ABSTRACT

Procurement procedures are made of many distinct parts, on which the buyer can intervene to adapt the process to the product, service or work that he wants to procure. This paper analyses differences and similarities among public procurement practices adopted worldwide. Results are based on data provided by a survey conducted in 2004, among a group of European and American Public Procurement Entities. Through detailed questionnaires we enquired about the most relevant aspects that public procurers should bear in mind when designing a competitive tendering. From the survey emerges that procurements vary quite sensibly across different public institutions.

Keywords: procurement, international practices.
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1. INTRODUCTION

Efficient procurement practices, both private and public, play a key role in modern economies as they ensure reduction of wasteful activities. Achieving such efficiency is an ambitious task, as procurement faces numerous challenges, especially due to the market structure, the legal framework, and the political environment that procurers face.¹

While reaching efficiency always implies experimenting new methods and techniques of tendering and at a single point in time these might also vary depending on the level of development of institutions, market and well-being of the given country, it should be expected that procurement practices would tend to converge once these factors are controlled for.

Indeed, in the last years public and private procurement players set up several initiatives and networks, aimed at sharing best procurement practices. Some examples are the International Federation of Purchasing and Materials Management (IFPMM),² the International Purchasing and Supply Education and Research Association (ISPERA),³ the Public Procurement Network (PPN)⁴ and the EU Public Procurement Learning Lab (EU Lab).⁵

This article aims at pointing out similarities and differences in public procurement practices. The paper does not describe private practices which are generally less regulated and might possibly vary even more.

We focus on the main aspects of the procurement design, stressing the differences in procedures across countries and pointing out, where possible, the rational behind each choice. We base our analysis on the results of a benchmark analysis conducted in 2004 among a group of European and American public procurement institutions, also taking advantage of the wave of centralization in public procurement that has occurred in the late 90s.

In some cases, a comparison between European and US legislation is provided. Appendix 1 and 2 at the end of the paper report a description of the European and American procurement institutions involved in the survey, while Appendix 3 describes the questionnaire distributed in 2004.

Practices adopted in public procurement point to substantial differences that might not be justified by different economic conditions of each country, particularly in the light of the international legislative actions (for example for the 2004 EU directive or the 2005 U.S FAR) aimed at streamlining and harmonizing the procurement processes.

This article is organized as follows. In section 2 we describe the general principles of procurement: the tendency to centralize and the mechanisms to achieve quality in procurement relationships. Section 3 provides data about the procurement design chosen by the surveyed institutions, with emphasis on tendering processes, electronic tendering, lots, reserve price, and

¹ Thai, K. V. (2004)
² The IFPMM is the union of 42 National and Regional Purchasing Associations worldwide, private and public. Its objective is to facilitate the development and distribution of knowledge to elevate and advance the procurement profession, thus favourably impacting the standard of living of citizens worldwide through improved business practices.
³ IPSERA is a multi-disciplinary network of academics and practitioners dedicated to the development of knowledge concerning Purchasing and Supply Management.
⁴ The PPN is an international co-operation network of public procurement expert officials involving European States. The PPN's aim is to strengthen the application of the EU procurement rules through a mutual exchange of experience and benchmarking and to promote problem solving in cross-border cases relating to public procurement. Noteworthy is the PPN’s Report on “Public Procurement in Europe”.
⁵ See box 2.1.
disclosure policy. Section 4 deals with mechanisms adopted to attract and screen participants such as joint bidding, subcontracting, abnormally low tenders and awarding constraints. Section 2.5 finally illustrates the practices to increase competition and to avoid collusion in competitive tendering. Concluding remarks are in section 6.

2. GENERAL PRINCIPLES

2.1. Centralization

The choice between centralizing or decentralising purchases is a new strategic topic that raises several questions and challenges both the public and private practices of procurement.

Figure 2.1 shows the ratio between the surveyed central procurement bodies’ purchased value and the Total Public Procurement in different European Countries and in the US – i.e. purchases of goods, services and public works by governments and public utilities. It makes it clear that surveyed institutions award different shares of national public procurement.

Figure 2.1 – Purchased Value as Percentage of Total Public Procurement relative to year 2003

Source: Total Public Procurement which is openly advertised as a percentage of GDP relative to year 2003: EUROSTAT. Data are based on information contained in the calls for competition and contract award notices submitted for publication in the Official Journal of the European Communities. The nominator is the value of public procurement, which is openly advertised, the denominator is GDP.

GDP 2003: EUROSTAT; Purchased Values relative to year 2003: Questionnaires; Data for GSA refer to 2004 and have been provided directly by the institution.
2.2 Contract execution through qualified suppliers

Competitive procurements are usually open only to qualified suppliers to guarantee good contract execution. To screen participants, the procurer can use participation requirements that aim at guaranteeing participants with sufficient legal and technical qualifications excluding at the same time the inadequate ones.

Almost all organisations surveyed restrict participation to the bidding phase by requiring technical, economical and legal qualifications. However, the type and the number of qualifications requested to suppliers varies across procuring institutions and countries. This may be explained on the ground of different procurement legislation (e.g. typically in the U.K. but also in the U.S. there is greater discretion on all aspects of procurement design) but also, and most importantly, on the ground of different strategies in terms of type (Figure 2.2) and/or number (Figure 2.3) of required qualifications.

Figure 2.2 – Participation Requirements

*America: GSA from the US and the Brazilian Federal Government (See Appendix 2.2)

Figure 2.3 – Number of Participation Requirements Requested (Europe and America*)
More than half of surveyed institutions require suppliers to satisfy three to five parameters in order to enter the competitive tendering. Moreover, requirements vary according to: i) the nature of the good/service being procured, ii) the degree of desired participation to the competitive tendering (e.g. weaker participation requirements may facilitate participation of SMEs).

But what can a procurer do in the case of a poor performance during the execution of the contract? Several institutions declare that in case of contractor’s poor performance the contracting authority can cancel the contract. However, often the contracting authorities do not apply this clause because re-tendering the object of the contract is too expensive.

In this context, bidder’s reputation and past performances may represent an important element for the selection of suppliers. A specific participation requirement may be the use of a bidder’s reputation in the awarding phase. The French institution qualifies candidates also on the basis of poor performance in previous contracts. This practice is also adopted by the American Federal Acquisition Regulation which requires the government to do business only with “responsible contractors”, defined to mean those which have, among other requirements, a satisfactory record of past performance.6

3. PROCUREMENT DESIGN

3.1 Tendering Processes

3.1.1 Sealed-bid tendering

There are many kind of competitive tendering formats available to procurers.

6 FAR 9.104-1 (d).
All organisations involved in the survey, both European and American, usually award contracts using the paper based sealed-bid tendering.\(^7\)

They do so for two main reasons:

- **Process simplification**: sealed-bid tendering is easy to implement; the less complicated is the tendering process the lower will be the probability that losing participants appealing in court will win.

- **Competition**: some institutions explicitly recognize the advantage of Sealed-bid tendering in making collusion less sustainable with respect to other competitive formats (e.g. descending auctions).

It is important to underline that buyers may use other types of tendering processes, such as “second-price tendering”.\(^8\) Some institutions consider this format potentially useful, but they never adopted it because of legal constraints; in Italy, for instance, the second-price tendering cannot be adopted since the law prescribes that the winner must pay the price he bid. Apart from legal restrictions, there are also economic reasons for not using second-price tendering. In fact, under some circumstances, it may favour corruption.

### 3.1.2 Combinatorial tendering process

Only few institutions surveyed apply this process, and for different product categories. For instance, the Procurement Directorate of Cyprus performs combinatorial tendering with package bidding mainly for commodities (e.g. laboratory consumables), while the Brazilian Federal Government adopts this format especially for works and services. Consip decided to perform combinatorial tendering for telecommunication services, furniture and fresh fruits and vegetables. From collected data we are not able to define the reason that make these institutions apply this particular tendering format. However, combinatorial tendering formats may present advantages and disadvantages with respect to traditional sealed-bidding procedures.

### 3.1.3 Two-stage sealed bid tendering process

Some administrations allow to procure goods by using a two-stage tendering process whereby in the first stage all n suppliers are evaluated on the basis of some criterion and in the second stage \((n-i) (0≤i≤n-2)\) suppliers compete again for the contract award.

The US FAR allows a two steps sealed-bidding (Article 14.5). It is “a combination of competitive procedures designed to obtain the benefits of sealed-bidding when adequate specifications are not available. Step one consists of the request for, submission, evaluation, and (if necessary) discussion of a technical proposal, without involving pricing. The objective is to determine the acceptability of the supplies or services offered. Step two involves the submission of sealed priced bids by those who submitted acceptable technical proposals in step one.”

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\(^7\) Suppliers submit bids in sealed envelopes; the bidder submitting the best bid, i.e. the highest discount or the best offer, wins the contract and pays what it bids; as explained in section 2.3.1.4 sealed-bid single round tendering can be performed also on line (bids are submitted in secured files).

\(^8\) See the Glossary.
The French organisation recently implemented a two-stage multi-awarding system for PCs and paper for printers (“two-stages tendering process”). In the first stage (open competition) several suppliers are selected on the basis of quality only. Admitted suppliers regularly compete over price in the second stage (restricted competition).

Recently, the new EU Directive allowed to make use of a new two-stage tendering format, the “framework agreement”, where in the first stage several suppliers are selected on the basis of price and possibly quality (open competition) and in the second stage only admitted ones (or a subset of these) regularly compete over price and/or quality (restricted competition).9

3.1.4 Online (descending) auctions

Besides Sealed-bid single round and two-stage tendering formats, procurement institutions may also opt for a multi-rounds tendering format, the so called descending auction, that can also be performed on line. Differently from the standard paper based tendering, it is “common feeling” among the surveyed institutions that online auction is very useful because it allows the use of different kinds of auction formats. A noteworthy case of an US procurement agency adopting online auctions is the Federal General Service Administration (GSA).10 This procurer set up a website11 offering to registered suppliers the opportunity of bidding electronically on a wide array of products. Auctions are completely web-enabled, allowing participants to bid on a single item or multiple items (lots) within specified timeframes.

Besides electronic sealed-bid competitive tendering, the institutions surveyed adopt two different formats: dynamic auctions and multi-round descending auctions.12 These solutions provide the procurer different functionalities, such as:

- Bid decrements; the minimum level by which a supplier can reduce the bid compared to the previous lowest one. From the survey it emerges that an institution establishes the maximum amount of discount that the bidder may submit at each stage.

- Extensions; this aspect is related only to the descending auction format. This auction can have a fixed time period (e.g. two hours), or it can operate with extensions. Two institutions run online auctions of a certain planned duration (e.g. thirty minutes) but if any bids are received within the last five minutes then the online auction is given a five minutes extension. This continues until there is a five minutes period of inactivity.

- Weightings; more complex online auction will allow suppliers to update their bids with respect to any component, i.e. both price and quality when the latter is objectively measurable.

3.2 Electronic tendering procedure

ICT development has increased the scope for electronically-based procurement. The new EU Directive on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts, adopted in March 2004, acknowledges the application of

9 We abstract from the cases, allowed by the Directive: 1) that the first stage selects only one supplier in which case there is no second stage competition; 2) that at the first stage the procurer fixes the price and quality parameters for all suppliers without allowing a second stage.
10 A description of GSA is given in the Appendix 2.2.
11 www.gsaauctions.gov
12 See the Glossary. In particular, one institution designed online auctions with a limited or unlimited number of rounds: in the multiple-round format the number of rounds can be decided before the beginning of the procedure or can depend on the bidding activity of participants. In this case it will be very important to fix a bid decrement in order to reduce the possible number of rounds.
online auction and affirms that “Since use of the technique of electronic auctions is likely to increase, such auctions should be given a Community definition and governed by specific rules” (Whereas n. 14). In the US, e-procurement tools started to be adopted in mid-1990. A recent study\textsuperscript{13} points out that e-procurement tools are rapidly spreading over U.S. States, but reverse auctions in 2001 are utilized only by one state out of ten.

Our survey indicates that electronically based procedures are becoming important; in fact ten institutions have taken advantage of at least one electronic competitive tendering (both one shot and/or reverse).\textsuperscript{14} The surveyed institutions explain their choices differently. First, they are claimed to be useful to improve procurement performance - process simplification and innovation, fastening of the tendering process, costs savings - particularly for the awarding of standardized products (goods that can be specified very clearly and that are often evaluated only in terms of price). Indeed, this mechanism guarantees an automatic scoring of the received tenders where there is no need of a discretional evaluation by a commission of experts.\textsuperscript{15}

Second, one institution considers the adoption of online tendering procedure useful because it reduces entry barriers, since participants may submit an offer without being physically present. This statement is partially true because technological tools can also represent an entry barrier itself, when bidders are not confident with ITC solutions.

3.3 Lots

It is common practice among institutions surveyed to divide the contract into lots.\textsuperscript{16} Only two institutions do not usually split procurement contracts in lots.

This choice is crucial because it may have very important consequences in terms of competition in the short and long run. However, even though the majority of institutions split the contracts into lots, the main reasons behind this choice vary among them.

Figure 3.1 – Main reasons to split the contract into lots

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\caption{Main reasons to split the contract into lots}
\end{figure}

\textsuperscript{13} M. J. Moon (2005)
\textsuperscript{14} Three institutions performed electronic tenders below and above the threshold defined in the Official Journal of the EC; instead the German Institution ran online auction only below the EU threshold.
\textsuperscript{15} Some examples of products and services that usually need to be evaluated by a commission are consultancy services and global services. Nevertheless, the World Bank Group implemented an e-procurement solution for the selection of consultants (Leipold K., Klemow J. Holloway F., Vaydia K., (2004)).
\textsuperscript{16} Two institutions award 50% of their frame contracts through multiple lots competitive tendering; Consip splits 40% of its frame contracts into lots; one institution states that usually large supply contracts are divided into lots.
Institutions split the contracts into lots to:

1. promote participation to the single competitive tendering and to future procurements (having more lots means to increase the probability of awarding lots to more than one supplier and to then optimally manage competition on procurements over time);

2. to optimise transport’s cost in the presence of relevant geographical dispersion of suppliers;

3. to facilitate SMEs participation.

To favour the participation of SMEs, the US legislation allows for set-asides. The FAR (19.5) states that “the purpose of small business set-asides is to award certain acquisitions exclusively to small business concerns. A “set-aside for small business” is the reserving of an acquisition exclusively for participation by small business concerns.” Moreover, in the US there is a specific legislation supporting SMEs, the Small Business Administration (SBA), founded on 1953.

Contrary to the US, the EU Directive does not allow for set-asides. Therefore, in the light of the increasing procurement activity centralization pervading the European Union, SMEs have to face even more difficulties to be awarded a public procurement contract.

Finally, even if almost all institutions divide the frame contracts into lots, they do not follow a common strategy when deciding the number and the type of lots. Five surveyed institutions state that the decision is influenced by market structure. One institution declares that the number of lots should be lower than the number of suppliers expected to bid, as suggested by the national Antitrust Authority. This should prevent bidders to “split the cake” through collusion.

3.4 Reserve Price

The reserve price is the maximum amount the procurement entity is willing to pay for a certain good or service. Setting the reserve price at a high or low level can have different consequences in terms of participation and awarding price. Many surveyed organizations do not publish the reserve price (thus they do not use it) since they consider it as an estimate that not necessarily has to be disclosed to bidders, and calculating it as an internal expectation of the price that the result of a competitive mechanism should not exceed. For instance, some institutions claim that the publication of the reserve price could facilitate collusive behavior. In contrast, seven institutions publish the reserve price before the competitive tendering, and some of them do that in order to avoid cartels. The publication of the reserve price can also have consequences for the procurer in terms of participation and awarding price. For instance, five institutions fix the reserve price at a sufficiently high level, with the objective of attracting more bidders to the competitive process and, consequently, of fostering competition among them.

Concerning the procedure adopted to calculate the reserve price (or the expected price), the institutions manage:

- Information from the supplier’s side and from past awarded contracts. Usually, the value of the reserve price is calculated on the basis of the average price that prevails in the market at the awarding date (resulting from internal market analysis), economic indicators, and, when available, 17 Smaller lots give to suppliers the opportunity to bid just on a part of the contract. 18 Further information on “the Access of SMEs to Public Procurement Contracts” in Europe are provided by a Report edited by EIM Business and Policy Research and commissioned by the EU Commission.
the previous awarding price. In other cases, it can result after a discussion with the suppliers invited to the competitive bidding (as established for instance by the EU Directive within the competitive dialogue).

- Information from the demand side. Two institutions cooperate with Public Administrations in order to know their purchasing costs. In Italy, these data are provided by the National Institute of Statistics (ISTAT).

3.5. Disclosure Policy

The amount and the kind of information disclosed on the competitive tendering may have positive or negative effects in terms of risk of collusion among bidders. The US FAR states that “Contracting officers must publicize contract actions in order to (a) Increase competition; (b) Broaden industry participation in meeting Government requirements; and (c) Assist small business concerns, etc.”

The survey shows that each country has specific rules about information disclosure polices. As a general result, the information about tender features disclosed before the awarding of the contract are similar among the surveyed institutions. For instance, the number of expected bidders is rarely published before the competitive bidding. Only one institution does it to stimulate competitive offers since, in case of a high number of expected bidders, dispatching this information encourages bidders to be more aggressive.

In contrast, institutions behave differently in terms of information disclosed after the bidding phase took place. In 2005, a new survey about disclosure policy has also been conducted. The institutions were requested to answer a questionnaire asking which information are disclosed before and after the awarding of the contract. Figure 4.1 seems to indicate that there is not a common strategy in dispatching information after the bidding phase. In fact, some institutions dispatch only information about the winner, while others disclose data about losing participants too. This is case of the American institution that, by law, discloses the number of offers solicited; number of offers received; quantities and unit price (in general terms) of each award; and, in general terms, the reasons for an offeror’s proposal not to have been selected (FAR 15.503(b)).

Figure 4.1 - Information disclosed after the awarding of the contract

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19  FAR 5.002.
20 The institution recognises that, in the case of a low number of expected bidders, publishing the number of expected participants could keep their offered prices higher. This is why it does not commit to publishing the number of expected participants.
21 Thirteen Institutions answered to the new questionnaire, namely: ABA (Belgium), BBG (Austria), BESCHA (Germany), Consip (Italy), Department of Contracts (Malta), MINEFI (France), Ministry of Development (Greece), Department of Finance (Ireland), PMB (Latvia), PPD (Cyprus), PPO (Serbia) SKI (Denmark), UMIC (Portugal).
3.6 Awarding Criteria

Procurement contracts can be awarded on the basis of two broad criteria: the lowest price and the most economically advantageous tendering (MEAT). In the latter, non-price aspects are also taken into account. Responses pointed out that for the majority of institutions price is not sufficient to identify the best offer; in fact, there are other relevant aspects to be considered, usually characteristics of the item or additional related services that improve the overall quality of the supply. In other words, the higher the complexity of the supply, the more non-price attributes become important in the offers’ evaluation process.

In contrast, the lowest price procedure fits well the procurement of products whose price is the only relevant factor (e.g. in some cases energy procurement, food and office equipment).

Scoring rules are necessary when non-price attributes are relevant element of the supply. The responses to the questionnaires point out that in many circumstances, institutions adopt a specific scoring rule for different procurements. However, scoring rules adopted vary across countries.

The choice of the scoring rule is crucial in designing procurement competitive tendering, as different scoring rules have different features that may affect the competitors’ behaviour.

3.7 Single awarding or multiple awarding

An important strategy that a procurer should take into account when designing a competitive procurement mechanism is the choice of the number of winning bidders. Both the FAR and the new EU directive seem to formalize the concept of multiple awarding. In some cases the FAR gives to public entities the possibility of setting up “Multiple Award Scheduling”. European Procurement agencies may award "framework agreement" to more than one supplier (at least three). The

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22 FAR 8.401: “Multiple Award Schedule (MAS)” means contracts awarded by GSA or the Department of Veterans Affairs (VA) for similar or comparable supplies, or services, established with more than one supplier, at varying prices.

23 A "framework agreement" is an agreement between one or more contracting authorities and one or more economic operators, the purpose of which is to establish the terms governing contracts to be awarded during a given period, in particular with regard to price
Danish, the French, the Swedish, and the UK institutions already adopted parallel Framework Agreements signed with a number of competitively selected suppliers. Then the Public Administrations may: 1) directly purchase from one of the suppliers, after previously justifying the necessity of excluding the others; 2) re-open the tendering process among suppliers in order to obtain a better result.

3.8 Contract duration

The choice of supply contract duration may reflect particular features of the good being procured, taking into account national legislation (for instance the EU Directive states that “The term of a framework agreement may not exceed four years”). However, responses to the questionnaire show that institutions are free to optimally fine-tune the duration according to the characteristics of the good/service being procured. In fact, the practice shows that framework duration may vary from a minimum of one year to a maximum of five.

4. Attracting and Screening Participants

4.1 Joint Bidding

Joint bidding allows two or more suppliers to group together and bid as a single larger entity. This tool is particularly useful for small and medium enterprises wishing to compete for large procurement contracts. Moreover, joint bidding enables small (very often financially weak) specialized suppliers to put together resources and skills to perform more complex procurement (as facility management, IT projects, etc.).

The survey shows that the majority of procurement agencies allows joint bidding. Differences however emerge in relation to the restrictions applied to suppliers that group together, usually meant to increase competitiveness during the tendering process. This is confirmed by the fact that two institutions follow the indications provided by national antitrust authorities, prescribing that a sufficient level of competition in the competitive tendering is enhanced if grouping is prevented between two or more suppliers capable to submit individual bids, while allowing it between

and, where appropriate, the quantity envisaged. The awarding of contracts based on Framework Agreements is in general more flexible than that of Frame Contracts; in fact in Framework Agreements there can be a choice between multiple operators and/or a “second stage competition” on one or more economic variables that in Frame Contracts tend to be fully pre-determined. According to EU Directive 18/2004 the second stage competition for Framework Agreements must comply with the following procedures:

“Where a framework agreement is concluded with a single economic operator, contracts based on that agreement shall be awarded within the limits of the terms laid down in the framework agreement. For the award of those contracts, contracting authorities may consult the operator party to the framework agreement in writing, requesting it to supplement its tender as necessary.”

“Contracts based on framework agreements concluded with several economic operators may be awarded either:- by application of the terms laid down in the framework agreement without reopening competition, or- where not all the terms are laid down in the framework agreement, when the parties are again in competition on the basis of the same and, if necessary, more precisely formulated terms, and, where appropriate, other terms referred to in the specifications of the framework agreement, in accordance with the following procedure:(a) for every contract to be awarded, contracting authorities shall consult in writing the economic operators capable of performing the contract; (b) contracting authorities shall fix a time limit which is sufficiently long to allow tenders for each specific contract to be submitted, taking into account factors such as the complexity of the subject-matter of the contract and the time needed to send in tenders; (c) tenders shall be submitted in writing, and their content shall remain confidential until the stipulated time limit for reply has expired; (d) contracting authorities shall award each contract to the tenderer who has submitted the best tender on the basis of the award criteria set out in the specifications of the framework agreement.”

24 The Danish institution usually selects between 3 and 10 suppliers, while in Sweden this number strictly depends on the goods purchased. For instance, for PCs there are about six or seven suppliers, while they may reach a number of 50 in the case of IT consultancy. In the French case of purchasing of PC and three suppliers were selected for each lot. Every three months the competition is reopened among them. The French institution does not procure for the other Public Administrations. Framework agreements set up by this institutions are described in section 2.3.1.3.

25 Article n. 53

26 The institutions involved in the survey award mainly goods and services. For public works the duration may turn out to be longer than 5 years.
suppliers that cannot on their own fulfil the requested services. For other institutions, grouping of suppliers is not regulated and suppliers may group also if they are able to bid by themselves as long as the aim or the effect of grouping is not a restriction of competition; genuine bidding consortia are allowed whereas collusive bidding is subjected to challenge and legal proceedings.

The regulation of grouping is clearly important in order to optimise the procurement strategy. A bad regulation of joint bidding can have significant negative consequences in terms of bidders collusive behaviour and competition.

4.2 Subcontracting

Subcontracting is an important factor of the procurement design. In principle, it may facilitate the participation of minor suppliers. For example, the recent European Directive (Whereas n. 32) states that “in order to encourage the involvement of small and medium-sized undertakings in the public contracts procurement market, it is advisable to include provisions on subcontracting”.

In THE US, FAR regulates subcontracting and specifically included clauses aimed at involving the Small Business Administration in the Program (FAR 19.7).

Procurement agencies rely on subcontracting practice. Nineteen out of twenty-one institutions grant the possibility of subcontracting to winning suppliers.

4.2.1 Ceiling to subcontracting

The institutions surveyed regulate and design subcontracting in different ways. Some require suppliers to specify the fraction they will subcontract before bidding, while others allow it after bidding. Further, the fraction suppliers can subcontract vary across country as well as the way monitoring on subcontracted activities takes place.

The survey shows that institutions approach subcontracting in different ways. For instance, as for the fraction of the contract that can be subcontracted:

- Among those institutions that allow for sub-contracting, fourteen of them do not impose any ceiling;
- Two institutions only prevent contractors to subcontract 100% of the supply;
- Only three institutions impose ceilings to subcontract: two of them allow to subcontract for no more than 50% of the value of the contract. In the Italian case, the ceiling is 30% of the value of the supply contract, and in public works, the winner can subcontract only complementary services and/or goods;
- As recommended by an advice of the Italian Antitrust Authority, subcontracting to large suppliers that are eligible to enter the competitive tendering (but that do not) as well as to those that have competed in the competitive mechanisms is forbidden. Similarly, in Sweden it is required that suppliers, bidding for a framework contract in the first stage but that failed to receive it, are not allowed to become subcontractors.
- One institution stated that the quota depends on the type of contract to be awarded.
4.2.2 Subcontracting before or after the competitive tendering

In the context of subcontracting it is important to consider when the decision is made. In fact, when subcontracting is decided after the framework contract, in the absence of specific regulation collusion can occur among participants (e.g. the winner subcontracts to losers). Among surveyed institutions the possibility to subcontract only before the competitive tendering is present in eleven cases; while six institutions grant the possibility to subcontract before and after the competitive mechanism.

4.2.3 Monitoring of subcontracting

It is important to understand how the monitoring of the subcontract is executed in a centralized context where frame contacts or framework agreements have been signed. Two possible solutions are available: central institutions that sign the frame contract can directly monitor how the subcontract is executed or leave this to the responsibility of the purchasing entity. Answers to the questionnaire show that the last case is the most common among institutions. In fact, nine institutions leave it to the purchasing units to monitor subcontracting. Only five do it directly, especially for IT products. Finally, one institution grants the whole responsibility to execute the contract and to manage the subcontractors to the prime contractor.

4.3 Abnormally low tenders

Article 51 of the 2004 EU Directive states that “If, for a given contract, tenders appear to be abnormally low in relation to the goods, works or services, the contracting authority shall, before it may reject those tenders, request in writing details of the constituent elements of the tender which it considers relevant”. According to the US FAR, offers are abnormally low if they do not result “fair and reasonable” compared with the expected price.27

Abnormally low tenders are a concern for procurers since the contractor may under perform or even go bankrupt.

From the questionnaires what emerges is that when a competitive tendering presents an abnormally low price compared to that of either other offers, market prices or the institution own costs estimation, the contracting authority (or the evaluation commission) shall be obliged to invite the bidder to justify his price quotation; if the supplier is not able to justify its offer the latter is considered abnormally low and rejected. In fact there is a wide variety across countries as to how abnormal offers should be evaluated. For instance, the Brazilian institution defines a complex mechanism28; the procurer should request motivation whether a suppliers presents a price that is 70% lower than the lowest of the following values: (1) the arithmetic average between tendering

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27 The FAR does not define the term “fair and reasonable” but the US Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics considers “fair” those offers in line with (or below) either (1) the fair market value of the contract deliverable and (2) the total allowable cost of providing the contract deliverable that would have been incurred by a well managed, responsible procurer using reasonably efficient and economical methods of performance plus a reasonable profit. Are called “reasonable” those offers that a buyer would be willing to pay, given available data on economic forces such as supply, demand, general economic conditions, and competition.

28 Other methods adopted to prove that bids are unrealistic are provided by A. Wambach and A.R. Engel. For example, in Peru the procurement agency calculates the average and then eliminates those bids that lie 10% above and below this average will be eliminated. The average of the remaining bids will be calculated again and the contract will be awarded to the bidder whose bid is immediately below the second average.
prices that are superior than 50% of the estimated price set by the Administration; (2) the estimated price set by the Administration.

**4.4 Awarding Constraints**

An awarding constraints limits the fraction of supply (or the lots) that each participant can be awarded. The survey revealed that many agencies do not use awarding constraints; while those deciding to use this clause (six institutions), provide different reasons leading to this choice:

- Avoiding lock-in. Multiple-winners competitive tendering do not constrain public administrations to purchase from only one supplier. Then, awarding constraints are used with the positive intent of preventing monopoly in the market or to promote the creation of new markets. In the US the procurer may impose awarding constraints in order to avoid lock-in (FAR 6.202). In contrast, the EU Directive does not regulate this specific aspects.

- Increasing participation, in particular for SME’s which can only afford the participation in small lots.

**5. MECHANISMS TO PREVENT COLLUSION**

In order to achieve a successful tendering process the procurer has to promote competition and deter collusive behaviour among participants to competitive tendering. Therefore, the procurement design should optimally account for such elements in order to obtain efficient outcomes.

This survey shows that procurement institutions approach the problem of deterring collusion mainly through the adoption of the sealed-bid tendering format. In fact, this format reduces the possibility that each participant may have information about the offers of other participants. The surveyed institutions appear aware that sealed-bidding can reduce – other things equal – collusion.

In general, the fact that descending auctions make it possible to observe (even anonymous) deviations from pre-arranged collusive agreements among bidders and therefore make a cartel even more stable and less prone to be broken is not always understood. For instance, one agency considers online auction an useful tool to prevent collusion because it has the effect of increasing the visibility of “collusive behaviour”, motivated on the ground that each participant achieves online information only about his bid.

Institutions adopt other different strategies in order to minimize the risk of collusion in the competitive tendering:

- Forbidding controlled or affiliated suppliers to take part to the offer;
- Establishing a number of lots not greater than the number of expected participants;

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29 The article states that “Agencies may exclude a particular source from a contract action in order to establish or maintain an alternative source or sources for the supplies or services being acquired if the agency head determines that to do so would”.

30 According to the theory, limiting the number of lots one can win prevents big suppliers from being awarded the whole supply. Consequently, SMEs have more possibilities to being awarded a lot and thus may be attracted to enter the competitive bidding. As a result, participation of SMEs increases expected competition by attracting more participants. However, by lowering the chances to win, all participants may be induced to submit more aggressive bids. Hence, the buyer can realize more savings.
• Increasing the duration of contracts to avoid rotation among suppliers;

• Limiting/regulating the grouping of enterprises;

• Trying to facilitate entry of SMEs, for example, by splitting the contract into lots;

• Examining bids with respect to expectations based on prior knowledge of the marketplace;

• Using available media to communicate tender notices so as to stimulate participation;

• One institution considers as the most effective strategy to avoid collusion among participants the reputation that the contracting authority has in professional circles (no hesitation to lodge a complaint with the antitrust authority in case of suspicions);

• Finally, one institution does not have a specific strategy to avoid collusion, since the detection process is based on denunciations (social control).

Interaction with the national Antitrust Authority

Interestingly, some institutions rely on the interaction with the national Antitrust Authorities to better deal with cartels. Cooperation between antitrust Authorities and procurement agencies may be of great importance in order to prevent collusive behaviour.

Our survey shows that eleven institutions interact with the national antitrust authority.

Different approaches to interaction emerge:

• Advising: before performing a competitive tendering, some institutions ask the Antitrust Authority to give an opinion about the proposed tendering or about similar past ones. Even if the Antitrust opinions are not binding, institutions take them into account into designing competitive mechanisms;

• Steering group between the two institutions regarding procurement strategy design;

• Sharing of information related to national or supranational guidelines;

• Cooperation aimed at identifying whether collusive behaviour took place in a competitive tendering.

6. CONCLUDING REMARKS

This paper pointed out similarities and differences in the public procurement sector by focusing on the main aspects that a responsible procurer should take into account in the design of procurement mechanisms.

Our survey showed the great variety of approaches to procurement design. Similarities also emerge, but very often the motivations provided to support one tool/strategy instead of another seem to be different and not fully consistent with optimal choices.
Certainly, it is important to underline that the survey did not control for the peculiarities of each country/contest, such as level of competition, legal and political frameworks, level of innovation and of centralization of public procurement, geographical structure of the country. However, differences even emerge among some important procurement agencies operating in similar overall economic contexts (European Union) and under the same supranational regulation (European Directive).

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APPENDIX 1 - THE “EU LAB” INITIATIVE AND PARTICIPANTS

Description of the Initiative

During the Greek Presidency of the European Union the 10th meeting of Ministers and the 40th meeting of Directors Generals of the Public Administration took place. Participant ministers considered of vital importance to meet on a regular basis, in order to exchange practices and ideas in the areas of cooperation and give overall direction to activities within the network. In this context the “EU Lab” instrument was considered the ideal tool in order to promote informal exchange of information and to establish a network among participants. During the Italian Semester of Presidency, the Italian Department of Public Administration, jointly with the Ministry of Economy and Finance, launched a EU Lab on Public procurement, named “EU Public Procurement Learning Lab”.

The objective of this initiative is to compare the activities and to share useful knowledge among European procurement entities, in accordance to the resolution of the 11th meeting of European Ministers responsible for Public Administration. The kick-off meeting took place on November 28th, 2003 in Rome and nineteen institutions representative of sixteen countries participated in the meeting. In 2004 participants focused the activity on three specific topics: “Small and Medium Firms”, "Technical Issues", "Competitive Tendering Design and Competitive Issues". Every topic was developed by a Working Group to which institutions decided to participate according to their interest, and each group was coordinated by a “Leading Country”. Consip took the role of “General Coordinator” of the whole Initiative.

The EU Lab in 2004

The EU Lab activity is defined by that of three working groups that try to focus on the main strategic aspects and issues related to public procurement.

The working group on “Technical Issues” aims at sharing information among EU Lab members about technical, mainly ICT-related, aspects of public procurement. The main objective of the working group is to collect information about requirements that are necessary in each country for the suppliers willing to participate to electronic tendering. Examples of technicalities analysed are: the introduction of digital signature in e-tendering and the coordination of platform mechanisms to achieve cross-country compatibility.
The working group on “SMEs” aims at identifying problems that different EU Lab members experienced in terms of participation of Small and Medium Enterprises to public procurement tendering. In fact, the co-ordination of government procurement and purchasing activities may create entry barriers for small and medium firms, which is problematic since one of the most important aspects of procurement design is to promote entry. Are frame contracts systems, framework agreements and other forms of tendering poor in this respect? What are the experiences of the different EU countries with regard to this issue? How can the design of public procurement using frame contracts, framework agreements and other mechanisms be improved to promote entry of small and medium enterprise? These are some of the questions that the working group on public procurement and SMEs focuses on.

The working group on “Competitive Tendering Design and Competitive Issues” aims at studying how different member institutions apply procurement tenders, with the objective of sharing best practices. In order to achieve this result, this working group analyses every aspect that a procurement entity should consider in designing competitive tendering. Moreover, this group considers the consequences of public procurement competitive mechanisms in terms of competition among bidders.

Participants to the working group on Competitive Tendering Design and Competitive Issues:

The questionnaire on Competitive Tendering Design and Competitive Issues (see Appendix 2.3) has been send to thirty-one members of the EU Lab representing twenty-five countries and nineteen European institutions gave a feedback. Namely: ABA (Belgium), ASMR (Czech Republic), BESCHA (Germany), BBG (Austria), Consip (Italy), Department of Contracts (Malta), ESPA (Romania), MINEFI (France), MINHAC (Spain), Department of Finance (Ireland), Ministry of Development (Greece), Office for Public Procurement (Slovakia), OGC (UK), Public Procurement Authority (Turkey), PPD (Cyprus), Public Procurement Council (Hungary), Public Procurement Office (Poland), SKI (Denmark), Statskontoret (Sweden).

APPENDIX 2 - PARTICIPANTS FROM THE US AND BRAZIL

Two American institutions gave their contribution to the 2004 survey:

- **US General Service Administration (GSA)**. The institution provides products and services to support Federal Government agencies and employees, buying for the Central Administration. All purchases (products and services) are governed by the Federal Acquisition Regulation (FAR), and its implementing regulation, the General Services Administration Manual (GSAM). Approximately 13,000 employees work at GSA, and the institution performs on average 696,385 actions per year. Here is a list of product categories covered by the institution: Telecommunication, Energy, IT, Goods and services (Office Furniture, Stationery, Paper, Credit cards, Cars, Buses, Ambulances), Real Estate (Cleaning Services, Asset Management, Financial Services).

- **Brazilian Department of Logistic and General Services** (The Brazilian Federal Government). In the Brazilian Federal Government, the Department of Logistic and General Services –
DLGS belongs to the Ministry of Planning, Budget and Administration, and is the central agency responsible for: formulating and promoting public policies and directives related to the activities of the administration of goods, works and services, transportation, internal and external communications, and procurement tendering and contracts, for the entire Federal Administration; promoting the system of rules and norms in the Federal Government, for procurement tendering and contracts, and orienting the Federal Administration with respect to legal practices in the procurement tendering and public contracts; providing and managing the procurement tendering electronic systems within the Federal Government. Since the DLGS does not perform procurement contracts, the information provided in this paper refers to practices of the Brazilian Federal Government.

APPENDIX 3 – STRUCTURE OF THE QUESTIONNAIRES DISTRIBUTED

Questionnaire on Competitive Tendering Design and Competitive Issues

The Questionnaire focused on tow main issues:

- Competitive tendering design, containing questions about the main aspects that a procurement entity has to consider when designing competitive tendering. We submitted questions focused on eight aspects: (1) Tendering processes; (2) Number of lots; (3) Duration of the contract; (4) Reserve price; (5) Participation requirements; (6) Awarding criteria; (7) Policies; (8) Subcontracting.

- Competition, containing questions related to the level of competition registered by the institutions, methods to avoid collusion, and own experiences about participants’ collusive behaviour.