efficiency, which was subsequently plugged-in in the second stage of the analysis as a regressor in the different models considered. In analysing the relationship between municipal income per capita growth and efficiency, we also consider a set of control variables as explanatory variables in which we capture economic (financial development), demographic (population density, population growth, share of retired people) and political and fiscal factors (political alignment with the regional government, fiscal autonomy). As a result, we estimate a variety of specifications, including different controls, interactions, instrumental variables and alternative scenarios.

Our results suggest that efficiency improvements have a positive and significant impact on municipal growth, whose results are robust for all scenarios analysed. These efficiency improvements have higher impact for poor municipalities that see how efficiency improvements make them grow faster than in richest municipalities. In addition, it is observed that the effects of an improvement in efficiency on growth is greater in the crisis period, since when resources are scarcer, the need to manage them more efficiently is more relevant than during periods of economic prosperity.

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**Palabras Clave:** *Efficiency, Growth, Local government, Quality of government*

**Clasificación JEL:**