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Does the political and economic context influence the success of a transport project? An analysis of transport public-private partnerships

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ABSTRACT

The construction and provision of infrastructure services such as transport nowadays is often based on a partnership between three main actors: public sector, private sector and multilateral lenders, under a framework of Public–Private Partnerships (PPPs). This type of partnership has been employed in a wide range of projects in the transport sector and in various contexts in developing and developed countries. Given this observation, the objective of this paper is to examine how countries' economic and political characteristics contribute to the success of PPPs in transport investments. Special focus in the analysis is given to how the perception of corruption and democratic accountability may influence the success of a PPP project in different transport sectors. We examine a database with 856 transport PPP projects using a generalized linear model in the form of a logit model in order to evaluate the transport database covering data from 72 countries, classified in six regions. The study highlights the importance of national experience. Not only does national macroeconomic experience appear to have a relevant role, but so also does its past experience (either positive or negative) of transport PPP projects. An interesting finding from the analysis is the importance of the rest of the world's perception of a country's level of corruption and democratic accountability for the final outcome of a PPP project.

1. Introduction

National governments around the world differ substantially in their social and economic structures and in particular in their infrastructure endowments. State governments are characterized by diverse administrative cultures and capabilities and distinct legal and planning traditions. For instance, institutional diversity in the transport sector is considerable, with countries adopting different approaches with respect to user charges and ownership structures, and thereby implementing various approaches to infrastructure investment strategy and financing. Despite these differences, a framework for what are now referred to as PPPs (Private–Public Partnerships) has emerged to provide transport services through partnerships between three main actors: public sector, private sector and multilateral lenders. The main potential benefit of the PPP approach in transport is its flexibility in adapting the structure of incentives and risk-sharing to the features of the project and to the economic and institutional environment. But because of this flexibility, it is perhaps unwise to seek a unique model of PPP that can be replicated across transport sectors and across countries. The choice context is indeed a multi-objective decision, and in practice, the three actors have to reach a judgment about the trade-offs between the various, sometimes conflicting, objectives.

The literature devotes special attention to the difficulties in PPP agreements between the public and private sector (Grout, 1997; Hart, 2003; Laffont, 2000; Laffont & Martimort, 2002). Private banks are seen as the party that always wins (Estache, 2004) even if a project fails, or if the government and the private company have to renegotiate the PPP. Within this framework, multilateral lenders such as the European Union and the World Bank have openly supported public projects involving PPP agreements between private investors and governments, especially from developing countries (Independent Evaluation Group World Bank, 2007). A number of papers analyze the behaviour of the private investor, in particular by focusing on the maximization of private benefit under incentives schemes (Laffont, 2000; Laffont & Martimort, 2002; Laffont & Tirole, 1993; Martimort & Pouyet, 2006).

When examining PPP agreements, several authors observe the necessity for a shift in the public sector role: that is, from being merely a provider to increasingly becoming a regulator (Independent Evaluation Group World Bank, 2007). This implies the need for a legislative and administrative framework in order to facilitate PPP

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investments (Medda & Carbonaro, 2007). Although many countries use PPP arrangements, we observe different ways of adopting this approach due to different cultural influences and traditions in planning and management of public works, deficiencies in legal and institutional structures, and different degrees of political awareness and acceptance of the PPP concept. Hammami, Ruhashyankiko, and Yehoue (2006) highlight the potential significance of a country's past experience in PPPs in attracting further PPP projects to that country. However, we observe that there is as yet no empirical evidence showing how this experience may (or may not) affect later PPP outcomes. Also, the connection between a country's level of corruption has not been studied in the light of its influence in the success of a transport PPP project. Several studies have been made about corruption and its influence on economic growth (Gould & Amaro-Reyes, 1983; Huntington, 1968; Klitgaard, 1991; Leff, 1964; Mauro, 1995; Schleifer & Vishny, 1993; United Nations, 1989), but none has been conducted using a stringent microeconomic methodology.

The objective of the present paper is to examine how the three actors, public sector, private sector and multilateral lenders, each contributes to the success of PPPs in transport investments, by considering different political and socioeconomic contexts. We will also focus our analysis on the effect of a country's level of corruption and democratic accountability in the success of a PPP project.

The paper is organized as follows: Section 2 presents our hypotheses with their theoretical backgrounds. In Section 3, we describe the dataset used to test the hypotheses previously described, outline the dependent and independent variables employed in our analysis, and explain the modelling procedure. Section 4 describes and analyzes our results on the variables that may affect a PPP outcome and thus concludes the paper.

2. Hypotheses formulation

In order to address the impact of the three actors on the success of PPPs, in this section we discuss the hypotheses that represent the backbone of our analysis. Although there are many elements which influence the success of PPP agreements, we consider in this analysis three main building blocks: country experience, investors and multilateral lenders.

The first block represents the country's past experience in transport PPP projects as well as its macroeconomic performance when the project started and the way a country is perceived in terms of corruption and democratic accountability. This block will be the foundation for the success of the project and will (or will not) reinforce the subsequent blocks. We assume that a country with "bad" past experience in PPP projects and/or deficient macroeconomic performance will not attract as many private investors for its PPP projects, as would another country with better experience. The second block is the link between the private investors involved and the PPP project. The private investor might have several characteristics, and in this paper we focus on the number of private investors forming the consortium in charge of the PPP project. The final block represents the multilateral lenders supporting the PPP project. Although some of the literature discusses their role as agents of policy change and focuses on how they might add a degree of external coercive pressure to the PPP project's national government (Henisz, Holburn, & Zelner, 2005), we concentrate on their presence as a means of success for the PPP project.

2.1. Country experience

2.1.1. Country's past experience with transport PPPs

Past experience in running infrastructure projects related to transport projects may be a good forecaster of future PPP outcomes related to transport. It reflects not only the government's reputation in its capacity to honour agreements with the private sector, but also the capability of the private sector to accomplish projects with the private sector. This experience has proven to be a critical predictor of successful future PPP arrangements (Hammami et al, 2006). Positive outcomes and thus country experiences on previous transport PPPs are associated with positive outcomes of future PPPs in that country.

Hypothesis 1a. Successful country experience on previous transport PPP projects is positively associated with the outcome of the next PPP in that country.

Past experience sometimes also implies the existence of unsuccessful PPP projects. This experience, although "bad", might enhance the future chances for successful PPP projects due to lessons learned from a negative experience. However, we assume here that having unsuccessful PPP projects means having a black spot on a country's record of PPP projects, and can therefore potentially discourage future private investments, attract fewer investors, and may also signal to the government or the public sector that they are not coping successfully with PPP projects.

Hypothesis 1b. Unsuccessful country experience on previous transport PPP projects is negatively associated with the outcome of the next PPP in that country.

2.1.2. Country's macroeconomic performance

The stability of a country, based on its macroeconomic conditions, is important in order to attract private and foreign investors (especially in emerging markets, as shown in Dailami & Klein, 1998), and has also proved to be important in limiting the number of PPPs in a country (Hammami et al, 2006). We will analyze its effects on the positive outcome of a PPP. Poor macroeconomic conditions may hinder the success of a PPP project, whereas a good macroeconomic performance may foster better outcomes.

Hypothesis 1c. Satisfactory country macroeconomic conditions are positively related with the chances of successful PPP projects in that country.

2.1.3. Country's corruption index

Most of the economic literature agrees that corruption would tend to lower economic growth (Gould & Amaro-Reyes, 1983; Klitgaard, 1991; Mauro, 1995; Schleifer & Vishny, 1993; United Nations, 1989).[2] As pointed out by Mauro (1995), corruption may reduce economic growth as it lowers the incentive for entrepreneurs to invest. Corruption can also distort the composition of government expenditure, shifting the expenditure of public resources from socially desirable projects to projects where it is easier to extract large bribes. When a country is perceived as corrupt, there might be fewer private investors willing to support projects in that particular country, constraining the set of potential investors (and thus restraining the "optimal" investor for the project). There is also a higher probability that the chosen provider may not be the most capable, but rather the one with the best bribe, thus limiting the likelihood for a successful outcome.

Hypothesis 1d. The more a country is perceived as corrupted, the less likely it is that the PPP has a positive outcome.

[2] Some authors have pointed out that some level of corruption is desirable (Huntington, 1968; Leff, 1964).