Abstract

Drawing on stakeholder theory, this study seeks to gain an insight into the stakeholder management strategies used by the Procuring Authority in Irish road Public Private Partnerships to manage its complex stakeholder relationships.

Based on interviews with 38 key stakeholders the findings of this study indicate that the allocation, transfer and management of risk impact on the quality of stakeholder relationships. A proactive and somewhat accommodating approach is used by the Procuring Authority in its relationship with the Special Purpose Vehicle, while there is some evidence that collaborative relationships exist between the public sector bodies responsible for allocating risk.
1. Introduction

Public Private Partnerships (PPP’s) can be defined as ‘cooperation between public and private actors with a durable character in which actors develop mutual products and/or services and in which risk, costs and benefits are shared’ (Klijn & Teisman, 2003, p.137). PPPs are often advocated on the premise that they provide better Value for Money (VFM) than traditional procurement (Demirag, Dubnick, & Khadaroo, 2004; Nisar, 2007; Demirag & Khadaroo, 2008; Reeves, 2011; Shaoul, 2011) by transferring risk to the Special Purpose Vehicle (SPV) as well as resulting in improved design and more efficient work practices (Grimsey & Lewis, 2005; KPMG, 2015). In order to obtain VFM, risk should be allocated to the party most adept at managing it (Department of the Environment, Heritage & Local Government, 2003; Department of Finance, 2006; Demirag, Khadaroo, Stapleton, & Stevenson, 2012) therefore it is important to understand how risk is allocated, transferred and managed in PPPs. In terms of understanding these risk related issues in PPPs, recent research concentrates primarily on public sector and financiers’ perceptions of risks (Akinyemi, Ojiako, Maguire, Steel, & Anyaegbunam, 2009; Asenova & Beck, 2010; Demirag et al., 2010; 2011; 2012), which only provides a partial understanding of risk in PPPs. Prior work has generally focused on relations developed between the public and the private sectors in risk transfer and/or its management (Edwards & Shaoul, 2003; English & Baxter, 2010; Iseki & Houtman, 2012; Demirag et al., 2012). Previous empirical work fails to explore different stakeholder relationships within PPPs such as the relationships between the public sector bodies in the roads sector, which is a significant lacuna in the literature given that it is the most dominant sector in terms of European PPP expenditure (European PPP Expertise Centre, (EPEC) 2014).

Prior Irish PPP research has examined aspects of risk and stakeholder relationships in educational PPPs (Reeves, 2008; Petersen, 2011). Using a multi-level governance approach, Petersen, (2011) found that public sector stakeholders had conflicting objectives and while Reeves (2008) refers to risk transfer, his work focused primarily on the contractual relationships between the public and the private sector and the contractor and schools in educational PPPs (Reeves 2008). This paper builds on this
existing work and examines the perceptions of multiple stakeholders in toll road PPPs through the use of stakeholder theory (Mitchell, Agle, & Wood, 1997; Jawahar & McLaughlin, 2001) and provides an insight into how public and private sector stakeholders are managed by the Procuring Authority in Irish road PPPs. There is some evidence to suggest that the allocation, transfer and management of risks may have a significant bearing on the quality of stakeholder relationships in PPPs (Reeves, 2008; Norton & Blanco, 2009; English & Baxter, 2010). This paper thus seeks to examine:

1. How risks are allocated and managed in Irish toll road PPPs and how this impacts on the quality of relationships between public sector bodies.

2. How risks are allocated and managed in Irish toll road PPPs and how this impacts on the quality of relationships between the Procuring Authority and the SPV.

The rest of the paper is organised as follows. The next section outlines the Irish roads sector with its key stakeholders. Section 3 examines the allocation, transfer and management of risk in PPPs, with previous empirical work in this area provided. Section 4 outlines the theoretical framework and explores the relationship between the public sector bodies responsible for PPPs and the relationship between the Procuring Authority and the SPV. In section 5, an overview of the research methods is provided. Section 6 presents the empirical findings where we examine the relationships between the Procuring Authority (National Roads Authority (NRA)) and the SPV and the Procuring Authority and other public sector stakeholders in the PPP process such as the Department of Transport Tourism and Sport (DOTTAS) and the National Development Finance Agency (NDFA). Quotations from the interviews are provided where appropriate to support the findings. The implications of the findings for VFM and taxpayers are then discussed in the final section.

2.1 PFI and the adoption of PPPs in Ireland

The concept of New Public Management which evolved in the late 1970s/early 1980s (Hood, 1991) involves a market type model, utilising the private sector more in the delivery of public services. The modernisation of the public sector was central to the ideology underpinning New Public Management (Connolly, Reeves, & Wall, 2009; Demirag, Khadaroo, & Clark, 2009; Lapsley, 2009), with the emphasis on achieving
closer cooperative relationships between the public and private stakeholders (Wettenhall, 2007). Relationships between stakeholders from both the public and private sector, particularly in terms of sharing risk, were a cornerstone to Labour’s ‘Third Way’ philosophy in the United Kingdom (UK) (Broadbent & Guthrie, 2008), with the Private Finance Initiative (PFI) a prime example of where this occurred (Jupe, 2012). Implemented in the 1990s to improve roads, schools, prisons and hospitals, PFI was pivotal in terms of modernising the UK public sector. Upon assuming office in 1997, Labour reinvigorated the PFI programme and rebranded the PFI, resulting in the term PPP becoming more commonplace, with PFI included under this definition (Shaoul, 2005). Using the UK PFI model as a blueprint, the Irish Government introduced PPPs in 1999 (Demirag & Burke, 2013), based upon the premise of achieving optimal risk transfer and obtaining VFM (Department of Finance, 2007).

PPPs were initially implemented across a range of sectors such as roads, waste management and education by the Irish Government (Reeves & Ryan, 2007) who have produced two National Development Plans, 2000-2006 and 2007-2013 (see figure 1) which outline their proposed investment in Irish roads. A recent report by the Irish Business and Employers’ Confederation (2013) has highlighted the need to improve Ireland’s infrastructure, advocating that PPPs play a vital role in improving the country’s roads (Irish Business and Employers Confederation, 2013). Ireland’s initial PPP roads programme yielded €2.1 billion in private sector funding (Irish Business and Employers Confederation, KPMG, 2011). Furthermore, Ireland was 7th with regard to the value of PPP deals across Europe in 2014 (EPEC, 2014) and in terms of Irish PPP expenditure, the roads sector accounts for the majority of the outlay (Demirag & Burke, 2013), with €4.345 billion invested in Irish roads by April 2013 (Reeves, 2015). Recent initiatives outlined by the Irish Government to stimulate PPP roads investment included the Government Infrastructure Stimulus Plan. An

---

1 Connolly and Wall (2009, p.1) define PFI as when ‘a private sector organisation usually undertakes to design, build, finance and operate a property in order to provide the required service demanded by the public sector body responsible for the ultimate delivery of service’. Although many countries have adopted broadly similar policies to the UK’s PFI, the PPP arrangements differ internationally (Demirag, Khadaroo, & Stapleton, 2015). PPPs involve a vast array of partnership models between the public and private sectors including joint ventures and public social private partnerships therefore the scope is a lot broader than the PFI (Roy, 2008).
€850 million investment is expected in three PPP roads projects under Phase One of this plan (Department of Public Expenditure & Reform, 2012): The M 11 Gorey to Enniscorthy PPP project includes the construction of the Enniscorthy Bypass with 26 km of existing road also being converted into motorway; while the N25 New Ross Bypass project involves building a new 13.6 km road accompanied by a new bridge; The N17/N18 Gort to Tuam scheme encompasses a 57 km motorway which will involve the construction of a bypass of Clarinbridge, Claregalway and Tuam (Department of Public Expenditure & Reform, 2012).

The Irish Business and Employers Confederation (2013) suggest that market confidence may be restored where there is a pipeline of projects and the deals are well structured. This is important as many Irish PPP projects have been postponed or abandoned in recent years (Reeves, Palcic, & Flannery, 2015) while a recent study by Burke and Demirag (2015) suggests that financiers in Irish toll road PPPs are becoming increasingly apprehensive regarding the ability of the Irish Government to meet future payments on PPP schemes.

INSERT FIGURE 1 ABOUT HERE

2.2 Overview of key stakeholders in Irish road PPPs

There are a myriad of different stakeholders2 (see figure 2) involved in the Irish roads PPP process such as the Department of Finance, the DOTTAS, the PPP unit, Irish Business and Employers Confederation, the Irish Congress of Trade Unions, the Construction Industry Federation, the Comptroller and Auditor General and the NRA. The Irish Business and Employers Confederation, the Construction Industry Federation, the Irish Congress of Trade Unions and the PPP unit all had an input into the negotiation of the Policy Framework for PPPs in Ireland (Demirag & Burke, 2013) (see table 1 for a detailed description of these key stakeholders, explaining their roles in the Irish PPP process). The PPP unit was established in 1999 within the Department of Finance to help formulate PPP policy, disseminate expertise and to provide advice to Irish Government departments responsible for PPP projects.

---

2 This study interviewed the majority of the stakeholders included in table 1. Interviews were conducted with members of the Department of Transport Tourism and Sport, NRA, National Development Finance Agency, Irish Business and Employer’s Confederation, the Irish Congress of Trade Unions, the Comptroller and Auditor General and the PPP Unit.
In order to advance the PPP process in Ireland, both interdepartmental and informal advisory groups on PPPs have been formed with representatives from the NRA, the Railway Procurement Agency and the NDFA included in the Interdepartmental Group.

**INSERT TABLE 1 ABOUT HERE**

The informal advisory group comprises of members of the interdepartmental group on PPPs together with representatives of the Irish Congress of Trade Unions, the Irish Business and Employers Confederation and the Construction Industry Federation. These groups have regular meetings to consider important PPP issues (Demirag & Burke, 2013)

**INSERT FIGURE 2 ABOUT HERE**

Responsibility for overseeing the development and implementation of roads in Ireland resides with the DOTTAS. The procurement of road PPPs is conducted by the NRA, with the majority of all other PP projects procured by the NDFA (Petersen, 2011). Established in 2003, the NDFA provides advice on PPP projects to both the NRA and the DOTTAS, with all public service projects funded through the private sector being referred to the NDFA (Demirag & Burke, 2013). In August 2015, a merger occurred between the NRA and the Railway Procurement Agency to establish Transport Infrastructure Ireland in order to share the expertise of the two former bodies; this new organisation will be responsible for implementing all road and light rail projects in Ireland (http://tii.ie/).

Figure 3 illustrates the stakeholder relationships which have developed within the Irish roads PPP framework and highlights the complexity of PPP arrangements and the vast array of stakeholders involved in the PPP process. Trust, flexibility and goodwill are other factors that may contribute to the quality of stakeholder relationships in PPPs (see table 2). Demirag and Burke (2013) identify three stakeholder relationships; firstly public-public relationships (Greasley, Watson, & Patel, 2008), which relates to the relationships between the public sector bodies; secondly, agency relationships which applies to the public-private relationship between the Procuring Authority and the SPV; and thirdly, the relationship between the SPV members which is referred to as the club relationship. Club relationships are
formed by stakeholder groups for shared benefits and stakeholders within the club collaborate and share information and resources with horizontal accountability between the different stakeholders (Smith, Mathur, & Skelcher, 2006). Within the SPV, contractors and financiers share knowledge and rely on the financial resources they each possess (Demirag & Burke, 2013).

**INSERT FIGURE 3 ABOUT HERE**

**INSERT TABLE 2 ABOUT HERE**

We now examine the literature regarding risk related issues in PPPs.

### 3. Allocation, transfer and management of risk in PPPs

Li, Akintoye, Edwards and Hardcastle (2005a) used a questionnaire study to examine the allocation of risk in construction projects in the UK. They argue that some risks should be borne by the public sector while other risks ought to be shared between the public and private sector and it is suggested that project specific risks are best handled by the private sector. Abednego and Ogunlana (2006) examined the perceptions of various stakeholders on the risk allocation process (see table 3 below for an example of a risk allocation matrix in Irish PPPs) in a toll road project in Indonesia and similar to the work of Li et al. (2005a) they also found that the distribution of risk was viewed as important, particularly as it impacts on VFM. Contracting parties were at ease once the repercussions from risks that occurred could be minimised, while the timing of risk allocation was also crucial in terms of project success. Roumboutsos and Anagnostopoulos (2008) also used a multi-stakeholder approach examining contractors, financiers and public sector bodies’ attitudes to risk in Greek PPPs through the use of a survey and found that stakeholders were satisfied with the risk allocation process, but deviated in their view of what the key risks were. For example, the financiers ranked archaeological risk as being very important while it was viewed as less significant by the public sector and contractors. Also, public opposition to PPP projects was perceived to be more important by the public sector than by the contractors and financiers. Ke, Wang, Chan and Lam (2010) conducted a study encompassing Chinese PPP projects from a range of sectors such as roads, waste and water from which they also ascertained the risk allocation preferences of academics.
and practitioners through the use of a Delphi survey. 37 key risks were identified following telephone interviews and a comprehensive literature review and respondents were required to classify risks into five categories. They found that expropriation risk should be purely allocated to the public sector and they should largely retain 12 further risks including land acquisition and approval. It was suggested that 14 risks should be distributed equally between the parties such as archaeological risk, weather conditions and environmental protection. Similar to the work of Li et al. (2005a) and Roumboutsos and Anagnostopoulos (2008) it was felt that force majeure risk should be shared between the public and private sector. The other 10 risks, which were all project related risks such as financial, construction and residual value risk, should be mainly allocated to the SPV with no risks purely transferred to the SPV.

INSERT TABLE 3 ABOUT HERE

Hood, Frazer and McGavery (2006) are sceptical about the actual level of risk transfer in UK PPPs and believe that the private sector benefits as not much risk is actually transferred from the public to the private sector and there is some evidence to suggest that PFI deals appear to provide better VFM for the private sector than the taxpayer (The British House of Commons, 2011). Concurring with this, a study by Shaoul, Stafford, & Stapleton, (2012a) examining transportation PPP projects in the UK argues that risk is not transferred to the SPV but is transferred to subcontractors and their workers, as well as the taxpayers and users, thus undermining the whole rationale underlying effective risk transfer. In an Irish context, a recent report by the Comptroller and Auditor General (2012) concurred that PPPs are costing the taxpayer considerable sums of money.

EPEC (2011) argued that the provision of state guarantees may be necessary to improve the risk allocation process and alleviate funding concerns for PPP projects. In this context, for example, the use of guarantees in PPPs, through the provision of a minimum revenue guarantee, proved to be hugely beneficial for the private sector in the New Southern Railway project in Sydney (Ng & Loosemore, 2007). Demand levels turned out to be far less than the originally anticipated 48,000 trips per day, leading to the public sector intervening and assuming a significant amount of demand.
risk through a minimum revenue guarantee in order to compensate the SPV. This project cost the public sector millions of dollars, which highlights the importance of carefully estimating and allocating the risks in PPP projects before they become operational (Ng & Loosemore, 2007). In contrast to the New Southern Railway project in Australia, a study by Chen and Hubbard (2012) examining risk allocation found that the public sector failed to honour guarantees in a PPP toll road contract in China. It was stipulated in the original contract that demand risk would be shared and that the SPV would be guaranteed a return and a share of revenue. However, when traffic failed to reach expected levels, the local government authority refused to honour the promise they made with respect to guaranteed profits and the SPV shouldered the demand risk (Chen & Hubbard, 2012). This case study demonstrates that risk may not always be allocated to the most appropriate party and that guarantees may not always be respected in PPP projects. Guarantees have become more prevalent in PPP projects in order to alleviate financiers’ concerns (Shaoul et al., 2012b; Demirag et al., 2015).

Demirag et al. (2012) conducted a study involving six PFI projects with equity and senior debt financiers across a range of sectors including hospitals, prisons, roads, schools and social housing. They found that the senior debt financiers were concerned regarding the financial reputation of companies that make up the SPV as they did not want risks reverting to them. Therefore some risks were transferred to SPV companies, despite them not having the requisite experience to manage them. Subsequently many SPV contractors were either unable to manage risk or the risks tended to be insured, hedged and diffused by a number of private sector partners. Examining three UK shadow road projects, Akbiyikli, Dikmen and Eaton (2011) similarly found that financiers were apprehensive regarding risk, and due to the extent of funding they provide they also wanted risk to be allocated appropriately in PPPs. They concluded that when evaluated in relation to other modes of procurement, UK PFI road projects are providing improved VFM and risk transfer and the payment mechanism incentivises the SPV to provide a high quality road. Moreover, funding costs will alter among projects based on the level of risk and how it is allocated. In an Irish context, Reeves (2013) highlights the complexity of demonstrating VFM in water PPPs and the difficulties in achieving the requisite level of risk transfer in Irish social housing PPPs. More recently, Khadaroo (2014) additionally raised questions
regarding the extent of risk transfer in two Northern Ireland PFI school projects, finding risk transfer and VFM to be a very subjective process. Risk may have been estimated incorrectly by the financial advisors working on the PFI projects resulting in the PFI option appearing to be more attractive than conventional procurement (Khadaroo, 2014).

The next section outlines the theoretical framework used in the study.

4.1 Theoretical framework

Stakeholder theory was deemed the most appropriate theory for exploring the research questions for this study. Other theoretical approaches such as agency and incomplete theory were also evaluated, however the use of incomplete contract theory was not adopted because it is more appropriate in a longitudinal study of PPPs, as potential discrepancies or missing requirements in the PPP contract can be better evaluated at the end of the PPP’s lifecycle. Agency theory was also not pursued as it examines just the principal-agent relationship (public sector and SPV) and not the interrelationships between a number of stakeholder groups as explored in this study.

In the formative work on stakeholder theory, Freeman (1984, p. 46) defines a stakeholder as ‘any group or individual who can affect or is affected by the achievement of the organisation’s objectives’, while El-Gohary, Osman and Diraby (2006, p. 596) define stakeholders as ‘any person or organisation that has a legitimate interest in a project’. Businesses should incorporate the interests of all key stakeholders and they should not be merely viewed as tools towards maximising profitability (Gibson, 2000). Donaldson and Preston (1995) explain that stakeholders are individuals or groups with a valid interest in the firm and are identified by virtue of this interest, even if the firm has very little interest in them. The interests of every stakeholder are valuable to the firm, as individual stakeholders contribute to the firm in different ways; moreover, as multiple stakeholders exist within organisations (Jawahar & McLaughlin, 2001), businesses should strive to satisfy them all so that they prosper continuously in the long term (Freeman, Wicks, & Parmar, 2004). Satisfying the needs of every stakeholder is very problematic (Jawahar & McLaughlin, 2001) yet unless all their interests are considered, achieving organisational goals will be difficult (Clarkson, 1995). Mitchell et al. (1997) argue
that stakeholders may possess one or more of the following relationship traits: firstly, the power possessed by the stakeholder and their ability to influence the firm; secondly, the legitimacy of the relationship between the stakeholder and the firm; and thirdly, the urgency of the stakeholders’ claim on the organisation. Although they may overlap, power and legitimacy can exist irrespective of each other. Power refers to the extent to which stakeholder’s can impose their will in relationships with other stakeholders, while legitimacy relates to the degree to which a stakeholders’ claims are worthy of consideration and urgency concerns the speed with which stakeholders’ needs are met. The legitimacy of stakeholders’ needs, the power they possess, and the urgency of their claims must be considered carefully (Donaldson & Preston, 1995; Mitchell et al., 1997); moreover as these factors are dynamic and may change over time, they need to be continuously monitored (Chinyio & Akintoye, 2008).

Drawing on the work of Mitchell et al. (1997), Jawahar and McLaughlin (2001) identify the stage at which stakeholders become important to the firm and how companies treat stakeholders when their importance to the firm changes. They acknowledge that the saliency of stakeholders may change over time and alter throughout the organisation’s life. Jawahar and McLaughlin (2001) suggest that various strategies should be used with different stakeholders such as reaction, defence, accommodation and proaction (the findings section (section 6) assesses the strategies used by the Irish Procuring Authority to manage risk through stakeholder relationships in Irish PPPs). Proactively managing stakeholders involves doing as much as possible to address their concerns; therefore those that are integral to the company’s survival, such as employees and customers (primary stakeholders\(^3\)), should be proactively managed or, at the very minimum, accommodated (Jawahar & McLaughlin, 2001). Furthermore, Chinyio and Akintoye (2008) argue that organisations should proactively manage stakeholders in order to maintain good relationships rather than just responding when difficulties with stakeholders occur. Accommodation incorporates a less active approach to stakeholders as the company accepts that it is accountable to stakeholders but it will negotiate with them on certain

---

\(^3\)According to Clarkson (1995), a primary stakeholder is one whose continuing involvement is necessary for the firm’s survival. This would include investors, employees, customers and suppliers. There are a number of significant stakeholders such as the equity investors, senior debt financiers and public sector stakeholders (all primary stakeholders) who have legitimate interests in how risk is allocated and transferred in PPPs.
issues rather than just accepting the stakeholders’ perspective. In contrast, a strategy of defense involves just doing the minimum for stakeholders that is required legally. A reactive strategy involves being negative towards addressing stakeholders concerns or disregarding the stakeholders completely. Defensive and/or reactive strategies tend to be used for stakeholders of less importance but as Jawahar & McLaughlin (2001) note, these two strategies are riskier than proactive strategies.

4.2.1 Relationship between public sector bodies
Siemiatycki (2011) points out that one agency or department within the public sector will act as the main public sector sponsor (see figure 3 in section 2.2 for an overview of the key stakeholders, including the public sector bodies and their relationships in PPPs). As many government agencies and departments are involved in promoting and implementing PPPs there is the potential for conflict between them and hence an accommodating or proactive approach to stakeholder management may fail to emerge. Co-operation and commitment among the public sector team is necessary (Ahadzi & Bowles, 2004), as a number of public sector stakeholders may be involved in implementing PPPs and allocating risk. Chung, Hensher and Rose (2010) found that there was no standard framework for PPP procurement in Australia and different approaches were adopted by the various government entities in each state. The public sector agencies implemented some PPP deals without the involvement of the Treasury, thus indicating that a reactive approach to stakeholder management may have been evident. Koppenjan (2005) identified some difficulties in developing trust and encouraging collaboration between public sector stakeholders in the Netherlands suggesting a defensive approach was present. Some of these stakeholders were found to have conflicting goals and objectives, which subsequently led to difficulties in achieving effective co-ordination. In a similar study, Van Marrewijk, Clegg, Pitsis and Veenswijk (2008) examined two large scale PPP projects in the Netherlands and Australia. In the Netherlands project (The Environ infrastructure PPP project) they found that cultural problems were evident between public sector stakeholders in the PPP, which necessitated the intervention of the Netherlands Transport Authority in a reactive manner. Petersen (2011) found that various public sector bodies had different reasons for pursuing PPPs in Ireland. For example, The Department of Finance’s primary motivation was to move capital expenditure off-balance sheet, which requires considerable risk transfer, while the Department of Education and Science wanted to
ensure that particular education projects were built. Furthermore, Petersen (2011) also noted that the level of interaction between various Irish Government departments has been reduced as the NDFA acts as a single entity in procuring PPPs from a number of different sectors and this has led to less conflict between departments. A key contribution of this paper to literature is that it expands on this previous work by examining these public-public relationships as well as the relationship between the Procuring Authority and the SPV in Irish road PPPs in more detail.

4.2.2 Relationship between the Procuring Authority and the SPV

Brinkerhoff and Brinkerhoff (2011) summarised research on PPPs in a range of countries, across a number of sectors including health and social enterprise, and identified a number of factors that help improve the quality of stakeholder relationships. Horizontal structures without hierarchies, and trust based relationships comprising of both formal and informal relationships are viewed as important in developing such relationships. Synergistic relationships between partners, consensus based decision making and shared accountability for results can also improve relationships in PPPs. By combining the capabilities of the private and public stakeholders, greater synergies can be achieved (Brinkerhoff & Brinkerhoff, 2011). Similarly, Norton and Blanco (2009) who conducted a comparative study on stakeholder management in UK and Spanish PPPs found that a stakeholder network-based approach was adopted in Spain, which involved dialogue and consultation between the public sector and its key stakeholders such as the private sector and the general public. This collaborative stakeholder orientated approach was used to resolve any potential disputes through the spirit of the contract. Correspondingly Li et al. (2005b) who examined PPP construction projects in the UK through a questionnaire study found that the chances of a PPP’s success increases, if a project consists of the right stakeholders with similar goals. The findings also indicate that stakeholder management and stakeholder relationships are likely to be at the heart of an effectively functioning PPP and there is also a need for stakeholders to respect each other’s goals in the process (Li et al., 2005b). They also highlight a number of critical success factors for successful PPPs such as the formation of a strong SPV consortium, the availability of finance and optimal risk allocation.
The sharing of risk between the public and private sector may also impact on the quality of stakeholder relationships in infrastructure projects and such risk sharing provides performance incentives for the SPV (Brinkerehoff & Brinkerhoff, 2011). Examining five Australian longitudinal prison PPP case studies, English and Baxter (2010) also found that risk transfer had a significant bearing on the relationship between the Procuring Authority and the SPV. A co-ordinated and accommodating stakeholder approach became prevalent between the Procuring Authority and the SPV over time as increased trust and goodwill between the partners developed with a more acceptable level of risk transfer to the SPV. Arguably, the Spanish stakeholder based approach is more pragmatic to risk transfer as risk is retained by the public sector where necessary, while the public sector may also be willing to underwrite projects in order to reduce costs and alleviate private sector concerns, thus by implication improving the quality of the relationship between the Procuring Authority and the SPV (Norton and Blanco, 2009). Acerete et al. (2010, p. 48) refer to this underwriting of risk as ‘privatising the benefits and nationalising the costs’.

Based on the framework of Jawahar and McLaughlin (2001) discussed earlier in this section it would appear that the stakeholder management strategies adopted by the Spanish public sector are both proactive and accommodating in terms of dealing with stakeholders concerns in the PPP process. In contrast, the UK approach was viewed as less flexible and more contractual, with risk transfer rather than risk sharing appearing to be the overriding objective for the public sector. In essence, the UK Government are satisfied to outsource the provision of public services to the private sector with a reliance on the contract if difficulties emerge (Norton & Blanco, 2009; Edwards & Shaoul, 2003). Examining stakeholder relationships between the contractor and the client, Reeves (2008) found that the relationship represented more of a transactional rather than a collaborative stakeholder approach in school PPPs in the Republic of Ireland. Collaboration, in the sense of ensuring effective exchange, was the single aspect viewed by both the public and private sector as demonstrating evidence of collaborative relationships in the Irish schools sector. This co-operative relationship, with negotiation being used to resolve difficulties, ensured a more lenient approach to the implementation of penalties. A tolerant approach towards risk transfer from the public to the private sector indicates that the Procuring Authority may have been accommodating towards the SPV, yet it also poses some questions about the extent of
risk transfer in the contracts, as the use of PPPs is largely justified upon this. However it would appear that allowing some leeway regarding penalties helped a ‘quid pro quo’ relationship to develop between the Procuring Authority and the SPV which helped ensure the effective functioning of the PPP (Reeves, 2008). Both the private and in particular the public sector, indicated a preference for referring to the contract when difficulties arose, however the development of trust between the two parties was not inhibited by the contractual nature of the relationship. The length of the contract and the constructive use of the contract to solve any grievances contributed towards building a trusting relationship.

The next section will discuss the research methods, which involved the use of in depth semi-structured interviews.

5. Research methods
A multi stakeholder approach allowed the researchers to interview a wide range of key stakeholders through semi-structured interviews across three PPP schemes. Following a detailed examination of the relevant literature, a pilot interview was conducted with a concessionaire member on one of the PPP schemes to shape the interview schedule. The interviews were carried out using open ended questions, which allowed the interviewer to probe on interesting information in the interviews. A dictaphone was used to record the interviews, which the interviewees were given control of in case they wanted to pause the interview at any stage. The QSR Nvivo 9 Qualitative data package was used to code the data. Eisenhardt and Graebner (2007, p.128) explain that interview analysis can be improved by using an array of knowledgeable interviewees who interpret the research questions with contrasting points of view. In-depth interviews are considered to be the primary qualitative method and interviews may be structured, semi-structured or unstructured (Easterby-Smith, Thorpe & Jackson, 2009; Bryman & Bell, 2011). Bryman and Bell (2011) outline how in a semi-structured interview, the interviewer will try to cover specific topics, though there is a degree of flexibility allowed. Questions may not necessarily be asked in the sequence initially anticipated and interesting areas that emerge in the interview may be explored, as was the case in this research.
40 semi-structured interviews were conducted with 36 stakeholders between February 2009 and July 2012. The stakeholders were identified on key PPP databases, including government websites, and assurances were provided to interviewees regarding confidentiality and anonymity. The study also involved a comprehensive analysis of secondary data from annual reports, government documents and guidelines, internal documents, company reports, newspaper articles, print media and websites (for example, http://www.nra.ie/ and http://ppp.gov.ie/). This data, triangulated with in-depth, semi-structured interviews with all the relevant stakeholders, enabled us to obtain a more thorough understanding of how risk is allocated, transferred and managed through stakeholder relationships in PPPs. Interviews were conducted with a variety of stakeholders within the SPV such as contractors, operators, senior debt financiers and equity financiers. In order to ascertain public sector perceptions, members of the NRA, the NDFA and the DOTTAS were interviewed as they are responsible for key decisions pertaining to how risk is transferred in Irish toll road PPPs. Other relevant stakeholders who are actively involved in the implementation and development of the Irish PPP process such as the Irish PPP unit, the Irish Congress of Trade Unions and the Irish Business and Employers Confederation, were also interviewed.

The study has a number of limitations. Most notably, it was restricted to the analysis of three Irish PPP toll road schemes, therefore the results should be treated with caution when trying to generalise these findings to toll road PPPs outside Ireland. A study comprising of a larger sample of toll road PPP case schemes could have made the results more generalisable. Another limiting factor is that stakeholder relationships may change overtime. This suggests that the Procuring Authority may need to monitor more closely the stakeholders involved in road PPPs in order to understand their needs. Some stakeholders may become more salient and powerful overtime; therefore all stakeholders’ needs and interests should be identified and monitored continuously. A longitudinal study of Irish PPP toll road schemes would help to understand if stakeholder’s perceptions and relationships alter as PPPs become operational over longer time periods.

6. Empirical findings
The next section discusses the relationships between the public sector bodies and between the Procuring Authority and the SPV, and some evidence is provided to show how the allocation, transfer and management of risk in PPPs may impact on the quality of these relationships.

6.1 Relationship between public sector bodies in PPPs

This section explores the relationship between the public sector bodies responsible for allocating risk in Irish toll road PPPs. In this respect the relationship between the NRA, DOTTAS, NDFA and other public sector stakeholders is explored.

The findings indicate that the DOTTAS was satisfied that the Procuring Authority effectively allocates risk in PPPs, therefore they appear to operate more at a distance and tend not to interfere in the risk allocation process as a Procuring Authority representative explained:

We are constantly giving them the updates as they require them on the various schemes, but they don’t get involved in the nitty gritty and they are not involved in any aspects of risk transfer, risk allocation or risk quantification, that is a matter for the NRA (Procuring Authority official).

The findings also indicate that the other public sector stakeholders perceive that the Procuring Authority has the competency and expertise to allocate risk and deliver Ireland’s roads programme. There is some evidence to suggest that strong public-public relationships may have been fostered between the public sector stakeholders delivering Irish PPPs. This was emphasised by the DOTTAS official who highlighted the collaborative and trustful relationship between the Procuring Authority and the NDFA:

The NRA has built up very substantial expertise in both engineering and procurement. The NDFA is involved with NRA projects. The NRA involves the NDFA for advice and support but the NRA continues to do what it has built up the expertise in doing…I would trust the NRA in terms of tying everything down in the contracts…We are now looking at how we can perhaps broaden the role of the NRA (DOTTAS official).

The Procuring Authority appears to have the autonomy and power to make key decisions on how risk is transferred in PPPs. A close relationship has been built up between the DOTTAS and the Procuring Authority and a mutual respect exists between both organisations as a DOTTAS official explained:

Risk allocation is for the Procuring Authority rather than us, we don’t get involved and we leave it to the Procuring Authority…I would regard the Procuring Authority as best practice in terms of roads…People have just said it to us privately that they find it a very good organisation to deal with. They understand the process and the industry is comfortable with them (DOTTAS official).
The Procuring Authority acknowledges that a number of public sector stakeholders have legitimate interests in PPPs and the Procuring Authority is very proactive and accommodating in terms of managing the expectations of all public sector stakeholders:

The Department of Finance and the PPP unit discuss ideas with the Procuring Authority through their informal advisory group…The Procuring Authority has an open-door policy, which facilitates engagement and interaction with all PPP stakeholders (Procuring Authority official).

The Procuring Authority has the experience of allocating risk appropriately, however, the NDFA help foster a collaborative relationship by helping out with financial aspects of the deals. A NDFA official outlined how the Procuring Authority accommodates their views in the risk allocation process:

The NRA has a good model and a good record and so why would you disturb that. There is a specialist and expertise there, so there was no need for us to be procuring in respect of those areas. We are however the financial advisors to the projects (NDFA official).

A member of the Procuring Authority outlined that the risk allocation schemes which it has used on schemes are successful. The NDFA are perceived as a legitimate stakeholder by the Procuring Authority and their views are accommodated in the risk allocation process (see table 3 for an example of a typical risk allocation matrix), but as the model works for the Procuring Authority there is no need to try and do something radically different:

We have our contract, we have the risk allocation set out and we know it has worked in the past. We go to public sector advisor risk workshops, absolutely, but I mean again there is a path trodden, we are not trying to reinvent any wheels, but certainly on a scheme by scheme basis we would have to do a risk assessment and a risk analysis… They are very much part of our day to day business (Procuring Authority official).

An insight into the vast array of risks involved in Irish PPP projects was provided by a member of the NDFA and the collaborative relationship with the Procuring Authority was again emphasised by the NDFA official:

In every project there would be a log of at least a couple of thousand risks… planning risks, ground conditions risk, archaeology risk, funding risk, operational risks, you know latent defects you name it all the way through the whole life and residual value risk as well…There is work with the workshops and there is a report written on every aspect of this, you know it always has to be documented and agreed. Agreed by the Procuring Authority, by the steering group within it (NDFA official).

To summarise, the Procuring Authority understands the PPP market and have the required experience to allocate risk. The other public sector stakeholders recognise
this; therefore they tend not to interfere with the Procuring Authority. It would appear that the Procuring Authority manages their relationships with other public sector stakeholders in a proactive and accommodating manner.

6.2 Relationship between Procuring Authority and SPV

This section examines how PPP risks, including archaeological and ground conditions risk, are transferred and managed in the relationship between the Procuring Authority and the SPV.

The Procuring Authority outlined the importance of contractual obligations being fulfilled by the SPV and indicated that they may allow it some degree of flexibility if the contract is being delivered satisfactorily. Such flexibility can foster a stronger relationship between the public and private sector, as the interviewees across the schemes suggested that there may now be a closer relationship between the Procuring Authority and the SPV in PPPs, with some flexibility and discretion being used when interpreting PPP contracts. An example of this type of discretion was explained by one of the equity investors in the SPV with regard to operational risk:

They have a contract and they apply the contract sometimes really bad but the real thing is that they are applying the contract in a very fair way... If they apply the contract to the letter it would be tough (Equity investor).

A senior debt financier outlined how an emphasis was placed on resolving any difficulties through engagement and collaboration before referring to the contract. The relationship between the Procuring Authority and the SPV members helped in terms of risk management as explained by a senior debt financier:

The risk that did arise had been very well managed and it had been managed well because of the benefit of the partnership arrangement between the Procuring Authority and the sponsor. So one thing that I particularly did find was that you had the situation where contractually the Procuring Authority can do a, b or c, but it has chosen not to truly enforce that (Senior debt financier).

The Procuring Authority showed urgency in terms of dealing with the concerns of the senior debt financiers in one of the PPPs. Flexibility was evident and an understanding was reached between the public and private stakeholders, with demand risk taken by the public sector while some additional road works were being conducted on an adjoining road:
We got the Procuring Authority to insulate us... They took that risk for the period of time that those works were ongoing and they accepted that if the traffic dropped below a certain level that they would help with any revenue shortfall (Senior debt financier).

Similarly, an equity investor on one of the schemes indicated that the contract became a bit more flexible as trustful relationships developed over time:

I think the parties know each other well enough, and there is a little bit more flexibility on site to that flexibility that is in the contract. This means that the contract is very workable... So it is very tight within reason but if people are reasonable, the process can work, that is the case, but if you put the entire contract to the extreme, the contract is very tight (Equity investor).

The goodwill evident in Irish road PPP contracts was also illustrated by one of the equity investors:

You are now in a completely new form of contract, where there is partnership and the resolution of problems between all of the key stakeholders together... I would say on Scheme X that we have a more proactive client who believes, who is familiar with the D&B (Design and Build) in the PPP process and you know would go by the ethos that my problem is your problem and so let’s get together and sort it (Equity investor).

A Procuring Authority representative suggested that they may adopt an accommodating approach by not always imposing penalties on the SPV regarding operational issues even though they have the power to do so. This lenient attitude to the imposition of penalties arguably helps to develop more goodwill between the Procuring Authority and the SPV, and helps foster better relationships between the stakeholders:

We have a lot of powers in our contracts. I mean we don’t go out and start penalising people day one... Unless there is something major we feel we have to, I would say that we are dealing with companies that are very professional, and their management are very high calibre. Yes we would have headaches sometimes about things. They obviously have a view, and we have a view about what should happen (Procuring Authority official).

The Procuring Authority adopted a proactive approach as it retained the majority of the archaeological risk in all the schemes, which helped to mitigate this risk and fostered stronger relationships and trust with the SPV. The equity investors acknowledged the help received from the Procuring Authority in terms of managing this risk:

To be fair to the Procuring Authority the phase was resolved. They endeavoured to resolve all archaeology on the site before we got the site and they would have spent €10 million on it i.e. doing surveys on the site, desk top surveys, actually doing split trenches, trenching on the site at potential areas of archaeology and in some cases then resolving it (Equity investor).
A Procuring Authority representative explained how they attempt not to transfer excessive risk to the SPV using archaeology as an example. The public sector helped to manage the archaeological risk as a Procuring Authority representative explained:

We don’t ask people to take something that is actually unmanageable. Archaeology, for example we don’t just say you find what you find and it is all your risk. For that you pay a premium a massive premium, and that would be silly. We don’t give them that risk it is too high...If you are giving them a big blank problem that they know nothing about, then no that does not work, so we have tried to do something different, we have tried to manage the problem (Procuring Authority official).

An equity investor outlined that help was also forthcoming from the public sector in terms of mitigating ground conditions risk, which mediated the difficulties being faced by the SPV:

The Procuring Authority said they would manage a lot of the ground conditions risk. As part of the tender documentation they gave us a comprehensive site investigation. But actually they try to mitigate the risk for us in that sense but you know it is our risk, the contractor’s risk (Equity investor).

Overall, the findings suggest that trust and goodwill may exist between the Procuring Authority and the SPV. A collaborative relationship appears to be evident between the NRA and the SPV in terms of managing archaeological and ground conditions risk. These risks tend to be mitigated for the SPV in a proactive manner by the NRA.

The next section will summarise the findings and draw some conclusions based on the empirical data in the study.

7. Summary and some concluding comments
Utilising a stakeholder framework, this paper focuses on how the Procuring Authority manages its relationship with other public sector stakeholders and the SPV in Irish road PPPs. It also highlights how the allocation and management of risk may impact on the quality of stakeholder relationships in road PPPs. The theoretical framework is derived from an examination of the extant literature on stakeholder theory and the framework is further informed and refined by the in-depth interview findings with 36 key stakeholders in the Irish PPP roads sector.

The findings from this research indicated that there may be a number of significant stakeholders with legitimate interests regarding how risk is allocated in PPPs. There is an emerging view among the interviewees that the Irish public sector authorities and
advisors may be working collaboratively as the Procuring Authority recognises that there are a host of public sector stakeholders with interests in the PPP process such as the PPP unit, DOTTAS and the Department of Finance, and they are proactive and accommodating in terms of making a concerted effort to address the concerns of public sector stakeholders who often have conflicting objectives.

Public sector stakeholders perceive that the Procuring Authority may be efficient and experienced at allocating risk, highlighted by the fact that the Procuring Authority is primarily responsible for all matters pertaining to risk allocation. There is also some evidence to suggest that there may be a supportive relationship between the public authorities who do not interfere with each other’s roles in the allocation of risk. For example, in the context of the theoretical framework the NDFA’s views appear to be accommodated by the Procuring Authority in the risk allocation process. The NDFA seem to play an important role in how risk is allocated from a strategic policy level in PPPs by providing advice to procuring authorities on developing risk allocation schemes and matters concerning risk in PPPs. Public sector advisors, including the NDFA also suggest that the Procuring Authority has the required expertise to allocate risk appropriately in PPPs. The Procuring Authority appears to manage its relationships with public sector stakeholders in a proactive and accommodating manner with trust and mutual respect also evident between the public sector stakeholders.

The Procuring Authority also indicates that it adopts a proactive approach towards managing the concerns of the SPV in the risk transfer process which appears to have improved the quality of the relationship between the two parties. Arguably, this is the case with archaeological risk, where a significant amount of this risk is now retained by the Procuring Authority, due to the inability of the SPV to manage this risk when it is transferred to them. Sharing archaeological risk may have helped to dispel the fears of the SPV and particularly the senior debt financiers regarding archaeological risk. Senior debt financiers usually provide up to 90% of the finance in PPP projects and the findings suggest that they use this large stake and power to influence the risk allocation process. The findings of this study suggest that engaging in such risk-sharing between the public and private sector may be necessary to ensure the fundability of PPPs and reduce the level of uncertainty for the SPV.
Arguably the supportive relationship between the Procuring Authority and the SPV was improved when the Procuring Authority acted proactively by assuming demand risk temporarily on one of the schemes in order to alleviate private sector concerns and ensure that the private sector would not suffer any financial loss. Such engagement and collaboration between the parties helped to foster goodwill and enhance relationships. Additionally, the Procuring Authority may not always penalise the SPV, thus emphasising the goodwill prevalent between the two parties in PPP road contracts. Although it has significant power, it appears to be accommodating towards the SPV when dealing with the issue of penalties. While such an accommodating approach involving goodwill may help a ‘quid pro quo’ relationship to develop between the public and private sector, it could be argued that maintaining VFM for the taxpayer is still required, as the Government framework on PPPs (see table 3) outlines that penalties should be imposed for poor performance.

Taxpayers’ needs could be accommodated more in the risk allocation process; however, due to a large number of stakeholders in PPPs, it may be problematic to satisfy all their needs, including the taxpayers, in the risk allocation process. If PPPs are justified on the basis of effective risk transfer and VFM, it requires more visibility and accountability to taxpayers. It is therefore significant that the government’s VFM claims for PPPs in Ireland go beyond rhetoric and they demonstrate that PPPs are beneficial not just to the private sector but to all the stakeholders concerned. Yet ascertaining whether VFM has been achieved through risk transfer on PPP toll roads is problematic as the Public Sector Benchmark which prices risk is confidential and not publicly disclosed. More disclosure of information on the Public Sector Benchmark and detailed VFM reports are required as this would help determine whether risk is transferred equitably, priced accurately, and ultimately leads to VFM in PPPs. Recent publications by the Comptroller and Auditor General (2011, 2012) on PPP projects have shown that PPPs are costing the taxpayer considerable sums of money and therefore further analysis by the Irish Comptroller and Auditor General on risk transfer in the roads sector would be valuable.

Additional research in other sectors such as education, prisons, health and water would also be fruitful as the occurrence and timing of risks and their subsequent
management by stakeholders may differ. For instance, risk may be more significant in the construction phase of roads PPPs but may be more problematic in the operational phase in hospitals. Further research could use this conceptual framework to examine stakeholder management strategies adapted in other countries. The relationship between the Department of Finance, the Procuring Authority and the SPV could also be investigated, as they may have different expectations or conflicting objectives in the PPP process. A deeper understanding of the complexity of these stakeholder relationships may provide useful insights for policymakers in terms of understanding the needs and expectations of these stakeholders.

Acknowledgements

The authors acknowledge constructive comments received from participants of the British Accounting Association Annual Conference, Brighton, April 2012, Irish

References


Department of Public Expenditure & Reform (2012). *Background Note Infrastructure Stimulus, July 2012*.


Department of Transport Tourism & Sport (2010). ‘Bodies under the aegis of the Department’, [Online]. Available at: http://www.dttas.ie/


**Websites Used**


List of Tables

Table 1 Key Stakeholders Roles in Irish PPPs

<table>
<thead>
<tr>
<th>Automobile Association</th>
<th>The Automobile Association is a prominent consumer service business that represents motorists in the Republic of Ireland [<a href="http://www.theaa.ie/AA/About-Us.aspx">http://www.theaa.ie/AA/About-Us.aspx</a>].</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comptroller and Auditor General</td>
<td>The objective of the Comptroller and Auditor General is to oversee that public resources and finances are used efficiently and in an accountable manner. It audits the financial statements of public sector bodies and monitors their transactions in order to ensure that public sector bodies use their resources economically [<a href="http://www.audgen.gov.ie/">http://www.audgen.gov.ie/</a>].</td>
</tr>
<tr>
<td>Central PPP Unit</td>
<td>The Central PPP unit is viewed as critical in terms of formulating policies and coordinating PPPs. In addition, it was proposed that VFM audits also be conducted by the PPP unit (Price Waterhouse Coopers, 2001). It was formed in 1999 as a hub of expertise and disseminates its knowledge across all Irish PPPs (Demirag and Burke, 2013).</td>
</tr>
<tr>
<td>Construction Industry Federation</td>
<td>The Construction Industry Federation represents the interests of Irish construction industry employers. It lobbies on behalf of its members on issues such as public infrastructure investment and procurement [<a href="http://cif.ie/">http://cif.ie/</a>].</td>
</tr>
<tr>
<td>Department of Finance</td>
<td>The Department of Finance, under the Minister for Finance, are responsible for key economic and financial decisions in the Irish economy. It implements policy on a range of issues such as taxation and public finances. It is also responsible for preparing Ireland’s annual budget and its European financial matters [<a href="http://www.finance.gov.ie/">http://www.finance.gov.ie/</a>].</td>
</tr>
<tr>
<td>Department of Transport Tourism And Sport</td>
<td>The Department of Transport Tourism and Sport is responsible for improving Irish tourism, sport and enhancing Ireland’s transport infrastructure. The NRA operates within the parameters of the legal framework developed by the Department of Transport Tourism and Sport. Assistance is provided to the NRA in terms of funding and policy guidance whilst the Department of Transport Tourism and Sport also oversees expenditure and activities within the NRA [<a href="http://www.dttas.ie/">http://www.dttas.ie/</a>].</td>
</tr>
<tr>
<td>Irish Business and Employers Confederation</td>
<td>The Irish Business and Employers Confederation represent over 7500 companies in Ireland with the aim of creating a business environment conducive to economic prosperity [<a href="https://www.ibec.ie/">https://www.ibec.ie/</a>].</td>
</tr>
<tr>
<td>Irish Congress of Trade Unions</td>
<td>With a membership of 55 unions, the Irish Congress of Trade Unions is Ireland’s largest civil society organisation [<a href="http://www.ictu.ie/">http://www.ictu.ie/</a>].</td>
</tr>
<tr>
<td>National Development Finance Agency</td>
<td>The National Development Finance Agency provides financial advice on Irish PPP projects with the exception of transport and Local Government projects. Once the project is built and procured, the asset is passed over to the relevant department. For example when a school is built and procured, the Department of Education and Skills are responsible. In some PPP schools, the National Development Finance Agency</td>
</tr>
</tbody>
</table>
assist in monitoring the contracts operations. The mandate of the National Development Finance Agency is to try and achieve optimal VFM for the exchequer. The National Development Finance Agency assist in calculating the Public Sector Benchmark, evaluating tenders and assisting with fund raising (http://www.ndfa.ie/).

| National Roads Authority | The management of Irish National roads resides with the NRA. Section 17 of the 1993 Roads Act outlines that the construction and procurement of Irish roads should be conducted by the NRA (Department of Transport Tourism & Sport, 2010). Although the Minister for Transport is responsible for overall strategic policy and allocating funds, the NRA and local Authorities are responsible for introducing individual roads (Department of Transport Tourism & Sport, 2010). |
| Office of Public Works | The Office of Public Works promotes public sector works. It is involved in the procurement of public sector projects (http://www.opw.ie/en/). |
| Transport Infrastructure Ireland | Under the 2015 Roads Act, The Railway Procurement Agency and NRA merged to form Transport Infrastructure Ireland. It is responsible for all road and light rail projects in Ireland (http://tti.ie/about/). |

<table>
<thead>
<tr>
<th>Table 2 Factors Contributing Towards Stakeholder Relationships in PPPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factors Contributing Towards Stakeholder Relationships</td>
</tr>
<tr>
<td>Collaboration - This refers to the different parties in PPPs working in unison together on key PPP tasks.</td>
</tr>
<tr>
<td>Autonomy – This relates to the parties in PPPs being provided with the autonomy and power to make key decisions.</td>
</tr>
<tr>
<td>Goal Congruence- This refers to parties having similar goals within the PPP process and working together to attain the same goals/objectives.</td>
</tr>
<tr>
<td>Flexibility in Contracts - This relates to the extent to which contracts are flexible in PPPs, with flexibility allowed rather than a contractual rigid inflexible approach.</td>
</tr>
<tr>
<td>Incentives - These refer to rewards which incentivise parties to work towards the projects objectives.</td>
</tr>
<tr>
<td>Payment Mechanisms – This refers to the form of payment mechanism used to incentivise the private sector party in PPPs. Availability/unitary payments and user pays fees are two forms of payment mechanisms in PPPs.</td>
</tr>
<tr>
<td>Trust – This refers to the extent to which the</td>
</tr>
</tbody>
</table>

34
parties rely and believe in each other in PPPs. and Baxter (2010)

**Goodwill** – This relates to the way in which parties will show a sense of camaraderie and willingness to help the other party in the agreement. English and Baxter (2010)

**Relational Management** – This is meant in the sense that the parties form a relationship rather than a strictly contractual relationship in the PPP. Smyth and Edkins (2007)

**Knowledge and resource sharing** – This refers to the willingness of the parties in PPPs to share ideas, good practices as well as financial resources in the PPP process. Asenova and Beck (2003), Klijn and Teisman (2003), Hodges and Grubnic (2010)

**Governance Schemes** - The rules and regulation under which a particular system works. Teisman and Klijn (2002), Hodges and Grubnic (2010)

**Risk Transfer** - Risks are transferred from the public sector to the private sector in PPPs in order to ensure Value For Money. Edwards and Shaoul (2003), Dunn-Cavelty and Suter (2009), Runde et al. (2010)

(Demirag and Burke, 2013)

<table>
<thead>
<tr>
<th>Risk Category</th>
<th>Allocation and Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning risk</td>
<td>May be held by the Contracting Authority.</td>
</tr>
<tr>
<td>Design and Construction Risk</td>
<td>Contractor is transferred these risks and is responsible for costs and time overruns as well as any alterations to output specification.</td>
</tr>
<tr>
<td>Operating Risk</td>
<td>Transferred to the contractor and penalties are imposed for inadequate service or failure to meet contractual commitments.</td>
</tr>
<tr>
<td>Demand Risk</td>
<td>Often retained or shared. May be transferred in Design Build Operate and Finance and concession contracts where the private sector can predict future traffic levels with reasonable certainty or can control demand risk.</td>
</tr>
<tr>
<td>Residual Value Risk</td>
<td>May be transferred under Design Build Operate and Finance and concession contracts. The contractor takes the residual value risk if the asset is not automatically transferred to the Contracting Authority following the contracts duration.</td>
</tr>
<tr>
<td>Other Financial Risk</td>
<td>In concession and Design Build Operate and Finance contracts, these risks tend to be transferred to the private sector.</td>
</tr>
</tbody>
</table>
Government is often in the best position to control regulatory and legislative risks.

(Adapted From Department of the Environment, Heritage and Local Government, 2003)

List of Figures

Figure 1 Government Initiatives to Secure Ireland’s Roads Development through PPPs

```
Government Department

Irish Government

Department of Finance

National Development Finance Agency

Department of Transport Tourism and Sport

Government Initiatives

- Transport 21 2006-2015
- National Development Plan 1999-2006
- National Development Plan 2007-2013
- Infrastructure and Capital Investment 2012-2016
- Government Infrastructure Stimulus 2012
- Infrastructure and Capital Investment Plan 2016-2021

Project Type

Conventional

PPP Projects
```
Figure 2 Overview of Key Stakeholders in Irish Road PPPs

(Adapted from Burke and Demirag, 2015)
Figure 3 Overview of Stakeholder Relationships in Irish Road PPPs

- **Government/Department of Finance**
- **Public-Public Relationship**
- **Department of Transport, Tourism and Sport**
  - **Allocation of Risk**
  - **National Roads Authority**
  - **Transfer of Risk**
- **Agency Relationship**
- **Contractors**
- **Special Purpose Vehicle**
  - **Managing Risk**
- **Senior Debt Financiers**
- **Equity Investors**
- **Operators**

**Relationship Drivers**
- Trust
- Flexibility
- Collaboration
- Incentives
- Goodwill
- Knowledge
- Culture
- Goal
- Congruence
- Payment
- Mechanism
**Provision of service on behalf of public sector**

<table>
<thead>
<tr>
<th>End Users/Public</th>
</tr>
</thead>
</table>

(Adapted from Smith et al., 2006; Baker et al., 2009; Dunn Cavelty and Sutter, 2009; Hodges and Grubnic, 2010; Demirag and Burke, 2013)