

The Efficiency of Public-Private Partnerships in France: An Initial Quantitative Evaluation¹

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Abstract

In this paper, we propose an evaluation of French public private partnerships by focusing on the implementation phase of infrastructure but also, for which is the first time to our knowledge, on the operational phase of projects. Using a questionnaire administered to thirty projects in operation, we evaluate the effectiveness of this type of contract, in terms of cost, time, quality, and price/quality ratio. Our quantitative assessment suggests that public authorities are globally satisfied with their projects financed through public private partnerships.

Introduction

¹ We would first like to thank the people in charge of the projects included in our sample who replied to our questions. We are also grateful to the *mission d'appui aux partenariats public-privé* [public-private partnerships task force (MaPPP)], which helped us to validate the data we collected. Our thanks also go to CST, SP2000, GIMELEC and GB2A, the companies that helped us testing the questionnaire.

Public-private partnerships, which were introduced in June 2004, are a recently developed tool. A public body can use it in order to assign a **comprehensive** mission to a firm, under a long-term contract, in return for **payments made by the public body** over time. A major reason why public-private partnerships were initially developed was to enable France to make up for lost ground in relation to other countries such as Great Britain, which had instituted PFI (Private Finance Initiative) contracts in the early 1990s, and so already had a comparable tool. In 2011 and the first quarter of 2012, with more than 150 contracts signed to date,² France leads the leading European countries considering the amount of such contract deals signed in the year. Criticisms continue to be voiced, however, and there seems to be no guarantee that these contracts will survive in the long term. Challenges to public-private partnership arrangements (PPPs)³ are mounting (the Hôpital Sud-Francilien project and the future headquarters of the Ministry of Defense in Balard are probably the ones most often cited in the press), and the current government might well put a halt to further expansion.

In theoretical terms, although the concept of public-private partnerships is a new one in French law, and is borrowed from management practice, little management research has been done into the phenomenon (for one exception, see Kivleniece and Quélin 2012). In empirical terms, to our knowledge, while there are articles addressing specific cases (see, for example, Campagnac and Deffontaines 2012), there has been only one attempt to do a quantitative study of French public-private partnerships: the study done by PricewaterhouseCoopers (PricewaterhouseCoopers 2011). Although the findings of that study are positive on the whole (particularly in terms of average cost overruns and delays observed in public procurement contracts—the natural alternative to public-

² Figures dated August 1, 2012 (MaPPP).

³ In the specialized and mass-market French press, the concept of PPP quite often refers specifically to those new public-private partnerships and other public-payment sectoral forms (AOT-LOA, BEH, BEA, etc.), and excludes older forms of public-private partnerships that we will not discuss in this article, such as outsourcing of public services (public service delegations such as *affermage* [long-term lease-management] and concessions) which are much older in France.

private partnerships), it should be noted that the study concerns only the period between the signing of a contract and the completion of the infrastructure. It does not address the operational phase of the contract, once the infrastructure is delivered—the crucial phase and the one likely to generate major contractual problems (Williamson 1985).

In this article, we present an evaluation of public-private partnerships by focusing on the infrastructure initiation phase, but also, and to our knowledge for the first time, on the project operation phase. Based on a questionnaire administered to thirty projects then in operation, we evaluate the efficiency of this type of contract in terms of costs, deadlines, quality and value for money. In Part 1, we review the creation, implementation and development of public private partnerships, and in Part 2 we briefly set out their benefits and potential limitations. We conclude, in Part 3, with a quantitative assessment and examine the future of public-private partnerships in France.

I. Objectives and Development of Public-Private Partnerships

1.1. Objectives of Public-Private Partnerships

A public-private partnership is a public-private arrangement in the broad sense: a legal and financial arrangement creating a partnership between the public and the private sector for the provision of services and/or creation of public infrastructure or public works. This category of contract, which was created by Order No. 2004-559 of June 17, 2004, supplements the traditional tools available for public procurement: public procurement contracts, which meet purchasing objectives without transferring risk to the private sector, and public service delegations, which meet service objectives and transfer a risk of demand (or use) to the private sector.⁴

⁴ The order extends older contract formulas such as *montages domaniaux complexes* [complex arrangements in respect of state lands] (administrative long-term leases or temporary occupancy permits together with a non-severable management agreement) and “sectoral” partnerships (in the areas of domestic security, justice and health).

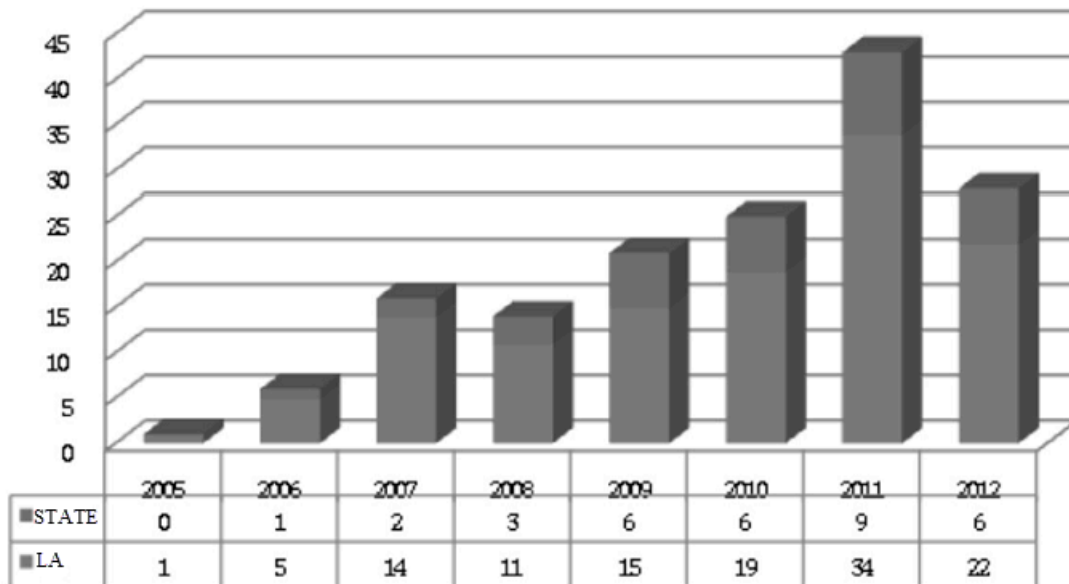
A public-private partnership contract enables a public body to assign a comprehensive mission to a private enterprise, under a long-term contract, in return for payment by the public body that is spread out over time. Public bodies can use contracts of this type to ensure that a service that they need to carry out their own tasks is available. Examples include the availability of public works (a hospital or prison, an office building, a telecommunications network, a railroad, etc.) or resources (drinking water, meals, heat, etc.).

One reason why this new tool was required is that certain public services are not suited to outsourcing through concession contracts, or the courts have held that concession is not permitted. Some services do not lend themselves to an operation-based payment method, and in particular to a user-based method. There are also situations where even though this payment method would be possible, the nature of the service subject to the concession means that any form of payment-based discrimination among its users is not permissible. Two examples are police services and defense. The objective was therefore to strengthen investment in the infrastructure used in supplying public services, particularly in areas where the user may not be the payer.

1.2. Rising Use of Public-Private Partnerships

Public-private partnerships have plainly become fixtures on the French public procurement landscape since they were introduced in 2004. While the initial phase of this new type of contractual arrangement presented difficulties, essentially because it was so new in legal terms, a substantial number of contracts have now been signed in France, the value of the contracts being particularly significant. Every year since 2005, the number of public-private partnership contracts signed has risen, reaching a total of over 150 in August 2012, with a cumulative value of more than €12 billion since 2005 (see graphs 1 and 2). Since 2011, France has led the countries of Europe with over half of the market, by volume, for contracts signed during the year, well ahead of Great Britain, even though these contracts were originally developed there in their English form (PFIs) in the early 1990s.

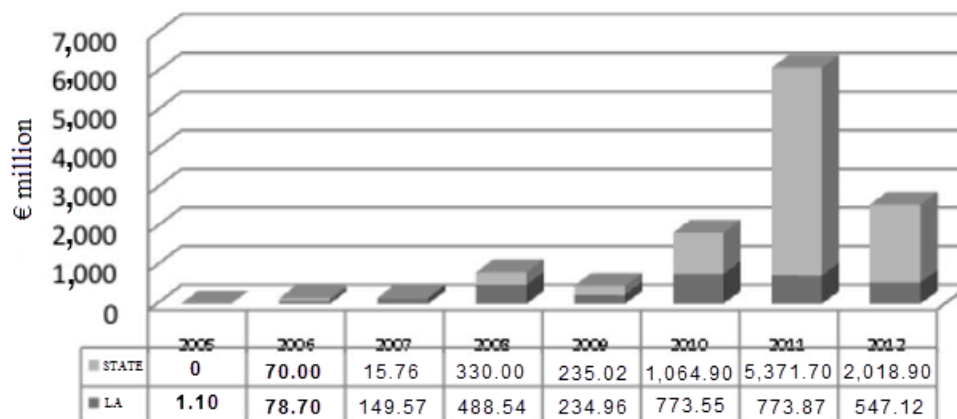
Graph 1. Number of public-private partnership contracts signed since 2005 by the State and local authorities



Source: MaPPP. Data as of August 12, 2012.

Graph 2. Value of public-private partnership contracts signed since 2005 by the State and local authorities (in € million)

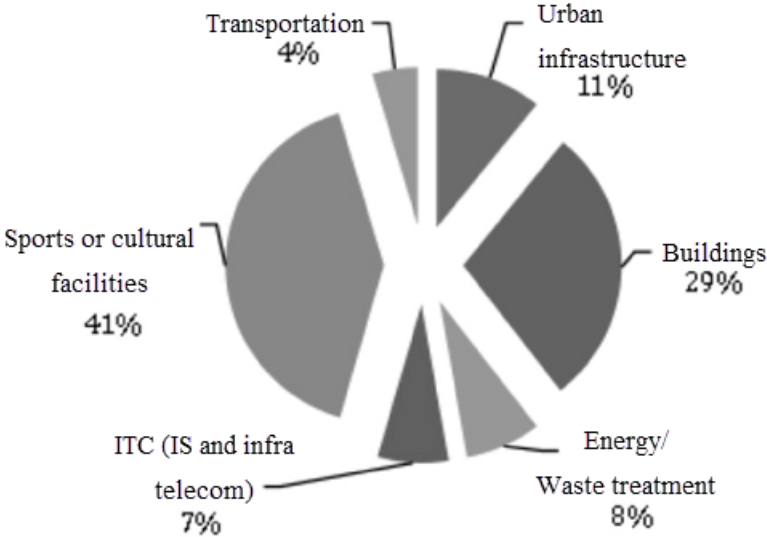
Value of public-private partnership contracts signed since 2005



Source: MaPPP. Data as of August 12, 2012.

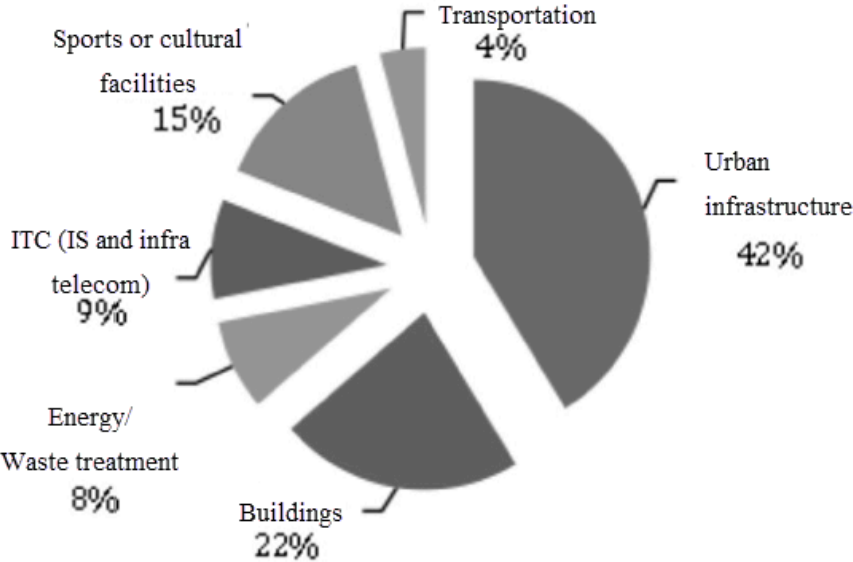
Local authorities are the source of a large proportion of the public-private partnership contracts signed (121 of 155 contracts, or more than 78% of the total). They have eagerly adopted this tool to finance infrastructures mainly in the areas of buildings (colleges, secondary schools, train stations, city halls, etc.), urban infrastructures (street lighting, roads, etc.) and sports or cultural facilities (theaters, museums, arenas, swimming pools, etc.). The average value of the contracts varies widely from one sector to another. While urban infrastructures represents more than 40% of the contracts signed (a large majority of the contracts concern street lighting), it ultimately accounts for only 11% of the value of the contracts (see graphs 3 and 4). Conversely, while sports and cultural facilities represent 15% of the total number of contracts, they account for over 40% of the value of the contracts signed during 2005–2012. The simple explanation is that the average amount of the contracts varies, depending on the type of infrastructure. On average, the average amount was €25M, excluding taxes, for all types, but was €6.5M for urban infrastructure, rising to over €68M for sports and cultural facilities, before taxes.

Graph 3. Value of public-private partnership contracts signed by local authorities, by type of facility (2005–2012)



Source: MaPPP. Data as of August 12, 2012.

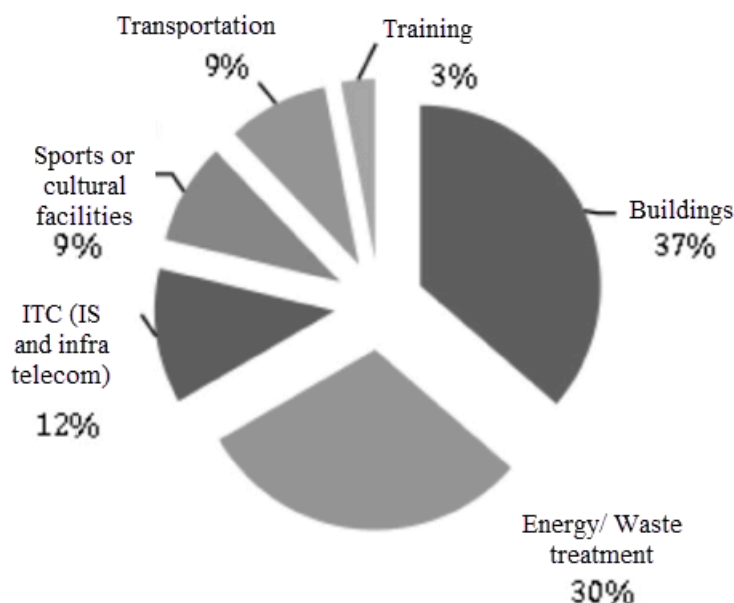
Graph 4. Number of public-private partnership contracts signed by local authorities, by type of facility (2005–2012)



Source: MaPPP. Data as of August 12, 2012.

Local authorities are the source of a very large majority of contracts, while procurement by the State or its national public institutions (EPNs) represents more than two thirds of the value of the public-private partnership contracts signed since they were created (see graphs 5 and 6). The State’s needs mainly take the form of buildings and energy and waste treatment. As in the case of local authorities, however, the average value of the contracts signed varies, logically, from one type of facility to another. For example, while transportation infrastructure represents only 9% of the total number of contracts signed, it accounts for more than 50% of their total value, with contracts having an average value of over €1.6B before taxes. The average value of contracts signed by the State, with all types of facility combined, was €275M before taxes.

Graph 5. Number of public-private partnership contracts signed by the State, by type of facility (2005–2012)



Source: MaPPP. Data as of August 12, 2012.

II. Promises Associated with Public-Private Partnerships

2.1. A New Type of Contract

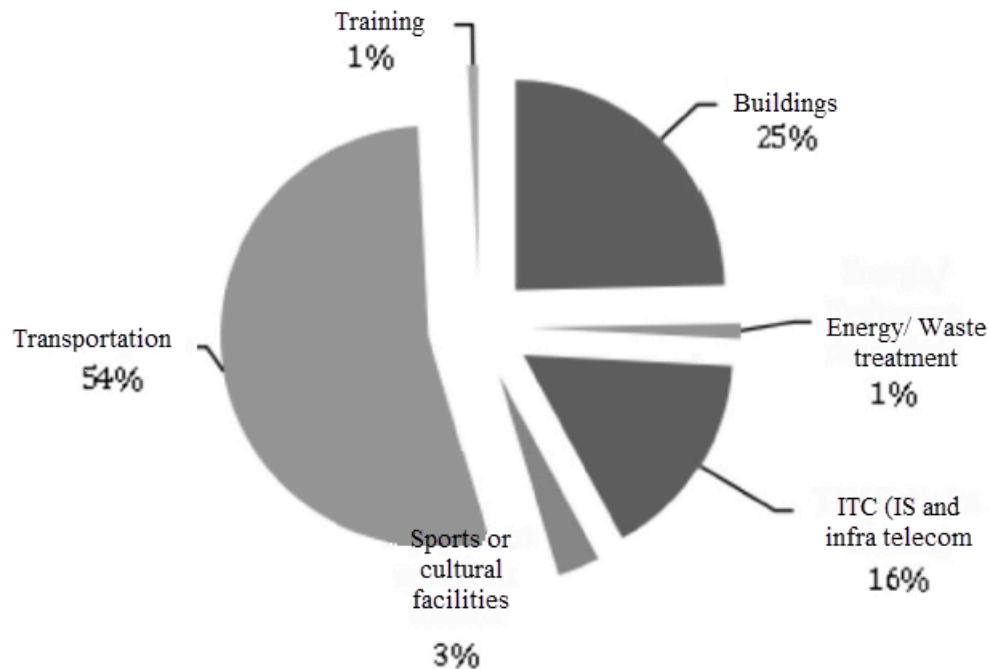
To understand the promises associated with public private partnerships, a review of what distinguishes them from other public procurement methods, particularly public procurement contracts and public service delegations, will be useful. This distinction arises out of the fact that public-private partnerships are contracts

- that delegate a comprehensive mission to a single private provider, covering design, building, maintenance and part of the operation, and create a *de facto* partial merger of the project management and general contracting functions. They are therefore complete package contracts;⁵

⁵ However, the fact that a contract is a complete package is not sufficient to distinguish public procurement contracts from public-private partnerships, particularly since comprehensive public procurement contracts are now available to supplement the public procurement legal mechanism: the Decree of August 25, 2011, introduced article 73 into

- under which the provider is paid out of public funds, in the form of rent, in return for making public-use buildings, infrastructure or facilities available. They are therefore contracts in which payment out of public funds is spread out over time. It is mandatory that part of that payment be subject to performance objectives being met.⁶

Graph 6. Value of public-private partnership contracts signed by the State, by type of facility (2005–2012)



Source: MaPPP. Data as of August 12, 2012.

This new form of contractual relationship in classic public procurement situations meets the objective of securing funding in times of budgetary constraint and modernizing public procurement by introducing new governance mechanisms into contractual and financial arrangements (Campagnac and Deffontaines 2012). Logically, the legislature has provided for a newly created competitive process for awarding this new type of

the public procurement code, defining contracts that combine building, operation or maintenance (REM) or design, building, operation or maintenance (CREM) to meet performance objectives.

⁶ This payment method distinguishes public-private partnerships from public service delegations and redefines the extent of the risk. This is particularly the case for concession, the principle of which is that a substantial part of the payment derives from operating revenue.

contract. More specifically, there are two possible competitive models for public-private partnerships. The first is limited invitations to tender, which involve the submission of firm offers, in a single round, by preselected groups of candidates. The second, which applies in a majority of cases, is the competitive dialogue process, by which the public party can obtain offers that are gradually refined, from groups of candidates that become smaller as the process moves forward. The public party then analyzes the offers received separately, assuring the groups that the information disclosed will not filter through from one group to another. Competitive dialogue thus makes it possible to clarify the potential and best technical solutions for achieving the public service objectives specified by the public party. It should make it possible to identify “innovations” that provide for a good quality public service for the lowest cost.

2.2. Benefits Identified by Economic Analysis

The main benefit identified in the economic literature lies in the comprehensive nature of the mission assigned to the private operators. A public-private partnership is a complete package contract, in which a number of complementary project phases are bundled. By proposing that a single operator take on a package, the public authority provides an incentive for internalizing cost reductions in the operation of the service, which may be made possible by appropriate investment in, and design of, the supporting infrastructure (Hart 2003). This has major implications for the level of incentives offered to private operators, but also, ultimately, for the very nature of the service provided: this type of contract gives the operator an incentive to consider complementarities and synergies among the various phases of a project. These considerations may influence the investments made, but may also influence the incentive the operator receives for making sure that the various phases are organized efficiently, so as to reduce delays to completion of the infrastructure (i.e., “interface risk” associated with coordinating all phases of a project: design, construction and operation). In other words, signing a package contract alters the nature and level of the incentives received by the private operator, and this in turn results in changes in the amounts it invests, in the revenue and/or welfare generated by the service, and in the timeframe for completing the infrastructure.

The fact that payment to the service provider is deferred strengthens this incentive effect. Deferring payment means that penalties may be imposed for failure to abide by the contractual clauses signed by the parties, including meeting deadlines and meeting cost and quality targets.

Another beneficial effect of package contracts is noted in the economic literature: when it is difficult to apply incentives because of uncertainty about future operating costs, a package contract can be used to create a strong incentive for the private operator to reduce future operating costs without those costs having to be incorporated into the contract—but only with respect to the objectives to be met (Iossa and Martimort, 2012).

2.3. Potential Limitations

The potential limitations identified in the economic literature essentially derive from the long-term contractual obligations created by public private partnerships. When the parties sign a long-term contract, they are committing themselves to an incomplete contract (Williamson 1985) that will very certainly call for adjustments to deal with future events that the parties have not anticipated (e.g., technological change, changes in public expectations, etc.). The incomplete nature of the contractual obligations generates *ex ante* transaction costs, in the candidate selection phase, and *ex post* transaction costs during the implementation of the contracts, which may become prohibitive (Saussier, Starapoli, and Yvrande-Billon 2009).

The first problem that public authorities encounter involves how to organize the competitive process among the candidates. As we know, public private partnership contracts are generally awarded after a competitive dialogue. Nonetheless, that long and costly selection process, one purpose of which is a subtle transfer of risks to the private operator, is not immune to the “winner’s curse”: the best offer may ultimately come from the most “optimistic” candidate—the one that unintentionally underestimates the costs associated with carrying out the contract. Alternatively, the public authorities may also fall victim to aggressive offers by operators that intentionally underestimate the costs associated with carrying out the contract and are counting on the prospect of future renegotiations. In both cases, cost overruns are foreseeable, and this can call the

utility of contracts of this nature into question. Finally, if there is only a small number of candidates the risk of cartels being formed cannot be ruled out. We would note, however, that these problems are not unique to public private partnerships, and are encountered in concession contracts, in particular (Saussier 2012).

Another potential problem associated with these contracts relates to their execution. Long-term contracts call for renegotiations that allow the contracting parties to adjust them to unanticipated events. From this perspective, the contracting parties may choose to adopt a rigid approach in the contract, counting on being able to foresee the future adequately or on not having to modify the parameters of the contract, or they may choose to adopt a flexible approach and have a contract that provides the terms on which future renegotiations will be conducted (Athias and Saussier 2007). The first solution has the advantage of making offers received *ex ante* credible, by sending a clear signal about the future problems that can open the room for renegotiations. However, they expose the parties to “rigidities” in future contract provisions. The second solution allows the contract to be adjusted to reflect its environment, but limits the *ex ante* commitment of the parties.

The problems involved in the selection process and execution of contracts are even more significant in public-private partnerships, since future payment to the operator is very often not tied to the intensity of the use of the work (i.e., the operator does not bear the demand risk). That has two major consequences. First, the operator is not naturally inclined to adjust to future changes in user needs. Second, the social utility of the project must be proved, because even if the project generates only a small future demand, a private operator that is paid in the form of rent will agree to make an offer. Prior assessment is therefore an essential step in public private partnerships, even though it also has its limitations (Campagnac and Deffontaines 2012).

2.4. Experience Feedback

The processes by which public-private partnerships are implemented, and economic analysis of those processes, suggest that these new contracts should enhance the efficiency of public procurement, at least with respect to meeting deadlines and staying

within budget up to when the infrastructure is made available (i.e., the private operator is not paid until the infrastructure is delivered).

While public-private partnerships are now a fact of life in France, there has still been little experience feedback, which would allow their efficiency to be assessed. In quantitative terms, only one study, to our knowledge, has attempted to do this: the study done by PricewaterhouseCoopers (PricewaterhouseCoopers 2011), which deals with public-private partnerships and comparable contracts.⁷ Based on a sample of 34 projects, the study concludes that 71% of the contracts examined met the initial deadlines for delivering the infrastructure. It also indicates that in over 91% of the cases, the cost overrun for the public authority was less than 3%.

These results are positive on the whole (particularly when compared to delays and overruns experienced in traditional public procurement contracts), but it should be noted that the study concerns only the period between the signing of a contract and the completion of the infrastructure. It does not address the operational phase of the contract, once the infrastructure is delivered—the crucial phase, and the one likely to generate major contractual problems, as we have just seen (Williamson 1985; Saussier, Staropoli, and Yvrande-Billon 2009). The little negative experience feedback there is from Great Britain actually relates largely to the operational phase (House of Commons 2011).

In France, experience feedback is more limited because these contracts are new. Nonetheless, it must be noted that criticisms are beginning to be voiced and there is no guarantee that these contracts will continue in practice. Attacks are mounting⁸ and

⁷ The study deals with all public-private partnership contracts signed since the 2004 order and what are referred to as sectoral PPPs: AOT/LOA (Autorisations d’Occupation Temporaire/Location avec Option d’Achat [temporary occupancy/rental permits with option to purchase]) and BEAH (Baux Emphytéotiques Administratifs Hospitaliers [administrative long-term hospital leases]), which were created in 2002 to meet urgent needs in the areas of justice, domestic security and health.

⁸ See, for example, the article in *Libération* dated August 17, 2012, entitled “Grand stade: partenariat public perdant”, asserting that public-private partnerships are very costly for public authorities and illustrating that statement by announcing that the cost of the grand arena in Bordeaux will reach €551M instead of the €175M

doubts remain as to the performance and usefulness of this new public procurement tool.

III. Initial Quantitative Assessment

To analyze the efficiency of public private partnerships in greater depth and supplement the case studies and partial quantitative analysis that we cited (PricewaterhouseCoopers 2011), we did a study of the few public-private partnerships that are currently in the operational phase.

In this part, we will first review the data collection method and the characteristics of our sample, and then present the key findings.

3.1. The Sample

At the time our survey was conducted (early 2012), out of 155 public-private partnership contracts signed in France since 2005, only 45 were in the operational phase. For 40 of them, we were able to identify a person in charge of the contract; 36 of those agreed to participate in the study and to answer the questionnaire we prepared for the survey (the questionnaire is appended). Ultimately, we conducted 30 interviews.

In order to collect sufficient information on the projects, we developed a questionnaire organized into four parts: the pre-contract phase, design of the contract, management of the contract, and the project assessment. We tested our questionnaire with various institutions or organizations (MaPPP, SP2000, GIMELEC, CSTB and GB2A). We also gained access to the public-private partnership contracts under a collaboration and confidentiality agreement with the MaPPP, and thus were able to examine each of the contracts in our sample so that certain information on the questionnaire could be filled out before the interview.

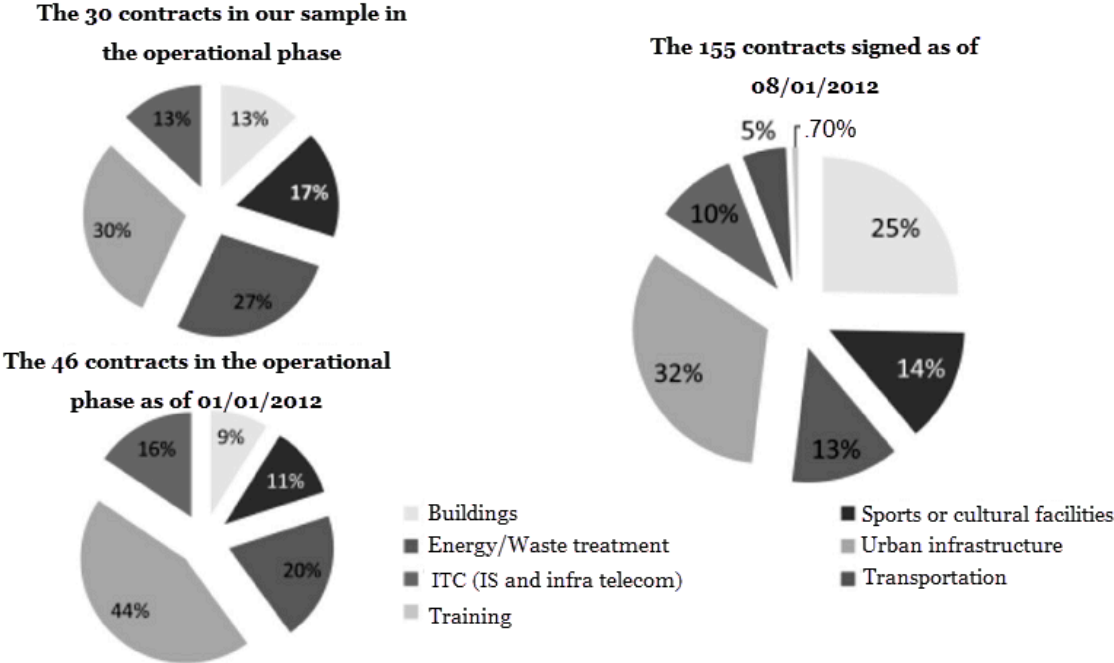
budgeted in the initial contract. Apparently, this criticism is based on the total rent that will be paid during the life of the contract, without taking into account two factors: (1) the discount rate that naturally applies to that rent, and (2) the concept of total cost of ownership, which includes maintenance and operating costs.

The interviews lasted one to two hours and were held in person or by telephone. With a few exceptions, we rarely had an interviewee who had all of the information requested on all of the technical, economic, legal and financial aspects. As well, following the interview, either our interviewee was informed of the missing information and then requested it from the appropriate people or the initial interviewee provided us with telephone contact information for another person whom they thought more suited to provide us with information on those points. This meant that we were able to collect supplementary information by email or telephone.

3.2. Key Characteristics of the Sample

The sectors involved in the final sample selected for our study are set out in graph 7. The sector breakdown is different from what we observed in the total 155 contracts that had been signed on August 1, 2012. Logically, the “old” contracts are overrepresented in our database, since only contracts that are in the operational phase now, were targeted by our survey. The length of time in operation varies considerably from one contract to another—from three to 62 months—but on average it is fairly long (33 months).

Graph 7. Sample selected for our study



In our sample, 65% of the contracts were for a value of less than €20M and a contract term of less than 20 years, and so it overrepresents low-value contracts. The logical explanation is that the work often takes less time for projects of that size and so these are also the ones that enter the operational phase more quickly after they are signed.

3.3. Subjective Measurement of Performance

Performance is often considered to be multidimensional, and in the case of public-private partnership arrangements it may refer to aspects such as meeting the initial budget, deadlines and quality targets agreed to in the contract (Ashley, Lurie, and Jaselskis 1987; Sanvido, Grobler, et al. 1992; Chua, Kog, and Loh 1999; Cox, Issa, and Ahrens 2003; Menches and Hanna 2006), the quality of the project, and the quality of the public service (Jingfeng, Yajun Zeng, et al. 2009). The value for money aspect of the projects quite often also seems to be fundamental to the public authorities' initial decision (Burger and Hawkesworth, 2011).

To evaluate the performance of the public-private partnerships in the operational phase that were included in our sample, we distinguished between the construction and operation phases of the project, and examined six aspects of performance:

- In the construction phase:
 1. Meeting the budget
 2. Meeting deadlines
 3. Meeting quality targets for the work

- In the operation phase:
 4. Meeting the budget
 5. Meeting performance objectives

- In general:
 6. The project's value for money

We asked the people in charge of the projects, whom we questioned, to evaluate the public-private partnerships on each of these aspects, using a six-point Likert scale ranging from 1, “not at all satisfied”, to 6, “completely satisfied”. This gave us a subjective measurement of performance (also used by the English National Audit Office to evaluate PFIs [Partnerships UK 2008]).

3.4. Findings

3.4.1. Candidate Selection Phase

In our sample, 87% of the contracts opened up a competitive dialogue before they were awarded. On average, there were more than five candidates at the point when bids were invited (between two and ten candidates, depending on the contract), and more than three candidates during the competitive dialogue phases (between one and six bids submitted, depending on the contract). That number varied considerably from one project to another, even within the same sector. However, projects that used the procedure calling for restricted tenders did not attract fewer candidates and participants. We also note that the projects that attracted the fewest participants were the very small-scale ones.

When the people in charge of the projects were questioned about the strengths and weaknesses of the competitive dialogue procedure, they said that they considered it to be lengthy and costly and that candidates did not disclose their offer until relatively late in the process. Nonetheless, 87% of respondents stated that they ultimately believed they had “perceived a positive impact from competition among the candidates via the competitive dialogue, in terms of the number, quality, originality and/or degree of innovation in the proposals made by the candidates” (question 10 of the questionnaire appended, scored 4, 5, or 6). As well, 87% believed that during the bid-refining phase, cooperation with the anticipated partner was relatively good (question 16 of the questionnaire appended, scored 4, 5, or 6).

Looking at the responses we received, we can therefore say that the degree of competition may vary from one project to another, particularly in terms of the number

of candidates, but overall, the public actors' perceptions lead them to believe that using a competitive dialogue in the candidate selection phase creates a satisfactory level of competition and cooperation.

3.4.2. Management and Renegotiation of Public-Private Partnerships

As we have seen, contract execution is a key phase. Public-private partnerships are long-term, incomplete contracts, and they will have to be adjusted. The adjustment phases can provide an opportunity for the partners to look for ways of increasing the surplus generated by the contract, through “win-win-win” negotiations, in which each of the parties—the operator, the public authority, and the users—comes out ahead. They can also be conflictual and lead to either or both parties behaving opportunistically (de Brux 2010).

Whether the “partnership” is real and results in cooperative behavior often depends on the people involved. Also, the operational phase of the contracts is affected by changes in the teams managing the contracts. When there is too much turnover, the history and the informal aspect of the contract get lost. Misunderstandings may arise. In our sample, more than 43% of the contracts experienced a change involving all or part of the team working on the project on the public authority's side. This is likely to have an impact on the performance observed in the operational phase of these contracts. However, the public authorities we questioned in our survey were somewhat satisfied, satisfied, or very satisfied with the partnership relationship with the contract holders (83%); 37% even stated that they were very satisfied so far.

A large majority of the contracts in our sample (97%), had already been renegotiated at least once after they were signed. The main subjects of renegotiation involved adjustments to the scope of the contract (73.3%), but they also involved financial adjustments (30%) or adjustments to the deadline for delivery of the work (30%). In our study, it appears that 70% of the public authorities questioned stated that they were satisfied or very satisfied with the negotiation of the amendments signed, suggesting that renegotiation has generally not been conflictual so far, keeping in mind that the average operating time in our sample was 33 months.

3.4.3. Performance of Public-Private Partnerships

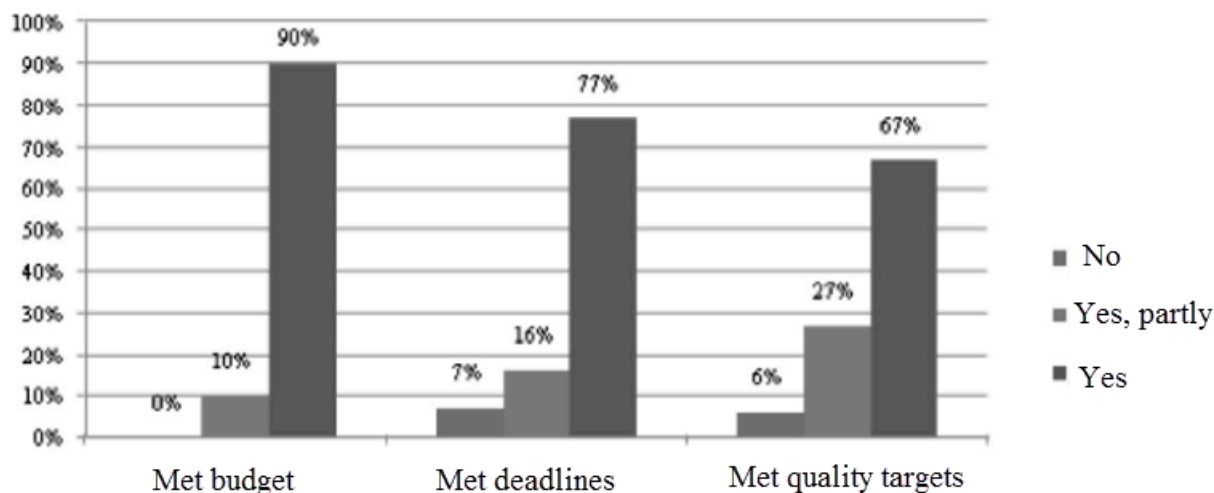
3.4.3.1. Construction Phase

In terms of meeting budgets during the construction phase, the performance observed confirms the results of the study done by PwC in 2011: in 90% of the projects, the public authority stated that it was satisfied or very satisfied that the project had met the budget initially provided for (91% in the PwC study). The remaining 10% of projects, for which respondents were “relatively satisfied,” were the projects that were delayed because of changes to the work at the public authority’s request.

In terms of meeting deadlines for bringing the infrastructure on line, completion deadlines were met or met very well (scored 5 or 6) in 77% of the cases. The 2011 PwC study stated that 79% of projects were satisfactory from this perspective, and 16% of projects were evaluated as “met somewhat well” (scored 4 out of 6); 7% of projects did not meet deadlines satisfactorily (scored lower than 4 out of 6). The reasons cited were generally underestimates during negotiation of the contract (five projects), changes to the work (four projects) and *force majeure* (one project).

There was less satisfaction with the quality of the construction than with the previous two aspects of performance. The public authority reported being satisfied or very satisfied (scored 5 or 6) in 67% of cases and somewhat satisfied in 17% (scored 4). The results are summarized in graph 8.

Graph 8. Performance of public-private partnerships in the construction phase (Yes: score 5 or 6; Yes, partly: score 4; No: scores 1, 2, or 3)



3.4.3.2. Operational Phase

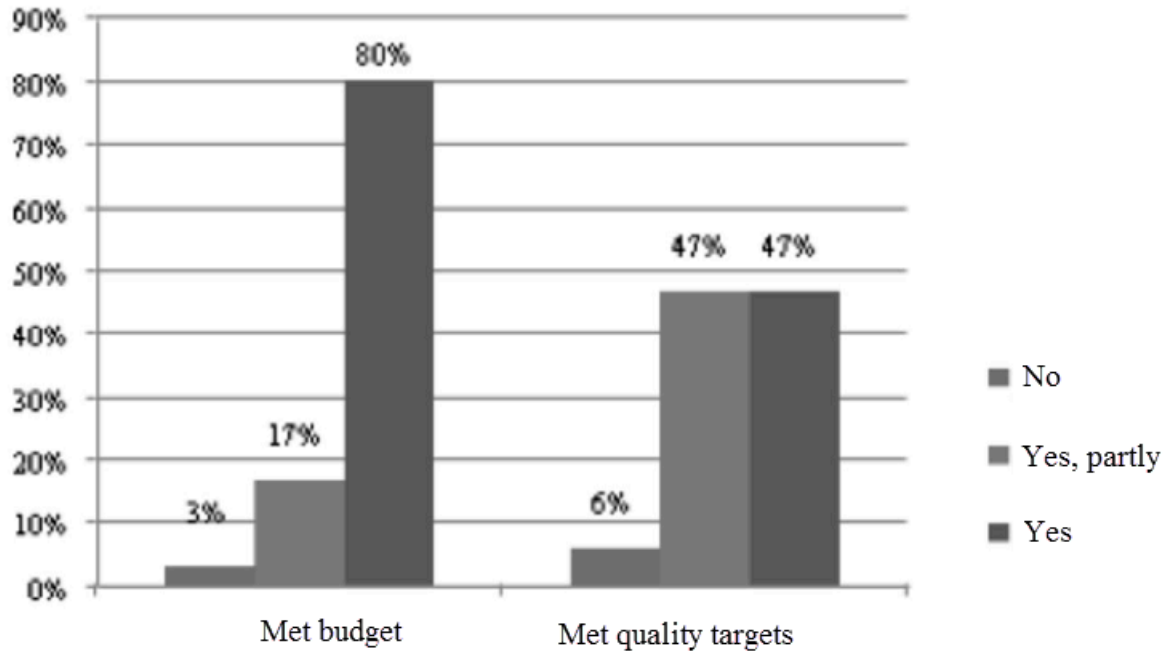
In the operational phase, there was overall satisfaction with performance (see graph 9): 80% of projects met the maintenance and operating cost targets set when the contract was signed or met them very well. That number rises to 97% if we include projects for which cost targets were met partly (contracts scored 4 out of 6). Cost overruns were generally caused by a change in the scope of the contracts as a result of changes to the public work itself during the construction phase.

The quality objectives agreed to in the contract were met partly in 94% of the contracts (contracts scored 4, 5, or 6). However, it should be noted that the quality of operation was considered to be satisfactory or very satisfactory in only 47% of the projects (scored 5 or 6). The percentage in this regard for the quality of the operation was lower than in the construction phase (67%).

3.4.3.3. Overall Performance of the Projects

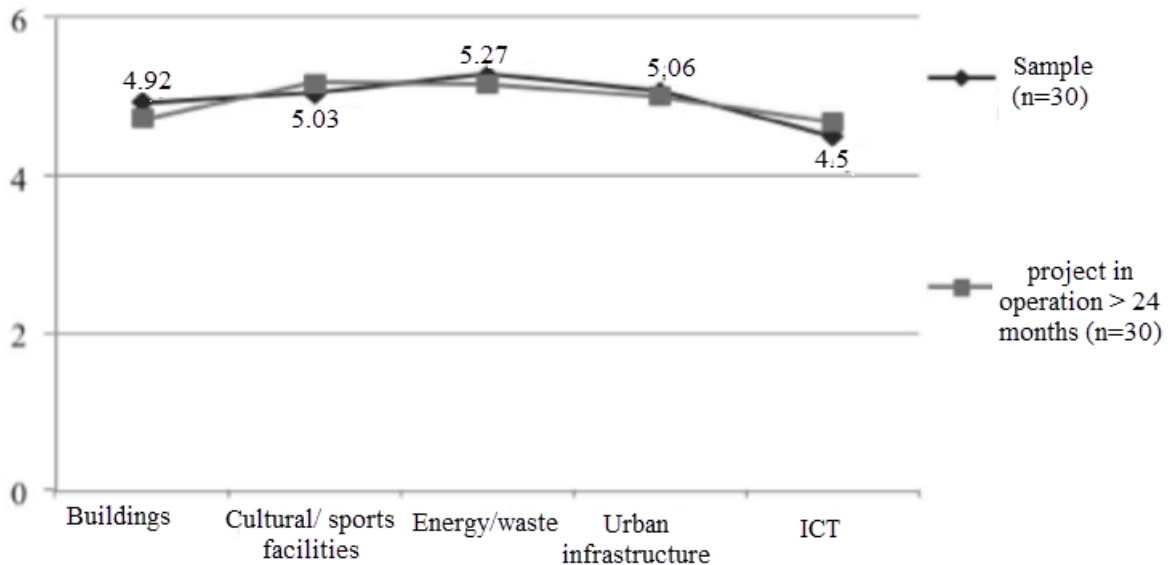
The public authorities were satisfied, overall, with the value for money represented by the public-private partnerships: 80% of those questioned stated that they were somewhat satisfied at least, including 67% that were satisfied or very satisfied.

Graph 9. Performance of public-private partnerships in the operational phase (Yes: score 5 or 6; Yes, partly: score 4; No: scores 1, 2, or 3)



If we calculate a level of overall performance defined as the average of the scores received by each of the contracts on the six aspects of performance that we identified, the average overall performance score for the entire sample is 5.02 out of 6. Graph 10 below shows the average overall performance of the public-private partnerships, by sector.

Graph 10. Overall performance of public-private partnerships by sector (scale from 1 to 6)



We can see that while overall performance is satisfactory in all sectors, it varies considerably from one sector to another. On the other hand, the length of the operational phase does not seem to influence overall performance for the public-private partnerships.

Conclusion

In this article, we have presented a study that seeks to evaluate the efficiency of public private partnerships. To our knowledge, this is the first study that covers both the construction and operational phases of contracts of this nature. Although public private partnerships are a recent innovation in France, we were able to collect information about 30 of the 46 contracts in the operational phase as of January 1, 2012, the date when the data were collected. By examining public authorities' perceptions of how well these contracts perform, and distinguishing six aspects of performance, we can conclude that a very large majority of the contracts included in our sample are perceived by the public authorities as performing well.

Nevertheless, these are partial results only and more studies should be done to expand on them. As the contracts that have been signed enter the operational phase, it will be

useful to publish more studies like this, based on a more substantial database. It may even be useful to do an econometric analysis to try to identify the factors that determine how well public-private partnerships perform. Examples might be the number of candidates involved in the competitive dialogue, its duration, and the turnover rate on the teams in charge of managing contracts. It would also be useful to think about other performance criteria that do not rely only on public authorities' perceptions, as they may have a biased view of how well the contracts they are managing perform. Other performance indicators need to be found that could be used regardless of the sector concerned. Finally, in order to have a clearer vision of how well these contracts perform in the operational phase, it will be useful to study their performance when they have been in operation for longer periods.

With challenges to public-private partnerships mounting, to the point that the survival of this practice may be at risk, these findings run counter to the criticisms and contribute to the discussion.

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