

DEPARTAMENTO DE ECONOMÍA
Pontificia Universidad Católica del Perú

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N° 456

OPPORTUNISM AND
THIRD-PARTY
INFLUENCE ON
LONG-TERM PUBLIC
CONTRACTS

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DOCUMENTO DE TRABAJO N° 456

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DOCUMENTO DE TRABAJO 456

<http://files.pucp.edu.pe/departamento/economia/DDD456.pdf>

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Documento de Trabajo 456

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Editado e Impreso:

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<http://departamento.pucp.edu.pe/economia/publicaciones/documentos-de-trabajo/>

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Primera edición – Abril, 2018.

Tiraje: 50 ejemplares

Hecho el Depósito Legal en la Biblioteca Nacional del Perú N° 2018- 05365

ISSN 2079-8466 (Impresa)

ISSN 2079-8474 (En línea)

Se terminó de imprimir en Abril 2018.

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Abstract

The present paper refers to the influence of interest groups and stakeholders on government and concessionaire contractual behavior in long-term public contracts. In particular, we show how government political commitments with interest groups represent a 'reputational investment', which reduces the incentives to enforce the contract and increases the willingness to accept renegotiation proposals. This situation, particularly in the case of "high profile" or "politically sensitive" projects, when observed by the private concessionaire, can be exploited to capture additional quasi-rents from the exchange relationship. Using a simple model and a case study of the South Interoceanic Road Project in Peru, we show how interactions of the government with influential stakeholders, in the context of weak institutions, can create favorable conditions for private opportunistic behavior.

Keywords: Opportunism, Private Public Partnership, Stakeholder, Concession

JEL Classification: L14; L33; L51; D72

Resumen

El presente artículo trata sobre la influencia de grupos de interés y partes interesadas sobre el comportamiento contractual del Gobierno y el Concesionario, en el marco de contratos públicos de largo plazo. En particular, se muestra que el compromiso asumido por el gobierno con estos grupos de interés representa una "inversión reputacional" que tiene el efecto de reducir sus incentivos de hacer cumplir las cláusulas contractuales aumentando su disposición a aceptar propuestas de renegociación. Esta situación, particularmente en el caso de proyectos destacados y "políticamente sensibles", si es observada por el concesionario privado, puede ser aprovechada por éste con el objetivo de obtener mayores cuasi-rentas de la relación contractual. Utilizándose un modelo simple y un estudio de caso sobre el Proyecto de la Carretera Interoceánica Sur en el Perú, se muestra cómo la interacción del Gobierno y partes interesadas influyentes, en el contexto de instituciones débiles, puede configurar condiciones favorables para el comportamiento oportunista del concesionario privado.

Palabras clave: Oportunismo, Asociación Público-Privada, Parte Interesada, Concesión

Código JEL: L14; L33; L51; D72

OPPORTUNISM AND THIRD-PARTY INFLUENCE ON LONG-TERM PUBLIC CONTRACTS

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1. Introduction

Long-term contracts have been considered in the transaction cost literature as a means of reducing or attenuating the hazards associated with exchange in contexts in which parties have invested in specific assets¹. However, it is also well recognized that the incomplete character of contracts and the parties' inclination to behave opportunistically result in this method of organizing exchanges providing only an imperfect solution to the objective of mitigating frictions or transactions costs among parties. The nature and characteristics of these frictions and hazards are typically described in the literature in the context of private contracting, in which opportunism arises when one of the parties perceives that there exists the opportunity to redistribute the expected surpluses, particularly when its contractual counterpart has invested in specific assets.

Long-term public contracts, like Public-Private Partnerships (PPP) or concessions, as documented by the literature, are also subject to the same sort of hazards as private contracting. For example, Levi and Spiller (1994) explained how investments in specific assets made by utilities in developing countries rendered them vulnerable to government opportunism². Despite these similarities, some unique characteristics of public contracting must be considered for a complete understanding of the determinants of the contractual behavior of parties engaged in a PPP or concession contract. One essential feature of long-term public contracts is that the benefits or surpluses attained from such transactions are shared not only by the signing parties (government and concessionaire) but also by stakeholders, such as consumers, competitors, and others. Through PPP contracts or concession arrangements, the government provides public services to final consumers, infrastructure services for industry, and public services for citizens, among others. Consequently, contractual conditions, such as rates, access charges or service-level obligations for utilities or public services, are key factors that can affect third parties' consumption or production decisions. In addition, in the case of contracts that involve investments in infrastructure, contractual provisions related to the cost and opportunity of a project might have major importance for taxpayers, potential customers and suppliers, among others.

Given this special nature of public contracting, it is crucial to consider the economic and political factors that influence a government's decisions, not only during the design phase of PPP projects³ but also during their contractual execution. Particularly relevant

¹ See, for instance, Crocker and Masten (2013), Klein et al (1991) or Joskow (1987).

² Levi and Spiller (1994) stated, "*The combination of significant investments in durable, specific assets with the high level of politicization of utilities has the following result: utilities are highly vulnerable to administrative expropriation of their vast quasi-rents*" (p. 205).

³ Flyjberg et al (2003) studied the influence of stakeholders and their power relations on the design and risk assessment processes of large-scale projects or 'mega-projects'. According Flyjberg et al (2003), the lack of transparency of these previous evaluations is one of the main causes of cost overruns and the deficient financial performance of large-scale projects.

is understanding the role of the most influential interest groups versus those with less capacity for lobbying or exerting political pressure on parties' contractual decisions. Well-organized groups' influence could be even more intense in the context of weak institutions and in cases of large-scale and politically 'sensitive' projects. These types of projects can involve large amounts of private or public investments and typically can have significant economic impacts at the national or regional level.

While regulatory capture theory (see Stigler (1971)), Peltzman (1976)) has studied in detail the relationships between governments and interest groups and their impacts on regulatory decisions, the influence of organizations and key stakeholders on the contractual behavior of the signing parties of a PPP has been studied less. Indeed, the effects of these interactions on the contractual behavior of a government and a concessionaire in the context of long-term public contracts has received less attention in the literature.

The present study seeks to shed light on the specific factors that explain how the interaction between the key stakeholders and signing parties of a PPP can influence their opportunistic contractual behaviors. In particular, our aim is to identify the conditions under which such an influence can result in termination, contract continuation or renegotiation decisions of the parties in the context of unexpected shocks during the life of a long-term public contract, originating either Government (as mentioned by Levi and Spiller (1994)) or private concessionaire opportunistic behavior. Particularly, we argue that, in the case of large-scale and politically sensitive projects, governments incur "specific reputational investments" originating from their assumed compromises and political interactions with stakeholders. These specific commitments create an "exit barrier" in the short term for governments that can be exploited by private concessionaires in the context of unforeseen shocks to capture additional quasi-rents from the exchange relationship.

The paper is organized as follows. The next section presents a simple model in which a long-term public contract is described as an equilibrium allocation between a government and a concessionaire. This equilibrium depends on stakeholder support and concessionaire benefits. Using this model, we illustrate some plausible outcomes resulting from renegotiation in the context of unforeseen shocks that trigger the need to modify the terms of the contract. The third section illustrates a case study of the South Interoceanic Road Project (SIRP), which shows the case of a large-scale and 'political sensitive' project in the southern region of Peru with a significant economic impact. The objective of this section is to illustrate how stakeholders influence the contractual behavior of parties in large-scale projects implemented through PPP contracts. The fourth section includes a discussion of topics related to institutions and the role of stakeholders during the design and execution of long-term public contracts. The fifth section presents some concluding remarks.

2. A Model of Contractual Equilibrium and Opportunism

Capture theory illustrates how interest groups in the 'political market' influence regulatory decisions. According to Stigler (1971), regulation can be considered an equilibrium outcome, which reflects the balance between the economic benefits obtained by organized groups of society and the political support received by regulatory authorities.

As in the case of administrative regulations, long-term public contracts can also be influenced and shaped by actors that can benefit directly and indirectly from the project. The way in which a tariff, an access rate or a service level is defined or modified by contract can significantly affect the consumption and production decisions of consumers, competitors, producers, and others. Moreover, decisions about the scale, location and opportunity of the project and its subsequent modifications can be matters of interest to a number of stakeholders, such as taxpayers, local communities and their authorities, among many others. This 'external' influence on long-term public contracting is more apparent in cases of large-scale projects, in which the scope of the activities involved (for instance, transport infrastructure facilities, such as ports, airports, and bridges) results in the original design and unexpected changes in the contractual conditions having important impacts on the economies of several stakeholders.

For this reason, PPPs or the concessions of utilities or public services are commonly subjected to the scrutiny of public opinion. Typically, ministries, regulators and other authorities are accountable for their decisions in the context of PPPs not only to government bodies but also to a broad spectrum of interest groups.

In a recent paper, Spiller (2008) argued that 'third-party' activism against a concessionaire could exert a decisive influence on the decision of a government to terminate a concession contract opportunistically and inefficiently⁴. Conversely, in this study, we argue that, in the absence of strong institutions that prevent undue political influence on project design and contractual decisions and in the context of large-scale and politically sensitive projects, expectations and economic interests created around this type of project can reduce the government's incentives to enforce the contract (including contract termination) and can increase its willingness to accept renegotiation proposals. Under such conditions, unforeseen contingencies in long-term contracts configure a favorable scenario for concessionaires' opportunistic attempts to renegotiate contracts.

Both private and government opportunism can arise when one of the parties invests in specific assets. Figure 2a, in Appendix 1, illustrates the case of the long-term contracting of two private parties, in which, given the incomplete nature of these arrangements, the party that invests in specific assets is vulnerable to opportunistic behavior from its counterpart. In contrast, in the case of long-term public projects, opportunism can arise

⁴ Spiller (2008) referred to this activism as "third party opportunism", but in a strict sense, opportunistic behavior can only be attributed to parties previously engaged in a contractual relationship. Opportunism arises during the lifetime of such contracts in contexts of unforeseen contingencies, when parties' individual behaviors deviate from previously agreed upon commitments.

from the government, the private concessionaire, or both. Government opportunism, as illustrated by Levi and Spiller (1994), arises when private concessionaires invest in utilities or infrastructures, which involve significant sunk costs. Administrative expropriation in this context takes the form of the extraction of the concessionaire's quasi-rents through measures such as tariff reductions, requests for additional service obligations, and others. Quasi-rents (the difference between the *ex-ante* and *ex-post* market value of investments) are extracted by the government through regulatory measures, with the government receiving in exchange the political support (or votes) of certain interest groups. This situation is depicted in Figure 2b in Appendix 1. Reforms implemented during the last decades, oriented to create independent agencies (separated from Ministries) and a governance system oriented to isolate economic regulation from political interference, it has been a general policy prescription applied in developing countries, which reflects the objective of mitigating such expropriation risks.

In contrast, private opportunism in long-term public contracts has been a topic studied less. Guasch et al (2006, 2007) associated private opportunism in concession contracts generically with the incomplete characteristics of contracts and the institutional weaknesses of developing countries, particularly the lack of strong regulatory and supervising institutions. Engel et al (2009) argued that private opportunism and strategic requests for higher budgets are the consequences of the existence of government accounting standards that provide concessionaires with signals about the availability of resources for public spending.

In this study, we argue that private opportunism is a consequence of the presence of "exit barriers" faced by governments in the context of PPPs or long-term contracts. These barriers are not a consequence of "reputational investments" made by the Government in the political market. By making announcements or promises regarding sensitive and high profile projects, Governments commits themselves with its sustainability. In these contexts, even when contractually possible, Governments termination decisions (or enforcement of some contractual provisions) would imply assuming "political sunk costs", which in turn can be considered by key stakeholders or interest groups as a failure. These costs, which can be expressed in terms of reductions in political support (or votes) for the government, after being observed by their private counterpart, can make that Governments' threat of termination or enforcement of some key provisions of the contract be perceived, as not credible. Under these conditions, concessionaires can behave strategically, requesting more favorable contractual conditions. To the extent that these new conditions do not adversely affect the most influential stakeholders (and simultaneously do not result in sacrificed votes for the government), concessionaire opportunism will find an auspicious scenario for inclining the scale for its own interests. For example, taxpayers might not be as influential as other interest groups, so in the case of politically sensitive projects, the government will prefer to sacrifice budgetary goals and accept "budget-improving" renegotiations at the request of the concessionaire. This situation is illustrated in Figure 2c in Appendix 1.

A Single Model of Long-Term Public Contracting

In this section, we introduce an approach in which PPPs or long-term public contracting outcomes are associated with two key variables: the profits of the concessionaire; and political support. The model builds on Peltzman's (1976) approach, although with some important differences, as seen below.

The government's preferences (G) consider both the economic profits (π) of the concessionaire and the political support of voters (n) and can be described by $G(\pi^i, n^i)$, where $G_\pi > 0$, $G_n > 0$, $G_{\pi\pi} < 0$ and $G_{nn} < 0$. These preferences consider a certain degree of substitution between π and n , so to some extent, the government could be willing to sacrifice the benefits allowed to concessionaires to increase political support, or conversely, it could find it convenient to trade some prospective votes to receive the economic support of producers. The super-index i is used to identify allocations π^i and n^i associated with a particular PPP contract.

The description of government preferences contrasts with Peltzman (1976) in the sense that, in his model, these preferences include the prices of final goods instead of votes (or business or job opportunities) as arguments. This difference indicates that, in Peltzman's model, political support is determined in the market of final goods, rather than in the input market (labor market and related activities), as described in our model. This last distinction is particularly relevant in developing economies, where the size of public services markets can be relatively small and where emblematic and large-scale projects of infrastructure ('mega-projects') could include building and maintenance activities, which can have a significant impact in the short term on regional labor markets and local economic activities. Thus, departing from Peltzman's (1976) formulation, in which the transmission channel between government regulatory decisions and customers consists of tariff decisions, in our model, contractual decisions affect political supporters through the creation of economic opportunities (employment, new business sources) for specific population groups. Economic opportunities are assumed to relate directly to the people engaged or to be employed by the project. Thus, n is a function of l —the number of employees to be hired by the PPP project concessionaire. In this model, for simplicity we assume that political supporters are a constant proportion μ of the number of people employed by the project. Therefore, $n = \mu l$, where $\mu > 1$ to the extent that, as mentioned, political support includes people either directly and indirectly benefitting from the project.

Following Peltzman, the concessionaire profits are given by $\pi = f(p, c)$, where p is the price of the public service, and c is the cost of production. In turn, c is a function of k , the capital contribution of the concessionaire and labor (l). We assume that, in the short term, k is fixed so the usual assumption of decreasing returns of factor applies. This means that $f_l > 0$ and $f_{ll} < 0$.

In addition, we introduce a participation restriction for the firm:

$$\pi \geq \widehat{\pi}_0$$

In this model, the information about the actual opportunity costs of the concessionaire π_0 is not government knowledge. Thus, the government program should be based on the best estimate of these opportunity costs $\widehat{\pi}_0$. Depending on how well contractual mechanisms of rent extraction are designed by the government, this asymmetry can be a source of informational rents for the concessionaire.

In this context, the problem of the government is:

$$\text{Max } G(\pi, n) + \lambda (\pi - f(p, c)) \quad (1)$$

First-order conditions are given by:

$$G_\pi = \lambda$$

$$G_n = \frac{-\lambda f_c c_l}{\mu}$$

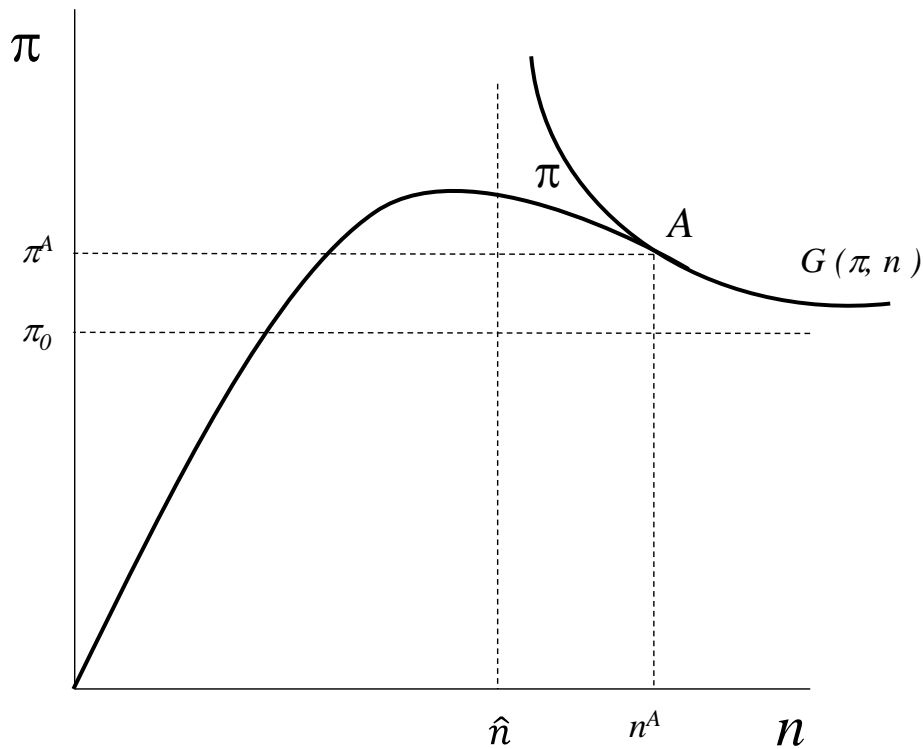
From the first-order conditions, the following optimality conditions can be derived:

$$\frac{G_n}{G_\pi} = \frac{-f_c c_l}{\mu} \quad (2)$$

In equilibrium, the marginal rate of substitution between n and π for the government equals the product of the marginal impact of costs on profits and the marginal impact of labor on costs divided by the marginal effect of l on n (μ). Greater impact of costs on profits less n will be necessary for maintaining equality. This result reflects that the more that profits are sensitive to costs, in equilibrium, the government substitutes political support for profits. In addition, if the impact of labor on political support increases (that is, μ increases), the government will substitute π for n , increasing the preferred level of political support. Similarly, the less that the impact of labor is on costs in equilibrium, the government prefers to substitute profits with political support.

The equilibrium achieved by (2) can be observed in Figure 1. Given that we assume a direct relationship between l and n , the level of π can be depicted as a function of n . Note that the sign of the equilibrium marginal substitution rate is negative, indicating that the optimal level of n (and l) is achieved beyond of the short-term optimum of production, which is the decreasing section of profit curve. Indeed, one first important conclusion in this model is that, to the extent that n is an argument of G , the preferred level of n will be higher than the short-term optimum of production.

Figure 1. Contract equilibrium allocation of π and n



Point A shows the contract equilibrium associated with a PPP contract and the allocation (π^A, n^A) . Let \hat{n} be the median voter. A level of n below \hat{n} renders the project politically unfeasible. Thus, only combinations of π and n above the levels of π_0 and \hat{n} , respectively, are economically and politically feasible allocations.

Proposition 1 and corollaries 1 and 2 summarize the main implications of the equilibrium of our model.

Proposition 1. In equilibrium, the government's marginal substitution rate between n and π equals the product of the marginal effect of costs on profits and the marginal effect of labor on costs divided the marginal effect of l on political support (n).

Corollary 1. In equilibrium, the optimal level of labor will be higher than the short-term optimum of production.

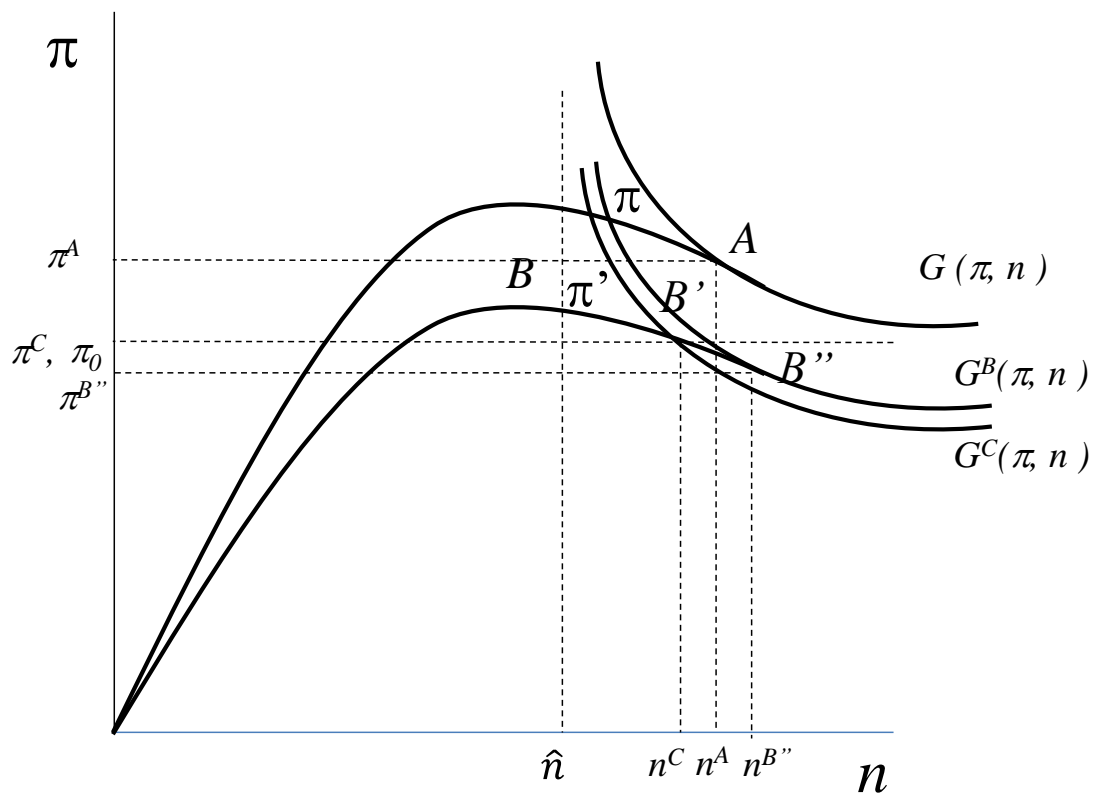
Corollary 2. In equilibrium, the higher (lower) the marginal impact of labor on political support, the higher (lower) the level of labor and political support.

We now assume that the project faces an exogenous negative shock on profits. This shock must be understood as an unanticipated contingency not regulated in the contract. For instance, in BOT PPP projects, these shocks can be a consequence of unforeseen cost escalation in construction, an unexpected reduction in demand level, among others. This negative shock is reflected in a downward shift of the profit curve

and can be used by the concessionaire as an argument for justifying a renegotiation of contractual conditions.

As seen in Figure 2, the new equilibrium will necessarily imply a reduction in the government level of satisfaction. However, less clear is whether the new allocation (π, n) will be located in the feasible equilibrium region or not. Three different scenarios can be represented by the points B, B' and B''. Point B' shows the case in which, as a result of the negative shock, the newly negotiated equilibrium falls inside the economic and political feasible region (i.e., $n \geq \hat{n}$ and $\pi \geq \pi_0$). Point B represents a situation in which the new negotiated equilibrium falls outside of the political feasible equilibrium. In this case, the new arrangement is not accepted by voters ($n < \hat{n}$), and the project is vulnerable to "third-party" activism as described by Spiller (2008), leading to "inefficient" termination. Alternatively, point B'' falls outside of the economically feasible allocation zone. In this case, the project should not continue whenever the resulting level of π is less than the reserve level of profits (π_0).

Figure 2. An exogenous shock on profits



For instance, $(n^{B''}, \pi^{B''})$ is a new allocation in which condition (2) holds but in which the PPP project is not economically feasible because $\pi^{B''} < \pi_0$. In this context, the concessionaire should terminate the contract because the new profits fall below their reserve levels.

Contract termination, however, could involve important costs, particularly for the government. Certainly, termination will entail the concessionaire assuming, at least partially, the unrecovered sunk costs incurred during the design or building phase of the project. Even in cases in which the concession contract regulates specifically the mechanisms of recovery for these investments and other associated costs, in general, the concessionaire and their shareholders should be prepared to face a long process of legal contingencies, including arbitration or judicial suits, among others. Furthermore, termination can also affect the corporate reputation of the companies involved in the process.

For the government, contract termination, even when contractually or economically justified, can entail significant political costs as well, which are particularly important in cases of “high profile” infrastructure projects, which can be frequently used by politicians as a political platform for attracting supporters and votes. Once the announcement of an emblematic project is made, the attraction of political support and expectations created by prospective beneficiaries demand from the government a minimum level of commitment. This commitment, as mentioned before, in turn represents for the government a “political reputational investment” that makes it costly to abandon or terminate a PPP contract associated with emblematic projects. Even when the terminated contract could be awarded again, the delays in the process could render that the final delivery of the built infrastructure impossible during the current term of the government. In any case, termination or delays in the implementation of the project could be perceived by the public as a failure attributable to the current administration. Therefore, “political investments” incurred during electoral campaigns or public policy debates and the associated “sunk costs” represent an “exit barrier”, making it costly for governments enforcing (including termination decisions) PPP contracts.

For these considerations, in the context of large-scale PPP projects, the government threat of contract enforcement or termination might not be credible. When the private concessionaire observes the creation of a public expectation about the project, unanticipated shocks can be exploited by it, forcing a new allocation to attain a net gain through contract renegotiation. Conversely, because of the arguments mentioned above, the government could also be interested in seeking alternative solutions to avoid contract termination. In terms of our model, this fact means that, for both the concessionaire and the government, the participation condition $\pi \geq \hat{\pi}_0$ should also be met as part of the government program. When this new condition is added, condition (2) should be replaced by this new condition:

$$\left. \frac{Gn}{G\pi} \right|_{\pi=\hat{\pi}_0} \geq \frac{f_c c_l}{\mu} \quad \text{and} \quad \left. \frac{Gn}{G\pi} \right|_{\pi>\hat{\pi}_0} = - \frac{f_c c_l}{\mu} \quad (2')$$

Point (π^c, n^c) in Figure 2 shows an allocation in which the government achieves a level of utility $G^c(\pi, n)$ inferior to $G^B(\pi, n)$ but that is economically feasible. To achieve economic feasibility, a distortionary ‘second-best’ allocation (π^c, n^c) should be allowed as a possible solution. This solution can be considered inefficient allocation that allows for continuation (instead of termination) of the project⁵.

The final allocation resulting from the cost *shock* on the PPP project depends on the characteristics of government preferences. Simulating different levels of *shock* on the profit function and calculating the negotiated equilibrium levels (π, n) of an expansion path for government preferences can be undertaken. In the case of governments relying more heavily on political support, an “*n* intensive” expansion path would be more plausible, being the solution more vulnerable to economic unfeasibility. In contrast, a government more sensitive to private concessionaires will exhibit a more “ *π* intensive” expansion path, being more vulnerable to political unfeasibility.

3. The Case of the South Interoceanic Road Project

In Latin America, PPP long-term contracts have been widely used with relative success as a mechanism to attract investments in large-scale infrastructure projects. Nevertheless, even recognizing the important role played by PPP institutions in attracting investments in the infrastructure sectors of developing countries, there also exists an extensive literature⁶ that has documented the imperfections exhibited by public long-term contracts in mitigating opportunistic behavior.

In this section, we use the case of the South Interoceanic Road Project (SIRP) to illustrate how stakeholders can influence not only the equilibrium allocation depicted in the previous section but also changes in this equilibrium as a result of parties’ strategic reactions in the context of unexpected shocks faced during contract execution.

Origins of the Project

The South Interoceanic Road Project (SIRP) was part of a broad initiative of integration of the South American region called IIRSA (Initiative for the Integration of the South American Region)⁷, launched officially in 2000 by twelve presidents from South America. The SIRP constitutes one of the axes of integration considered in IIRSA, namely, the Peru-Brazil-Bolivia axis.

⁵ It is important to note that, as a result of private opportunistic behavior, other possible equilibrium solutions can be found, in which concessionaire not only force the government to ensure the economic feasibility of the project but also the achievement of extraordinary profits including non-registered transfers, leading to corrupt behavior. This discussion, however, is beyond the scope of this study.

⁶ See, for example, Guasch et al (2006, 2007), Engel et al (2009) and Ruiz (2015).

⁷ In August 2001, twelve South American presidents met in Brasilia and launched the IIRSA (Initiative for the Integration of the South American Region), whose postulated objective was “*the development of regional infrastructure within a framework of increasing competitiveness and sustainability, in order to generate the necessary conditions to achieve a stable, efficient and equitable pattern of development in the region*”⁷. The IIRSA Plan considered two main mechanisms for achieving these objectives: the integration and development mechanism; and the mechanism of sectoral processes of integration. While the first mechanism focuses on the development of key infrastructure projects for the physical integration of South America, the second refers to institutional and legal measures oriented toward reducing barriers to trade and investment.

The need to integrate the departments located in the south and southeast of Brazil with the Peruvian coast has been among the longstanding expectations of the population of these regions. The so-called southern 'macro-region' of Peru comprises ten out of twenty-four departments in the country, concentrating nearly one fifth of the total electoral population. Most of these departments exhibit the highest rates of poverty in the country. Naturally, increasing regional connectivity with the rest of the world has been historically considered a priority for local authorities as a means of integrating and developing the southern regional economy⁸.

Given the importance of the initiative, during the 2001 Peruvian elections, candidate Alejandro Toledo announced the implementation of SIRP as a part of his government plan. A few months later, as the elected president, Toledo announced a contest for the elaboration of studies for the SIRP project. The announcement created regional controversies about the course of the project. Llosa (2003) documented that disputes between Cusco and Puno, two important cities of the southern 'macro-region', regarding the design of the road and the scope of the route finally concluded in a decision to cancel the bid.

More than two years later, in April 2004, the Congress approved Law 28214, which declared the SIRP project of "public necessity and national interest". This law included two branches of the road, each passing through Cusco and Puno⁹. In December of that year, the government approved the Promotion Plan for the first three branches of the SIRP, which represented the official decision to initiate the concession of the project. The three branches to be awarded were branches 2 (Urcos-Inambari, 300 km), 3 (Inambari-Iñapari, 403.2 km) and 4 (Inambari-Azangaro, 306 km). According the design of the project, seven of the ten regional departments of the southern macro-region (Arequipa, Apurimac, Cuzco, Madre de Dios, Moquegua, Puno, Tacna) were included in the route. However, other southern departments could also be considered indirect beneficiaries of the project. The rules for the bidding were approved in January 2005, and the award for branches 2, 3 and 4 of the SIRP project (or Interoceanica Project) was made in June 2005.

The government, however, was subject to important critiques with respect not only to the procedures followed for the concession of Interoceanica but also to the characteristics of the project itself. With respect to procedures, the project was exonerated by the government of the general System of Socio-Economic Evaluation of Public Investments (SNIP, based on its initials in Spanish). The reasons for this decision were not clearly explained by the government and faced criticism from various experts¹⁰. Furthermore, some critics of the process argued that the feasibility studies of Interoceanica were not sufficiently accurate and did not include sufficient geological and engineering information¹¹.

⁸ See Llosa (2003).

⁹ The first and second branches were 1) Iñapari-Puente Inambari-Urcos-Cusco-Abancay-Nasca-San Juan; and 2) Iñapari-Puente Inambari-Puente Otorongo-Azangaro-Juliaca. The second branch included two variants: 2.1) Arequipa-Matarani; and 2.2) Puno-Humajalso-Ilo.

¹⁰ See, for instance, Guerra García G. (2015) *Diario La República*, August 16.

¹¹ Congressmen Pari (2016, pp. 36-37) prepared a report that included the declaration of Verónica Zavala, Minister of Transport and Communication during García's administration, of her opinion about the SIRP project: "*In my opinion the origin of the problem lies in the insufficiency of the geological and engineering studies that were carried out,*

Regarding the project characteristics, critics argued that the project was oversized (to satisfy the demands of different regional authorities) and that the magnitude of the investments was not justified by traffic projections¹². For this reason, critics asserted that the decision to implement the Interoceanica Project by Toledo's government and its continuation by García's government (since 2006) were based mainly on political, rather than economic, considerations.

In contrast, the Interoceanica Project received the support of several stakeholders. As mentioned above, the project was strongly supported by the population and authorities of the main cities in the south 'macro-region'. In addition, multilaterals like the Interamerican Development Bank (IADB) and the Andean Corporation of Foment (CAF) participated in the Technical Coordination Committee of IIRSA and provided technical and financial support during the execution stage¹³. Moreover, the project received strong support from the Brazilian government, which considered of strategic interest the possibility of terrestrial access from Brazil to the Pacific coast.

As mentioned before, Toledo's administration awarded branches 2, 3 and 4 of the Interoceanica on June 2005 to the three Brazilian consortiums described in Appendix 1. In each of these contests, only one bid was presented, so no other competitors participated.

Despite his earlier criticism of Interoceanica, President Alan Garcia supported the project. This change in position during the electoral campaign was triggered by the political support received from the southern population by his political adversary, Ollanta Humala. Once elected President in 2006, Garcia with his administration strongly supported the project¹⁴.

Contractual Design and Renegotiations

As mentioned by UNCTAD (2009, p89), the Peruvian road system applies nearly the same toll for the overall road network. With this pricing structure, depending on the volume of traffic, some PPP projects can be self-funded, while others cannot. The Interoceanica Project was one of the first government co-funded PPP projects awarded in Peru. Public funding in this type of project is used to supplement toll earnings to cover the investment, maintenance and operations costs. Appendix 2 shows the characteristics of the main branches of SIRP projects. As mentioned, branches 2, 3 and 4 were signed in 2005, during President Toledo's administration, and branches 1 and 5 were signed in 2007, during the administration of President Garcia¹⁵.

South Interoceanica 2, 3 and 4 contracts, the drafting of which is nearly the same, are design, finance, build, operate and transfer (DFBOT) projects, which, as mentioned

insufficiency that generated an underestimation of the costs of the project. Instead of conducting field studies, less extensive studies were carried out under the exemption of SNIP that was authorized with DS 022-2005-EF ...".

¹² See Guerra García (2015).

¹³ See CAF (2013), p. 26.

¹⁴ See conectas.org (2004).

¹⁵ The current study is restricted to the first group of projects, which represents nearly 80 percent of total projected investment.

above, were partially financed by the government. The concession included the obligation of the concessionaire to elaborate on the definitive engineering studies for the road and to execute the construction phase. Before this stage, the concessionaire was responsible for achieving the financial closing. To facilitate the financial feasibility of the project, concession contracts in Peru incorporate the possibility of using future flows of incomes or the contract itself as collateral for obtaining funding for the investments. The original version of the contract established that, once the road construction phase was concluded and accepted by the ministry, the government would repay the facilities in constant annuities for 15 years.

The contracts also considered five modalities of termination: the end of the term of the concession; mutual agreement; *force majeure*; concessionaire or government breach of the contract; and unilateral government termination. Thus, in principle, a government interested to set a threat against opportunistic behavior of the concessionaire could use two termination alternatives: unilateral termination or concessionaire breach of the contract.

Conversely, Legislative Decree 758, which regulates the possibility of modifying PPP contracts, established that, when necessary, the parties can modify the contract, but the parties should seek to preserve the nature of the concession, the economic and technical conditions agreed upon in the contract, and the financial equilibrium of the contract. Further, the SIRP contract stipulated that renegotiation proposals should be subject to the opinions of the regulator and the project creditors.

During the execution of Interoceanica's contracts, particularly during the construction phase, a significant number of addendums were signed. One of the most important ones signed during the first years referred to financial closing. While the original design established a project finance scheme through which the concessionaire was responsible for finding the financial support for the investments, using the concession future earnings or the contract itself as a collateral, a new mechanism was designed through contractual modifications. This mechanism consisted of the possibility that the Government could recognize partial advances in the construction phase, issuing certificates that could be negotiated by the concessionaire or its creditors on the open market. To be fully negotiable, the repayment of these certificates should have a definite date and should be unconditional. Thus, the risk of termination of the facilities and roads was transferred from the concessionaire to the government, which at once recognized partial work advances and assumed unconditional future obligations. It is important to emphasize that these addendums and the arrangements for financial closing received the technical support of the Ministry of Economy and Finance, as well as multilateral agencies.

Table 1. Renegotiations and increases in investment costs

Contract	Number of Renegotiations	Increases in Investment Cost (US\$ million)			
		Initial Budget	Additional Payments	Total Cost	%
SIRP Branch 2	8	265.8	204.6	470.4	76.9%
SIRP Branch 3	7	128.8	48.1	176.9	37.3%
SIRP Branch 4	6	190.7	56.5	247.1	29.3%

Source: Pari (2016), OSITRAN

Regarding the construction phase of the three projects initiated and finished during García's administration, Table 1 shows the number of renegotiations signed and the increase in the amounts of investment involved throughout the lifetimes of these contracts. The alleged motive of an important proportion of these renegotiations, which resulted in investment cost increases, was that feasibility studies elaborated prior to the award of the concession did not contain strong geological and engineering analyses, as well as the presence of hidden geological failures. However, asymmetry of information regarding costs and opportunism from the concessionaire, in the context of public pressure from regional authorities and other stakeholders, could also be part of the explanation. The method used for calculating investment costs based on unitary prices (rather than lump sum budgets) requires very close supervision of quantities of used inputs considered in cost calculations to avoid budgetary overvaluations.

The resulting cost overruns calculated by Pari (2016) fluctuate from 29% to 70% per contract, indicating an important change in the initial equilibrium design of the contract. It is important to emphasize that all these renegotiations followed the regular formal procedures established in the regulatory framework, including the opinions of OSITRAN (the regulatory authority) and the Ministry of Economy and Finance, and most of them were subject to *ex-post* control actions led by the National Public Comptroller. Even when formalities were accomplished, an explanation was needed for the government's acceptance of these recurrent requests for renegotiations. Our thesis is that the government commitment to the project and its most influential stakeholders represented an "reputational investment" that led various public organizations to align their efforts toward avoiding any potential risk that could represent a threat to the sustainability of the project.

Despite the results shown above, both academia and multilateral agencies have reported that the social benefits of Interoceanica were greater than its costs. Bonifaz et al (2008), for example, estimated the direct and indirect effects of the project on the south macroregion, finding that the project allowed for the achievement of a present net value of US\$489 million¹⁶. CAF (2013) also reported that the Interoceanica project

¹⁶ Bonifaz et al (2008), p. 127

allowed for yearly savings of US\$16.4 million in transport costs, increases of US\$130 million from tourism to the region, and the growth of agricultural production and employment in the region because of increased connectivity with Brazil and the remaining Peruvian regions. According to OSITRAN, the regulator of transport infrastructure, the SIRP project created 14,000 new jobs in the region, of which 8,140 were directly involved in one of the five branches of SIRP. In contrast, some critics have insisted that the project was oversized, considering the reduced levels of traffic registered on these roads.

More than a decade after the start of the project, the debate over the results achieved by the project remain a source of debate. The controversy has been exacerbated by the news from the Brazilian justice ministry (related to the Odebrecht Corruption Scandal¹⁷), which found that some Peruvian politicians, such as Alejandro Toledo, were involved in corruption related to these projects. In addition, other officials, such as Juan Carlos Zevallos, former president of the regulator, were also accused of corruption. The investigations are ongoing.

4. Discussion

The case of the SIRP project illustrates some results described in our simple model in section 2. As shown in the model, the shape and scale of the SIRP have been strongly influenced by external stakeholders, such as the Brazilian government and multilaterals, and by political pressures from local authorities in the most important southern regions, namely Cuzco and Puno. As illustrated above, the SIRP project had an important economic impact on southern region economies at least in the short term, creating expectations for labor and business opportunities in the region. Under these conditions, the critiques, based on the hypothesis that the SIRP project is oversized, are consistent with the equilibrium found in our model in section 2.

Moreover, the recurrent renegotiations observed during the execution phase of the project, represented a significant increase in government spending compared with the original budget. The alleged cost overruns incurred by the concessionaires in the context of informative asymmetry and government concerns about the sustainability of the project, as mentioned above, would be part of the explanation. This situation would not be feasible without the general support that the project received from key stakeholders and interest groups. Some of them, such as multilaterals like CAF, participated actively in resolving the initial financial drawbacks of the SIRP, which motivated changes in the original contract. The political (either explicit or tacit) compromise of the government with the project and its direct and indirect beneficiaries is equivalent to a specific 'political' investment. Abandonment or falling behind with the project would imply for the government the assumption of a "political sunk cost" in terms of less political support or fewer votes from these key stakeholders. These costs can be conceptualized as an "exit barrier", deterring attempts of the government to make key contract enforcement decisions. At the same time, this situation could be exploited by private concessionaires to modify initially agreed upon conditions, seeking to obtain additional quasi-rents. Certainly, in the case of SIRP, the lack of accuracy of the initial engineering

¹⁷ See Ministerio Publico Federal, <http://www.mpf.mp.br/para-o-cidadao/caso-lava-jato>.

studies might have contributed to the need to review the cost estimates for road construction and rehabilitation. However, given the characteristics of the project and the incomplete nature of long-term public projects, it is highly likely that qualitatively similar (although perhaps to a lesser extent) results would be achieved.

The case of SIRP also illustrates some key issues and raised some questions, which are discussed as follows.

Weak institutions. An important previous condition that at least partially allows for the achievement of the results shown in the case of the SIRP is the weakness of the institutions related to the use of public funds and the renegotiations of PPPs. Indeed, as explained above, while in the Peruvian case, there exist formal institutions created to avoid oversized projects, such as SNIP, the presence of key stakeholders and the government compromises acquired by them around this project decisively influenced the decision to bypass the SIRP from these previous assessment systems.

Furthermore, the Peruvian PPP system has specific procedures for approving proposals for contractual modifications. While as documented by Ruiz (2015), renegotiations are very common in the Peruvian PPP system, in the case of the SIRP, the number of renegotiations greatly exceeded the average numbers in other contracts. A possible explanation suggested by Ruiz (2015) is that, in the Peruvian case, regulators' opinions of proposals for renegotiation are not binding for the parties.

Private opportunism or Government populism? The government's use of high-profile and 'emblematic' projects to increase its political support is quite common in both developing and developed countries. However, populism, as a deliberate political strategy, can only succeed when some objective conditions can be verified. In this study, we argue that, only in the presence of important and influential stakeholders that support government initiatives and contractual decisions, populist projects can succeed. This support is not only a necessary condition for the social sustainability of the project itself but also (and this is our main thesis) it is a factor that results in strategic and opportunistic inclinations of concessionaires to request contractual modifications, including budgetary changes that can distort even further the outcomes of the transaction.

Stakeholder influence, transparency and participation. As mentioned above, Spiller (2008) stated that third-party activism can lead to inefficient termination of a public contract. Conversely, this study asserts that third parties can also allow the (inefficient) continuation of a public contract, providing a favorable scenario for the oversizing of projects and for renegotiations, among others. What should be the role of stakeholders in the design and execution of infrastructure project? First, it is important to consider that stakeholders in a project can represent a broad and heterogeneous spectrum of organizations and political actors. These different actors can be affected by the project in distinct manners and in different degrees. In addition, they can also differ in terms of their relative capacities for organization and lobbying. For example, direct beneficiaries from the SIRP project (authorities and the populations of Cuzco, Puno and Madre de Dios) were relatively more effective than taxpayers in defending their economic interests.

Best practices in regulation recommend full transparency of regulatory processes and accountability of the public officials in charge of making regulatory decisions¹⁸. Transparent and participative regulatory processes main objectives consist of guaranteeing access to information and the participation of all stakeholders in the regulatory process. However, at the same time, good practices in regulatory governance seek that this participation be encouraged on an equitable and non-discriminatory basis, in the sense that no interest group receives preferential treatment compared to others. In the SIRP case, even when some formal transparency procedures were followed by PROINVERSION, the agency for the promotion of private investments during the bidding (for example, the publication of contracts for comments), there was only one bidder per contract. Moreover, the processes of renegotiation that occurred during the execution of the contract consisted mainly of a bilateral process between the government and concessionaire, in which public agencies, the regulator, the Ministry of Transport and Communications, and the Ministry of Economy and Finance participated. The lack of transparency and stakeholder participation during the execution phase of the contract is one of the factors that contributed to the number of renegotiations undertaken and the outcomes of these contractual modifications.

Megaprojects and costs overruns. Flyvbjerg et al (2002, 2003) studied a sample of large-scale projects and found a systematic pattern of investment cost overruns. Their main thesis is that this pattern is explained mostly by a lack of thorough and transparent previous risk assessment processes in the majority of cases. This trend, according Flyvbjerg et al (2002, 2003), is a deliberate outcome. Biases in the evaluation and planning processes prior to the construction phase, according this author are a consequence of the undue influence of some interested parties, which resulted in an underestimating the cost projections of the investments. While the SIRP case confirms Flyvbjerg's thesis, it also shows that this stakeholder influence persists not only during the previous phase of the projects (through the undue influence of some interested parties) but also throughout the entire life of the contract. Moreover, a complete understanding of the rationale for stakeholder participation during the risk assignment and design phase requires explaining and characterizing clearly the manner in which these biases in the conception of the projects are resolved during the construction phase. Our case study showed that stakeholder influence continued during the execution phase and was crucial to explaining the existence or not of 'exit barriers' for the government, incentivizing it to accept renegotiation proposals. These barriers are induced and not exogenously determined. The presence of power relationships described by Flyvbjerg et al (2002, 2003) explains the ulterior willingness of governments to accept the renegotiation of initial conditions.

Opportunism and corruption. While the conditions described above facilitate the execution of opportunistic strategies of the signing parties, they could also create a scenario favorable for engage in corruption. As Zhang (2009) stated, corruption implies breaking the rule of law, whereas opportunistic strategies consist of contractual conduct, mostly implemented inside the boundaries of legality.

¹⁸ See, for instance, OECD (2012) or APEC (2012).

Although investigations into possible corrupt acts committed by some officials involved in the SIRP projects are ongoing (beyond the objectives of this study), certainly a scenario of weak administrative and judicial institutions, in which influential stakeholders and part of the public opinion strongly support the project and the institutional abilities to prevent or deter corruption could be diminished. Again, the role of strong and independent institutions is crucial for prevent private agents or government officials from taking advantage of situations in which control and enforcement mechanisms not only of contracts but also of the law faces the risk of being loosened or relaxed.

5. Concluding Remarks

The present study provided an explanation of the reasons why some high-profile or politically sensitive projects, executed through long-term public contracts, might be vulnerable to opportunistic behaviors of concessionaires. The analysis combined transaction costs and political economy concepts to the extent that contractual opportunism is not only a consequence of specific physical investments but also of commitments assumed by governments with stakeholders in the 'political market'. Indeed, the essential characteristic of public contracts is that their outcomes matters, not only for the signing parties but also for third parties, which, depending on their relative capacity for organization, can influence the government's contractual behavior.

Certainly, administrative regulation can also be subject to the risk of the undue influence of organized stakeholders, as explained by capture theory. Contractual regulation, however, can worsen outcomes whenever private opportunism not only can seek to extract a greater part of the surplus of the exchange to the government but can also distort the characteristics of the project itself, increasing unnecessarily the scale, creating artificial cost overruns, among other. Concessionaires as government counterparts in long-term public contracts evidently can have a major capacity to influence government more than any other interested party, so their contractual decisions through contract renegotiation (or interpretation of terms) can affect not only the distribution of rents but also the general results of the whole project.

Our model and the case study provide some objective conditions for identifying the risks of these sort of hazards, such as the presence of interest groups of interests that support strongly the project, a high degree of political exposure of the project and weak institutions in charge of enforcing concession contracts and laws.

A first policy implication is clearly the need to strengthen institutions related to PPP governance, such as providing more autonomy and powers to entities in charge of enforcing contracts and the law: regulators, public comptrollers and justice. A second important implication consists of the need to introduce more transparent procedures to contractual regulation, not only during the design phase but also during the execution of projects, particularly in cases of renegotiations. Public consultation (through audiences) or draft publications for comments could improve the transparency and visibility of renegotiation processes. Moreover, these processes should not be limited to guaranteeing general 'access to information' but should also ensure that less empowered and organized stakeholders have the opportunity to participate actively.

These among others, are some of the important reforms that should be undertaken in the future to improve and revitalize the PPP institutional model in the region for the next few years.

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APPENDIX 1

Figure 1a. Opportunism in the context of private contracting

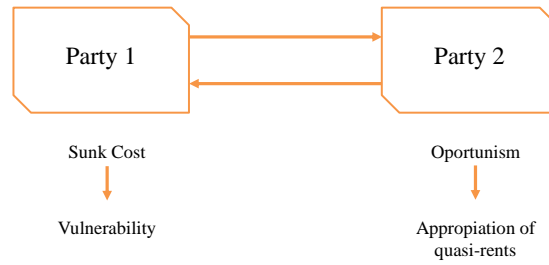


Figure 1b. Government opportunism in the context of public contracting

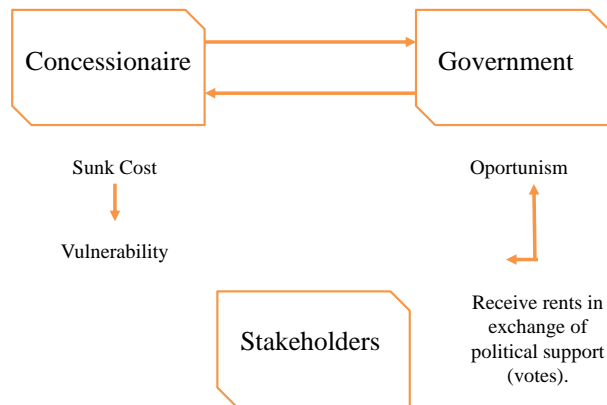
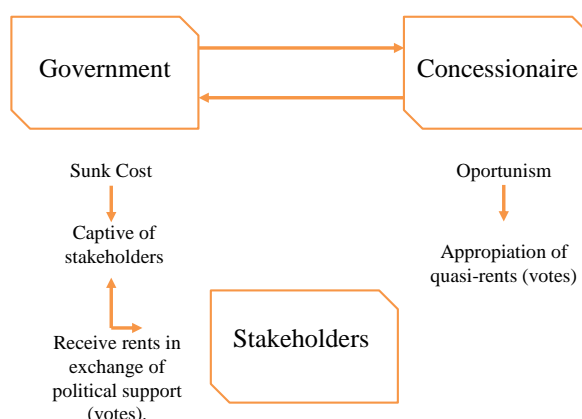


Figure 1c. Concessionaire opportunism in the context of public contracting



APPENDIX 2

Branches of the SIRP

Concession	Extension (km)	Projected Investment (US\$)	Concessionaire	Members of the Concessionaire	Date of signature
Branch 1 - San Juan de Marcona -Urcos	762.7	64.0	Survial S.A.	Graña y Montero S.A.A., JJC Contratistas Generales S.A. e Ingenieros Civiles y Contratistas Generales S.A.	October 23, 2007
Branch 2 - Urcos-Inambari	300.0	204.7	Concesionaria Interoceanica Sur - Tramo 2 S.A.	Odebrecht, JJC Contratistas Generales e ICCGSA	August 4, 2005
Branch 3 - Inambari-Iñapari	403.2	316.6	Concesionaria Interoceanica Sur - Tramo 3 S.A.	Odebrecht, JJC Contratistas Generales e ICCGSA	August 4, 2005
Branch 4 - Inambari-Azángaro	305.9	171.7	Intersur Concesiones S.A.	Andrade Gutiérrez, Construcoes e Comercio Camargo Correa S.A., Constructora Queiroz Galvao S.A.	August 4, 2005
Branch 5 - Matarani-Azángaro-Ilo-Juliaca	62.2	135.0	Concesionaria Vial del Sur S.A.	Hidalgo e Hidalgo (HeH), Construcción y Administración S.A. (CASA) y Concesionaria del Norte (CONORTE).	October 24, 2007
Total	1,834.0	891.9			

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