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Organizing Prisons through Public-Private Partnerships: a Cross-Country Investigation

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Abstract

In this paper, we analyze the private participation in prison services in three countries: Brazil, France, and the United States. We highlight striking differences in efficiency between these countries and argue that the explanation for these differences is not restricted to the way property rights are distributed (*i.e.* public vs. private management). Instead, our analysis suggests that understanding those differences also requires an analysis of the incentives provided by contractual choices as well as decision and revenue rights distribution and institutional constraints. The theoretical literature usually analyzes these blocks separately, and often focuses on property rights distribution. We argue that an efficient arrangement is the result of the way these elements are combined, giving rise to a distinctive governance structure.

Key words: public-private partnerships; contractual choices; private prisons.

Introduction

In the last twenty years, several governments throughout the world have introduced reforms as a means to leverage investments in public services through the private sector (Estache, 2006). The water (Chong, Huet, Saussier, & Steiner, 2006), electricity (Glachant & Finon, 2003), roads (Athias & Saussier, 2007), telecommunications (Levy & Spiller, 1994) and also even **more human and less-infrastructure** sectors such as health care (Albreht & Klazinga, 2009) and social security (Cronqvist & Thaler, 2004) have been analyzed. However, little is known about the public and private governance of criminal justice services, such as prisons (Cabral & Azevedo, 2008). Researchers seldom focus their studies on the correctional sector, probably because the process of obtaining relevant information is not an easy task: non-consolidated data and confidentiality are factors that often disturb and frequently impede the execution of research in this sector (Dilulio, 1996). Because of this, the issues related to prison performance remain a kind of **black-box** when compared to other public service utilities.

Notwithstanding, prisons are often used as an example to illustrate theoretical models concerned with the proper scope of government (Bennett & Iossa, 2006; Hart, 2003; Hart, Shleifer, & Vishny, 1997). This type of public service implies several tasks that can be split between public and private authorities and that may differ depending on the kind of prisoners. In addition, the management of prison services is quite complex due to the diversity of such tasks. In fact, in order to prevent escapes, riots, and so on, prison managers must provide prisoners with food as well as healthcare, judicial and reentry services, all of which require the coordination of different institutions and organizations. Of course, this interaction is not conflict free; the tensions that may arise between these stakeholders can create inefficient arrangements. For this reason, prisons constitute a good theoretical example and an interesting empirical case to study.

In this paper, we propose some partial results of the Public-Private Partnerships (PPP) in prison services of three countries, based on previous empirical literature as well as information we collected: Brazil, France, and the United States (U.S.). In the present paper, PPP refers to different modes of private participation (privatizations, concessions and outsourcing) in the provision of public utilities.

These three countries are especially interesting because of the variation in the degree of private involvement in prison service in each country. In some states of the U.S., full privatization may take place, whereas the participation of private operators in prisons services in Brazil and France is limited. Compared to Brazil, the role of private companies in France is even narrower, with fewer delegated functions. The three countries also differ in their criminal policies. The U.S. locks up a higher proportion of citizens that are not a danger to society than do Brazil and France. This is reflected in the incarceration rates. The U.S. has the highest incarceration rate in the world with 754 inmates per 100.000 inhabitants; Brazil and France have respectively 200 and 96 inmates per 100.000 inhabitants (Cour des Comptes, 2006; Departamento Penitenciário Nacional, 2008; Sabol, West, & Cooper, 2009)[(1)].

Interestingly, the results of each country's public-private agreements do not correspond to the theoretical predictions focusing on property right distribution (Hart *et al.*, 1997). In Brazil, we observed that public-private agreements have resulted in cost reductions and an increase in the quality of services provided, while in France, empirical findings suggest an increase in both cost and quality. In the U.S., we observed reductions in both cost and quality. We suggest that several contractual and extra-contractual dimensions may explain these results.

We believe our paper is a contribution to the literature because our analysis has made it possible to partially fill the empirical gap in knowledge of prison administration. In addition, we believe our analysis enables the assessment of the extent to which empirical facts are connected to the theoretical developments concerning PPP, suggesting that the main driving factors for efficient arrangements do not depend only on property rights distribution but also on the incentives resulting from other factors such as decision and revenue rights distribution and institutions.

We divide the paper as follows. The next section considers how property rights could have an impact on efficiency. We discuss the cost versus quality trade-off in the private provision of public services (Hart *et al*., 1997). We also briefly consider other dimensions that may also influence performances of prison services. Following some methodological considerations, we present the cases of PPP in prisons in the three countries, showing the main results obtained and the peculiarities of the sector. Further, we discuss why the empirical results differ from one country to another. We demonstrate that the main driving factors do not rely on one particular element – like property rights themselves – but on how elements such as decision rights, revenue rights and property rights are combined and aligned, giving rise to a coherent governance structure. We argue that the effect of private participation is dependent on this proper alignment. This may explain why private participation in prison services has very different results in each location.

Prison Governance Structures and Efficiency

PPP and the impact of property rights

Public-Private Partnerships (PPP) is a general term to designate the cooperative arrangements between public and private sector actors (Hodge & Greve, 2007). The expression PPP includes the Project Finance Initiative Model (PFI), which is largely disseminated in the United Kingdom and Australia. Under PFI-type, the government specifies the output but the private actors retain the residual control rights regarding the service's delivery (Bennet & Iossa, 2010). In this sense, the PPP concept is more comprehensive, covering several other modes of private participation (privatization, concessions, outsourcing, institutional cooperation for joint production, and public policy networks) in the provision of public utilities (Chong *et al*., 2006; Guasch, Laffont, & Straub, 2008; Hodge & Greve, 2007).

In a time of fiscal constraints, governments have used PPP in order to supply services that had been previously provided publicly. However, although private participation may have been seen as a solution to avoid public and market failures, results vary according to the sector in which PPP were implemented, raising questions concerned with the efficiency of PPP (Hodge & Greve, 2007).

Several theoretical approaches may be useful to study the different dimensions of PPP and their impacts on costs and managerial innovations that might lead to productive efficiency in prison services. One obvious and important dimension to consider is the distribution of property rights. One of the most prominent contributions to an understanding of the public versus private dilemma is the seminal paper of Hart, Shleifer and Vishny (1997), which focuses on the comparison between public and private participation in the provision of prison services. The authors adopted an incomplete contract view, where the private operator's residual control rights would reduce production costs at the expense of the quality of the services provided. In order to improve quality, the private operator must incur both the costs of quality provision and the costs of influencing the government to accept changes (the government must agree to pay for improvements through a Nash bargaining process). Consequently, the private operators have incentives to under-provide quality and to over-reduce costs (Hart *et al*., 1997). Therefore, a public mode of provision is preferred when the adverse effects of cost reductions have a significant impact on quality levels or where there is limited room for quality innovations by private actors. The impact of the distribution of property rights is linked to the incompleteness of contractual agreements between the government and the private operators, which generate residual rights of control over the assets (Hart, 2003). Since it would be very difficult to contractually delineate certain tasks, such as the use of force to be employed by the private operator or the exact capabilities of the workers, Hart *et al*. (1997), are skeptical about privately run prisons because of the important adverse effect reduced cost strategies have on quality (*i.e.* under-skilled workers would lead to a higher rate of escapes).

Hart (2003) completes the Hart *et al.* (1997), picture by considering the question of bundling (*i.e.* one single contract for building and operating) in prisons when a PPP is concerned. He concludes that **unbundled** modes of contracting (two contracts: one for building and another for operating the prison) are suitable if the quality of the construction can be well-specified *ex-ante*. However, PPP would be recommended when the quality of the service can be well defined. In this case, private companies would not constrain their building costs as this might have repercussions for the normal operations of the correctional facility in the future. In the particular case of prisons, it is very difficult to specify the service requirement in the contract; therefore, the author concludes that services should be carried out under the unbundling regime. In the same vein, Bennett and Iossa (2006) posit that public-private agreements can be desirable in situations in which potential innovations may result in cost-reductions. On the other hand, PPP can lead to malignant effects. In the presence of opportunistic behavior, either from governments or from private firms, underinvestment and rent-seeking renegotiations are likely to occur (Guasch *et al*., 2008). In all papers based on the incomplete contract theory, the distribution of property rights is at the core of the PPP analysis. Nevertheless, other relevant elements should be brought in the analysis to give a broader view of what is going on and to improve our understanding of prison efficiency.

Other relevant elements

Recognizing the need to move beyond property rights distribution, recent theoretical developments highlight the fact that property rights can be thought of as a bundle of decision and revenue rights that can be partly transferable through contractual agreements (Baker, Gibbons, & Murphy, 2008). The owner of an asset (or the owner of the decision rights over the asset) has the right to decide what to do with the asset, since his actions are not forbidden by the regulations of the contract or by the law. This stresses the fact that alternative governance structures are not merely alternative distributions of property rights, and may give rise to more possible combinations of property and decision rights, leading to complex hybrid forms of organization (Ménard, 2004).

For our purposes, what is interesting here is that PPP are clearly hybrid organizational choices (Makadok & Coff, 2009; Ménard, 2004). Such hybrid choices may vary greatly from one form to another, depending on the way the contractual parties decide to share decision and revenue rights. Property rights are pushed to the background and it is the way the decision rights are contractually split that completes the picture. According to the contractual design chosen and the institutional setting (which vary from one region/country to another), certain changes might be observed in the level of decision rights assigned to private operators. These changes manifest in the structures of rewards and sanctions to be applied in the case of inappropriate actions and in the limits for government intervention (Shirley & Menard, 2002). Of course, these factors have a direct impact on PPP performance indicators and, as a consequence, on social welfare (see Desrieux, 2006 for a similar argument).

These developments therefore suggest that the hypotheses found in the Hart *et al.* (1997), and Hart (2003) might be blurred by contractual choices and the way decision and revenue rights are attributed and affect the parties' incentives. Indeed, as we will see later on, considering the three countries we studied in this paper, they clearly differ with regard to the way decision rights are distributed to private operators.

Data and Methods

In order to assess prison privatization and its impact on performance, we focus on three countries: Brazil, France, and the United States. There is a variation in the degree of outsourcing of prison services among these countries. The U.S. model provides a good example of PPP with a massive participation of private actors, with complete delegation to private operators in prisons (privatization). Differently, Brazil and France present limited delegation compared to the U.S. In

Brazil, private operators perform more tasks than in France, but fewer in comparison with the U.S. context. In this sense, the U.S. and French models are seen as polar opposites in terms of prison public-private agreements; meanwhile, Brazil provides a model somewhere between the two extremes. There are, however, some similarities between prisons in these three countries as they tend to lock up minorities, poor and less educated people and are subject to complaints of brutality against inmates. They also experience similar challenges regarding overcrowding rates (Chantraine, 2004; Human Right Watch, 1998; Wacquant, 2001).

To be able to compare the situation in these three countries, we use an exploratory approach (Stebbins, 2001). While the U.S. case is fairly documented, this is not the case for France and Brazil, for which few papers grounded in empirical data exist. In order to compensate for these data limitations in Brazil and France we conducted 23 in-depth and semi-structured interviews where pre-formulated questions were posed at the beginning and new questions emerged during the conversation (Malhotra, 2007). Our interviewees included: executives of private companies in charge of prison services (two in France and three in Brazil); government officials from justice and penitentiary administration (three people in France and four in Brazil); politicians (one individual in France and two in Brazil); professionals engaged in human rights (one person in France and one in Brazil); wardens of publicly operated facilities (three individuals in Brazil); and wardens of privately operated facilities (three individuals in Brazil). Interviews were conducted between 2005 and 2008 and took between 60 and 180 minutes. We then analyzed the interviews by attributing succinct open codes, which were useful to summarize and categorize phenomena found in the texts (Myers, 2009).

We also analyzed official documents available from prison administrations, namely: internal reports, government plans, internal meeting notes, and brochures of private companies involved in prison services provision. Complementarily we used secondary data from existing literature. We triangulated the sources of evidence (Stake, 1995) in order to increase the reliability of our interpretations.

Regarding the limitations of the data, our work did not aim to test a hypothesis but to identify similarities and differences among the countries. In this sense, the limitation of case study research in restraining the sample size does not pose a major problem in our context (Grant, 2003).

Performance indicators in prisons: cost and quality dimensions

In modern societies, the prison plays certain crucial roles, such as: to protect citizens from individuals that do not observe the formal rules; to punish criminals in order to discourage people from breaking the law (Artières, Lascoumes, & Salle, 2004); and to provide the conditions that make the inmate's future reentry possible (Cour des Comptes, 2006).

Following the New Public Management principles, which in fact shape the policies of several countries throughout the world, in order to control a prison, prison managers must manage both the cost and quality aspects toward law-and-order goals (Boin, James, & Lodge, 2006). The cost dimension is important because of the budgetary constraints governments have been experiencing in recent years. In fact, cost reduction is one of the main objectives of the new organizational arrangements in the provision of public services (Boyne, Meier, O'Toole, & Walker, 2006). In theory, the measurement of cost indicators is not complicated. It usually involves the amount spent during the period of an inmate's incarceration, which requires the consideration of certain cost dimensions, such as labor, materials, and electricity among others. As each country may consolidate the financial information regarding the prison's costs differently, we restrict our public versus private comparisons to the country level. In the three cases, we focus only on the operational costs to run the prison and do not take into account the construction costs. Quality-oriented performance indicators must be aligned with the prison's goals mentioned above. In this way, it is essential that the correctional facility be able to provide the proper services that generate an adequate environment and preserve the physical and moral integrity of the inmates, employees and visitors, as well as facilitate criminals' rehabilitation processes. From this perspective, quality aspects can be grouped into three dimensions:

(a) recidivism rates; (b) safety and order indicators (deaths, assaults, escapes, riots, etc.); (c) services offered to inmates (food, medical and legal assistance, rehabilitation services, etc.) (Cabral & Azevedo, 2008; Dilulio, 1996).

The process of assessing these indicators may present certain problems. Besides the procedural issues for collecting and consolidating the relevant information, some aspects are very subjective. It is difficult to assess the quality of the meals provided to inmates or the level of force applied to contain riots and assaults (Hart *et al.*, 1997). For these reasons, we focus on quality indicators that can be assessed through quantitative aspects, *i.e.*, observable and measurable features, such as: escapes, deaths, medical appointments and so on. Although recidivism is one of the key performance indicators in prison management (Beck, 2001), we could not find evidence of recidivism records in Brazil and France.

Private Participation and Performance in Prisons: Some Evidence in Three Different Countries

Prison privatization in the United States

In the 1980's, some state governments in the United States (*e.g.* Texas, Louisiana, and Tennessee) found in the private sector a way to cope with the increase in the inmate population and the corresponding costs of operation and maintenance. Although the decision to privatize in the U.S. is frequently related to more conservative political cultures, there is evidence that even more liberal states adopted private management in response to budgetary constraints and prison overcrowding (Price & Riccucci, 2005).

The first experience of private participation took place in Tennessee in 1983. Today, more than 30 states have adopted private solutions. There are roughly 270 privately-operated correctional facilities. On December 31, 2008, they housed almost 128,524 inmates, which represent 8.5 % of the inmate population of the state and federal correctional systems. In some states, such as New Mexico, around 46% of inmates are held at private facilities. Considering the local jails run by counties, privately operated prisons house 7.4% of the total inmates in custody in the United States, which total 2,304,115 inmates (Sabol *et al.*, 2009).

There are some studies in the United States that focus on the comparative aspects of public and private governance. Despite the claims of cherry-picking (Oppel, 2011) and correctional creaming (Dilulio, 1996) — *i.e.*, private prisons in U.S. allegedly house relatively health and easy-going inmates — the existing studies are almost unanimous in concluding the superiority of private governance in terms of cost-reduction (Archambeault & Deis, 1996; Bayer & Pozen, 2005; Blustein & Cohen, 2003; Guppy, 2003; Mitchell, 2003).

The work of Archambeault and Deis (1996) concerns three similar prisons located in the state of Louisiana. Two of them were managed by private companies and the other by state government. In order to assure the validity of the conclusions, the authors utilized descriptive statistics tools. The authors concluded that private prisons present better performance in terms of cost reduction when compared to the publicly operated unit. On the other hand, public prisons seemed more efficient in preventing escapes and providing a broader range of treatment, recreation, social services and other services to inmates.

Blustein and Cohen (2003) found that states that had some of their prisoners in privately owned or operated prisons experienced less growth in the cost of housing their prisoners than states that used only public prisons. By comparing the cost performance indicators in 46 states, Mitchell (2003) confirms the superiority of private companies in terms of cost reduction. Guppy (2003) reached a similar conclusion and also sustains that prison privatization tends to offer state officers a proven way

to reduce costs. Morris (2007) analyzes prison privatization in the state of Mississippi and shows that a legal imposition determines that "any fees paid to non-state entities for the incarceration of state prisoners must be a minimum of ten percent less than the state's cost to house comparable inmates" (pp. 325-326). In addition, the author explains that private companies have "suffered a shortage of qualified personnel at times" (p. 333), which may affect the quality of confinement.

An interesting econometrical test concerning the performance of for-profit (private companies) and non-profit (public management and NGO's) juvenile correctional facilities can be found in Bayer and Pozen (2005). Using the state of Florida as a reference, the authors corroborated the findings of Hart *et al.* (1997) by concluding that for-profit facilities led to cost reduction and a statistically significant increase in recidivism. Thus, the short-run savings offered by for-profit over non-profit management are negated in the long run due to increased recidivism rates. Given the many legal, ethical, and political complications associated with profit-seeking correctional facilities, the authors conclude that Florida's juvenile justice system should move away from the use of for-profit facilities. In the same vein, Camp and Daggett (2005) performed a public versus private comparison in prisons managed by the Federal Bureau of Prisons to evaluate inmates' misconducts using hierarchical and linear modeling. Their results show that private prisons did not perform as well as public prisons.

Lukemeyer and McCorkle (2006), in an extensive study covering 873 correctional facilities in the U.S. (762 state facilities, 93 federal prisons and 18 privately operated facilities) observed that even though, as a group, private prisons were less likely to experience violence, private prisons with violence exhibited the highest rate of violence. Authors suggest that among private prisons in the U.S. there may be two groups: one group that is very effective in controlling violence and one that is much less effective. Nevertheless, this conclusion must be viewed with caution, given the small number of private prisons in the sample.

Although, to the best of our knowledge, there is no study in U.S. with a centralized database containing information on both public and private prisons that could contribute to better clarify the debate (Perrone & Pratt, 2003), the elements above shed some light on the public versus private debate in the correctional sector. In general, considering the incentive structure and the types of contractual arrangements between private operators and public authorities, one might observe a trade-off between cost-reduction and quality deterioration in the private provision of prison services in the United States.

The delegation of non-core activities in the French correctional service

The foundations for private participation in the French correctional services were built in 1987, when the **Programme 13,000** was announced (Lazerges, 1997). The original proposal was to adopt the U.S. model in France; *i.e.* 13,000 new beds would be created and operated by private companies in order to deal with the prison's overcrowding problem during a time of budget constraints (Thibault, 1995).

However, several political discussions resulted in changing the original plan of full privatization to a partial transfer (Salle, 2009). The French government found an intermediate solution: hybrid management (*gestion mixte*). Through a competitive bidding process, private companies were contracted to build the prisons (Cour des Comptes, 2006). However, the responsibility for managing and controlling the correctional facilities remained with civil servants, including the decisions related to the use of force. Several services were originally delegated to private companies such as hostelry (food, hygiene, and cleaning services), medical care, reentry services, and the exploitation of labor activities. Civil servants perform the activities of management (warden), external vigilance and some administrative duties (*greffe*). Correctional officers – responsible for performing routine duties within the prisons – are also civil servants. Thus, private participation is very limited in France, as non-civil servant employees in prisons represent only approximately 20 % of staff (Lazerges, 1997).

The first prison to use hybrid management was in 1990. Additionally, other prisons under hybrid management were built during the first decade of the 21st century. In 2007, 30% of inmates were housed in prisons using hybrid management. By the end of 2009, there were 40 prisons of this

type in France, housing 20,000 of its 55,000 inmates, which represented roughly 36% of the total inmate population. In 2010, the French administration launched a new privatization program and by the end of 2012, more than 50% of inmates will be in prisons using hybrid management or in publicly operated prisons with food and maintenance services provided by private companies (Cour des Comptes, 2010).

Surprisingly, there are almost no studies that compare the relative performance of prisons under hybrid management and the facilities with traditional provisions. At this time, the only available source is two reports from the French government (Cour des Comptes, 2006, 2010). Although the reports are not extensive, as they do not concern all French prisons and thus do not provide data suitable for an econometric test, their main findings are useful in understanding what is going on in the sector. The main reason for the lack of studies is most likely due to the difficulty in obtaining data. For nearly a year, we tried unsuccessfully to collect the necessary data from the French Ministry of Justice for a comparative econometric test. In addition to the difficulties imposed by the government, we also observed (through successive interactions with public representatives) that the databases with the relevant information are not available because the data is not consolidated.

In France, three companies specializing in facilities management provide prison services – GEPSA (SUEZ Group); SIGES (Sodexo Group); and IDEX as of the end of 2009. As we observed during the interviews, they are geographically distributed throughout France. Despite the fact that the participation of private companies is not particularly extensive, it is possible to identify certain positive spillovers. As mentioned by one executive interviewed and later confirmed by a government official and also by the French government reports (Cour des Comptes, 2006, 2010), companies in charge of prison operations in France were able to adapt certain management techniques learned elsewhere in the private sector and apply them in the prison sector. As a result, the private operator presented superior performance standards in terms of asset maintenance, the quality of the food provided to inmates (essential for cooling internal tensions), cleaning, and health care (Cour des Comptes, 2006). Official reports also recognize that the hybrid management provides better reentry services. Private operators organize the labor activities in such a way that allows inmates conciliating paid activities and educational assignments. For instance, at the Val d'Oise prison 65% of the inmates allowed to work were also enrolled in other educational or cultural activities (Cour des Comptes, 2010).

Although private operators in some areas perform better than entirely public-operated prisons, the hybrid-managed prisons are more costly when compared to similar publicly held prisons. Table 1 illustrates that prisons with private operation are up to 33.4% less costly.

Table 1

Daily Costs (Euros) in French Prisons 1999-2003

	1999	2000	2001	2002	2003
Daily Costs in Hybrid Prisons	53.81	60.17	NA	56.41	53.27
Daily Costs in Comparable Public Prisons	43.73	45.12	NA	52.00	45.83
Difference	23.05%	33.36%	NA	8.48%	16.23%

Note. Source: Cour des Comptes. (2006). *Garde et réinsertion-La gestion des prisons* [Rapport public thématique]. France, Auteur.

In our interviews with government officials and private executives we ascertained that these actors agree that the reasons for such disparities are due to: (a) additional fiscal taxes; (b) increased quality in response to more severe contractual obligations; (c) profit margin of the private operator; (d) absence of significant differences in the salaries of public and private employees, which means that cost savings cannot be originated from lower salaries. In their official reports, the French authorities were not able to identify the contribution of each topic above to the gap observed.

Thus, unlike in the U.S., in France we observe that private provision of prison services may lead to an increase in both the cost and quality aspects.

The Brazilian experience: between the French and U.S. models

With an inmate population of roughly 446,687 prisoners as of the end of 2008 (Brasil, 2009), the Brazilian correctional system is known for its riots, escapes, corruption, high recidivism rates and overcrowding.

In order to deal with such constraints, subnational governments have decided to utilize the private sector for correctional activities. After numerous discussions, Brazil adopted a model where the government retains the ultimate responsibility for an inmate's custody, remaining in charge of the external security and the management of the facility (*i.e.*, warden, vice-warden and security coordinator). Private actors run all other services including internal security, food, medical aid, legal assistance, dental care, leisure, education, facilities management, and provision of vehicles (Cabral, Lazzarini, & Azevedo, 2010). Although inspired by the French experience, the Brazilian example is placed somewhere between the U.S. and French experiences, as certain activities not delegated to private operators in France can be outsourced in Brazil, such as internal security and legal assistance to inmates. On the other hand, in contrast to the U.S. full privatization model, in Brazilian outsourced prisons civil servants play the role of contract supervisors.

The first experience of outsourcing in Brazil was in 1999. According to information obtained from Brazilian correctional departments, as of 2009 there were 14 correctional facilities operated by four different private companies in five different states. They house around 1.5% of the Brazilian inmate population.

In order to illustrate the situation in Brazil, Cabral and Azevedo (2008) performed a comparative case study of two facilities, one publicly managed and the other outsourced to a private company, both located in the same region, the State of Bahia. Although the facilities are similar in physical structure (same design), in terms of capacity (both were designed to hold 268 prisoners), and with regard to the inmates' criminal profiles, there are some differences that could be associated with different governance structures. In terms of cost, a publicly managed prison when compared to the outsourced prison employs 20% more people, reports absenteeism rates that are three times higher and pays 60% more in salaries to correctional officers (75% of the staff). It also spent three times more on water and electricity costs than the private company did. Therefore, a publicly operated facility is less cost-effective, which is consistent with Hart *et al.* (1997). However, when we looked at the services provided to inmates, which are a quality indicator, the results observed go against the theoretical hypothesis of Hart *et al*. (1997) as the privately operated facility presents superior results. The outsourced prison provides 10 times more medical care to inmates and 20 times more legal advisors. No escapes or escape attempts were recorded in the privately operated facility, whereas in the public facility there were 8 and 25 respectively. The internal environment is less safe in the publicly operated facility. The indicators of assaults against other inmates and against visitors and employees are 15 times higher.

Cabral, Lazzarini and Azevedo (2010) discuss similar conclusions. Using a panel data analysis, the authors compared publicly and privately operated prisons from 2001 to 2006. The study concluded that outsourced prisons run at a lower cost (10% less) and have superior quality indicators (fewer escapes, deaths and a greater number of medical appointments). The authors highlight in their conclusions the role of public supervisors in guaranteeing the quality standards in the private provision of correctional services, which attenuates the cost-quality dilemma. They argue that state-appointed wardens may have implicit incentives to enforce quality. In addition, press and NGOs seem to mitigate the odds of collusion between private operators and public officials.

Ancillary, we obtained primary data from the State of Paraná, which was the first subnational government to outsource prisons in Brazil. Data from 2002 to 2005 (Table 2) reveal that privately operated facilities provide superior performance in quality dimensions related to security and order.

Although the average numbers of inmates held in publicly operated prisons is 63.3% higher compared to outsourced facilities, the proportional number of deaths and escapes in prisons run by government officers is even higher, thus suggesting increased performance of privately operated prisons.

Table 2

Deaths and Escapes in Correctional Facilities of the State of Paraná, Brazil – 2002-2005

		2002	2003	2004	2005	Average
Deaths	Public	8	5	8	6	6.8
	Privately Operated	0	7	2	3	3.0
Escapes	Public	3	0	2	6	2.8
	Privately Operated	0	0	0	1	0.3
Average number of inmates per prison	Public	636.6	626.5	671.5	694.7	657.3
	Privately Operated	337.5	402.5	422.5	447.3	402.5

Note. Source: Internal files. Departamento de Execução Penal do Estado do Paraná. (n.d.). (registros internos). Curitiba, PR, Brasil.

Hence, in comparison to the two other cases, the Brazilian case suggests that private participation in this sector might lead to lower costs and superior quality performance indicators.

Beyond Property Rights Distribution: Alignment and Performance

Considering our three cases, France, Brazil, and the U.S., only one country bundled the construction and service phases into one contract, as suggested by Hart (2003): the U.S. The two others did not and nevertheless exhibit performance differences, suggesting that the bundling issue is only one factor of the problem. Our analysis suggests that the incomplete contract theory (Hart *et al.*, 1997) does not provide a comprehensive picture of what is happening and that performance is not only an issue of public versus private property and bundling versus unbundling, but is related to the combination of several elements, which together can lead to a superior governance structure.

Table 3 summarizes the main characteristics of private participation in prison services in each of the three countries. The aggregated information can be useful for our analysis. After analyzing the table, reasons for the differences can be organized according to three main factors: incentive schemes and contractual design, institutional setting, and decision rights assigned to private operators. The table shows that there are a significantly higher number of prisoners housed in prisons with private operations in France, which suggests it is considered to be a successful model. However, in Brazil — with both lower costs and higher quality — only a small proportion of the prison population is held in prisons with private involvement. These counter-intuitive results could be associated with the few comparative studies existing in both countries, leaving the public and even government officers without a clear picture of the outcomes from private provision. In addition, in the Brazilian context, citizens tend not to favor private engagement in the provision of public services. Such resistance poses additional constraints to privatization initiatives (Cabral, Lazzarini, & Azevedo, in press). In addition, the inherent complexity of prison services may thwart either outsourcing or PPP ventures. These factors can explain the limited number of privately operated facilities in Brazil compared to France and the U.S., in which the number of inmates held in private prisons is almost three times the total number of inmates in France (60,978 inmates as of December 2009).

Table 3

Effects of Private Actor Participation in Prison Services

Country	United States	Brazil	France
Beginning of private participation	1983	1999	1990
Number of facilities under private operation and/or management	270	14	40
% of inmates in privately operated facilities	7.4 %	1.5%	36%
Mode of participation	Privatization	Services Outsourcing	Services Outsourcing
Type of Contract	Bundled and Unbundled	Unbundled	Unbundled
Activities kept with the government	None	Warden and external vigilance.	Warden, External and internal security, administrative controls, judicial assistance and health care
Private companies decision rights level	High	Medium	Low
Costs effects	Decreasing (-)	Decreasing (-)	Increasing (+)
Quality effects	Decreasing (-)	Increasing (+)	Increasing (+)

Looking at Table 3 and following Baker, Gibbons and Murphy (2008), we believe that the performance of prisons management depends on property rights distribution **in addition to** contractual design and institutional constraints.

Incentive schemes and contractual design

The incentive schemes proposed by governments to reward the private operators may influence the performance of the service provided. In prison services specifically, the contract specification must incorporate the proper incentives for the private operator and must include elements that preserve the broader interests of society.

In the **U.S.**, the general rule is that private operators charge the governments a daily-based rate for each inmate under their supervision (Bayer & Pozen, 2005). Therefore, their financial performance is dependent on the number of **man-days** they can hold. There are strong incentives to keep prisons at full occupancy rates and in order to assure their cost-savings, private operators may pay lower wages and reduce staff benefits (Camp & Gaes, 2002; Schneider, 1999), thus reducing quality, as suggested by Hart *et al*. (1997).

It is not an easy task on the part of the government to check such practices and enforce correction of occasional quality problems in the U.S. privatized prisons. Indeed, to the best of our knowledge, there is no on-site supervisor appointed by the public authorities within privately operated facilities in U.S. Furthermore, contracting out prison services is not trivial because it involves activities for which it is difficult to write, supervise and adapt performance clauses (Levin & Tadelis, 2010). More precisely, although some security and order dimensions (*i.e.* the number of escapes and riots) are not hard to measure, the assessment of the output of other quality aspects is not (*i.e.* the level of force against inmates and/or the quality of the meals provided to inmates)[(2)].

In line with the theories of incentives (Roberts, 2010), the presence of non-contractible quality standards and the lack of observability of the agent's behavior may induce private operators in the

U.S. context to prioritize short-term results and to ignore the long-term implications of their actions. This is particular acute in settings plagued by multitasking, whereas agents are likely to denote less efforts to activities that are poorly measured (Holmstrom & Milgrom, 1991). This can be one of the causes of the lower levels of inmate care quality in U.S. private prisons (Camp & Gaes, 2002). The market structure may also explain the U.S. results. Actually, the major private prison businesses are traded on a stock exchange, thus increasing the pressures for profit (Schneider, 1999).

In **France**, the private operators — who have a reduced role in prison operation — earn a fixed amount that covers costs and provides an expected profit margin according to prison capacity. Received theories suggest that the cost-plus contracts are not recommended when cost reduction must be pursued. However, although cost-plus contracts allocate risks mainly on the buyer side, they may create incentives for improved quality (Bajari & Tadelis, 2001).

Accordingly, "if for some reason the agreed number of inmates held is exceeded, we receive additional compensation based on clauses previously foreseen in the contract" (Private Operator Executive 2, France). Since there are no performance clauses in the contracts, the private operators' earnings do not depend directly on the results obtained. In addition, as the French government payments cover private operators' costs, the incentives to spend less and promote investment that leads to cost reductions are not strong. Further, the salaries of private employees do not differ from equivalent positions in civil service. The consequence of this contractual scheme is reflected in the cost indicators: prisons with privately provided services are more expensive.

In contrast, the superiority of the private companies in terms of quality seems to be related to the fact that these firms have solid experience in facilities management, as we learned from government officials. All they had to do "was to adapt their practices to the correctional sector and take advantage of their background in the private sector" (Government Officer 1, France). Indeed, one of the prison providers is part of the Sodexo Group (a worldwide supplier of food and facilities management services). As the living conditions are one of the main causes of a peaceful or turbulent prison environment, private operators in France are keen to prioritize higher quality in sensible areas like cleaning and food, as pointed out in the following quote: "we have two customers: the penitentiary administration and the inmates" (Private Operator Executive 1, France). Besides their inherent capabilities, private operators in France have incentives to build and sustain good reputations, which can be helpful in obtaining extra business with public authorities. For example, the Lille-Sequedin prison (partially operated by SIGES) supplies food services (**catering**) to two other public prisons in the region and official documents stress the role of the capabilities of the private operator as mandatory for signing new contracts with the French government (Cour des Comptes, 2010).

However, the type of contract signed between the French government and private operators may generate negative externalities affecting some public prisons. As the contracts foresee additional payments to the private company when the prison is running above its capacity, the government avoids sending more inmates to the prisons with hybrid operation (Cour des Comptes, 2006). Consequently, "public prisons present higher levels of overcrowding. And, this factor contributes to a more turbulent internal environment, which creates additional problems for the managers of public prisons" (Politician, France).

On the other hand, the reduction of uncertain events within hybrid operated prisons allows private operators (and civil servants working in this kind of facility) "to focus on the facility priorities, moving the necessary resources to assure the provision of services" (Private Operator Executive – France 1). Hence, although the contracts between French authorities and private companies do not contain performance clauses (Cour des Comptes, 2010), we cannot ignore the role of implicit and explicit incentives when we analyze the reasons for the differences between the public and hybrid modes of prison service provision in France.

In **Brazil**, by analyzing the agreements between the local authorities and prison service operators in the country, we can observe that the contracts signed foresee a payment to private operators for holding inmates on a price cap basis. This type of contract allocates risks mainly to

contractors and is likely to reduce the costs of services provision (Bajari & Tadelis, 2001). In the Brazilian case, there are two possible situations that can increase the profit margins of the private operator: (a) a reduced number of inmates under its responsibility; and, (b) the implementation of optimization efforts. Naturally, the price-cap contract mode would potentially stimulate efforts towards cost reduction at the expense of quality (Hart *et al.*, 1997). However, the presence of on-site public supervisors can constrain opportunistic behavior.

With regard to the reduction in the number of inmates, we can observe another interesting aspect. In addition to providing savings in some direct expenses (less food, lower consumption of energy, etc.), having fewer prisoners in a prison can also generate another positive externality: a peaceful internal environment. The reduction in the number of prisoners will likely reduce the number of eventual internal conflicts among inmates. According to the type of contract signed in Brazil, in the case of undesired events such as riots, the private company is responsible for repairing damage to the facility. Therefore, the operator also has a strong economic motivation to maintain a calm and peaceful internal environment. It is also evident that a non-turbulent internal environment allows prison managers "to concentrate their attention on the resolution of other internal problems" (Warden of Outsourced Prison 2, Brazil).

Since Brazil has a large deficit in the correctional sector, private operators have incentives to do their best in order to obtain additional contracts in the future. Reputation matters, and in this case, the presence of weak incentives (Roberts, 2010) can explain the motivation of the private companies to act in the government's interests.

Institutional constraints

Prison managers (public or private) can deploy several strategies to increase prison performance standards. Nevertheless, some of these actions are dependent on the ability of the prison managers to deal with certain institutional constraints. Prison services are constrained by several formal institutions: political, regulatory, external, and judicial (Shirley & Ménard, 2002). Normally, it is up to the courts to determine who goes to prison, who is released, or which prisoner has the right to alternative sanctions other than incarceration. Thus, the reduction in the number of inmates in the prisons is dependent on the efficiency of legal matters and also on the social choices shared by the local judicial community (Cabral & Azevedo, 2008). In this sense, judges in conservative locations are keener to hand down harder sentences, as can be seen in the U.S. (Schneider, 1999).

However, the slow pace of the judicial system is a stylized fact in many countries, mainly in those where institutions are not mature (Ayres, 1998). Such institutional problems signal precaution to prison managers as the delay in delivering judgments might generate internal conflicts inside the correctional facility, mainly when those judgments are related to benefits to be conceded to inmates, such as appeals, probation, parole and other prisoner rights assured by law (Cabral & Azevedo, 2008).

In order to bypass such institutional constraints, private operators have economic motivations and alternative mechanisms for dealing with judicial constraints. We noticed in our research that in the Brazilian case some private operators reward their lawyers according to the number of release orders obtained. At their own expense, one company also hires administrative assistants to support the operational tasks of the local court. The company's collaborative approach with the local court can be a way of avoiding overcrowding in the privately operated prison, as corroborated by a Brazilian private operator executive:

> "The good relationship with local courts is essential for our operation. We always try to establish strong ties with judges. We understand their situation and sometimes we help them to overcome their material limitations by hiring assistants for the administrative and operational tasks of the courts. Thanks to these practices the processes involving the inmates under our custody run faster when compared to other locations … it does not mean corruption, because there is no money or other material concessions involved" (Private Operator Executive – Brazil 1).

Of course, politicians and human rights people contested the suggestion that the situation above is a **win-win** situation during our interviews. However, it is evident that for prisons under public management there are few chances of bypassing local judicial restrictions, and consequently a warden of a publicly managed prison has fewer instruments to control undesired effects that might arise from the slow legal pace of some courts.

The relative success of the Brazilian case (when compared to the performance observed in the local prisons, which are publicly managed) can tell us something about how the combination of different factors can be a key element in the choice of governance structure. Nevertheless, such a configuration may not be stable when considering the existence of a weak institutional setting. Abrupt change in certain institutional components is a plausible possibility (Cabral *et al.*, in press). Thus, contractual performance is likely to be affected in response to shifts in political and regulatory institutions as pointed out by private operator executives in Brazil:

> "the main problem in our business is the uncertainty. Subnational governments in Brazil do not always pay us on a regular basis, which generates cash-flow problems" (Private Operator Executive – Brazil 1).

> "If the government delays our payment, which it usually does.....of course this causes me a lot of problems, but, you know, we must tolerate, avoid arguing and so on in order to keep a good relationship with government officers….to get new contracts I need them to put in a good word on my behalf" (Private Operator Executive – Brazil 3).

On the other hand, institutional stability is responsible for the creation of credible commitment mechanisms that contribute to increasing performance (Shirley & Ménard, 2002). This seems to be the case in French prisons:

> "The contract is a means of guaranteeing that the services will be performed accordingly….and for sure the very fact that the French government is a credible customer makes things easier for us" (Private Operator Executive – France 2).

Nevertheless, the use of strong ties between prison businesses and politicians signals precaution. This situation is fairly documented in the U.S. (Dilulio, 1996; Schneider, 1999), noting that it may harm the public interest at the expense of commercial and ideological grounds (Wacquant, 2001).

Decision rights

In the U.S. private model, where public supervision is less intense in comparison with the other two cases, almost all decision rights are allocated to the private operators. The companies are able to establish the details related to building the correctional facility and issues related to details in the operation, such as the allocation of prisoners to cells, education, and labor activities policies (Logan, 1990). It is difficult for the government to monitor the behavior of the private operator (Dilulio, 1996). Some of the delegated services are not completely contractible because they are not verifiable (*e.g.* the use of violence, skills and level of employees). In this contract framework the private companies are likely to have stronger incentives for profit maximization-oriented actions via cost reduction at the expense of quality, as foreseen by the received theories.

In the French and Brazilian outsourced models, the decision rights are split between government officials and private operators. What varies notably from one contract type to another is the degree of tasks delegated to non-governmental operators. Private operators are keen to be more flexible to manage and coordinate the work of different suppliers when compared to the traditional provision. Further, the signed-contracts may guarantee that the services will be delivered and operations will not be interrupted.

> "The contract forces us to respond to government needs….we are more flexible, faster and effective than the government to hire and purchase" (Private Operator Executive, France 2).

> "they are more flexible than us" (Government Officer, France 2).

In addition, an important characteristic of hybrid forms is the presence of civil servants inside the prison, as they are able to verify the quality of the services provided and occasionally enforce sanctions in the case of certain contractual non-conformities (see Cabral *et al.*, 2010). The presence of public supervisors enables the separation of operation and management, which may foster the enforcement of sanctions in case of contractual non-compliance (Cabral & Azevedo, 2008). Also, on-site public supervision provides an additional level of control, whereas public and private manager may jointly interact to solve operational problems. This is possibly the mechanism through which we observe an increase in quality standards in Brazil and France as opposed to the United States, where quality is likely to decrease, as illustrated in the following quotes:

> "Civil servants are society's eyes in the outsourced prisons" (Government Officer 3, Brazil).

> "In fact, in the outsourcing mode as a warden I have more time available to focus on the strategic activities. For example, it´s not up to me solve problems regarding the quality of the food. It is up to the manager of the private operator to solve it" (Warden of Outsourced Prison 1, Brazil).

> "The government plays a leading role in the outsourcing mode. If the government assigns a corrupt warden to supervise our work, we will be in trouble…a good warden must act with probity and enforce the contract if we have some fault…if I have an operational problem I want to know" (Private Operator Executive – Brazil 2).

The level of delegation is also responsible for the cost differences between the two hybrid models. In France, fewer activities are delegated than in Brazil, where civil servants make up a smaller proportion of the employees in privately operated facilities. The maintenance of the *status quo* helps to crystallize current practices in France, which can hinder the adoption of managerial innovations. In addition, from a financial point of view, in Brazil and the U.S. civil servants generally receive higher salaries and receive benefits that are not available in private companies. All of these factors lead to an increase in costs when public management is concerned (Laffont, 2000).

Concluding Remarks

Despite the fact that private participation in prison services is fairly covered in theoretical economic models, few studies compare distinct governance structures. In our analysis, we found striking differences in the outcomes. In the United States, private participation leads to cost-quality trade-off. In France, we observe an increase in both dimensions, while Brazil demonstrated cost reductions with an improvement in quality. It is natural to ask why such differences occur.

We argue that the achievement of an appropriate governance structure does not rely on property rights distribution, but rather on the way incentives, contractual design, decision rights, and the nexus of institutions interact. The combination of all these factors might have a strong impact on performance indicators, in either a positive or a negative sense. The ability of public or private mangers to deal with and occasionally bypass imposed institutional constraints is essential in the choice of the contractual mode. Our results suggest that public managers must also consider the role of on-site public supervisors in order to monitor the behavior of private agents and take discretionary choices about punitive issues. Private operation with public supervision might enable the viability and the legitimacy of public and private agreements in prison services, while at the same time assuring that private sector capabilities will be driven to address the interests of the society.

There are several avenues for future investigation. First, more studies comparing PPP with traditional public provision are still needed. In addition, there is a need to understand the different forms of incentives resulting from the interaction between decision rights and institutional constraints and how these factors complement each other. Risk allocation issues across the different contract types might be addressed in future investigation. Further, if on-site public supervisors are assigned to monitor private companies in prison services, a pressing question emerges: who will supervise the

supervisor? How may strong and weak incentives thwart collusion between public officers and private agents? In our context, implicit incentives from reputational concerns may avoid quality deterioration. In any sense, additional research in other public utilities other than prisons remains necessary.

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Notes

[1] In Brazil and in France judges decide where the convicted will serve her (his) sentence. In some states in the United States judges may assign a specific facility or may order an inmate to complete a particular program, which may only be available at one institution. In some state sentencing laws this decision is left to corrections departments so they can make classification determinations (*i.e.*, using an instrument to determine a person's risk to institutional safety, typically **minimum**, **medium** or **maximum**). However, in the three countries it generally is within a judge's power to sentence an individual to a particular institution, for any reason, mainly including requirements about security level or reentry of prisoners.

[2] Some recent PPP contracts are incorporating performance clauses to measure quality aspects in prison services provision even for inmate amenities. For instance, in the PPP of the Itaquitinga Integrated Reentry Center for 3,126 inmates, the government of the Pernambuco State in Brazil introduced several performance clauses to be verified by an independent auditor. This new contractual arrangement differs from the three models covered in the present paper and may imply different outcomes as compared to those observed in our paper. Further investigation is required.

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