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Changing perceptions on PPP games: Demand risk in Irish roads

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ABSTRACT

This study is based on three Irish operational toll road public private partnership (PPP) case studies, including interviews with 38 key stakeholders. Our findings show that the Irish Government's treatment of risk and its transfer to the private partner in PPPs are changing over time. Regulatory changes, which have led to increased finance costs, coupled with a severe global economic crisis, have exacerbated the difficulties in funding PPPs. The goalposts in Irish PPPs appear to be changing in favour of the private partner at the expense of the taxpayers, who are the losers in the PPP game. The Government are also suggesting that they may potentially step in, if projects experienced financial difficulty and the special purpose vehicle (SPV) may require specific guarantees in order to participate in future PPP projects. Pricing of demand risk also differs from the Government's rhetoric that it is being priced realistically. In practice, we find that it is priced aggressively by the SPV in order to win PPP contracts. The paper discusses the possible implications of these findings for value for money (VFM) and, ultimately, taxpayers.

1. Introduction

When public private partnerships (PPPs)[1] were first conceived risk management was not considered as one of the main issues by the public sector (Demirag et al., 2010). Recent empirical studies on PPPs, have, however highlighted the importance of examining attitudes to risk, as risk has emerged as one of the crucial considerations in justifying and transferring more public services to the private sector. The assessment and transfer of risk in PPPs largely determines whether or not a project is Value for Money (VFM) (Froud, 2003; Grimsey and Lewis, 2005; Demirag and Khadaroo, 2008). Broadbent et al. (2008) posit that the real challenge in determining VFM in PPP contracts lies with the calculation of retained risk by the public sector and the value of the transferred risk to the private sector as both involve subjective and qualitative judgements. Moreover, the lack of data collection to systematically evaluate whether PPP schemes provide effective risk transfer and represent VFM compared to other forms of procurement was also criticised in a recent National Audit Office (NAO) report (NAO, 2011). Arguably risk should be managed by the party who is better able to control risk factors (Froud, 2003) or is willing to bear it (Li et al., 2005; Hood et al., 2006).

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[1] Shaoul et al. (2012a, p. 214) provide a definition of PPPs as 'clearly defined projects, the risks and rewards of which are shared between the public and private sectors. That is usually a long-term relationship between a public sector procurer and multiple private sector companies exists to design and construct infrastructure, maintain it and provide some related services'.

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Prior literature on PPP risks have examined risk as a generic concept (Roumboutsos and Anagnostopoulos, 2008), and from primarily senior debt provider's perspectives (Asenova and Beck, 2010). There is a dearth of literature examining perceptions of key stakeholders on how risk is actually transferred and priced in PPP contracts and why some key players have different interests and perceptions. For example, there is some evidence to suggest that in Australia the private sector has recently assumed more of the demand risk[2] (Brown, 2005) because the guarantees provided by the Australian Government reduced significant uncertainty (Alonso-Conde et al., 2007). Others have argued that the private sector was inept at managing demand risk and this may have been one of the reasons why the downside demand risk[3] was underwritten by the state (Acerete et al., 2010). More recently, Jupe (2011) examined publicly available documentary evidence in four UK transport case studies and concluded that the risk transfer from the Government to the private sector had not been substantial or effective, and the public sector effectively underwrote the projects and was the lender of last resort. However, none of these studies explore the perceptions of different types of financiers or special purpose vehicle (SPV)[4] members.

Demirag et al. (2010) found that most of the risks assumed to be transferred to the SPV were in fact not managed by the SPV and instead were passed on to their subcontractors or privately insured. Given the level of risk diffusion by financiers to other stakeholders (Demirag et al., 2011, 2012), it is interesting to study the extent to which risk diffusion is also evident in other PPP schemes, particularly in hard toll[5] PPPs where a significant level of risk transfer from the public to the private sector occurs. Demirag et al. (2011) focused on financiers' perceptions of a number of risks in different sectors including roads, hospitals and education. This study extends this earlier work and contributes to the literature by examining the demand risk appetite of financiers and a number of other SPV members and key stakeholders in Irish road PPPs. The importance of demand risk is highlighted by the nature of the risk which, unlike other PPP risks examined in prior studies, cannot be passed on to other stakeholders as explained in detail later in this section. This paper attempts to fill this lacuna in research by examining the transfer and pricing of demand risk in three operational PPP toll road projects in Ireland.

The paper focuses on PPPs in the transportation sector since transport PPPs form the majority of PPP investment in Ireland (Ireland's National Development Plan, 2007), the UK (Shaoul et al., 2012b) and globally (Public Works Financing, 2011). Over 1000 PPP roads projects valued at $US 679.9 billion have been financed through PPPs worldwide between 1985 and 2011 (Public Works Financing, 2011). According to a recent study by the European PPP Expertise Centre (EPEC)[6] (2013a) the transport sector, was the most significant sector in terms of PPPs in 2012, with €7 billion in expenditure. This was more than treble the value of education PPPs, which was the second biggest sector (EPEC, 2013a). Price Waterhouse Coopers (2005) suggest that a number of countries implement PPPs in the transport sector initially in order to ascertain if they offer VFM and the public sector have the requisite experience before developing them in other sectors.

This study also makes an important contribution to PPP literature because demand risk in transport infrastructure PPPs is particularly different from other types of risks (which have been widely examined in prior literature), for two main reasons. Firstly, demand risk provides the basis for estimating expected income from tolls, which in turn determines the SPV's own bid for the PPP project. The lowest bid based on net present value will be successful. Secondly, unlike design, construction and operational risks that can be priced and managed by subcontractors, demand risk may not be transferred by the SPV to subcontractors (Demirag et al., 2012); subcontractors cannot control many of the variables that influence it, such as National Income and fuel prices, thereby inhibiting demand risk transfer to subcontractors. Other uncontrollable factors affecting demand risk include the inability of the SPV to set toll prices and alternative forms of transport being made available to road users.

This paper seeks to address three main research questions. Firstly, what are the key stakeholders' perceptions on how effectively demand risk is transferred from the public to the private sector in three Irish hard toll PPPs case studies? Secondly, what are the key stakeholders' perceptions on how demand risk is actually priced by the SPV in the same three case studies? Thirdly, has the Government changed its objectives on transferring risk from the public to the private sector?

The remainder of the paper is organised as follows. The next section provides a brief overview of PPPs in Ireland, followed by a summary of recent changes in the regulatory framework and how these have impacted on the PPP market. We then discuss the relevant prior literature on risk and uncertainty with particular emphasis on how demand risk is transferred and priced in different types of roads. This is followed by Governmental guidelines and documentation on how risk should be transferred and priced in PPPs. The next section discusses the research methods used and the findings of the study. Finally we discuss these findings and provide some concluding comments.

[2] Demand risk can be difficult to define and is often subject to diverse interpretations. For the purposes of this study our working definition for demand risk is the difference between anticipated and expected level of traffic volume (Shaoul et al., 2007).

[3] This refers to when demand levels do not meet the expected levels in the SPVs bid estimates.

[4] According to Demirag et al. (2011, p. 295) 'the SPV is normally owned by a consortium which, because of the holistic nature of the contracts, will typically include two or three companies with a range of skills necessary to finance, build and operate the required facilities. The SPV, which is usually a shell company, in turn subcontracts the finance, design, construction, maintenance and soft services to companies that are often related to shareholders'.

[5] Hard toll PPPs refer to PPPs whereby the user pays a toll to use the PPP road. The private sector is remunerated by the toll revenue that they receive from the user.

[6] EPEC is an expertise centre formed as a joint initiative between the European Investment Bank (EIB), European Commission and EU member states. It shares expertise and best practice on PPPs with all its members (EPEC, 2013b).