

# **“Cutting costs to the bone”: The Portuguese experience in renegotiating Public Private Partnerships Highways during the financial crisis**

Ricardo Ferreira Reis

Catolica Lisbon School of Business and Economics

and

Joaquim Miranda Sarmento<sup>1</sup>

University of Lisbon

## **Abstract**

Portugal has been using PPPs intensively, mainly for highways. This has enabled successive governments to close the infrastructure gap within one generation, while postponing the budget constraints to the future and away from the moment of the investment. With such a high number of projects in transport sector developed in such small period of time, “the future” caught up quite quickly, leading to the accumulation of annual payments from the public to the private sector as a substantial burden to the public finances, which were already stressed by the coincidence of a national, European and global financial crisis. As the country asked for financial assistance from the European Commission, the ECB and the IMF (the “troika”) in 2011, the Portuguese Government was required to start negotiations with the private firms to reduce the financial burden caused by the current and anticipated payments in the PPP contracts. These renegotiations focus on highways, had the main purpose of reducing future payments, along with the development of a sustainable regulatory model and a reduction in future litigation. This paper describes these renegotiations, discussion a strategy in transports for reducing costs, by focusing on the main motivations for the public and private sector to conduct this process. A reduction of 18% on future payments was achieved, by using five main strategies: 1) reduce the operational service level; 2) transfer of operational service to the public sector, at a lower marginal cost; 3) increase the period between “major reparations”; 4) reduction of private sector profitability and 5) changes in the risk allocation. We detail each strategy and analyse the impact on the total reduction in costs. This paper should be useful to both academics and practitioners as it describes a complex renegotiation process leading to gains in both sides and reduction of public payments in one of the settings that most aggressively used PPPs in the world.

---

<sup>1</sup> Advance, ISEG (School of Economics and Management), Universidade de Lisboa, Rua do Miguel Lupi nº20, 1200-078, Lisboa, Portugal; Email address: jsarmento@iseg.utl.pt. I gratefully acknowledge financial support from FCT- Fundação para a Ciência e Tecnologia (Portugal), national funding through research grant (PEst-OE/EGE/UI4027/2014).

Keywords: Public Private Partnerships, Renegotiations, Transports, Highways, Portugal.

## 1. Introduction

Over the last two decades, Public-Private Partnerships (PPPs)<sup>2</sup> have emerged as a fundamental tool for governments around the world. PPPs became an important instrument for the construction and maintenance of infrastructures and the provision of public services.

European governments have been particularly active in using PPPs, particularly in the transport sector. A recent study by Roumboutsos (2015a) indicates that in 2013, there were more than 1,600 in Europe PPPs, with a cumulative investment of €300 billion. PPPs have become increasingly used by governments, with two main explicit objectives: address the infrastructure gap or the population's need for public services (under the budgetary constraints) and bring to these projects and services the private sector's higher level of efficiency (Grimsey & Lewis, 2002a, 200b, 2004, 2005).

In addition to these explicit objectives, PPPs have implicit benefits for many players. For starters, PPPs have been used for reasons of economic policy. Along with bridging the infrastructure gap, PPPs are an efficient way to promote immediate economic growth and maintain or even boost employment levels, especially in economies where the construction sector has particular relevance. Whence, the election cycle, be it national, regional or local, will work as strong promoters of PPP usage.

Another critical implicit beneficiaries of a well functioning PPP network are the financing institutions. They show up as financing private entities, with all the conditions these private companies are required to pay, with the safety that payments are guaranteed by public contracts. At cruising speeds, with well-allocated risks, it is extremely profitable for financing institutions to support this model, since it is almost as lending money to private companies with the guarantee given by the state.

However, PPPs have been subject to substantial criticisms: (i) the real levels of enhanced efficiency is questionable (Glaister, 1999); (ii) the level of accountability of PPPs is not clear (Broadbent, 2003; Froud, 2003; Asenova & Beck, 2010); (iii) the efficient government management of the unavoidable problem of incomplete contracting is lacking (Blanc-Brude

---

<sup>2</sup> Despite the lack of consensus of the definition, we will use the broad and general definition used by the OECD (2008, pg. 17), which defines PPPs as “an agreement between the government and one or more private partners (which may include the operators and the financiers) according to which the private partners deliver the service in such a manner that the service delivery objectives of the government are aligned with the profit objectives of the private partners and where the effectiveness of the alignment depends on a sufficient transfer of risk to the private partners”. This definition is broad enough to capture all instances covered by the renegotiations this paper addresses.

H. Goldsmith & T. Valila, 2006, 2009); and (iv) the level of VfM generation for the public sector is often overestimated (Grimsey & Lewis, 2002a, 2005).

In the last years, a new criticism has emerged about PPP: the abnormal number of renegotiations. PPP contracts have frequently been subject to renegotiations, which occur when specific events (often referred to as “compensation events”) change the financial conditions of the concession. We use the definition of Guasch et al. (2014) in that “a renegotiation of PPP contracts involves a change in the original contractual terms and conditions, as opposed to an adjustment that takes place under a mechanism defined in the contract”. PPPs renegotiations literature have been mainly focused in studying the critical factors in renegotiations and the critical renegotiations trigger. Guasch (2004); Guasch, Laffont & Straub (2003, 2007, 2008); Guasch & Straub (2006, 2009), uses a database of over 1,000 observations regarding Latin America. The Latin America experience was also studied in Estache, Guasch & Trujillo (2003), Engel, Fischer & Galetovic (2006, 2009) and Moore, Straub & Dethier (2014). Domingues & Sarmiento (2016) collected data from renegotiations in the transport sector at the European level. The Asian experience was studied by Reside & Mendoza (2010). At a more local level, Cruz & Marques (2013a, 2013b) and Sarmiento & Renneboog (2016a) studied the Portuguese experience, Athias & Saussier (2010) and De Brux (2008,2010) the French experience. Yet, there is little evidence how renegotiations are conducted at a more micro level.

It must be emphasized that the existence of renegotiations should be normal and expected in the framework of very long contracts, such as these. The sheer length of these arrangements inevitably leads to the circumstance that they are incomplete contracts, as it is impossible to anticipate all risks and events, technological, political, demographical, social and environmental changes so far ahead in time. What the abovementioned literature and this paper are concerned however is with the abnormal rate of renegotiations, or renegotiations caused by abnormal<sup>3</sup> events, such as the financial crisis, which required, in our case, a whole and substantial revision of conditions of the entire portfolio of contracts.

This paper presents a recent renegotiation process in Portugal in highways. Since 1993 Portugal have been using PPPs intensively, primarily to build an extensive highway network of around 4,000 km (Cruz & Marques, 2011), putting Portugal as one of the leading countries regarding highways, but also in terms of using PPPs (Sarmiento & Reis, 2012). In 2011, Portugal was forced to ask for financial assistance from the European Commission (EC), the European Central Bank (ECB) and the IMF - International Monetary Fund (together the three assisting institutions are known as the Troika). The Memorandum of Understanding (MoU) of the financial rescue package included several measures regarding

---

<sup>3</sup> The term “abnormal” here means extraordinary and it should be made clear that this does not mean unanticipated or unforeseeable. The fact that Portuguese Governments were using this instrument too aggressively made the contracts (and the public finances) extremely vulnerable to the events that required renegotiations. Illustrating this point vividly, is the imposition of the Troika, immediately as the financial assistance program to Portugal started, that no new PPP contracts be signed by the Portuguese Government.

lowering the costs with the PPPs in the highway sector. Mainly, the Troika's MoU requests the Portuguese Government to include these contracts in the consolidation perimeter of national accounts deficits and public debt, but the bailout programmer wants to see increased monitoring and solutions to renegotiate the PPPs.

The main purpose of the renegotiation was essentially to cut the public spending with the existing PPPs in the road sector. "Cut costs to the bone" in terms of using every possible efficiency improvement in operation and in maintenance, along with all the possible resources of negotiation, to reduce costs to the maximum.

It is important to mention that unlike the other renegotiations events, described in Sarmiento & Renneboog (2016a), this renegotiation was not due to contractual clauses such as unilateral changes, legal aspects, archaeological findings, low demand, major causes or other causes anticipated in contracts. This was a renegotiation based on a governmental decision to reduce current and future payments. In order to achieve these reductions, the government had to accept that the terms of service originally agreed upon in most of these contracts were excessive. By reducing these terms (say lowering the maintenance levels, or accepting to provide portions of the service through public means rather than by the PPP), the government lowered the cost, the private part also saved some costs, the outcome resulting in a win-win situation, without compromising the existence of the partnership.

In this paper we will address the following research questions, using the case-study of the 2012-2015 renegotiations of PPPs in Portugal: 1) How was the renegotiation model designed? 2) What measures were decided to reduce the level of public payments? 3) What was the outcome of this renegotiation and 4) what can be learned from this case?

The novelty in this paper come from four motives: 1) It is rare to see a renegotiation started by the government in order to reduce public payments in transport projects to the private sector; 2) It is even more rare to see that in a context of financial assistance and the country nearly bankrupt<sup>4</sup>; 3) there is no literature, at least to our knowledge, that explains in detail a renegotiation based on these factors, particularly in the transport field; and 4) it presents the Portuguese setting, which is one of the most developed PPP settings in the world, because the government used this instrument extremely intensively, quickly moving from a stage where there was no expertise in the area, to one where both private and public have very sophisticated technical, contractual, economic, and financial skills at their disposal. Another advantage of the Portuguese renegotiation case is the relatively small and comprehensible setting, where both sides are able to negotiate in a very transparent environment, since there was very little unknown to either side about the other part. Further, do take into account that these negotiations were done under the auspices, the

---

<sup>4</sup> Even in Spain, a country that also used PPPs intensively and also faced a financial crisis, there was no renegotiation in order to reduce the public burden, see Ortega et al. (2015)

supervision and the scrutiny of the EC, the ECB and the IMF, which also increased the transparency.

Despite the parochial setting for the negotiations, the quality of the intervenients, the huge scale of the problem relative to the size of the economy and the interesting outcomes achieved make this a perfect laboratory for the study of this topic.

Therefore, using a case-study methodology, and with access to official reports from the government and the court of audits, we were able to review this renegotiation process.

This case is also relevant because the reduction of public payments was achieved with private sector agreement and cooperation. We found an average public payment reduction of 18%. Mainly this came from reducing service level and postponing major reparations. Those changes did not affect private sector profitability, but there was a reduction in shareholders profitability. Nevertheless, this reduction was accepted by the private party, with the perspective that cooperation was useful to maintain projects in the long run. But the main incentive to private sector was related with liquidity they expect from reserve accounts in the PPPs. By reducing the amount of reserve accounts, the shareholders of these PPPs were able to receive a large amount of cash, that was only due at the end of the project (in 15-20 years).

This paper draws policy implications to the transport sector, and particularly to the highway business. It also presents evidence that both parties are committed to long run relationships. They are prone to negotiate a better agreement, ensuring long-term sustainability and value for both. As more countries are facing fiscal constraints, this paper should help academics and practitioners to understand and improve PPP renegotiations, and that way, increase the efficiency of public resources.

This paper is organized as follow: Chapter 2 provides a brief literature review on PPPs renegotiations, mainly focused on case-studies of renegotiations. Chapter 3 details the Portuguese context. Chapter 4 describes the renegotiation process, answering to our first and second research questions (How was the renegotiation model designed and what measures were decided to reduce the level of public payments?). Chapter 5 provides detail on the outcomes of this process, answering our third question. Research question 4 is answered in chapter 6. Chapter 7 concludes.

## **2. Literature review on Public Private Partnerships renegotiations**

As mentioned before, most of the literature on the renegotiation of PPPs has been focused on the determinants (project, financial, legal, institutional, economic and political) of the likelihood of the occurrence of a renegotiation. Those studies focus on the probability of a renegotiation, the origin of the renegotiation (government or the private part) or the duration of each renegotiation even. But, as they are mainly empirical papers, based on

databases of hundreds of renegotiation events, they lack an explanation of how a renegotiation process is conducted and what results provide. As mentioned by Domingues, Zlatkovic & Roumboutsos (2014), the understanding that renegotiations are an eventuality, it is crucial in PPP implementation to identify how they may be used as a tool that allows for adapting to uncertainty (Roumboutsos & Pantelias, 2015b).

Domingues and Zlatkovic (2015) reviewed the critical success and renegotiation factors of infrastructure concessions and compared them with nine European transport PPPs. The authors used nine case studies of European PPP studies, in order to understand how and why renegotiations occur in long-lasting PPP projects and what are the pros and cons of the renegotiation. They found evidence that contractual flexibility is a tool that allows adapting to uncertainty. Also, effective communication mechanisms allow a better response to unforeseen events, reinforcing the partners' commitment to delivering a win-win project.

Public Finance can be an important determinant of PPPs renegotiations. Economic recessions and budgetary deficits increase the likelihood of contract renegotiations. There is a binding budget constraint in most of the European countries, due (in part) to the intensive use of PPPs (Kappeler and Nemoz, 2010). Nevertheless, most of the literature focusing on public finance in PPPs renegotiations address the issue that governments renegotiate PPP contracts to elude spending limits (Engel et al., 2013). Governments use renegotiation to increase spending and shift the burden of payments to future administrations (Engel, Fischer & Galetovic, 2009). Our paper, by contrast, studies the incentive of using renegotiations to reduce current and future public spending, by increasing efficiency and reducing service level and costs to the private sector, since there was no further possible elusion to spending limits and any form of public finances cosmetics were off limits under the troika supervision in Portugal.

The Portuguese experience of renegotiation of PPPs has provided some background to analyse and observe renegotiation processes in detail. Macario et al. (2015) used the Fertagus renegotiation and found that the success of the renegotiation process in the Fertagus contract due to mode-specific factors. It also found that that much of the features were not mode specific in theory, however for the successful transferability to other transport modes, some changes should be made to the PPP model taking into account modal specificities and national contexts. Sarmento & Renneboog (2016b) used the Fertagus and the Lusoponte case-studies to address why and how are PPP contracts renegotiated. The paper shows that marked differences in renegotiation outcomes emerge. In one case study (Fertagus), the private sector asked for financial help and the negotiation outcome was a very balanced agreement. Conversely, renegotiations in a second case (Lusoponte) were initiated by the government mainly for political reasons, resulted in a significant change in the PPP's structure, risk, financing, and returns, and yielded a large public losses.

### 3. The Portuguese case

Since 1993 Portugal have used PPPs in four sectors: railway, health, security but mainly in highways. Of a total of 35 projects, 22 account for the road sector, 10 for the health sector, 2 in railways and one in security. Of a total of 20 billion of investment, the road sector account for 18 billion (Sarmiento & Renneboog, 2015). As Portugal only accounts for around 1% of Europe's GDP, further calculations by (Sarmiento & Reis, 2012) show that Portugal leads in the use of PPPs across Europe. This led to some concerns regarding affordability. The future payments due by the state to honour these contracts represent an annual effort above 0.5% of GDP until almost 2030, while between 2014 and 2020 these payments will go up to 1% of GDP (Figure 1). Some authors raise doubts about the value for money of these projects (e.g. Sarmiento, 2010), as the decision to deliver public investment through PPPs is more related to an "off-budget temptation" on regarding public investment rather than to efficient public procurement procedures. In fact, considering the high values of public payments regarding the assets and the services, indicate that governments in Portugal were more concerned about public deficits than with value for money. Hence, several authors conclude that PPPs in Portugal were used with a single purpose: to put this public investment outside the consolidation perimeter of public accounts (e.g.: Sarmiento, 2010, 2015; Sarmiento & Reis, 2012; Sarmiento & Renneboog, 2015).

[Insert Figure 1 here]

As our subject regards the renegotiation in the highway PPPs, this chapter focus solely in that sector.

PPPs highways in Portugal were concentrated in two waves. The first wave of PPPs in the road sector was composed of the so-called SCUTs highways. Road contracting in the first wave was divided into seven separate procedures between 1999 and 2001. Since its inception, there have been strong discussion and controversy about this being the best contracting option for these highways and whether these public-private partnerships have, in fact, delivered value for money to the public sector. The SCUTs extend over a total of 930 kilometres of highways originally with shadow tolls, with the public budget stepping in to pay the private consortia in lieu of the users. Now, after several rounds of renegotiation between 2010 and 2011, the SCUTs are no longer operating with shadow tolls but with real electronic tolls, with the users paying for the use. The individual concessionaires charge the tolls, but these revenues are totally channelled to the government. In exchange, the concessionaires receive a compensation for availability. These renegotiations have reduced the level of risk to the private sector and revenues were maintained and in some cases increased. These improvements have allowed concessionaires to maintain or even increase their rates of return despite the fact that their level of risk was reduced (for more details on

the Portuguese case see Cruz & Marques, 2011; Sarmiento & Reis, 2012 and Sarmiento & Renneboog, 2015).

After a few isolated projects between 2002 and 2006, the second wave of road PPPs was launched between 2007 and 2008. The Portuguese government awarded seven new highway projects to public bids, under the supervision of the national public roads concessionaire, Estradas de Portugal (EP). EP is an entirely state-owned company that became the concession grantor, which explains why these roads are usually referred to as “subconcessions”. These projects are to be completed by 2014, thereafter representing an additional EUR 800 million of annual payments to the government (see Figure 5). All of the “subconcession” contracts are similar to the current version of the former SCUTs contracts: that is, the roads have real tolls whose revenues revert to the concession grantor (EP), while the concessionaires receive payments based on availability. An important consequence of using this solution is that it ensures that EP starts collecting so-called “market revenues” and stops being funded exclusively through direct contributions from the state budget. With “market revenues”, the government is allowed, under European Union public accounting rules (ESA 2010), to leave EP out of the consolidation perimeter of the government, which will significantly ease deficit calculations for the Portuguese government.

As Portugal asked for a financial assistance from the “troika”, a Memorandum of Understanding was signed in which 3 measurements were decided with respect to PPPs: 1) the Portuguese Government would commit to not initiate any new PPP contracts; 2) all existing PPP contracts would be subject to specific auditing procedures and consolidate as much as possible with the public sector deficit; 3) the government would start a renegotiation with the private sector, in order to find solutions that allow to a reduction in the public payments of the SCUTS highways and two additional highways, built between 2002 and 2006. These nine projects were the ones, by 2012, that represent costs to the public budget. It is important to mention that the third wave was still under construction. What was done in those projects was to cut investments. How this renegotiation was structured, conducted and what results achieved is the remainder of this paper.

#### **4. The renegotiation process**

To reduce public expenditure from these nine projects, the government start a negotiation with the private sector. The nine projects were owned by four groups. Ascendi, the major player in PPPs in Portugal (owned by the major construction company and one of the major banks), had five PPPs ( “Norte”, “Grande Lisboa”, Costa da Prata”, “Beira Litoral e Alta” and “Grande Porto”). Other two (“Algarve” and “Norte Litoral”) are owned by the Spanish group Ferrovial (one of the top 3 Spanish construction companies). One project (“Interior

Norte”) is own by a French construction group (Lagarfe) and one (“Beira Interior) is jointly own by two Portuguese construction companies (Soares da Costa and Teixeira Duarte).

Several proposals were analysed by the Portuguese government and a public commission appointed specifically to renegotiate these nine projects. Those proposals were, for instance, to buy the bank debt (at a discount price), renegotiate the debt, and create a surcharge tax to these companies or a unilateral reduction of public payments. All these options were abandoned, either by their complexity (in the case of buying the financial debt) or by the legal difficulties (the surcharge tax would violate the principle of taxes being general) or due to the reputational implications and contract clauses (the unilateral reduction of payments). A proposal made by Sarmiento & Reis (2012), of buyback these concessions, using an arbitrage opportunity was also rejected, due to the initial financial cost (along with political costs).

The government strategy to renegotiate was based on four main objectives: 1) Reduce future public payments; 2) Achieve a sustainable regulatory model; 3) align the public and private contractual incentives and 4) reinforce the contracts to reduce the likelihood of future renegotiations.

The negotiation process had several stages: first, it was identified a number of changes that could be accepted by the private sector and lead to a reduction in public payments. Second, after the identification of those main drivers to reduce costs, a negotiation with the seven PPPs started. It is important to mention that negotiation occurred with the seven private players simultaneous, in order to reduce asymmetry and increase transparency. Third, new concession agreements were signed, after the bank syndicate and the European Investment Bank have agreed with the MoU’s. Finally, the concession legal bases were changed, and the Court of Audits provide the final confirmation. Figure 2 summarizes the timeline of this process.

[Insert Figure 2 here]

Therefore, the government based the negotiation with privates on five main issues, all with the objective to reduce future public payments to PPPs: 1) Changes in the major reparations clauses; 2) Reducing the service level of Operate & Maintenance (O&M); 3) Transferring O&M to the public sector, trough SOE “Estradas de Portugal”; 4) Reducing the private shareholders Internal Rate of Return (IRR) and 5) Changing the risk allocation matrix. Table 1 summarizes the main drivers of this renegotiation.

Changes in the contract regarding major overhauls of the infrastructures were one of the main drivers, as they would represent a substantial financial burden in the future. In order to reduce payments, it was decided to schedule major overhauls in intervals of 12 years, instead of the current 8 years. Also, all other future major repairs will be decided and supported financially by the public sector. This change, and the subsequent reduction of risk to the private sector was followed by a reduction in the annual payments. Another

major driver of renegotiation was the reduction of service level and the transfer of some O&M to the public sector responsibility. This was done under the legal boundaries for road safety. It was mainly focused on small repairs, lighting, patrol, security, and assistance. Both service reduction and service transfer were followed by a reduction in public payments. The former measure can be regarded as total savings, the latter is only a partial saving, since these services were now transferred to a public company, “Estradas de Portugal”, which will incur new costs to deliver them.

Finally, the major role in this renegotiation was to realistically align the shareholders’ profitability, by reducing excessive IRR. This was achieved through an effort from all stakeholders to assure a more sustainable model. However, part of this reduction was compensated to private firms, as the PPPs were allowed to return to their shareholders some of the reserve accounts. Ultimately the private companies traded future profitability<sup>5</sup> for a more stable model and immediate liquidity.

## 5. The renegotiation outcomes

After this renegotiation, the Portuguese government was able to reduce future payments by an average (by concession) of 18% of the total payments. Before renegotiation, payments between 2013 and 2031 sum a total of 15.6 billion € (at current prices). This represented a cost reduction of 2.8 billion at current price, as payments now totalize 12.8 billion €. In net present value, using a discount rate of 6% (the legal discount rate for PPPs in Portugal), we have a value of 6.8 billion € pre-renegotiation and a value of 5.7 billion € after-renegotiation, a reduction of 16% in NPV terms. Figure 3 presents the differences over time. It is important to mention that by excluding financial costs of this renegotiation, the scope of savings was always limited. Currently, debt service (repayments and interests) and capex represent around 60% of the payments from public to private sector. Therefore, the reduction of payments has to be framed in 40% of the total payments (22% of payments regards the shareholders return’s, 18% to O&M and other costs).

[Insert Figure 3 here]

The savings were mainly based on the reduction of shareholders’ profitability (40% of total savings). Shareholders of the nine PPPs saw, in current prices, their returns were reduced around 1 billion € over the next 15 years. The second major source of reduction was the changes in the major overhauls. This accounted for 34% of the savings, by reducing public payments, at current prices in 930 million € for the remaining period. Finally, O&M and other type of savings represented 14% and 11% respectively, with a current value of 315

---

<sup>5</sup> It may be argued that the future profitability could be seriously compromised by a default of the Portuguese Republic, whose risk was already implicitly incorporated in the IRRs of these projects. By accepting this terms, the private companies were not only assuring immediate liquidity, but also to a certain extent improving the financial viability of the State and hence ultimately reducing the risk inherent to their own contracts.

million € for O&M and 376 million € for other savings. Table 2 summarizes this savings for each PPP.

[Insert Table 2 here]

However, these savings were not uniform regarding the contribution of each PPP. Ascendi group had a reduction of 18% in overall. But Ferrovial group only had an overall reduction of 6%. The main reductions came from the two isolated PPP: “Interior Norte” with 21% and “Beira Interior” with 30%. Table 3 summarizes this changes in IRR.

[Insert Table 3 here]

## **6. What can be learned from this case? Policy implications**

The case of this renegotiation allows us to look at the dynamics of a renegotiation triggered by the public sector, in the circumstances of the country facing financial assistance with the purpose of reducing public payments. This is a rare occurrence and not yet detailed in the literature. As nationalization or unilateral reduction of payments to these PPPs was never considered as a valid option by the Portuguese government, these reductions could only be achieved with private sector willing to cooperate. How that cooperation was achieved and what lessons and policy implications can be designed is the purpose of this section.

What motivated the private sector to accept this renegotiation and lower their profits?

As a matter of fact, most of the changes did not affect profitability. It was the case of reducing service level and changing the major reparations. In this case, the adjustment in revenues was compensated with a reduction in costs, being mainly neutral from a financial perspective<sup>6</sup>.

Regarding the reduction of the IRR to the shareholders, there is evidence that private sector accepted this reduction for several motives. Firstly, the country was facing a potential bankruptcy that, in the case of occurrence, would trigger a default on these projects (as the government would no longer be able to assure future payments). Therefore, the private sector felt that it would have to be a part of a solution. If not, the future consequences could undermine the projects. Yet, it is interesting that reduction in IRR came mainly from PPPs with national shareholders. The “Ferrovial” projects saw a lower reduction in this driver. Secondly, there was a high level of returns, above 10%, disproportionate to the current market conditions, where interest rates are near zero. This way, the reduction in the IRR is mainly a reduction from a previous value consider to be too high. Also, the real IRR was higher than the original case-base, giving a strong argument to

---

<sup>6</sup> To a large extent the concessionaires do not have the same capabilities as Estradas de Portugal to repair highways all over the country. As such their margin on these operations would be reduced and they were overcharging for them. In the hands of Estradas de Portugal, these repairs should be performed with some efficiency gains.

the government. Finally, private sector collected two benefits from this reduction: one, it saw a reduction in the overall risk of the project, and secondly, and most relevant during this period, it allowed them to receive immediately liquidity from some reserve accounts of these PPPs.

This paper draws several policy implications. The public sector was forced to start this renegotiation by external imposition (the troika agreement). Yet, it is necessary to stress that this renegotiation increased these projects efficiency, and therefore, contributed to a better allocation and efficiency of public resources and for higher Value for Money. This is a renegotiation that allowed correcting many pitfalls and errors, both from the original contracts, and from previous renegotiations, mainly the 2010-2011 renegotiation. Also, there was a substantial lack of experience in the beginning of the PPP programs, in the 1990s. This has led to contracts that may not have taken the public sector's best interests at heart. But this renegotiation shows a learning curve experience from both public and private sector. The same institutional framework (the same supervision, auditing, and monitoring) can produce vastly different outcomes in terms of the success rate of a PPP or the need for renegotiations.

The role played by the fact the negotiation was performed under high scrutiny also deserves attention. All previous negotiations of PPPs in Portugal were conducted in a more conventional fashion and done to further elude spending limits. No external supervision was available until the financial adjustment program imposed this negotiation.

## **7. Conclusions**

This paper presents a very unique PPP renegotiation: the case of highway PPPs renegotiations in Portugal between 2012 and 2015. Under a financial rescue from "troika", the Portuguese government was forced to reduce public payments in PPPs. The negotiation was conducted in a way that to assure this objective, private companies had to be willing to accept the changes. This way, most of the reduction came from reducing service level and major reparations. This had no impact on private firms, as the reduction of revenues was followed by a reduction in costs. However, there was also a reduction in shareholders profitability (mainly in PPPs with national shareholders, where government capacity to negotiate is higher). This reduction in the IRR was achieved in part by the private sector accepting that the current level was too high, and that the alternative, in case of a sovereign default, would be the collapse of these projects. But it was also achieved by the private sector receiving liquidity from reserve accounts from PPPs and a reduction in overall risk of the projects.

This renegotiation proves that when both parties are committed to sustain current and future relationships, they are prone to negotiate a better agreement, ensuring long-term sustainability and value for both. It also showed that PPPs should be renegotiated during

the life-time of the 30 year contract, as a way to respond to changes in the project, but also as a way to deal with changes in the overall context. External factors, such as changing economic conditions or the political environment can make the concession characteristics obsolete and require renegotiations.

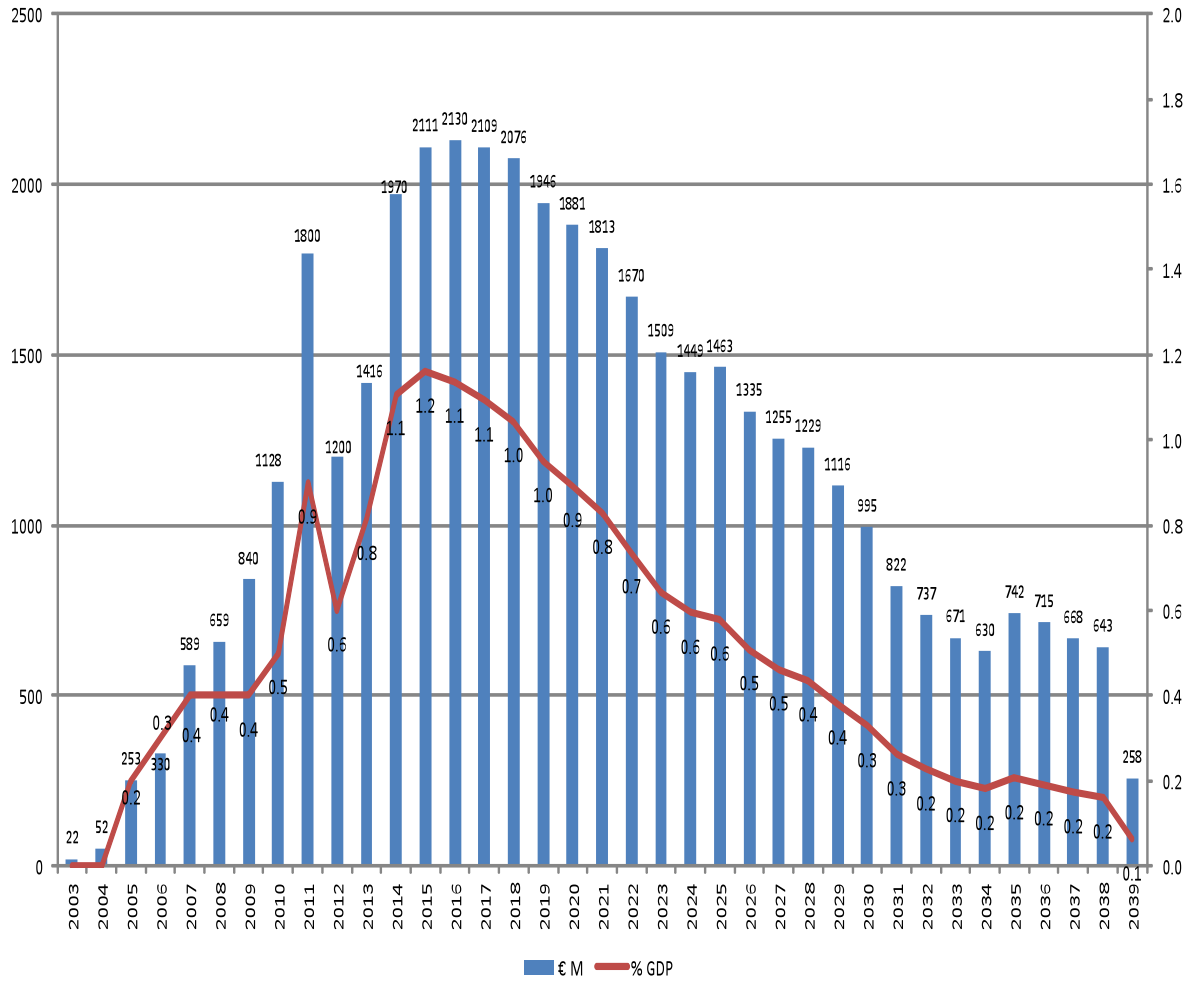
## References

- Asenova, D., & Beck, M. (2010). Crucial silences: When accountability met PFI and finance capital. *Critical Perspectives on Accounting*, 21(1), 1–13.
- Athias, L. & Saussier, S. (2010). Contractual flexibility or rigidity for public private partnerships? Theory and evidence from infrastructure concession contracts. Chaire EPPP. Paris. Retrieved from <http://www.webssa.net/files/images/Athias-Saussier-2010.pdf>
- Blanc-Brude H. Goldsmith & T. Valila, F. (2006). “Ex-Ante Construction Costs in the European Road Sector: A Comparison of Public-Private Partnerships and Traditional Public Procurement.” (E. I. Bank, Ed.)European and Financial Report (Vol. 2006).
- Blanc-Brude, F., Goldsmith, H., & Valila, T. (2009). A Comparison of Construction Contract Prices for Traditionally Procured Roads and Public-Private Partnerships. *Review of Industrial Organization*, 35(1-2), 19–40.
- Broadbent, J. & R. L. (2003). “Public Private Partnerships: An Introduction.” *Accounting, Auditing and Accountability Journal*, 16(3), pp. 332–511.
- Cruz, C. O., & Marques, R. C. (2011,). Revisiting the Portuguese experience with public-private partnerships. *African Journal of Business Management*. Academic Journals.
- Cruz, C. & Marques, R. (2013a). Exogenous Determinants for Renegotiating Public Infrastructure Concessions: Evidence from Portugal. *Journal of Construction Engineering and Management*, 139(9), 1082–1090.
- Cruz, C. & Marques, R. (2013b). Endogenous Determinants for Renegotiating Concessions: Evidence from Local Infrastructure. *Local Government Studies*, 39(3), 352–374.
- De Brux, J. (2008). The dark and blue sides of renegotiation: An application to transport concession contracts. Paper presented at the Centre d’ Economie de la Sorbonne, Working paper from University Paris 1 Pantheon Sorbonne.
- De Brux, J. (2010). The dark and bright sides of renegotiation: an application to transport concession contracts. *Utilities Policy*, 18 (2), 77–85.
- Domingues, S., Zlatkovic, D., & Roumboutsos, A. (2014, September). Contractual flexibility in transport infrastructure PPP. In European transport conference.
- Domingues, S., & Zlatkovic, D. (2015). Renegotiating PPP Contracts: Reinforcing the ‘P’in Partnership. *Transport Reviews*, 35(2), 204-225.
- Domingues, S., & Sarmiento, J. M. (2016). Critical renegotiation triggers of European transport concessions. *Transport Policy*, 48, 82-91.
- Engel, E., Fischer, R. & Galetovic, A. (2006). Renegotiation without holdup: Anticipating spending and infrastructure concessions: National Bureau of Economic Research Working Paper n° 12399.
- Engel, E., Fischer, R. & Galetovic, A. (2009). Soft budgets and renegotiations in public-private partnerships. National Bureau of Economic Research, Working Paper n° 15300.
- Engel, E., Fischer, R., & Galetovic, A. (2013). The basic public finance of public–private partnerships. *Journal of the European Economic Association*, 11(1), 83-111.
- Estache, A., Guasch, J. L., & Trujillo, L. (2003). Price caps, efficiency payoffs and infrastructure contract renegotiation in Latin America. World Bank Policy Research Working Paper n° 3129.
- Froud, J. (2003). The Private Finance Initiative: risk, uncertainty and the state. *Accounting, Organizations and Society*, 28(6), 567–589.
- Glaister, S. (1999). Past Abuses and Future Uses of Private Finance and Public Private Partnerships in Transports. *Public Money & Management*, July-Septe, 29–36.

- Grimsey, D. & Lewis, M., (2002a), "Evaluating the risks of public private partnerships for infrastructure projects". *International Journal of Project Management*, Vol. 20 No. 2, pp.107–118.
- Grimsey, D. & Lewis, M., (2002b), "Accounting for Public Private Partnerships". *Accounting Forum*, Vol. 26 No. 3-4, pp.245–270.
- Grimsey, D. & Lewis, M., (2004), *Public private partnerships : the worldwide revolution in infrastructure provision and project finance*, Edward Elgar, Cheltenham, Northampton.
- Grimsey, D. & Lewis, M., (2005), "Are Public Private Partnerships value for money?: Evaluating alternative approaches and comparing academic and practitioner views". *Accounting Forum*, Vol. 29 No. 4, pp.345–378.
- Guasch, J. (2004). Granting and renegotiating infrastructure concessions: doing it right. *World Bank Publications*.
- Guasch, J., Laffont, J. & Straub, S. (2003). Renegotiation of concession contracts in Latin America (Vol. 3011). *World Bank Publications*.
- Guasch, J., Laffont, J. & Straub, S. (2007). Concessions of infrastructure in Latin America: Government-led renegotiation. *Journal of Applied Econometrics*, 22(7), 1267–1294.
- Guasch, J., Laffont, J. & Straub, S. (2008). Renegotiation of concession contracts in Latin America: Evidence from the water and transport sectors. *International Journal of Industrial Organization*, 26(2), 421–442.
- Guasch, J. & Straub, S. (2006). Renegotiation of infrastructure concessions: an overview. *Annals of Public and Cooperative Economics*, 77(4), 479–493.
- Guasch, J. & Straub, S. (2009). Corruption and concession renegotiations.: Evidence from the water and transport sectors in latin america. *Utilities Policy*, 17(2), 185–190.
- Guasch, J. L., Benitez, D., Portabales, I. & Flor, L. 2014. The Renegotiation of PPP Contracts: An overview of its recent evolution in Latin America. In: OECD/ITF (ed.) ITF Roundtable: Public Private Partnerships for Transport Infrastructure: Renegotiations, how to approach them and economic outcomes. George Mason University, Arlington, Va, USA. .
- Kappeler, A. & Nemoz, M. 2010. Public-Private Partnerships in Europe-before and during the recent financial crisis. Economic and financial reports. European Investment Bank.
- Macário, M., Costa, J., & Ribeiro, J. (2015). Cross-sector analysis of four renegotiated transport PPPs in Portugal. *Transport Reviews*, 35(2), 226-244.
- Moore, A., Straub, S., & Dethier, J. (2014). Regulation, renegotiation and capital structure: theory and evidence from Latin American transport concessions. *Journal of regulatory economics*, 45(2), 209-232.
- OECD (2008). Public-private partnerships: in pursuit of risk sharing and value for money.
- Ortega, A., De Los Angeles Baeza, M., & Manuel Vassallo, J. (2015). Contractual PPPs for Transport Infrastructure in Spain: Lessons from the Economic Recession. *Transport Reviews*, 1-20.
- Rouboutsos, A. (2015a). Public Private Partnerships in Transport Infrastructure: An International Review. *Transport Reviews*, 35(2), 111-117.
- Rouboutsos, A., & Pantelias, A. (2015b). Allocating Revenue Risk in Transport Infrastructure Public Private Partnership Projects: How it Matters. *Transport Reviews*, 35(2), 183-203.
- Sarmento, J. M. (2010). Do Public-Private Partnerships Create Value for Money for the Public Sector? The Portuguese Experience. *OECD Journal on Budgeting*, 2010(1), 93–119.
- Sarmento, J. M., & Reis, R. F. (2012). Buy back PPPs: An arbitrage opportunity. *OECD Journal on Budgeting*, 12(3), 1–14.
- Sarmento, J. M., & Renneboog, L. (2015). 16 Portugal's experience with Public Private Partnerships. *Public Private Partnerships: A Global Review*, 266.
- Sarmento, J. M., & Renneboog, L. (2016a). Renegotiating Public-Private Partnerships. European Corporate Governance Institute (ECGI)-Finance Working Paper, (416).
- Sarmento, J. M., & Renneboog, L. (2016b). Anatomy of public-private partnerships: their creation, financing and renegotiations. *International Journal of Managing Projects in Business*, 9(1), 94-122.
- WBI & PPIAF 2014. Public-Private Partnerships Reference Guide, Version 2.0. In: BANK, W. (ed.). Washington, DC: WBI.

Figure 1 – PPP payments in millions and as percentage of GDP

This figure shows the public payments due by the state to the 35 PPPs, by year, in millions of € (left scale) and % of GDP that this amount represents (right scale).



Source: Own figure, based on Ministry of finance data.