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of the mechanisms for the selection of contractors

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# THE AWARDING OF PUBLIC WORKS IN ITALY: AN ANALYSIS OF THE MECHANISMS FOR THE SELECTION OF CONTRACTORS

by Francesco Decarolis<sup>\*</sup>, Cristina Giorgiantonio<sup>\*\*</sup> and Valentina Giovanniello<sup>\*\*\*</sup>

## Abstract

Despite successive reforms, public procurement in Italy is still highly fragmented and vulnerable to collusion, corruption and ex-post renegotiation. Other defects are found in the planning stages of the works. These problems are due in part to the regulations on the awarding of public works contracts, which do not guarantee the correct functioning of the selection mechanisms. Indications from the economic literature and international comparisons suggest a series of possible improvements: *i*) the elimination of automatic exclusion mechanisms for anomalous tenders (which would reduce the risk of collusion between bidders); *ii*) the centralization of assessments of anomalous offers under the responsibility of larger adjudicating authorities, with an increase in the surety guarantees provided by the winner, to reduce the risk of subsequent renegotiations; *iii*) stronger anti-corruption measures; *iv*) more standardized planning and, for the more complex auctions, competitive dialogue.

**JEL Classification:** D44, H57, K23, L22.

**Keywords:** infrastructure, auctions, regulation.

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## 1. Introduction \*

To assess the mechanisms governing the awarding of public contracts for the execution of works, one must examine not only single regulations and implementation practices but also their overall coherence. In fact, no optimal, universally valid *a priori* mechanism can be set. On the contrary, the functioning of mechanism in practice depends on a series of context variables such as the risks of corruption and collusion, the professional qualifications of the administrative staff involved, and the characteristics of the public works supply and demand. We must therefore analyze the Italian system in the light of specific market conditions, so as to identify the point of equilibrium among possibly conflicting needs.

This essay examines some critical aspects of the regulations governing the “traditional” modes for assigning public works in Italy. The focus is on the mechanisms for the selection of contractors, in order both to discover the possible limits of the regulations in force and to propose corrective measures. The paper is divided as follows: the second section describes the legal framework of public contracting; the third section gives a descriptive empirical analysis of the market for public works; the fourth applies the theory of auctions, seeking to determine the “optimal” modes for awarding public works depending on type of contract, the presence of constraints on administrative action and the priority objectives of the public administration (PA); the fifth section concentrates on the critical situations in the regulations on public works in Italy, providing a close examination of possible corrective measures, drawing on the experiences of more virtuous countries. The sixth section concludes.

## 2. Auction Procedures and Award Criteria in the Italian Legal System

The Italian regulation governing the award of public works has undergone a number of reforms over the last fifteen years,<sup>1</sup> in response among other things to EU law aimed at improving the “design” of award procedures and enforcing the principles of publicity, transparency and equal treatment.

There are now three different “regimes” for selecting contractors:

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<sup>1</sup> Significant interventions include: i) *Law 109 of 11 February 1994* (known as the *Merloni law*), which passed the *framework law on public works* to implement reorganization and better adaptation to EU principles, with a revision of the procedures for the assignment of works; ii) *Legislative Decree 490, 8 August 1994*, which provided for the institution of a communication and certification system managed by the Interior Ministry (via the prefecture), for anti-mafia purposes; iii) *Law 415, 18 November 1998* (known as *Merloni-ter*), which introduced a qualification system based on certifications issued by SOA (Society of Attesting Offices) and disciplined project financing for public works; iv) *Presidential Decree 554, 21 December 1999*, which approved the Implementing Regulations for the framework law on public works; v) *Law 443, 21 December 2001* (known as “*legge Obiettivo*”), implemented by *Legislative Decree 190, 20 August 2002*, which set out a national framework for strategic infrastructures; vi) *Legislative Decree 163, 12 April 2006* (known as the Public Procurement Code – PPC), which – incorporating Directives 2004/18/EC and 2004/17/EC – further reorganized the matter, unifying the regulations for works, services and supplies; vii) *Legislative Decree 152, 17 October 2008* (known as Third Corrective Decree of the Public Procurement Code), which had a significant impact on *project financing* regulations, anomalous offers and participation requirements.

- i*) one for “strategic infrastructures”, aimed at giving high priority to these projects<sup>2</sup>;
- ii*) one, introduced by Law 2, 28 January 2009, for projects within the National Strategic Framework<sup>3</sup>;
- iii*) the “ordinary” regime, governed by Legislative Decree 163, 12 April 2006 (known as the Public Procurement Code), for all other types of works<sup>4</sup>.

In this essay we analyze this ordinary “regime”, which applies to most projects (section 3), concentrating on the awarding procedures and on the contractors’ selection criteria.

*a) Open and restricted procedures.* Open procedures and restricted procedures are “ordinary” procedures for the assignment of procurement contracts (in particular for contracts above the EU threshold). Both are marked by little discretionary power for administrations in the choice of contractors and presume that the administration itself is capable of defining, accurately and from the beginning, the subject of the contract and the relevant technical specifications, so that bidders may immediately submit definite, non-renegotiable offers (at least as far as the essential aspects of the contract are concerned)<sup>5</sup>.

In the **open procedure**<sup>6</sup> the administration publishes a call for tender containing, among other things, an accurate description of the subject of the contract. The call for tender precedes the presentation of the offers by all interested parties, whose fulfillment of the requisites is verified when the bids received are assessed (Table 1, Appendix). The **restricted procedure**<sup>7</sup> (and the so-called simplified restricted procedure, allowed for works worth less than €1 million provides for an initial phase consisting of a prequalification to ascertain requisites and identify the enterprises to invite on the basis of predetermined objectives and non-discriminatory criteria<sup>8</sup> and a subsequent phase, where

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<sup>2</sup> Using a streamlined system for: *i*) planning; *ii*) project approval; *iii*) award procedures; *iv*) dispute resolution. See Articles 161-194 of Legislative Decree 163, 12 April 2006.

<sup>3</sup> In particular: *i*) maximum time limits for all phases of investment; *ii*) the appointment of special commissioners to supervise the works and compliance with deadlines, with powers of initiative, of replacement and of reporting to competent organisms, and ample discretionary powers in the management of procedures; *iii*) a streamlined regime for document access and dispute resolution.

<sup>4</sup> Note the existence of partially derogations for auctions involving contracts below the EU threshold, which is currently €4,845,000 for auctions for public works and concessions (see Table 6 in the Appendix). Even though Art. 4.e of the Public Procurement Code expressly prohibits Italian regional governments from enacting regulations differing from those of the Code, the qualification and selection of bidders, procedures and award criteria, and planning and safety programs are still subject to regional and municipal laws and regulations that contain provisions partially out of line with the Code. The Constitutional Court has intervened several times (the sentences of 23 November 2007, no. 401; 14 December 2007, no. 431; 2 August 2008, no. 322; 18 December 2008, no. 411) to assert the legitimacy of the provisions of Art. 4 of the Code, dismissing the appeals of various regional governments that claimed the violation of concurrent powers under Article 117 of the Constitution, and linking the principles governing public work contracts to the safeguarding of free competition (exclusive power of the central government: Art. 117.1(e) of the Constitution). Nevertheless, the sector remains characterized by hyper-legislation, which can differentiate the regulatory framework for private competitors down to the local council level. See AVCP (2007a); Bentivogli et al. (2009).

<sup>5</sup> See AVCP (2008a).

<sup>6</sup> Called “*pubblico incanto*” (public invitation to tender) in Law, 109, 11 February 1994, (the *Merloni* law).

<sup>7</sup> Which the *Merloni* law calls “*licitazione privata*” (closed tender) and or “*appalto concorso*”, a procedure by which the PA, where it deems it appropriate, and for specified reasons concerning any particular technical characteristics or the complexity of the works to be carried out, may invite the various enterprises to submit not only economic offers but also technical projects.

<sup>8</sup> In this phase selective aspects, such as financial soundness or technical capacity, may be assessed. In the *ordinary* restricted procedure in particular, the prequalification is based on the criteria fixed in the call to



the administration invites bids from only the subjects thus identified (Tables 2 and 3 in the Appendix). In short, in open procedures the administration must specify the full characteristics of the service both in the call for tender and in the relevant auction documentation, while in the restricted one this exposition can be effected beforehand in the invitation letters.

However, in the Italian system there is not that great a difference between the open and restricted procedures. The regulation says that in all “ordinary” restricted procedures for the assignment of public works worth less than €40 million all applicants possessing the requirements listed in the call for tender must be invited to participate<sup>9</sup>. Therefore, all procedures are essentially open procedures.

The second key rule concerning contract awards is the specification of the criterion for determining the winner. Both procedures can use either the “lowest price” criterion or “economically most advantageous offer” criterion. By the former, the enterprise offering the lowest price is awarded the contract, provided that this price is judged to be “reliable” by the PA, pursuant to the regulations governing abnormal tenders; by the latter, not only price but a range of other parameters specified in the call for tender are assessed (e.g. the quality of the work or the time for completion)<sup>10</sup>.

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tender, while the *simplified* restricted procedure is marked by a preliminary compilation of lists of economic operators, among which the administration – for public works contracts worth less than €1 million that concern only the execution of works – identifies the firms to invite each time.

<sup>9</sup> See Art. 55.6 of the Code. Arts. 62.1 and 62.2 state that in restricted procedures for works worth €40 million or more, the PA – when so required owing to the difficulty or complexity of the work – may limit the number of candidates invited. When it does so, the PA must indicate in the call for tender the objective, non-discriminatory criteria, according to the principle of proportionality, that it intends to apply, the minimum number of candidates it intends to invite and – if it thinks it appropriate for motivated needs – the maximum number. In any case, the minimum number of candidates may not be less than ten, provided that there at least that many suitable candidates.

<sup>10</sup> Through the weighting and aggregation criteria given in Art. 83 of the Public Procurement Code, from which we quote: “1. When a contract is assigned with the criteria of the economically most advantageous offer, the call for tender establishes the assessment criteria for the offer, pertinent to the nature, the object and the characteristics of the contract, such as, to exemplify: *a*) price; *b*) quality; *c*) technical advantage; *d*) aesthetic and functional characteristics; *e*) environmental characteristics and the containment of energy consumption and environmental resources of the work or product; *f*) utilization and maintenance costs; *g*) profitability; *h*) services following the sale; *i*) technical assistance; *l*) delivery date, i.e. the deadline for delivery or execution; *m*) commitment in terms of spare parts; *n*) certainty of supply; *o*) in the case of concessions, as well as the length of the contract, the modes of management, the level of and criteria for updating fees applicable to users. 2. The call for tender, or, in cases of competitive dialogue, the call for tender and the descriptive document, will state assessment criteria and specify the relevant weighting attributed to each criterion, even with the use of a threshold, expressed with a determined numeric value, where the margin between the score of the threshold and the maximum score relating to the element the threshold refers to must be appropriate. 3. The public administration, where it considers the weighting stated in paragraph 2 inapplicable for provable reasons, will indicate in the call for tender and in the specification, or, in the case of competitive dialogue, in the call for tender or in the descriptive document, the importance of the criteria in decreasing order. 4. The call for tender for each assessment criterion includes, where necessary, the *sub*-criteria and the *sub*-weights or the *sub*-scores. Where the public administration is unable to establish these within its own organization, it will nominate one or more experts with the decree by which it decides to award the contract, charging them with the task of drawing up criteria, weights, scores and the relative specifications, which will be indicated in the call for tender. 5. To put into effect the weighting, or attribute a score to each element of the offer, the PA will use methodologies allowing them to identify, with a single final numeric parameter, the most advantageous offer. The aforementioned methodologies are established by the regulations, distinctly for works, services, supplies and, where necessary, with simplified modes for services and supplies [...]”. Finally, these criteria are further specified in Art. 120 of the new Execution and Implementation Regulations of the Public Procurement Code (see Presidential Decree 207 of 5 December 2011), that will come into effect on 9 June 2011. This measure, among other things, *i*) specifies procedures for the appointment of the auction commission; *ii*) requires the administrations to take into account, when

There are special rules for the assessment of so-called abnormal tenders or abnormally low offers<sup>11</sup>, i.e. discounts on the publicly announced reserve price that fall below a threshold of “presumed anomaly”. This threshold is generally an endogenous function of the bids<sup>12</sup>. Different methods to compute the threshold are used when the criterion is the economically most advantageous offer<sup>13</sup>. Offers thus identified, presumably too low to be considered reliable, must, before exclusion, be subjected to a congruity check in debate with the interested parties<sup>14</sup>.

An anomaly check is carried out in the next phase of bid assessment<sup>15</sup>, with a request to the bidder to supply justifications for the price offered<sup>16</sup>. In any case, before any exclusion<sup>17</sup> the interested party must be heard, so that it may indicate any element considered useful. Law 102 of 3 August 2009 allowed PAs<sup>18</sup>, where this is specifically provided for in the call for tender or in the invitation letter, to proceed simultaneously to

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defining scores, environmental protection criteria according to Environment Ministry Decree of 11 April 2008; *iii*) establishes – for public works contracts covering both design and execution – that “qualitative” scores should not be inferior to 65/100 of the total.

<sup>11</sup> Contained in Articles 86-89 of the Public Procurement Code and Article 121 of the new Execution and Implementation Regulations.

<sup>12</sup> In this case, verification is effect for offers with a discount equal to or larger than the arithmetic mean of the percentage discounts of all the offers admitted, excluding the highest 10% and lowest 10% of offers (rounded to the next highest integer), increased by the mean arithmetic deviation of the discount percentages that exceed the aforementioned mean; however, if the number of offers admitted is less than 5, this criterion is not applied and the verification is effected for offers that appear incongruous on the basis of specific elements. When the criterion of automatic identification of the anomaly threshold is not applied, in order to effect a verification, the administration takes into account the best market price, where this is observable.

<sup>13</sup> In this case a check is made of bids in which both the scores relating to the price and the sum of scores relating to the other assessment elements are equal to or greater than four-fifths of the corresponding maximum scores stated in the call for tender.

<sup>14</sup> The choice of subjecting to a congruity assessment any other bid that appears, according to specific elements, abnormally low, remains in any case at the PA’s discretion.

<sup>15</sup> As a result of amendments to Law 102 of 3 August 2009, converting into law Decree Law 78 of 1 July 2009, which eliminated the obligation to accompany bids, from the moment of presentation, with justifications relating to price entries that concur in forming the overall sum which was the basis of the auction (Art. 86, paragraph 5, of the Public Procurement Code).

<sup>16</sup> In particular, the administration requests the justifications concerning the price items and other assessment elements of the offer and judges these elements (Art. 86 of the Public Procurement Code). These justifications may concern, for example, the economy of the construction procedure or of the production process, the technical solutions adopted, the exceptionally advantageous terms that the bidder can afford, and so on. However, the purpose of the anomaly check is not to detect specific individual inaccuracies but to ascertain the reliability of the offer as a whole (the decision of the Supervisory Authority for Public Procurement (AVCP), 8 July 2009, no. 6). Law 123 of 3 August 2007 added to Art. 86 of the Public Procurement Code paragraphs *3-bis* and *3-ter*, specifying that the contracting entities are required to determine that the economic value is appropriate and sufficient in respect to cost of labor and costs related to safety, which must be specifically indicated and must prove to be congruous with the extent and characteristics of the work to be carried out. Safety costs cannot be the object of bidding discounts. It is also possible to nominate a specific commission to carry out assessments regarding the congruousness of the offer: as stated in Art. 121, paragraph 5, of the new implementing regulations, this commission should be composed of personnel internal to the administration, except in cases of motivated staff shortages or lack of the necessary technical competencies.

<sup>17</sup> Which must be adequately motivated according to the results of the analysis and the justifications put forward: AVCP, determination 6, 8 July 2009.

<sup>18</sup> Alternatively, to the progressive assessment of the anomaly starting from the best offer. It is specified how the progressive assessment is effected starting from the first offer, if abnormally low; in cases where this is considered to be anomalous, the next step is the assessment of the next-best offers, until the best non-anomalous offer is identified. After this sub-procedure, the anomalous offers are excluded and the definitive award goes to the best non-anomalous offer.

the verification of anomalies in the best offers, up to the fifth, instead of analyzing them sequentially<sup>19</sup>.

For auctions worth €1 million or less, awarded at the lowest price, and only if the at least ten bids are admitted, there exists the possibility, provided it is stated in the call for tender, to exclude automatically (without hearing the enterprise) all bids below the anomaly threshold<sup>20</sup>.

*b) Negotiated procedures.* Negotiated procedures, marked by significant discretionary powers for the administration, are those where the PAs consult their chosen economic operators and negotiate the conditions of the contract with one or more of them. Insofar as these procedures represent a derogation to the general ban on renegotiating offers, they are basically exceptional, being admissible (save when the amount is less than €500,000)<sup>21</sup> only when specific conditions apply (chiefly those related to urgency or lack of appropriate offers or applicants: for more details, see Table 4 in the Appendix).

Depending on type of information requirements, hence the greater or lesser discretionary powers of the PA, we may distinguish between two negotiated procedures:

*i)* negotiated procedure with the publication of a call for tender (Art. 56 of the Public Procurement Code), where the administrations publish a notice and, respecting the principle of equal treatment, negotiate offers with the bidders;

*ii)* negotiated procedure without the publication of a call for tender (Art. 57 of the Public Procurement Code), where administrations identify the operators with which to initiate negotiations independently on the basis of market surveys.

For the so-called works “on a time and materials basis,” allowed for sums not above €200,000, piecework contracts are allowed, as a “variant” of the negotiated procedure, further streamlined, carried out with the direction of a person in charge of the process, for works falling within specific categories (Art. 125 of the Public Procurement Code, or PPC)<sup>22</sup>.

The negotiations must in any case observe the principles of non-discrimination and equal treatment and both the most economically advantageous offer and the lowest price criteria are applicable. In relation to these procedures too, the rules for the assessment of anomalous bids apply, with the possibility of resorting to automatic exclusion in the case of works worth less than €1 million, to award according to the criterion of lowest price and as long as the number of bids admitted is at least 10.

*c) Competitive dialogue.* Competitive dialogue (Table 5, in the Appendix), one of the most significant innovations of the PPC, derives from EU regulations. It was introduced in order to reconcile the greater flexibility in the assignment of complex works with compliance with EU principles on competition, transparency and equality of treatment.

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<sup>19</sup> This legal provision has clarified the admissibility of the contextual assessment of anomalous offers, with a notable reduction of procedure times: a possibility that the Authority had already thought admissible after the amendment of Art. 88, para. 7, by the Third Corrective to the Code (Legislative Decree 152, 11 September 2008). This amendment established that the exclusion of anomalous offers has to be declared only after the result of the assessment process of all offers with discounts at or above the anomaly threshold, and no longer – as originally provided for – after the conclusion of the assessment of each individual bid. AVCP, determination 6, 8 July 2009.

<sup>20</sup> Articles 122.9 and 86.1 of the Public Procurement Code.

<sup>21</sup> And in cases of piecework contracts for works less than €200,000 see below.

<sup>22</sup> Not relevant for the present analysis is the residual hypothesis of works in “direct administration”, a procedure applicable for sums not exceeding €50,000, where works are carried out with the administration’s own resources with no recourse to the market.

Competitive dialogue is limited to “particularly complex works” (for which open or restricted procedures are not practicable)<sup>23</sup>, defined as those for which the administration is *objectively* unable to define *ex ante* the technical means needed to satisfy its needs or the juridical and financial structure of the project and those for which the administration does not have access to studies on the identification and quantification of its needs or the means to satisfy them (this lack of information must be due to objective factors for which the administration is not responsible).

The only applicable award criterion is the economically most advantageous bid. In these procedures, anomalous bids can be assessed only via the congruity check in dialogue with the interested parties; there is no provision for automatic exclusion of abnormal tenders.

So far, however, the application of competitive dialogue in Italy has been subject to the adoption of the PPC implementing regulations, just recently approved (see Presidential Decree 207 of 5 December 2010), that will come into effect on 9 June 2011<sup>24</sup>.

### 3. A Quantitative Analysis of the Auction Procedures and the Award Criteria

Most of the economic literature on public procurement analyzes categories that do not coincide perfectly with the Italian Public Procurement Code’s definition of award procedures. More precisely, economic analysis refers to “auction formats”, which in the Italian system combine three elements: an award procedure, an award criterion and an exclusion method for abnormal tenders.

In particular, the regulations can produce four different “auction formats”:

- i) First Price auctions (FP), consisting of open and restricted procedures awarded under the lowest price criterion with no automatic exclusion of abnormal tenders;
- ii) Average Bid auctions (AB), consisting of open and restricted procedures awarded under the lowest price criterion and automatic exclusion of abnormal tenders;
- iii) Scoring Rule auctions (SR), consisting of open and restricted procedures awarded under the criterion of the economically most advantageous offer;
- iv) Negotiations (N), consisting of negotiated procedures and piecework contracts<sup>25</sup>.

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<sup>23</sup> The provision with which the administration decides to resort to competitive dialogue must state the adequate motivations for this status of complexity: see Art. 58 of the Public Procurement Code.

<sup>24</sup> For building and management concessions (cases outside the domain of public works contracts), according to Art. 153.16 of the PPC (known as “procedure in cases of PA inactivity”) – due to the reference in Art. 153 to competitive dialogue – this procedure is already applicable, even before the PPC implementing regulations come into force. AVCP (2009); Giorgiantonio and Giovanniello (2009).

<sup>25</sup> From the point of view of economic theory, competitive dialogue can be considered a particular form of negotiated procedure. This procedure will not become operational in Italy until June 2011 (Art. 359.1 of the new PPC implementing regulations).

| <b>Table 1: Italian Auction Formats</b>                          |  |   |   |  |
|--|--|---|---|--|
| <i>Award procedures</i>  | Auction<br>(Open Procedure + Restricted Procedure + Simplified Restricted procedure) |   |   | Negotiation<br>(Negotiated Procedure + Piecework contracts)                                    |
| <i>Award Criterion and Exclusion Method for Anomalous Offers</i> | First Price<br>(without automatic exclusion)   | First Price<br>(with automatic exclusion) | Economically Most Advantageous Offer<br>(without automatic exclusion) | Economically Most Advantageous Offer and First Price<br>(with and without automatic exclusion) |
| <i>Format</i>  | <b>FP</b>  | <b>AB</b>                                 | <b>SR</b>   | <b>N</b>   |

The database of the Public Works Observatory at the Supervisory Authority for Public Contracts (*Autorità di Vigilanza sui Contratti Pubblici*, AVCP), which covers all the public works contracts worth over €150,000 awarded by every Italian administration since 2000, gives us a snapshot of the Italian auction formats, allowing us to gauge their economic importance<sup>26</sup>.

| <b>Table 2: Economic Importance of the Various Auction Formats (2000-2007)</b> |                         |                         |                         |                        |                 |
|--|-------------------------|-------------------------|-------------------------|------------------------|-----------------|
| <i>Format</i>  | <b>FP</b>               | <b>AB</b>               | <b>SR</b>               | <b>N</b>               | <b>TOTAL</b>    |
| <i>Number of Auctions</i>  | 2,413 [2%]              | 88,146 [77%]            | 2,820 [2%]              | 21,501 [19%]           | 114,880         |
| <i>Value</i>   | €8,492,089,067<br>[33%] | €7,010,891,105<br>[49%] | €2,288,485,873<br>[10%] | €9,634,608,480<br>[8%] | €17,426,074,525 |

The table shows ample differences in number and value of the contracts awarded under the four different auction formats. A large majority (77%) of contracts are awarded by the AB method, but their value is only 49% of the total. And while 19% of auctions are negotiated, their value is only 8% of the total. On the other hand, for both the FP and SR auction formats, value far exceeds number: 33% and 10% respectively for just 2% of the number of auctions in each case.

These differences depend mainly on the limitations that the regulations place on the use of the various auction formats. In particular, the large number of AB auctions reflects the fact that this format was mandatory until the Public Procurement Code came into effect on 1 July 2006 for auctions below the EU threshold of about €5 million) where at least 5 valid offers were presented<sup>27</sup>. Above the EU threshold the standard mechanism was the FP auction, hence its enormous importance in terms of value. In the same way, the high overall value of the very few SR auctions is due to their use in a number of very large public works projects, such as the bridge over the Strait of Messina and the Rome Metro. In addition, despite the restrictions of the PPC, negotiations are fairly frequent, accounting for a good number of contracts. However, in line with the regulations, these contracts have

<sup>26</sup> Table 2 is based on this data, which is available up to the end of 2007. According to the 2007 AVCP Report, the database can be considered complete through 2004. However, comparing the Observatory's database with other data sources on auctions, it emerges that not even data up to 2004 is entirely complete. The database, therefore, consists not of all auctions but a partial sample. For this reason, where possible, the data has been compared with that put together by Decarolis (2009), directly from the call for tenders and results published by the administrations.

<sup>27</sup> See Art. 21.1-*bis*, of the Merloni Law.

very low average value. Finally, since 2006 the restrictions on the N and SR auction formats have been eased, and there are indications of a significant increase in their use.

We now turn to a breakdown of the various formats by type of public administration, price class and subject of contract.

a) *Types of public administration.* In Italy a number of different types of public administration can invite tenders and hold auctions to award public works. According to the AVCP's classification, there are nine types of administration. Table 3 considers six of these (those accounting for the most contracts in the period 2000-2007).

| PA type                 | FP            | AB            | SR           | N             | Total Number    | Total Value<br>(in 1,000 euro) |
|-------------------------|---------------|---------------|--------------|---------------|-----------------|--------------------------------|
| Regional Govt.          | €1,417<br>29  | €658<br>2,417 | €1,590<br>53 | €350<br>1,476 | 3,975<br>[3%]   | €2,523,083<br>[2%]             |
| Provincial Govt.        | 4,632<br>291  | 565<br>9,671  | 1,788<br>99  | 390<br>1,398  | 11,459<br>[10%] | 7,539,952<br>[6%]              |
| Municipal Govt.         | 3,771<br>725  | 535<br>40,286 | 774<br>681   | 351<br>5,873  | 47,565<br>[41%] | 26,897,560<br>[23%]            |
| Central govt<br>depts.. | 11,639<br>54  | 745<br>3,139  | 3,094<br>59  | 583<br>2,064  | 5,316<br>[5%]   | 4,356,902<br>[4%]              |
| Concession<br>Holders   | 31,504<br>441 | 765<br>9,651  | 1,068<br>39  | 453<br>1,441  | 11,572<br>[10%] | 21,977,359<br>[19%]            |
| Public<br>Corporations  | 14,451<br>301 | 913<br>7,659  | 6,344<br>127 | 574<br>1,710  | 9,797<br>[9%]   | 13,135,268<br>[11%]            |
| Other PAs               | -             | -             | -            | -             | 25,196<br>[22%] | 40,995,951<br>[35%]            |

\* Data and classifications of AVCP public administrations (PAs). Only data for the six main types of public administrations is indicated. In the central part of the Table, in each cell the upper figure represents the mean value (in thousands of Euro) of the contracts' reserve price, the lower figure represents the total number of auctions.

b) *Price classes of works.* Below, the distribution of contracts by price class.

| Reserve price<br>(in 1,000 euro) | FP             | AB              | SR            | N             | Total Number    | Total Value<br>(in 1,000 euro) |
|----------------------------------|----------------|-----------------|---------------|---------------|-----------------|--------------------------------|
| 150 to 500                       | 305<br>399     | 281<br>55,500   | 283<br>1,440  | 239<br>17,919 | 75,258<br>[66%] | 20,464,921<br>[17%]            |
| 500 to 1,000                     | 723<br>201     | 698<br>17,238   | 718<br>562    | 698<br>2,016  | 20,017<br>[18%] | 14,003,665<br>[12%]            |
| 1,000 to 5,000                   | 1,773<br>200   | 1,965<br>14,241 | 1,991<br>553  | 1,874<br>982  | 15,956<br>[14%] | 31,246,558<br>[27%]            |
| 5,000 to 15,000                  | 8,727<br>1,006 | 5,461<br>230    | 9,004<br>156  | 7,961<br>103  | 1,495<br>[1,4%] | 12,259,778<br>[10%]            |
| Above 15,000                     | 51,301<br>567  | -<br>0          | 100,082<br>90 | 34,520<br>36  | 693<br>[0,6%]   | 39,337,906<br>[34%]            |

\* AVCP data. In the central part of the Table, in each cell the upper figure represents the mean value (in thousands of euro) of the contracts' reserve price, the lower figure represents the total number of auctions.

c) *Types of works*. Using the official classification, the following Table breaks procurement down according to type of projects.

| <b>Table 5: Type of Project and Auction Formats (2000-2007)</b>             |               |               |              |              |                 |                                |
|---|---------------|---------------|--------------|--------------|-----------------|--------------------------------|
| Type of Project   | FP            | AB            | SR           | N            | Total Number    | Total Value<br>(in 1,000 euro) |
| OG1<br>(Civil and industrial buildings)                                     | 8,337<br>651  | 676<br>24,694 | 1,560<br>416 | 512<br>3,602 | 29,363<br>[26%] | 24,617,117<br>[21%]            |
| OG2<br>(Conservation of protected sites)                                    | 6,479<br>118  | 781<br>4,803  | 1,716<br>99  | 432<br>2,042 | 7,062<br>[6%]   | 5,569,799<br>[5%]              |
| OG3<br>(Roads, bridges, motorways, railways)                                | 17,061<br>626 | 571<br>24,800 | 1,081<br>263 | 404<br>3,369 | 29,058<br>[25%] | 26,485,868<br>[23%]            |
| OG6<br>(Waterworks, gas and oil pipelines, irrigation and evacuation works) | 12,381<br>118 | 773<br>6,336  | 1,562<br>97  | 466<br>1,023 | 7,574<br>[7%]   | 6,987,097<br>[6%]              |
| Other OGs   | 23,241<br>263 | 633<br>8,651  | 4,768<br>137 | 392<br>2,548 | 11,599<br>[10%] | 13,235,858<br>[11%]            |
| OS<br>(Special Categories)  | 7,157<br>253  | 581<br>10,338 | 1,056<br>150 | 346<br>2,192 | 12,933<br>[11%] | 8,730,655<br>[7%]              |
| Others  | -             | -             | -            | -            | 17,291<br>[15%] | 31,799,671<br>[27%]            |

\* AVCP data. In the central part of the Table, in each cell the sum above represents the mean value (in thousands of euro) of the contracts' reserve price and the sum below represents the total number of auctions.

Tables 3, 4 and 5 suggest the salient characteristics of the Italian system. Table 3 shows that local institutions, city councils in particular, play the largest in public works procurement. Local governments accounted for 54% of the total projects awarded (41% city councils, 10% provincial councils, 3% regional governments). Concession holders also play a significant role. Table 4 shows the extreme fragmentation and low value of the projects, with the vast majority under €500,000. If we cross type of PA and mean value, we find that 37% of all contracts are awarded by city councils under the AB auction format and that their mean value is slightly over €500,000.

Finally, in relation to the type of works, Table 5 shows data project categories that represent at least 5% of the total number of contracts (in the role of main category). Civil buildings (OG1) and infrastructure (roads, motorways, bridges and waterworks) (OG3) are the most common categories. Further, about 25% of all auctions involve road works and 10% social and civil construction (in both cases the percentage refers to both number and value).

To summarize, the AVCP data reveal considerable dispersion of public works expenditure: a great number of small contracts, mainly for simple projects such as road works, awarded by the more decentralized administrations. The AB auction format is the most common for this type of contract, followed, where the law permits it, by negotiation. FP and SR auctions, on the other hand, are characteristic of the few large or complex projects, which are generally managed by concession holders or the larger local administrations.

#### 4. Economic Analysis of the Auction Formats

The literature makes it clear that there is no auction format that is always best and that the relative advantage of each varies with: *i*) the subject of the auction; *ii*) the constraints on the PA's action; and *iii*) the administration's goals<sup>28</sup>.

As noted, only outsourcing (not *in house* production)<sup>29</sup> is dealt with here.

For outsourced works, when the sole objective is cost minimization and there are at least two enterprises capable of carrying out the works, the optimal mechanism is the lowest-price auction (FP) with an optimally set reserve price<sup>30</sup>. This mechanism makes it possible to overcome the information asymmetry between PAs and enterprises<sup>31</sup>, as competition pushes the latter to disclose their costs, at least in part<sup>32</sup>. What is more, the mechanism also gives the enterprise with the lowest cost the best chance of winning (ensuring "allocative efficiency").

However, in practice it is rare for these ideal conditions to occur, as PAs are subject to a number of constraints. In reality we must also take into account: *i*) the risk of non-completion; *ii*) the risk of collusion; *iii*) the risk of corruption; *iv*) defects in the project; *v*) the variety of the PA's objectives<sup>33</sup>. In general, given these limitations, the FP auction is not optimal. The relative advantages of the various auction formats under these limitations are discussed in the following sub-sections, with empirical confirmations relevant to Italy where possible.

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<sup>28</sup> See Dimitri, Piga and Spagnolo (2006).

<sup>29</sup> This paper focuses on traditional procedures for the assignment of public works. *In-house* contracts, which are strictly limited by the PPC, are not dealt with. Concession contracts (construction and management), which are characterized by very specific issues, are also ignored. For the peculiarities of public-private partnership contracts, see Giorgiantonio and Giovanniello (2009). For an economic analysis of the objectives and problems, see Iossa and Martimort (2008); Iossa and Antellini Russo (2009).

<sup>30</sup> Myerson (1981). The term auction reserve price (or starting price) is the highest price the PA is willing to pay. One obstacle to optimality of FP auctions is that determining an optimum starting price implies the PA's knowledge of the distribution of costs of the enterprises. But even in absence of such data, theory suggests that the price ought to be: *i*) lower than the opportunity cost of not awarding the contract when firms' costs are mutually independent; *ii*) equal to the opportunity cost when firms' costs are not independent. In the Italian context, this opportunity cost consists of the total cost of a second auction (i.e. the expected cost of the works, plus that of the second auction and of the delay). The intuition underlying the result, by which the optimal starting price is below the opportunity cost, is that this should prompt enterprises to offer lower prices. Naturally, this also implies that in some cases the contract may not be awarded.

<sup>31</sup> Information asymmetry is the essence of the problem of selecting the private contractor: Laffont and Tirole (1993).

<sup>32</sup> The enterprise faces a trade-off: the lower its mark-up, the more likely it is to win, but the lower the expected profits. For a business that wants to maximize profits, as the number of competitors increases the mark-up has to be reduced, to offset the decreased likelihood of winning (with more competitors, there is a higher probability of finding a very efficient enterprise to award the contract to). Myerson (1981).

<sup>33</sup> These multiple objectives could be, for instance, minimizing costs and completion times while maximizing quality. In any case, the list of factors mentioned is not exhaustive and many others may condition the PA's action (e.g. limitations arising from project design), but they are among the most significant and likely to affect the private contractor's choices. Dimitri, Piga and Spagnolo (2006).



#### 4.1. The Risk of Non-completion

If enterprises<sup>34</sup> do not have reliable information on the final cost of a work, price competition in bidding may, in certain cases, result in greater risk of renegotiation, possibly even withdrawal from the contract. In fact, when there is such uncertainty during the auction, the enterprises with lower costs for breach of contract are at an advantage, as they can “bet” that the execution of works will not be costly. Where completion of the works proves to be very burdensome, these enterprises will prefer to withdraw and pay breach of contract costs rather than carry the project through<sup>35</sup>. The only factor taken into account in the FP auction is price: this one-dimensionality prevents the mechanism from optimally selecting the enterprise with the lowest production costs while simultaneously rejecting those with the highest risk of non-completion. Instead, the incentives inherent in this format imply that the least reliable enterprises are those with the best chance of winning the award.

To limit this risk, economic theory suggests instruments like the U.S. “performance bond”, which offer substantial guarantees for the execution of the contracted works<sup>36</sup>. More specifically, the winning bidder takes out a policy committing a counterparty, the *surety*, to complete the project on schedule and at the cost promised by the winning bidder in case of the latter’s breach of contract. The surety, therefore, has every interest in charging a higher price to less reliable firms. This system has been adopted in the United States, imposing a bond equivalent to the full value of the contract. In this way all risks deriving from failure to complete a project are shifted from the PA to the surety, and the FP auction again becomes optimal, now of course increasing the award price by the cost of the bond. An alternative, actually adopted in Italy, is letters of credit by which one party (an insurance company or bank) guarantees that a third party (the beneficiary of a service) will not suffer economic loss due to breach of an obligation by the contractor<sup>37</sup>. In this case the intermediary does not carry out a discretionary assessment of the economic risk, but only attests to the presence of the capital subject to the letter. This method is less satisfactory, since completing eliminating the risk of breach of contract would require very large guarantee sums; and this could significantly reduce an enterprise’s liquidity, which would limit the field to a few large enterprises. Thus, in general, only guarantees covering a small part of the value of the contract can be required, so the risk of non-completion is not entirely passed on to the guarantor but weighs partially on the PA<sup>38</sup>.

A possible alternative is *ex ante* or *ex post* assessment by the adjudicating authority of the actual reliability of the offers; another is a mechanism like the AB auction, which automatically excludes offers below a pre-determined “anomaly threshold”. Theoretical

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<sup>34</sup> Here we consider only limited liability companies.

<sup>35</sup> Engel, Guanza, Hauk and Wambach (2006). For example, Zheng (2001) studies the case where a contractor – after observing the real cost of the works – can declare bankruptcy, losing (only) its paid-up capital. In this model, firms have different amounts of capital, which stands for the cost of breaching the contract. The enterprise with the lowest capital, exploiting this advantage of low bankruptcy cost, can behave aggressively to win the contract award. But it will only complete works if they turn out to be inexpensive; otherwise it will choose to pay the bankruptcy cost rather than the higher cost of completing the job.

<sup>36</sup> Generally speaking, the global guarantee of contract execution is an institution originating in the English-speaking world and frequently used in international contracts not only to give the contracting entity some form of economic surety, limited to the claim for damages but above all to guarantee completion of the works, via a mechanism that replaces the defaulting contractor. Basically, in cases of rescission of the original contract, the project will be completed through the guaranteeing credit institute. Rossetti (2007); Maggiore (1987).

<sup>37</sup> In other words, the insurance company, in return for a premium, agrees to compensate the beneficiary for a contractor’s breach or imprecise fulfillment of a contract.

<sup>38</sup> This will be further developed in section 5.1.

analysis illustrates how both of these solutions can reduce the risk of breach of contract.<sup>39</sup> However, the former is effective only if the administration can ensure that the assessment is adequate and economical (i.e. if the PA is as efficient at assessing firms as a third-party *surety*). Automatic exclusion<sup>40</sup>, on the other hand, while containing breach-of-contract risks, induces allocative inefficiencies and high procurement costs<sup>41</sup>. Furthermore, in the long run the AB auction creates distortions, because it reduces firms' incentive to increase productivity and generates risks of collusion (see the next section).

Despite the absence of solid theoretical results, it is plausible that, at least for the administrations capable of exploiting the greater discretionary powers of the SR and N formats to discriminate between reliable and unreliable enterprises, these formats can reduce the risk of breach of contract. Since these procedures allow assessment of a whole range of parameters – reputation, experience, liquidity, solvency, etc. – and thus make it less likely that the winner will turn out to be unable to complete a project on the contracted schedule and cost because of an erroneous evaluation of the project or because of strategic choices due to financial advantage.

A recent study has analyzed the impact of the reforms prompted in Italy by EU regulations to restrict the AB in favor of the FP format<sup>42</sup>. The reform that occurred in 2006 is particularly interesting to study the problem posed by the default risk because: (i) administrations became free to choose between the AB and the FP formats but (ii) no changes to the system of contracts' guarantees was introduced. The evidence indicates that almost all administrations chose to retain the AB auction even when it was no longer mandatory. The few that chose FP were essentially quite large adjudicating authorities located in Northern Italy. Figure 1 shows the adoption of the FP auction by city councils and provincial councils in five Northern Italian regions. This choice turns out to be correlated with the size of the administration, presumably owing to the management costs of an FP auction. In particular, because the introduction of FP was not accompanied by a strengthening of the tools to ensure fulfillment of the contract (such as surety guarantees or an enterprise qualification system), only those PAs capable of effective discretionary assessment were able to switch to the FP auction. The discretionary examination of abnormally low offers – though essential to limiting the risk of breach of contract – is particularly burdensome, requiring the presence of expert technical and legal personnel who can evaluate the documentary evidence of costs and also implying the risk of appeal by unsuccessful enterprises. The procedure thus entails high fixed costs that only the larger adjudicating entities can sustain by spreading them over a larger number of tenders.

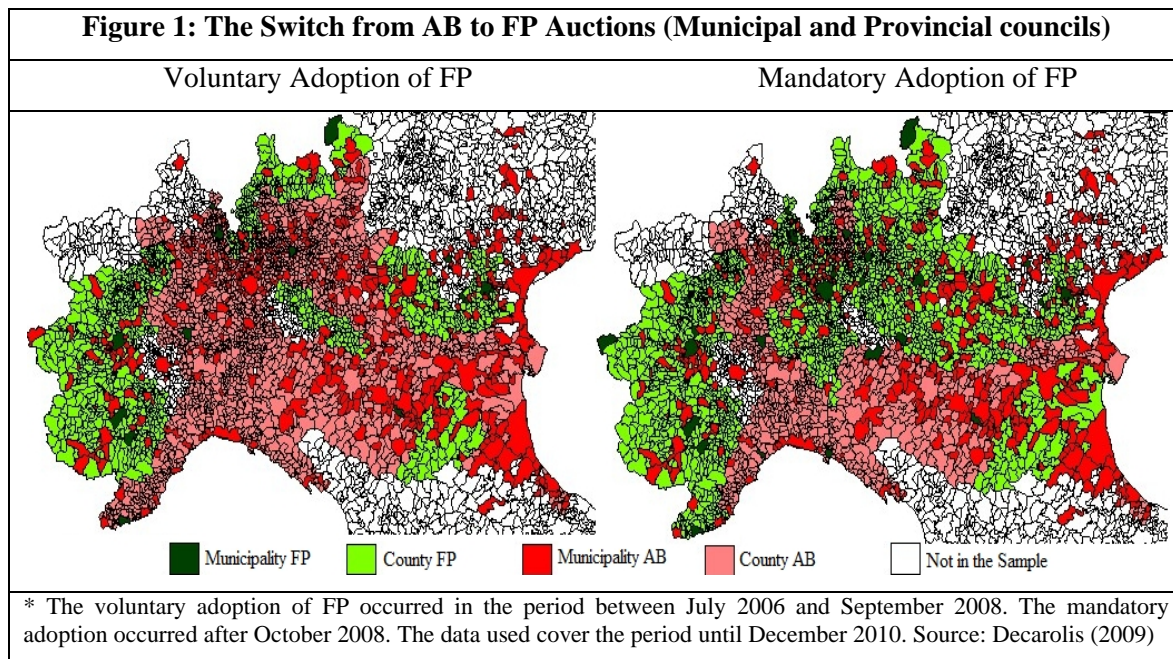
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<sup>39</sup> See Decarolis (2009).

<sup>40</sup> A simpler course for those administrations that cannot conduct an effective discretionary assessment.

<sup>41</sup> The risk of breach of contract decreases because the award price rises compared to the FP auction so that even if adverse conditions arise during the contract, the contractor may still find it profitable to complete the project. Furthermore, strategic considerations tend to induce all firms to bid the same price when there is automatic rejection of anomalous offers: the auction thus becomes a kind of "lottery," and the "riskier" enterprises no longer have a better chance of winning. For the same reason, however, the allocation of resources becomes inefficient if the enterprises have different execution costs. Decarolis (2009).

<sup>42</sup> As we have seen, for auctions below the value threshold, the AB format was mandatory until June 2006. In October 2008 it became applicable (on a voluntary basis) only for auctions below €1 million and with at least ten valid offers. See Decarolis (2009).



As to the effect on costs, the switch from AB auctions to FP has produced significantly lower prices but also more renegotiations<sup>43</sup>. In particular, it is estimated – with reference to auctions for all types of public works contracts worth between €150,000 and €2.5 million between 2000 and 2007 – the average increase in discounts was some 10% of the contracts’ reserve price. For road works alone (between 2005 and 2008) this effect goes up to 19%. At the same time, these savings in the award phase are partly offset by an increase in the final price paid. In particular, it is estimated that the switch from automatic rejection to lowest-price auctions resulted in an increase of the renegotiated share of the contract equal to 6% of the contract value. The net effect on costs is thus the difference between the increase in the discount and that in the renegotiated share<sup>44</sup>. Finally, regarding the allocative effectiveness of the two mechanisms, under FP the winning enterprise has, on average, lower costs (approximately 12% below than the starting price) than under the AB auction. However, this inefficiency is in part corrected through the frequent use of subcontracts.

#### 4.2. The risk of collusion

All three types of auction regulated by the PPC (AB, FP and SR) use the sealed tender mechanism, an important safeguard against firms’ collusion, but there remain substantial differences between them in vulnerability to this risk.

Together with negotiated procedures, SR auctions are the best defense against collusion. Both formats produce greater differentiation between offers, because they use a greater number of criteria. This makes coordination, hence cartels, more difficult<sup>45</sup>. For N auctions, moreover, the efficacy of any agreement is undermined by the direct relationship between enterprise and the administration and more generally by the relative lack of transparency in the selection process.

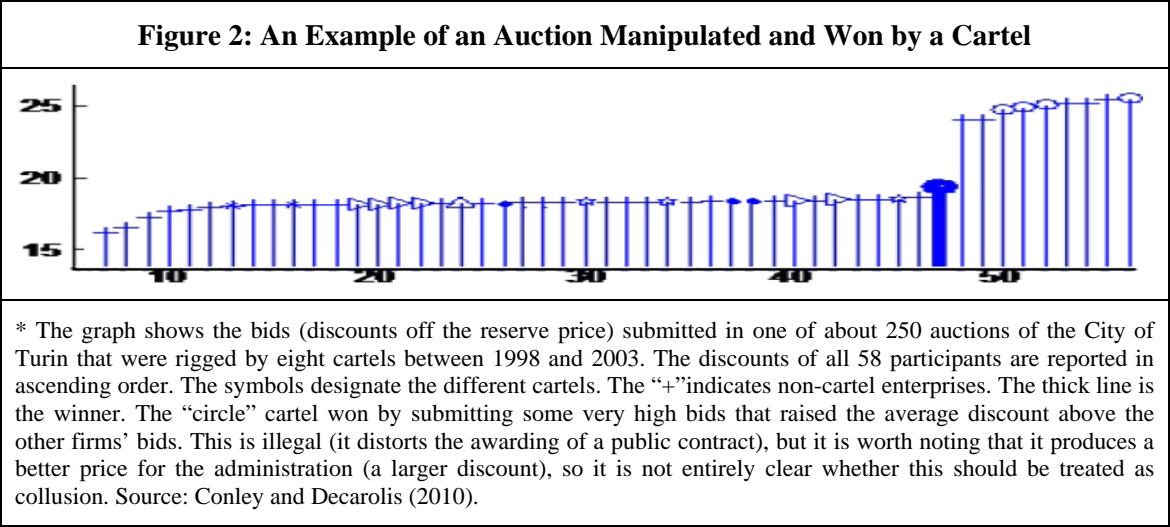
<sup>43</sup> See Decarolis (2009).

<sup>44</sup> From a more comprehensive standpoint, of course, two costs to the administration that are not directly observable in the data must also be considered: *i*) the transaction costs of renegotiation and *ii*) the cost of effecting the discretionary evaluation of bids.

<sup>45</sup> However, if a cartel already exists then a multi-criterion mechanism might enable it to differentiate members’ bids more effectively to avoid detection.

On the contrary, in the AB and FP formats lack of diversification (only the price counts) and greater transparency heighten the danger of collusion. But there is a profound difference between these two mechanisms. The AB auction is extremely vulnerable to collusion. In practice, this procedure usually turns into a random draw, a sort of lottery<sup>46</sup>. But the winning price is a function of all the offers submitted, and as such can be manipulated. Collusive coalitions can affect the threshold of the auction-clearing price, winning the contract and making considerable profits<sup>47</sup>. In the FP auction too, a cartel can influence the adjudication, but in contrast to AB it will be more likely to win the lower is the execution cost of the most efficient firm in the cartel<sup>48</sup>. In the AB auction, instead, what counts is not so much the cost structure of the firms but their number: a larger cartel can submit a higher number of bids and thus have a greater effect on the mean.

In line with the literature, there is evidence<sup>49</sup> that in Italy the AB format (with its automatic exclusion mechanism) is vulnerable to collusion. This thesis finds support in a study<sup>50</sup> of the behavior of enterprises active in road works tenders in Northern Italy since 2000. The study is based on two statistical tests to detect coordination in bids and collusive participation in AB auctions. These tests almost perfectly duplicate the structure of the Turin Province cartels identified in 2008 by Turin Tribunal, which convicted around 90 firms active in public works tenders between 1998 and 2003 of bid rigging with 8 cartels.<sup>51</sup> The test for coordination of bids hypothesizes that in order to maximize their influence on the award threshold, all of the cartel’s bids need to be on the same side of the distribution. Figure 2 shows the case of one of the auctions rigged by the Turin’s cartels where this behavior is crystal clear: with nearly 50 firms offering a discount of around 18%, the cartel designated by the circle offered discounts of around 25%, thus raising the award threshold and consigning vectoring to the cartel member bidding a 20% discount<sup>52</sup>.



<sup>46</sup> All enterprises tend to offer the same discount and the winner is chosen by a lottery. This is a fairly general property of automatic rejection auctions because enterprises always have an incentive to converge on the average discount. In the Italian version of this format, however, the exact features of the rule assure that in the only Bayes-Nash equilibrium all firms offer a 0% discount (see Decarolis, 2009).

<sup>47</sup> The mathematical formula on which the AB auction is based makes it possible to control the award by increasing the number of bids. Decarolis (2009).

<sup>48</sup> In equilibrium this is the enterprise that would have offered the largest discount and won the auction; so for the cartel to be sure of winning, it must include that firm.

<sup>49</sup> See Decarolis (2009).

<sup>50</sup> See Conley and Decarolis (2010).

<sup>51</sup> See Turin Tribunal, First Criminal Chamber, 28 April 2008.

<sup>52</sup> Some extremely high bids are submitted not in an attempt to win but simply to shift the threshold upwards and give the designated cartel member an edge: as in the case described in Figure 2.

The study also reveals how the choice to participate in an auction differs between colluded and not colluded firms. In fact, members of a cartel need to take part in auctions together, otherwise the conspiracy would fail to maximize the number of available bids to steer the awarding. If instead not colluded firms decide independently whether to enter the auction, it is possible to employ a statistical test to use data on firms' participation to test for the presence of cartels.

Applying this methodology to a sample of around 2,000 AB auctions in five regions of Northern Italy between 2005 and 2009 – auctions for which there is no certain information that cartels actually existed – the study detects the presence of collusive phenomena in at least a quarter of them. A second interesting result is that these cartels, although affecting the allocation of the contract, are *reducing* the cost paid by the administration. This happens because if no group of firms is present, the only equilibrium of the AB auction has all firms offering a discount of 0%. A third interesting fact is the disappearance of a considerable number of firms when the AB auction is dropped in favor of FP. The elimination of fictitious firms created by the cartels in order to alter the award threshold explains part of the extremely sharp drop in the number of participants, from an average of 50 in AB auctions to 7 in FPs<sup>53</sup>. The disappearing firms that the tests identify as non-collusive are presumably independent but inefficient firms; for those identified as collusive in the AB auctions, it is ambiguous whether these firms are purely fictitious firms (shills) created to manipulate the mechanism or simply the weaker members of the cartel.

#### 4.3. *The risk of corruption*

The literature suggests that the risk of corruption is reduced if: *i*) the discretionary powers of the administration are limited; *ii*) there are more controls both on the agents of the administration and on the enterprises; *iii*) there is adequate transparency<sup>54</sup>.

This makes it evident that the effects of the four Italian auction formats on corruption and collusion are diametrically opposed. The AB format, for instance, is highly vulnerable to collusion but is potentially most effective against corruption, as the award is a sort of lottery and a corrupt committee would find it difficult indeed to favor any given firm. All the other three formats make it easy for a corrupt committee to favor their preferred firm. This is obvious for SRs and Ns, where the committee has great discretionary powers, and it also goes for the Italian version of the FP auction, in that judgments of bids' "reliability" can be used to exclude the rivals of the favorite.

In addition, the FP auction could be open to the corruption of the PA engineers who control the execution of the work. A controller could ensure that the favored firm wins the auction with such a low price that not even the most efficient enterprise could compete. The corrupt agent would then allow the firm to renegotiate the price after the fact and make a profit. This scheme does not work for AB auctions (where the allocation is random), but it is applicable to SR and N.

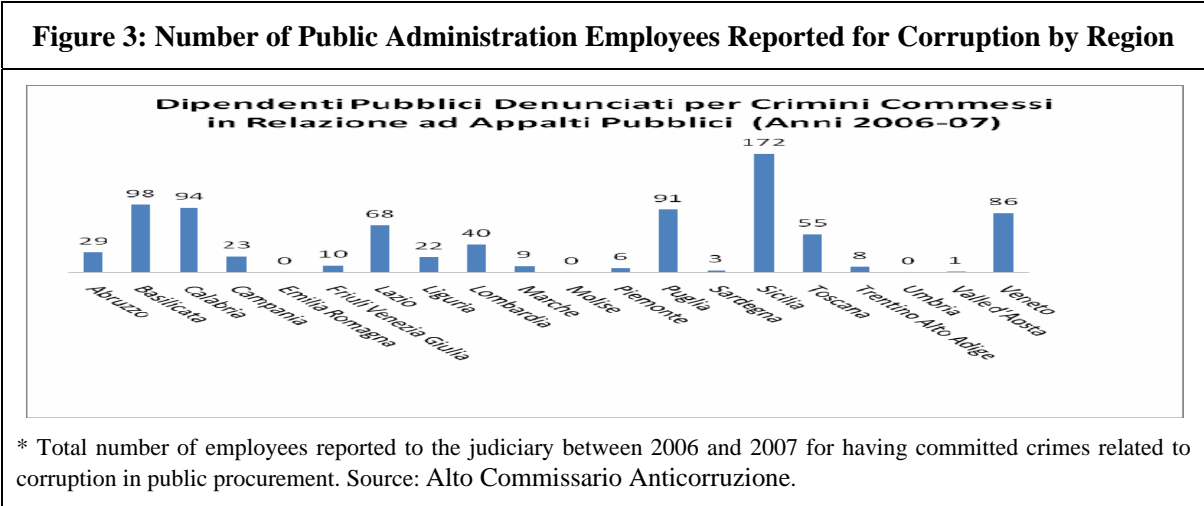
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<sup>53</sup> See Conley and Decarolis (2010). This study suggests a method for identifying enterprises that coordinate their bidding and entry choices and applies it to 950 enterprises active in all the auctions for roadwork in Piedmont in 2005-2010. It finds that: *i*) the disappearance from auctions of the non-collusive enterprises (about 700) is due purely to the greater competitiveness of FP auctions, which deter the less efficient from participating, given their scant chances of victory; *ii*) as to collusive firms (of which about 250 dropped out), it is not possible to tell which were the weaker members of the cartel and which were simply fictitious.

<sup>54</sup> See Lengwiler and Wolfstetter (2006) and the references mentioned therein.

For the latter two formats, moreover, an additional source of risk is the possibility of a corrupted administrator “tailoring” the procedure to a specific firm’s characteristics. For example, in an SR auction, the manager could impose a weighting of attributes to favor one firm over others. This is impossible in FP and AB, with their price-only criterion<sup>55</sup>.

In Italy, public procurement is probably the sector where corruption is most widespread<sup>56</sup>. However, this illegality is hard to measure. In particular, what data on corruption there is at the territorial level is hard to use, because it relates to all indictments or convictions of government staff for offences or unlawful practices, of which those regarding procurement are only a part. The data reflects not only the actual conduct of PA staff but also the attitudes of citizens towards the justice system and that system’s efficiency. Presumably where the legal system works less well, many cases of corruption and illegality go unreported. Of course, particular times in political life or sensational events can cause situations that would have otherwise remained hidden to emerge. As a general reference, according to the *Alto Commissario Anticorruzione* (Anti-Corruption High Commissioner), between January 2006 and November 2007 815 public servants were reported for crimes or unlawful practices against the public administration in public works procurement.



Although precise measurement of the economic impact of illegality is impossible, all the actors agree that it is very substantial. A 2005 survey of major groups involved in carrying out works for infrastructures throughout Europe conducted by the delegations of the Bank of Italy in Paris, Frankfurt and London<sup>57</sup> found that these operators consider

<sup>55</sup> See Laffont and Tirole (1991); Burguet and Che (2004). Studies analyzing corruption in the adjudication of public works using micro-data are rare. One particularly interesting one is Tran (2009), which supports the thesis that FP auctions are more corruption-proof than SRs, although the latter remain preferable to negotiations.

<sup>56</sup> See Alto Commissario Anticorruzione (2006); CNEL (2008); Bentivogli et al. (2009); Bank of Italy (2010). Consider that, in general, Italy’s position – according to the main international indicators (*Corruption Perception Index* – CPI, created by Transparency International; *Worldwide Governance & Anti-Corruption Indicators* – WGI, created by the World Bank) – is particularly backward (among OECD countries only Greece has a worse position) and lost ground in the two rankings between 2000 and 2008 (from 39<sup>th</sup> and 32<sup>nd</sup> place in CPI and WGI respectively to 55<sup>th</sup> and 68<sup>th</sup>).

<sup>57</sup> The results are published in Bentivogli et al. (2009).

“interaction with the economic environment” of Southern Italy to be particularly complex and risky; they took a strongly negative view of such common practices as sub-contracting a third of any projects to local firms. More generally, Italian construction firms themselves complain that the public works market is closed and regionally or sub-regionally segmented, blaming this in part on the close ties with local administrations and local politics<sup>58</sup>.

It therefore appears quite clear – even without a specific empirical analysis – that the risk of corruption in the more discretionary auction formats (SR and N) is greater in some parts of the country. And the tendency to supplant AB with FP auctions could represent a further risk in certain areas.

#### *4.4. The quality of project design*

According to the economic literature<sup>59</sup> it is optimal for the administration to set out highly detailed projects only for the less complex works and in these cases to sign a fixed-price contract<sup>60</sup> awarded via an FP auction. For more complex works, however, it is not optimal for the administration to use any considerable resources to try to factor all possible causes of future variations into the initial project design. In fact, there is a trade-off between the administration’s initial outlay to improve project quality and the costs it will have to face during the life of the contract whenever an “imperfection” in the project prompts the contractor to try to renegotiate. For simple works, it is best to supply the market with a complete project, because this has relatively low costs, owing to the possible centralization of this activity and standardization of the projects, and the risks of any contingencies are limited. By contrast, the cost of a complete design for a complex project can be prohibitive, while there is a high probability of renegotiations in any case. For these projects, economic theory suggests more flexibility and advises against FP auctions<sup>61</sup>.

In the Italian system, this flexibility can be obtained through unit-price contracts under which the firm is tied to a range of prices for the various inputs, these prices being then being applied to the final quantities that are used, which may differ somewhat from the original estimates and more flexible auction formats such as SR and N. One advantage of N in particular is that the administration can meet directly with expert enterprises, thus reducing uncertainties over the project<sup>62</sup>. Regarding the SRs, on the other hand, the administration can include among the assessment criteria points relating to project improvements, thus inducing the enterprises to invest in better quality planning.

Precise data to measure project design defects are lacking. In particular, given the non-existence of a measure of completeness, there is no way to test the hypothesis of the

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<sup>58</sup> On average over 85% of works are contracted to firms based in the region of the relevant contracting entity, often a small adjudicating authority that awards projects to small local firms directly and informally.

<sup>59</sup> See Bajari and Tadelis (2001), who analyze the problem on the hypothesis that the level of detail of the project is a function of how much the administration spends to make it as complete as possible.

<sup>60</sup> Which does not allow the refunding of any expenses beyond those that were budgeted.

<sup>61</sup> Adverse selection is the source of poor contract performance both when there is default risk and when there is deficient planning. In both cases it is the “worse” enterprise (i.e., under the given circumstances the one that is most likely not to complete the works or to do a poor job) that will behave more aggressively and offer the low price. Thus, even though the AB auction is also a rigid format, it does reduce this problem, both because the allocation is random and because the high profit margins the winner generally benefits from make it less likely that renegotiations or ex post default will occur, even in cases of negative shocks.

<sup>62</sup> In this sense, competitive dialogue might well be recommended, to combine the flexibility of negotiated procedures with adequate transparency in the auction itself (section 2), limiting the risk of corruption. This is accordingly a most useful tool for more complex auctions, in line with the suggestions of the economic theory. Section 5.4.

administration calibrating degree of planning completeness according to the complexity of the project, or to assess the impact that different project quality could have on the risk of non-completion or poor quality.

However, recent studies<sup>63</sup> of the factors that cause variations in the cost and time of public works confirm the importance of project design. In more detail, the use of “design and build” contracts (where the same firm is responsible for the final design and for carrying out the work) is associated with a significant reduction of 20% in execution time with respect to the contracted schedule, while outsourcing planning to a third party enterprise is associated with a 15% lengthening. The effects on costs are modest, however. Both changes in costs and the probability of disputes are negatively correlated with the N auction format, in line with the theoretical models.

Finally, a Bank of Italy survey on a sample of Italian public works contractors found that bad projects are one of the main causes of delays and cost increases<sup>64</sup>. Some 43% of the respondent firms suggested better projects from the contracting administrations as a corrective measure for the malfunctions of the procurement system.

#### *4.5. The Pursuit of Multiple Goals by the Administration*

In many cases, the presence of a number of different objectives is a substantial problem for the more complex auctions (consider the building of a hospital), where it is harder to strike the right balance between cost and other key criteria, such as speed and quality. In these cases the shortcomings of the price-only standard, as in the FP auction, are self-evident.

Economic theory has established that under certain conditions the SR auction can be nearly optimal<sup>65</sup>. Auction theory suggests that the SR should aggregate the scores for the various criteria using a linear formula for price, both for easier use by the administration and for its proven good performance by comparison with the various possible hypotheses on firms’ costs<sup>66</sup>. In fact, it is best to avoid over-complicated formulas that make it difficult for a firm to tell in advance how its offer will score. Scoring on the basis of some function of the mean of other prices may have highly distorting effects, as in AB auctions.

Empirical studies of SR auctions are rare, not to say non-existent. The most thorough, based on data from Minnesota Department of Transportation, analyzes the performance of SR auctions according to two criteria: cost and execution time<sup>67</sup>. It finds

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<sup>63</sup> See Decarolis and Palumbo (2010) based on AVCP data previously described.

<sup>64</sup> Some 360 construction firms involved in public procurement were interviewed in February and March 2008. Public works account for 40% of their building activity, and practically 60% among firms based in the South. For more details see Bentivogli et al. (2009).

<sup>65</sup> See Asker and Cantillon (2005). The optimal SR has a complicated form and would be difficult to use, but the authors show how a simplified SR auction, where the price enters the scoring formula as a linear function, approaches the optimal SR and is superior to negotiation.

<sup>66</sup> See Dini et al. (2006). The authors suggest the following linear formula for price: (score of the price bid) = (maximum score)\*[(starting price) – (bid price)]/[(starting price) – (threshold price)]. The threshold price is a minimum price below which further discounts do not improve the score. By raising the threshold price the administration can make competition on prices harder (the firms get more points for price reductions in the interval between starting and threshold price), but raising it too much can damage competition (the bids tend to bunch at the threshold value, and firms that could make a lower bid may refrain from doing so). So administrations must be cautious in using this parameter. In general the greater difficulty of SR auctions suggests that only those adjudicating authorities or administrations with particularly qualified personnel should employ them.

<sup>67</sup> See Bajari and Lewis (2008), which uses a theoretical model to prove the superiority of the SR auction over the Department’s other formats, such as price-only FP with standard fines for schedule overruns.



that “social well-being”<sup>68</sup> increases by 20% when optimally designed SR auctions are used instead of FP. In the SR format, the weight assigned to execution time is proportional to the damage to citizens from inability to benefit from the infrastructure under construction.

Though there are no such in-depth analyses for Italy, the AVCP data show that: *i*) the SR auction was used in Italy between 2000 and the 2007 for the more complex contracts (auctions with a high reserve price and with external and “design and build” contracts); *ii*) this criterion is more commonly employed in certain areas of central and southern Italy (Lazio and most of the southern regions)<sup>69</sup>. Thus while the complexity factor appears to be consistent with a virtuous use of the format, the geographical concentration requires further inquiry, insofar as it could indicate distorted use of the format’s greater discretionary powers.

As noted, only since the adoption of the new Public Procurement Code in July 2006 has there been full equivalence between the criterion of most economically advantageous tender and that of lowest price. And only from that date have the Italian regulations, in line with European directives, embodied the principle that the criterion chosen must be appropriate to the object of the auction and goals pursued<sup>70</sup>.

The AVCP data available (only up to 2007) capture only a minimal part of the effects of this important reform, and the database lacks information on: *i*) the criteria for assessing bids; *ii*) the weights attached to the bids; *iii*) the method for aggregating scores. However, we collected this information for a sample of OG3 contracts (transport infrastructures) assigned using the SR format between July 2006 and December 2009. Table 6 shows statistics for this sample of 501 auctions.

|          | Quantitative Criteria |      | Qualitative Criteria |                |                |
|----------|-----------------------|------|----------------------|----------------|----------------|
| Weight:  | Price                 | Time | Project Quality      | Low Discomfort | Other Criteria |
| Average  | 37.1                  | 7.8  | 12.9                 | 1.5            | 40.9           |
| Std.Dev. | 13.6                  | 9.1  | 19.1                 | 5.5            | 22.8           |
| Median   | 35                    | 5    | 0                    | 0              | 45             |

\* The figures are the percentage of the total weight assigned to each criterion. Price is the cost of the work. Time is the time to its execution. Project quality generally refers to technical improvements proposed by the firm. Low discomfort usually refers to points given for solutions that mitigate the harm to citizens of an active construction site in the neighbourhood.

The table shows the distribution of the weights assigned to the most common criteria: two quantitative (price and execution time) and two qualitative (project quality and discomfort mitigation). We can see that the weight assigned to price is fairly stable and quite low, only about one third. Time, quality and low discomfort show greater variability: sometimes they are not applied at all, and when they are the weight varies substantially from contract to contract. The “other criteria” are almost always qualitative: it is clear that “soft” criteria play a predominant role in SR auctions.

Finally, three significant aspects, though not currently problematic, need constant monitoring: *i*) the method for aggregating scores; *ii*) the type of contracts awarded by SR

<sup>68</sup> The study thus considers not only the cost to the administration but also the costs for the community for lateness in availability of the infrastructures.

<sup>69</sup> These results were obtained using the AVCP data to estimate a Probit model where the dependent variable is equal to 1 with the SR format and 0 with FP, AB or N.

<sup>70</sup> See AVCP determination no. 4 of 20 May 2009 laying down guidelines for the use of the most economically advantageous tender criterion.

auctions; and *iii*) the level of competition. With regard to *(i)*, it is good for the administration to use the simplest method, i.e. “weighted aggregation”<sup>71</sup>, which enhances transparency, lets the price enter the formula linearly as suggested by economic theory, avoids the distortions that would be associated to “endogenous” criteria, where the score is a function of a statistic (often the mean) of all bids, and limits the amount of work –hence overhead costs – and the discretionary powers of the adjudicating commission<sup>72</sup>. As to types of contract, they are mostly large and complex, though there are some exceptions: seemingly simple contracts for which the use of the SR format may give rise to corruption or indicate a pathological inability on the part of the PA to produce a complete project. Finally, regarding the level of competition, the average number of participants in SR auctions is 8, with a standard deviation of 6. Values are almost identical to those of FP auctions and seem reasonable in the light of the type of project.

Table 7 gives a summary indication of the suggestions of economic theory for the performance of the four Italian auction formats.

| <b>Table 7: Theoretical Characteristics of the Four Formats</b> |           |           |           |          |
|---|-----------|-----------|-----------|----------|
|   | <b>FP</b> | <b>AB</b> | <b>SR</b> | <b>N</b> |
| Collusion   | +         | -         | +         | +        |
| Project Limits  | -         | .         | +         | +        |
| Breach of Contract  | -         | +         | +         | +        |
| Corruption  | -         | +         | --        | --       |
| Multiple Goals  | -         | -         | +         | +        |

The “+” sign indicates that the auction format has positive properties, while the “-” sign negative properties. A “.” indicates that no certain results exist.

In summary: *a*) the FP auction, optimal when the PA simply needs to minimize costs, becomes problematic in the presence of the various constraints on administrative action and the pursuit of multiple goals; *b*) no format is superior to FP as regards all the possible risks; *b1*) the AB auction is better on the risks of non-completion and corruption, less effective against collusion and for multiple goals (there are no solid results in the literature on deficiencies in quality of project design); *b2*) the SR auction is effective against collusion and non-completion as well as against project defects and for multiple goals, but with some weaknesses in relation to corruption; *b3*) the N auction is effective in containing the risks of collusion and non-completion as well as in compensating for planning deficiencies, but insufficient against corruption and inferior to the SR format in achieving multiple goals.

For Italy, we can confirm in some cases these theoretical results represent not merely risks but serious problems (e.g. collusion in AB auctions); in others, lack of data prevents any conclusion (as with regard to the effects of differences in project design quality).

<sup>71</sup> The individual scores for the different criteria are weighted by the weight assigned to the criterion itself and then summed.

<sup>72</sup> In assessing qualitative criteria too, administrations generally follow the simplest criterion, i.e. pairwise comparisons, which is simple and transparent.

## 5. Problems and Policy Guidelines for Italian Public Procurement

Both the theoretical literature and empirical findings suggest that despite a series of reforms the assignment of public works in Italy still suffers from serious problems that result in some malfunctions in relation to the risks of contract violation, collusion and corruption, design quality, and the pursuit of multiple goals by the PA. In this section we describe the main shortcomings of the current rules and suggest possible corrective measures.

### 5.1. Containing the Risk of Failure to Complete Projects

The common use of open and restricted procedures with low price as the award criterion, though helpful against corruption, is not now flanked by effective measures against the risk of non-completion of the works. Not only do the current safeguards (assessment of reasonableness in FP auctions, automatic exclusion of abnormally low tenders in AB auctions) fail to guarantee attainment of the goals; worse, they themselves may be a source of inefficiency and higher adjudication costs<sup>73</sup>.

Improvements are possible, particularly in procurement management and in guarantees for the contracting administration.

*a) Some centralization in the assessment of bids' anomaly.* First of all, it may be useful to favor centralization in assessing anomalies, putting specialized technical bodies in charge<sup>74</sup> (following the model of the central purchasing agencies)<sup>75</sup>. This could reduce the corruption risk of lowest-price adjudications and also contain the costs sustained by the single adjudicating authorities, which mainly reflect verification of the abnormality<sup>76</sup>.

From this point of view, the measures enacted by Law 136/2010 (Special Anti-Mafia Plan and Delegation to the Government for Anti-Mafia Provisions) are of special interest. To rationalize and improve the quality of structures, the law provides for the institution, at a regional level, of one or more adjudication authorities to guarantee transparency, regularity and fair costs in the management of public contracts and to prevent the risk of mafia penetration. The implementing procedures are deferred to a presidential decree<sup>77</sup>. These authorities could play a significant role in the assessment of abnormal offers.

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<sup>73</sup> See sections 4.1 and 4.2.

<sup>74</sup> Under the regulations assessing anomalies can be assigned to either an auction commission (where established) or to the technical organisms of the adjudicating authority, i.e. to the special commission pursuant to Art. 88, paragraph 1-*b*, of the Public Procurement Code, preferably made up of personnel from the administration, with the possibility, however, of naming outside experts in the case of motivated technical deficiencies and/or lack of resources. But these solutions appear unworkable for small administrations, which would find it hard to ensure satisfactory assessment of the congruity of bids with acceptable costs.

<sup>75</sup> The purchasing center is an adjudicating administration that can directly purchase supplies and services assigned to other adjudicating administrations or proceed to award contracts or conclude framework agreements for projects, supplies or services in favor of those other administrations (Articles 3.34 and 33 of the Public Procurement Code). See Sanino (2006).

<sup>76</sup> See Decarolis (2009).

<sup>77</sup> See Art. 13 of Law 136 of 13 August 2010, in force since 7 September, which remands the procedures for the institution of Single Contracting Authorities to a presidential decree, according to the proposal by various Ministries jointly (Interior, Economic Development, Infrastructures and Transport, Labour, Social Policies, Relations with Regional Governments, Public Administration and Innovation), to be adopted within six months of the entry into force of the Special Plan, subject to a State-Regional Governments Joint Conference (under Legislative Decree 281/ 1997 as amended). On this point see also AVCP (2010), which specifies that where the single contracting authority does not coincide with the administration that conceived, financed and planned the project the administrative procedures should be properly designed for full accountability in executing the works.

b) *Stronger guarantees from contractors.* The current system provides for the constitution of sureties for the administration both in the bid submission phase (2% of the reserve price indicated in the call for tender or invitation<sup>78</sup>) and at the contract award (an increasing function of the winning discount)<sup>79</sup>. However, the total amount of these guarantees do not seem large enough to cover the risk of non-completion<sup>80</sup>. It would be appropriate to increase the surety amount and give the PA more explicit power to execute the guarantee without according the defaulting contractor the opportunity to appeal<sup>81</sup>.

c) *Performance bonds.* Performance bonds, governed by Art. 129. 3 of the Public Procurement Code<sup>82</sup>, are still not operational, as the new implementing regulations (see Presidential Decree 207 of 5 December 2010), have not having as yet come into force. Such Decree (Articles 129-136) divides the guarantee into two parts: i) standard surety for the effective execution of the project, already provided for by Art. 113 of the Code; and ii) subrogation surety<sup>83</sup>. With the performance bond the guarantor has to pay the PA or contracting authority what it is owed as a definitive deposit; and at the request of the PA or contracting authority, the guarantor must also have the designated substitute take over the completion – or complete execution – of the project. The substitution becomes effective when a rescission of the contract occurs and in cases of bankruptcy, compulsory liquidation or composition with creditors that prevent the project from being executed correctly<sup>84</sup>.

Art. 129 of the Code provides for the application of an comprehensive guarantee for the adjudicating authorities in ordinary sectors: i) optional for procurement auctions worth over €100 million; ii) mandatory for contracts involving the executive design and execution of public works worth over €75 million euro<sup>85</sup>. The comprehensive guarantee of execution is thus limited to large projects; these represent a small share of public procurement contracts and, moreover, are also those with the least risk of serious breach of contract or insolvency, because of the stiff penalties. The legislator's reluctance may be due to the fact that a performance bond for relatively small contracts – those where stoppage for the firm's fault are most frequent – would imply much greater risks for the

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<sup>78</sup> See Art. 75 of the Public Procurement Code.

<sup>79</sup> See Art. 113 of the Public Procurement Code. The surety varies according to the discount offered: starting from a minimum of 10% of the sum stated in the contract, it rises proportionally with the discount offered, up to 100% for discounts of 60% or more.

<sup>80</sup> Moreover, ordinarily the surety is not collected immediately upon breach of contract but is deferred, because of objections from the contractor, so that the bank or insurance company delays payment.

<sup>81</sup> Except in cases of explicitly fraudulent requests. On this point see the opinion of the Court of Cassation (Cass., SS. UU., 18 February 2010, n. 3947) that sureties provided by a contracting party to an administration should be treated as independent guarantee contracts, which are characterized by the guarantor's obligation to pay the beneficiary without raising objections regarding the validity and/or effectiveness of the underlying relationship.

<sup>82</sup> Which substantially reproduces the abrogated Art. 30-7(b) of the Merloni law, introduced with Law 415/ 1998: see Rossetti (2007). On the nature and functions of the *performance bond* see Section 4.1 above.

<sup>83</sup> This type of guarantee will have to be regulated by an annex to the Regulations with the indication of at least two persons that will act, if necessary, as substitutes for the defaulting firm and that possess the requirements stated in the call for tender.

<sup>84</sup> The guarantee has to be effective until the date on which the Certificate of Provisional Approval is issued or, in any case, until 12 months after the date of completion of the works (as resulting from the Certificate). The substitution guarantee remains effective until the Completion of Works Certificate is issued. The Regulations state that, even if the substitution guarantee is activated, the surety is to be understood as given for a total of 10% of the contract value, not further reducible until approval.

<sup>85</sup> This type of guarantee is also required – in the field of strategic infrastructures – for adjudications to general contractors (which, in any case must be by law over €250 million): see Art. 176.18 of the Public Procurement Code. The comprehensive guarantee is not, however, required for concessions.

provider of the surety (as a rule, insurance companies<sup>86</sup>), and hence higher costs for the firms due to policy premiums, which would be passed on in bids. Nevertheless, after adequate trials an extension the comprehensive execution guarantee would be advisable, if accompanied by the creation of a market for indemnity insurance cover following the American performance bond model.

## 5.2. Containing the risk of collusion

The risk of collusion could be limited more effectively by:

*a) anti-collusion measures in the regulations on temporary consortiums (TC).* In a market characterized by a large number of small firms, consortiums can help smaller firms attain economies of scale. But in a relatively uncompetitive market, TCs may be a “legitimate” mechanism for collusion. To reduce this risk, Italy’s rules on TCs should be supplemented by adequate measures. Firms that already qualify to participate individually ought not to be allowed to join TCs<sup>87</sup>. By contrast, actions like Legislative Decree 135/2009, ratified as Law 166/2009, which favors the participation of grouped firms and leaves the secrecy of bids to the discretionary power of the administration, could favoring conspiratorial behavior<sup>88</sup>.

*b) limitations on automatic exclusion (AB auctions).* The Italian rules on abnormal bids place more restrictions than those of the EU or other countries on the administration’s powers in the earliest phase of determining which offers can be accepted. The setting of a threshold beneath which it is compulsory to eliminate a bid means that the criteria for judgment are objective. But the threshold is endogenous (it depends on the bids submitted), which creates a powerful incentive for firms to collude to manipulate it in the AB auction

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<sup>86</sup> The insurance industry displayed its opposition to the innovations desired by parliament, which was attacked as shifting to the insurance industry the task not only of strictly supplying guarantees but also that of covering the risks of non-execution. This is very far removed from the traditional logic of insurance business, which is based on the aggregation of the maximum possible number of comparable risks and using actuarial techniques to calculate the mean risk. See AVCP, Report to Parliament and the Government of 28 February 2002, and bulletin no. 4/2003.

<sup>87</sup> See AGCM opinion AS251 of 30 January 2003 on a Consip call for tenders, where the Authority calls for limiting TCs where they would reduce rather than increase the number of competitors.

<sup>88</sup> The law amends Articles 34 and 38 of the Public Procurement Code, modifying the criteria for excluding firms that control or are connected to other participants in the same auction, according to Article 2359 of the Civil Code. This change, in application of a European Court of Justice sentence (sentence C-538/07 of 19 May 2009), establishes that control/connection under Art. 2359 (which formerly entailed automatic exclusion), must be assessed for actual influence on bids; applicants have to include a declaration (on the control situation and on interested persons), “complete with documents to prove that the control situation has not influenced the formulation of the offer, sealed in a separate envelope. The administration excludes competitors whose offers it has ascertained are ascribable to a single decisional center, on the basis of unequivocal elements. The verification and possible exclusion are carried out after the opening of the envelopes containing the economic offer”. Although on paper the change is designed to safeguard competition, in practice it could favor collusion. For one thing, it gives the PA considerable discretionary power to determine exclusions. Second, it does not specify what type of document is needed to rule out mutual influence between offers. Third, even having the power to exclude a participant, the administration may still have a strong incentive not to do so, in order to avoid a challenge to the auction acts before the administrative court. Finally, the Court of Justice sentence that originated the modification seems to move away from the more markedly pro-competition trend that had characterized previous decisions (see, for example, the sentence of 15 May 2008, case C-147/06 and C-148/06, which led to the modifications – applied by Legislative Decree 152/2009 – to Italian procedure in automatic exclusion of abnormal offers: in particular, new paragraph 9 of Art. 122 of the PPC), where the judgment on compatibility of national law provisions with EU law, and in particular with the principle of competition, had been based also on the standard procedures of application.

format. On the other hand, when discounts above the threshold are only discretionally assessed, as in the FP format, this rule can significantly lengthen the procedure, particularly when the administration lacks technical capability<sup>89</sup>.

Generally, the main problem is the residual possibility of automatic exclusion of abnormally low tenders. Recent changes to limit the use of this format<sup>90</sup> have not had much impact, since 95% of adjudicating authorities, when allowed, choose automatic exclusion, and given the fragmentation of procurement a large majority of auctions qualifies for the AB format. Indeed, auctions for a total value of €6 billion a year are still conducted with the AB format<sup>91</sup>. As noted in section 4.2, this type of auction is subject to serious allocative inefficiencies, with offers totally unrelated to firms' costs.

There is also friction between the AB format and the principles of the Treaty, in particular competition and non-discrimination. Because automatic exclusion prevents any further assessment that might take case-specific circumstances into account, such as especially good market conditions or a firm's special competitive edge, it may result in eliminating the most competitive offer. Accordingly, the automatic exclusion mechanism should be barred or drastically restricted.

### 5.3 Combating Corruption

The limitations on automatic exclusion and, more generally, the assignment of greater discretionary power to the PA should be counterbalanced by strengthening anti-corruption measures, in view among other things of the risk of criminal infiltration in the Italian procurement sector<sup>92</sup>. Possible measures would be:

*a) reorganize attestation bodies and strengthen monitoring and control systems.* The system for attesting to firms' qualification<sup>93</sup> – which the law makes the prime defense for legality in auctions, radically preventing participation by firms connected with organized crime or lacking the technical and financial requirements for reliability<sup>94</sup> (which should

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<sup>89</sup> The algorithm used to determine the threshold implies that at least the largest discount will always have to be assessed.

<sup>90</sup> On a voluntary basis in the original text of Legislative Decree 163/2006 but mandatory for auctions of over €1 under the amending decree of 2008. See sections 2 and 3.

<sup>91</sup> See Decarolis (2009).

<sup>92</sup> See CNEL (2008).

<sup>93</sup> This system, introduced by the Merloni Law and Presidential Decree 34/2000, which abolished the National Building Contractors Association, assigns Attestation Bodies to determine whether a firm meets the technical, financial and administrative requirements for public works. These are private bodies in the form of public limited companies and, after demonstrating their fulfillment of specific requirements, they are authorized by the public contract observatory to perform certification activities according to Presidential Decree 34/2000 (the terms of which are embodied in Articles 64 et seq. of the implementing regulations for the Public Procurement Code).

<sup>94</sup> The issuing of Attestation Bodies certifications is subject to the absence of ongoing proceedings for the application of prevention measures, according to Art. 3 of law 1423 of 27 December 1956, or the absence of impediment causes, according to Art. 10 of law 575 of 31 May 1965; these circumstances are subject to "prefectorial communications" and certification by the Chamber of Commerce, Industry, Craftsmen and Agriculture, with the indication "anti-mafia" (Art. 9 of Presidential decree 258 of 3 June 1998, Regulations stating norms for the simplification of provisions relative to the issuing of anti-mafia communication and information). Let us also point out that, on the subject of fighting illegality in the procurement sector, with the approval of law 136 of 13 August 2010 penalties for collusive tendering have been increased (with the maximum sentence raised from 2 to 5 years imprisonment) and a new type of crime has been defined as "special collusive tendering", making punishable all behaviors – fraudulent, menacing or corruptive – aimed at influencing the contents of the call for tender or the contracting party's choice.

also reduce the risk of non-completion of the works) – is seen by insiders as cumbersome and not really selective.

From this point of view, some improvements – greater accountability of the system as a whole and of individual operators – will most probably be made with the enforcement of the new implementing regulations for the PPC, which will discipline<sup>95</sup> the AVCP's supervisory activities over the Attesting Bodies<sup>96</sup>, strengthening their control and giving them powers to inflict sanctions, according to Art. 6.11<sup>97</sup>.

The rules governing the ownership of the Attesting Bodies should be revised, instituting stricter limitations to ensure technical and financial capability and impartiality<sup>98</sup>. Finally, the checks on the documents submitted by firms should be tightened<sup>99</sup> and the structures for local verification of compliance with the laws on workplace safety and work rules, subcontracts and continuing satisfaction of the requirements should be strengthened<sup>100</sup>.

*b) limit negotiated procedures.* The recent raising to €500,000 of the ceiling for direct award of public works contracts by negotiation, without a call for tender<sup>101</sup> and with no further limitations in connection with the characteristics of the project, is questionable in terms of corruption and criminal infiltration. It indiscriminately increases discretionary powers to select contractors for auctions which, while below the EU threshold, nevertheless account for over 60% of the contracts.

*c) strengthen controls on subcontracting.* While the Public Procurement Code specifically regulates subcontracting<sup>102</sup> – for instance, limiting it to 30% of the total contract value – it

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<sup>95</sup> Implementing Art. 6.7(m) of the Public Procurement Code.

<sup>96</sup> Consider that Legislative Decree 113/2007, known as the second corrective decree to the Public Procurement Code, already instituted a public law system, by which the Attesting Bodies albeit private persons, “carry out public law functions”, thus strengthening their role and, at the same time, giving them more responsibilities. This makes Law 20/1994 on the jurisdiction and control of the State Audit Office, and penal laws on falsification of records applicable to them. See CNEL (2008).

<sup>97</sup> In particular, a fine of up to €25,822 if without justification they fail to supply information or produce documents requested by the AVCP and a fine of up to €1,545 if they supply false information or untruthful documents. See Art. 73 of the new implementing regulations.

<sup>98</sup> See AVCP (2008b), which expresses doubts on some forms of openness under administrative law, which allows members of a firm operating in the public works sector also to be members of an Attesting Body when there are no concrete elements demonstrating the existence of a substantial web of interests such as to impinge on the independence and operational autonomy of the Attesting Body. It has been observed that the ownership structure of many Attesting Bodies is quite fragmented (some have a score of partners, most with less than a 5% stake; and in any case none hold more than 11%) and that in many, notwithstanding the public limited company legal form, their administrative culture remains that of a partnership.

<sup>99</sup> As by providing for an ad hoc inspectorate.

<sup>100</sup> This is an especially delicate and important question in cases of corporate divestiture. The disposal of branches or divisions can create “empty boxes” that are entitled to use the public works certifications already obtained. Inspections on certifications marked by disposals, conferment or leasing have found multiple fictitious sales of company branches controlled by other for the purpose of gaining the maximum advantage to the structure of the company. The Authority points out on average a tenth of all certification holders dispose of the company during the period when the certification is valid. See AVCP (2008b).

<sup>101</sup> See Art. 122.7(b) of the Public Procurement Code, introduced by Art. 1.10(e) of Legislative Decree 162/2008, converted by Law 201/2008, in force since 23 December 2008. The previous limit was €100,000. See Giovannelli and Bevilacqua (2009).

<sup>102</sup> According to the notion from Art. 1656 of the civil code, a subcontract is a contract by which a contractor appoints a third party to – totally or partially – carry out the work or fulfill the service this same contractor had undertaken to carry out or fulfill according to a previous contract, withstanding that the original contractor remains responsible for work or service in question. With reference to Art. 118 of the Public Procurement Code, it is possible to subcontract all services and works of any category. However, subcontracting is subject to the following conditions: *i*) that the competitor, at the time of making the bid, or

is still inadequate for subcontracts that are not formally defined as such but that nevertheless enable contractors to circumvent the regulations<sup>103</sup>. Indeed, though the discipline on subcontracts, within the limits of Art. 118.11 of the Code, applies to “any contract having as object activities, wherever performed, requiring the employment of labor” (for example, operated equipment rental and supply with installation),<sup>104</sup> contracts not ascribable to these classifications, or outside the quantitative limits, are excluded, thus making it possible to circumvent the rules<sup>105</sup>.

Consider also that the new EU rules on the participation of firms that do not themselves meet all the requirements but that can “borrow” them from an auxiliary firm not only present risks for the project execution but could also facilitate elusion of the rules on subcontracts and on temporary joint ventures<sup>106</sup>. The problem is particularly severe because of the lack of more specific rules defining of how the “borrowing” of requirements works, setting limits on it, and coordinating it properly with the anti-mafia measures<sup>107</sup>.

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the winning contractor, in case of variations to the project, at the time of the appointment, states which parts of the project they wish to subcontract; *ii*) that the winning contractor deposits the subcontract with the administration at least 20 days before the date of the planned beginning of works; *iii*) that at the time of depositing the subcontract with the administration, the winning contractor conveys the certification attesting the subcontractor’s possession of the requirements prescribed by the Code in relation to the subcontracted service and the subcontractor’s declaration of possessing the general requirements stated in Art. 38; *iv*) that the subcontractor is not subject to any of the bans stated in Art. 10 of law 575 of 31 May 1965 and subsequent amendments. The subcontractor cannot in turn subcontract services. The subcontract must be explicitly authorized by the administration: to use a subcontractor, the contracting firm – which has declared its intention to do so in the contract – must convey to the administration the relevant request, attaching the authentic copy of the subcontract and the declaration, in observance of Art. 2359 of the civil code, regarding the existence of any forms of control over or links with the firm in charge of the subcontract. Furthermore, all documents attesting the subcontractor’s possession of all qualification requirements, along with anti-mafia certification, must be submitted.

<sup>103</sup> Though mafia penetration in the auction phase is not uncommon, it is mainly in the execution phase, when the contractor has to bring in other firms (suppliers, service providers and so on), that the risk of penetration is greatest: see CNEL (2008). To fight mafia penetration, Law 136/2010, Article 3, introduces the principle of traceability of financial flows, making it mandatory for contractors to have a dedicated bank or post office account for funds connected with public works. The adjudicating authorities must therefore include, on pain of nullity, a clause on the traceability of financial flows; further, the contract must contain an express rescission clause to activate whenever a transaction is carried out not via a bank or Poste Italiane Spa postal account. The law delegates the Government to adopt: *i*) a legislative decree codifying the anti-mafia laws and prevention measures (Art. 1), provisions currently in the criminal code, in the criminal procedure code and in several special laws; *ii*) a legislative decree to amend and supplement the rules on anti-mafia documentation, according to Law 575/1965 and Art. 4 of Legislative Decree 490/1994 as amended (Art. 2). Both of these provisions aim at reorganization and simplification, as well as enhancing the powers of magistrates and police forces.

<sup>104</sup> The measure defines a labour “subcontract” as any contract for activities, wherever performed, requiring the employment of labour ... that in itself is worth more than 2% of the total value of the contracted services or over €100,000 and when the incidence of the cost of labor and personnel is over 50% of the contract.

<sup>105</sup> Exceptions (such as simple supply) and quantitative limits on the definition of subcontract could favor criminal penetration, especially where organized crime is well-rooted. Experience has shown that the risk is heightened once the works are under way and the contractor needs supplies from other firms (for materials, services and so on), making subcontracting broadly defined vulnerable to circumvention of the legal limitations. See CNEL (2008).

<sup>106</sup> See the Unified State-Regions-Cities Conference judgment of 9 February 2006 (available at [www.giustamm.it](http://www.giustamm.it)). The extension of anti-mafia regulations to the auxiliary firm (Art. 49.5 of the Public Procurement Code) should be backed up by a strengthening of the prefect’s powers in order to ascertain the effective connections among firms, considering that firms in collusion with the mafia, with its strong local bonds, penetrate the procurement system precisely by exploiting subcontracting. See CNEL (2008).

<sup>107</sup> In particular, specifying the cases when it qualifies as a subcontract, having as object the conferment not so much of requirements but a real firm activity. On this point Art. 49, paragraph 10, of the Public



*d) more transparent information.* Full access to the data on public procurement is essential, so that every citizen can monitor the actions of the PA. Two precautions, we suggest, would be needed: *i)* data should be made public only after a certain time has elapsed (five years, say), in order to prevent such access from fostering collusive agreements (which themselves require a certain degree of transparency in order to detect deviations from the cartel agreement); *ii)* “standard costs” should be introduced (benchmarks to compare the costs sustained by the individual administrations)<sup>108</sup>, so as to reduce the risk that a virtuous PA may be sanctioned if it sustains higher than average costs to ensure higher standards.

Finally, in examining discounts it must be taken into account the alarming correspondence found recently between excessive discounts and criminal penetration<sup>109</sup>. The fact is that the exploitation of contracting in order to launder the proceeds of crime makes these firms extremely competitive compared to “legitimate” firms, even in recession<sup>110</sup>.

A first step is the draft legislation for “Rules for the prevention and repression of corruption”. To cut administrative cost for firms and ensure transparency, the bill provides for the institution of a national AVCP database<sup>111</sup> bringing together all the data currently collected by the regional observatories<sup>112</sup>.

#### 5.4. Improving Project Design

Tenders would work more correctly if greater attention were paid to the design of projects. Among other things, this would save firms from having to spend too much to get the information needed to make their bids and avoid renegotiation of projects not in line with the desiderata of the PA. In particular, improvement could come from:

*a) centralization of design activities*, which are now divided among the individual adjudicating authorities. This would save on costs and at least partly overcome the lack of professional skills of Italian public administrations, especially at the local level. And, as for the verification of abnormal offers (see section 5.1), here too a significant role could be played by the single adjudicating authorities that will be instituted by Law 136/2010.

*b) the regulation on “detailed technical standards”.* Although the Public Procurement Code envisages and regulates three design levels (preliminary, definitive and executive)<sup>113</sup>,

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Procurement Code is limited to predicting that the auxiliary company can fulfill the role of subcontractor.

<sup>108</sup> On the methodologies and tools for determining the standard costs of public works, by type and area, see AVCP (2003).

<sup>109</sup> A helpful action would be to enhance links between AVCP, the Interior Ministry and the Prefectures.

<sup>110</sup> The economic strength of organized crime has resulted in “entrepreneurial” activities beyond the home territory of the criminal clans. The explosive effect of the corruption scandals of the early 1990s basically froze all procurement contracts in the areas with a strong mafia presence (Sicily, Calabria, Campania, Puglia), but it also led to a remarkable growth in auctions adjudicated with utterly implausible discounts in various parts of Italy, above all in sectors typified by a significant mafia presence (transportation, earth moving, excavation, inert materials, waste disposal). In the spring of 1994 the State Audit Office explicitly denounced “the risk of mafia presence and money laundering”. See CNEL (2008).

<sup>111</sup> Art. 3 of bill S. 2156, notified to the Presidency on 4 May 2010, currently before the Senate. See also AVCP (2010).

<sup>112</sup> The bill also extends the transparency regime to contracts for emergency situations, those managed by the Civil Protection Administration, which up until now were not covered. The operating modes and contents of the National Procurement Database will then be regulated by the new implementing regulations.

<sup>113</sup> In compliance with Art. 93 of the Public Procurement Code, *i)* the preliminary project defines the qualitative and functional characteristics of the works, the framework of the needs to be satisfied and the specific services to supply; *ii)* the definitive project must specify the works to be carried out exhaustively,

it does not – unlike other, more virtuous European countries such as Germany, Spain and the U.K.<sup>114</sup> – have exhaustive rules governing technical matters. Such a set of rules would guide public operators in preparing the tender procedure, allow private subjects to see the needs of the PA more clearly, thus reducing the risk of subsequent renegotiation, and foster best practices and standardization<sup>115</sup>.

Some improvements are likely when the new execution and implementing regulations for the Public Procurement Code goes into effect (June 2011). They introduce significant changes concerning project design<sup>116</sup>: *i*) a more detailed definition of the design levels (particularly the preliminary and the definitive), with special reference to technical reports and graphs; *ii*) regulations concerning the verification of the project by structures internal or external to the adjudicating authority, but in any case qualified, in order to ensure the best design quality<sup>117</sup>.

*c) better rules for competitive dialogue.* For complex contracts, selection of contractors should enjoy some degree of flexibility, including at design level, to best serve the public interest in a logic of public-private cooperation and interaction. This is the very logic that seems to guide the process of “competitive dialogue”, characterized by constant interaction with bidders and use of the most economically advantageous tender criterion as in France, Germany, the United Kingdom and Spain, countries with far more highly developed infrastructure than Italy<sup>118</sup>. But in Italy, despite some legislative openings (Legislative Decree 152/2008, the third corrective decree to the Public Procurement Code<sup>119</sup>), the

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respecting the needs, criteria, limitations, orientations and indications of the preliminary project and specify all the elements necessary for the prescribed authorizations and approvals; *iii*) the executive project, drawn up in conformity with the definitive project, determines in every detail the works to be carried out and the expected cost and has to be so highly defined as to make every element identifiable in form, typology, quality, dimension and price. The approval of the executive project is necessary to carrying out the works, except in the case of competitive tender contract, integrated agreement contract or concessions, where the work can be adjudicated on the basis of the preliminary or definitive project alone. Art. 91.4 of the Code is intended to give preference to assigning executive and definitive project design to the same firm. This procedure is mandatory except in special cases ascertained and motivated by the adjudicating authority. See Sanino (2006).

<sup>114</sup> See OICE (2007); I-COM (2008); AVCP (2008a); Hermes and Michel (2006); Sforzi and Michel (2005).

<sup>115</sup> More detailed technical norms could also favor the acquisition by the PA of higher specialist competencies.

<sup>116</sup> See Title II of Part II of the new execution and implementing regulations for the Public Procurement Code.

<sup>117</sup> The verification ascertains the conformity of the design with the specific functional, implementing, prescriptive and technical provisions set out in the feasibility study, in the preliminary design document and in the previously approved project sheets. The verification specifically ascertains: *i*) the completeness of the design; *ii*) the consistency and completeness of the economic framework in all respects; *iii*) the contractability of the chosen design solution; *iv*) the satisfaction of the necessary conditions for the durability of the work; *v*) the minimization of the risk of variations and disputes; *vi*) the capacity to complete the project on schedule; *vii*) worker and user safety. Verification is by inspection organisms (of type A, B and C) which, for works worth over €20 million, have to be recognized in accordance with norm UNI CEI EN ISO/IEC 17020 (see articles 44-59 of the new regulations). On this point see De Nictolis (2007).

<sup>118</sup> See OICE (2007); I-COM (2008).

<sup>119</sup> The amendment: *i*) clarifies that competitive dialogue can end with the assignment of a concession (Art. 58. 15, last sentence); *ii*) adapts the adjudication criteria in competitive dialogue – and, in general, in all cases where the most economically advantageous tender criterion is applied – to the observations of the European Commission, eliminating the possibility for the adjudicating commission to specify the criteria for scoring only after the publication of the call for tender, and before the opening of the tenders (these provisions had been censured by the Commission as violating the principles of transparency, competition and fairness, which require that all the criteria and their weights be known to competitors before the tenders are presented). See Raganelli (2009).

approach to competitive dialogue is still cautious. The rules to make it operative are “blocked” until the new PPC implementing regulations go into effect (June 2011), and even so they are unsatisfactory<sup>120</sup>. Not even the third corrective decree clarifies what is meant by “particularly complex” auctions (for which the procedure is reserved), or how, in practice, the dialogue is to be conducted while ensuring fairness of treatment<sup>121</sup>.

### 5.5. Ensuring the Pursuit of Multiple Objectives on Behalf of the Administration

Finally, for the more complex public works, in order to contain costs while ensuring quality, two approaches are called for:

a) *more use of the most economically advantageous criterion (SR auction)*. Especially where the technical characteristics can be differentiated in advance according to a quality scale and graduated by degree of desirability in view of the administration’s objectives, the most economically advantageous criterion should be encouraged. In view of the technical and procedural difficulties, this would require a central adjudicating entity to compensate for the lack of technical capabilities among local administrations in particular<sup>122</sup>.

b) *effective differentiation between open and restricted procedures*. With reference to restricted procedures, Italian law limits the possibility of reducing the number of invited competitors considerably by comparison with Directive 2004/18/EC<sup>123</sup>. In Italy this option is available only for auctions with at least 20 entrants and worth €40 million or more “when the difficulty or complexity of the project requires it” and on the basis of an assessment connected to “motivated sound performance requirements”. In the simplified restricted procedure too, the choice of competitors to invite, at least 20, is subject to limitations (see Tables 2 and 3 in the Appendix), although these procedures are for contracts below the EU threshold and thus subject to the principles of the Treaty alone<sup>124</sup>.

Furthermore, the numerical limitation of applications, which is basically “random” and unrelated to objective parameters or merit, is not only questionable in terms of effective competition but could also turn prove inefficient in resource utilization in a

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<sup>120</sup> Art. 253.1(d) of the Public Procurement Code. The failure to institute competitive dialogue – except for entirely residual cases concerning the assignment of building and management concession contracts (see above, section 2, note 24) – has resulted in a serious misalignment between Italy and other European countries: see Giorgiantonio and Giovannello (2009).

<sup>121</sup> The implementing regulations (Art. 113.1) only provide that administrations may “indicate” in the call for tender “specific operating procedures whereby the administration can engage in dialogue with candidates, in observance of Art. 58.7 and 58.8 of the Code”.

<sup>122</sup> A significant role could be played by the Single Adjudicating Authorities provided for by Law 136/2010.

<sup>123</sup> Art. 44 of Directive 2004/18/EC provides that in all restricted procedures (above the threshold) without total sum limits, the number of candidates may be limited to 5 (the minimum), indicating in the call for tender “the criteria and the objective non-discriminatory norms that will apply, the minimum number of candidates to invite and, where necessary, the maximum number”.

<sup>124</sup> In general, the Italian decision to enact specific regulations for procedures under the threshold is not found in other European countries, where in most cases the administration has considerably more freedom, without violating the Treaty: in France, for example, below the EU threshold there is an adapted procedure, modeled by the administration respecting the principles of transparency, objectivity and fairness, without any further limitations, while the administration still has the faculty to resort to any of the procedures known as *formalisées*; in Germany certain rules for below-threshold auctions are contained in the Procurement Adjudication Regulations (*Vergabe- und Vertragsordnung für Bauleistungen – VOB*), self-regulatory codes adopted by administrations and business associations, with binding effectiveness *erga omnes* in virtue of the deferment contained in the decree on the adjudication of public contracts (*Vergabeverordnung – VgV*). See AVCP (2008a); OICE (2007). In relation to open procedures, there are no particular differences between the Italian and European rules.

country like Italy where auctions eligible for the simplified restricted procedure account for a large share of the market. Furthermore, in practice these rules simply wipe out the difference in number of possible competitors between open and restricted procedures.<sup>125</sup> But they fail to realize the potential advantage of fewer applicants, such as procedural manageability, lower “variable” costs, and greater interest in taking part on the part of firms, thanks to the better chance of winning.

## 6. Conclusions

Notwithstanding a series of reforms in recent years, Italian procurement remains fragmented and vulnerable to collusion, corruption and ex-post renegotiations. There are also project design shortcomings.

Our study suggests a number of possible improvements:

- i*) the abolition – of automatic exclusion of abnormal tenders (AB auctions), provided that this is accompanied by stronger measures against breach of contract by the eventual awardee, in particular by means of centralized assessment of abnormal tenders, higher payments for the surety policies posted by the tendering firms, and full implementation of the comprehensive execution guarantee;
- ii*) greater attention to the project design with the centralization of this activity and detailed specifications for the simpler auctions;
- iii*) better employment of the most economically advantageous adjudication criterion and rules for competitive dialogue for complex auctions, containing costs while ensuring acceptable quality in public works;
- iv*) counterbalancing the increased discretionary powers of administrations by strengthening anti-corruption provisions, especially reorganized certification bodies, stepped-up inspection of subcontracting, and more transparent information.

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<sup>125</sup> This is quite peculiar even for European countries with systems similar to the Italian (Spain, France and Germany). See AVCP (2008a).

**Table 1 – Open Procedure**

|  |   |
|--|---|
|  | <b>General applicability</b> (Articles 3 and 55 of the PPC and Article 28 of Directive 2004/18/EC): Open procedures are one of the “ordinary” procedures (along with restricted) for the assignment of public works; they assume that the administration can accurately define from the beginning the object of the contract and the technical specifications, so that firms can submit definitive written tenders, not renegotiable, at least in their essential provisions.   |
| <i>First phase: Publication of the call for tender</i> | <b>Publication of the call for tender</b> , in which the administrations specify the object of the auction and the award criterion (either lowest price or most economically advantageous); if the criterion is most economically advantageous, the call for tender and the auction documentation have to clarify the assessment criteria and their weighting, plus any sub-criteria and sub-scores (PPC, Art. 83; Directive, Art. 53).   |
| <i>Presentation of tenders and assessment</i>          | <b>“All interested economic operators may submit a tender”</b> (PPC, Art. 3); the administration, after verifying the fulfillment of the admission requirements, assesses the offers by the criterion specified. The tenders cannot be renegotiated.  |
| <i>Assessment of abnormal offers</i>                   | For abnormally low offers the adjudicating authority, after examining the justifications submitted together with the tender, asks the tenderer for further explanations relevant to the elements of the offer (PPC, Art. 87; Directive, Art. 55). Without prejudice to the administration’s discretionary powers in assessing the congruity of any other offer that, on the basis of specific elements, appears abnormally low, the following are also subject to assessment:<br>- offers with discounts equal to or greater than the arithmetic mean of the percentage discounts of all the tenders admitted, excluding the largest and smallest 10 per cent, rounded up to the nearest digit, increased – for low-price auctions – by the arithmetic mean of the difference in the percentage discounts in excess of said mean;<br>- offers whose scores for price and the sum of the scores for the other assessment elements are at least four-fifths of the corresponding maximum score stated in the call for tender, in the case of most economically advantageous tender. |
| <i>Adjudication</i>                                    | The award goes to the most economically advantageous tender or the lowest price.  |

**Table 2 – Simplified restricted procedure**

|   |  |
|---|--|
| <i>Scope</i>  | Execution-only auctions worth less than €1 million (PPC, Art. 123).  |
| <i>Preliminary phases: pre-information and lists</i>                          | <ol style="list-style-type: none"> <li>1) By 30 November each year, administrations publish a “pre-information” notice to publicize works to be commissioned by this procedure;</li> <li>2) firms submit an application to be listed (by 15 December);</li> <li>3) the lists are compiled by 30 December with the registration of the operators who have submitted a regular application, complete with a self-certification for the qualification requirements and absence of grounds for exclusion.</li> </ol> <p>Consortiums and temporary joint ventures may not be registered in more than 180 lists, other operators in more than 30; control powers are assigned to the AVCP, which informs the Adjudicating authority if the limit is exceeded. The authority must remove the violators within twenty days of the notification, after informing the registered parties (who have five days to cancel one or more registrations in order to come in below the ceiling).</p> |
| <i>Invitation letter and criteria for the choice of competitors to invite</i> | With no prior call for tender, the administration invites at least 20 of the firms registered in the lists, if there are enough qualified firms. Qualified operators are invited by order of registration, established by a public drawing of lots, and may receive further invitations only once all the qualified firms on the list have been invited.   |
| <i>Adjudication</i>   | The awarding goes to the most economically advantageous tender or the lowest price (depending on the specifications in the invitation letter).   |

**Table 3 – “Ordinary” Restricted Procedure**

|  |   |
|--|---|
| <i>Scope and Conditions</i>                            | <p><b>General applicability</b> (PPC, Articles 3 and 55; Directive, Art. 28 of the 18/04): Restricted procedures are one of the “ordinary” procedures (along with open) for the assignment of public works; they assume that the administration can accurately define the object of the contract and the technical specifications, so that firms can make definitive written tenders, not renegotiable, at least in their essential provisions. In the terminology of the Code, restricted procedures include the closed tender and competitive tendering (see Table 3), as in the Merloni law.</p> <p>The Code establishes a <b>preference criterion</b> for restricted procedures when the object of the contract is not execution alone (so, for cases pursuant to Art. 53.2(b) and (c): executive design and execution, and also – subsequent to acquisition of the definitive project at the time the offer is made – executive design and execution on the basis of the PA’s preliminary project) and also when the award criterion is most economically advantageous tender (Art. 55.2).</p>   |
| <i>Publication of the call for tender</i>              | <p><b>In the call for tender</b> the administration lists the participation requirements and prequalification criteria.</p>   |
| <i>Submission of applications and prequalification</i> | <p><b>Prequalification:</b> the administration determines whether applicants fulfill the requirements; this allows screening of the “typology” of the potential awardee on the basis of characteristics such as financial solidity and technical capacity, thus reducing the number of applicants and the offers to assess.</p>   |
| <i>Invitation to submit tenders</i>                    | <p>In the prequalification phase, based on the objective non-discriminatory criteria set out in the call for tender, the administration invites the selected operators, in writing, to submit their tenders; the invitation letters must contain the details of the call for tender, the submission deadline, the selection criteria where these are not specified in the call for tender and, in the case of most economically advantageous tenders, the weighting of the factors considered, or a list of them in descending order of importance, if these do not already appear in the call for tender, the specifications and the descriptive document (PPC, Art. 67; Directive, Art. 40).</p> <p>In restricted procedures for works worth €40 million euro or more the number of candidates can be limited (but not to under 20), when the difficulty or complexity of the project so requires; in these cases the call for tender must specify their objective non-discriminatory criteria according to the principle of proportionality, the minimum number of candidates to be invited and, where this is advisable for motivated reasons of administrative convenience, the maximum number (PPC, Art. 62).</p>   |
| <i>Assessment of tenders and abnormal offers</i>       | <p>The administration assesses the tenders received according to the criteria stated in the invitation letter. The tenders cannot be renegotiated.</p> <p>When the tender appears to be abnormally low the adjudicating authority, after examining the justifications submitted together with the tender, asks the tenderer for further explanations relevant to the elements of the offer (PPC, Art. 87; Directive, Art. 55). Without prejudice to the administration’s discretionary powers in assessing the congruity of any other offer that, on the basis of specific elements, appears abnormally low, the following are also subject to assessment:</p> <ul style="list-style-type: none"> <li>- offers with discounts equal to or greater than the arithmetic mean of the percentage discounts of all the tenders admitted, excluding the largest and smallest 10 per cent, rounded up to the nearest digit, increased – for low-price auctions – by the arithmetic mean of the difference in the percentage discounts in excess of said mean;</li> <li>- offers whose scores for price and the sum of the scores for the other assessment elements are at least four-fifths of the corresponding maximum score stated in the call for tender, in the case of most economically advantageous tender.</li> </ul> |
| <i>Adjudication</i>                                    | <p>The award goes to the most economically advantageous tender or the lowest price.</p>   |

**Table 4 – Negotiated procedures**

|  |   |  |  |
|--|---|--|--|
| <i>Definition</i>                          | The adjudicating authorities consult the firms chosen and negotiate the conditions of the auction with one or more (PPC, Art. 3)  |  |  |
| <i>Typologies</i>                          | <b>Negotiated procedure with call for tender</b> (PPC, Art. 56; Directive, Art. 30)   | <b>Negotiated procedure without call for tender</b> (PPC, Art. 57; Directive, Art. 31)   | <b>Minor piecework contracts (PPC, Art. 125)</b>   |
| <i>Scope and Conditions</i>                | Only in specific circumstances (PPC, Art. 56.1:<br>1) for works worth less than €1 million when all the tenders submitted for a restricted procedure or competitive dialogue are irregular or inadmissible. In the negotiated procedure the initial conditions of the contract cannot be modified in any substantial way;<br>2) for works carried out uniquely for research, testing or finalization reasons and not to ensure profitability or the recovery of research and development costs. | - Possibility of generalized resort to negotiated procedure (without special procedural limitations) in case of contracts for up to €100,000 (PPC, Art. 122.7);<br>- Possibility of generalized resort to the procedure pursuant to Art. 57.6 for contracts up to €500,000, inviting at least 5 firms (PPC, Art. 122. 7b);<br>- above these thresholds, on justified grounds and only in special circumstances (PPC, Art. 57. 2):<br>1) when for works below €1 million no tenders or no appropriate tenders or no candidacies have been submitted under an open or restricted procedure;<br>2) when for technical or artistic reasons, or in order to safeguard exclusive rights, the contract can only be assigned to one particular economic operator;<br>3) when absolutely necessary owing to extreme urgency due to unforeseeable events, incompatible with the terms of open or restricted procedures or negotiated procedures with call for tender. The circumstances justifying the extreme urgency must not be ascribable to the adjudicating authorities;<br>4) for the assignment of complementary works (not included in the initial project or the contract, and up to no more than 50% of the value of the initial contract) to the executor of a project, when the works have become necessary to the completion of overall project owing to unforeseeable circumstances, and on condition that the works cannot be separated, technically and economically, from the initial contract without serious harm to the adjudicating administration; or, if they are separable, they are in any case strictly necessary to important improvements to the finalization of the project. | Works worth €200,000 or less and classed by the adjudicating authority in one of six general categories: <i>i)</i> maintenance or repair of works or plants in relation to unforeseeable events, it being impossible to carry them out according to ordinary forms and procedures;<br><i>ii)</i> maintenance of works or plants; <i>iii)</i> non-programmable safety interventions; <i>iv)</i> works that can no longer be deferred after unsuccessful auctions; <i>v)</i> works necessary to the completion of projects; <i>vi)</i> completion of works or plants following the rescission of a contract or damage caused by a defaulting contractor, where completion is urgent. |
| <i>Publication of the call for tenders</i> | The administration <b>publishes a call for tenders</b> specifying requirements, the object of the contract and the adjudication criteria (lowest price or most economically   |  |  |

|                                     |  |   |  |
|-------------------------------------|--|---|--|
|                                     | <p>advantageous tender). All interested operators may submit a tender, the call can state:</p> <ul style="list-style-type: none"> <li>- that the procedure will take place in successive phases, to reduce the number of offers to be negotiated, applying the adjudication criteria set out in the call for tenders or the specifications;</li> <li>- the limit to the number of candidates admitted to negotiations (a minimum of six), due to complexity of the work (PPC, Art. 62).</li> </ul> |   |  |
| <i>Call for tenders</i>             |  | <p>The administration autonomously <b>decides</b> which firms to negotiate with, on the basis of its own market research, respecting the principles of transparency, competition and rotation (the qualification requirements must be the same as those for traditional procedures for contracts involving the same amounts) and <b>at the same time invites</b> tenders that will then be the object of the actual negotiations; the invitation letter must contain the essential elements of the service requested and specify the award criterion (lowest price or most economically advantageous tender); at least three operators must be invited, if there are that many suitable subjects.</p> <p>The requirements for qualification are the same as for contacts of the same value under open or restricted procedures, or the negotiated procedure subject to call for tender.</p> | <p><u>between € 40,000 and 200,000</u>: the administration consults, respecting the principles of transparency, turnover, fair treatment, at least five economic operators, where possible, detected on the basis of market research or specific lists of economic operators compiled by the adjudicating authority;</p> <p><u>up to € 40,000</u>: direct assignment is allowed.</p> |
| <i>Negotiation and adjudication</i> | <p>The adjudicating authorities <b>negotiate</b> the tenders submitted (which are thus improvable) with the bidders, to adapt them to the requirements set out in the call for tender, the specifications and any complementary documents. The award goes to the best bidder according to the criteria established.</p>  | <p>The adjudicating authorities <b>negotiate</b> the tenders submitted with the bidders and award the contract according to the criteria established.</p>   | <p>Minor piecework is expressively defined as a "negotiated procedure"; the assignment takes place according to the award criteria specified in the invitation.</p>  |



**Table 5 – Competitive dialogue**

|   |  |
|---|--|
| <i>Scope</i>  | <b>Particularly complex auctions:</b> when the adjudicating administration is not “objectively” capable of determining the technical means necessary to carry out the work or specifying the legal or financial structure of a project (PPC, Arts. 58.1, 58.3, and 3.39; Directive, Arts. 29.1 and 1.11(c)). The opinion of the High Council on Procurement is mandatory and, for strategic infrastructures, also that of the High Council for the Artistic Heritage; however, if these institutions do not notify an opinion within 30 days, the administration may proceed.  |
| <i>Phase one: publication of the call for tender</i>  | <b>Publication of the call for tender,</b> when the administration reveals its needs, specified in the call for tender or a descriptive document that is an integral part of it; the call for tender also states requirements for admission to the dialogue and the assessment criteria (PPC, Art. 58. 5; Directive, Art. 29.2).   |
| <i>Presentation of tenders and initial assessment</i> | <b>Identification of firms</b> to admit to the subsequent phase, the dialogue proper, according to the requirements and criteria of the call for tender. The number of competitors can be limited; the <b>minimum of 3 firms</b> set by the Directive, Art. 44. 3, is raised to <b>6 firms</b> (PPC, Art. 62), if that many qualified operators are present in the market.   |
| Phase two: dialogue proper                            | <b>Identification of the best solution:</b> This is what characterizes competitive dialogue, the establishment of an active relationship between the administration and the firms to find the most suitable solutions to satisfy the administration’s needs as expressed in the call for tender. The administration can discuss every aspect of the auction with the candidates; the new implementing regulations specify that the firms admitted to dialogue can submit one or more proposals, accompanied by a feasibility study and an estimate of costs; the administration can also request better solutions (Art. 113.2 and 113.3). In the dialogue phase the PA must strike a balance between competition and the confidentiality of offers. On the one hand, that is, the administration must guarantee <b>fair treatment</b> by supplying information in non-discriminatory fashion, but on the other it cannot reveal one participant’s information or suggested solutions to other competitors without its consent (PPC, Art. 58.6, 58.7, 58.8; Directive, Art. 29.3). The progressive reduction of the number of solutions to discuss is also possible (PPC, Art. 58.8; Directive, Art. 29. 4). This phase culminates with the identification of a solution or solutions, which becomes the basis of the actual auction. |
| <i>Phase three: final offers</i>                      | <b>Invitation to submit the final tender:</b> The remaining competitors are invited to submit their final offer for the solution specified as a result of the dialogue. The offer must contain all the elements necessary to the finalization of the project (PPC, Art. 58.12; Directive, Art 29. 6). In particular, the offer must be accompanied by the preliminary project for the work and the special service specifications (Art. 113.4 of the implementing regulations).  |
| <i>Specification of the tenders</i>                   | Clarification, specification and <b>fine-tuning</b> (at request of the adjudicating authority) of the final offers; however, it is not possible to modify the essential elements of the offer or the project, in order to safeguard equal treatment (PPC, Art. 58.14; Directive, Art. 29.6).   |
| <i>Adjudication</i>                                   | The only award criterion in competitive dialogue is most economically advantageous tender; even during the adjudication phase, the tenderer can be invited to specify the offer and confirm the commitments entailed, as long as this is without prejudice to fair treatment and does not modify the essential elements. With the abrogation of Art. 58.3 by the third corrective decree, the assessment criteria can no longer be “specified” before offers are submitted. Therefore, the criteria must be completely set out in the call for tender and the descriptive document. The winning contractor is responsible for the definitive and executive design and the execution of the work (Art. 113.5 of the implementing regulations).  |

**Table 6 – Auctions below the EU threshold**

Save explicit derogations (or special rules for specified procedures, such as simplified restricted, negotiated, and piecemeal procedures), the rules are generally those of EU threshold auctions (including adjudication criteria: Art. 121 of the Code); the main derogations are: (1) the possibility (which must be stated in the call for tender), for works worth less than €1 million adjudicated at lowest price, of automatic exclusion of abnormal tenders (provided that at least ten offers have been admitted), (2) the exclusion of international publicity obligations (the obligations national and contracting party profile publicity on the web sites of the Ministry of Interior and the AVCP for tenders worth over €500,000) and (3) shorter procedure times. In any case, the rulings of the Court of Justice provide that these auctions are subject to the Treaty principles of transparency, fair treatment, impartiality and competition; and that the procedures must be applied to all economic activities that are even potentially significant for the internal market. This determination is left to the administrations (see European Commission Interpretative Communication of 23 June 2006 on the Community law applicable to auction adjudications not regulated or only partially regulated by directives on “procurement”).

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