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One more ride on the merry-go-round! Public ownership and delayed competition in local public services

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ABSTRACT

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This paper investigates the effect of public ownership on the use of competitive bidding to award local monopoly franchises. The empirical setting is provided by the Italian natural gas liberalization reform, which made competitive bidding to award gas distribution franchises at the municipality level compulsory. The paper shows that municipalities owning a capital share in a gas distribution network operator experience a reduction in the hazard of awarding. The paper provides additional tests to support the causal interpretation of the findings. First, the credibility of competitive procedures is tested. Second, the presence of a contemporaneous dependence structure in the data is taken into account to address the imitation effect among the municipalities served by the same operator. *Journal of Comparative Economics* **000** () (2015) 1–16. University of L'Aquila, Department of Industrial and Information Engineering and Economics, Via Gronchi 18, 67100 L'Aquila, Italy; Polytechnic University of Milan, Department of Management, Economics and Industrial Engineering, Via Lambruschini 4/b, 20156 Milan, Italy.

1. Introduction

Since the launch of network industries liberalization programs around the world, concerns have been raised about the real scope of regulatory independence. In fact, the timing of privatization and liberalization has varied from country to country and sector to sector, generating situations in which the state, at different levels of government, has acquired the role of regulator without losing its traditional role of owner (Bortolotti and Faccio, 2009; Bortolotti et al., 2003; Conway and Nicoletti, 2006).

"How can the state regulate the firms it also runs?" (*The Economist*, 22 January, 2012). This question is crucial for several reasons. First, the commitment of governments to abstain from influencing regulatory outcomes has an impact on investor decisions to enter markets, which in turn affects both static and dynamic efficiency (Cambini and Rondi, 2011; Henisz, 2000; Henisz and Zelner, 2001). Second, it strikes at the heart of the dilemma regarding the legitimacy of public ownership in markets in which private investors expect to compete in a transparent regulatory framework. Third, if a case for public ownership still exists, addressing this question will be the first step toward the creation of the institutional arrangements that prevent the blurring of roles of regulator and owner (Baldwin and Cave, 1999; Levy and Spiller, 1994).

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In this paper, I document the effect of municipal ownership on a regulatory outcome, i.e. the use of competitive bidding to award local monopoly franchises, by relying on the Italian natural gas liberalization reform as an empirical setting. The reform was issued in 2000 and introduced dramatic changes within the entire natural gas industry. In particular, it revolutionized the distribution segment, which is dominated by municipally owned enterprises (MOEs); in 1998, they represented 454 out of 734 enterprises. The reform established that gas distribution franchises should be awarded by competitive bidding at the municipality level (Armstrong and Sappington, 2006; Demsetz, 1968; Riordan and Sappington, 1987). Specifically, I compare the timing of the decision to comply with the reform as it was experienced by the population of Lombard municipalities, which are followed from 2001 to 2012 (the extreme deadline established by the reform). The results indicate that a municipality owning a capital share in the incumbent gas distribution network operator (DNO) experiences a significant reduction in the probability of complying with the reform (as measured at each year interval).

Recent studies have found significant links between public ownership and regulatory outcomes. Edwards and Waverman (2006), using a sample of 15 incumbent EU telecom operators tracked from 1997 to 2003, show that public ownership positively affects wholesale rates, suggesting that governments influence regulatory outcomes to favor publicly owned incumbents. Bortolotti et al. (2011), using a panel of EU utilities, analyze how firm ownership and regulatory independence affect capital structure and regulated prices.[1] Bortolotti et al. (2013), using the same panel employed in the previous work, focus on the impact of public ownership on the market value of regulated firms. All of these analyses have concluded that a case for regulatory failure exists in the contexts in which strong publicly controlled incumbents dominate network industries.

However, the literature thus far has paid no attention to the challenges offered by the dispersion of public ownership and regulatory powers along different levels of government – national, regional and municipal. MOEs play a key role in the provision of public services – the majority of them encompassing network industries such as electricity, gas, water, waste and transport – across the EU countries.[2] At the same time, even in countries and sectors where a national Independent Regulatory Agency (IRA) exists, local governments – depending on the institutional framework shaping each sector in each country – maintain residual regulatory powers, ranging from monopoly franchising to planning and control of management activity, budget and investment decisions, quality standards and so forth.

When residual regulatory powers are entrusted to local institutions, they are nearly inseparable from the executive power. Municipalities do not delegate market regulation to independent agencies, as central governments do. Accordingly, local political power can condition regulatory decisions and undermine the credibility of the regulatory commitment (Guerriero, 2011; Hauge et al., 2012). In these situations, local politicians may use their executive powers to make regulatory decisions that boost MOEs profitability and/or protect them from potential competitors (Sappington and Sidak, 2003). This in turn allows local governments to raise additional revenues and hence to avoid municipal tax increases, spending cuts or other politically costly choices.

This study makes two contributions to the literature. First, by focusing on the enforcement of a well-defined regulatory tool, the analysis allows to establish a direct channel between the public ownership of firms and regulatory outcome. Unlike the abovementioned studies, the present paper exploits a liberalization reform for the purpose of measuring and explaining regulatory outcome as such, i.e., not relying on indirect proxies such as prices, market values and so on.

Second, by employing a sample of municipalities that share the role of market regulator (provided that they wield the regulatory power to decide when to award the gas distribution franchise) and are heterogeneous in terms of the economic stake in the gas distribution market (provided that only a few of them are *shareholders* of incumbent DNOs), this paper is the first, to the best of my knowledge, to focus on the relationship between public ownership and regulatory enforcement at the local level. This allows the possibility to exploit a larger sample and to circumvent the heterogeneity of contexts and institutional arrangements that challenges studies focusing on the national level.

The approach presents two empirical advantages. First, it is possible to study how the change in the regulatory framework has been recognized by municipalities that potentially face the same obligations. This makes it possible to avoid empirical challenges stemming from the simultaneity of regulatory reform and public ownership. Second, by using a duration model, it is possible to take into account not only the resistance to the reform by the municipalities that are not compliant at all but also the resistance exerted by those that delay compliance.

The paper provides additional tests to support the causal interpretation of the findings.

First, I seek to overcome the inference challenges stemming from the endogeneity of (i) municipal ownership and (ii) variations in the deadlines for compliance due to the staggered implementation of the reform. While the first source of endogeneity should be quite clear – as each municipality should decide whether to have a competitive bidding process or not, and it also needs to decide if it wants to have shares in the incumbent DNO – the second one is contingent upon the way in which the transition period for the implementation of the reform has been provided for. In fact, the gas distribution reform established a staggered implementation, by allowing the municipalities served by DNOs that met certain requirements – in terms of size and privately owned capital shares – to delay the deadline for compliance. Given the chance to enjoy an extended transition period, the possibility that the most resistant *shareholder* municipalities may have implemented restructuring measures to ensure that their

[1] They find that privately controlled firms are more highly leveraged than state-controlled firms if they are regulated by an Independent Regulatory Agency (IRA) and that the leverage of private firms has a positive and significant effect on regulated prices. While these results are consistent with the theory that private regulated firms use leverage strategically to obtain better regulatory outcomes (Spiegel and Spulber, 1994), they also suggest that state-controlled companies do not have to rely on such a strategic device.

[2] In addition to Italy, as far as the European Union is concerned, local public services (LPS) are mainly provided by municipally owned enterprises in Austria, Germany, Greece, Portugal, Spain, Ireland, Sweden and in the majority of the countries in Eastern Europe (Verdier, 2004).