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ORIGINAL ARTICLE

Infrastructure and PPP in Italy: The role of regulation

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ABSTRACT

Starting from the '90s, there has been a significant increase in PPP use in the public sector in Europe, benefiting the implementation of infrastructure projects. In Italy, PPP is still much more limited than in such countries as the UK and France: the projects funded are smaller and the sectors involved are less appropriate. Based on the economic literature, European initiatives and international comparisons, the paper examines aspects of regulations that could encourage the appropriate use of PPP and considers the problems with the Italian regulations, while proposing some corrective measures. The main limitations involve: i) the absence of adequate preliminary assessments about the advantages of using PPP rather than the traditional procurement, ii) the relative lack of attention to the contract terms, iii) inadequate safeguards to ensure the bankability of the projects, and iv) limited information transparency and accessibility.

Keywords: *infrastructure financing; public-private partnerships; project financing; regulation; risk allocation*

1. Introduction

Alongside the traditional model of the annual fund allocation in public budgets, the issue of infrastructure financing is now being addressed by governments through alternative financial models, consisting of different forms of public-private partnerships (PPPs). They can transfer all or part of the costs of infrastructure and related services to actual users; or they can, in the case of the so-called "cold works", directly used by the Public Administration (PA)[1], assure the classification of the assets involved in the PPP contract as non-government assets by carefully allocating project risks between the involved parties, thereby spreading the impact on government deficit—and possibly indirectly on debt—over the duration of the contract.

More specifically, in infrastructure implementation, the term PPP refers to all forms of cooperation between public and private sectors aimed at design, construction, financing, operation and

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[1] The private contractor directly supplies services to the PA, which pays the prices (availability payments), for example, in the case of prisons, hospitals, social housing and public offices.

maintenance of public works.[2] Under specific circumstances, PPP operations can be realized by project financing (PF), which is a structured financing technique for a specific economic unit, based on a transaction in which the lender considers: *i*) the cash flows and the earnings of the project as security for the repayment of debt, and *ii*) the assets of the economic unit as collateral.[3]

This paper analyzes the use of PPP contracts for implementing infrastructure in Italy, identifies critical issues and proposes some possible corrective measures, paying particular attention to regulatory profiles.[4] The survey is organized as follows: the second section analyzes the main features and functions of PPP contracts; the third section provides a brief description of the Italian regulations, focusing on the consistency of PPP operations in Italy and analyzing their characteristics; the fourth section identifies the main Italian regulatory weaknesses and identifies some corrective measures; and the final section summarizes the significant findings.

2. Potential benefits and risks in PPP use

The economic literature[5] indicates that, compared to the traditional public procurement (in which the construction and operation of works are separate), PPP contracts present potential advantages, but also possible risks. The potential benefits are tied to the ability to appropriately allocate the different risks between the parties involved in the transaction and to overcome the problems arising from conflicts of interests, asymmetric information or incomplete contracts individually related to the construction and operation of the work. Instead, the risks largely depend on the possibility that PPPs are used to circumvent the indebtedness limits imposed on public authorities and that these kinds of operations can weaken competition as well as disincentivize efficiency, given that the subsequent management of the infrastructure is entrusted to the private contractor (generally, a company sets up an *ad hoc* special-purpose vehicle – SP) for long periods of time.

2.1 Potential benefits

The advantages tend to be relevant in the case of large infrastructures, whose construction and subsequent operation are intrinsically interrelated and are characterized by a certain degree of uncertainty. In fact, in these cases, it is preferable that the effects of the decisions are borne by the SP (and its participants acting as residual claimants), thereby encouraging the adoption of efficient behavior, for example with respect to the containment of the work timetable and construction costs. Similarly, a reduction in construction costs can lead to an increase in costs during the operation phase, and *vice versa*. In such cases, the bundling of construction and operation

[2] See Art. 3, Paragraph 1, Let. *eee*), of Legislative Decree 50, 18 April, 2016 – Public Procurement Code (PPC). The present analysis focuses on the implementation of public works through concession contracts, which in Italy represent the most significant mode of PPP use, both in terms of number and value. It is worth mentioning that in the author's country, the traditional procurement is the other main typology of public works contracts, where the private contractor is in charge of the design and construction of a project, without any involvement in its subsequent operation.

[3] See Nevitt (1987). For the definitions and the differences between PPP and PF, see, among others, UTFP (2009) and Cori (2009).

[4] With the expression "regulatory profiles", the paper refers not only to the legislative framework but, more generally, to the adoption and dissemination of best practices, especially with regard to the inclusion of appropriate contract terms.

[5] See, among others, Nevitt (1987), Esty (2003), and Iossa and Martimort (2008)

forces the contractor in charge of construction to evaluate all the consequences of his choices, including those related to the next phase.

The economic literature and financial reports[6] also indicate that the advantages of PPPs are usually more marked, where the quality of services to be provided is more easily specifiable *ex ante* and verifiable *ex post*. Thus, SP revenues will depend in part on the quality of services resulting from the implemented work, not merely by the work's construction itself. Similarly, it makes little sense to use PPPs for cold works—the operation of which does not directly determine market revenues—where it is provided that SP revenues derive from a fixed payment, independent of the quality of services related to the work itself.

Another crucial aspect is the possibility of appropriately allocating and reallocating the various risks between the parties involved in the project. In fact, the construction and operation of an infrastructure, especially when large, imply high and heterogeneous risks, not only technical and market risks normally faced by any private enterprise but also administrative and regulatory risks related to possible changes defined by the PA or to more general political choices (e.g., in terms of transport policy), which can impact the propensity to use a particular work. There are also microeconomic (partially linked to the efficient construction and operation of the work) and macroeconomic (related to the overall trends of the economy) market risks. For optimal allocation, each risk should be borne by the party that can most efficiently and cost-effectively control or handle it, having the technical and managerial skills to minimize the economic impact of adverse events.

Identifying the party best able to handle some of the risks is fairly straightforward. For example, the PA should generally bear risks arising from changes in the regulatory framework that may impact negatively on the profitability of the project; on the other hand, companies are better able to manage (and prevent) technical risks related to the construction of the work. In other cases, the allocation of risks is less clear: for example, the market risk could be borne by both the PA (which may have better information on the amount and variability of demand, in addition to having tools to influence it) and the private contractors (who would have stronger incentives to provide a better quality of services). In general, the PA should bear the macroeconomic market risks, while private contractors should bear those risks related to the microeconomic behavior of the same SP.

2.2 Possible risks

The appropriate risk allocation between private contractors and PA is also essential to prevent the risk that PPP contracts are used in order to circumvent the indebtedness limits imposed on public bodies. Eurostat clarified the criteria to use in this regard in February 2004. The analysis of the actual transfer of risks on private contractors should be carried out distinguishing between three main categories of risks: i) those associated with the design and construction of work (related to events such as delays in implementation, cost overruns, technical problems and substandard works), ii) those related to the availability of the service (for example, substandard service or production capacity), and iii) those arising from the variability in the level of demand. The assets involved in a PPP contract can be considered as non‐government assets only if the private sector bears the risks associated with construction and those associated with either availability or demand.[7]

[6] See, e.g., Iossa and Russo (2008).

[7] If the analysis based on the three above-mentioned risk categories does not provide unequivocal conclusions, other aspects

Regardless of the mentioned statistical and accounting criteria, which are crucial for the monitoring of public accounts, careful identification of significant risks and their nature is essential for their best allocation. To identify and to adequately redistribute these risks are complex, costly and time-consuming operations. Therefore, PPP use is usually beneficial only for large-scale projects that are able to justify these high transaction costs. It is also necessary to take into account the fact that the regulatory risk should be not only allocated to the PA, but also specified and restricted by providing regulatory systems with sufficient impartiality (e.g., establishing independent and specialized authorities). Moreover, considering the complexity of PPP operations, it is necessary that contracting authorities have adequate expertise to manage them, in order to avoid being "captured" by the private sector, especially in the case of small administrations.

The bundling of construction and operation of the work inherent in PPP could also weaken competition and disincentivize efficiency, given that the subsequent management of the infrastructure is entrusted to the participants of the SP for long periods of time. Competition may be damaged not only in the use of the specified single infrastructure, but also with respect to possible competition between this and other new public works, the construction of which may be successively assumed; in fact, the need to guarantee returns to the SP of a given infrastructure on a sufficiently long time horizon could affect investment plans in the future.

Overall, PPPs are very useful tools when used appropriately. Transaction costs of PPP use are high and they generally appear justifiable only in the case of large projects and/or with the aim of allowing an optimal repackaging of the various risks. In addition, the appropriate risk allocation between private contractors and PA is essential to prevent the risk that PPP contracts are used in order to circumvent the indebtedness limits imposed on public bodies. Moreover, the possible constraints that may arise from PPPs to the competitive structure of the markets are also relevant: they should be used in cases where the bundling of construction and operation provides inherent advantages and the system should ensure healthy competition during the selection of the private contractor.

3. The Italian experience

Over the last years, all the major European countries have sought to foster PPP for implementing infrastructure projects[8]. PPP contracts (in the form of the Private Finance Initiative – PFI) were first applied and have reached their maximum diffusion in the United Kingdom, especially in relation to very complex works. The case of Spain is also important: in recent years, this country has experienced a significant increase in PPP use, becoming the second-largest market in the EU after the UK. Moreover, the use of PPPs has been repeatedly recommended by the European Commission itself, which has emphasized the involvement of the private sector in implementing

can be taken into account, such as the agreements on the allocation of work ownership when the contract expires, and the presence of guarantees from the public authority (see the Eurostat decision of 11 February, 2004, "Treatment of Public-Private Partnerships", News Release No. 18, February 11).

[8] For a detailed analysis of the European experience see Bank of Italy (2011), Giorgiantonio and Giovanniello (2011) and Cori *et al*. (2011) and the references therein. It should be explained that, in Europe, the concession to build and operate — the main instrument for implementing PPP operations in Italy — doesnot exhaust the alternatives that could be used for implementing infrastructure with this financing method. In fact, the European practice knows many other formulas, among which the paper highlights, in particular, the English private finance initiative (PFI) and the German *Vorfinanzierungs Modell*, which represent public contracts for the design and execution of public works, or for the design, execution and operation of public works.

public works in order to exploit its financial resources and to use its know-how and design capabilities.[9] In February 2014, the Commission adopted a specific directive on awarding concession contracts (23/2014/EU).

In Italy, PPP use has been encouraged since the mid-90s, through the adoption of specific legislation aimed at facilitating the awarding of concession contracts for public works.[10] Especially through modifications in procedural aspects, over the last fifteen years PPP regulations have been amended several times to broaden their scope and encourage the submission of proposals by private contractors.[11]

The regulatory framework outlined by the aforementioned amendments involves the following awarding procedures: a) the traditional procedure for awarding concession contracts for public works, in which the process moves from the administration that, with respect to works included in the triennial programming, publishes a contract notice announcing the intention to award a concession, after which the proceedings will continue in the manner typical of the open or restricted procedure;[12] b) for public works included in the triennial programming, another procedure based on a feasibility project (FP) prepared by the contracting authority;[13] and c) for additional works not included in the triennial programming, a procedure based on a preliminary project prepared by the private contractor (the promoter), which—if determined to be in the public interest—is placed at the base of a subsequent awarding procedure, where the promoter has the *diritto di prelazione*.[14]

The numerous above-mentioned reforms can be seen to match with a positive trend in PPP use. According to information collected by the National Project Financing Observatory,[15] between 2002

[9] See European Commission (2004; 2005a; 2005b; 2009).

[10] See Art. 37-*bis* – 37-*novies* of Law 109, 11 February, 1994, (so-called *Merloni* Law) introduced by Law 415, 11 November, 1998 (so-called *Merloni-ter* Law).

[11] See, among the main interventions, i) Legislative Decree 190, 20 August, 2002; i) Law 166, 1 August, 2002; iii) Legislative Decree 163, 12 April, 2006; iv) Legislative Decree 113, 31 July, 2007; v) Legislative Decree 152, 11 September, 2008; vi) Law Decree 70, 13 May, 2011, converted by Law 106, 12 July, 2011; vii) Law 183, 12 November, 2011; viii) Law Decree 201, 6 December, 2011, converted by Law 214, 22 December, 2011; ix) Law Decree 1, 24 January, 2012, converted by Law 27, 24 March, 2012; x) Law Decree 179, 18 October, 2012, converted by Law 221, 17 December, 2012; xi) Law Decree 69, 21 June, 2013, converted by Law 98, 9 August, 2013; and xii) Law Decree 133, 12 September, 2014, converted by Law 164, 11 November, 2014. Nevertheless, the numerous regulatory changes have been not accompanied by indications about the way to properly implement these rules and to monitor their proper use and the advantages both for contracting authorities and for users, with increasing administrative and legal risks already very high in the author's country. For the regulatory changes that characterized PPP use in Italy, see Giorgiantonio and Giovanniello (2011) and Marasco *et al*. (2015).

[12] See Art. 171 and Art. 181 of the PPC.

[13] See Art. 183, Paragraphs 1 – 14, of the PPC.

[14] I.e., the right to adapt his offer to that judged the most economically advantageous and thus win the award: see Art. 153, Paragraph 15, of the PPC. It is worth noting that this last procedure significantly increases the scope of the controversial *diritto di prelazione* for the promoter. This tool, already criticized by the European Commission because of its possible infringement on the equal treatment principle given the different position attributed to the promoter (see Case C-412/04), may contribute to discouraging the participation of operators from other European countries, who are unfamiliar with this mechanism and thus limit their investment in Italy. More specifically, the *diritto di prelazione* for the promoter could create imbalances that result in anticompetition mechanisms. For these issues, see Iossa and Russo (2008), Giorgiantonio and Giovanniello (2011) and Cori and Giorgiantonio (2013).

[15] The Observatory represents the main information base relating to Italian PPP operations. The available data are still quite limited, and stop once contracts have been awarded. In fact, the Observatory does not collect data on the signing of contracts, their financial closing or questions related to the maintenance and operation phases. This study considers only work concession contracts, the most relevant contractual PPP form in Italy, for which it was possible to update the data only until 2014.

and 2014, the total number of PPP projects has increased from 331 to 740, and their value from 1.2 to 4.6 billion euros (from 0.5 to 4.7 percent in terms of the total number of projects for public works and from 5.4 to 20.8 percent in terms of the total value). More recently, this positive trend has significantly slowed, especially in terms of value, presumably in connection with the long-term effects of the financial crisis: in 2014, the total number of PPP projects was 242, for a total value of 1.5 billion euros (equal to 1.4 percent of the total number of projects for public works and 5.2 percent in terms of the total value).

Nevertheless, even in the pre-crisis scenario, PPP use was still limited in Italy compared to other European countries. Between 1990 and 2016, in fact, 1,749 PPP contracts were signed in Europe, representing 336 billion euros. For the period 1990–2016, the UK accounted for more than 60 percent of the total contract number (48 percent of the total value), France for 10 percent (12 percent of the total value) and Italy for only 2 percent of the total contract number (3 percent of the total value).[16]

Moreover, with few exceptions (mainly concerning transportation and hospitals), Italian projects are relatively small in size: in the period between 2002 and 2014, the average value of PPP projects was 14.5 million euros, while in the UK it was 136.1 million euros (**Figure 1**). Over 95 percent of projects (excluding those with unreported amounts) do not exceed 50 million euros; projects under 5 million euros prevail, representing more than 75 percent of the total.

During the period 2002–2014, local public services were the dominant sectors in PPP operations (**Figure 2**): apart from a few large projects in the transportation (highways, subways: 1 percent of PPP project number but 52 percent in terms of value) and hospital sectors, most of the works covered local investment for car parks (8 percent of the total project number, 4 percent in terms of value), sports facilities (15 percent of PPP project number, 3 percent of their value) and cemeteries (12 percent of PPP project number, 3 percent of their value). Generally, PPP operations are related to less complex interventions, for which cash flows are easily predictable and market risks are presumably limited.

[16] See European Court of Auditors (2018) and Kappeler and Nemoz (2010). They consider projects based on a long-term, risk-sharing contract between public and private parties, which includes the bundling of design, construction, operation and/or asset maintenance, together with a major component of private finance. Payments are made over the life of the PPP contract by the public sector to the private partner and are linked to the level and quality of services actually delivered. The database does not include smaller projects with a capital value of less than 5 million euros.

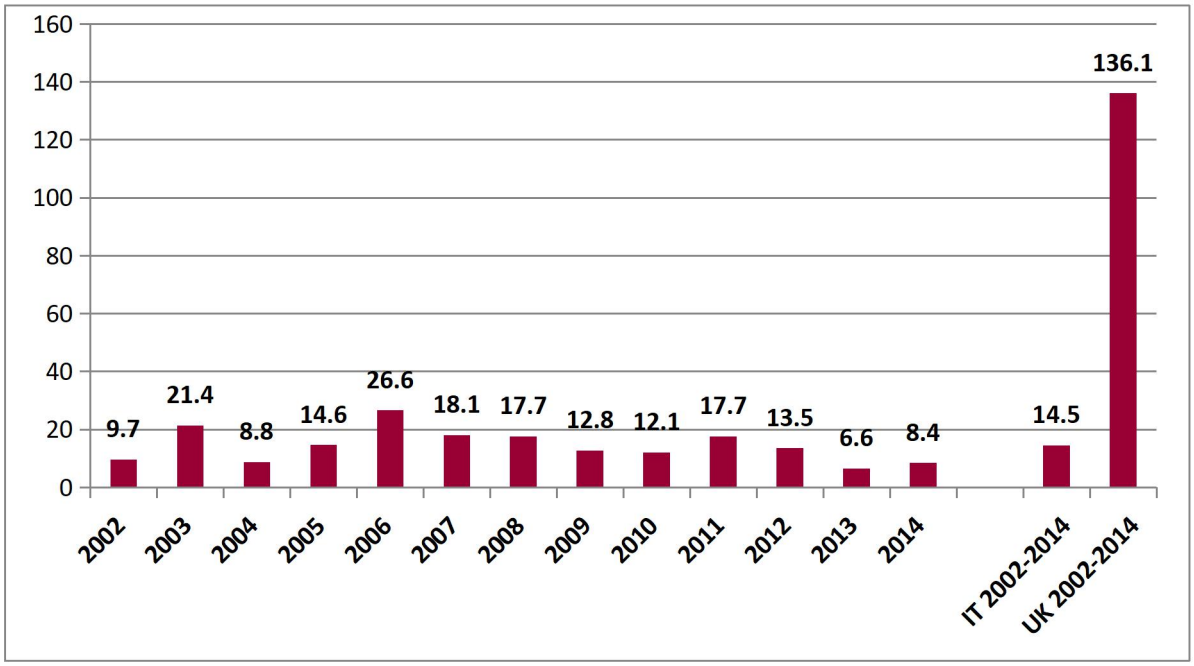

Figure 1. Average value of PPP projects in Italy (million euros).

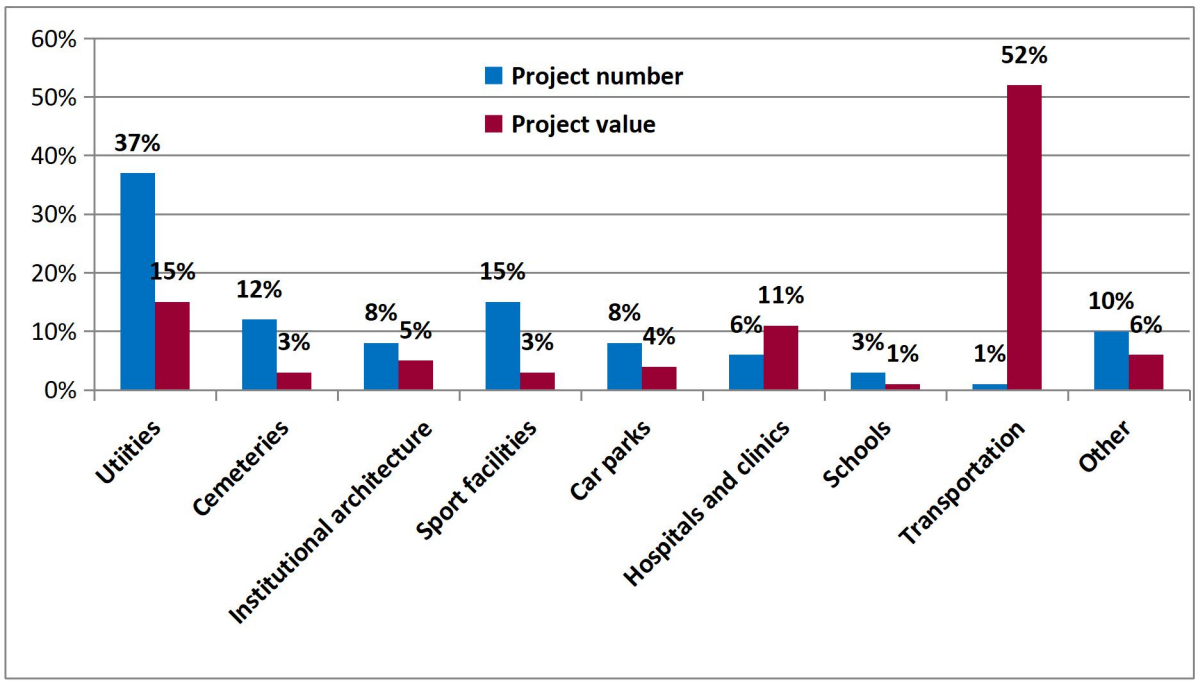

Figure 2. PPP dominant sectors in Italy (2002–2014).

With regard to geographic distribution, the majority of projects and their value are concentrated in the north of the country, particularly in the north-west (25 and 31 percent of the total, respectively). The north-east, which represents 17 percent of the market in project number and 27 percent in terms of value, shows an average project value that is higher than the national average (23.5 against 14.5 million euros). The south and the islands, particularly Campania, are characterized by a high project number, with a share of 40 percent of the total and an average project value much lower than the national average (9.2 against 14.5 million euros). PPPs are most broadly used in Lombardy: projects represent 15 percent of the national total number and 22 percent in terms of value.

Finally, data show high project mortality: in the period 2002–2014, only 48 percent of PPP contracts were awarded. The distribution of the awarded contracts seems to reward higher-value projects: the ratio of procedures for awarding PPP contracts and awarded contracts is equal to 85 percent where the works have a capital value between 5 and 50 million euros and 87 percent for those with a greater capital value; for the works with a capital value of less than one million euros, on the other hand, the ratio is equal to 44 percent.

In summary, the relatively small size of the projects, the dominant sectors and the types of the works (often less complex or cold works with availability payments inadequately tied to the quality of services provided) indicate that PPP use is still limited compared to other European countries and not always consistent with its main objectives and potential benefits. There is a risk that PPP operations are used not to realize a complex repackaging of risks (which is too expensive for the interventions of small capital value) or to strengthen private contractor incentives in order to reduce costs and improve the quality of public works (through the bundling of construction and operation), but with the purpose of obtaining construction costs fronted by the private contractor against the assumption of future expenditure commitments by the PA, with the aim of circumventing indebtedness limits imposed on public authorities.[17]

4. Some policy implications

At least in part, some of the above-mentioned problems relating to PPP use for implementing infrastructure could be mitigated by the introduction of appropriate regulatory measures at the legislative level and, more generally, through the adoption of standard contracts and the diffusion of best practices.

On the basis of the experience of other European countries (such as the United Kingdom and Spain), improvements could arise from the adoption of specific measures aimed at: i) rationalizing PPP use, ii) guaranteeing an adequate preparation of contracts, iii) ensuring the bankability of operations, and iv) improving information transparency and accessibility.

4.1. Rationalize PPP use

Unlike in other European countries (e.g., the United Kingdom and Spain),[18] Italian contracting authorities until now have awarded PPP contracts in the absence of adequate preliminary assessments about the advantages of using PPPs rather than the traditional procurement (Value-for-Money analysis).[19] More generally, the preparation of technical documents to support

[17] See MEF (2015).

[18] The UK has long developed the methodology of the Public Sector Comparator to determine the advantages of using PPP contracts rather than traditional procurement. In Spain, the new law on public procurement (*Ley de contratos del Sector Público*, October 30, 2007, enacted on April 31, 2008), which laid down specific rules for the awarding of PPP contracts for particularly complex projects (*contratos de collaboraciòn entre el sector pùblico y el sector privado*), has expressly required a preliminary cost-benefit assessment, aimed at establishing the existence of a positive assessment regarding the advantages and disadvantages of using this type of contracts over others (*Evaluación Previa*). A similar provision was adopted in France with Law 2008-735 of July 28, 2008, which amended *ordonnance* 2004-559 of June 17, 2004, that had introduced the *contrat de partenariat*. For further details, see Giorgiantonio and Giovanniello (2011).

[19] The term Value for Money (VfM) indicates the achievement of pursued objectives through optimum use of the available resources (see, among others, EPEC – PPP Task Force, 2011). In recent years, different methodologies to assess the requirement of VfM have been developed. In the English evaluation models, the estimated VfM is based on the construction of the aforementioned

the decision-making processes of the PA—in particular, the FP—is inadequate.[20]

It is worth mentioning that despite the progress resulting from the Presidential Decree 207 of 5 October, 2010 (Public Procurement Code Implementing Regulations),[21] which has prescribed a minimum content of the FP, and from the Public Procurement Code (PPC), which has provided for a risk analysis,[22] the Italian regulatory framework has not explicitly provided for a Value-for-Money analysis. Therefore, there is still the need to establish a common methodology for the Value-for-Money assessment of infrastructure projects to be implemented through PPP contracts. This methodology should be systematically applied as a preliminary evaluation to investment decisions and then diversified depending on the complexity and value of the projects.[23]

In order to rationalize PPP use, a significant step forward has been realized in terms of coordination between the different decision levels of the public sector involved in the decision-making process prior to the awarding of the contract. In response to a repeatedly expressed need on the part of sector operators,[24] it has been provided that, in the procedures for awarding PPP contracts, the FP (or the preliminary project, in the case in which the awarding procedure is based on this latter document) is subjected to a mandatory preliminary approval by each administration involved (*conferenza preliminare di servizi*).[25] Thus, the authorities that protect specific interests (such as environmental, landscape-territorial, historical, artistic, health and public safety) cannot express a negative opinion about the project or ask for changes in the original project that would modify the business plan after the private contractor has been selected. In this way, the regulatory and administrative risks related to project approval are significantly reduced.[26]

The effectiveness of this provision would be further strengthened by measures aimed at improving the level of specialized technical skills, planning capacity and project management capability; these are generally lacking in Italian contracting authorities (especially local ones)[27]. In this last regard, improvements might derive from the creation of specialized public bodies—for example, within the Ministry for Infrastructure or the National Anti-Corruption Authority (ANAC), which since June 2014 has assumed the functions of the Supervisory Authority for Public

Public Sector Comparator, an instrument based on the financial enhancement of the risks transferred to the private sector (see HM Treasury, 2006; Martiniello and Samoggia, 2008).

[20] See Amatucci and Vecchi (2009).

[21] Art. 14, Paragraph 2, letter d), of Presidential Decree 207 of 5 October, 2010, provides that if the feasibility study is related to a competitive dialogue or a project financing procedure under Arts. 64 and 183 of the PPC, respectively, technical and economic documents have to include: i) the verification of the possibility of implementation by a concession contract rather than a traditional procurement; ii) the analysis of financial feasibility (costs and revenues) in relation to the construction phase and, in the case of concession contracts, the operation phase; iii) the analysis of the economic and social feasibility (cost-benefit analysis); iv) the scheme of tariff system, in the case of concession contracts; and v) the essential elements of the draft contract.

[22] See Art. 181, Paragraphs 3 and 4, of the PPC and the guidelines of the Sector Authority (National Anti-Corruption Authority (ANAC) of 28 March, 2018, n. 9.

[23] See Nicolai and Tortorella (2015) and NUVAL (2014).

[24] See ABI (2007) and AVCP Decision No. 1 of 14 January, 2009.

[25] See Art. 14-bis, Paragraph 1-bis, of Law 241 of 7 August, 1990, paragraph added by Art. 3 of Law Decree 83 of 22 June, 2012, converted by Law 134 of 7 August, 2012.

[26] It is worth mentioning that these risks do not exist in the traditional procedure for awarding PPP contracts, in which the process moves from the administration: see Art. 14-bis, Paragraph 5, of Law 241 of 7 August, 1990.

[27] See Amatucci and Vecchi (2009) and Marasco *et al*. (2015).

Procurement (AVCP).[28] In addition to diffusing best practices, these structures may contribute to the harmonization of standards, increasing the degree of certainty of interpretation in a highly complex regulatory context. The implementation of these bodies would also contribute to reducing the costs that each contracting authority would incur to obtain the necessary skills.

4.2. Guarantee an adequate preparation of contracts

In Italy, unlike other European countries, the regulatory effort was mainly focused on PPP procedural aspects, devoting limited attention to other relevant aspects, especially with regard to the contract terms for regulating the relationships between the various parties involved in these operations.[29] With the exception of the hospital sector,[30] there is also only limited use in Italy of soft law instruments (such as guidelines and standard documents), which can guide operators (in particular, the contracting authorities) in the preparation of contracts. On the contrary, the recent directive for awarding concession contracts (Directive 2014/23/EU) explicitly mentions the need for soft codification instruments.

The relevance of this approach is also documented by some analyses,[31] which show, in particular, the limited attention given to the preparation of concession contracts for public works, which should be the natural place to not only regulate the relationships between the involved parties but also achieve the optimal risk allocation in PPP operations. More specifically, Cori *et al*. (2011) have examined 61 concession contracts for public works submitted to the Project Finance Technical Unit (*Unità Tecnica Finanza di Progetto* – UTFP) for monitoring the compliance of Italian PPP contracts on Eurostat criteria.[32] Despite the small number,[33] the contracts submitted to the UTFP represent a sample sufficiently diversified by type[34] and capital value[35] of the work, which has made it possible to develop a single evaluation grid that detects the presence and regulation of some aspects

[28] See Art. 19 of Law Decree 90 of 24 June, 2014, converted by Law 114 of 11 August, 2014.

[29] See also Marasco *et al*. (2015).

[30] In the hospital sector, see the concession contract standard models drafted by Finlombarda (Finlombarda, 2007) and the Italian PPP Unit (UTFP, 2008). More recently, general guidelines for the preparation of concession contracts for public works have been drafted (see Ance (2014) and the guidelines of the National Anti-Corruption Authority of 28 March, 2018, n. 9). In other European countries, the use of soft law is much more pronounced. In particular, in the UK, to facilitate PPP use, the Government provided detailed circulars, showing best practices, contract terms and technical aspects (guides, practice notes, recommendations). See Giorgiantonio and Giovanniello (2011).

[31] In particular, see Cori *et al*. (2011).

[32] These contracts were submitted to the UTFP according with the provisions of Art. 44, Paragraph 1-bis, of Law Decree 248 of 31 December, 2007, converted by Law 31 of 28 February, 2008, and the Circular of the Italian Presidency of the Council of Ministers of 27 March, 2009, for the implementation of these legislative provisions. They are related to public works destined for the direct use of the PA, generally in the public service sectors (cold works): it is more difficult in these cases to determine when the risk of work operation is actually transferred to private contractors.

[33] The sample represents about 6 percent of the concession contracts for public works awarded between January 2002 and June 2009 (about 10 percent in terms of value). The subset of analyzed contracts related to hospital sector (19 contracts, for a total capital value of 2,122 million euros) accounts for 41 percent of the total number of contracts awarded in the sector between January 2002 and June 2009 (71 percent in terms of value).

[34] The contracts have been divided in seven different sectors: i) hospitals (19 contracts), ii) kindergartens (6), iii) institutional architecture (7), iv) sport facilities (9), v) cemeteries (7), vi) car parks (8) and vii) energy and gas (5).

[35] Regarding the capital value, there are projects of very low value (below 5 million euros: 22 contracts), low value (between 5 and 15 million: 16 contracts), medium value (15 to 40 million: 8 contracts), high value (between 40 and 100 million: 6 contracts) and very high value (100 million or more: 9 contracts).

particularly relevant on the basis of economic analysis and international best practices. More specifically, the paper has analyzed:

a) the contract standardization (by sector),

b) the transparency of risk allocation[36], and

c) whether this allocation has been made according to economic efficiency criteria.

From this last point of view, the paper has taken into consideration:

i) the presence of "incentives" for the private contractor: reward mechanisms (bonuses and deductions) and penalty systems for cases of breach of contract (especially mechanisms for applying penalties in the operation phase),

ii) the regulation of business plan rebalancing,[37] and

iii) the contracting authority's control of the operation phase (e.g., the presence and adequacy of performance specifications aimed at regulating the provision of all services defined by the concession contract,[38] and the procedures for exercising supervision powers over the execution of the concession by the contracting authority).

For each above-mentioned aspect, numerical scores (based on a scale of 1 to 8) have been allocated to the various sectors, rating their compliance on economic analysis indicators and international best practices.[39]

The results of the paper's analysis, summarized in **Table 1**, show that no sector has a fully satisfactory average score and only two sectors (hospitals and kindergartens) achieve a sufficient one. The main problems are related to the provision of penalties and reward mechanisms, as well as business plan rebalancing. In fact, inadequate penalties are generally provided for cases of breach of contract,[40] while the reward mechanisms for the private contractor are never provided. Also, the regulation of business plan rebalancing is inadequate, given that in many cases it simply refers to legislative provisions.

Furthermore, contract standardization is insufficient: with the exception of hospitals (the only sector for which standard contract models have been drafted) and kindergartens, in each sector there is a significant lack of homogeneity of the contracts in terms of both structure and contents.

The regulation of operation scores better, though still insufficient. It is regulated in great detail in hospital and kindergarten contracts, while it is still insufficiently regulated for institutional architecture, sports facilities and car park projects.

[36] Even the provision of guarantees beyond those required by law is assessed as a revealing element of risk-taking by the involved parties. In particular, the paper has considered the presence of guarantees additional to those prescribed by law in the operation phase —in fact, the majority of the examined contracts have been signed prior to the enactment of Legislative Decree 152 of 11 September, 2008, which introduced guarantees related to the proper fulfillment of obligations provided in the contract operation phase (see Art. 153, Paragraph 13, of the previous PPC and Art. 183, Paragraph 13, of the present PPC), was enacted.

[37] As prescribed by Art. 143, Paragraph 7, of the PPC.

[38] Even through the provision of quality- and quantity-specific standards, diversified for each service.

[39] Score 5 is equal to sufficient; see Cori *et al*. (2011) for more details on numerical scores.

[40] In some cases, penalties during the operation phase are not included.

Risk allocation is the best-regulated aspect: it is particularly clear for kindergartens and the energy and gas projects, and to a lesser extent for cemeteries and car parks; it is difficult to identify in the remaining sectors (institutional architecture, in particular).

The results of the paper's analysis, and the experience of countries in which PPP use appears more developed, support the need to foster an adequate PPP contract standardization process in Italy diversified by sector. It could be specifically provided through the implementation of the principles contained in the draft law for the transposition of the new European directives on public contracts, which already attributes to the ANAC functions of "supporting best practices development" through the adoption of standard contracts.[41] This process should be aimed, in particular, at ensuring:

i) the provision of more appropriate reward mechanisms and penalties in cases of breach of contract by private contractors, especially during the operation phase;

ii) the introduction of clauses related to the sharing of financing documents (including reimbursement, compensation and rebalance mechanisms between private contractors and financial institutions) by the contracting authorities;

iii) the appropriate attention to business plan quantitative elements; and

iv) the strengthening of the supervisory activity of contracting authorities during the various phases of contracts.

Table 1. Analysis of contracts: Summary

SECTORS	**Aspects of the analysis**					**Average score (sector)**
	Contract standardization	Transparency of risk allocation	Penalties and reward mechanisms	Business plan rebalancing	Regulation of operation phase	
Hospitals	6	4	4	4	7	5
Kindergartens	5	7	4	3	7	5.2
Institutional architecture	2	3	2	3	3	2.6
Sports facilities	3	4	3	3	3	3.2
Cemeteries	4	5	3	4	5	4.2
Car parks	3	5	3	3	3	3.4
Energy and gas	2	7	4	4	3	4
Average score (aspect)	3.6	5	3.3	3.4	4.4	-

Source: Cori et al. (2011)

[41] See the aforementioned Art. 1, Paragraph 1, Lett. *t*).

4.3. Ensure the bankability of operations

The measures provided in the Italian legal system to protect lenders do not seem sufficient to effectively ensure the bankability of PPP projects, especially where they are financed by PF.[42] This is one of the causes—along with others such as the inadequate preparation of PPP contracts—which has so far led to considerable stretches of time between the awarding of the concession contract for public works and its financial closing.[43] In recent years, there have been several regulatory interventions aimed at facilitating an early involvement of credit institutions in the procedures for awarding concession contracts.

In particular, the Public Procurement Code enables contracting authorities: i) to hold, prior to the deadline for submission of tenders, a consultation with the economic operators invited to tender in order to verify the absence of problems related to the project bankability and, according to the results of the consultation, allow for modifications of bid documents and the extension of the deadline for submission of tenders; ii) to specify in the contract notice that tenders have to be accompanied by a declaration of interest to finance the PPP operation on the basis of the draft contract and business plan on which the awarding procedure is based, signed by one or more financial institutions;[44] and iii) to specify in the contract notice that the contract will be terminated if the necessary funding for the project is not raised within a reasonable period, set in the same contract notice and not exceeding eighteen months from the approval of the final project.[45]

These provisions, albeit relevant for a more careful preparation of tenders in terms of bankability, do not address certain substantive issues, which are also linked to a more appropriate lender involvement in financing PPP operations.[46] In particular, in terms of certainty of financial resources for implementing projects, the importance of modifying the discipline of the Italian asseverazione of the business plan by a credit institution (a sort of soundness check of the business plan) has been repeatedly emphasized.[47] The rationale behind the asseverazione is to verify the validity of the elements that make up the business plan and respond to the logic (unexceptionable in theory) to attest, in the interest of the public sector, the ability to carry out the public work with private capital. However, in practice, the asseverazione does not seem to be perceived as a signal of the "quality" of the project and could often be translated into a simple (and not insignificant) increase of costs for the private contractor, without appreciable effects on the PA. In fact, on the one hand, the contracting authority has to independently evaluate the feasibility of the intervention, its profitability and ability to generate positive cash flows;[48] on the other hand, there is no obligation

[42] The importance of ensuring the bankability of PPP projects is also underlined by Italian regulations: Art. 165, Paragraph 3, of the PPC provides that in the procedures for awarding concession contracts for public works, contract notices, draft contracts and business plans have to be prepared in order to ensure adequate levels of project bankability.

[43] For example, in the hospital sector, the time needed to reach the financial closing of contracts averages two years (more precisely, 23.2 months). See Finlombarda (2011) and ANCE (2013).

[44] See Paragraph 4 of Art. 165 of the PPC.

[45] See Paragraph 5 of Art. 165 of the PPC. It also provides that, in case of contract termination, the private contractor will not be entitled to any cost reimbursement, including those relating to the final design.

[46] It in this regard the recently introduced possibility for the contracting authority to ask for a declaration of interest to finance the PPP operation does not appear decisive, given that this declaration does not represent a constraint to its effective financing.

[47] See, e.g., UTFP (2010).

[48] See AVCP Decision No. 14 of 5 July, 2001.

for the Italian asseverante to provide the necessary funds and to ensure the availability of such funds even in the absence of lenders interested in the project.[49] Instead, in order to reduce moral hazard and adverse selection problems, the law should provide that the Italian asseverante assumes the role of an arranger, reducing the chances of failure during the search for funding.[50]

Moreover, other regulatory aspects—crucial for lenders and related to the contract execution phase—have not been affected by the latest reform, as in the case of step-in right,[51] which lets lenders replace the private contractor in some specific cases (such as breach of contract). However, the involvement of donors is allowed only if the dealer is in a situation of full-blown default so serious that it requires reporting by the PA for termination. In contrast, a so-called dynamic step-in right—which allows for the substitution of the private contractor who is not efficiently operating according to the efficiency indices established in the financial contract—would place more emphasis on efficiency parameters laid out in the contract. This would encourage lenders to enter, in the process of drafting the contract with the contracting authorities, the inclusion of terms consistent with their needs.[52]

4.4. Improve information transparency and accessibility

As previously mentioned, the available information related to PPP projects stops once contracts have been awarded because the National Project Financing Observatory does not collect data on the signing of contracts, their financial closing or questions related to the operation phase. In this respect, the Circular of the Italian Presidency of the Council of Ministers of 27 March, 2009, which provides for the submission of concession contracts involving the so-called cold works to the UTFP for monitoring PPP operations, does not seem to have fully addressed this issue. In fact, many contracting authorities have not fulfilled this obligation; in any case, even if the information collected thusly were complete, it would represent only a part of PPP operations since it excludes the so-called warm works.

Firstly, it would be appropriate to introduce a systematic monitoring of PPP operations at the central level in order to also collect data on the signing of contracts, their financial closing and work operation phase.[53] This would not only provide a complete picture of the operations that have reached the operation phase, but also ensure the continuous monitoring of the operating performance of private contractors to verify their capability to be compliant on public interest during the entire contract duration.

Moreover, it would also be desirable to expand information related to PPP operations that contracting authorities have to require of private contractors. This could be accompanied by a strengthening of PA control in all contract phases, thereby ensuring better coordination between central and local levels in order to establish a process of communication between the various government levels aimed at identifying and disseminating best practices in the sector.

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[49] See AVCP Decision No. 34 of 12 July, 2000.

[50] See Iossa and Legros (2004).

[51] See Art. 176 of the PPC.

[52] See UTFP (2005).

[53] Also, the recent European Directive 2014/23/EU on awarding concession contracts contains relevant provisions on work maintenance and operation phase, providing—among other things—the creation of monitoring and control systems.

5. Conclusion

Despite significant progress, the Italian regulations still have limitations that do not permit the most appropriate use of PPPs.

On the basis of the experience of other European countries (such as the United Kingdom and Spain), improvements would arise from the adoption of specific measures aimed at:

i) a rationalization of PPP use—in particular, strengthening the concept of "value for money" in evaluating infrastructure projects;

ii) an appropriate standardization of contract terms to facilitate a clear and efficient risk allocation;[54]

iii) the provision of more adequate safeguards to ensure the bankability of the projects; and

iv) the introduction of a systematic monitoring of PPP operations in order to increase information transparency and to ensure the continuous monitoring of the operating performance of private contractors to verify their capability to be compliant on public interest during the entire contract duration.

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[54] In particular, i) allowing for the necessary adjustments to the changes occurring in the process of granting, ii) conditioning the revenues of the private contractor to the quality of services provided, and iii) facilitating the actual passing of the risks related to the availability of the service and those arising from the variability in the level of demand on the private contractor.

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