

Public procurement in Europe

Cost and effectiveness

A study on procurement regulation. Prepared for the European Commission, March 2011



This study is prepared for the European Commission by PwC, London Economics and Ecorys.

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Executive summary

Objectives

The economic significance of public procurement in Europe is considerable, with yearly purchasing valued at 3,5 percent of the region's GDP. Public procurement is regulated by two separate EU Directives: the Public Sector Directive on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts; and the Utilities Directive, coordinating the procurement procedures of entities operating in the water, energy, transport and postal services sectors.¹

The aim of this study is to improve the understanding of the impact and effectiveness of the EU public procurement directives. The analysis covers all 27 EU Member States and the 3 EEA countries. The study is prepared in the context of a comprehensive evaluation of the procurement directives currently being undertaken by the European Commission and to help inform decisions about future policy.

The first part of the report identifies and discusses **patterns of use** of the different procedures and circumstances that may be associated with the choices made by the authorities when selecting the type of procedure for a particular contract. We identify patterns in the use of the various procedures and techniques (across countries, over time, and across sectors), and we investigate circumstances that may influence the use of the different procedures.

The second part provides a detailed analysis of the **costs and effectiveness** of administering and participating in selected tender procedures/techniques foreseen by EU procurement legislation. The analysis looks at procurement under the Directives in comparison to procurement under national procurement regulations and to private procurement.

Our analysis is based on a number of very rich data sources. The analysis of patterns of use is largely based on the TED database (i.e. a web portal of the Supplement the Official Journal of the EU) maintained by the Commission which contains detailed information on about 540.000 individual purchases by authorities in 30 countries over the 2006-2010 period. These purchases represent more than 1,4 trillion euro in value. We have also collected original data from a large scale survey among awarding authorities and firms in the EU/EEA. This survey adds significantly to previously almost non-existent primary information on the perceived costs and benefits of different procurement processes. About 5500 authorities and 1800 businesses responded. In addition there have been about 150, more qualitatively focused, in-depth interviews and discussions with purchasers and suppliers. This included a focused exercise to understand how business to business (B2B) procurement is conducted in large corporations across Europe.

Patterns of use

Four award procedures are provided for under the regulations. These are: open procedure, restricted procedure, competitive dialogue and negotiated procedure. Public authorities have a free choice between the open and restricted procedures. Competitive dialogue can be used only when neither of the former can be applied. Utilities are free to opt for negotiated procedures but their used by non-utilities is very strongly limited by the regulations.

The UK, France, Spain, Germany, Poland and Italy are responsible for about ¾ of all EEA public procurement, both in number of contracts and in value. The UK tops the list in value terms while France has the highest number of contracts.

Open procedures constitute the lion's share of public procurement at about 73 percent of all tender announcements in the Official Journal. Open procedures are also used disproportionately more for smaller contract values. Restricted and Negotiated procedures account for about 9 percent of total

¹ Directives 2004/18/EC (Classical) and 2004/17/EC (Utilities)

procurements each. The UK exhibits strikingly unique patterns because of its great reliance on restricted procedures. The UK is in fact the only country where open procedures do not make up more than half of all procurement. The smaller countries such as Cyprus, Lichtenstein, Malta and Iceland use almost exclusively the open procedure.

Over time there is stability regarding use of the major procedures with an exception for competitive dialogue which has significantly increased in value. The trends that we could identify (in the small number of years covered by the data) indicate that the use of open procedures overall is slowly increasing while the use of restricted procedures has decreased.

The **contract values** are heavily concentrated at the low end. The median value is about 400.000 euro, and the mean value is 3 million. Yet, almost 9/10 of all contracts is below the mean and adds up to under 15 percent of total procurement values. This is an extraordinarily skewed distribution. Contract values also differ significantly across procedures: the open procedure is used predominantly for lower value purchases; competitive dialogue is particularly important for the very high value purchases.

The use of **framework agreements** has been increasing rapidly at an average 18 percent per year since 2006. Most of this growth occurred in large procurers such as France and Spain. Norway, Sweden and Denmark have traditionally made the most use of framework agreements. Conversely, frameworks are used the least in Southern Europe and in the smaller EEA countries. The use of joint purchasing has also been increasing very rapidly as well as more consistently across all countries.

There are two **award criteria** for contracts: lowest price or economically most advantageous tender (EMAT), which looks at both qualitative and quantitative aspects of the tender. In the data EMAT is used in 70 percent of contracts, corresponding to about 80 percent of values procured. The price only criterion is therefore relatively more common in smaller contracts.

Purchasing under the **utilities** directive encompasses about 10 percent of all contracts but 17 percent in value terms. Given the much greater latitude to use negotiated procedures under this directive, it is not entirely surprising that we find a much higher incidence of these procedures in utilities tenders.

The EU procurement directives have to be applied when contracts are above certain thresholds. Below threshold procurement is subject only to national regulation. **Threshold levels** are thus an important element of the regulations. Given the distribution of contract values, it is estimated that increasing the threshold levels by 50 percent would reduce the scope of the directives by about 5 percent of values, and about 12 percent of transactions. That translates into about 17 billion euro measured by 2009 values. We find however that large shares of contracts recorded are actually below threshold levels and as such the impact of increasing the levels may not be as pronounced.

Costs and effectiveness

Procurement outcomes are considered in light of the costs incurred (human resources and time), the level of competitiveness achieved (number of bids, participation from cross-border bidders) and the perception of transparency.

Overall on procurement

Total **cost of public procurement** in Europe is estimated at about 1,4 percent of purchasing volume. This equates to about 5.3 billion euro in 2009 terms. Businesses account for 75 percent of these costs. Although the unit costs for developing a request and managing the process are higher for authorities, the fact that several bids are prepared and submitted for each tender explains the higher total costs for suppliers. The average competition uses the equivalent of 123 person days of resources; in monetary terms this equates to 28.000 euro.

There is practically no relationship between **contract value** and **procurement costs** except in the very high value range. Thus, costs are a big share of contract value for the smaller contracts. For example, in contracts with a value close to the threshold above which EU procurement directives

become compulsory (125,000 euro) total procurement costs for business and government amount to about 30 percent of the contract value.

There is much difference in **cost efficiency** between countries. For example, in Germany and Norway the process cost of procurement reaches above 4 percent of total procurement volume, while in the UK and Italy the share is less than 1 percent.

It is important to note that these costs are not fully attributable to the procurement directives. Purchasers would regardless have to procure their goods and services and costs would be incurred with or without directives. For public procurement, authorities would have to follow national procurement regulations if they were not subject to the EU directives. For private sector procurement, both purchasing and sales departments also expend significant resources organising business-to-business transactions.

Competition is considerable. Each public tender is estimated to receive 5,4 offers. Open procedure and joint purchasing procurements leads to more offers. Spain and Germany are the most competitive markets receiving about 8 offers on average. Local government markets are more competitive than central government.

Overall, both authorities and firms find little difference between performing procurement under the EU procurement directives or under **national regulations**. Nonetheless, a small majority of respondents see below threshold procedures as less time consuming.

Private sector procurement in large corporations across Europe is subject to internal firm guidelines which regulate key aspects of purchasing but allow for much greater flexibility overall. According to our survey respondents, competition and price pressure are weaker than in public sector procurement. However, private procurement is perceived to be faster and less costly than public procurement; this results in a more favourable perception of efficiency.

Costs and effectiveness by country

While not entirely surprising, the wide country variations and marked lack of convergence in procurement costs and outcomes that this study reveals can be considered disappointing. The table below provides an overview of the main differences that we encountered. It is particularly worthy of note the fact that these differences are very large when compared to the averages across all countries.

The degree of competition in public procurement, which may be most directly proxied by the number of bids that calls for tenders typically receive, varies dramatically between the top and the lower performing group of countries. While the top group receives an average of 7 or more bids per procurement, the bottom group receives 3 or fewer. Naturally, we would expect such large differences in degree of competition to reflect significantly in the outcomes of public procurement.

The incidence of cross border wins is dismayingly small across our universe of over 540,000 individual procurements, with just over 3% of the total. In this measure, smaller countries clearly outperform their larger and often wealthier fellow EEA Member States.

Indicator	Average difference between top and low performers
Cost (percent of procurement volume)	4 % of total procurement volume (overall average is 1.4%)
Costs (in person-days)	71 person-days (overall average is 38)
Number of bids	7 bids (overall average is 5,4)
Incidence of cross border wins	40% (overall average is 3.4%)
Time taken by the procedure	180 days (overall average is 108)

One important concern for both authorities and tenderers is the length of time taken by public procurement procedures. The average time taken across all procedures is 108 days but the average

difference between the top and the lower performs is approximately 180 days. This is a hugely significant difference that will inevitably impact on the efficiency and attractiveness of public procurement. In terms of person-day costs we again find a huge variation. While the overall average stands at 38 days, including both the time invested by authorities and by the winning firm, the difference between the top and the bottom performing countries is approximately 71 person-days. These differences are explained mainly by the person-day costs for authorities. If including the person-days spent by non-winning firms, the difference in resource use for the economies increases to 230 person days.

Costs and effectiveness by type of procedure

The study first compares how different procedures and techniques perform in terms of costs and efficiency. Public authorities can select among several available types of procedure and technique. It is thus important to investigate whether there are noticeable differences in how they perform. It is also sometimes the case that not all procedures or techniques are available as an option in a particular case. The analysis herein may assist in identifying costs and benefits of such restrictions.

Open procedures, by far the most commonly used procurement method, perform generally well. In particular, open procedures attract a high number of bidders and take relatively less time to complete. Time, however, is not a strong consideration, on average, for authorities that use open procedures.

Restricted procedures present a more mixed picture. They are a successful form of attracting a good number of bids but they take a long time and impose relatively high costs on procuring authorities. Authorities that use restricted procedures report on average a higher weight on quality of the procurement outcomes than those using open procedures.

Negotiated procedures do not perform well in almost any of our measures of efficiency. The number of competing tenderers in negotiated procedures is lower than in any other type of procedure, the time taken is among the longest, and the costs for firms are high. Negotiated procedures do, on the other hand, perform better than average in terms of the number of cross border wins. It is understood that there are a different set of motivations underlying the use of negotiated procedures. This often relates to the complexity of what is being commissioned and the many possible variants that may need to be considered.

A similar situation underlies the use of **competitive dialogue**. This is a method of procurement that performs poorly in terms of the number of bids and, particularly, the time taken by the entire process. However, competitive dialogue may be an important option for authorities in particular circumstances.

Frameworks agreements aggregate in one initial stage a large part of the administrative burden of a procurement process. This would be expected to lead to significant cost savings, particularly if the number of subsequent contracts within the framework is high. The study confirms this intuition. Framework contracts have lower costs than any other form of procurement and the savings are found both for authorities and for firms. They also perform better than other forms of procurement in terms of the number of bids that they attract. This, however, should be balanced against the much lower level of competition that will exist at the time of each contract under the framework.

The use of **electronic auctions** for procurement is still far from widespread but appears to be a promising technique for improving efficiency. Electronic auctions perform well in terms of number of bids and time. They are slightly more costly for authorities but less so for firms. They perform less well in terms of cross border wins but this is something that could probably improve as the method became more widely used. **Dynamic purchasing systems** perform well in terms of bids and cross border wins but take a very long time. They have high costs for authorities but low costs for firms.

We also found some differences between procurement processes that use EC funds and those that do not. EC funded procurement has a slightly lower number of offers, higher costs for authorities and

much higher costs for firms. These procurements perform, however, somewhat better in terms of cross border wins.

There were also some differences by award criterion. When the award criterion is the lowest price rather than economically most advantageous tender (EMAT), the number of bids and the percentage of cross border wins are lower. Lowest-price procurement processes tend, on the other hand, to be awarded faster.

Other factors affecting costs and effectiveness

We look also at some ‘macro’ factors and investigate whether they contribute to explaining the average number of bids and the incidence of cross border wins. In wealthier countries (high GDP per capita) and in larger countries (high GDP) the typical procurement process receives more bids. Centralisation of procurement within government has a strong negative impact on the average number of bids received per procurement process.

For contract sectors we find that construction and business services receive the highest number of bids but are also the most costly in person-day terms. Contracts in the area of commodities have the lowest person-day costs and take the least time but perform lowest in number of bids and in number of cross border wins.

The effects of the sector of the authority on the procurements that they perform are much less amenable to intuitive interpretation. We did not identify particular patterns in any of the four main indicators discussed here.

Concluding remarks

Our analysis has yielded insights into patterns of use, costs and effectiveness of EU procurement. These are intended to support the policy debate about the EU Directives and inform the assessment of alternatives.

Overall, the procurement directives support the core objectives of the policy. Public procurement markets appear to be highly competitive and this should help bring about the desired broader effects. But process costs are considerable, especially for participating business, and these are particularly cumbersome in the low contract value range where indeed most purchasing takes place. The regulatory dilemma is how to balance the positive core features of the system, while responding to a perceived need for increased efficiency and flexibility.

There are reasons to believe that considerable gains could be achieved by each country, within the existing regulatory framework. A dominant feature of our study is that that the cross-country variation is significant and a large part of this variation does not seem to be explained by any of the factors that were included in the study. There is evidently much scope for country performance improvements and the potential gains from exchange of best practices appear substantial. Consistent with these findings is a policy with strategies and instruments aimed at supporting performance of the countries.

Core features of the system such as competition and cost effectiveness also vary significantly across type of procedure, technique and contracting authority. Further understanding of the drivers of such observed differences should assist in the identification of policy variables that can be used to improve public procurement processes and outcomes.

Introduction

The objective

The aim of this study is to improve the understanding of the impact and effectiveness of the EU public procurement directives.² The study is prepared in the context of a comprehensive evaluation of the procurement directives currently being undertaken by the European Commission and to help inform decisions about future policy. The analysis covers all 27 EU Member States and the 3 EEA countries.

The larger question is whether the legislation has changed the behaviour of market participants. In response to this, we compare how various procedures and techniques are being used, and we discuss their relative costs and effectiveness. The study draws comparisons against a scenario of procurement without EU directives, i.e. public procurement under national legislation or private sector procurement.

The study is prepared for the European Commission who is currently undertaking a comprehensive evaluation of the procurement directives. We will help provide facts and analysis which the commission may use as a basis for their evaluations and the eventual redesign of the public procurement directives. A better understanding of the facts is helpful for the European Commission to make informed decisions about future policy

Content of the study

The first part of the study provides a detailed description of the **patterns of use** of different public procurement procedures and techniques and of which factors influence purchasing behaviour. We offer an extensive analysis on the use of different public procurement procedures in the EU and the EEA in the period 2006-2010. This section is largely a detailed presentation of facts and figures. Some facts are general in nature while others are more specific. Some are well known, others have hardly ever been known outside of specialist circles.

The analysis is sufficiently granular to identify differences between procedures, types of awarding authority, sectors from which items are procured, etc. We identify patterns in the use of the various procedures and techniques (across countries, over time, and across sectors), and we detect circumstances that may influence the use of the different procedures.

This chapter establishes a basis for the further analysis in our study and it sets up a common ground for the further policy discussion. Establishing basic facts will help further advance the thinking around plausible options for refining and adjusting the directives.

The second part of the study assesses the **cost and effectiveness** of public procurement. This focuses on the full costs of issuing and responding to tenders for both the contracting authorities and the participating firms and seeks to compare these with costs and outcomes in private procurement and in public procurement under national regulations. We calculate the total cost of public procurement in Europe, and we discuss its breakdown.

We then turn to the effectiveness of public procurement procedures and techniques. Effectiveness cannot be directly measured so we use a number of proxies on the basis of which we make inferences about the relative effectiveness of different types of procurement processes, authority types, sectors and countries. We look first at the number of offers received during each procurement process. The number of offers is analysed and interpreted as a proxy for effectiveness in both procedural and outcome terms. All other things equal, we would expect that procurements that receive a large number of bids will result in the authorities being able to select a superior contractor at more competitive prices. A large number of bids further indicate that the procedural aspects were not perceived as cumbersome to the point of significantly discouraging bidders.

² Directives 2004/17/EC (Utilities) and 2004/18/EC (Classical)

We further investigate whether, in the eyes of the procurers (i.e. awarding authorities and entities) EU procurement rules have resulted in more effective purchase transactions. As there exists very little primary information on the perceived costs and benefits of different procurement processes, it has been necessary to collect such information through a large-scale survey of procurers. The survey data is used to undertake an analysis of whether different procurement procedures result in different outcomes, controlling for a range of other factors such as the type of goods, services or works being procured or the type of awarding entity.

The regulatory starting point for the analysis is the two procurement directives: the Classical Directive and the Utilities Directive. The Classical Directive lists a number of **procedures** that may be used for public procurement. We will analyze the seven most frequently used. In addition to the various procedures listed, additional modalities for the public purchases procedures are available for purchasers. We call these modalities '**techniques**' and we have chosen to focus our analysis on the following four: Framework agreements; Use of Joint purchasing; Dynamic Purchasing systems; and E-auctions.

Data driven approach

The analysis is very data driven. There is much information available through administrative records, and this has been supplemented with extensive survey work. The key datasources are:

Records of European public procurements during 2006-2010. There are detailed data available for about 540.000 purchases by authorities in 30 countries over the five years. These total to more than 1,3 trillion euro in value. Public procurements in general are recorded through various national database systems. Those awards for contracts which are above the EU threshold levels are required to be published in TED database (i.e. a web portal of the Supplement the Official Journal of the EU) maintained by the Commission. This is our principal source of data. Based upon these data we have performed various statistical presentations, used a variety of techniques from straight forward cross-tabulations to more advanced econometric modeling. About 50 regressions are run based upon this and the survey data.

Survey of thousands of purchasers and suppliers. An important supplement to the official data is the use of data from surveys conducted during this analysis. The surveys gathered information on perceptions by authorities and firms in relation to various aspects of the procurement process. About 7300 responded which allows for statistically significant analysis of responses. The responses are also representative of the population of the various procedures and techniques and a reasonable match with the country distribution.³

In addition there has been a range of **interviews and discussions** with purchasers and suppliers, more qualitatively focused, to help enrich our understanding. This included a focused exercise to understand how business to business (B2B) procurement is conducted in large corporations across Europe.

The report is organized in two main chapters. The first looks at patterns of use and the second looks at costs and effectiveness. There are three annexes provided in separate files. These are: (i) Detailed methodology; (ii) Tables of descriptive statistics, and (iii) Regression specifications and outputs.

³ There is as always a concern about the motivations of respondents and that these may introduce biases in the analysis. However, we have not identified any patterns in the responses that would lead us to expect any particular direction were such a bias to exist.

Patterns of use

1 Patterns of use

This chapter will establish a basis for the further analysis in our study. It will also seek to set up a common ground for the further policy discussion. Establishing basic facts will help further advance the thinking around plausible options for refining and adjusting the directives. In later chapters, we will analyze in more detail the underlying economics. What are the costs? What is the effectiveness? And why are certain procedures chosen?

The key question seeks to find the patterns of use of procedures and techniques across the European Economic Area (EEA). We here present facts and figures. Some facts are general in nature while others are more specific. Some are well known, others have hardly ever been known outside of specialist circles.

Procurers can choose between varieties of procedures, suited to particular circumstances of the needs, characteristics of the items procured or market considerations. There are also a number of techniques available, such as establishing framework agreements.

We can observe distinct patterns in the use of such procedures and techniques. Many of the observable patterns are most likely regulatory driven: i.e. the fact that about 73% of all awards notices used the open procedure could be primarily a consequence of the regulatory design. This procedure, together with the restricted one, is the default choice in the Classical directive and can be applied to most circumstances with the least amount of restrictions. In comparison, a procedure called “competitive dialogue” is used in only about 0.4 percent of award notices annually across the region. This procedure can only be applied for particular purchases and situations.

There are, however, many differences which at first glance appear to be driven by factors other than regulatory design. For example, there are considerable differences among countries in terms of what procedures are being used, their value and for what goods and services they are used. The regulations are in principle identical across the region, but it appears that they affect purchasers differently. There are variations across the main sectoral activities of the government entity conducting the purchase, the types of items being procured and even differences across time.

The following discussion is organized along the key procedures and techniques. The key unit of study is the contract award notice. The analysis will focus on seven procedures and four techniques. We will analyze both the number of notices (frequencies), and the values involved, along a range of dimensions.

There are literally hundreds of cross-tabulations and econometric functions which could be specified. In principle the same parameters could be analyzed for every single country, but this study focuses on the regional level. We start with an overall analysis which includes country, time dimensions as well as the effects of price on procedures and techniques.

Thereafter we focus on key market and structural characteristics which may influence authorities’ choice of procedure. This includes which types of government, i.e. central or local, which government sector, e.g. health or education, which business sector, e.g. construction or business services, and which type of contract, works supplies or services. In addition we focus on selected regulatory provisions such as whether the award criteria is price only or also includes more qualitative aspects, what type of services category (A or B), and how the choice of procedure is influenced by the threshold levels.

We apply both straightforward presentations of the facts as they appear in the TED database, and multiple regression models which attempt to adjust for a range of factors to better understand what influences the choice of procedures and techniques.

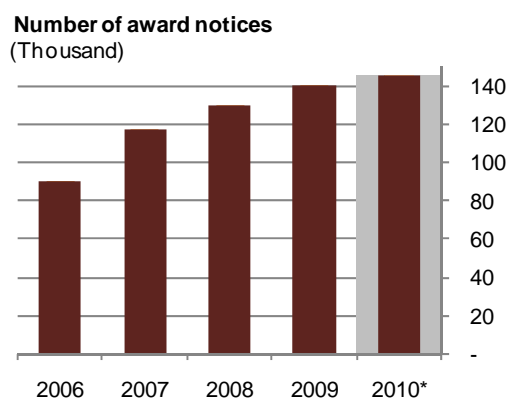
1.1 Overall on procurement in Europe

As much as 145.000 contract award notices were published in 2010 by a range of different European authorities, local councils, central ministries and entities operating in the utilities sectors which are governed by the public procurement directives. These award notices represent purchases which are conducted in compliance with the EU directives and published on the TED website.

An increasing number of contract award notices are published every year. Compared with 2006, there were about 62 percent more award notices published in 2010. There has been a small increase in the growth rates from 2006. In fact, other studies have found that the growth rate during 2002-2006 was about 10 percent for the period.⁵ During 2006-2010, the annualized growth rate was 12 percent. There is an apparent slowdown in growth rates between 2009 and 2010 with only minimal growth, as shown above in Figure 1.1.

Growth in contract award notices since 2006⁴

Figure 1.1 Number of contract award notices 2006-2010



The economic significance is considerable. The purchasing volume directly under the scope of the directives is measurable and we will turn to that shortly. And importantly, the economic influence of the directives may extend beyond what is directly regulated; Many countries transpose the directives more or less directly for activities which are below threshold or otherwise outside of the direct scope of the directives. Total government expenditure on works, goods and services may be as much as 18,3 percent of GDP. As such, there is much purchasing by governments which is not under the scope of the procurement directives and not captured by these statistics. This includes certain sectors, as well as procurement below the EU threshold values.

It turns out that there is more than one way of measuring the values. We will discuss two important approaches.

First, it is possible to estimate the values of *invitations* to tender (contract notices). The European Commission has arrived at an estimated total value of these at about 420 billion euro in 2009. This equates to about 3,6 percent of the region's GDP.⁶ This amounts to about 18 percent of government spending on works, goods or services. This estimate of the "advertised" value may be a little high compared to what materializes in actual purchasing. All invitations to tender may not lead to a completed purchasing process. Some are dropped. There is also a lag time between the invitations to tender and the actual award (average of more than 100 days), and as such the values found by the Commission for example 2009, may not materialize in a contract until 2010. Figure 1.2 shows an estimated value of these advertisements as calculated by the European Commission.

The second key method is to estimate based upon observed values in the contract award notice database. This contains records of each contract award and is submitted by purchasing authorities upon completing the purchase. For 2009 the recorded value is about 310 billion euros. Problem is that there is a number of missing values. The values of these missing values can be estimated using statistical techniques, and a recent study found estimated these missing to be about 20 percent of the recorded value. Thus, we show the total value in Figure 1.3 as the sum of both recorded values, and

⁴ Data for key tables are found in the annexes

⁵ Evaluation of SME' access to public procurement markets in the EU, study for DG Enterprise and Industry, September 2010. (GHK)

⁵ Internal Market Scoreboard 190, June

⁶ Public procurement indicators 2009. DG Markt, European Commission, November 2010

estimated value of the missing observations. The estimation for 2009 and 2010 is a 20 percent addition as these years were not estimated in the previous study.⁷

For 2010 we note that there is about 352 billion euros recorded value and estimated to 420 billion in total. This increase is in line with the growth rates observed for previous years. Note that the 2010 observations are based upon un-audited raw data provided by the Commission. We have performed manual checks and adjustments on these notices for a few hundred high value contracts, but our checks are not as extensive as those performed on the validated data for the previous years. This figure might change as the audited data are made available.

The purchasing values are at a slightly lower rate than the growth in award notices. This may indicate that the average value has been declining up until 2009. Last year however, 2010, stands out as an outlier with higher average values.

The growth in notices and values does not necessarily equate to an actual increase in government purchasing across Europe. The share of total procurement activity which falls under the directives has increased but cannot be determined by these data alone. A key unknown factor is the degree of compliance in publishing the contract award notices. This may vary and it is believed that compliance has increased over time.⁸

In our further analysis we rely upon unadjusted values as we need a great deal of precision, moreover, the averaging involved in such estimation models is unsuitable for many of our studies. It is not known that there is any particular bias in the missing values which can distort the analysis. There are still more than 420.000 notices with values recorded to analyze, and this adds up to a total value in our sample of more than 1,3 trillion euros over the five years.

Purchasing volume under the directives may be increasing

Figure 1.2 Values of contract notices 2006-2009 (estimated)

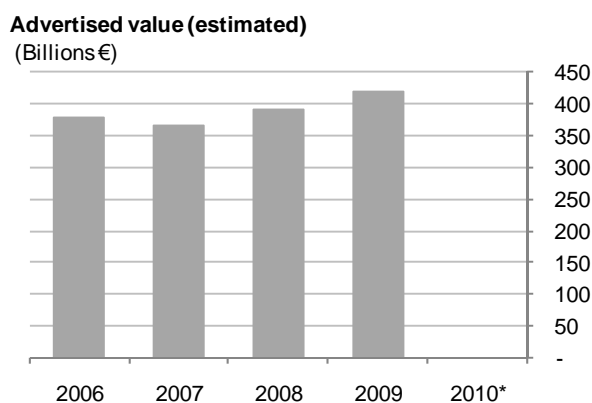
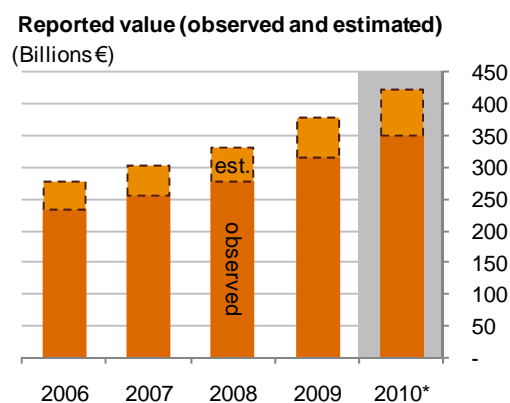


Figure 1.3 Values of contract award notices 2006-2010 (observed and extrapolated)



⁷ The study found a ratio of 18-19.5 percent, increasing every year. Hence we have assumed a small increase into 2009 and 2010 and added 20 percent.

⁸ Internal Market Scoreboard 190, June 2009. European Commission.

Use of procedures

Next, we turn to a more detailed analysis of what procedures and techniques are being used.

Over the last five years, **Open procedures** constitute a lion's share of public procurement at about 73 percent of all tender announcements in the Official Journal, as shown in Figure 1.4. We note that the values involved in the open procedure were lower - about half of the total - implying that the procedure is used for many contracts, but for smaller contract values. This amounted to about 106.000 contract award notices in 2010, or about 460 notices every single working day of the year.

Open procedure is by default the general procedure and can be chosen for any contract (Art.28).⁹ Under the open procedure, the purchaser (i) must establish clear specifications as the basis for submission of bids, (ii) must advertise the contract in the Official Journal, (iii) must allow any interested firm to submit a bid and (iii) must evaluate the bids, as received, without entering into negotiations. Minimum time limits are provided and generally firms shall be given 52 days to submit bids (Article 38(2)).

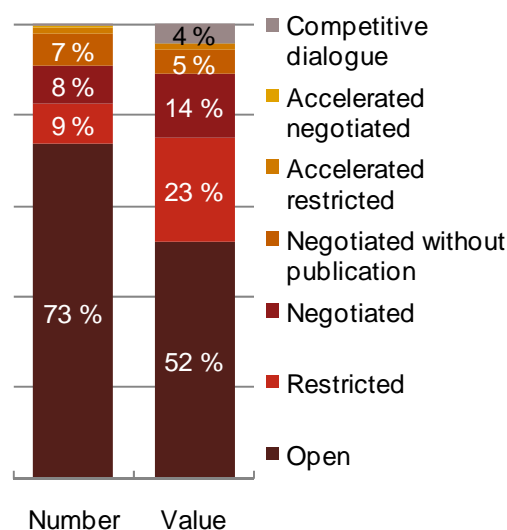
Restricted procedures are also used in a fair share of the cases (9 percent). The use of restricted procedure involves much higher values for the contract award notices. These are formal tendering procedures, whereby a notice is publicly advertised on the TED website, inviting potential suppliers to express their interest. The suppliers request to participate, but only those companies invited by the contracting authority may submit a tender. Authorities are free to use this procedure without particular restrictions or additional requirements.

An **accelerated restricted procedure** is used in about 1 percent of the cases. It is allowed when compliance with the minimum time limit of the regular restricted procedure is rendered impractical for reasons of urgency. For example, contracting authorities can shorten the time limit for requests to participate from 37 to 10 days, if the contract notice was sent by electronic means and the subsequent time limit for the selected candidates to submit their tenders shortened from 40 to 10 days. With the remaining standstill period of 10 days, time limits for the restricted procedure can therefore be ultimately shortened to 30 days all in all.

Negotiated procedures account for about 9 percent of total volume.¹⁰ The share of values (14 percent) is also higher, indicating higher contract values than for the open procedure. The procedure has similarities with the open procedure, but is less structured and allows for more flexibility. The standard is a negotiated procedure with publication, under which the authority must advertise on the TED website to find suitable contractors to negotiate with. The contractor must select firms based upon predetermined criteria, and choose the winner through negotiations. The process for selecting the winner is not regulated. The procedure can only be applied in specific circumstance, (Art. 28) (i) where specifications cannot be drawn up with sufficient precision for formal tendering under the open or restricted procedures; (ii) for works carried out for research, experiment, or development and (iii) in exceptional cases where overall pricing is not possible, either because of the nature of the works, supplier, or services, or because of the risks of performance (Art. 30). This is the standard procedure under the utilities directive and can be applied without restrictions by those entities.

Most common choice is the open procedure, but less important in terms of value

Figure 1.4 Procedures by use and values 2006-2010

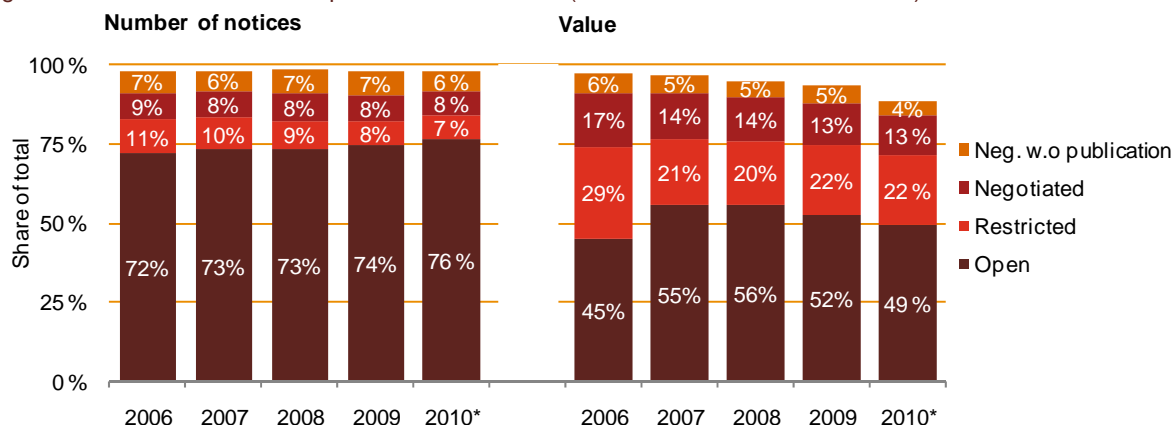


⁹ As can be also the restricted procedure.

¹⁰ The directives refer to this as “negotiated procedure with publication”. We refer to this as “negotiated” in the remainder of the report.

Modest change over time in use of the most common procedures...

Figure 1.5 Use of most common procedures over time (number and value share of total)



A specific version of the procedure, called **negotiated procedure without publication**, happens in about 7 percent of the cases whereby the authority is permitted to consult the contractor or contractors of its own choice and negotiate with one or several of these. This amount to about 5 percent in value.

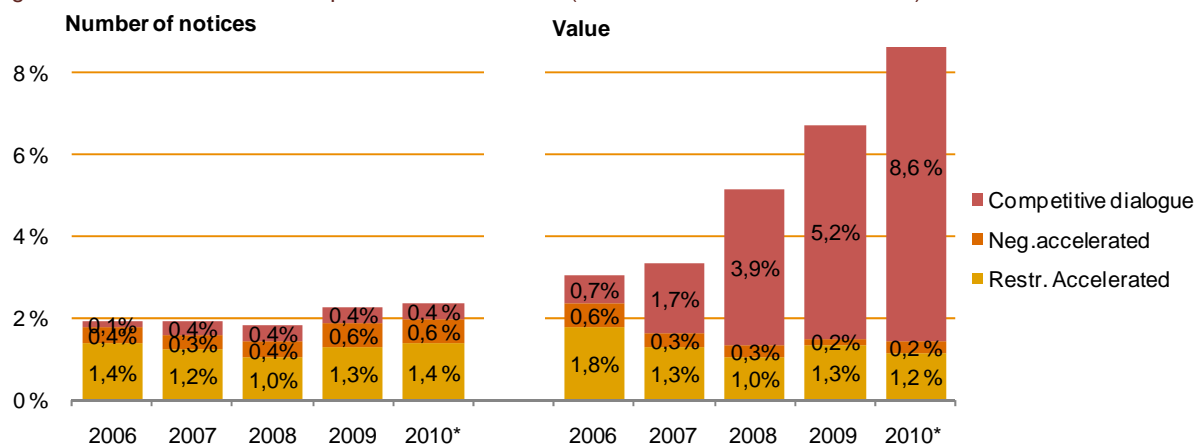
There is also an **accelerated negotiated** procedure available. This can be used when compliance with the minimum time limit of the regular negotiated procedures is rendered impractical for reasons of urgency. This is hardly ever used (less than half a percent).

Competitive dialogue is the least used procedure; about 500 instances across all countries the last years, which is less than half a percent. While the competitive dialogue is only used for a fraction of the procedures, we find that the total values involved are quite a bit higher - about 4 percent of total value of contracts awarded in 2006-2010. Competitive dialogue can only be used in the case of particularly complex contracts. Under this procedure, any potential contractor may request to participate on the basis of a TED-notice, but only a limited number are admitted to the dialogue. The aim is to develop more suitable solutions capable of meeting the needs of the contracting authority, and on this basis the candidates chosen are invited to tender.

Art.1(11) mentions also **the design contest** among the available procedures. This is a competition, in which a contracting authority invites the submission of plans and designs to be judged by a jury under the rules of the competition. Design contests may also involve the award of prizes and are mainly used in the fields of town and country planning, architecture and engineering or data processing. We will not analyse this type of contracts further, as they are so infrequently used.

...but competitive dialogue has significantly increased in value

Figure 1.6 Use of less common procedures over time (number and value share of total)



Over time there is stability regarding use of the major procedures, as illustrated in Figure 1.5.¹¹

There is some increase in the use of the open procedure compared to other forms. The share of restricted procedures is however declining, both in absolute and relative terms. In fact, its share has been reduced by about 40 percent since 2006. The open procedure has increased its share with about 3 percentage points over the same period.

Interesting differences become apparent when looking at **values across time** in Figure 1.5. The purchasing volume using the open procedure has declined over time since 2007, from 55 percent to 49 percent in 2010. Restricted procedure has increased in value since 2007, even though its share of number of purchases has declined. This implies larger contract sizes per award notice over the years. The combined shares of these four most commonly used procedures have declines mostly due to an increasing use of the competitive dialogue, which we will come to next.

The combined share of other **less commonly used procedures** has increased slightly over the last few years and was at about 2,5 percent in 2010 (Figure 1.6). The competitive dialogue has remained stable since 2007. There is some increase in use during 2006-2007, possibly reflecting the lag in implementation pickup of the procedure, as it was only introduced with the new directives from 2004. The use of accelerated negotiated procedures has actually doubled its share since 2007, but the overall level remains very small. The accelerated restricted procedure has increased about 40 percent since 2008, yet does not constitute more than 1,4 percent of purchases in 2010. The provisions for using the accelerated procedures were simplified somewhat during the financial crisis to stimulate more spending. That may have had an impact on the change but we cannot conclude that this is a more permanent trend change.

A strongly visible pattern is the increase of values purchased using **competitive dialogue**. While its share of total awards has remained small and nearly constant, the values of these awards have increased considerably. In total, these contract award notices comprise 8,6 percent of 2010 procurement values across the region. This development has been consistent since its introduction and we may see this procedure gaining importance for high value contracts over the next few years, as intended at its introduction.

These conclusions with respect to the changes in the use of the major procedures over time are broadly confirmed in an econometric analysis, where the use of a particular procedure is explained from time dummies and a set of other potentially relevant variables which will be explained in the following sections.

¹¹ Some caution is advised in interpreting the 2010 values as this is based upon un-audited raw data provided by the Commission. We have performed manual checks and adjustments on these notices for high value contracts, but our checks are not as extensive as those performed on the validated data for the previous years. The Commission has an extensive system of verifying contract values which includes automatic and manual checks.

Contract values

We will now look more closely at **values for the contracts**.

The **concept of value**, which we analyze in this study, is the value for a Contract Award Notice (CAN). This can be explained as the authorities' contractual commitment. There may be one or more *awards* within that overall commitment. More than one supplier may also be chosen. The subsets are called awards – and represent the actual contract issued to each supplier. As such, if the study was to focus more on supply side issues, it could be important to investigate the configuration of awards more closely.

For the sake of simplicity in language in the report, we may sometimes refer to the contract award notice as “contract”, “purchase” or “procurement”, while technically we refer to a contract award notice. We do not calculate “awards” or in any other way analyze that concept in the study.

Also, it is important to note that the total values recorded do not necessarily equate to procurement spending in a given year. The values reflect contractual commitments. The spending is in many cases distributed over time from entering into the contract.

It turns out that most contracts have relatively low values. Half of all contracts have a value below 390.000 euros. This is referred to as the *median* value and is simply the value of the contract that appears exactly in the middle. Another way of measuring contract values, by the *mean*, turns out to be much higher, at 3,1 million, reflecting that there are some very high value contracts. The largest contracts are in the range of 6-7 billion euros.

Open procedure has the lowest number on both measurements; median and mean. The median value of open procedure is about 353.000 euros, and the mean is 2,2 million. Negotiated and restricted procedures have higher values – measured both in terms of median and mean.

The median and means are shown in Figure 1.7. The difference between the two measurements is large. We also observe that restricted procedure appears with the highest *mean*, indicating that the procedure is being used for even higher contract values than the others.

Competitive dialogue is off the chart, with a mean value of 40 million euros and a median of 1,7 million euros. This procedure is used for exceptional high value contracts, which was also the intention when introducing it.

The differences between values of contracts by procedure are quite pronounced. Now we turn to have a closer look at the contract values.

Open procedure has the lowest contract values

Figure 1.7 Values by procedure, median and mean 2006-2010

Procedure	Median	Mean
Restricted	693	8 287
Negotiated	712	6 672
Total	390	3 141
Accel. Restr.	496	3 045
Negot. w.o publ.	356	2 279
Accel. Negot.	360	2 218
Open	353	2 181

€ (thousand)

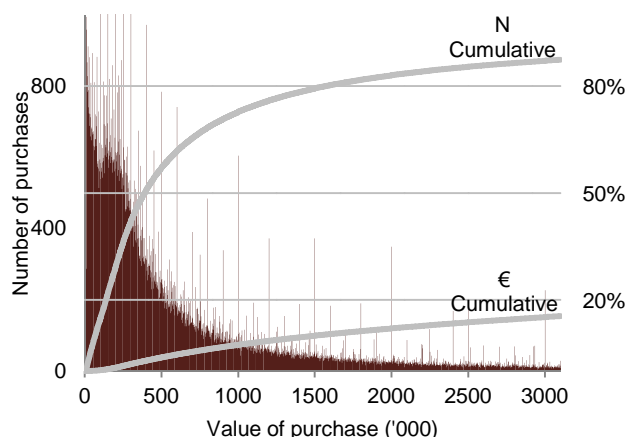
Patterns emerge when looking at distribution of purchases by the price of the contracts.

Contracts are heavily concentrated toward the lower end of the price range

If we stack up each contract according to its contract value we find that most contracts accumulate in the low valuation range.

Figure 1.8 Frequency of all contract values 2006-2010 (Thousand € increments)

This holds true for the total, and for all procedures including competitive dialogue. Figure 1.8 shows the distribution of purchases for contract values up to 3 million for each purchase. The horizontal axis shows values of contracts in 1,000 euros increments. The vertical axis shows the number of contracts at that particular level.



We see the heavy concentration towards the left (very many contracts, low contract values). Curiously, the spikes occur at round numbers where there tend to be many contracts concentrated. There is also a clustering of contracts at about 125.000-200.000 euros, where the threshold levels have an impact. The threshold levels will be analyzed in more detail in chapter 1.10.

As much as 87 percent of all purchases appear in this figure, that is, they have individual values below 3 million euros. Yet all of these do not add up to more than 15 percent of total values. It reflects that there are few contracts above this level, but they have very high values. Or to put it the other way around, only 13 percent of the purchases have 85 percent of total value. This is a rather extreme distribution.

Also, we note that many contracts have valuations below the threshold levels. We return to the issue of threshold levels in chapter 1.10 and will review more in detail the shares of contracts above and below thresholds.

For now we note that there is much variation among countries with regard to shares above and below threshold levels possibly relating to country specific circumstances. There is also another reason why contracts may appear below threshold levels – and it is the effect of the requirement to follow EU procedures if the *estimated* contract value is above the threshold. If purchasers get a better price than estimated, the contract may be finalized with a value below the threshold and it will still appear in the dataset. We cannot distinguish between the country effects and estimation effect.

Potentially this may affect a large number of contracts, as 18 percent are below the lower bound threshold of 125.000 euros. They don't add up to much in terms of total value however, only 0,35 percent, and as such they don't distort the calculations of overall values by much.

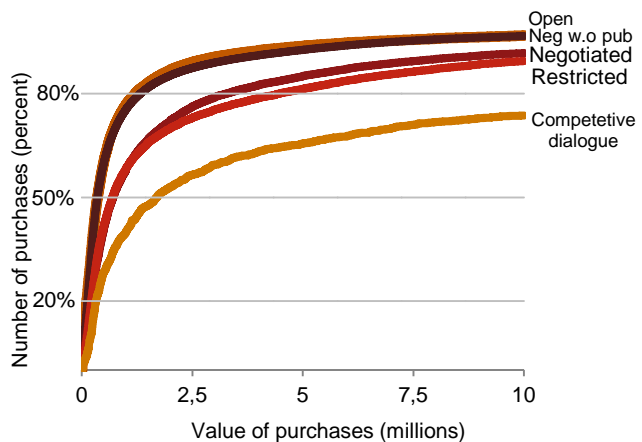
The open procedure is particularly vulnerable to these “distortions” as it is being used predominantly for lower value purchases. In fact, the median value of an open procedure increases from 350.000 euros to 500.000 euros if we only calculate for those purchases which are above the lowest threshold in the directives. Fortunately for the analysis, the shares of procedures do not change much. Open procedure would still account for about 73 percent of the total if we “removed” all of these data.

We will now turn to analyze how the procurements stack up according to contract values. Distinct patterns appear between the procedures and this is very consistent across a wide range of contract values.

The number of contracts accumulates very quickly as we move into the higher contract values. This means that most contracts are at lower contract levels, in particular for the open procedure; As much as 80 percent of open procedure contracts are below 1,3 million euros. Figure 1.9 shows how the number of contracts accumulates as we move into higher contract values. This is similar to the grey line showing cumulative contracts in the figure on the previous page (figure 1.8) – but showed by procedure.

Contracts accumulate quickly for all procedures

Figure 1.9 Accumulation of contracts by procedure 2006-2010 (thousand Euro increments)



The chart above (figure 1.9) shows contracts all the way to 10 million euros. 97 percent of open procedure contracts; 90 percent of the negotiated and restricted procedures; and 73 percent of competitive dialogue contracts are below this level.

In practice this means that most purchases using the open procedure are in the low end of the value range. The same applies to the negotiated procedures without publication, which appears with the same pattern as the open procedure. The negotiated and restricted procedures accumulate more slowly, reaching the 80 percent mark at about 4 million.

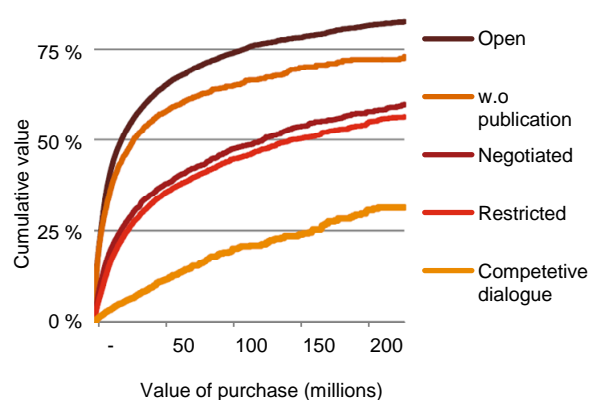
Interestingly, these two procedures negotiated and restricted, appear to have very similar characteristics. This means in practice that the procedures are being used for nearly identical shares of contracts at each price level. They are also both used for higher value purchases than the open procedure. Competitive dialogue appears to accumulate the slowest, meaning that more of the contracts using this procedure have values in the higher end of the range.

Given that so many contracts have very low valuations, it may be useful to calculate the total values involved and not only the number of contracts. We find that the most significant difference is that the values accumulate more slowly.

The numbers are quite extreme. Nearly all contracts, 99,84 percent, are accounted for below 200 million euro contract values, as shown in Figure 1.10. There are only 668 contracts above this level (with a total value of 420.000 in the model). Yet these few hundred contracts account for 29 percent of the total value. Competitive dialogue is particularly important for the very high value purchases and at 200 million only 31 percent of contract values using this procedure are accounted for. The number for open procedure is 83 percent; and 55-60 percent for negotiated and restricted ones. Figure 1.10 shows the accumulation of values by contract value up to 200 million euros.

Values accumulate more slowly

Figure 1.10 Accumulation of contract value by procedure 2006-2010



Another perspective on this is that purchasers use different procedures as the contract values increase. The precise effect can be analyzed with econometrics and we will return to this. For now, we describe the data as they appear.

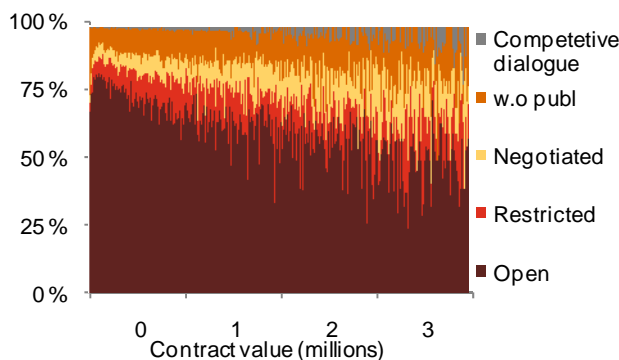
Indeed, we can observe a pattern in particular with regard to the open procedure. Its share of use falls distinctly as contract values approach 3 million euros (Figure 1.11). Correspondingly, we can see how the negotiated, restricted and competitive dialogue procedures increase in importance at these contract levels. Use of the open procedure remains at about 50 percent up until several hundred million euro contracts, where the use declines. Data are spotty at these levels and it hard to observe trends.

Interestingly, the share of open procedure starts to decline already at very low levels (about 100.000 euros). It turns out the growth rates for restricted and negotiated procedures are higher than for the open procedure already from these levels. Competitive dialogue is the fastest growing procedure from about 1,5 -2 million in contract value.

Open procedure is also used for the billion euro contracts (Figure 1.12). This is perhaps somewhat remarkable given the very little opportunity for interaction and negotiation between purchasers and suppliers in the process. Restricted and negotiated procedures appear with higher shares for these high value purchases and finally, competitive dialogue also becomes important.

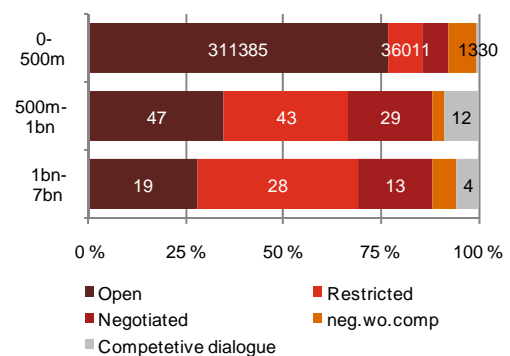
Use of open procedure declines as contract value increases...

Figure 1.11 Distribution of procedure and contract value (thousand euro increments)



...but it is still being used for the big deals

Figure 1.12 Distribution across contract value (disproportional increments, actual number shown)

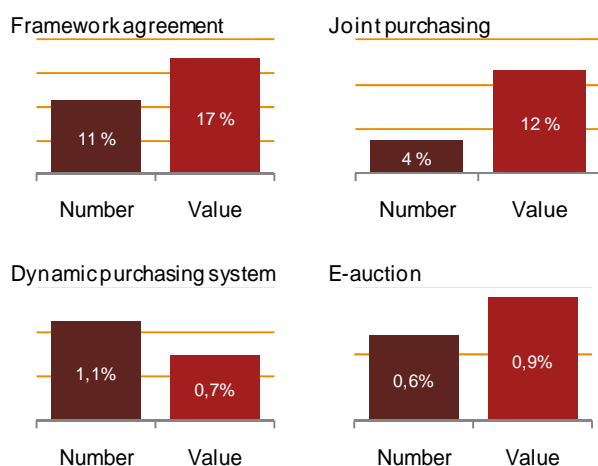


Use of techniques

Four different procurement techniques have been analyzed. These are techniques that are complementary to the procedures and are used in combination with them. The techniques are not mutually exclusive –i.e. a framework agreement can be used by a joint purchasing entity. The term "techniques" is mentioned in the directives, but the concept is not elaborated in great detail. In other words, "procurement technique" is not a legally defined term, but is a terminology that has been developed to explain common procurement practises. The specific techniques which are analyzed in this study however, are defined in the directives and will be discussed below.

Framework agreements is the most common technique

Figure 1.13 Use of techniques as share of total awards and values 2006-2010



Framework agreements are used for about 11 percent of all contract award notices. The number is even higher in terms of value, reaching about 17 percent of total values. In 2010, about 21.500 framework agreements were awarded across the region. Framework agreements are a streamlined procurement technique allowing purchasers to select the supplier among a predefined group of suppliers. Article 1(5) defines a framework agreement as “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 and, where appropriate, the quantity envisaged.” Article 32(1) expressly authorizes frameworks and regulates their use. They do not constitute a special kind of award procedure, but are rather a specific variation of the directives’

normal procedures (open procedure, negotiated procedure, etc.). Purchasers must follow the directive’s normal rules for all phases up to the award of the framework agreement (Art. 32(2)). For multi-supplier frameworks, it is regulated how the specific contracts can be drawn down: with- or without - new competition (Art. 32(4)).

The directive includes other restrictions on framework agreements, including a requirement that the agreements must not exceed four years, and that entities may not use framework agreements improperly or in such a way as to restrict or distort competition. Framework agreements normally entail a two-step process, whereby first, providers are selected as participants in the framework. Second, there are calls for services/goods within the participants of the framework. This second stage process is regulated in less detail and there is some flexibility. The basic rule is that there should be competition if more than one supplier is selected under the framework. The specific procedures for such competition is however much less prescriptive.

Joint purchasing is used in about 4 percent of the awards. These are also considerably higher in terms of value representing about 12 percent of total contract awards value in Europe. Often in joint purchasing, contracting authorities bundle their requests for supplies or services in one joint purchase organization. Use of joint purchasing often involves use of professional purchasers operating more removed from the actual users of the services/goods. Advantages of joint purchase are the reduction in total time and cost by using a single procedure. The theory is that the bigger contracts may lead to improved competition and a better outcome for purchasers.

The concept of joint purchasing is broad and covers various institutional arrangements. Our analysis is based upon those who reported to have “purchased on behalf of other contracting authorities” in the contract award notices published on TED. The definitions and interpretation of this may include both centralized purchasing bodies and other joint purchasing arrangements, for example between local councils. In the further analysis we will use the terminology “joint purchasing” when describing this phenomenon.

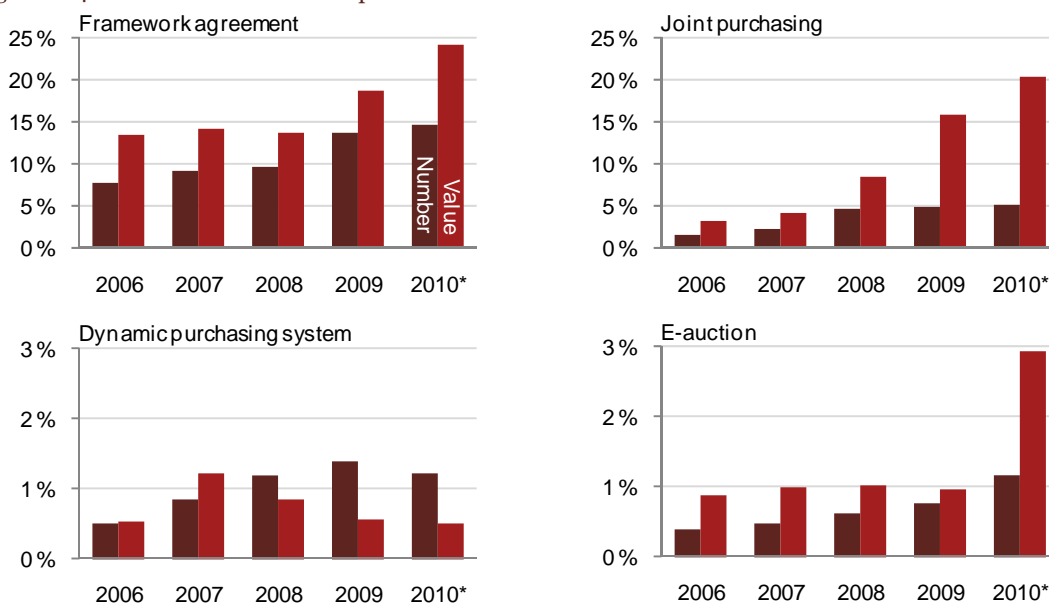
The directives have a specific definition of ‘central purchasing body’, but our analysis is broader than that. Their definition is a contracting authority which conducts purchases intended for contracting authorities, or which awards public contracts or concludes framework agreements for works, supplies or services intended for contracting authorities (Art 1(10) and Art 11). The directives apply equally for these entities. Also note that the information on purchasing on behalf of others is only available for the classical directive and as a result, we are not able to quantify the use of this technique in the utilities sector.

Dynamic purchasing systems are much less used. This is an entirely electronic process for commonly used purchases generally available on the market. In order to set up a dynamic purchasing system, contracting authorities shall follow the rules of the open procedure in all its phases up to the award of the contracts to be concluded under this system (Art. 1(6) and Art (33)). The system is limited in duration and open throughout its validity to any contractor who satisfies the selection criteria and has submitted an indicative tender that complies with the specifications. As dynamic purchasing systems are not often used and there is not much data available, we will not carry out a full-fledged econometric analysis on the use of this technique. There is only a small number of observations available and there are indications of biased encoding errors which may impact the estimations. Manual checks and country analysis has shown that there are some inconsistencies which are beyond randomly distributed errors. The numbers appear to be overestimating the actual use. As a consequence we have chosen to present the numbers as they appear, but have removed the dynamic purchasing system when running regressions analysis.

E-auction is also a specific electronic purchasing technique. There are some developments between shares of frequencies and values, but these are very small numbers – amounting to less than 2,000 cases annually. An ‘electronic auction’ is a repetitive process involving an electronic device for the presentation of new prices. These can be revised downwards, and/or with new values concerning certain elements of tenders, which occurs after an initial full evaluation of the tenders, enabling them to be ranked using automatic evaluation methods. Consequently, certain service and work contracts that have intellectual performances as their subject-matter may not be the object of electronic auctions (Art 1(7)). Electronic purchasing in this context means that there is a similar level of acceptance of paper documentation and electronic data. Main advantages of this technique are reduction of time, of transaction costs and of bureaucracy. Challenges lie in making the systems available for, and interoperable with, the electronic tenders.

Much increase in values for framework and joint purchasing

Figure 1.14 Use and values of techniques over time as share of total



The use of techniques also shows **developments over time (figure 1.14)**. Both the use of framework agreements and the use of joint purchasing have increased. The rate of growth for joint purchasing seems to have slowed since 2008. The use of framework agreements shows an increased growth rate from 2008. The use of dynamic purchasing systems has more than doubled since 2007, but its overall share remains small. Uses of e-auctions have also nearly doubled in numbers, albeit from a very small base. There is a 40 percent increase in numbers during 2009 and 2010.

The **values over time** show large changes. For **joint purchasing**, there has been a considerable development - from constituting a few percent of total values to reaching about 22 percent in 2010. The values involved in **framework agreements** are also increasing and reached even higher levels - at about 25 percent in 2010. About 85 billion euro of framework agreements were concluded in 2010. These increases are substantial and may have marked impacts.

Dynamic purchasing techniques have increased in use, but declined in value terms since 2007. Except for a significant jump in 2010, values in **e-auctions** show more stability in values. These are small numbers and changes in trends should be interpreted with some caution. A threefold increase was reported in 2010.

We have also investigated the role of time in the choice of a particular technique in the regression approach, which has taken into account a series of control variables. The benchmark year is 2006. For framework agreements, we obtain a negative coefficient for the 2007 dummy, indicating a decline in the use of framework agreements in 2007 compared to 2006. Thereafter we find that the use of framework agreements increases over time, especially in 2009 (as also observed in Figure 1.14). The use of e-auctions is also relatively stable over time. A modest decrease is observed in 2007 and 2008, while a small increase in its use is found for 2010. Finally, joint purchasing shows a very stable trend: all time dummies are insignificantly different from zero.¹²

Looking at typical values, we find that joint purchases and frameworks have much higher values for the contracts than the average. The average value of a joint purchase is nearly 10 million euros. The range is however wide, nearly 124 million standard deviations. Similarly, there is a wide spread of contract values for frameworks and the standard deviation is high - at about 68 million.

Framework contracts are twice the value of regular purchases

Figure 1.15 Values by technique, mean and median 2006-10

Technique	Median	Mean
Joint purchasing	597	9 987
Framework	561	6 111
E-auction	567	4 150
Total	390	3 141
Dynamic purch.	332	2 362

€ (thousand)

The notion of value in a framework agreement may not be as accurate a presentation of government spending on the contract as it is for non-framework contracts. For non-framework contract award notices, it is more likely that the contract value is representative of the amount the authority will actually spend on the contract. The amount recorded in the database is usually the actual contract amount, which commits the authority with regards to the supplier. Framework contracts normally do not commit the authority legally to actually spend the amount. Loyalty to the framework contract by the authority may also vary and impact the actual spending under the agreement.

¹² The regressions models (22) are introduced in chapter 1.2 on country analysis. Details are found in annexes.

Interaction of procedures and techniques

There is also **covariance** between procedures and techniques. While most (84 percent) of procurements are performed *without* the use of these techniques, we will now investigate how techniques are used combined with procedures. Figure 1.16 shows these relationships and we discuss them over the following paragraphs.

Figure 1.16 shows how much each technique is used as a proportion of each procedure. We note that for frameworks, the negotiated and restricted procedures are used more frequently than the open procedures.

Negotiated and restricted procedures are used more frequently in combination with frameworks. However, the open procedure is (in absolute terms) still the most frequently used

procedure also in combination with frameworks. Negotiated procedure without publication stands out as much less used in combination with frameworks than the others.

Framework agreements are used in 11 percent of the contract award cases overall, but used more frequently with the negotiated and restricted procedures. Framework agreements are less used with the accelerated and negotiated without publication procedures. When **joint purchasing** is used, we see that competitive dialogue is applied more frequently than when there is no joint purchasing. The same goes for the accelerated versions. The numbers involved are small for these three procedures. The use of open procedure is applied with about the same frequency as when there is no joint purchasing. Negotiated procedure without publication stands out as less frequently used.

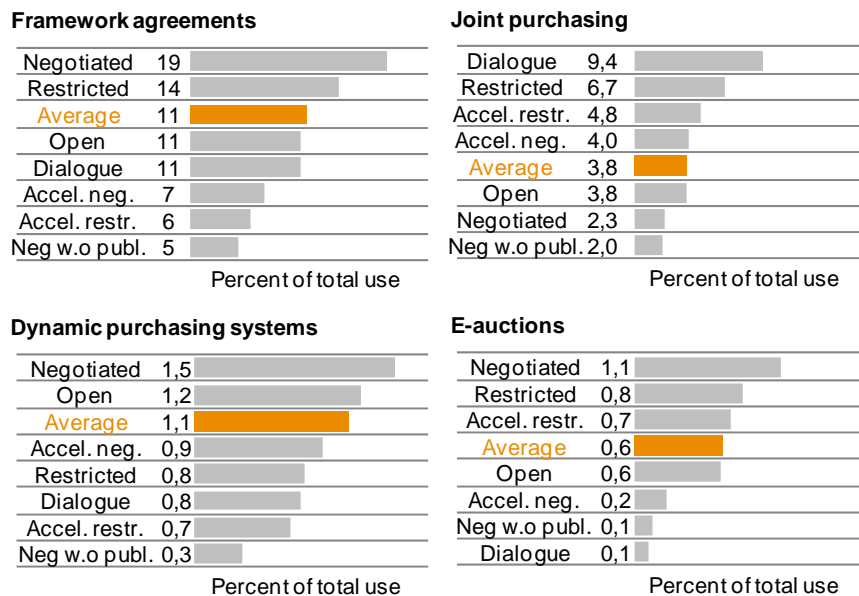
Dynamic purchasing systems are likewise used more frequently in combination with the negotiated procedure, as well as with the open procedure. By definition, this technique shall follow the rules of the open procedure, yet it is reported as being used in conjunction with other procedures as well. Encoding errors may have an impact on the estimation as discussed earlier in this chapter.

E-auction techniques are used most often with negotiated and restricted ones. These are small numbers.

Use of techniques by procedure as measured in *absolute numbers* broadly follows the same distribution as the use of procedures overall. That is, most framework contracts do appear with the open procedure – and as we recall, the open procedure is used in nearly 73 percent of contract award notices. However, the proportions differ slightly, as illustrated in the figure above (Figure 1.16).

When using techniques, the restricted and negotiated procedure is used more

Figure 1.16 Use of techniques as share of all purchases using that procedure

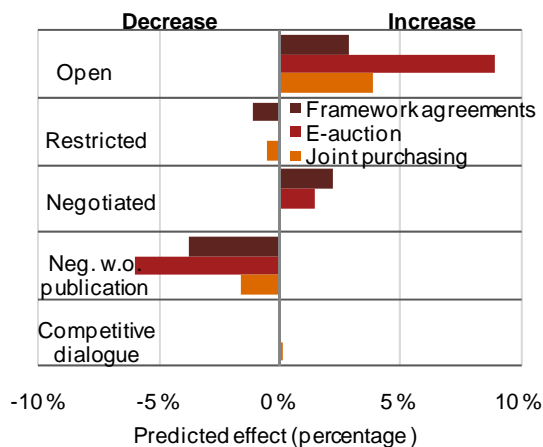


A somewhat different perspective emerges when adjusting for other factors in our **econometric model** (Figure 1.17). While the results above indicate the de facto shares, the results say little about what can be expected of co-variation, having adjusted for other relevant factors. Apparently, these other relevant factors play an important role in the choice of procedures, and omitting them creates a bias in the simple correlation coefficients.^{13, 14}

We find that the use of techniques is strongly correlated with the open procedure. Especially dynamic purchasing and e-auctions are impacted. On the contrary, use of techniques negatively relate to the use of negotiated procedures without publication. Framework agreements also relate positively to the use of the negotiated procedure. Most techniques show a negative relationship with the restricted procedure. Competitive dialogue exhibits little relationship with the use of techniques.

Highest probability of covariance between techniques and open procedure

Figure 1.17 Covariance of procedures and techniques (significant coefficients, country dummy model)



How the causal relationship works in real life is hard to determine. We cannot disentangle the decision model of purchasers from these data. Clearly, competitive dialogue is not realistically applicable to dynamic purchasing systems. The issue is however less straight forward when it comes to choices of framework agreements, joint purchasing and what other procedure should be applied. Whether the purchasers first decide on a technique and second determine the procedure or if it is the other way around is an open question. We can only measure the existence of covariance.

Interaction between techniques

The techniques are not all mutually exclusive, meaning that they can interact. Some combinations are possible, but frameworks are not possible with dynamic purchasing systems.

84 percent of purchases are done without the use of a particular technique. About 15,5 percent of purchases use some sort of technique or combination thereof. Frameworks are most commonly used as standalone – at 10 percent compared to 11.2 percent in overall use of frameworks. Nearly two-thirds of all purchases done using techniques use standalone framework agreements. Measured in value, the use of frameworks, and in particular in combination, is higher reaching 17 percent.

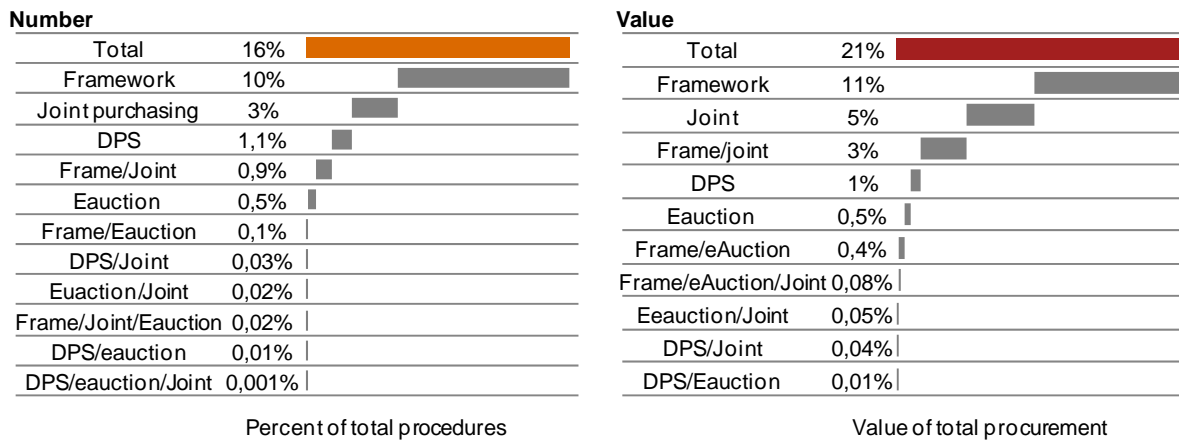
The most common combination is joint purchasing using framework agreements (about three percent procurement volume). These are for high value contracts, and those agreements have a value of about three times the average framework agreement, or nearly 10 times the average open procedure. Nearly 25 percent of all joint purchasing is done using framework agreements.

¹³ It should be noted however that especially dynamic purchasing and e-auctions are relatively rare, so that the regression results should be treated with caution. Indeed, when excluding the country dummies and including the country-specific variables (GDP per capita et cetera), the coefficients on techniques change and some of them turn insignificant. In other words, the results are not very robust to the exact specification of the regression model.

¹⁴ Dynamic Purchasing Systems have been dropped from the presentation of regressions results. Other studies by the Commission indicate that there may be considerable misrepresentation or encoding errors of the data for use of DPS. The use is possibly overstated.

Standalone frameworks are most common...

Figure 1.18 Combination of techniques



We find that joint purchasers tend to use:

- Frameworks more extensively (from 11 percent overall use to 25 percent when joint purchasing is used). Figure 1.19 shows this by country and we see that the relationship holds for nearly all countries. The effect is quite pronounced for several countries;
- Dynamic purchasing systems a little less when there is joint purchasing;
- E-auction about twice as much, but that finding is based upon very low numbers.

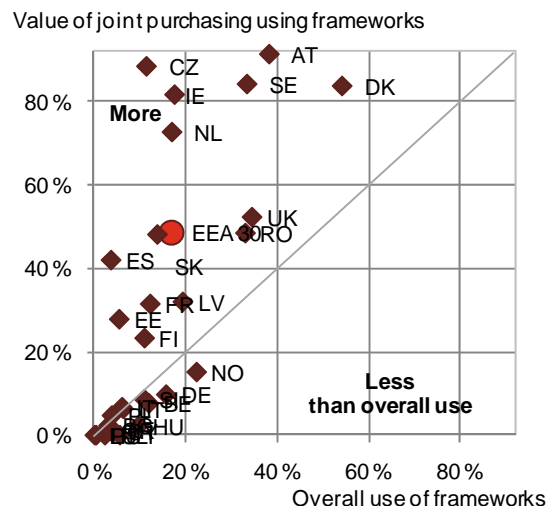
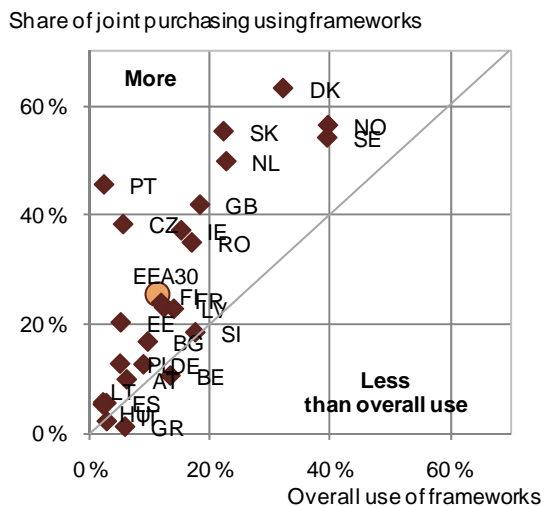
Other combinations are possible, but the actual appearances are minimal.

Looking more closely at the behavior of joint purchasers, we find that they use frameworks much more than the average other user. We see that the combination is particularly common in the Nordics, Slovakia and the Netherlands. Some countries like Portugal and the Czech Republic have a high degree of covariation – but have very little use of frameworks overall. This is an interesting pattern as joint purchasing establishments in government tend to be staffed by more professional purchasers.

Interestingly some differences appear when looking at the values involved. First we note that joint purchasers in Austria, Sweden, Denmark, Ireland and the Czech Republic practically only uses framework agreements. The share reaches 90 percent. This also shifts the overall average upwards – and the overall share in value is about 50 percent. With the steady increase in use of both frameworks and joint purchasing observed for the last few years we would expect this share to be even higher today.

...and joint purchasers uses frameworks more than the average user

Figure 1.19 **Share** of joint purchasing using frameworks Figure 1.20 **Value** of joint purchasing by frameworks



While the overall pattern is of higher covariation when measured in value, Norway and Portugal drops significantly. This reflects that there are lower values involved in framework agreements overall, and particularly in joint purchasing.

Regression analysis confirms these findings. Joint purchasing in particular exhibits strong covariance with all other techniques, including dynamic purchasing and e-auctions.

Framework agreements show interaction with e-auctions as well. There are about 500 of these transactions over the five year period. Also, there are positive relationships between dynamic purchasing and e-auctions, although the effect is less pronounced. We should keep in mind that this combination is only used for a tiny number of transactions in the period 2006-2010.

The question comes to the fore whether all combinations are legally or practically possible. We don't enforce any constraints on the data and present these as they appear. However, with such small numbers for some combinations it is questionable whether these are simply data entry errors.

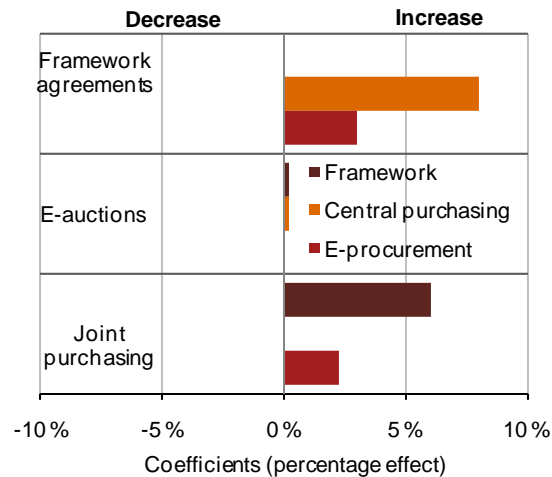
The Directives gives Member States the right to introduce certain options in their legal framework, while not directly referring to the combination of techniques. Directive 2004/18/EC states: "In order to take account of the different circumstances obtaining in Member States, Member States should be allowed to choose whether contracting authorities may use framework agreements, central purchasing bodies, dynamic purchasing systems, electronic auctions or the competitive dialogue procedure, as defined and regulated by this Directive."

In the remainder of the facts and figures analysis, we shall explore other key variables for both procedures and techniques. This includes country variations, market sectors, types of government activities and the government levels.

We will also look into a few **selected regulatory provisions** including the differences between classical and utilities directives, the use of the two specific types of services as defined in the regulations commonly referred to as IIA and IIB services, and the threshold levels.

High mutual impact of joint purchasing and other techniques

Figure 1.21 Covariance of techniques (significant coefficients larger than zero, country dummy model)



1.2 Country patterns

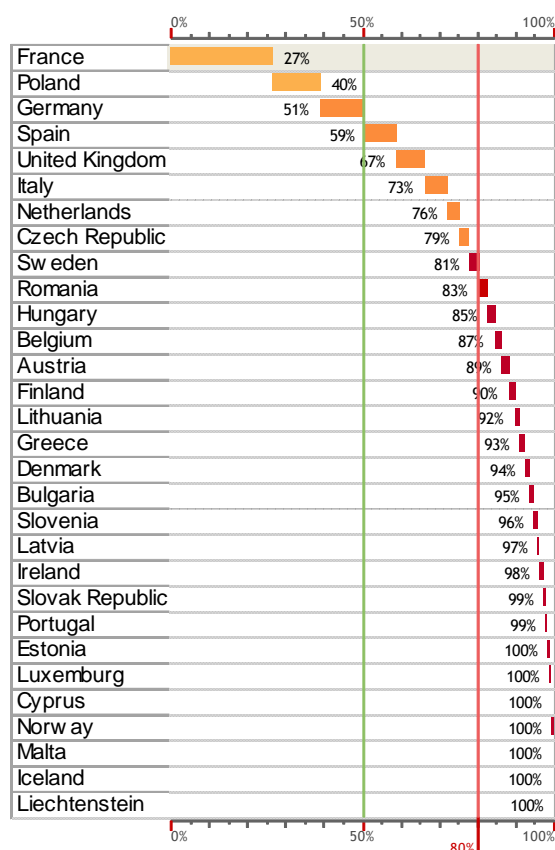
Overall

The overview of the number of contract award notices per country is given below. One notable observation is the large share of France (27 percent) with respect to the number of awards. The EU's largest economy, Germany, has a share of 11.5 percent of total EU contract award notices. Poland, although a smaller economy, has a large share of notices, ranking as number two. As expected, other large economies are ranked high – Spain, Italy and the Netherlands are all within the top seven.

Concentration is high for both numbers and value of procedures used. In fact, three countries in each case constitute half of all contract award notices and values. There is some variation among the top three. France ranks high on both measures, while the UK moves from number five in terms of notices to number one in terms of value. As such, average values of contracts are higher in the UK.

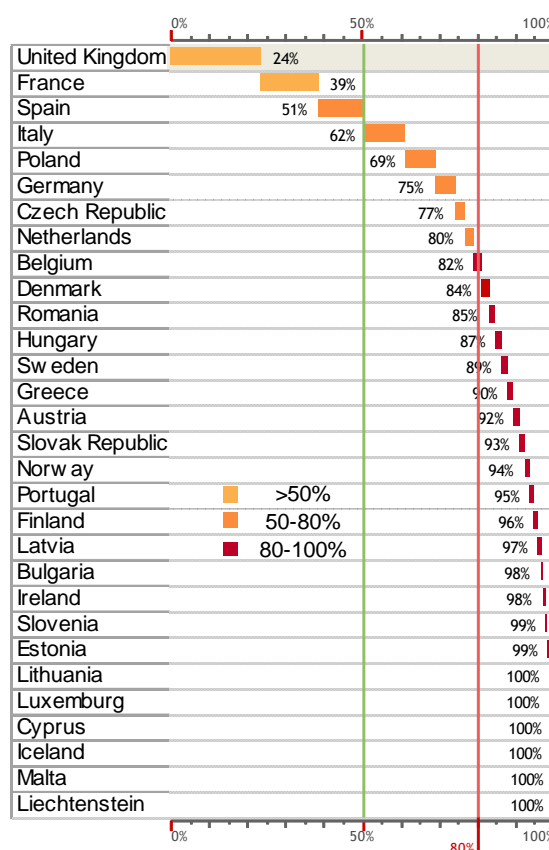
Three countries have half of all contract award notices

Figure 1.22 Award notices per country 2006-2010



In terms of value, it is equally concentrated

Figure 1.23 Share of total value of awards per country 2006-2010



In terms of **value**, we note that some countries exhibit different ratios of values while others appear to have more equal shares of numbers and values of procedures. Czech Republic, Estonia, Norway, and Iceland have about the same shares. As much as 24 percent of all value of contract award notices is found within the UK.

Procedures by country

For the benefit of a detailed view, we present a breakdown for all countries with frequencies of use and values in Figure 1.24.

The sharp reader will note the orange bars that indicate the five largest countries in terms of contract award notices. These countries, France, Germany, Spain, Poland and the UK, constitute nearly 70 percent of all procurement notices. Mostly, these countries are centred close to the median. There is of course a high mathematical probability for such concentration. It also means that the variation in use of procedures overall may not be as widely distributed as it may appear at first glance when looking at the charts which includes all countries. Many of the outliers are smaller countries. There are also differences between frequencies of use (on the left) and values (on the right). The ratios of frequencies and values are not as consistent between countries and indicate large country variation. The differences between countries are perhaps also more pronounced for values than for frequencies.

For the **open procedure** we see that most countries are close to the median. Note the low share of the UK at around 30 percent. Lower shares are seen in Denmark and Ireland as well, where the lower use of open procedure matches a higher use of restricted procedures. In Hungary and Slovakia other procedures account for the lower use of open procedures. There is significantly more use of the open procedure in some of the smaller countries, like Cyprus, Lichtenstein and Malta where it is nearly the only procedure used. There is more variation in terms of value. Higher values per contract award notice in Denmark, Italy, Spain and the UK are all above median. Again, most countries are clustered around the median. Overall, both in terms of number and value, the impression is that the procedure is applied with a degree of similarity across the countries.

Much more striking differences appear when it comes to the **restricted** procedure. More than half of all procurements in the UK are done using this procedure. In fact, the UK's share of using this procedure is 44 percent of all use across Europe. If hypothetically, the UK was to apply the procedure with equal frequency as in France, the overall use of the procedure in Europe would decline by about a third. The procedure is also frequently applied in Denmark, Ireland and the Netherlands. In terms of values, the larger countries are close to the median. The countries with very high values (off the chart) are all small and the numbers are only based upon a handful of contracts. Still, in both Denmark and Italy the median values are nearly 40 percent above the EEA30 median.

Austria, Belgium and Norway show the highest percentages in use of **negotiated** procedure. The procedure is also much used in Germany. Notably, it is less used in Poland and Spain. France and the UK are at about the median. In value terms, Portugal and the UK stand out. France and Poland have values quite lower than the EEA30 median. The use of the procedure may be correlated with the importance of the utilities sector in the economy of these countries, as the utilities are free to use the procedure without constraints. We will come back to this issue.

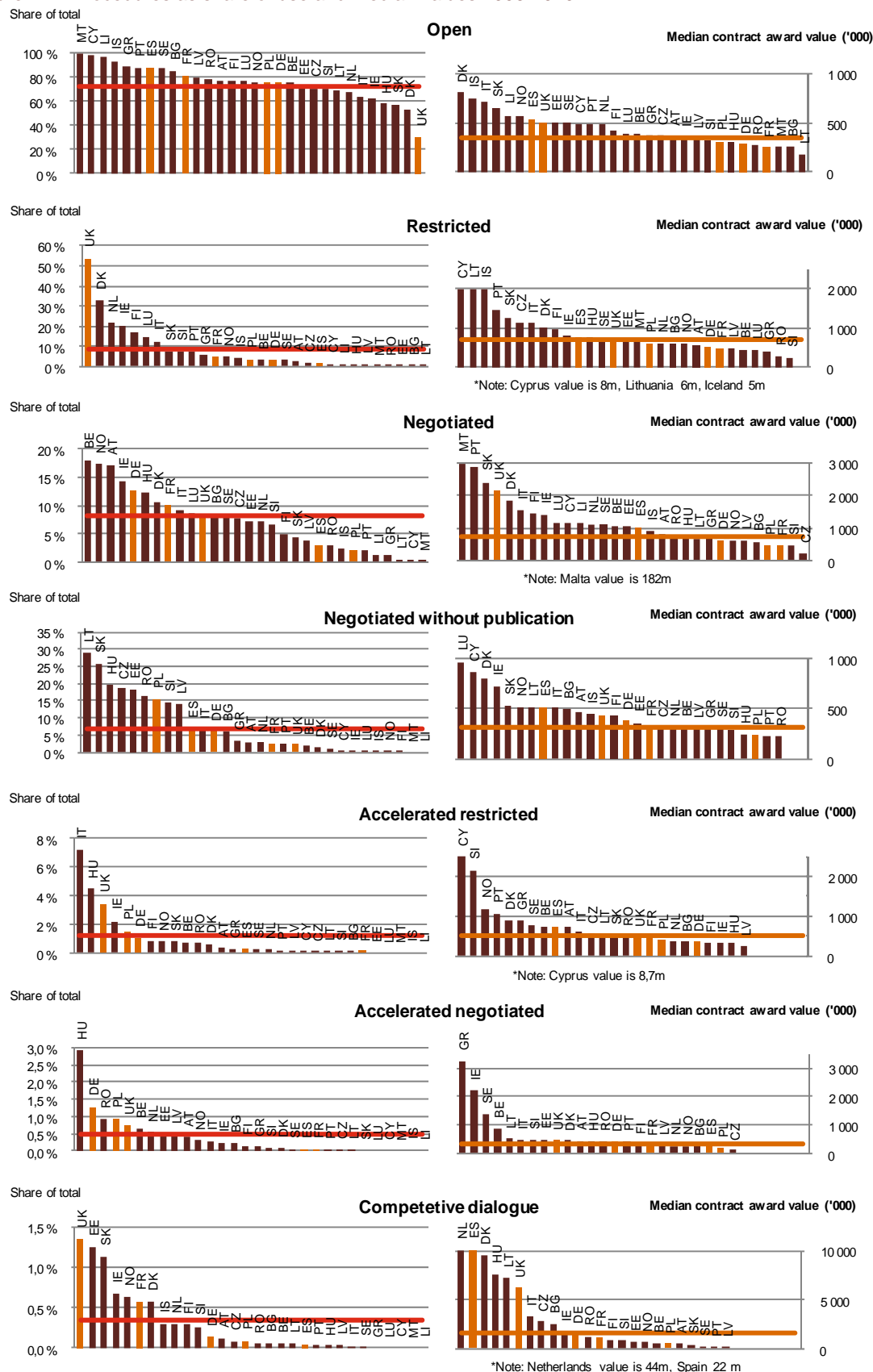
Negotiated procedure without publication can mostly be found in the new member states like the Czech Republic, Estonia, Latvia, Lithuania, Poland, Hungary, Romania, Slovenia and Slovakia. The use is low for France and the UK, while values are high in Denmark and Ireland. Beyond this, most other countries show little variation in values.

The data for the **smallest procedures** should be read with caution, as there are few contract award notices involved even in the largest countries. For many countries, these numbers reflect only a few procurements. Also note that the procedure has not been applied at all in several countries over the five year period. Accelerated procedures are found relatively often in the UK, Hungary and Italy.

Competitive dialogue is used relatively more often in the UK. It is hardly used at all in Germany, Spain and Poland. Median value in the UK is nearly 6 million and this is among 390 contracts in the period. Median value of 44 million in the Netherlands is based upon 44 contracts, and the 22 million figure in Spain is based upon only 16 contract award notices.

Much variation in use and values of procedures by country

Figure 1.24 Procedures as share of use and median values 2006-2010¹⁵



¹⁵ Detailed figures in annex 1.

A closer review of the overall **values across countries** shows that values are overall clustered close to the average. The red cross in Figure 1.25 indicates the average (EEA30) values.

There are some outliers. For example, the median values in Denmark are nearly three times the EEA30. Italy and the Slovak republic are also high. Lithuania has the lowest mean value at about half the EEA30.

Overall, the average contract value is nearly 3 million. Contract values are below this average in both France and Germany. UK, Nordic countries and the Netherlands all have higher than average values.

Mean values are much higher in the UK and Iceland. Denmark scores high on this measure as well. Lithuania has the lowest mean value.

There is a linear relationship between mean and median values. This could indicate that the distributional pattern of values of the contract award notices varies little across countries. (Figure 1.8) There are some outliers. UK and Iceland in particular have higher mean values compared to the median. This indicates that there are some very high value contracts that increases the average value compared to the mean. This is more so than in other countries. The relationship overall between the median and mean is not as strong as between the procedures. It is possible that the type of procedure is a more important factor in indicating contract value distribution than the country as such.

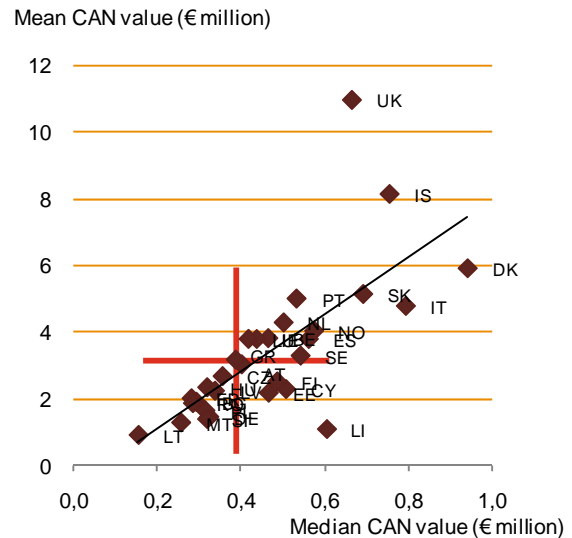
A line-up of median values for all contract award notices per country shows clearly how each country relates to the EEA 30 median and to each other (Figure 1.26).

Two large procurers (Spain and the UK) are above average. Germany and Poland are just below – and France a little lower again.

This is the representation of overall median values. The larger set in Figure 1.24 indicates median values for each individual procedure.

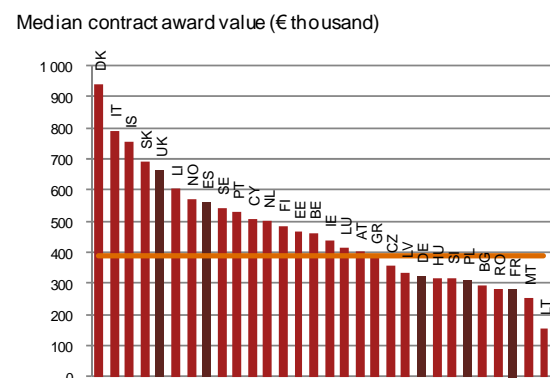
Clustering of contract values around EEA30 averages

Figure 1.25 Mean and Median value of award notices 2006-2009



Median values in Denmark, Italy and the UK are above average

Figure 1.26 Median value of award notices 2006-2010



There are dynamics over time in the use of procedures. We will measure change over time and compare that with the level the countries are currently at. The two most commonly used procedures will be reviewed for all countries; open and restricted procedure. The model is visualized in Figure 1.27.

Change is measured as the annualized growth rate in use of the procedure during 2006-2010. We compare the rate of change against the level of use during 2009-2010. The red cross indicates the average value for all countries.

Use of open procedure overall is slowly increasing (Figure 1.28). It is being used with increasing frequency even in the UK, which has very low use of the procedure. There are a few countries with especially high growth rates, including Italy and the Netherlands. In two of the Baltic states, Latvia and Lithuania, there are also high growth rates. Soon, these countries are likely to use the open procedure more than average users of the procedure. Latvia, Finland, Portugal, Romania and Spain show a decrease of more than 10 percent annually. Another Baltic nation, Estonia, shows a significant drop in the use of the procedure. It is off this chart in the far lower left quadrant. This may be due to a data error, as only 2010 shows very low values. A group of countries converge to the far right in the figure. These have nearly 100 percent of their contract award notices using open procedure.

Use of restricted procedure is decreasing (Figure 1.29). In fact, the annualized decline overall is about 10 percent. There are high growth rates in Portugal and Slovakia. There is a quite steep decline in the Netherlands, with a nearly 20 percent annualized reduction. In Greece there is nearly a 40 percent annual reduction. In 2006, about 16 percent of contract award notices were using the restricted procedure in Greece, while the 2009-10 average is about 2 percent.

The UK, Denmark and Ireland are the overall most frequent users of the procedure – and there is little change in this pattern over time.

A group of countries to the far left in the figure show a lot of dynamic behaviour whether up or down, but these are at very low levels and may not be indicative to any emerging pattern|.

Dynamics over time

Figure 1.27 Model

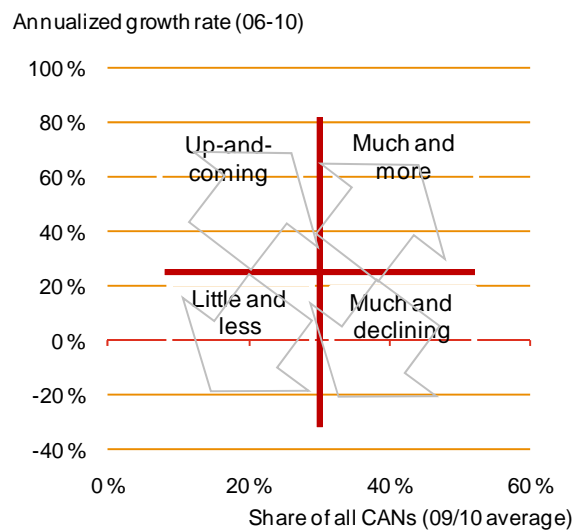


Figure 1.28 Changes in use of Open procedure

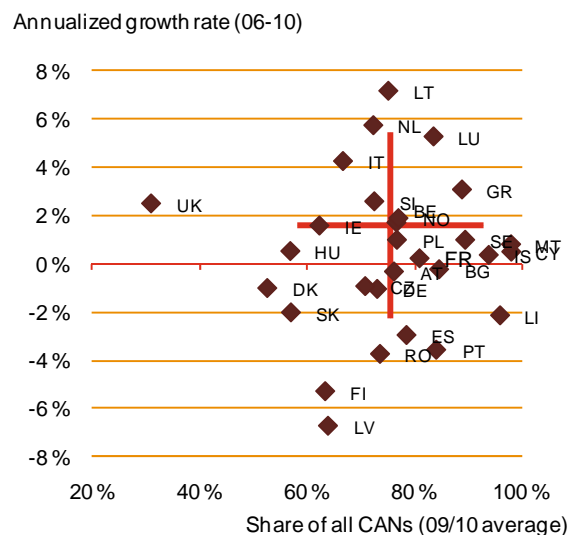
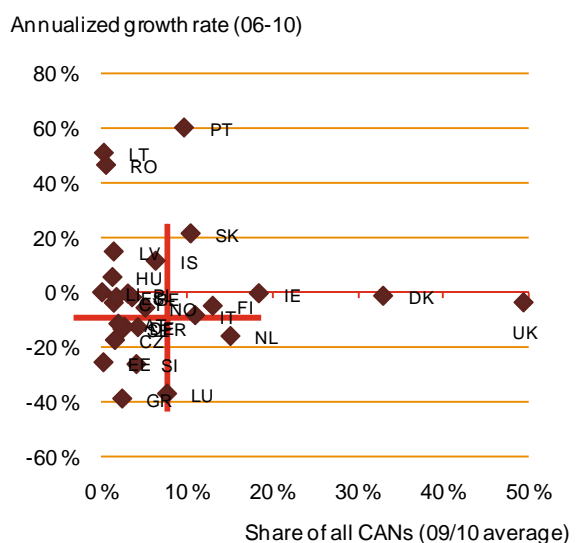


Figure 1.29 Changes in use of Restricted procedure



Now we will study the use of the various **procedures by country using regression techniques**, so that we can take into account the role of other explanatory variables. We have used the same dataset which is presented above.¹⁶

As before, we employ the following strategy: The probabilities of a country choosing a particular procedure may be influenced by a broad range of characteristics of the economy, which are often difficult to observe or measure. A solution in econometrics is then to include country dummies, which capture the unobserved heterogeneity across countries. Therefore we employ two different models:

- (i) First we run a regression to explain the use of a certain procedure from a set of country dummies, and a series of other explanatory variables obtained from the EU contract award database. This reveals that the country dummies typically play an important role in explaining the use of procedures. It is interesting in its own right, as it shows scope for learning from each other, through the exchange of good practices.
- (ii) To further investigate which country-specific determinants may play a role we adopt the following strategy: We include a number of country-specific variables that we consider to be of potential importance. In particular, we include:
 - a. the country's average income (GDP per capita),
 - b. government consumption (as % of GDP),
 - c. population size,
 - d. the unemployment rate (as a proxy for the business cycle),
 - e. a dummy for the "old" fifteen EU Member States, and
 - f. indicators from the OECD on the degree of centralisation of a country's procurement structure (OECD, 2007), where countries are classified into centralised, semi centralised and decentralised.

Then we run regressions excluding the country dummies, but including these country-specific factors (this is necessary as we otherwise would encounter serious co-linearity problems). We have run 22 regressions altogether using the two key models for 11 dependent variables - each with between 50-80 explanatory variables. The models appear to have some explanatory power and the R-squared is in the range of 20-30 percent. This does also mean that there is nonetheless much variation which we cannot explain by these models. Let us now turn to the results of the econometric analysis.

First, we look at the **open procedure**. It is interesting to notice that almost all country dummies appear with significant regression coefficients.¹⁷ These country effects are closely similar for France, Luxembourg, the Netherlands, and Germany. Relative to these countries we find that open procedures are much less often used in United Kingdom. On the other side of the spectrum we observe that Cyprus tends to use the open procedure most often (while controlling for other factors).

Inclusion of the economy-wide variables reveals that open procedures are less often used if GDP per capita is higher, government consumption is higher, the country has a larger population, and the unemployment rate is lower.¹⁸

- Increase in GDP per capita of 1000 euros decreases the propensity to select open procedure by 0,7 percentage point
- Increase in government consumption by 1 percentage point decreases propensity by nearly 2 percent
- Increase of 1 million in population decreases propensity by 0,2 percent
- Increase in unemployment by one percentage point increases propensity by 2,3 percent.

¹⁶ The employed regression approach is presented in Annex I. The complete regression results are available in Annex II.

¹⁷ Cf. regression (1)

¹⁸ Cf. regression (2)

These and other results are shown in Figure 1.30.

The “old” Member States use the open procedure more often (almost 8 percentage points higher probability). Regarding the OECD classification, it is found that countries with a decentralised procurement structure use the open procedure more frequently (compared with countries with a semi-centralised structure). We should mention that these effects may not be causal effects, and these effects should rather be seen as correlations. Finally we analyse the role of the contract value for the choice of the open procedure. The contract value appears with a negative and highly significant coefficient in the probit equation. In other words, open procedures are less frequently used in the case of large contracts.

Second, we look at the **restricted procedure**. There are two key variants of this – the standard restricted procedure and its accelerated version. We start with a description of the results for the *standard* procedure. Again, the country dummies tell an important part of the story here.

Important deviations from the benchmark country Germany are found for Denmark (0.4; indicating that Denmark has a 40%-point higher probability of using the restricted procedure than Germany), and United Kingdom (with a coefficient of 0.54). In some other countries, the restricted procedure is less often used than in Germany (e.g. in Bulgaria and Romania).

Let us now again inspect the role of the country-specific variables in understanding the importance of the country dummies. GDP per capita, government consumption and population now appear with positive and highly significant regression coefficients, while the unemployment rate appears with a negative coefficient.

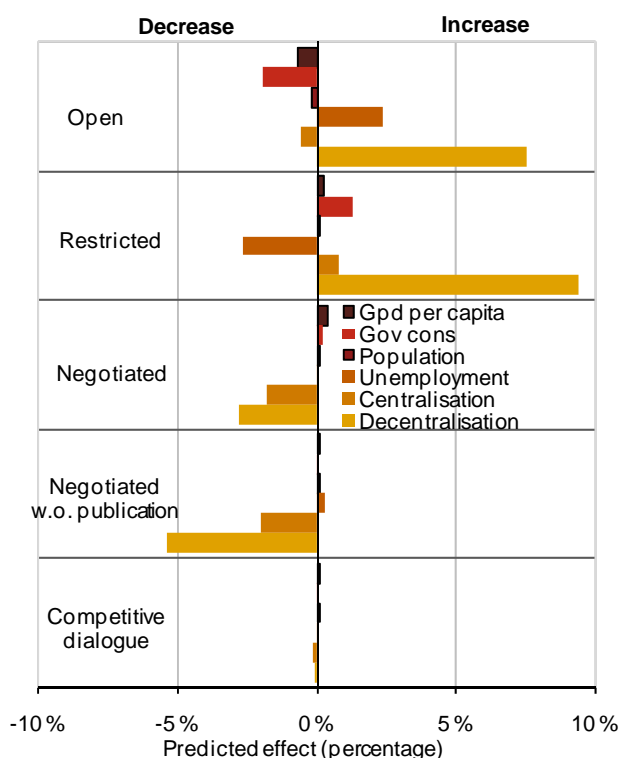
The coefficients are also economically significant. For example, a 1%-point increase in unemployment would translate into a 2.7%-point reduction in the probability of selecting the restricted procedure. It is also interesting to notice that GDP per capita and the unemployment rate now work in opposite directions, as was the case for the open procedure. In other words, in booming economies with high GDP per capita and low unemployment, the restricted procedure is more popular, while countries with relatively low per capita incomes and high unemployment rates would more often opt for the open procedure.

An intuitive story could be that awarding authorities may think that the open procedure would deliver better value for money, and more weight to this is attached when times are hard.

With regard to the degree of centralisation of procurement structures, we find that in countries with a decentralised structure, the restricted procedure is chosen 9%-points more frequently (relative to countries with a semi-centralised structure). The natural logarithm of the contract value appears with a positive and highly significant coefficient in the regression model. That is, restricted procedures are more often used for large contracts.

Decentralized procurement increases use of open and restricted procedure

Figure 1.30 Impact of country indicators (significant coefficients, macro model, semicentralized is benchmark)



Next we turn to the **accelerated restricted procedure**. Here we investigate econometrically the differences between the accelerated restricted procedure and the restricted procedure. This is done by running a regression of the type mentioned in model (1) in Annex I where we only include tenders which are *either restricted procedures or accelerated restricted procedures*. The dependent variable is the dummy indicating the use of accelerated restricted procedures. If this dummy takes the value zero, the tender adopts the restricted procedure. We again perform two variants of the regression model: one including the country dummies and other control variables available from the TED database, and one which replaces these country dummies by the country-specific (macro-economic and other) variables.¹⁹

An inspection of the country dummies reveals that for instance Denmark, France and the UK select the accelerated procedure significantly less often (in a statistical and economic sense) than Germany, while Hungary, Poland and Romania opt for the accelerated procedure more often.

By replacing the country dummies with the country-specific variables, we learn that GDP per capita and government consumption appear with significantly negative regression coefficients. In other words, wealthier economies and countries that have leaner governments tend to use the accelerated procedure less often. A 1000 euro increase in GDP decreases the propensity to select the accelerated procedure by 4.3%-points. Another interesting finding is that countries with centralised procurement structures tend to use the accelerated procedure much more frequently. Finally, we find that accelerated restricted procedures are less often used in case of larger contract values, which is in line with intuition.

Thirdly, we investigate econometrically the probability of selecting the **negotiated procedure**. This procedure comes in three variations: (i) the negotiated procedure with competition (say, the standard procedure), (ii) the accelerated version and (iii) one option which allows tendering without publication of the notice under certain conditions. Now we turn to the econometric analysis on the use of the negotiated procedure *with publication*. Whereas most country dummies appear with significant regression coefficients, the deviations from Germany are not very large. The largest deviation is found for Poland, where the probability of choosing the negotiated procedure with publication is almost 5%-points lower than in Germany.

In the regression model including the country-specific variables without the country dummies, we find an important positive impact from GDP per capita, government consumption and population size on the probability of selecting the standard negotiated procedure. Another interesting finding is that the standard negotiated procedure is most often chosen in countries with a semi-centralised procurement structure. Countries with a centralised procurement structure have a 2%-point lower probability of selecting this procedure, and countries with a decentralised procurement structure have a 3%-point lower probability. The “old” Member States tend to opt for the standard procedure less often (-3.2%-points). Finally, we find that the negotiated procedure is more often used in case of larger contract values.²⁰

Let us now look at the **accelerated negotiated** procedure. We analyse econometrically the differences between the accelerated negotiated procedure and the “normal” negotiated procedure. To that end, we adopt a similar strategy as above and only include tenders based on the negotiated procedure with competition and the accelerated negotiated procedure.²¹ We have 8,632 observations. The relatively limited number of observations implies that coefficients are estimated less precisely. For example, none of the coefficients for the sectors (the cpv groupings²²) are significant. However, differences across countries are again quite substantial. Accelerated procedures are less often applied in the Czech Republic and France, while these procedures are relatively often applied in the UK,

¹⁹ See regression (11) and (12) in Annex II.

²⁰ The results are presented in regressions (5) and (6) in Annex II.

²¹ Regressions (13) and (14)

²² Business sectors are defined by a detailed classification scheme. As shown in chapter 1.4, we group these into six main categories.

Hungary, The Netherlands, Poland and Romania. Finally, we find that accelerated negotiated procedures are less often applied in case of larger contracts.

With regard to the use of the **negotiated procedure without publication**, we again observe rather substantial cross-country differences Slovakia, Slovenia and the Czech Republic are countries in which this procedure is relatively often used, while for example in Cyprus, Denmark, Ireland and Norway the negotiated procedure without competition is less intensively used.²³

Population size and the unemployment rate are significant factors behind these observed differences across countries; larger countries and countries with higher unemployment rates use this procedure more often. We observe a hump-shaped effect from the degree of centralisation in procurement structures - this procedure is less often selected in countries with either a centralised or a decentralised procurement structure compared with countries with a semi-centralised structure. Finally, the negotiated procedure without competition is less often applied if the contract value increases.

The final procedure we have investigated econometrically is the **competitive dialogue**. The country coefficients are in general quite weak and often insignificantly different from zero (or only marginally significant).

Concerning the country-specific variables, we find a positive coefficient for GDP per capita, government consumption, population, and the unemployment rate. The effects appear to have less economic significance than for open and restricted procedures. Again we observe an inverted U relationship between the degree of centralisation in procurement structures and the probability of selecting the competitive dialogue, though the coefficient for decentralised procurement structures is not statistically significant. The EU15 tend to choose this procedure less often. Finally, the competitive dialogue is more often applied if the contract value increases.

²³ Cf. regression (7) & (8)

Techniques by Country

Framework agreements are particularly prevalent in the Nordic countries. In Sweden and Norway, frameworks are used for about 40 percent of all contract awards notices. The average in the region is about 11 percent. Italy, Hungary, Spain and other countries hardly use framework agreements at all. Figure 1.31 shows the share of contract award notices which used framework agreements, and their corresponding value to the right. In terms of **value**, there are other differences between countries. More than half of the awarded value in Denmark is through framework agreements. The share is higher than 30 percent in five countries. Austria has particular high values involved in framework agreements compared to their number.

Share in numbers does not always correlate with share in value as figure 1.23 shows. No explanation for this variation is available yet, but it must be noted that framework contract values show a wide range and variation, allowing for large differences between number of contract and value of contracts. The mean value of a framework contract is 6,1 million, nearly twice the average procedure. The standard deviation is larger than for the average procedure, nearly 67 million, reflecting a very wide distribution. The largest framework contract is in the billions.

Joint purchasing is also frequent in the Nordics, UK, Latvia and Greece. It is rarely done in Romania, Portugal and Bulgaria. There is much variation in terms of values involved. Particularly high values are found in the UK, Denmark and Austria, where it accounts for a third of the value involved in all procurement under the directives. As shown earlier, there is overlapping use of framework contracts and joint purchasing. Figure 1.32 shows the frequency and values of contract award notices which have used joint purchasing.

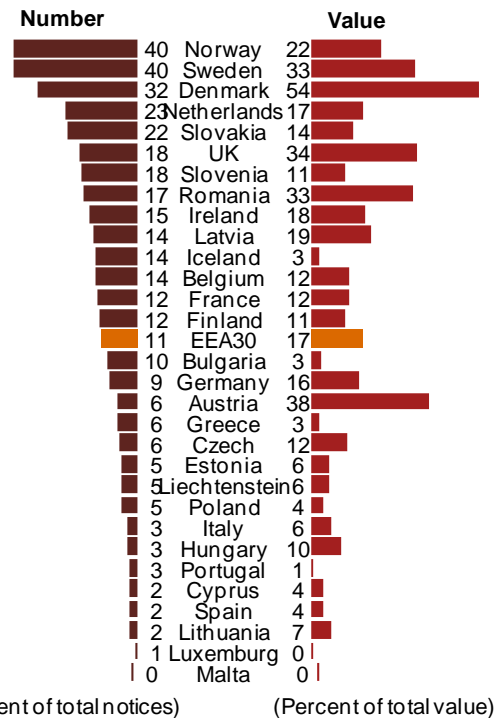
Dynamic purchasing systems (not shown) are used for about 14 percent of purchases in the Czech Republic and 5 percent in Greece. Beyond this, the systems are rarely used in other countries.

E-auctions are used for more than 7 percent of purchases in Romania, but hardly used elsewhere.

Like framework agreements, the results for joint purchasing show significant differences between share in numbers and share in value for some countries. Similar to framework agreements, the wide range and variation in values may play a role in explaining why. The mean value is 10 million, much higher than for regular contracts. The standard deviation is very wide, 124 million, reflecting a wide distribution of contract values.

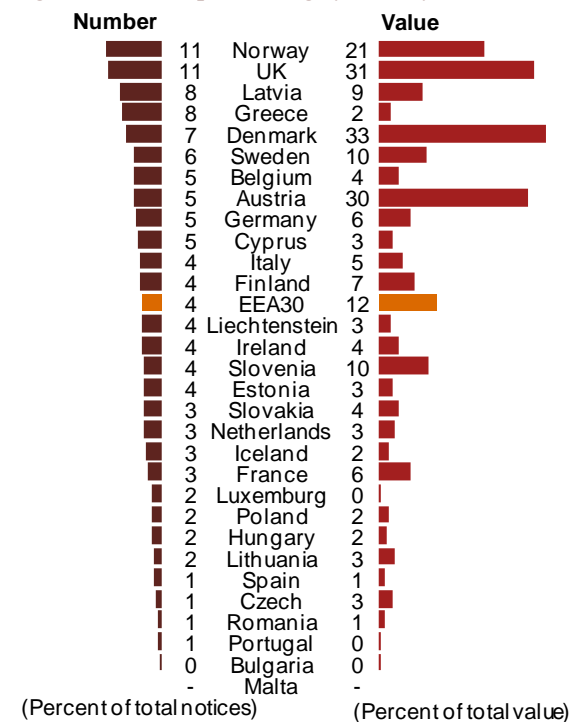
Extensive use of frameworks in the Nordics

Figure 1.31 Framework agreements by country 06-10



Joint purchasing low in frequency but more important in value

Figure 1.32 Joint purchasing by country 06-10



We will now look at **dynamics over time** in use of techniques, similar to how we reviewed the use of open and restricted procedure in Figure 1.27. This is done by reviewing the annualized growth rates and comparing them to the levels during 2009-2010. We will be looking at the two most significant techniques, frameworks and joint purchasing.

Use of **frameworks** overall is increasing at a high rate. Figure 1.33 shows that nearly 15 percent of all contract notices awarded during 09-10 were framework agreements. This has been increasing consistently since 2006 at an annualized rate of 18 percent.

Much of the growth is driven by a few countries, including large economies like France and Spain. In fact, there are more countries below the average growth rate, implying that the growth is driven by a few countries with significant growth. Some growth is seen in Germany, but at levels smaller than average.

For the countries with high usage, i.e. Norway and Denmark, there has been little change since 2006. They have applied framework agreements consistently throughout this period. Considerable reduction in use is observed in two other Nordic countries, Finland and Sweden, with annualized reduction of nearly 20 percent. Sweden recorded more than 50 percent of contract award notices as frameworks in 2006 but is now at about 25 percent (2010). Finland shows a drop of about 12 percentage points. Also less use over time is seen in the Netherlands.

Use of **joint purchasing** is increasing very rapidly in nearly every country. In fact, the annualized growth rate since 2006 is about 35 percent. Figure 1.34 shows that the overall level in 2009-2010 is higher than the average level for the whole period. In 2009-2010 the UK was using joint purchasing for nearly 15 percent of contract award notices. If this growth continues, we can expect to see much more frequent use of joint purchasing in the future in most countries. Note that there are some oddities in the data particularly with regards to very low numbers recorded in 2006 and 2007 for some countries. We do not know whether this represents actual facts or is due to reporting errors in the system. We have therefore dropped these from the model so it wouldn't impact the growth rate calculations too much.

Rapid increase in use of frameworks and joint purchasing

Figure 1.33 Changes in use of frameworks

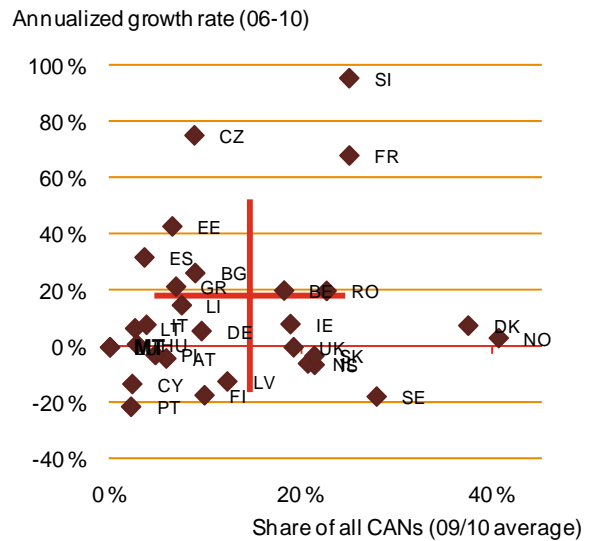
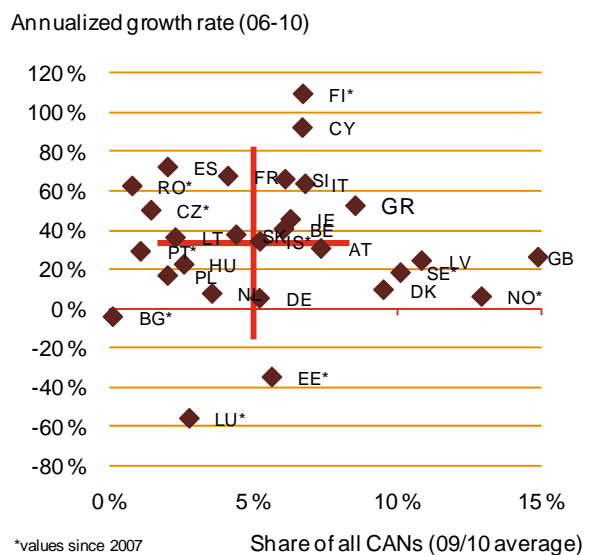


Figure 1.34 Changes in use of joint purchasing



Let us now turn to a discussion of the results from the regression analysis. Regarding the use of **framework agreements**, we observe significant cross-country differences, broadly confirming the messages from Figure 1.31.²⁴ Norway, Sweden and Denmark use relatively often framework agreements, so in the Nordic countries there is a stronger interest to apply framework agreements in public procurements. A framework construction is less often employed in for example Spain, Lithuania, Luxembourg and Malta.

Next we explore the role of country-specific factors in understanding the use of framework contracts.²⁵ GDP per capita and government consumption have a significantly positive impact on the probability of selecting a framework agreement, while countries with larger populations and with a higher unemployment rate tend to choose framework contracts less often (though the coefficient for the unemployment rate is significant only at the 5%-level).

The economic significance is however quite small and at less than 0,1 percent for the GDP impact and at similar low levels for the other macro-variables.

Another interesting observation is that countries with a semi-centralised procurement structure tend to make use of framework agreements relatively often; the coefficients for centralised and decentralised procurement structures are both negative and statistically significant. Framework agreements are more often selected for higher value contracts, and the coefficient is highly statistically significant.

In our regression model for a technique, we also include as control variables the other techniques and type of procedure. This delivers interesting findings. The use of E-auction and joint purchasing exerts a positive effect on the probability of choosing a framework agreement (3%-points and 8%-points, respectively). Also, framework constructions are more often chosen in case of open procedures and standard negotiated procedures.

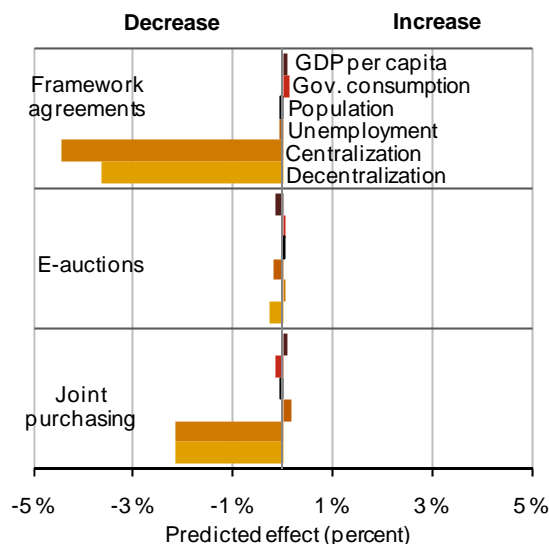
We have run similar regression models for contracts based on a dynamic purchasing system, use of E-auction and joint purchasing. Let us briefly add some words regarding the results for **joint purchasing**. Such joint purchasing is less often used in Bulgaria, the Czech Republic, Portugal and Romania. The UK, Iceland and Latvia are relatively intensive users of joint purchasing.

The country-specific variables have again an important story to tell. The use of joint purchasing is negatively related with a country's government consumption and population size, and positively associated with GDP per capita. Finally, it is found that purchasing on behalf of other authorities takes place more often, as expected, in case of larger contracts.

The impact of the country variables may appear smaller than for the choice of procedure. Figure 1.35 shows the coefficients. Again, it is clear that the institutional arrangements which are classified by the OECD have an impact relative to the semi centralized benchmark.

Country variables have less impact on the use of techniques

Figure 1.35 Impact of country indicators on use of techniques (significant coefficients larger than zero, macro model, semi centralized is benchmark)



²⁴ Regression (15) in annex 3

²⁵ Results are shown in regression (16) in annex 3

1.3 Type of contract

Procedures

Contracts can be for works, supplies or services. These distinctions have had much policy importance historically and while the new directives consolidated regulations for the types of contracts, there still exists differentiation for particular regulatory provisions, i.e. with regards to threshold levels which determine whether or not a purchase falls under the scope of the directives. The threshold level for works is nearly 40 times that for services and supplies, so this issue is of economic significance. There is also a particular differentiation within the services category which we will discuss towards the end of this chapter.

These categories are indicative of the type of market activity which is provided under the contract. We will explore this with more precision in the next section using a more detailed approach of assessing the market classification scheme developed for this purpose. There is a high degree of correlation between the two classifications– indeed, much is explained by the design in the directives. For example, Annex I of Directive 18 specifies a set of particular activity codes as the definition of works. Similarly with services, for which Annex II (A and B) defines a number of activity codes (called CPV nomenclature).

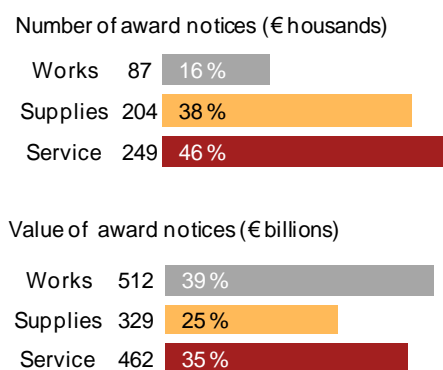
We also find in the actual data a degree of correlation between the two schemes. The correlation is not 100 percent according to the design, but the differences are not major and may be caused by entry mistakes in the reporting forms as these are quite complex. There are many random types of errors, i.e a supplies contract with services CPV code – and we find no systematic misalignment between the two schemes. The mismatches we find between expected and actual are about 1-3 percentage points and albeit larger in some instances, they may be within the range that can be expected in a scheme of this level of complexity.

Works have significantly higher values involved per contract award notice than supplies or services. This is to be expected, partly caused by the nature of the activities and by the regulatory effect of financial threshold levels for application of the directives. The threshold level for works is higher than those for services/supplies. This may drive the averages higher, although we will see later that 70 percent of works contracts in the dataset are actually below the threshold.

Services appear with the highest number of purchases and the second highest total value. The average value for supplies contracts is thus the lowest.

Fewer, but higher share of value for works contracts

Figure 1.36 Contracts by type



Works contracts are more than twice the value of supplies and services

Figure 1.37 Values by contract type (mean and median)

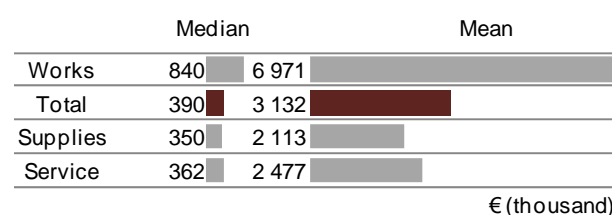


Figure 1.38 shows the use of procedures within each category. Figure 1.39 shows the shares of each procedure between the categories.

Open procedure is used more frequently within works contracts, which has a higher than average share. It is used the least within services contracts. By value we find that the contract sizes are smaller than for other procedures across the three categories, in particular for works. We also find that while works account for only 17 percent of the total use of open procedure, the share in values is much higher at 41 percent, reflecting the higher contract values compared to services and supplies.

Restricted procedure shows a similar pattern, but the differences are more pronounced. The procedure is less used overall by the three sectors. It is more important in terms of value, especially for works. Works account for 15 percent of times the procedure is applied, but nearly half of the value. On the contrary, nearly 60 percent of services contracts are done by using the procedure, but this accounts for only 33 percent of the values.

Works is an important user of **accelerated restricted** procedure, amounting to 40 percent of the values. Supplies and services apply the procedure more often, but the amounts involved are much smaller.

Negotiated procedure is less important overall for all categories measured both in terms of value and frequency. The ratio between frequency and values is largest for supplies, implying that supply contracts using this procedure have particularly high values. The shares of use of the procedure between categories are nearly identical to the restricted procedure except when measured in values – were we find that services and supplies constitute a larger share than for the restricted procedure.

The **negotiated procedure without publication** has low frequency in works and is almost entirely used by services and supplies. Services account for 54 percent of total values using the procedure.

Negotiated accelerated has very little importance overall. When the procedure is being used - works accounts for only 4 percent of its usage, which equates to about 20 percent of values. This contrast to the restricted accelerated procedure, which is favoured in works contracts. As much as 70 percent of values of negotiated accelerated are involved for services.

Works contracts typically use the open procedure

Figure 1.38 Use of procedure within types of contract category (percent of use of within category)

	Open	Restr.	Neg.	Neg.w.o	Competitive dial.
Share of use of procedure by Number					
Works 80	9	7	3	0,8	0,1
Supplies 78	7	6	7	1,4	0,3
Services 68	11	10	8	1,3	0,5
Value					
Works 54	28	11	2	0,1	1,3
Supplies 61	17	14	6	0,1	1,4
Services 44	22	17	8	0,6	1,1

Competitive dialogue is mostly used by services

Figure 1.39 Use and values of procedure between types of contract category (percent)

	Services	Supplies	Works
Number			
Open	42	40	17
Accel. restricted	47	43	10
Neg.w.o publ.	53	40	7
Negotiated	57	28	14
Restricted	58	27	15
Competitive dial.	63	22	15
Accel. Negotiated	70	26	4
Value			
Open	30	29	41
Accel. restricted	31	29	40
Restricted	33	18	48
Negotiated	43	26	31
Neg.w.o publ.	54	30	16
Competitive dial.	67	3	29
Accel. Negotiated	70	12	19

Competitive dialogue appears with significant values for services, and to some extent for works. In its original design, the procedure was foreseen as being important for a.o for works, but it appears it may be even more important for some services. Two-thirds of all procurements using the procedure are for services. This accounts for as much as 8 percent of total services purchasing volume – a much higher share than the average use of the procedure.

In the econometric analysis we have set service contracts as the benchmark. In line with the findings in Figure 1.38 we find for instance that the **open procedure** is more frequently selected in case of works and supply contracts, by 8.5%-points and 5.8%-points, respectively.

The type of contract shows a significant correlation with the sector. As such we will analyze these issues in more detail when looking at the sector of delivery in the next section, which gives a more detailed perspective.

The **combinations** of contract types and procedures show very different contract values.

The largest contracts clearly use the **competitive dialogue**. In particular for works, this appears with high values at 72 million euros, above the 40 million average for the procedure.

Some combinations are clearly more preferred for smaller purchases than others. Supplies dominate this category as expected. **Open** procedure is also frequently on the list.

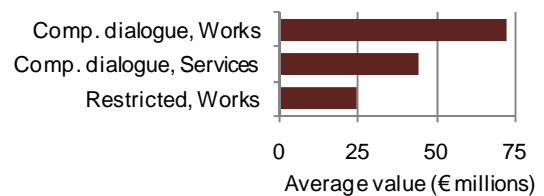
Framework contracts within the works segment are nearly four times the value of those for services and supplies (at 20 million).

Joint purchasing shows less difference, 7 mill for works and 2,2 for supplies and services.

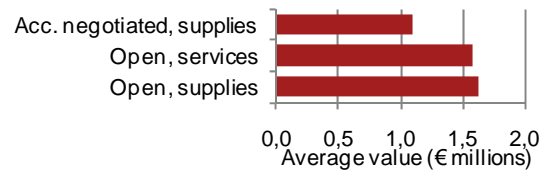
Competitive dialogue contracts for works have the highest values

Figure 1.40 Selected contract value by type and procedure

Three largest contract combinations



Three smallest contract combinations



Techniques

Framework agreements are mostly used with services and supplies. They are much less used with works. As much as 30 percent of all supplies procured under the directives are through framework contracts. Values are also high for services. Works is an outlier with low numbers.

The econometric results show that framework agreements are about 6%-points less often chosen for works while the difference for supply contracts (relative to the services) is statistically insignificant.

Joint purchasing is also frequently used for services and supplies. The values involved are a little less compared to framework, but it is clearly an important technique. Joint purchasing takes place somewhat more often in case of supply contracts (about 1%-point).

Dynamic purchasing systems are used most frequently with services, though they have a surprisingly high share of the *values* for work contracts. These contracts have much higher than average value and appear different than those for supplies.

E-auctions are used mostly for supplies. As mentioned there are constraints for using this for services with intellectual content.

There are considerable differences in values when the techniques are applied across types of contracts.

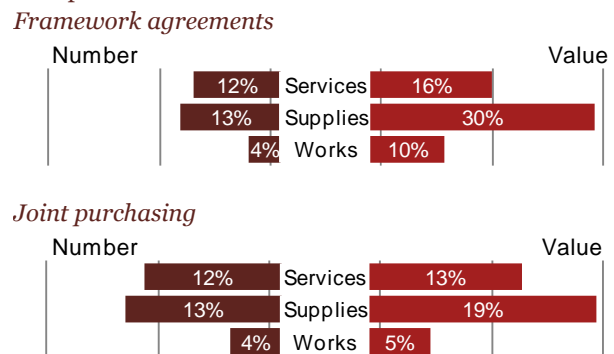
Framework contracts for works are five times the value of a service agreement. Although framework agreements are little used for works contracts, they tend to have high values.

Curiously the values for joint purchasing are more similar – all about 10 million. This is still quite a bit higher than the typical works, supplies or services contract. The differences are more pronounced for supplies and services where joint purchasing contracts are nearly five times the value of a regular contract.

Joint purchasing contracts also have higher values than framework contracts for supplies and services.

Frameworks and joint purchasing is very important for supplies

Figure 1.41 Use of techniques within sectors as share of total purchases



Works frameworks have highest value

Figure 1.42 Value of techniques by type of contract

	Median	Mean
Works		
Framework	3 391	20 880
Joint purchasing	657	9 375
Total	840	6 971
Supplies		
Framework	578	5 877
Joint purchasing	675	9 566
Total	350	2 113
Services		
Framework	485	4 307
Joint purchasing	485	10 800
Total	362	2 477

Euro ('000)

1.4 Business sector patterns

Procedures

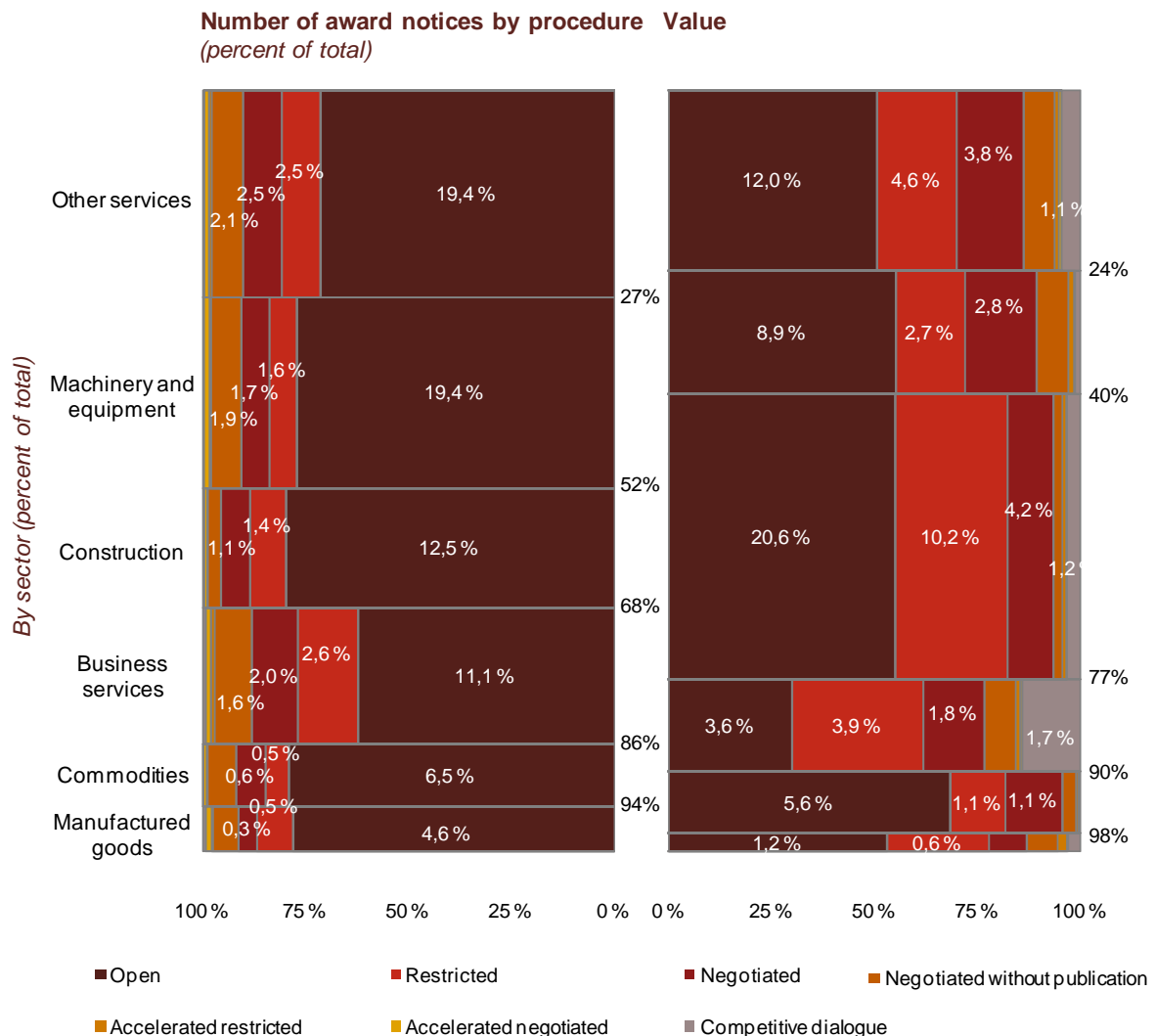
The type of market and object which is being purchased is an important variable. In the following we will review the procedures by the delivery sector. Six sectors are defined: Construction, Commodities and food, Manufactured goods, Machinery and equipment, Business services and Other services.

There is a sophisticated classification scheme available to classify the purchases. For every contract award notice there is a record of the delivery sector, using the classification system called Common Procurement Vocabulary (CPV). It bears resemblance to NACE codes and other commonly used classification schemes. All purchases are identified at detailed 8 digit specificity. More than one code can be recorded. We analyze what has been classified as the main activity of the contract.

There are thousands of codes available – and they are often analyzed at two digit levels which gives about 45 varieties. In the following analysis we have aggregated these codes to six broader categories. Analysis of more disaggregated divisions would be too detailed to remain informative. Details of the sector classifications are found in Annex 1.

Open procedure mostly used for services and machinery

Figure 1.43 Use of procedures by delivery sectors 06-10



The **open procedure** is used mostly consistent across the sectors. Figure 1.43 shows the share of use of a procedure within a sector at the horizontal scale, and the share of notices attributed to that sector at the vertical scale. The size of the squares is representative of the total number of contract award notices involved for each procedure and sector combination. We find however that for deliveries from the business services sector there is less than average use of the **open procedure**. The difference is nearly 12 percentage points less than the overall average of 73 percent. In the construction sector, the open procedure is used for 80 percent of the procurements. More than half of the uses of open procedure are found in two sectors: other services and machinery.

Values involved show much difference from the frequency of use.

We can see on the vertical column how the shares for each sector are distributed. Construction comprises nearly 38 percent of the total value of contract award notices. The category other services is larger than business services. Main activities within other services are sewage, refuse, cleaning and environmental services (5 percent), transport services (excl. waste transport) (3 percent), and repair and maintenance services (3 percent). Manufactured goods constitute only a few percentages of the total value, with especially low average contract size for leather and textile fabrics, plastic and rubber materials (euro 858,000) and musical instruments, sport goods, games, toys, handicraft, art materials and accessories (euro 810,000) in comparison to the EU average (euro 3.1 million).

About 30 percent of the value of business services is procured using the **open procedure**. This constitutes 7 percent of total spending for the open procedure. For other sectors, the share is a little over 50 percent. It is higher for the construction sector where the procedure accounts for 55 percent of the contracts award notice values. This constitutes nearly 40 percent of all values for the open procedure.

Restricted procedure is used with higher than average share in the services categories. The procedure is more important in terms of value than in terms of frequency. This is consistent across all sectors, but particularly noteworthy with regards to the business services and construction. Of total values for the procedure, 17 percent is for business services and 44 percent for construction.

Similarly with **negotiated procedure**, of the total uses more than half are for the services sectors. Construction accounts for 13 percent. Negotiated procedure also has a higher value than its share of the frequency. The values are at similar levels across most sectors, a little lower for construction contracts.

The **negotiated procedure without publication** is used frequently for some service procurements, i.e. education and training services (30 percent); and services related to the oil and gas industry (18.6 percent). The overall average use of this procedure is about 7 percent. Negotiated procedure without publication has about the same share of value as it has in terms of frequency across most sectors. The smaller procedures (accelerated) have barely noticeable shares in terms of value.

The **accelerated** versions of the procedures are also frequently used for service procurements. Also machinery and equipments sees frequent use of these procedures.

About 60 percent of the occurrences of **competitive dialogue** are within the services category. Competitive dialogue stands out with high values within business service procurements. Nearly 14 percent of the value in this sector is procured using that procedure. The number of contract awards is very small, indicating some very high average contract values. Competitive dialogue is used for certain business services, in particular those classified as IT systems development related, engineering and architectural services and management consulting. Of the total values spent using competitive dialogue, 40 percent is for delivery of business services. Another 25 percent is classified as other services. Construction accounts for 28 percent.

When looking at the detailed breakdowns underneath what is shown in the figure, we find some outliers. For example:

- In the commodities category nearly 90 percent of contract award notices for Food and beverages use the open procedure.
- Water deliveries are procured using negotiated procedure without publication in 50 percent of the instances (utilities directive). Open procedure is used for water deliveries in about 35 percent of the contract award notices.
- The standard negotiated procedure which is used about 8 percent overall, is used much more frequently with electrical machinery, apparatus, equipment and consumables, lighting (30.4 percent) and for services related to the oil and gas industry (33.5 percent).

Now let us remark on the results from the regression analysis (see regressions (1) to (10) in Annex II). **Construction is selected as the benchmark sector.** The key results are summarized in Figure 1.44.

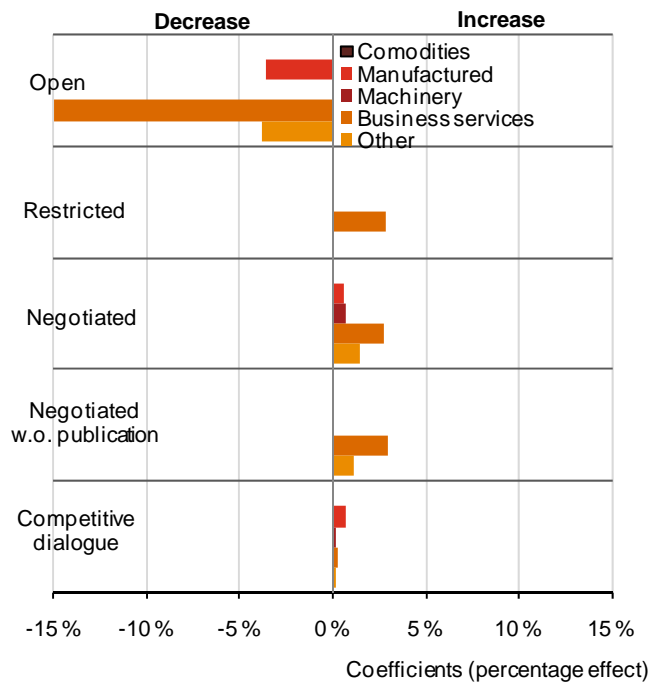
Open procedures are less often used in the sectors manufactured goods, business services, and other services. This thereby broadly confirms the picture as presented in Figure 1.43.

For the restricted procedure we only find a significant coefficient for business services, which are associated with a 2.9%-point increase in the use of this procedure.

Negotiated procedure shows significant differences for all but the commodities sector, meaning that the procedure is used more frequently in this sector than in the benchmark – construction.

Open procedure preferred in construction, commodities and machinery

Figure 1.44 Impact of sector (significant coefficients larger than zero, country model, Construction is benchmark)



Techniques by sector

The use of techniques also varies by sector. This is presented in Figure 1.45. Occurrences of the use of the technique and values are presented.

Framework contracts are used for 16 percent of commodities and manufactured goods purchases. About a third of the value in these sectors is procured through framework contracts. They are used only for 5 percent of construction procurements.

Joint purchasing is used for about 6 percent of goods and commodities. There is higher than average use of joint purchasing for these types of procurements, at about a quarter of the value procured. There is also less use of joint purchasing in construction and services.

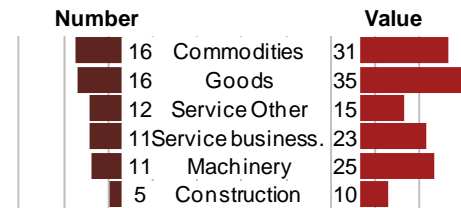
Dynamic purchasing is seldom used overall, but most frequently within other service procurements where it constitutes about 2,4 percent. The main activity within other services for dynamic purchasing is agricultural, forestry, horticultural, aquacultural and apicultural services, where DPS is used in 8.9 percent of total procurements. This represents a small share of the value in all sectors.

E-auctions are more frequently used relatively speaking for commodities procurements. They are hardly used for services which are as expected given the constraints on using the procedure for subject-matters which involve intellectual performance.

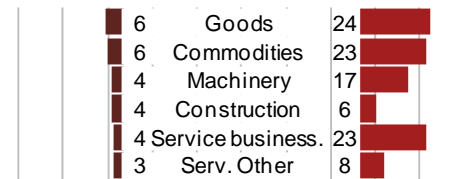
Key results of the regression analysis are shown in Figure 1.46. Let us, as before, focus on framework agreements and joint purchasing. In the case of **framework agreements**, the dependent variable is a dummy that takes value 1 if a framework agreement is used and 0 if otherwise.

Figure 1.45 Use of techniques by sector as share of total procurements in sector (percent)

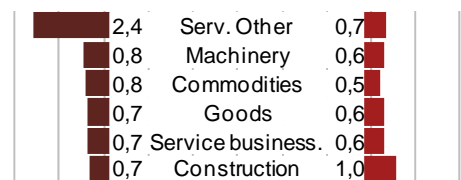
Frameworks



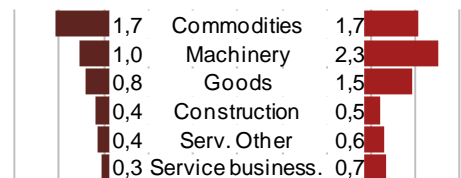
Joint purchasing



Dynamic purchasing system



E-auctions

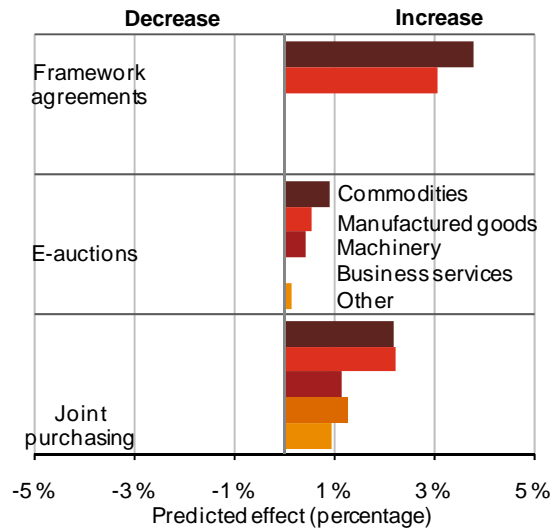


The sectors commodities and food and manufactured goods have significantly positive regression coefficients, while for the other sectors the coefficients are insignificant (evaluated against the benchmark sector construction). These results hold for both versions of the regression model, i.e. the one with country dummies and the one where the country dummies are replaced by the country-specific variables.

Regarding **joint purchasing**, i.e. the contracting authority is purchasing on behalf of other contracting authorities, we find that all sectors appear with a significantly positive regression coefficient. In other words, joint purchasing is the least often used option in cases where the delivery sector is construction. The differences are however not very large. The largest deviation is found for manufactured goods (with a coefficient of 0.022).

Frameworks preferred for commodities and goods

Figure 1.46 Impact of sector (significant coefficients, country model, construction is benchmark)



1.5 Government types

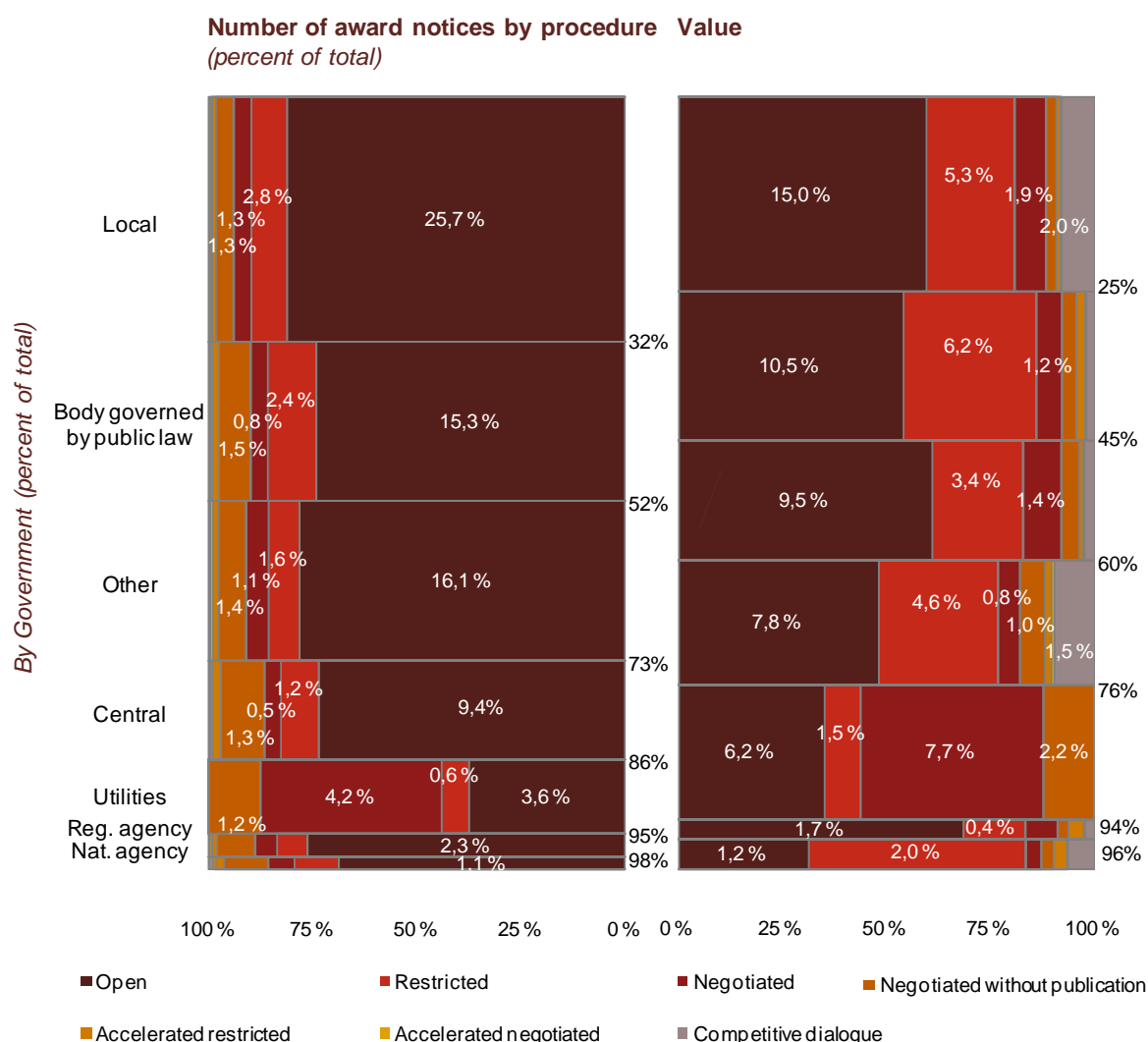
Procedures

Local, central and other types of governments apply the procedures differently. Figure 1.47 shows the use of procedures by type of government. The share of use of a procedure within a sector is at the horizontal scale, the share of notices attributed to that sector at the vertical scale. The size of the squares is representative of the total number of contract award notices involved for each procedure and sector combination.

Overall, local governments issues 32 percent of the notices, and represent 25 percent of the value. The second largest category is the generic “other” followed by “body governed by public law”. The latter constitutes 21 percent of notices and 19 percent of values in procurement. The regional and national agencies are the least important types.

Little variation for the major procedures except for utilities

Figure 1.47 Use and values of procedures by government type



Interestingly, local authorities apply the **open procedure** more frequently than national or federal governments. About 35 percent of total use of the open procedure is by local governments. The purchases are however smaller in terms of unit costs, and altogether account for 29 percent of total values for open procedure. There are no major differences between types of government in how they apply the procedure within their purchases, perhaps with the exception of utilities. Utilities favour the negotiated procedure.

Negotiated procedures are used nearly four times as much by utilities than other contracting authorities. This option is available in the utilities directive without many of the constraints which apply to the classical directive, so this effect is most likely regulatory driven. Correspondingly, utilities use the open procedure less frequently compared to government authorities. The negotiated procedure is in many ways a story about the *utilities*. 50 percent of the transactions and 58 percent of the total value using the procedure is for utilities purchases. The utilities can apply this more freely and it shows in the data. We should keep in mind however, that the overall purchasing volume under the utilities directive is about 17 percent of the total.

Central governments apply the negotiated procedure only for a small share of their purchases, and this adds up to about 6 percent of the total use of the procedure with a near identical share in value. Use of **negotiated procedure without publication** is distributed equally across the types of governments. In terms of value however, utilities has the lions share at more than 40 percent of total values using the procedure. When not applied by utilities, the procedure is used for smaller purchases (like works of art). The **accelerated negotiated**, albeit small in overall use for all types of governments, is mostly used by local governments for small purchases. Central governments only account for 12 percent of total use of the procedure, but these tend to be higher price purchases and add up to 40 percent of the total values procured using the procedure.

There is less variance for the **restricted** procedures. Surprisingly, national agencies show up with large values, 2 percent of total procurement value and 9 percent of the total values, using that procedure.

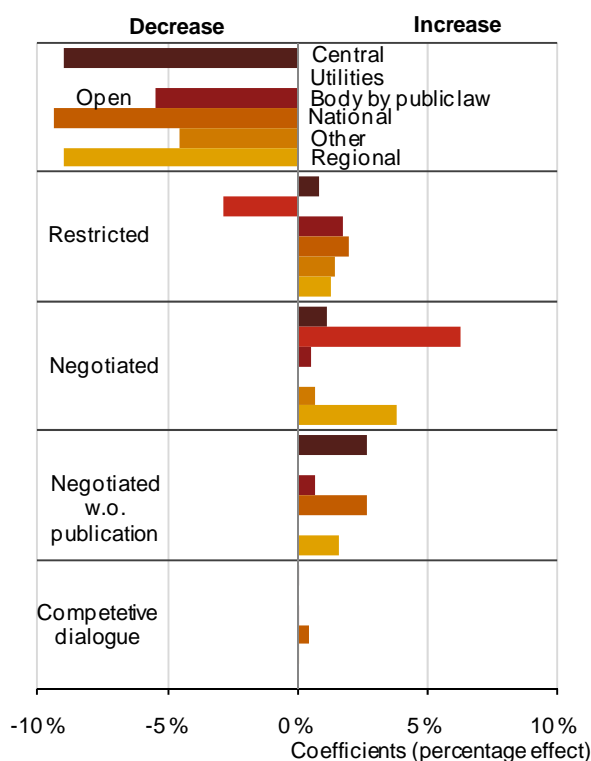
Accelerated restricted is used more than the negotiated accelerated version overall. The shares of use are about evenly distributed across the largest government types (utilities cannot use the accelerated versions). Bodies governed by public law however spend about a third of the total using this procedure.

Competitive dialogue is used by all types, but there is an exception in using the procedure for utilities. Measured in value, central and local governments are the most significant users of the procedure, comprising nearly 80 percent of the value.

Competitive dialogue is actually used most frequently by “bodies governed by public law” and the generic category “other”. However, the average value when applied by these entities is as little as one-eighth of central government contracts. Apparently, the procedure is used very differently by these entities.

Much lower propensity for open procedure in central than local governments

Figure 1.48 Impact of type of government (significant coefficients, country model, local government is benchmark)



We have used the information on the type of contract awarding authority (e.g. central government or local authorities) in our regression models to explain the use of various procedures and techniques. Local authorities are selected as the benchmark.

For the **open procedure**, we find that all coefficients for the type of contract awarding authority are significantly negative in Figure 1.48.²⁶ In other words, local authorities use the open procedure most frequently. The differences are quite substantial. For example, central governments have a 9%-point lower probability of selecting the open procedure than local governments.

In the case of **restricted procedure**, we find smaller deviations across types of governments, but all regression coefficients are statistically significant. The strongest effects are found for water, energy, and transport (associated with a reduced probability of the use of the restricted procedure of 2.9 percentage-point), and on the other side of the spectrum, national or federal agency/office with a 2 percentage-point higher probability of selecting the restricted procedure.

With respect to the *accelerated* restricted procedure, we find that the central government and a national or federal agency/office are more inclined to choose this option (7.7 percentage-points and 10.1percentage-points, respectively).

The pattern for the **negotiated procedure** is as follows: its use is higher for water, energy, transport and telecommunication sectors (with a coefficient of 0.063) and for regional or local agency/office (0.038 and strongly significant). The *accelerated* negotiated procedure is somewhat less frequently selected by a central government (-0.024) and a regional or local agency/office (-0.052). For the negotiated procedure *without competition*, it should be noted that central government and national or federal agencies/office appear with positive regression coefficients both in the order of magnitude of 2.7 percentage-points. The final procedure we look at is the **competitive dialogue**. The coefficients for the type of the awarding authority are all very weak (though some of them are significant).

Finally, **combinations** of procedures and types of governments indicate that the procedures are being used for very different purposes. Figure 1.49.

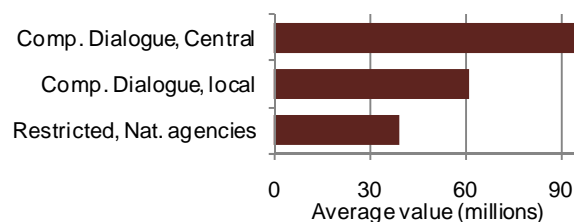
We find as expected that the competitive dialogue tops the list. The combination of central government and the procedure results in an average contract value of 95 million euro - that's more than twice the average for the procedure. High values are similarly found for local governments. Note that "body governed by public law" apparently uses this procedure differently – values are at about 15 million here.

We also find that the accelerated negotiated procedure in combination with regional agencies and local governments usually have very low contract values. The other combinations further down that list include several open procedures and sub-central government combinations.

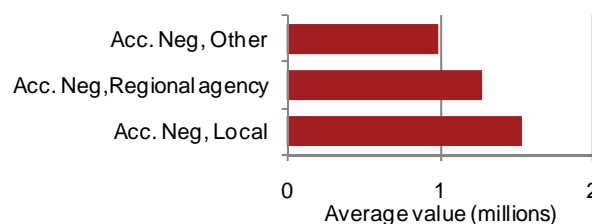
Accelerated procedure contracts at local governments have the lowest values

Figure 1.49 Use of techniques within sectors as share of total purchases

Three largest contract combinations



Three smallest contract combinations



²⁶ Regressions (1) and (2) in annex III

Techniques by type of government

When reviewing techniques by type of government a few findings emerge. Figure 1.50 illustrates these findings.

National agencies and utilities are more likely to use **framework agreements** as part of their purchasing strategy. The value of these agreements is also quite high. It appears that central government values in framework agreements are much higher than the number share of framework agreements.

When looking at overall use (not shown) local governments have the largest share of overall use of framework agreements, at 30 percent, yet comprise only 19 percent of total value. Most of the values in framework agreements are found with central government and utilities, comprising 45 percent combined.

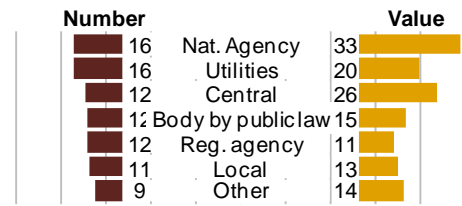
Joint purchasing is used much by central government and agencies as share of their procurements. Values are also considerably higher for national agencies and central governments. Utilities may use joint purchasing, but this is not recorded in the databases. IN terms of overall use (not shown) 60 percent of values for total use of joint purchasing are found with local and central governments with about equal shares.

Dynamic purchasing systems are mostly used by non-authorities and utilities. The share of values is however very small – so these must be very small contract values and frequent purchases. Both numbers and values are small. Utilities stand for 37 percent of total spending using dynamic purchasing systems.

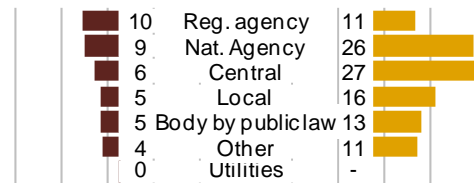
E-auctions are mostly used by utilities. Regional and local offices put through higher values than the share of transaction.

Figure 1.50 Use of techniques as share of total purchases by type of government (percent)

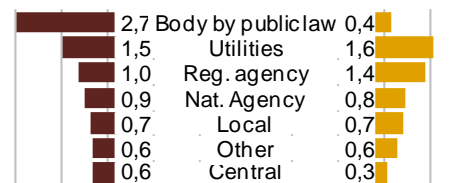
Frameworks



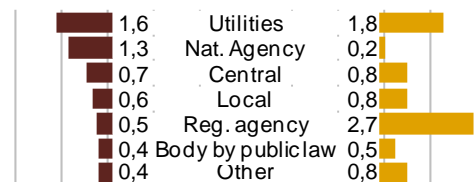
Joint purchasing



Dynamic purchasing system



E-auctions



Now let us turn to the econometric results.

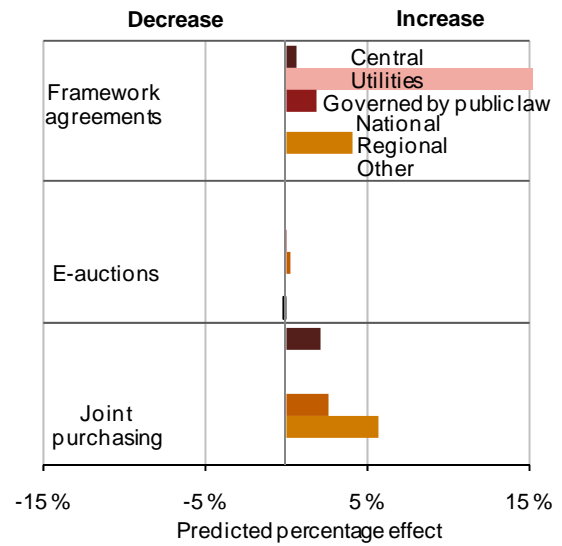
With respect to **framework agreements**, it is interesting to notice that water, energy, and transport sectors opt for this choice 15 percentage-points more often than the other types of authorities. It is confirmed in regression analysis that local governments (benchmark in model) are less likely to use **both frameworks and joint purchasing** than their regional and central counterparts. The main activity of the contracting authority influences the propensity to select framework agreements. For example, framework agreements are less often used in exploration and extraction of coal and other solid fuels.

Finally, **joint purchasing** is more often used if the authority is a national or federal agency/office or a regional or local agency/office. The main activity only plays a role in case of housing and community amenities (+1.3 percentage-points) and public order and safety (+2.3 percentage-points).

Local governments only appear more likely to use Dynamic purchasing systems. Minor effects are noticeable with regards to these where local governments have a higher propensity for use compared to national or regional agencies and central government.

Much higher propensity for frameworks in utilities

Figure 1.51 Impact of type of government on technique (significant coefficients, country model, Local government is benchmark)



1.6 Government activities

Procedures

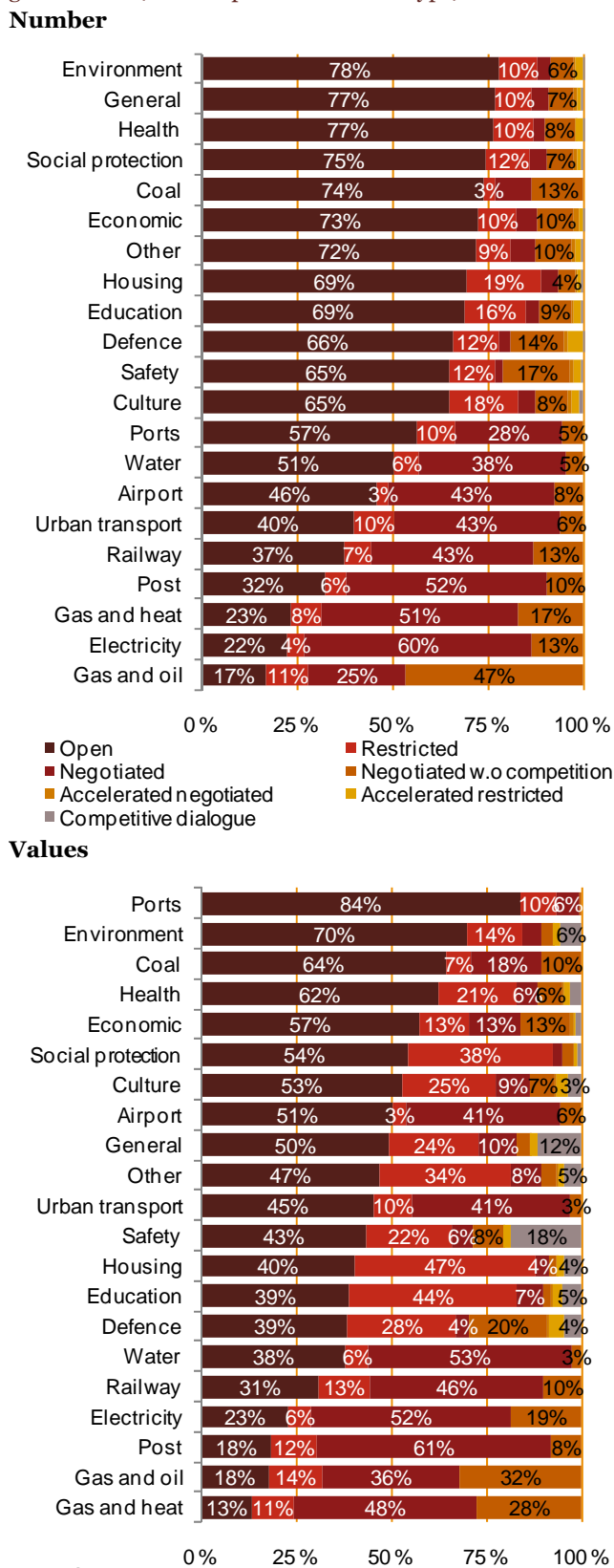
We can also view purchases by activity of government (e.g. education, health, defence). There are 21 categories altogether. The categories are based upon UN COFOG classification scheme, and with additional categories for utilities.

There are two general categories called “general public service” and “other”. Unfortunately these two unspecific categories are ticked for 43 percent of purchases corresponding to 45 percent of the value, which makes it hard to be specific about what type of government activity the purchase is actually for. To further complicate matters, it is also possible to tick more than one option, and they appear in a non-prioritized order. As many as 11 categories are ticked for some purchases. The most common combination is indeed “other” with “general public services”. About 10 percent of purchases have ticked more than one category. Furthermore, nearly 30 percent have not reported government activities at all. In the following figures we have summarized all entries, meaning that there is double counting. The alternative is to indiscriminately delete all but the first appearance of a category.²⁷

The data nevertheless show that following the general categories (general and other), most purchases are for the health sector, with 18 percent of the number. This is followed by the education sector (6,5 percent) and environment, defence and housing at about 3,6 percent of the number. In terms of values, health (12 percent), railways (6,5 percent), housing (6 percent) and education (5 percent) present the highest purchases.

Interesting patterns emerge when viewing the **use of procedure** within each type of activity. Figure 1.52 shows the use of procedures *within* each activity. We keep in mind that there are large differences in terms of the absolute number of purchases and values *between* activities of government. We will discuss both these perspectives in the following.

Figure 1.52 Number of procedures within activity of government (share of purchases within type)



²⁷ Most entries show a combination of a sector and a “general”.

Open procedure is used most frequently for by authorities operating in the environment, general, health and social protection. The procedure is used much less within the natural monopolies including electricity, postal and railway services. In terms of *values*, we note that nearly all sectors appear with lower shares of values than frequencies. Education and defence show nearly a 50 percent reduction compared to the numbers of use. This is expected as the open procedure generally has lower average values per purchase. On the other hand, ports and airport related services appear with higher values.

Between the activities (not shown in the figure), we find that 45 percent of the value procured under the procedure is accounted for by the two general categories of government activity (general and other). The distribution of use is very similar to the overall described on the previous page. Our *regression* models also find strong differences in regression coefficients for the set of activities. The benchmark we have selected is health. For example, the probability of opting for the open procedure is 12 percentage-points lower than the benchmark for exploration and extraction of gas and oil, and 15 percentage-points lower for production, transport and distribution of gas and heat (activity 7). On the other hand, exploration and extraction of coal and other solid fuels (activity 13) is associated with a 17 percentage-point higher probability of using the open procedure.

Restricted procedure is used for a smaller share overall and with little differences between sectors. Regression results also show that the role of government activities in explaining use of the procedure is modest. The largest positive effect is found for defence (3.5 percent) and the largest negative effect is obtained for water (-3.7 percent). By *value*, we note that the shares of the procedure are much larger for some sectors. They are particularly larger for the social sectors, including social protection, housing and education. Less pronounced effect is found for the health sector.

Between the activities, we find the same three largest sectors as before accounting for most of the notices. Housing and education account for 8 and 12 percent of use of the procedure respectively. With respect to the *accelerated* restricted procedure, we find again some variation of use within main activities, but the effects are not substantial. Defence and public safety has higher than average values of the accelerated procedure.

Negotiated procedure is used significantly more within the natural monopolies and is the standard procedure under the utilities directive. A very clear pattern emerges; most of their procurements are by the negotiated procedure. This is the main procedure used by most of these types of activities including transport, gas/heat, postal and electricity. The same picture is confirmed when looking at values. In addition we note that economic and financial affairs have a higher than average share of the procedure in value terms. We also find that railways, water and urban transport account for nearly 40 percent of the total procurement spending using the procedure.

The regression results generally find that the role of main activity is quite weak. Exceptions are exploration and extraction of gas and oil (associated with a reduced probability of 2.2 percentage-points), and airport-related activities (increasing the probability by almost 6 percentage-points)²⁸. We find that the *accelerated* negotiated procedure is more often applied in public order and safety (14 percentage-points) and in economic and financial affairs (11 percentage-points).

For the **negotiated procedure without publication** the utilities sectors also comprises most. The procedure is used by all other types of government – but in smaller shares. The health sector share of values procured using the procedure is 13 percent. For example, the role of the main activities is somewhat more important here, with coefficients varying between -5.6 percentage-points for urban railway, tramway, trolleybus or bus services, to +6.3 percentage-points for defence.

The final procedure we look at is the **competitive dialogue**. In terms of number of procedures, it is hardly noticeable. In terms of values however, we find that it comprises a significant share of the procurements within the safety sector. Shares in environment, education and defence are at about the average level (4 percent). Who actually uses the procedure is hard to answer, as “general public services” and “other” comprises 72 percent of overall use. Beyond this, health, safety, education and housing are the largest users. The coefficients for the main activity are all very weak (though some of them are significant).²⁹

²⁸ Regression (5) in annex III.

²⁹ Regressions (9) and (10)

Techniques

Now let us turn to the use of techniques by government activity. **Framework agreements** are used extensively in the utility related sectors, for about one in five purchases. The values are also high in the postal sector, where framework agreements account for nearly half the purchasing spent. Economic, culture and environment makes little use of frameworks. Econometric regressions confirm this. The main activity of the contracting authority influences the propensity to select framework agreements. For example, framework agreements are less likely used in exploration and extraction of coal and other solid fuels.

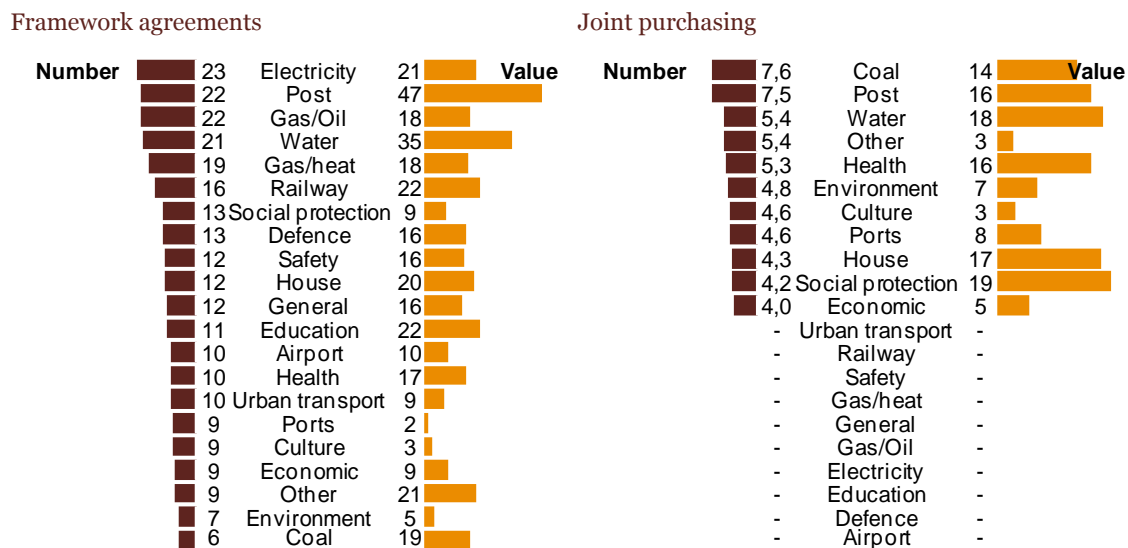
Finally, for **joint purchasing**, the key observation is a large divergence between numbers and values. It is used most frequently for a larger share of purchases within the coal, postal and water activities – with very high shares of values. Regression analysis finds significant coefficients mainly in case of housing and community amenities (+1.3 percentage-points) and public order and safety (+2.3 percentage-points). Several utilities related activities do not appear in this figure. The data entry forms in TED for purchases under the utilities directive do not register this category and as such, we cannot determine the extent of the use of joint purchasing under the utilities directive.

For **dynamic purchasing** systems, postal and gas/heat stand out with higher shares of usage. The water sector has an exceptional high share of the value.

For coal and solid fuels purchasing, the **E-auctions** stands out in contrast to use of dynamic purchasing, where the activity is ranked at the bottom in terms of use and values. In fact, it appears that the technique is used frequently for purchases where commodities are important.

We also find, as expected, that many sectors which procure more services, such as social protection, housing and culture, seldom use the technique. There are restrictions on use of the technique for services (and certain construction activities) where intellectual services play an important role.

Figure 1.53 Use of techniques within government activity as share of total purchases (percent)



1.7 Award criteria

Procedures

Tenders can be selected by using the lowest price criterion or a combination of qualitative and quantitative aspects (economically most advantageous tender - EMAT).

As much as 70 percent uses the combined criterion. Measured in euros the share reaches nearly 80 percent (Figure 1.54.). Price only criteria are used for smaller contracts and as such the distribution of contracts are more compressed towards the low end. The differences between the two in values are not big at low end of the contract values range; there is only about 15 percent higher median values for the EMAT criterion while the mean value is nearly 70 percent higher. Yet, there are exceptions, for example: the highest value purchase using price only criterion was for more than 3 billion euro - a transport service procurement which received only two bids and took nearly a year to complete.

Price only is mostly used with the least complicated procedures – such as negotiated without publication and the accelerated procedures. More complex processes such as restricted and negotiated uses price only much less. Competitive dialogue hardly uses price at all. (Figure 1.55).

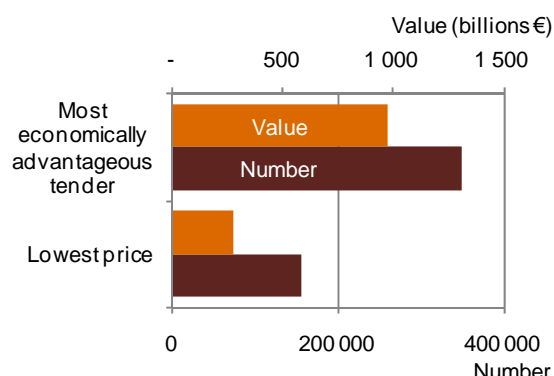
There is somewhat higher propensity to use price only with works and supplies, reaching about 35 percent – while the share for services is about 25 percent.

We also study the factors influencing the choice between these two criteria with econometrics and it confirms these findings. Also the role of the selected procedure is quite important. The economically most advantageous criterion is more often selected in case of the competitive dialogue procedure.

Overall, 65 percent of procurements using price only are open procedure purchases (value based). This is higher than the average share of all procurements during 2006-2010 which is about 50 percent. Share of restricted and negotiated are 15 and 9 percent respectively, which are smaller than the average shares.

70/30 split between EMAT and lowest price award criteria

Figure 1.54 Procurement by award criteria



Lowest price used with least complicated procedures and for low values

Figure 1.55 Use of award criterion by procedure

	Lowest price	EMAT
NUMBER		
Negotiated w.o publ.	60	40
Accelerated restr.	37	63
Open	31	69
Total	31	69
Accelerated neg.	30	70
Negotiated	20	80
Restricted	18	82
Competitive dialogue	6	94
VALUE		
Negotiated w.o publ.	42	58
Accelerated restr.	30	70
Open	28	72
Total	22	78
Accelerated neg.	20	80
Negotiated	14	86
Restricted	14	86
Competitive dialogue	2	98

Techniques

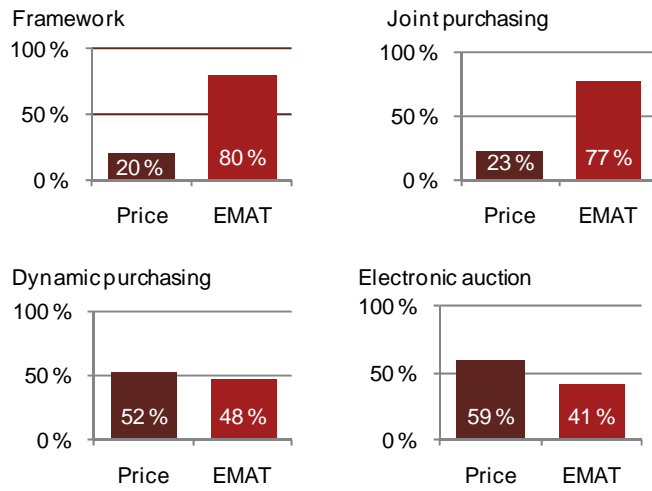
There is an interesting pattern that emerges when looking at techniques. Price only is used less with frameworks and joint purchasing. The difference is considerably, in particular with frameworks where EMAT is used twice as much.

On the other hand, price only is predominantly used with dynamic purchasing systems and electronic auctions.

The results hold up in the econometric analysis. The most economically advantageous criterion is more often selected in case of framework contracts and joint purchasing, but substantially less often chosen in combination with dynamic purchasing and e- auctioning.

Price only used most frequent with electronic purchasing systems

Figure 1.56 Use of award criteria by procurement technique as share of total use of technique



1.8 Utilities and Classical directive

In the following sections we will analyze a few selected regulatory provisions. First we review differences between the classical and the utilities directive.

Regulation of purchasing activities by the utilities has been a long-standing policy issue. They often control natural monopolies, such as grids or water systems, and may operate on exclusive licenses issued by authorities. There is a concern that the market forces may not work well to discipline purchasing in such circumstances.

These entities are now regulated by a separate procurement directive. There are similarities with the main directive, also called “classical”, but there are also some differences. We will in the following compare the two directives. We do not differentiate systematically elsewhere in this analysis and purchasing activities of utilities are subsumed under the overall analysis.

There are a few differences in the two regulations which could materialize in the market behaviour revealed in these statistics. Examples of such differences include:

- Negotiated procedure with a call for competition can be used for any contract; in contrast the classical directive generally requires the use of the open or restricted procedure.
- The utilities rules can use periodic indicative notice (PIN) and qualification systems. The classical directive requires contracts to be publicised through a contract notice.
- Utilities may use any objective rules and criteria for selecting suppliers to tender, rather than being confined to a list of specific criteria (financial, technical, etc.).
- Utilities have more flexibility in setting time limits for award procedures.

The utilities directives encompass about 10 percent of total purchasing activity under the two directives. It is more significant in terms of value, comprising about 17 percent.

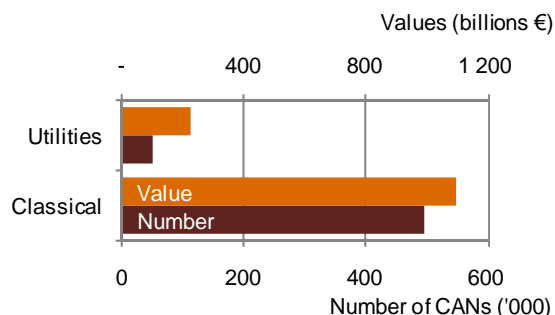
The individual contract values are generally higher for utility purchasing; 5,9 million euros in average value compared to 2,8 million for the classical. Median values are nearly three times higher, 1 million against 356 thousand under the classical directive.

The two are quite similar when it comes to other performance characteristics. Indicators of process time i.e. the time to offer and award actually indicate higher values for utilities. As such it doesn't seem like they take advantage of the flexibility to set different time limits by adjusting these downwards.

There is also more flexibility with how to shape the competition, but evidently they appear to receive similar number of offers though a little less than under the classical directives. This could indicate that the directives accomplish comparable results on this important issue. The standard deviation is much higher in the utilities directive indicating a wider range of offers.

Classical directive regulates most market activity

Figure 1.57 Values and purchases by directive (2006-2010)



Higher contract values, but similar degree of competition

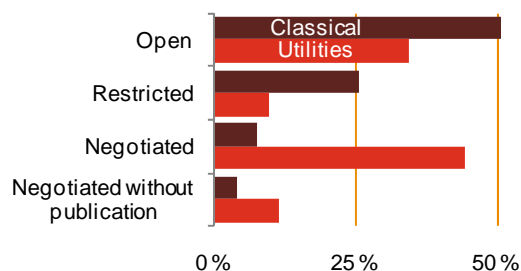
Figure 1.58 Key performance characteristics by directive

	Utilities	Classical
Share of total (€)	17%	83%
Mean contract (mill €)	5,9	2,8
Median contract (mill €)	1	0,35
Offers (mean)	4,4	5,5
Offers (median)	3	4
Time to offer	50	48
Time to award	100	81

Negotiated procedure is much preferred by the Utilities Directive. It's the de facto standard procedure and used more frequently than for the classical directive. As mentioned this can be applied without the constraints found in the classical directive. There is an increasing use of competitive dialogue in the classical sector, our interviews point to this as a substitute for negotiated procedure certainly for high value contracts.

Negotiated procedure applied much more freely by utilities

Figure 1.59 Purchases by procedure and directive (2006-2010) Value based



The econometric results which adjust for a range of indicators find that in procurements under the classical directive, the **open procedure** is much more often used than in tenders under the Utilities Directive. The difference is about 32%-point and highly statistically significant. This also confirms our earlier findings.

We find that the **negotiated procedure** is 7%-point (statistically significant) more often used in procurements that fall under the Utilities Directive.

The average contract value under the negotiated procedure is about twice that for the open procedure. The number of offers received does not differ much.

We also note that negotiated purchases without publication are applied more frequently here. Regulations are more flexible for utilities. The average contract values are particularly higher, nearly four times higher than when the procedure is applied by other authorities. The procedure seems to be applied for very different purchases by utility entities and government authorities.

Framework agreements are more popular with utilities by about 4 percentage points.

The extent of **joint purchasing** cannot be measured as it is not recorded for these entities.

E-auctions and dynamic purchasing systems show increased use under the Utilities Directive, which is consistent with our findings when analysing government activities.

PINs and Qualification systems

Utilities are allowed to use two methods of advertising their purchasing needs which are not available to public authorities. The Classical Directive rules require contracts to be publicised through a contract notice, but the utilities rules allow, in addition, the use of periodic indicative notice (PIN) and qualification systems. The two mechanisms are:

- PINs: An advertisement through a periodic indicative notice is an optional notice that gives advance notice of general requirements for the year, and can be used to advertise specific contracts.
- Qualification system (QS): An advertisement by a qualification system—that is, a list where firms interested in particular types of contracts can register. Individual contracts can be awarded by inviting firms on the list. Without further advertisement provided it is conducted under certain rules (e.g., it is regularly advertised and access is permitted at any time).

There is policy interest in how these systems work and as such we dive into this in some detail. Comparable systems are also commonly found in the private sector.

The two systems account for approximately 30 percent of procurements from utilities in the period. The others are conducted through more traditional procedures. This estimate is an approximation as we are comparing datasets which do not directly match and as such there may be some issues with regards to how this ratio is to be interpreted. The comparison is based upon records of information notices issued – compared to contract award notices recorded. All the notices may not actually lead to an award, and there are lag times (for example 2010 PINs are generally not yet recorded as contract award notices). There may also be issues with compliance of reporting that are unknown. Yet still, the share of PINs and qualification systems notices is about 30 percent of the procurements recorded as award notices in the period.

Between the two, we find that prior information notices are used much more than qualification systems. About two-thirds are PINs and a third is Qualification systems. (Figure 1.60)

Both PINs and qualification systems can be used **directly as calls for competition**. This differs from the more informative nature of PINs and qualification systems in general.

We find that PINs are more rarely used for direct calls for competition than qualification systems. Only about 18 percent of PINs are direct calls for competition. The ratio is higher for qualification systems – reaching 67 percent.

Next we turn to how the systems are used by country.

Qualification systems are used mostly as call for competition

Figure 1.60 Share of PINs and Qualification systems

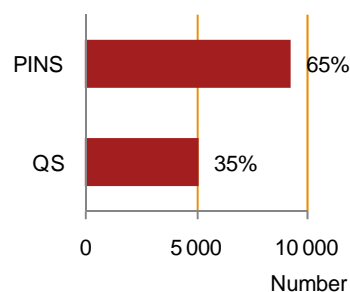


Figure 1.61 PINs used as call for competition

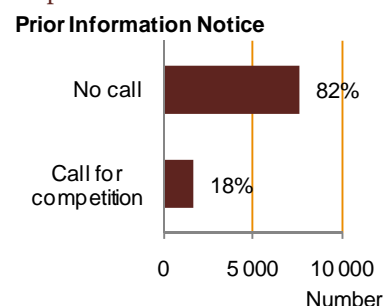
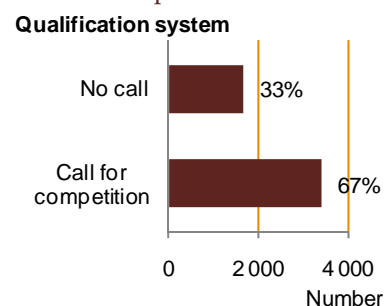


Figure 1.62 Qualification systems used as call for competition

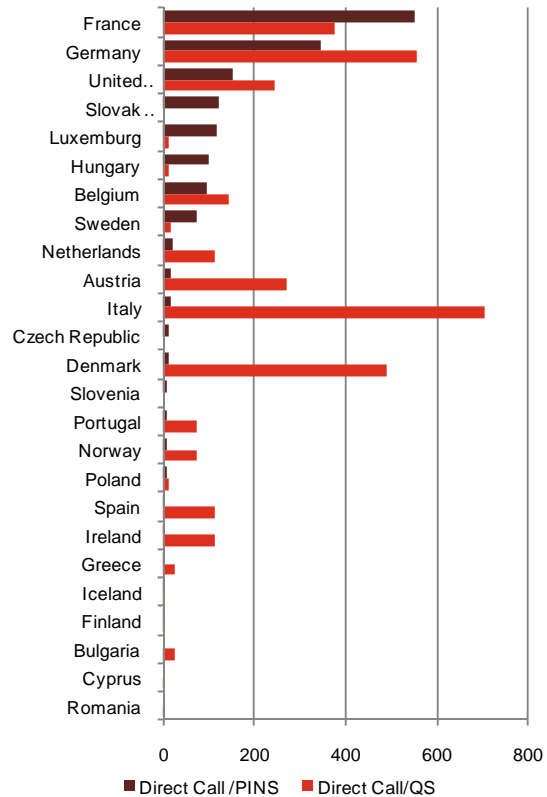
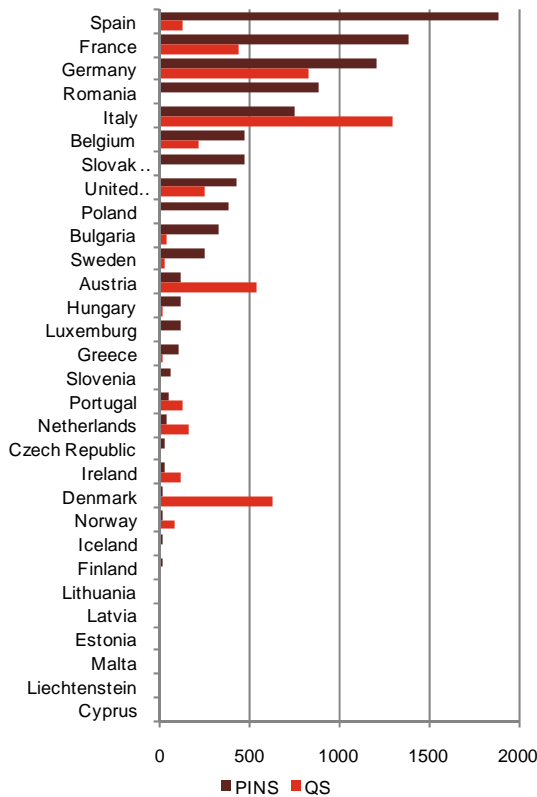


Spain, France and Germany have 60 percent of all PINs...

...and Italy tops the list in using qualification systems as call for competition

Figure 1.63 Use of PINs and QS by country

Figure 1.64 Use of PINs and QS as call for competition by country



Spain, France and Germany are large users of PINs. This is no surprise as the countries rank on the overall list of procurements by country. (Dark bar in Figure 1.63). What's more curious is that there seems to be a different pattern of use for qualification systems. Italy, Denmark and Austria tops this list. There is little relationship between the use of PINs and qualification systems.

The list gets shorter when reviewing by who uses the systems as call for competition. The pattern stays the same for some countries, but note for example Spain which tops the lists for PINs overall, but drops off entirely (0 value) for use of these as calls for competition. The UK moves higher on the list as a larger share of its PINs and qualification systems are used as calls for competition. Italy, Denmark and Germany tops the list of users of qualification systems as calls for competition.

The systems are predominantly used for purchasing **construction** (about 30 percent of total for PINs/15 percent for qualification systems). Following this are various mechanical and electrical equipments, machinery and construction materials. These categories together encompass about 70 percent of the total. Beyond construction there are few other noticeable differences between *calls for competition* with regular PINs and qualification systems.

When comparing to the purchasing behaviour of **utilities in general**, we find that the share of construction is about twice as high when using PINs but at the same level as for qualification systems (15 percent. Also, machinery purchasing is more significant when using PINs or qualification systems. Beyond this, there are few significant differences. (Numbers are small for several types and we don't analyze these as the observations are too small even though there are differences).

Finally, we have matched the PINs and qualification notices with the contract awards in the larger dataset.³⁰ This allows us to analyze the values involved for those contracts that have been awarded. Only about 20 percent of the sample actually matched. As such, we do not feel comfortable to present total values involved. Some interesting differences appear however when calculating the values involved. (about 3800 contracts in sample).

Average values of the contracts are higher than for utilities in general (mean). There is one caveat and it is that qualifications systems have a smaller median contract value than PINs and utilities – indicating that qualification systems are mostly used for lower value purchases. There could be some high value contracts which raise the mean value.

When reviewing the breakdown by whether or not a **call for competition** was issued directly, we find that the values are lower with direct calls. Direct calls for competition is being used for smaller size purchases. There is one caveat also here, the median value of PINs with calls for competition is actually higher than the “no call category”. This could indicate that PINs have generally a higher contract value including when being used directly as call for competition. Actually the median values for PINs with calls for competition is nearly 2 million euro and higher than for qualification systems even though it is the opposite way around for the mean values.

The differences could make sense if qualification systems are being used for both a large volume of small price purchases, and a smaller number of very large contracts compared to how PINs are being used. The issue could be owing to an artefact of the data as this particular question is being analyzed with a much smaller sample (3800) and we do not know if there are biases.

Number of bids (and assumed competition) shows a mixed picture. The mean number of offers for utilities in general is 4,6. For PINs, with and without call for competition the numbers are (3.8 vs 4.8). The meaning is that when calls for competition are issued directly this involves fewer bids and less competition (based upon matched sample as described above).

Qualification systems are the other way around. Use of direct calls for competition is correlated with a higher number of bids than without direct calls for competition. (5.3 vs 3.6)

We will now leave the utilities sector specific analysis and move into a deeper analysis of the services categories.

“Calls for competition” have lower contract values

Figure 1.65 Average values of PINs and Qualification systems

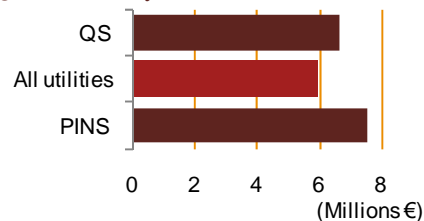


Figure 1.66 PINs average values

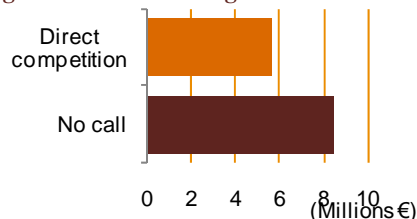
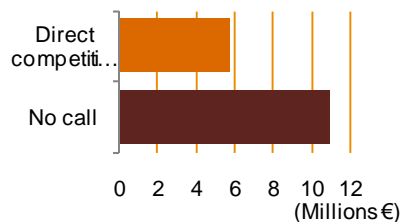


Figure 1.67 Qualification systems average values



³⁰ The notices changes ID numbers in the datasets as they move through the notification process. However records of the old numbers are kept for at least a share of these and it is possible to get a match.

1.9 Services A and B

For services there is a differentiation between two categories. The common terminology is to refer to these as IIA and IIB services which refers to the annex numbers of the directive 18 (classical) where the categories are defined. The scheme is similar for both the classical and the utilities directives.

What's interesting is that the regulatory provisions are significantly different: IIA services are subject to the full scope of the directives; and IIB services are only subject to select provisions including a publication of the contract notice post-award. The original idea was that IIB services were not of interest for cross-border trade – hence they were exempted. It is not necessarily a free-for-all scheme as the principles of the Treaty also applies, in particular the requirements of transparency and non-discrimination. That's the key regulatory context. The policy interest is with regards to IIB services. How much are they, what are they – and should the scheme be adjusted or discontinued, are questions of interest.

Next, we turn to the implementation scheme, as this impacts the analysis. There exists a complex scheme to define the services. The directives refer to 27 categories and divide them into “A” and “B”. There are further references to specific CPV codes (and CPC codes) detailing what these services are. 16 of the categories are defined as IIA services for which the directives apply in full. IIB defines 11 additional categories of which the last one, called category 27, is simply called “other”. The implication here is that if the service does not match categories listed under IIA, they are by default considered IIB services and exempted from the full scope of the directives.

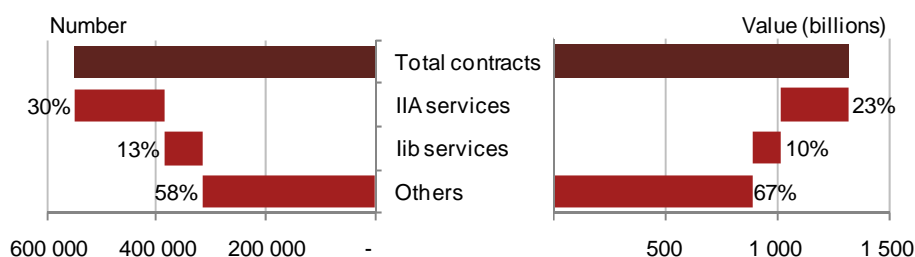
The administrative side of this is also important. The recording of the categories in the TED database is done manually. Purchasers use a variety of languages, numbers and words and this results in data which are less clean and of much poorer quality for analysis than the remainder of the data which our study is based upon. We have cleaned this to the best of our abilities. Only about 1600 purchases remain unidentified. The law of big numbers hopefully also applies here and more than 230.000 entries should be sufficient to compensate for random errors. If there is bias in the data, it is possibly with regards to what is *not* recorded; i.e with the laxer requirements for IIB services there is a risk that they are not recorded at all in the EU databases. We have no information about this possibility.

To qualify the analysis, we have also applied a matching algorithm identifying the about 1200 IIA services CPV codes, and the 800 IIB codes, and matched them against the full dataset of 540.000 records. The result is a record where we can analyze consistency – and which also gives us the ability to describe what services that actually appears in the “other” category. The core analysis below is based upon the entries of the 27 categories by purchasers.

First, the big picture comparison in Figure 1.68 below reveals the share of the services categories within the total. We find that the IIA services comprise about 30 percent of total notices, while IIB services comprise 13 percent. Both are smaller in value terms, reflecting lower contract values than in works. The relative difference between them is about 70/30 and this is the same whether measured in number of use or in values.

IIB services is about 10 percent of total values

Figure 1.68 Share of total procurement under the directives by services category

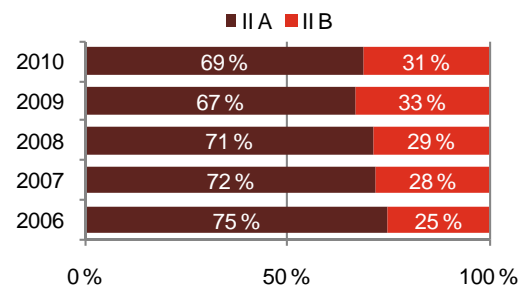


Some increase over time in use of IIB services can be observed (Figure 1.69). A particular jump can be seen between 2008 and 2009. In this period there was also an update of the CPV classification scheme. While in principle this event should not have effect as it was designed to be consistent with the previous scheme, we do not know how it was implemented in practice.

The same change is not seen when measuring values (not shown). The shares fluctuate up and down near the 70/30 split every other year and there is no trend.

Slight increase in IIB services over time

Figure 1.69 Share of service categories over time (frequency based)

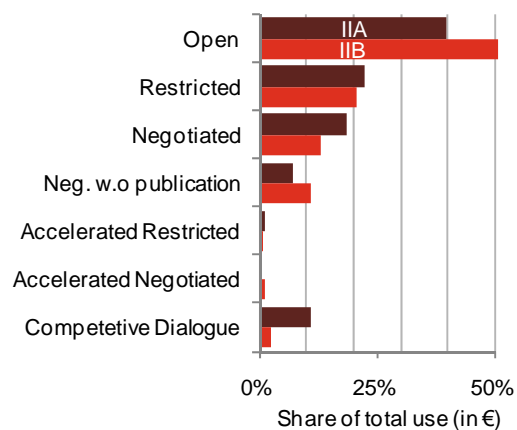


Now we turn to compare the two categories **by procedures and techniques**. We should keep in mind that the sum of the two categories is the services sector, which has been discussed above alongside works and supplies in section 1.3.

Open procedure is preferred by the IIB services comprising half of the values compared to about 40 percent for the IIA services. This is based upon values. Measured by numbers there is not much difference for the open procedure.

IIB services uses more of the open procedure

Figure 1.70 Share of service categories by procedure (value based)



We note that the IIB services use less of the more advanced procedures, restricted, negotiated and in particular competitive dialogue. The latter is used quite frequently within IIA services for IT systems, engineering and management consulting. It constitutes nearly 11 percent of all spending for the IIA services compared to 1 percent for IIB services.

The share based upon frequency of use show a similar relationship except for about equal shares of open procedure and competitive dialogue, which turned out to be quite different in terms of value.

The use of techniques turns out to be more similar. Both IIA and IIB use **frameworks** for about 16 percent of procurement spending. Some differences are seen in terms of frequency, where IIB services apply framework in 14 percent of the instances compared to 11 percent for IIA services.

Joint purchasing shows identical shares in numbers, but nearly twice as much use within the IIA services as share of their respective procurement spending (16 percent vs. 9 percent). We find little or no difference in use of dynamic purchasing systems or e-auctions.

Remarkable similarities show up when comparing across a range of **other indicators**.

- Similar average values per contract (2,51/2,49 million)
- Similar number of offers received in each competition (6,3/6,1 offers)³¹
- Similar average time from publication to proposal deadline (49,1/48,9 days)
- Similar time from deadline to award decision (83,5/80,5 days)

³¹ W.o adjusting for 99th percentile cutoff of bids

There are slightly closer results when comparing is based upon the detailed CPV codes which we have matched.

Details of key parameters for the IIB services are found in the table below.

There are also very similar results when running the accumulation model of contracts and values similar to what was shown in the chapter on Contract Values. This shows that the relative number of contracts at each price level is in fact near identical even though in principle the purchases are for different service categories.

The similarities are perhaps unexpected.

The implications could depend upon what the differentiation in categories really entails, and the interpretation of the underlying data quality.

If one assumes that IIB services are procured without much regulation, i.e publication, deadlines and other process requirements, the findings on the similar degree of competition, and time spent on the awards are quite surprising.

The observation could also be impacted by: (i) national regulations which apply also for IIB services (i.e publication requirements) and they may produce similar results in terms of the indicators analyzed here. Also, (ii) there may be a reporting bias as the cases of IIB services recorded in the TED database may have actually voluntarily followed EU directives.

Competition for legal, personnel and security services are comparable to the total

Figure 1.71 Key parameters for category Iib services³²

	Bids	Contract values (mill €)	Time procedure (days)
Hotel & Resturant (17)	3,0	2,6	120
Rail (18)	2,6	22,7	183
Water (19)	2,8	8,5	157
Transport (20)	3,3	3,1	123
Legal (21)	5,2	1,2	153
Personnel (22)	5,9	6,4	142
Security (23)	6,1	1,4	131
Education (24)	3,3	1,6	144
Health/Social (25)	4,1	2,3	134
Recreation (26)	3,3	0,9	140
Other (27)	4,4	2,3	126

Now we turn to what the **IIB services comprise of**.

³² Mean values. Bids calculated at 99th percentile of CANs

The largest category is the generic “other” followed by health services. A range of categories follows in the 6-7 percentage area. Legal services and culture are the smallest measured in value. The shares are about similar when looking at number of purchases, although rail transport does not appear as high on the list. Education is smaller when measured in value terms.

It appears that there is a risk of misclassifications with the scheme. Indeed, we find that categorization done by the purchasers does not fully match the detailed CPV codes in the annexes of the directives. About seven percent of the purchases reported as IIA services have CPV codes which match the IIB definition. Another seven percent does not actually match a services CPV code at all.

The other way around is perhaps of more concern for policy. Five percent is reported as being IIB services, while they actually have CPV codes which match the IIA category. This could entail that the purchase has not been subject to the directives as it possibly should have been. However, as we have seen above, the effects of not following the IIA standard may not have much economic significance. Five percent of total services implies that as much as 15 percent of the IIB services could be misclassified.

There are about 3 percent which do not match a services CPV code.

The category “other” (27) appears as particularly prone to misclassification. As we recall, this is a residual category by which exempts the purchase from the full scope of the directives.

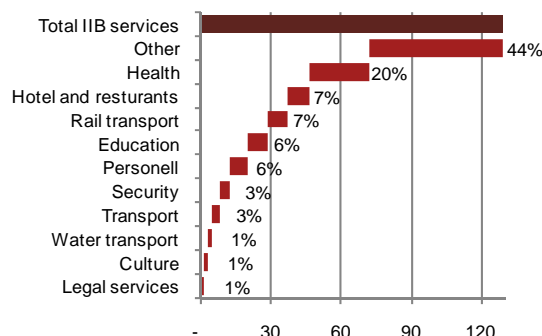
We find that as much as 14 percent of the category 27 purchases have a CPV code which is not actually a services code at all. This adds up to about 7 billion euro over the five year period. The largest of these turn out to be construction (4 percent) and software packages (3 percent). Together these comprise about half the amount.

The other group of mismatch is purchases that have CPV codes which positively match the IIA category. Yet they are classified by purchasers as IIB and placed in category 27. The largest of these are engineering (4 percent), sewage refuse (4 percent), maintenance, transport and IT (all at 3 percent each).

Most purchases are apparently correctly classified as IIB (63 percent). The largest of these are travel (9 percent), agriculture, utility services, oil and gas and sewage (all at 8 percent each). Some of these actually have IIB CPV codes that belong to a different category than 27. Purchasers have apparently been unable to find a match or search among the large number of codes. There are no significant regulatory implications here, but it may indicate that this is a complicated regulatory system to implement.

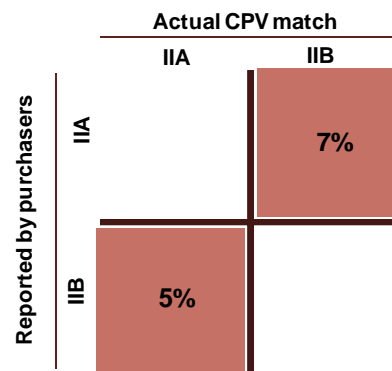
Health and “other” comprise two-thirds of the purchases

Figure 1.72 Share of IIB service by category (value based, billions)



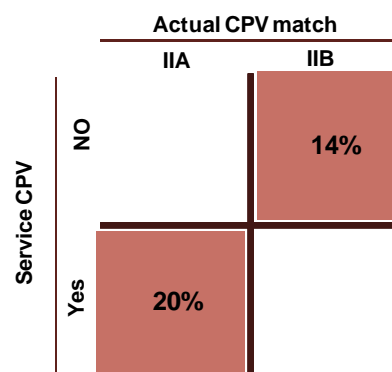
Possible misclassifications

Figure 1.73 Share of service by classification (share of total services, frequency based)



Much misclassification within the “27 other” category

Figure 1.74 Share of “27” by classification (share of category 27 IIB, value based)



1.10 Threshold levels

Now we turn to the patterns that emerge around contract threshold levels. Threshold levels determine whether a contract falls under the scope of the directives. The type of contract is a key factor in determining this, but there are also other factors involved, including type of government level and specific types of purchases. There is a distinction between works and supplies/services which cuts across the other parameters. Basically, there is a similar threshold for works across all parameters, while the thresholds for services and supplies are determined by several other factors with varying degree of regulatory specificity.

We will now look at what patterns emerge around these important levels. Three key categories of threshold levels are analyzed which together account for 78 percent of the total values procured during 2006-2010. There are regulatory nuances which are not accounted for in our model, but the economic significance of this simplification is believed to be minimal.³³

A model has been built that allows quite exact modelling of changing threshold levels. The model is designed in three varieties, with 70000-145000 observations as the basis for the three categories of thresholds. It builds upon the cumulative growth model designed to analyze contract value distribution discussed in the chapter on contract value. The three threshold levels to be analyzed are:

- Central government, 125.000 euro³⁴
- Sub-central government, 193.000 euro³⁵
- Works, 4,85 million euro³⁶

These are mutually exclusive definitions, and as such no contracts are appear in more than one of the model calculations shown below.

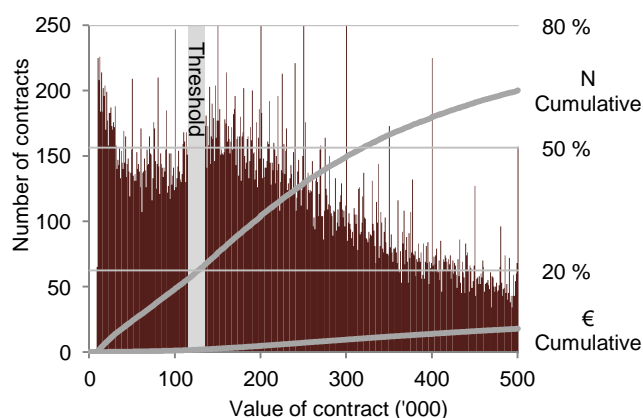
The first level to analyze is the 125.000 euro threshold which applies to central governments. This threshold category accounts for about 17 percent of total procurement values.

Figure 1.75 shows how contracts are stacked up at various levels of contract values. The grey lines show how the total number of contracts accumulates as a share of the total number of contracts. Similarly, the lower grey line shows how the values involved accumulate as share of total value.

There is a bulge just across the threshold level, meaning that there is a concentration of contracts just above this level. Subsequently, there is a sharp decline in numbers as contract value increases. Actually, as much as 18 percent of contracts are below the threshold level. This begs the question why they appear in the dataset. It could be that purchasers have followed EU directives voluntarily or because they

18 percent of supplies and services contracts concluded by central government are below 125.000 euro threshold

Figure 1.75 Contracts around central government threshold



30 percent of supplies and services contracts

³³ The threshold levels have also changed incrementally in the observed period, especially those which are denominated in other currencies. We do not take account of this. The contract values observed are also nominal and not adjusted.

³⁴ Central government 125.00 threshold contracts defined as central government authorities, supplies/services, Directive 18 and IIA services only (IIB services excluded).

³⁵ The model uses data for sub-central authorities, all supplies and services, classical directive.

³⁶ All works contracts have the same thresholds and are included.

believed that the contract would actually be valued above threshold. Some of them are however far below the threshold.

The total value of the contracts below threshold is minimal, only accounting for half a percentage of the total values for all contracts in the threshold category.

In the range above the threshold level, the number of contracts accumulates quickly while the values accumulate much more slowly. Two thirds of all central government services/supplies contracts under the scope of the threshold are below the 500.000 euro level. The total value is much less, in total only 10 percent is found at that level.

We turn to the **sub-central 193.000 euro threshold**. This threshold category has

about 21 percent of all purchasing. Nearly 30 percent of contracts recorded have values below the threshold. The cumulative value of these is about 1,6 percent (2,2 for open procedure). Here we also find a clustering of contracts just above the threshold level. The “bulge” above the 193.000 euro area is also not seen in the central government contracts where it was located further down.

Interestingly, there are not many other differences if the two threshold categories are compared. The accumulation of contracts and values match very closely. This is perhaps not surprising given that the threshold categories essentially regulate the same types of purchases (with some nuances which don't appear to have much economic significance). They differ principally in terms of what government actor they regulate.

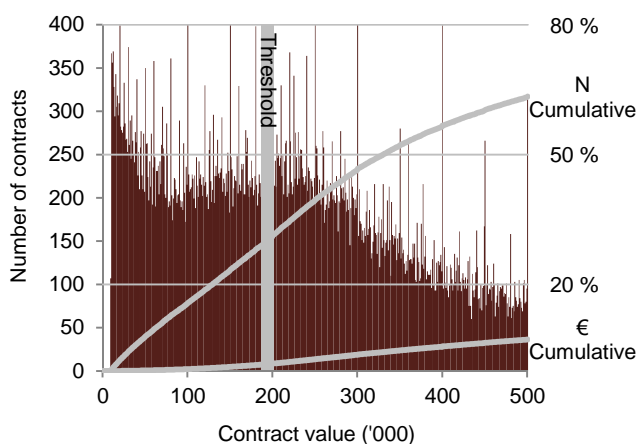
Finally, we turn to the **works threshold of 4,85 million euro**. This applies to all work contracts. Consequently we do not differentiate between levels of governments or other dimensions in or model. This category comprises about 40 percent of total procurement value.

Interestingly, we see little reaction in occurrences of contracts around this level. In fact, as much as 70 percent of the work contracts reported to the EU databases have values below threshold. The threshold is more meaningful in terms of values, as 90 percent of contract volume is above threshold (85 for open procedure). This threshold level has very different characteristics compared to the other categories. A much larger share of contracts are below threshold. Larger shares of values are also below compared to the services and supplies thresholds. Besides the obvious differences between works and supplies/services contracts, it also seems that the threshold level is located very differently with regards to where most purchases take place.

Next we will analyse the implications of changing threshold levels.

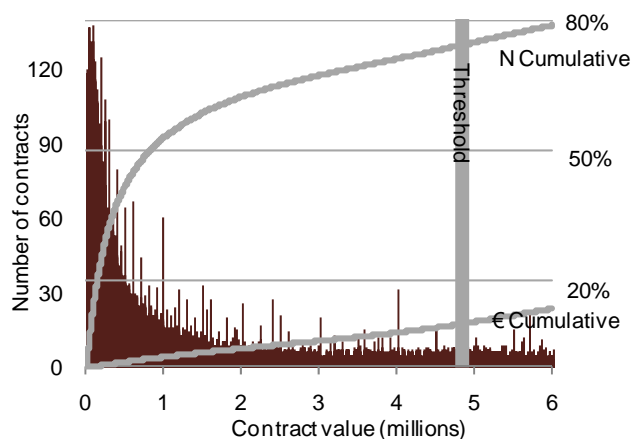
concluded by sub-central government are below 193 000 euro threshold

Figure 1.76 Contracts around sub-central government threshold



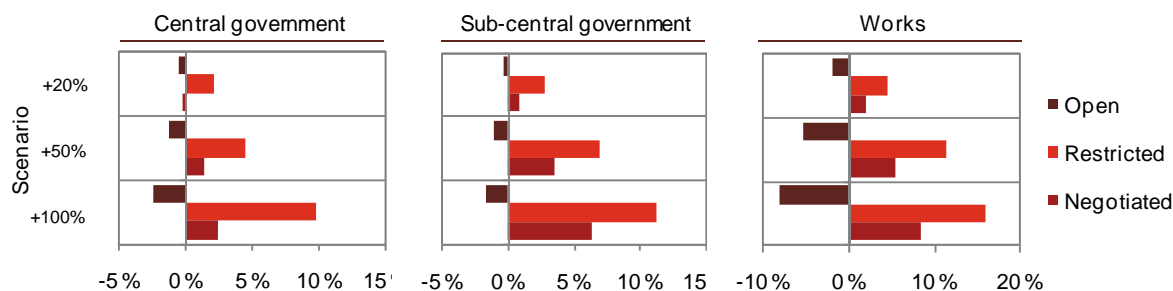
70 percent of works contracts concluded are below 4.85 million euro threshold

Figure 1.77 Contracts around works threshold



Higher threshold levels will give less use of open procedure and more of all the others

Figure 1.78 Growth rates of use of procedures by increases in threshold levels



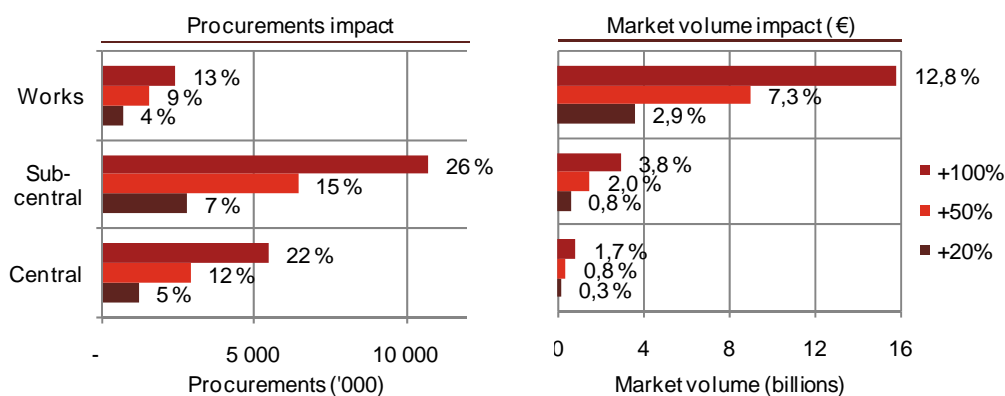
Raising the threshold levels is a classic policy issue. The political economy around this is complex, and we will not debate the issue in substance. We can only point to what the impact use of procurement procedures and volumes on the EU regulated market might be.

Open procedure will be used less if threshold levels are raised; meaning that the directives will cover purchases which are more likely to use other procedures than the open procedure. The effect is largest for works. Restricted procedure will increase the most. Use of negotiated procedure will also increase albeit at smaller levels. Figure 1.78 shows how the use of procedures will be affected for the three categories of threshold. Three scenarios are identified, increasing threshold levels by 20%, 50% and 100% above current levels. The model most likely exaggerates the actual effects since such a large number of procurements are below threshold and nevertheless conducted in accordance with the directives. The model is however representative of the maximum regulatory impact assuming that all purchases below threshold levels were not accounted for. If these below threshold procurements are included in the sample, the effect will be reduced, but still go in the same direction.

Finally, we calculate the effects of raising the thresholds. This would impact both the number of procurements under the directives, and the market volume. This is also done for three scenarios as above and according to the same principles. The outputs are presented as annualized effects, calculated on the basis of 2009. Procurement volume (recorded in TED) has increased during 2010 and that might lead to more significant impacts than what we have found based upon the 2009 data.

Market impact could be quite significant for works reaching 8 billion annually if the threshold is increased by 50 percent. In numbers, the sub-central government category sees the most significant impact.

Figure 1.79 Impact on number of procurements and market volume by raising threshold levels (2009 est.) rates in percent



Why are so many contracts below threshold level?

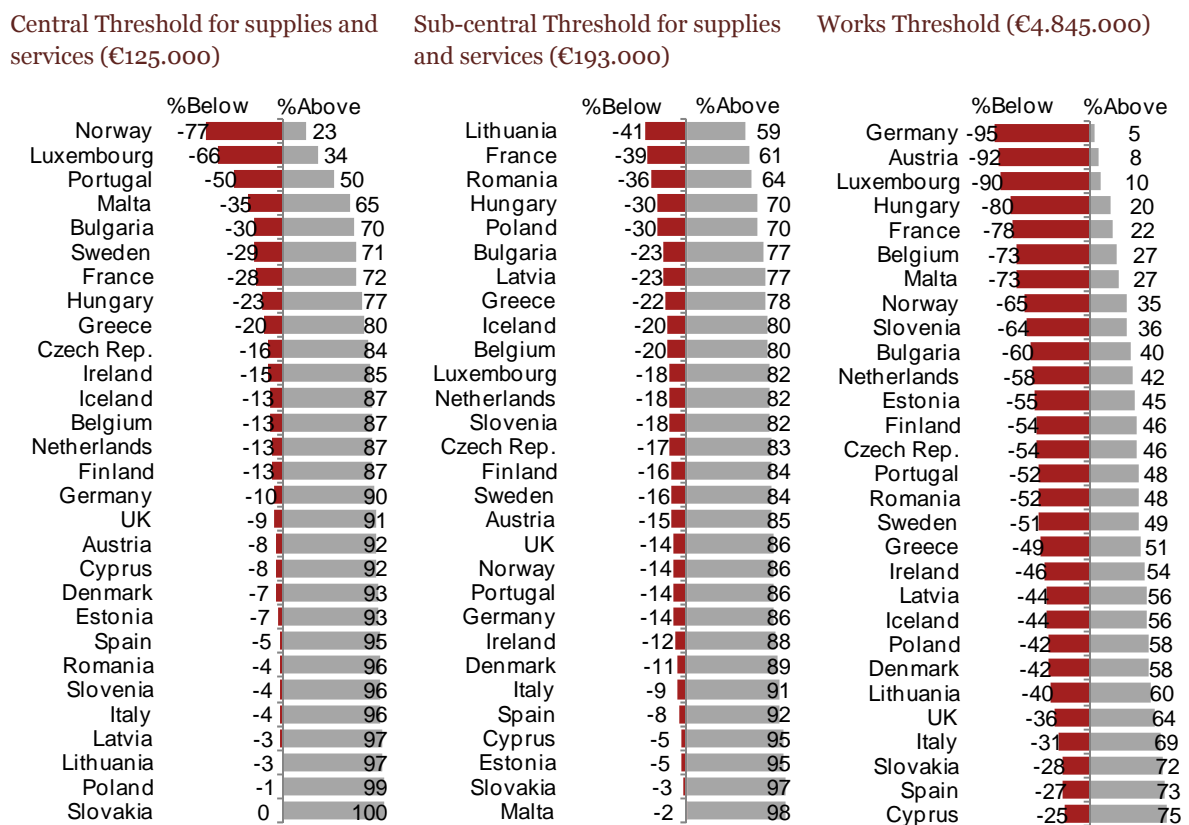
This occurs more frequently in some countries than others. As shown above, as much 70 percent of works contracts are recorded to be below the threshold level for works. We cannot fully explain why this number is so high given that these are in principle contracts which are not under the scope of the directives and the obligation to publish an award notice. Some could be caused by misestimations of expected values at the initiation of the purchasing process and the purchaser ends up with a value lower than expected. Many of these contracts are however far below the threshold so this is unlikely to be the only explanation. There are also procurement practices and national regulations which in effect follows the EU directives even for below threshold contracts.

All countries have contracts recorded that are below threshold. The largest numbers of works contracts below threshold in absolute terms are from Germany, France, Austria, and Hungary in that order. There is not an even distribution of above/below threshold contracts. Germany stands out as having nearly 95 percent of contract values recorded below threshold. As it is a large country, this amounts to a large number of total contract award notices. On the other hand, Spain, UK and Italy have quite the opposite pattern of Germany. A number of countries are also close to having an even ratio. Those are located near the mid line seen in Figure 1.80 below.

There are also many below threshold purchases reported for services and supplies - most from central governments as seen below.

Most works purchases are below threshold levels

Figure 1.80 Share of purchases reported in TED above and below threshold levels



Cost & Effectiveness

2 Cost and Effectiveness

2.1 Introduction

This section provides an analysis of the cost and effectiveness of public procurement in the European Union.

The first part of the chapter looks at the costs of the EU public procurement processes. Procurement costs to authorities and to firms are analysed using the combined TED and survey datasets. These data provide us a unique insight into the behaviour of costs across procedures, authorities, sectors and countries. We look at costs mainly on the basis of estimates of person-days spent in each procurement process. We use the detailed data on costs to calculate the total cost of public procurement in the European Union.

Effectiveness cannot be directly measured so we use a number of proxies on the basis of which we make inferences about the relative effectiveness of different types of procurement processes, authority types, sectors and countries. The study proxies effectiveness of procurement by measures of competition (number of bids and participation of cross border bidders), procedural aspects, time for the entire procedure and perceptions by survey respondents about these and other factors.

The number of offers is analysed and interpreted as a proxy for effectiveness in both procedural and outcome terms. All other things equal, we would expect that procurements that receive a large number of bids will result in the authorities being able to select a superior contractor at more competitive prices. A large number of bids further indicate that the procedural aspects were not perceived as cumbersome to the point of significantly discouraging bidders.

In parallel with the number of bids we also have information on the number of cross border wins. This indicator is taken as a proxy for the degree of cross border competition. If a procedure is successful at attracting foreign bids this should be seen as a positive outcome for the degree of competition in EU procurement.

While these two indicators are largely about outcomes, the next returns to procedural efficiency. An important element of procedural efficiency, apart from direct costs to authorities and firms is the time taken by the entire procedure (split into time to offer and time to award).

The time taken by the procurement process is thus interpreted as a proxy for efficiency. Shorter procedure times indicate higher procedural efficiency. In addition, shorter process times imply lower uncertainty for participants and this may be particularly relevant for smaller firms who need to wait for the outcome of a procedure to know whether they have the resources to bid on something else. In this way, shorter procedure times may have a further indirect effect on efficiency by increasing the number of participants.

This chapter also incorporates the analysis of our survey results on respondents' relative perceptions of efficiency. Authorities were asked to compare above with below EU-threshold procurement and firms were asked to compare above EU-threshold with below EU-threshold and with private procurement. We report on interviews carried out with users of EU procurement. These interviews sought to shed more light on some of the questions regarding patterns of use and efficiency of procurement raised by our analysis.

Finally, we discuss key aspects of private sector procurement looking at both the purchasing side and the sell side. Large corporations in Europe have discussed their procurement procedures with us and we provide description of relevant aspects of that. We also review how firms who participated in our survey compare public with private procurement.

The data and methodology particular for this chapter involves regressions using TED database and regressions using the matched data TED/survey results. Three key regression models have been developed: (i) Baseline model considering procedure features, sectors and authorities; (ii) Model including macroeconomic and political (i.e. level of centralisation) factors; (iii) Model including country and time effects.

Our regressions have low R^2 . This indicates that there are many other factor explaining the variation of our efficiency proxies. Regression analysis is nonetheless a very important tool to identify patterns in the data. For example, we expect that the number of offers that a tender receives is driven by a host of factors that lie outside the procurement processes themselves. Thus, our regressions will explain a relatively small percentage of the variation in the observed number of offers. Nonetheless, our approach allows us to identify whether and the extent to which our variables contribute to explain such variations.

The chapter is organised by the types of evidence on which we measure cost and effectiveness. We first look at indicators of cost. Next we review competition. These include number of bids and number of cross border wins. We next look at indicators of procedural efficiency. These include the time taken by the procurement process for authorities and for firms. Next we look at perceptions of relative efficiency based on responses to the survey of authorities and firms. Finally we report on the in-depth interviews carried out with authorities that sought to further elucidate differences in efficiency and in patterns of use.

2.2 Cost

Data on the costs of the procurement processes are not readily available and the data collected through this study is therefore unique. One important objective of the study is to analyse the costs of the procurement process. Both procuring authorities' and suppliers' costs are assessed. Our approach covers the entire procurement process, from the identification of procurement opportunities, through the preparation of relevant documentation [an invitation to tender / offer] and the conduct of the whole procurement procedure, to provision for possible complaints and litigation.

The total cost of procurement in Europe is analyzed, for purchasers and for firms, with a closer look at *differences* in cost for different procurement procedures and techniques. We analyze the open, restricted and negotiated procedures, as well as the framework agreement technique. A more detailed analysis of how the costs can be viewed across sectors, activities of government and more is also presented.

All costs are captured whether or not they are direct results of obligations from the directives. Procurement costs include business as usual costs that would be incurred even in a world with no EU-wide procurement legislation.

The counterfactual to the European Procurement Directives is indeed likely not to be very different from the current situation. Public authorities would be subject to national procurement regulations if the European Directives did not exist. In the private sector, the approach may be more flexible. Still, procurers need to identify and prepare requests about what is being purchased. Potential suppliers need to be identified. Suppliers need to expend resources in convincing purchasers that they are able to supply.

Understanding costs, how they accrue and distribute, is important for the design of regulations to help ensure that they have as little cost impact as possible while still achieving the regulatory objectives. Ideally it would be possible to identify costs and benefits of all the regulatory provisions. Our ambition is more modest and we aim instead to establish the facts about key elements of procurement costs, point to relevant issues and provide a basis upon which policymakers may further deliberate the options.

How to analyze costs of the procurement process

The basic input for the cost analysis is provided from 7300 purchasers and firms across Europe who willingly reported the number of person-days spent, and other monetary costs, across a defined set of activities in the purchasing process. They provided the information with reference to a specific and recent purchase for which they indicated themselves as the person responsible.

Our first step estimates the cost associated with a typical procedure. We are also able to aggregate and extrapolate results to national or EU wide annual estimates. Consideration has been given to costs of procurement activities incurred across the whole procurement **delivery chain**. A generic delivery chain model was developed to allow for consistency in the data collection and comparison across procedures, techniques and sectors. The same definition of steps is used for both purchasers and suppliers. In this way we collected cost information according to predefined phases and definition of activities involved. The four key steps in the delivery chain are:

1. **Pre-award (Pre-proposal for firms):** For *purchasers* this includes identification of needs as well as assessing choice of procurement procedure and techniques. It includes developing the RFP and finalization of procurement strategy. There are also some formal procedural steps involved, such as to publicize in Official Journal, respond to information requirements, manage and evaluate the receipt of proposals in a restricted procedure. Costs associated with required assessments of needs and strategic relevance of investments as required by many governments would be considered a requirement of fiscal policy and not procurement policy.

For *suppliers* this phase includes monitoring and identifying opportunities, as well as assessments of competitiveness and collaboration and developing and finalizing expression of interest and pre-qualification documents if applicable.

2. **Award (Proposal for firms):** For *purchasers* this includes managing receipt of proposals, checking with general information requirements, and evaluating the tenders received. Negotiations, if applicable, and adjustments and re-evaluation of tenders if necessary, are also tasks included in this phase.

For *suppliers* this phase is mainly about developing and finalizing the proposal. This involves addressing the specific issues of the tender. i.e. developing the detailed approach, method and cost. It also includes formal and administrative steps such as producing administrative documentation, printing and delivery, and presentation and negotiation if applicable.

3. **Post award:** *Purchasers* need to inform participants of decisions taken on contract awards, address further information request and issue the contract.

Suppliers may have to provide additional information upon request by contracting authority, obtain and assess feedback and finally enter the contract or assess whether to file a complaint or litigate.

4. **Litigation and complaint (if applicable):** Finally, suppliers may decide to complain or litigate and purchasers are required to manage such issues.

How the costs compare

In this section we investigate differences in the costs of the procurement processes measured in terms of person-days (in full time equivalent). We first conduct an analysis by **person-days** which are chosen as the core parameter as they are a robust estimate which leaves little room for interpretation.

There is also an analysis using **monetary costs** calculations and, while this yields comparable results on key issues, it turns out that the introduction of wage and currency differentials across countries brings in variation which may give different interpretation.

We use two methods. The first is a straightforward descriptive approach that reports the median costs over all respondents, per type of procedure, per sector of authority and of contract, and per country. As discussed previously, we consider medians the most robust measure for comparing the use of resources. There is a clustering of responses near the median and the mean value is affected by high value responses. The second method uses econometric techniques to establish which variables contribute significantly to differences in procurement costs. Both methods looked at both authorities' and firms' responses.

A modified approach was used to estimate the cost of **framework agreements**. Framework agreements represent an aggregation of contracts. For each formal contract established after a Contract Notice published in TED, there are calls under each agreement. To measure the cost of Framework Agreements we have taken into account that the median number of individual contract calls per framework is 15. This appears to be a robust estimate and in fact the median and mean values are quite close in this instance. The cost of a contract under a framework is thus calculated as 1/15 times the framework setup costs plus the contract (implementation) stage costs.

By procedure and technique

Costs are further analyzed across the procedures and techniques as is done throughout this report. In addition we bring in two additional variables that seem to have an effect on cost: award criterion and, interestingly, the use of EU funds.³⁷

Open procedures, the most common procurement form, perform well in terms of costs. For both governments and businesses open procedure costs are among the lowest. Restricted procedures appear to entail considerably larger costs than open procedures. This is particularly true for governments, and could be explained by the two-stage evaluation process. The restricted procedure is about 30 percent more expensive than the open procedure. Firms' costs are only a little higher than for other procedures. The accelerated restricted procedure on the other hand is one of the most efficient methods.

The negotiated procedure is close to the open procedure in terms of cost, but in contrast to the restricted procedure, the cost for businesses is about 30 percent higher. The negotiated without publication shows lower costs for governments, but high for businesses.

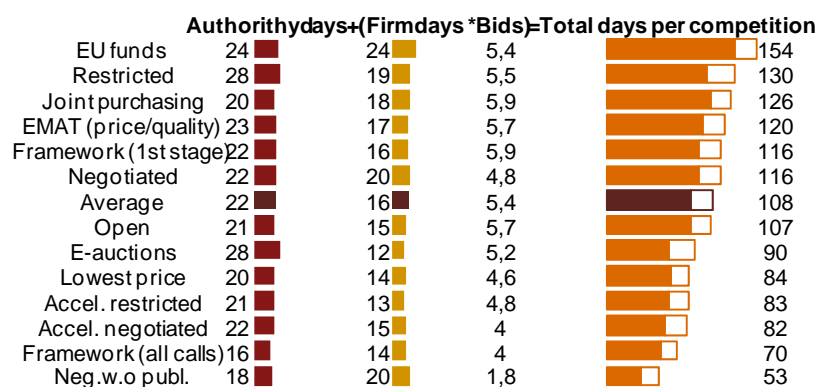
Frameworks agreements are the procurement technique with least cost and confer cost savings both on authorities and on firms: authority costs are about 75 percent of the average procedure; firms' costs are about 83 percent of the average. There is less difference when comparing only to the open procedure, but there are still savings. These savings result from spreading the costs of the selection stage across all the individual contracts that are called under the framework. Each individual contract has much lower cost because most of the administrative elements of the tender are no longer required. Contracting authorities appear to be aware of this savings potential and those most likely to use frameworks are also those who attribute most importance to cost savings. The first stage of a framework contract involves submitting bids in response to an open tender. This involves the same number of person days as the average procedure.

Joint purchasing does not have lower costs than average but the counterfactual to joint purchasing would be a number of separate contracts. Given that contracts have costs that are in most value ranges independent of the value of the contract, aggregating several contracts into one has a potential for huge cost savings. Dynamic purchasing systems entail high costs for authorities but not for firms. There are similar findings for e-auctions.

When the award criterion is EMAT rather than price, the associated procurement uses significantly more resources. EMAT involves evaluating both price and other qualitative aspects of the proposals and this is more complex than when the award criterion is price alone. But there is also higher cost for firms, so the EMAT award criterion also increases the effort required from tenderers. This is significant because, as we have seen, EMAT is used for about two-thirds of all purchases.

Frameworks are cheap to manage

Figure 2.1 Person-day costs for authorities and firms and type of procurement (median days)



³⁷ We note that the categories in Figure 2.1 are not all mutually exclusive: This illustration includes procedures, techniques and a few other parameters. These are of course fundamentally different concepts and this has been elaborated upon earlier in this study.

For procurements that use EC-funds, procedural costs appear to be higher both for authorities and for firms. This may be due to more detailed requirements being imposed on both sides.

To make better sense of all this variation we have employed regression techniques. A similar probit model to the one developed for the analysis of patterns was developed on the basis of the survey results matched with detailed records from the EU databases. We included fewer variables given the much smaller number of observations. Generally we have low r-squared, much lower than when analyzing the patterns in chapter 1. This indicates that procurement costs are influenced by factors that are included in our analysis.

First we turn to the results of the overall costs by procedures and techniques. A number of regressions were run, to identify the effects of the various factors. Figure 2.2 shows estimated effects where we benchmark a certain category against another relevant category. The axis measures in person-days difference.

Interestingly the restricted procedure is more expensive than open for firms (as seen earlier), but not significantly so for authorities. This is in contrast to what we found above when looking at the numbers as they appeared directly from the survey. An interpretation could be that the procedure is used for purchases which entail more cost and, when this is adjusted for, the difference for authorities disappears.

A number of other findings from the descriptive analysis are confirmed. Frameworks are cost-saving for all, and more so for firms by nearly 9 person-days. The effect on authorities is also significant at about 7 fewer person-days compared to non-frameworks.

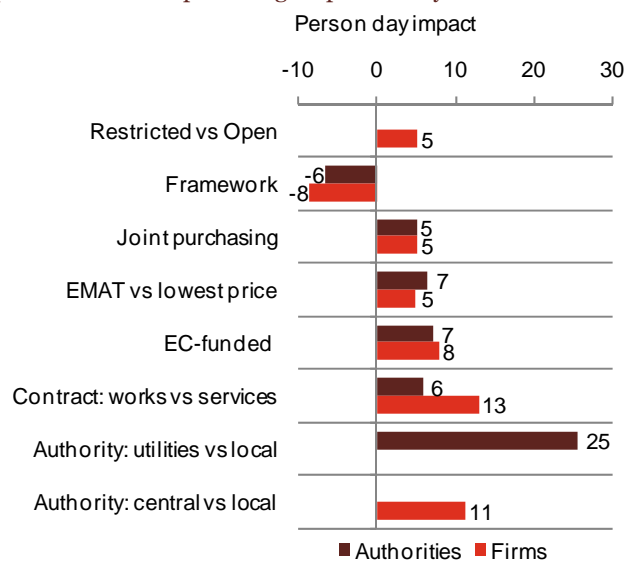
Joint purchasing is however more expensive by about 5 person-days for firms and authorities both. This is quite interesting given how this technique is promoted as cost reducing. There could be market and price effects achieved, but in terms of process costs the savings don't seem to hold true. These findings take into account variations in contract values and characteristics for goods procured so the difference cannot easily be explained by those factors. Even if it is the case that the alternative to joint purchasing would be several individual smaller contracts, it still remains to be explained why a given joint purchasing procurement costs on average considerably more than the typical procedure.

Works also show much higher costs than services. This is particularly so for firms, a difference which isn't as apparent when looking at the unadjusted numbers.

Utilities have hugely higher purchasing costs than local governments. Interestingly, firms' costs do not differ significantly between utilities and non utilities procurement. Contracts awarded on the EMAT criterion and those using EC funds remain more expensive for both businesses and authorities.

Lowest price procurements are cheap to process

Figure 2.2 Estimated effects of characteristics of the procurement and procuring on person-day costs



By stage of process

First we turn to the costs in terms of **stage of procurement process**. Costs are disaggregated by stage of the procurement process: pre-award, award, post-award and litigation. Here we use means rather than medians. This is necessary to bring out costs associated with litigation issues as these only affect smaller subset of the notices.

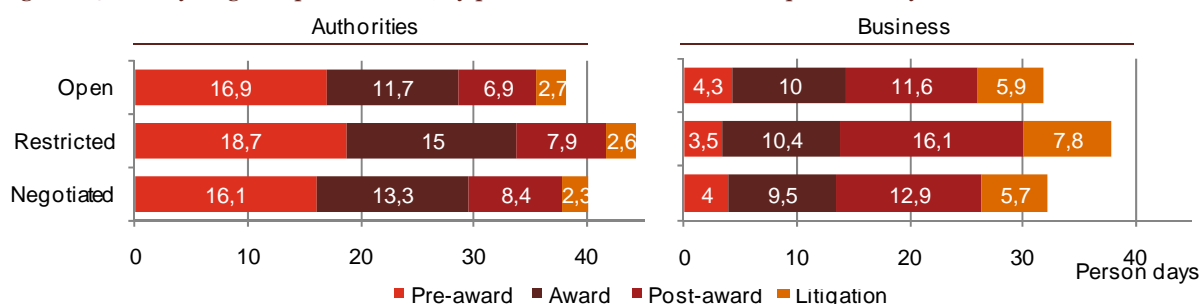
The pre-award stage is the most costly for authorities. (Figure 2.3) It is interesting to note that on almost all measures, restricted procedures are more costly than the other two. This is in contradiction to the survey results which will be presented in the last chapter where authorities that choose restricted procedures appear to be more ‘cost conscious’.

When looking at unit costs for **businesses** we find that they are on average lower than for purchasers. Restricted procedures once again stand out as the most costly. In terms of staff day equivalents, it is the post-award stage that appears to be the most costly. Again this is a somewhat unexpected result as costs for firms would appear to be higher during proposal preparation.

Litigation is costly for governments...

...but even more so for businesses

Figure 2.3 Cost by stages of procurement, by procedure (mean full-time equivalent days)



Complaints and litigation

Complaints and litigation costs exist, but are small on average. For the majority of authorities there are no (person-day) litigation costs but there are high costs in a small number of cases. About 25 percent of the purchases surveyed reported litigation costs. The average costs of those who reported them were about 8 person-days. The average for all has been calculated to 2,6 person-days. Consequently, about 350.000 person-days are spent annually across Europe on managing complaints and litigations for government authorities.

There is a risk that these measurements underestimate the impact of complaints and litigation. The survey findings, to be discussed later, indicate that the fear of litigation and complaints is an important factor when choosing the procurement procedure. The topic has also been explored with purchasers in in-depth interviews, and we found further indications that fear of **complaints and litigation** may be important for driving costs. This hints at indirect costs of litigation and complaints though their effects on behaviour in the earlier phases of the purchasing process. This may include some procedural “gold-plating” to minimise the risks of litigation. We are unable, however, to quantify the extent of this practice.

Firms report having incurred considerably higher litigation costs than the authorities. This is surprising given that we have responses only from winning bidders. There is the possibility that they report on legal costs incurred while implementing the contract; e.g. conflicts that arise on the interpretation of aspects of the contract. We have no other information beyond the responses to the survey and some interviews.

By sectors

Construction and works are by far the most expensive to purchase. This holds true for both government and business (Figure 2.4). We know from the previous chapters that construction is normally associated with higher contract values – yet this doesn't seem to impact the analysis of process cost versus contract value much. Process cost does however vary with a range of other parameters which we will review. There are also a number of works contracts with lower values and, we recall, nearly 70 percent are below the EU works threshold of 4,84 million. The figures show this by category of contract and by business sector. As we know these two categorizations are highly correlated.

Services are more expensive than supplies, for both authorities and firms. There is some difference between business service and other services (i.e. maintenance, cleaning) which turns out to be in the lower range for both parties.

Central government proposals are by far the most expensive to prepare. They have particularly higher costs for businesses. Utilities contracts are the most costly for purchasers. Local and regional authorities have the lowest procurement costs per procedure, but do not confer particular savings to business. These authorities operate with higher thresholds for services and supplies and it is possible that this impacts the findings (although by default we are only measuring procurements under the scope of the directives). Overall, these costs differences are not very large perhaps reflecting that cost differentiation has more to do with what is being purchased rather than by who purchases it. Figure 2.6

Works contracts are the most costly to procure

Figure 2.4 Person-day costs by category of contract (median days)

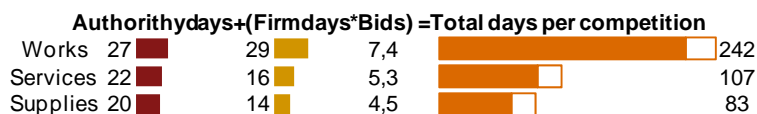
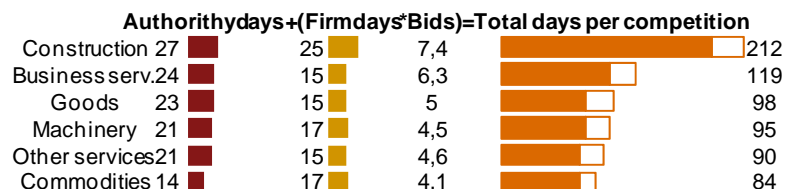


Figure 2.5 Person-day costs per business sector (median days)



Central government purchasing is expensive

Figure 2.6 Person-day costs by level of government (median days)

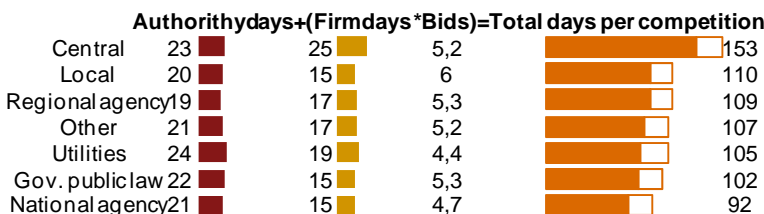
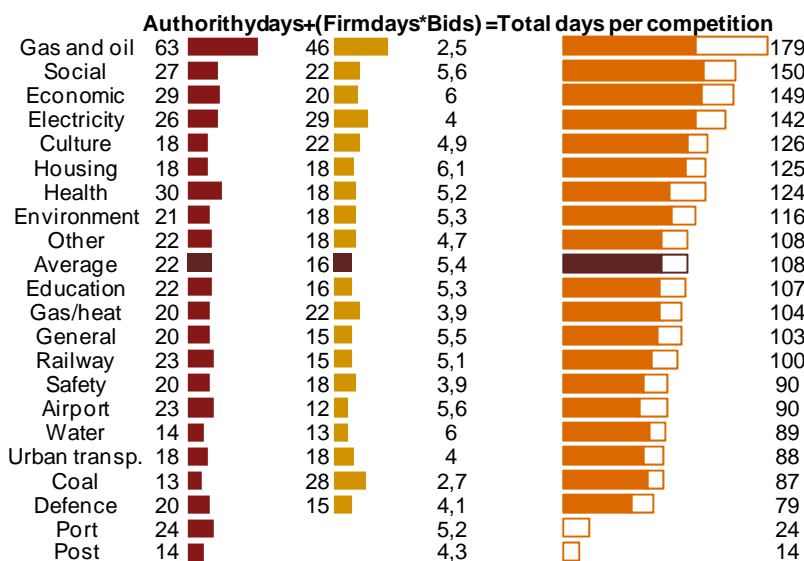


Figure 2.7 Person-day costs activity of government (median days)



This impression is confirmed when looking at the activity of the government which has higher cost variation across certain types of activities by government. Figure 2.7 Procurement costs are by far the highest in the area of exploration and extraction of gas and oil. We also find that procurement costs are high in sectors such as health, electricity, social protection and economic and financial affairs.

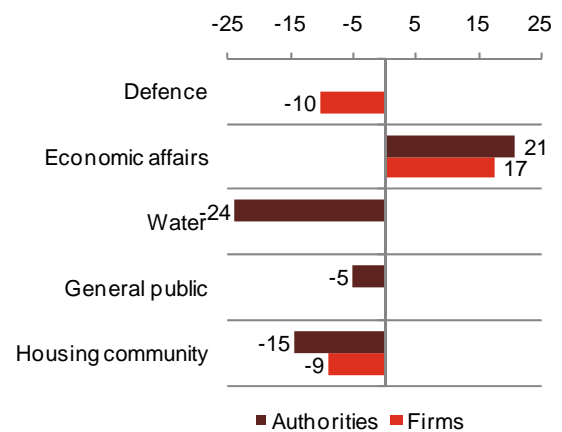
Interestingly, we find low correlation between costs for authorities and costs for firms. For example, the health area has high costs for authorities but not for firms, electricity has high costs on both sides and recreation, culture and religion has high costs for applicants but not for the respective commissioning bodies.

By activity of government the **regression analysis** supports some of the results of the descriptive approach. The most notable feature of the regression is however the fact that very few sectoral variables were statistically significant. This may again be interpreted as an indication that procurement costs bear little relation to the sector of the commissioning authority and more to other aspects of the procurement process.

It is particularly worthy of note that exploration and extraction of gas and oil does not, in econometric terms, have significantly higher costs than health. This is in spite of the median costs in that sector being much higher than elsewhere. It therefore indicates that there may be other features of procurements by authorities in that sector that can better explain the higher costs observed or that we simply do not have enough observations of those procurements to guarantee the robustness of the estimated effects. Health is the benchmark in Figure 2.8 below.

Costs are higher in economic and financial affairs

Figure 2.8 Estimated effects of authority sector on person-day costs of procurement (baseline: health)



By country

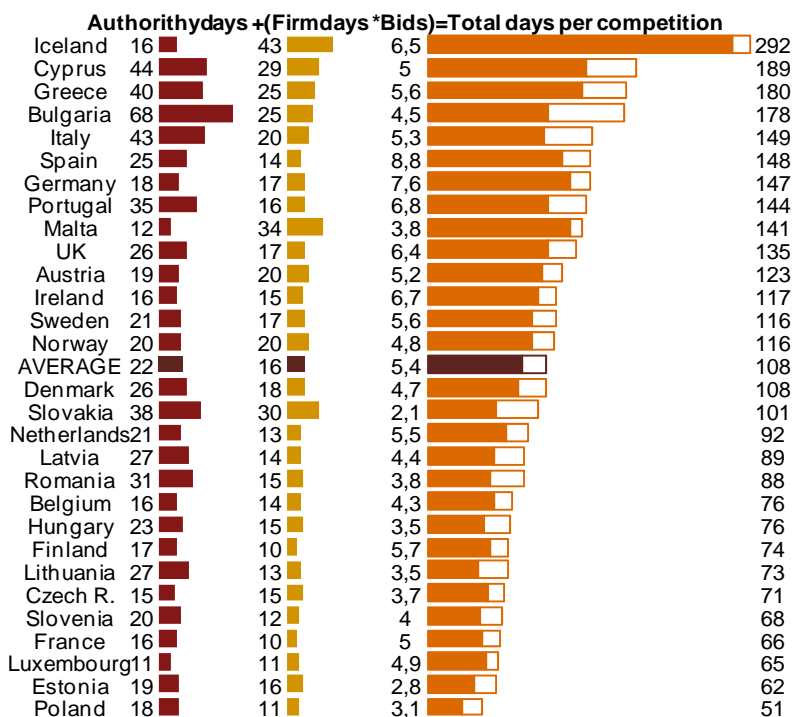
Lets us turn to a presentation of costs across countries. We look at person-day unit costs, and compare resource use between firms and authorities. The figure below also takes into account the total number of firms participating. Thus, the numbers for firms are shown both for one typical participant, and for the combined total of all firms and authorities.

Looking at person-days observations we find that France and Germany both have lower costs than the average. Businesses in France have especially low costs (but France has, as we have seen, a very large number of small value purchases). Italy and the UK on the other hand have higher costs, especially for government. In the mid-range we find countries like Austria, Norway, Netherlands, Sweden and Spain. The outliers in Malta and Iceland are probably due to low number of observations.

Multiplying by number of bids per competition we find different patterns. Italy, Spain and Germany all show higher than average totals. France has a much lower total, affected by the low number of person days used. Poland also shows low numbers though more as a result of the lower number of bids

The cost vary greatly by country

Figure 2.9 Person-day costs by country. (median person-day cost*bids³⁸)



Finally, we look at how the country variations hold up when adjusting for other factors. For example, some variation may be affected by differences in what is being purchased. The graph represents only those countries for which cost differences relative to Germany were statistically significant in our regressions. Countries that do not appear in the figure have either similar costs to Germany or too few observations in our survey responses for a precise estimation to be feasible.

The generality of the countries have larger costs than Germany, the country taken as baseline. The difference is particularly marked in Latvia and Bulgaria where an average procurement is more than 40 person-days more costly than in Germany.

From the perspective of firms, procurement processes are most burdensome in Slovakia, and Romania.

³⁸ The number of bids is calculated at the 99th percentile of contract award notices and filtered for duplicates. See chapter 2.3 for details.

Monetizing cost

Next we turn to an analysis of monetized procurement cost. This is done by linking labour costs to the person-day observations reviewed above.

The costs are determined by establishing:

- (i) The number of person-days spent by authorities and firms on each of the activities per purchase. This is a similar calculation to what has been shown above.
- (ii) The number of purchases; and
- (iii) The standard cost of each person-day of time.

Figure 2.10 illustrates the core cost model.

When calculating cost figures like this we have to make a number of reasoned assumptions upon which we base the calculations. Various issues arise with regards to each step of this calculation. We will discuss them step-by-step in the order shown in the figure.

Segments:

The calculations have been segmented by:

- a. Firms and authorities
- b. Country
- c. Sub-factors: (i) Works, supplies, services; (ii) Procurement procedure; and (iii) Contract value above and below the median.

Each segmentation yields slightly different results. The totals are presented as weighted averages of the segments. Weighted averages have been applied for calculations of the totals. Thus, the average numbers for EEA 30 are weighted based upon country occurrences of contracts or proposals, and this is again weighted for each of the factors listed above. The numbers presented for countries are also weighted according to the factors.

First line in the model:

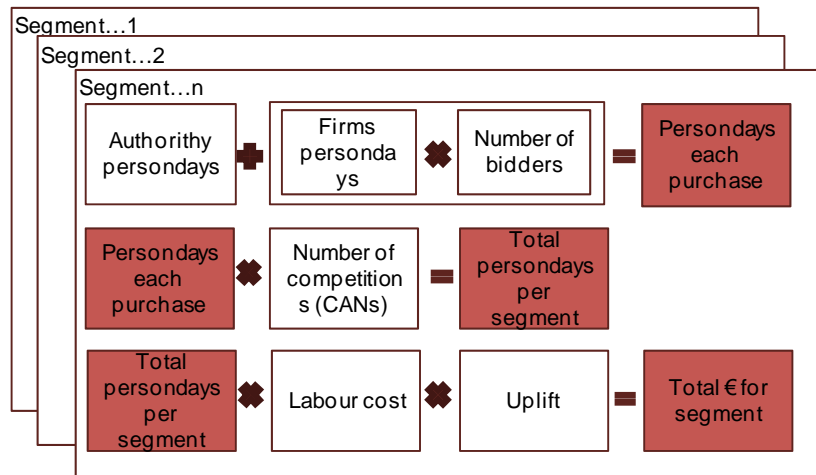
This has two elements: person-day estimates for authorities and firms; and number of bids. The output is total person-days for each transaction. This is similar to the cost calculations shown above in this chapter.

Step 1 is to determine person-days spent by authorities and firms. Previously in this chapter we have shown these as median values only. For the monetized cost calculations we have used the mid-point between the median and the mean found in the survey of costs. We have a large number of respondents, but there is some difference between the median and mean observations in the sample. The median has the disadvantage of ignoring observations where costs are extremely high and the mean has the disadvantage of potentially putting too much weight on such observations. We have thus chosen to use the midpoint of these two values. The median/mean range also forms the basis for our calculation of a range which will be shown in some of the results below. The median forms the low end of the range, while the mean forms the high end of the range.

The distribution of observations of time spent is skewed towards the low end. There is not a normal distribution of costs. The standard deviation is 36 person-days, compared to a mean value of 36 and a median of 22 (governments). There is an accumulation of observations near the median, and a long tail towards the right (high end). Data for firms show about the same distribution. This pattern

Activities costs for each procedure in each country

Figure 2.10 Cost model for calculating total costs of procurement process



resembles other items analyzed in this study and it makes it hard to discern the typical behaviour and typical values. Using only the mean value leads to an overestimation of the costs, on the other hand, the median value may be too low, and our base case is thus simply the midpoint of the two.

For both number of proposals and unit costs observations, it is possible to calculate ranges based upon statistical measurements, for example standard deviations. We have done this but decided that the output was not much more helpful in interpreting what the typical costs are i.e. the standard deviation for number of bids is nearly 14, while the average is only at about 6. The range calculated would have been very large and not necessarily more meaningful.

Our estimates of suppliers' costs are based upon winners only and assume that all bidders incur the same costs. A case can be made that the winning proposals are better and it is possible that more resources has been put into them. On the other hand, firms with high costs of sales will succumb to competitive pressures in the long run. It may not by definition be true that the winning proposals are more expensive to put forth than the second- or third best – though possibly more costly than the sixth best. We have however no information on this. A winner in one competition is also a loser in the next. Our survey results indicate a win ratio of about 25 percent, consistent with the median number of bids submitted for requests.

Step 2 is to determine the number of bidders. For number of bids we have used the mean calculated at the 99th percentile of contract award notices. Reaching a sensible estimate of the total number of proposals is not straightforward. Firms' costs amount to 75 percent of total costs and this is very much driven by how we estimate the number of proposals. We have excluded notices with very high number of proposals (upper 1 percentile of contract award notices). These correspond to notices with more than 39 proposals. In total, this group of contract notices includes nearly 15 percent of all proposals submitted. There are some contracts in this range which are reported to receive several hundreds of proposals. It has been customary in other analyses to exclude them, and we have chosen to do so to reduce the risk of overestimating the cost. While there is no reason to believe that there are more entry mistakes in this segment, mistakes for these high numbers of proposals will have a disproportionate impact on the calculations. There are however several indications that these are contracts of a particular nature and that it is possible that they do receive large numbers of proposals. The average contract value in this range is above 10 million euro, about 25 percent are framework agreements, and they report much higher number of awards than other contracts. There is a higher proportion of services, and a smaller proportion of works. There is also a 3-digit constraint on the number of bids entered and this may help mitigate the possibility of wild mistakes. Including them all in the calculation would increase the costs by about 12 percent or 500 million euro. The calculation of mean number of offers for Poland the UK are most strongly affected by this change.

To further ameliorate the risks of including illegitimate award notices we have also run filtering algorithms mainly oriented at identifying duplicates. If duplicate records are repeated several times, and include high numbers of awards, this will unduly impact the total cost estimate. Our algorithms identified about 12.000 records for the five years and about 3000 for 2009 which are likely duplicates. These were excluded from this calculation of bids (and from the analysis of competition in subsequent chapters). The excluded records are distributed evenly across a range of variables and it turns out that the calculations of averages do not change very much. The share of such duplicates in the top 1 percent range was about the same as in the lower 99 percent range

Second line in the model:

This multiplies the person-days per transaction with the number of competitions. To develop an annualized measurement we have chosen 2009 as the base year. As such, the calculation is based upon actual data on number of competitions during 2009. This amounts to about 137.000 competitions. There are slight differences in this number across the various segments.

Third line in the model:

This multiplies the total person-days by labour costs. The first step is multiplying the person-day observations with labour costs. We have relied on data from Eurostat and OECD sources to determine the average salary costs for different countries. This number does not distinguish between salary variations between sectors or other categories. We have used the average wage for each country for 2009.³⁹

The second step is to determine any overhead costs that need to be added to the labour costs. We have used a standard uplift of 25 percent as is customary in activity based costing models.⁴⁰ This is meant to cover other variable costs as well as fixed costs such as office and equipment.⁴¹

Finally, some other monetary costs may be incurred through the purchase of specific goods and services from external services. Unfortunately we found the survey results on this as being of too poor quality and did not include them. If they had been included, the total amount reported on the next page would have increased by about 3 percent.

Uniquely we have also included unique estimates of the costs of running **framework agreements**. We have found that the unit costs for running a request during a framework agreement is about half of the typical contract award. On average about 4,4 suppliers are selected for the contracts. Furthermore, we have found that the typical framework contract issues about 15 requests on average over the lifetime of the agreement (median). In our model we have assumed an average lifetime of three years for a framework, and that 50 percent of suppliers respond to each request. We have furthermore assumed that there is a portfolio of about 18.000 active framework agreements.

The total cost is then estimated as the product of these components.

Next we shall turn back to the numbers.

³⁹ Total labour cost as reported from Eurostat. Latest year available and extrapolated to 2009 using reported growth rates for countries with missing observations. The total labour cost statistic includes wage + other costs.

⁴⁰ It is customary in the standard cost models (including in the EU) to apply a mark-up on labour cost. This markup is intended to cover items such as: Personal training and development, Information technology, Telephone / Communication facilities, IT – infrastructure, Hardware, Software, Personal indirect costs, Entertainment, Office articles, Subscriptions, Memberships, General indirect costs, Depreciation, Rent, Insurance, Light, electricity and water, Repairs. This is in addition to the total labor cost reported from Eurostat. The mark-up applied in SCM models in most countries is typically between 25-30 percent.

⁴¹ The following daily labour costs including uplift of 25 percent are used for each country: AT 255 ; BE 281 ; BG 22 ; CY 151 ; CZ 82 ; DE 262 ; DK 326 ; EE 72 ; ES 151 ; FI 268 ; FR 265 ; GB 292 ; GR 155 ; HU 70 ; IE 252 ; IS 180 ; IT 224 ; LT 53 ; LU 327 ; LV 48 ; MT 91 ; NL 313 ; NO 366 ; PL 68 ; PT 112 ; RO 40 ; SE 316 ; SI 129 ; SK 65

Cost by sector and procedure

The typical cost of a competition is 28.000 euro. The concept of typical cost as we calculate it in our analysis is the mid-point between median and mean values. For this particular estimate of unit costs we have excluded the running of framework agreements which come in a bit cheaper. We arrive at the estimates by calculating the costs per participant (government and business) and multiplying the business costs by number of bids for each competition.

There are some differences between firms and governments. The typical cost for a firm is about 3800 euro. Authorities spend about 5500 euro. We should keep in mind that on average there are more than 5 proposals for each competition. These calculations assume that winners and losers spend about equal amounts of resources on the proposals.

There are important differences between types of contracts. Works contracts are particularly expensive for authorities, reaching above 7200 euro. They are also more expensive for firms. Total cost for a works procedure is about 48.000 euro. Services contracts are at about the average levels while supplies are cheaper to procure and to sell. We should keep in mind that there are much fewer works contracts tendered. Services are the most frequently tendered for by authorities across Europe.

Restricted procedures are much more expensive than open procedures, at about 9000 euro for authorities and 6100 euro for firms. The estimated total for each restricted procedure is about 42.000 euro. Open procedure, the most frequently used procedure, is slightly below the overall average.

Framework agreements appear to offer little savings but this is due to frameworks being most commonly used in high wage countries. This drives up the monetary cost estimate even if in terms of person-days they offer significant savings.

A typical competition costs 28.000 Euro

Figure 2.11 Typical cost of a competition (weighted averages⁴²)

	Authority € ('000)	Firm € ('000)	Bids	=Total € per competition ('000)	
Works	7,2	5,3	7,8	48,2	
Supplies	4,8	3,1	5,3	21,3	
Services	5,5	3,8	5,9	27,9	
Open	5,1	3,5	6,4	27,2	
Restricted	9,0	6,1	5,4	41,7	
Negotiated	5,8	3,9	5,2	26,0	
Frameworks	5,4	3,2	5,5	23,0	
Total	5,5	3,8	5,9	27,9	

⁴² The competition/number of offers numbers are weighted averages. This is necessary since the calculation for costs is based upon process costs in each country, across various segments (works/supplies/services; procedures; contract values) – as opposed to average values across the whole population. For example, requests for works contracts typically receive more offers than other requests – and works contracts also have higher unit cost in terms of bid preparation. Multiplying the costs for works contracts by the average number of offers for the country would underestimate the total cost of works contracts. The weighting further takes into account country differences: Since some countries have more contract awards, the calculation of the mean for all countries is weighted accordingly. This leads to a different estimate of the number of offers than if calculated on the basis of the global population (all bids divided by all contracts). The weighted number for average number of bids is 5.9, while the unweighted global average is 5.4. Both approaches exclude contracts which have received more than 39 offers. If these are included, the mean unweighted number of bids would be 6.3.

Cost by country

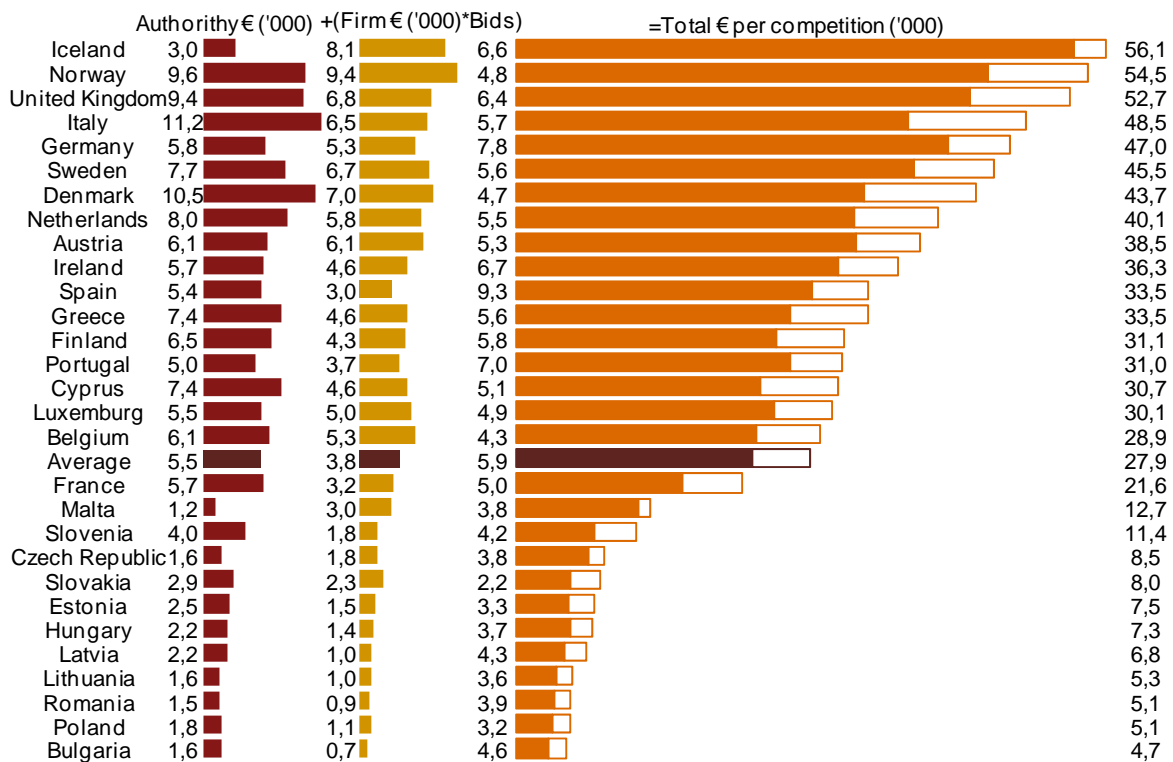
Now we will explore the costs for a typical competition by country using the same methodology. We again apply our concept of a typical process cost (mean/median estimate). We show the cost for the purchasing authority, and the total for all participating firms.

Unsurprisingly the high wage countries top the list. France is an exception having small unit costs for each procedure. The difference is tenfold from the highest to the lowest. Norway is near the top even with lower than average number of offers per competition. The UK is also high, with both high unit costs and above average number of offers. Other large procurers like Italy and Germany are also high on the list. Italy has particularly high costs for authorities. Italy and Spain differs mostly due to higher number of person-days spent in Italy.

In the low range we find a number of new member states. This reflects both lower wages and lower competition as most receive fewer proposals

High cost countries have expensive procurement processes

Figure 2.12 Typical cost of a competition (weighted averages)



Total cost of the public procurement process in Europe

The cost of running the procurement process is about 1,4 percent of all purchasing.⁴³ The amount for 2009 is calculated to be about 5,3 billion euro. Businesses incur the largest share of these costs, about 75 percent. Government costs equate to about 0,3 percent of purchased volume. The cost for businesses is about 1,1 percent of total sales volume.

Each request from authorities attracts a number of bids and as such, although the unit costs for developing a request and managing the process are higher for authorities, total costs for suppliers are higher.

There is a high and a low estimates showed in Figure 2.13. Basically, the low estimate is based upon median values for person-days, while the high estimate is based upon mean numbers.

These results are considerably higher than the costs identified in the studies carried out in the context of the EU administrative burdens exercise.⁴⁴ There is not necessarily any inconsistency as the administrative burden analysis reviewed only general information obligations such as requirements to submit certificates. Our study assesses the full costs of the process, regardless of whether the costs are driven by regulatory obligations or not. The admin burden found the total costs to be about £216 mill annually.

Works constitute a small share of the total reflecting the fact that, although they have the highest unit costs, there are much fewer work contracts.

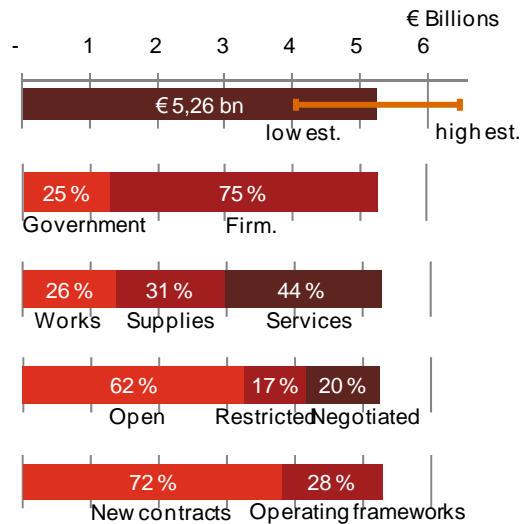
Open procedures represent the largest share of procurement costs, though not as large as its share of total procurement. This is because the unit costs for open procedures are lower than the average.

Framework agreements are a two-stage process. First, purchasers run a request to attract suppliers. This request and corresponding bids have costs in the same way as all other procedures. Costs are included as new request and corresponding proposals. Second, during the lifetime of a framework agreement the purchasers issue a number of requests to the selected suppliers. These costs are included in the figure above as “running framework agreements”.

Next we turn to a perspective on how these process costs compare to total procured volume.

5,3 billion euro annually=1,4% of total purchasing

Figure 2.13 Annual cost of public procurement under the scope of the EU directives high/low estimates



⁴³ Share of purchasing calculated on the basis of estimated 380 Bn € volume in 2009. That's an estimated, not observed value, which involves extrapolation of missing values in the dataset. (ref section 1.1)

⁴⁴ Measurement data and analysis as specified in the specific contracts 5&6 on Modules 3&4 under the Framework Contract n° ENTR/06/61 Report on the Public Procurement Priority Area EU project on baseline measurement and Reduction of administrative costs. 5th March 2009. COM(2009) 544 final

First, we can compare process cost by total procured volume across procedures and contract types. Figure 2.14.

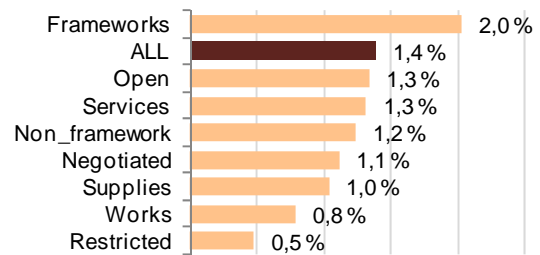
A few interesting observations stand out. Costs of procuring works and restricted procedure, which as we recalled had high unit costs, add up to only a small share of total procured volume.

Framework agreements show a higher percentage as share of total volume than do other procurement methods. This needs to be explained. As shown earlier we have found person-day costs to be about 75 percent smaller for each call under a framework agreement. However, average framework agreements are only about twice the average contract value. The size of each call under a framework agreement is in the area of 400.000 euro. Thus, while frameworks are seemingly attractive options, the process costs relative to volume need to be taken into consideration.

By **country**, we find that Germany has a high share of overall procurement costs. This could be related to low average contract values in Germany, and a relatively small volume of procurement under the directives. We also see that the UK which had high unit costs for each competition seems to have a smaller share of process cost relative to total purchasing volume.

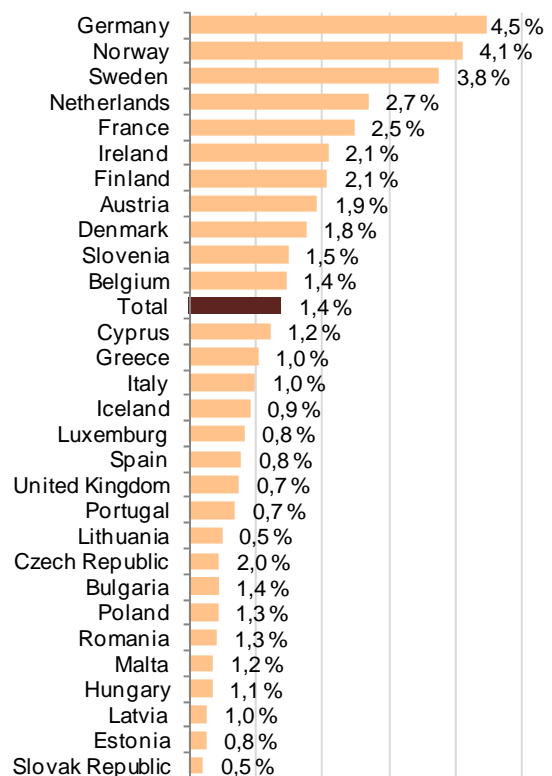
Running frameworks is expensive relative to total sales

Figure 2.14 Cost of procurement by total spend⁴⁵



Expensive procurement machinery in Northern Europe

Figure 2.15 Cost of procurement by total spend by country



⁴⁵ Based upon 2009 procurement volume

It turns out that procurement costs are almost invariant across a wide range of contract values. We can find some relationship only at the higher end of the contract value range. Figure 2.3 shows the distribution of costs (person-days) and the corresponding contract values for values up to 5 million euro. We should keep in mind that as much as 80 percent of open procedure contracts are below 1,3 million and 50 percent of all contracts are below 390.000 euro.

The figure implies that while at the very high end, higher value purchases may have somewhat higher process costs, there seems to be no relation between costs and contract value for the vast majority of contracts.

This is important as the largest share of contracts is in the lower range of contract values. Costs are then likely to be much larger as a share of value for such contracts. If we assume that there is little relationship between process cost and contract value the cost of purchasing for the median contract could be higher by a factor of 8. That is, the difference between the mean and median value of the contract. Thus, for the median contract at 390.000 euro, total process costs could be about 8,4 percent of the value.

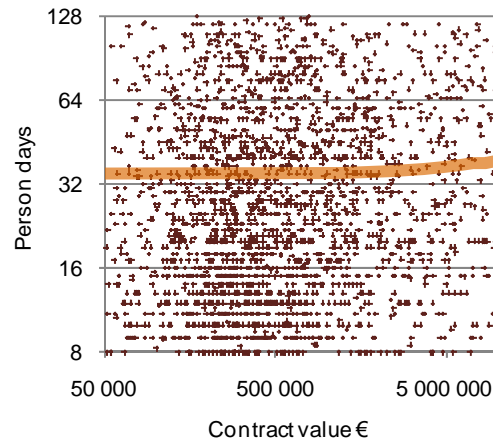
The average (mean) cost for each participant is about 4400 euro. Calculating with mean values alone may be misleading as discussed for the total cost calculation. There is a range between 3400 and 5300 euro per participant for each transaction if we include a low end estimate based upon median measurement of person-day cost.

Costs of the process may reach quite high levels of the contract price, especially for smaller contract values. Especially in the low contract value range does this seem credible. The high and low estimates can also be calculated based upon mean/median values as for the total cost calculation in figure 2.2 and the range is shown in Figure 2.17.

At the lower threshold under the directives, 125.000 euro, total costs reach between 18 and 29 percent of contract value. This is substantial and could raise some questions. At 390.000 euro, the median contract value, costs reach between 6 and 9 percent.

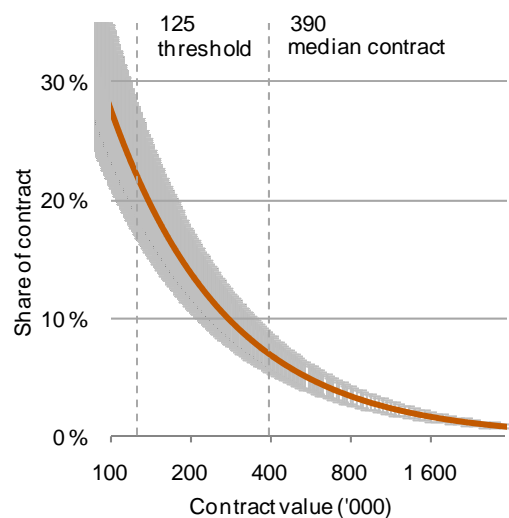
Little relationship between cost and contract value

Figure 2.16 Relationship between contract value and procurement cost (government cost, only subset shown)



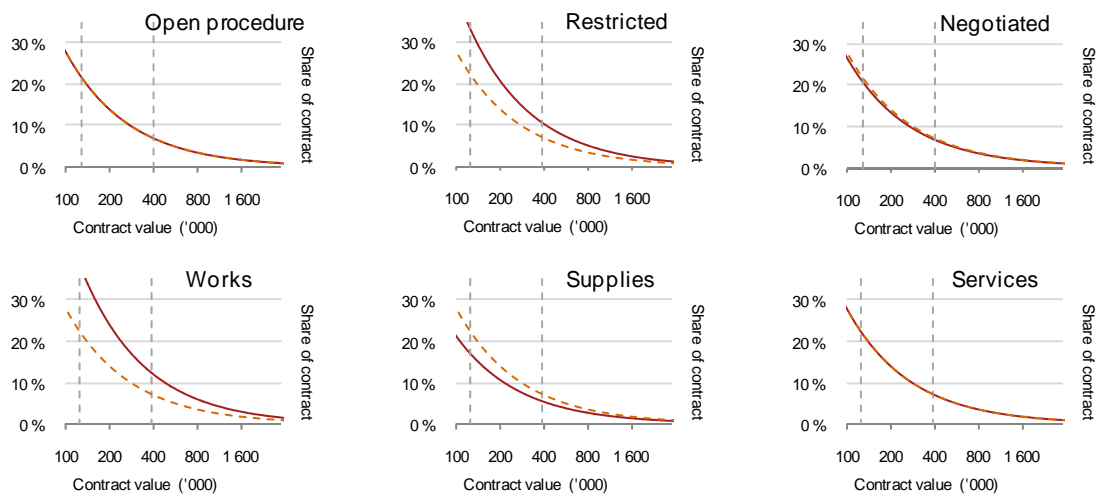
Costs reach a high share of contract value with lower value contracts

Figure 2.17 Total procurement cost (firms and government) as share of contract values (HiLo estimates)



...and this varies by procedures and contract type

Figure 2.18 Procurement cost (firms and government) as share of contract values



There is some differentiation between procedures and contract types. Figure 2.17

Works is as expected relatively more expensive compared to contract values. Supplies have a lower share. We also find as expected that the restricted procedure is more expensive compared to contract values.

Now we proceed with an analysis of other indicators of effectiveness of procurement. First we turn to competition.

2.3 Competition

In order to assess the competitiveness of EU procurement we look at the behaviour of the number of bids and the number of cross border wins. The numbers of either of these can clearly be interpreted as indicators of the strength of competition. And when competition is stronger, we expect procurement outcomes to be superior.

We report below both medians and means. Means are less reliable measures of the typical number of offers because they are greatly influenced by the small number of contracts where the number of bids is very large.

The distribution of bids is highly skewed towards the low end. In fact 99 percent of the requests receive less than 39 bids. The remaining 1 percent however receives 15 percent of all proposals and a few tenders receive nearly 1000 proposals. We do not know that all of these entries are erroneous but leaving them in would have a strong impact on the calculation of means. In the analysis herein, as in the cost chapter above, we have therefore excluded this top 1% of the observations from calculations of the mean.

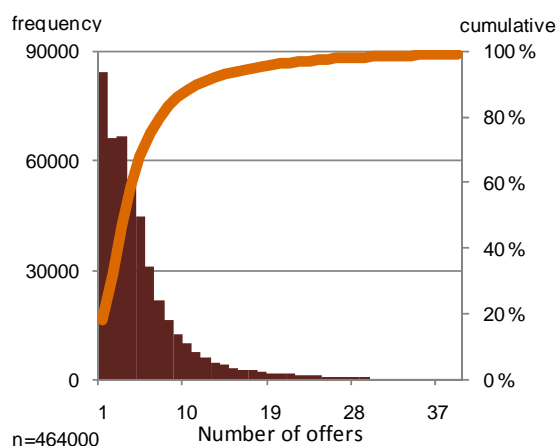
In addition to looking at the number of offers, we also investigate whether procedures differ in their likelihood to attract cross border bidders. We do not have data on the number of cross border bids but we have information on the number of cross border wins.

Note that the measurement of cross-border wins is done at the level of award notice – and as such it is not representative of the share of foreign suppliers relative to domestic suppliers. We have discussed before that procurement by an authority can be divided into several awards (sub-lots of the main procurement). As such, even if there is only one foreign winner among that subset of awards, we will have it recorded as a cross-border win. Our purpose is to use the data on winners as a proxy for the extent of foreign competition and as such this approach is useful.

This concept differs from the measurements of cross-border participation in procurement analyzed in other recent studies where the focus is on the number of foreign suppliers among all the awards that have been issued. The ratios found using this latter approach will almost by definition be lower than ours.

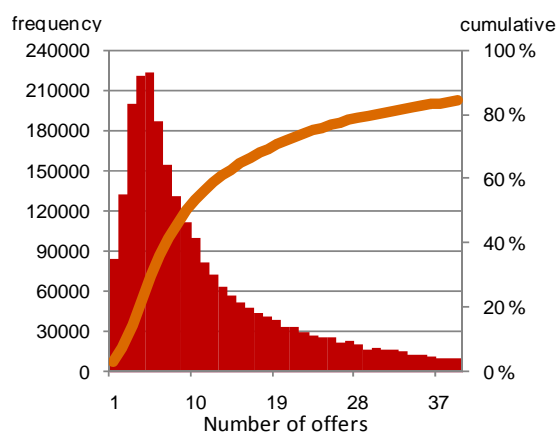
1 in 5 tenders receive 1 bid

Figure 2.19 Frequency distribution of offers



Most receive about 4-6 offers

Figure 2.20 Volume distribution of offers



Most procedures receive about 4 offers. The means for the open and restricted procedure are close to 6 offers indicating that these procedures may be more conducive to competition than the negotiated procedures. The negotiated procedure without publication receives the least tenders. We also see that framework agreements and joint purchasing attract more bids.

We have examined the number of bids by a range of factors. Figure 2.21 includes information both about procedures and about the different techniques that can be used within a given procedure. It also investigates differences in number of bids by award criterion (lowest price versus EMAT) and by whether the procurement benefits from EC-funds. It should be noted that while the procedure types are mutually exclusive, procurement techniques, award criteria and EC-funds can be combined in a number of different ways with a particular procedure.

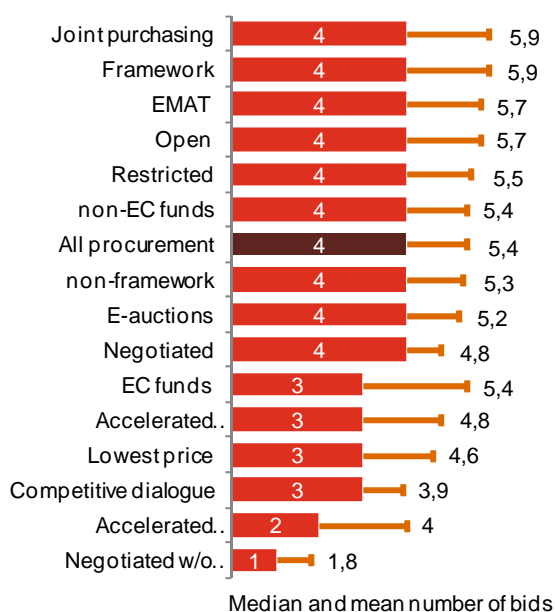
There is relatively little variation of median number of bids across types of procedure and procurement technique. “Negotiated without publication” stands out, naturally, as a procedure type that receives much fewer offers. However, the analysis of the mean number of offers shows wider variation. Open and restricted procedures, frameworks, and joint purchasing have the most offers, on average.

Procedures where the award criterion is ‘economically most advantageous tender’ (EMAT) receive more offers than those attributed on price alone. This is a potentially interesting result and may be partly explained by the fact that some companies have trouble competing on price alone and so may be deterred from submitting a tender when price alone is the award criterion.

Procurements that use EC funds have a lower median number of offers. This is a somewhat puzzling observation but may be related with EC-funded procurements being of larger size and thus some smaller bidders may not have the necessary capabilities. This observation also raises the question of whether EC-funded projects have more cumbersome tender submission requirements.

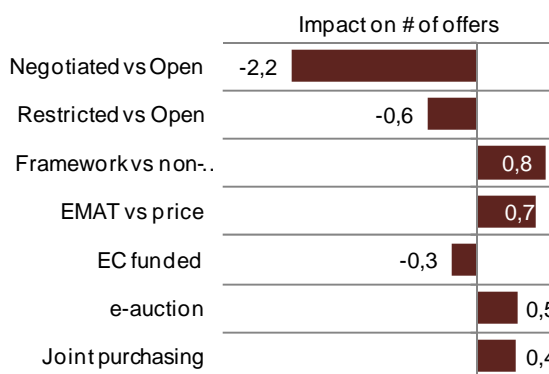
Frameworks receive the most bids...

Figure 2.21 Number of bids received by procedure and technique (median, mean in lines)⁴⁶



...and new procurement methods predicted to attract more offers

Figure 2.22 Estimated impact of type of procedure on number of offers



⁴⁶ Mean numbers calculated from the 99th percentile.

We next made an econometric analysis using a number of variables that could contribute to the variation in the number of bids that a call for tenders receives. The econometric analysis thus investigates which effects can be uniquely attributed to each explanatory variable. The number of variables is smaller than in the previous figure because some of the variables were not statistically significant in our regression.

Our results confirm some of the descriptive analysis presented above but also highlight other effects.

Open procedures will, holding all else equal, receive more offers than restricted procedures and many more than negotiated procedures. Framework agreements perform well in relation to number of offers. Dynamic purchasing systems are the most successful type of procedure in terms of attracting a large number of bidders. Procurements where EC funding is involved have, the econometric analysis confirms, a lower number of bids.

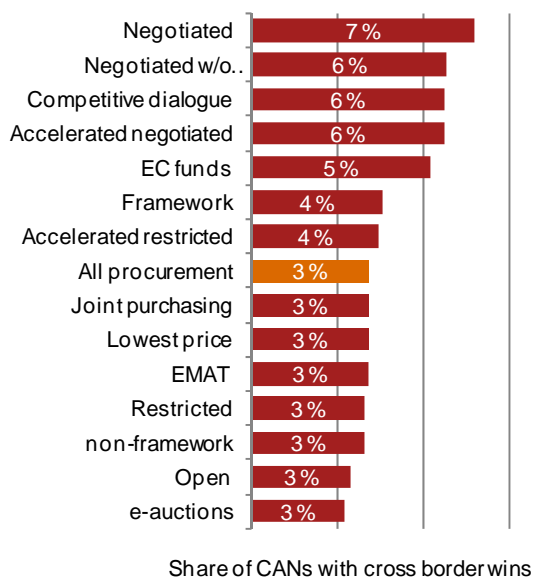
In addition to looking at the number of offers, we also investigate whether procedures differ in their likelihood to attract cross border bidders. We do not have data on the number of cross border bids but we have information on the number of cross border wins. While cross border bids are very rare overall, we found that they are roughly 2% more likely in negotiated procedures and 0.4% less likely in restricted procedures than they are in open procedures.

EC-funded procurement appears to attract more cross border bidders. Most of the differences above are statistically significant when we control for other variables likely to influence the incidence of cross border wins.

An additional factor that seems to be important to explaining the incidence of cross border wins is whether the contract is for supplies or for services. The results indicate that cross border provision of services is much rarer than supplies.

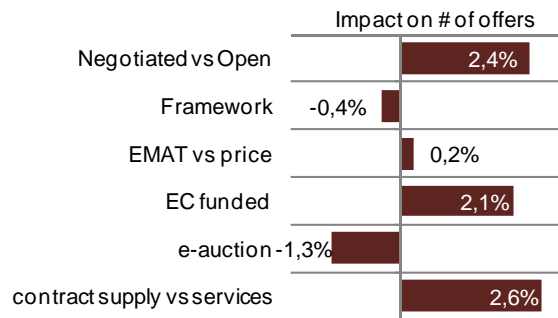
Negotiated procedure have higher number of cross border winners

Figure 2.23 Percentage of procedures with cross-border wins



Supplies predicted to attract most foreign competition

Figure 2.24 Estimated impact of type of procedure on cross border wins

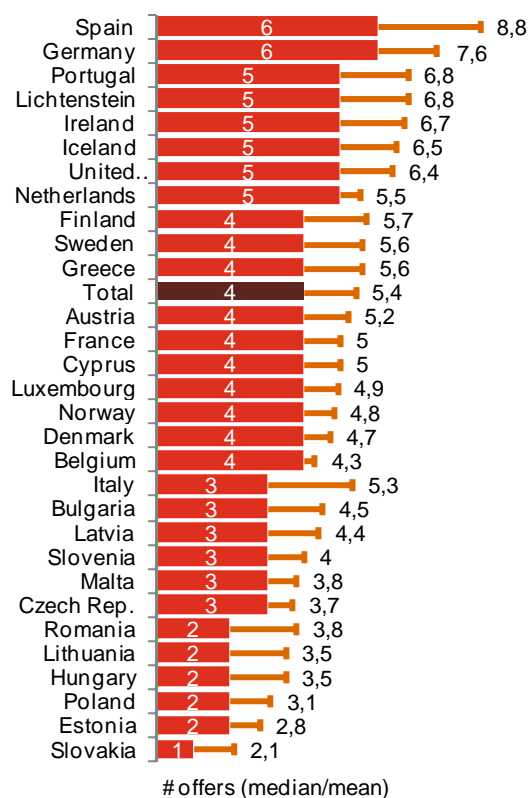


The degree of competition in public procurement varies dramatically between the top and the lower performing group of countries. While the top group receives an average of 7 or more bids per procurement, the bottom group receives 3 or fewer. Naturally, we would expect such large differences in degree of competition to reflect significantly in the outcomes of public procurement.

The econometric analysis indicates that the vast majority of countries is within plus or minus 1 bid from the average. Procurements in Spain and Germany are predicted to receive nearly three more bids on average. Among the countries where procurement processes attract the most bidders we find Germany, Spain, the UK, Ireland and Portugal. Finland and Italy also perform relatively well under this measure. At the other extreme we have Slovakia, Estonia and Poland.

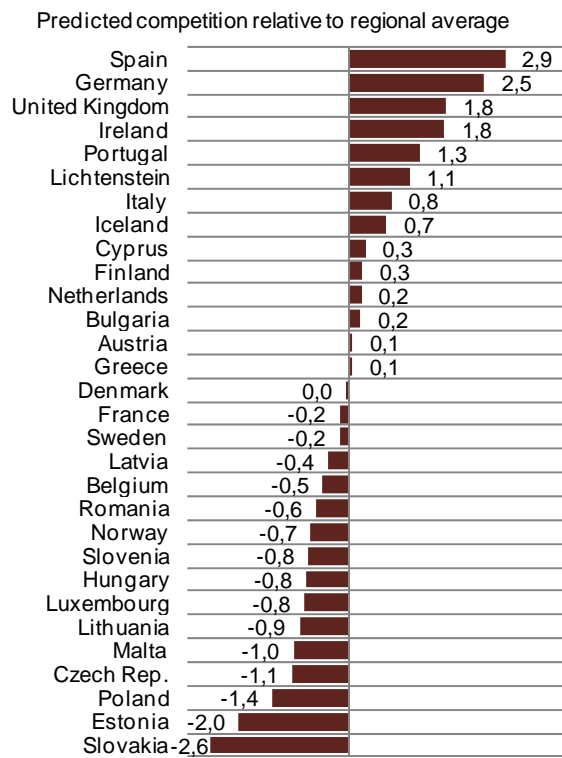
Spain and Germany are very competitive markets...

Figure 2.25 Number of offers per country (median, mean in lines)



...and several countries predicted to be less competitive than average

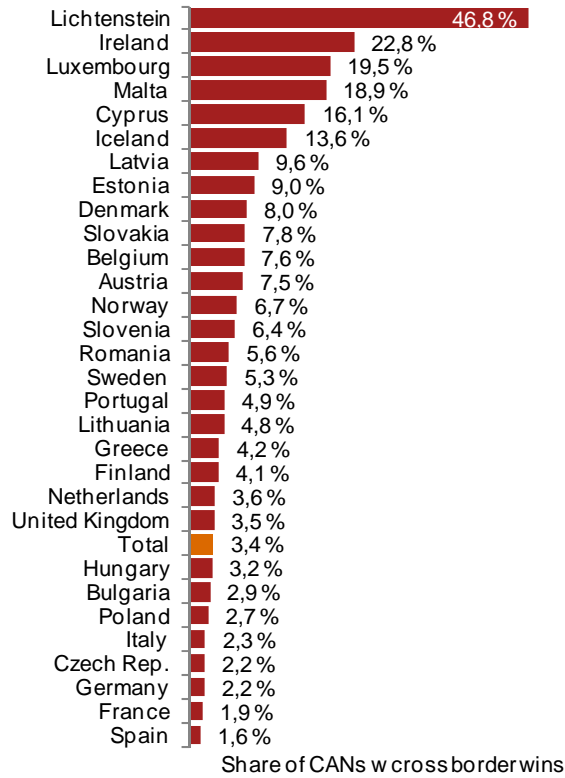
Figure 2.26 Estimated country effects on the number of offers relative to average



An additional measure of competitiveness is the ability of a procurement procedure to attract cross border bids. In our data, we proxy this by the number of cross border wins. The incidence of cross border wins is dismayingly small across our universe of over 540,000 individual procurements, with just over 3% of the total. In this measure, smaller countries clearly outperform their larger and often wealthier fellow EEA Member States. We observe that Lichtenstein, Ireland, Luxembourg, Cyprus, Malta and Iceland have a higher percentage of cross border winners. Some of the southern economies, on the other hand, look particularly unwelcoming to cross border competition.

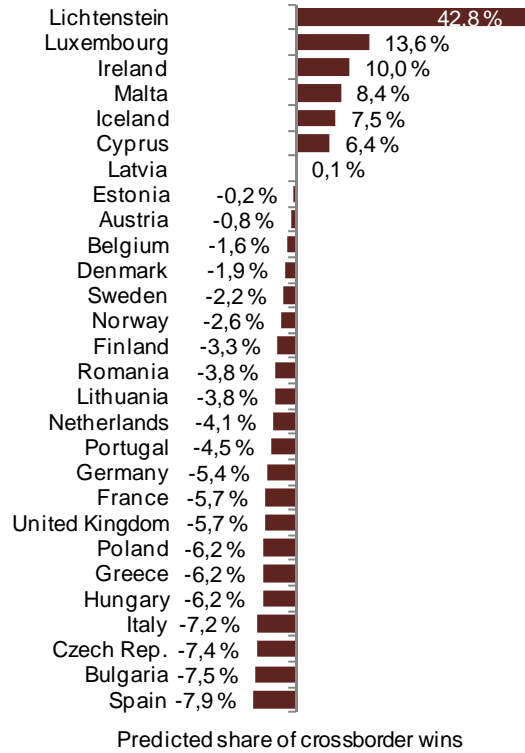
Low incidence of cross-border wins for the big countries

Figure 2.27 Incidence of cross border wins by country



Smaller countries predicted to perform better in terms of cross border wins

Figure 2.28 Estimated country effects on the likelihood of cross border wins



We look below at some ‘macro’ factors and investigate whether they contribute to explaining the average number of bids and the incidence of cross border wins. These are the same macro variables introduced in chapter 1. The centralization measurement used here is, as discussed before, based upon an OECD classification of procurement organization within countries.

In wealthier countries (high GDP per capita) and in larger countries (high GDP) the typical procurement process receives more bids. Centralisation of procurement has a strong negative impact on the average number of bids received per procurement process.

There is some contrast between the above and what we observe in terms of cross border wins. Larger countries tend to have fewer cross border wins and centralisation of procurement contributes positively rather than negatively to the incidence of cross border wins.

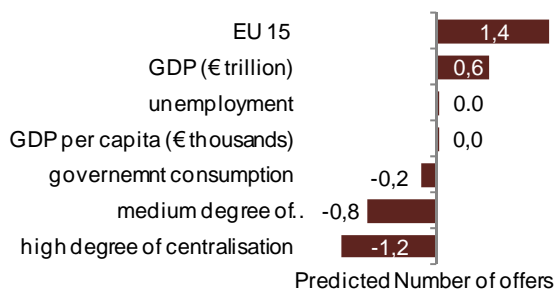
The coefficients on GDP and GDP per capita indicate a higher incidence of cross border wins in wealthier countries and a smaller incidence in large countries.

The coefficients on measures of centralisation of government indicate that more centralised procurement functions performs better in terms of cross border wins. This is likely to correlate with the fact that more centralised governments will have larger average size of procurements.

On the other hand, countries where government consumption is higher tend to have lower incidence of cross border wins.

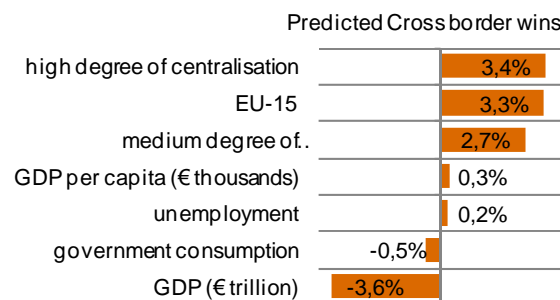
Centralisation of procurement correlates with lower number of foreign bids

Figure 2.29 Estimated impact of ‘macro variables’ on the number of bids



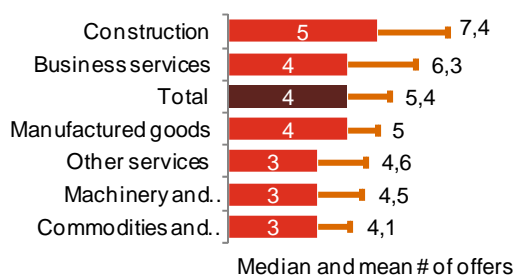
EU-15 countries and countries with centralised procurement have higher incidence of cross border wins

Figure 2.30 Estimated impact of ‘macro variables’ on the incidence of cross border wins



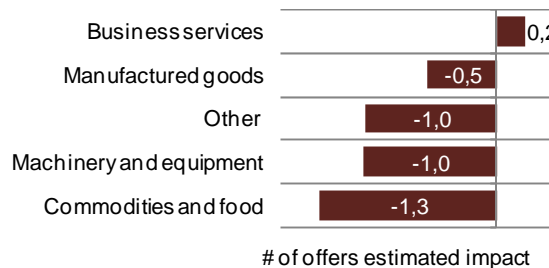
Contracts in the construction sector attract most competition

Figure 2.31 Number of offers per contract area (median, mean in lines)



Lower number of offers predicted for less complex contract areas

Figure 2.32 Estimated impact of sector of contract on the number of offers (baseline: construction)



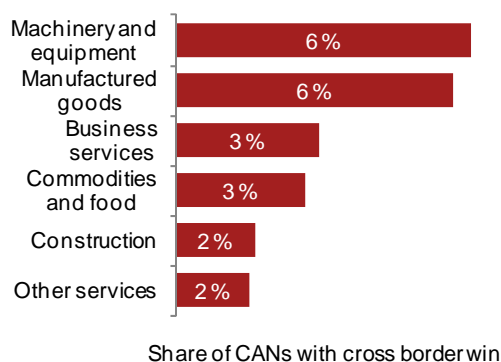
We next look at the number of bids and the number of cross border wins by sector of the contract and by sector of the awarding authority. Contracts in the areas of business services and construction receive on average the most tenders. Fewer bids are received by contracts in commodities and food, and machinery and equipment.

These effects are roughly maintained in our econometric analysis where the effect of individual variables is investigated while holding all else constant. As the construction sector is taken as the baseline in the regression it does not appear in the graph and the coefficients on the other sectors are expressed in terms of differences relative to construction. In the regression, business services have more offers than construction (although the coefficient has a very small value). This is an indication that the large number of offers that contracts in the area of construction receive is partly due to other characteristics of these procurements (rather than uniquely the fact that they are in construction).

Contracts in machinery and equipment attract far fewer bidders overall but perform best in terms of cross border competition.

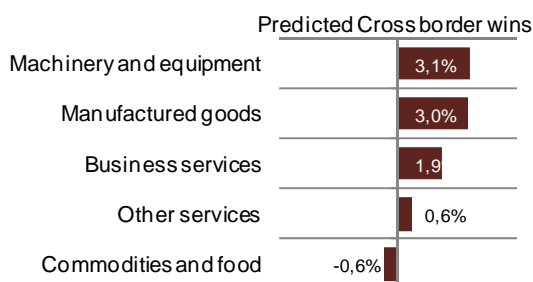
Contracts in machinery and goods attract the most cross border bids

Figure 2.33 Incidence of cross border wins per contract area



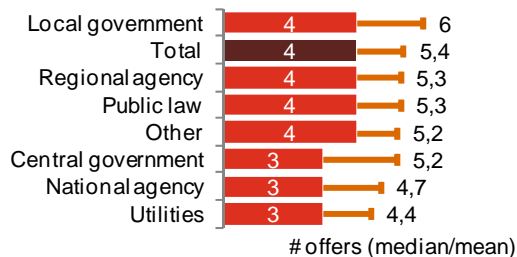
Cross border offers exhibit very different patterns

Figure 2.34 Estimated impact of sector of contract on percentage of cross border wins (baseline: construction)



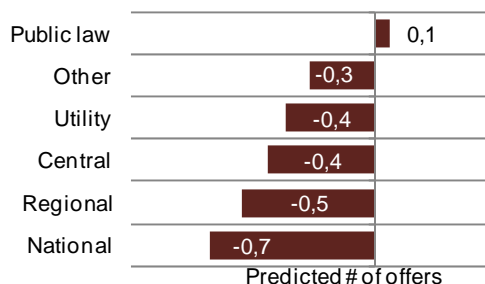
Local government procurement is highly competitive

Figure 2.35 Number of offers per type of authority (median, mean in lines)



Utilities predicted to have the lowest competition

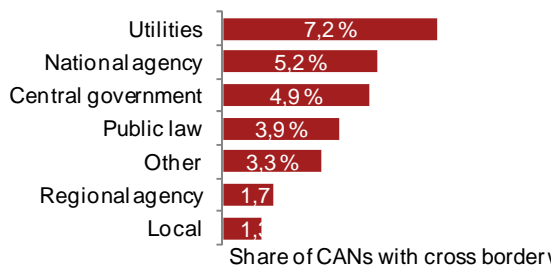
Figure 2.36 Estimated impact of type of authority on number of offers (baseline: local government)



Viewed by type of government, we find that local governments attract the most bids and significantly more than central governments. National agencies and offices are among the least competitive together with procurement by the utilities. In the econometric analysis, taking local government as the baseline, we confirm that local authorities are among the most competitive. Interestingly the picture turns when looking at cross border win incidence. There are more foreign winners, thus presumably stronger cross border competition, in purchasing by utilities. Local governments on the other hand rank very low on this measure. The regression analysis confirms that the generality of procurements sees more cross border competition than local governments. Utilities again stand out as particularly attractive for foreign bids. This could be related to the size of the contracts that are generally much larger for utilities even though utilities also purchase more construction work which have less foreign competition.

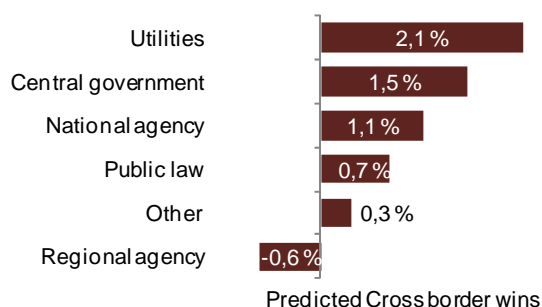
Utilities attract foreign bids

Figure 2.37 Incidence of cross border wins by type of government



Local authorities predicted to have the least cross border wins

Figure 2.38 Estimated impact of type of authority on cross border wins (baseline: local government)



Finally, we turn to an analysis of bidding and cross border wins by sector of activity of the awarding authority. We note that it is generally difficult to interpret some results under this heading because, while the data is organised by the activity of the authority, it does not have clear implications for the type of contract. For example, an authority in health services may commission work in the areas of medical equipment, business consulting, and construction, just to mention a few examples. Also as discussed in chapter 1 the data are of poorer quality and of a more ambiguous nature.

About half of these categories are authorities that operate in the area of utilities. Procurement in the utilities has no restrictions on the use of negotiated procedures and, as we have observed, this is indeed a procedure commonly used by authorities in these areas.

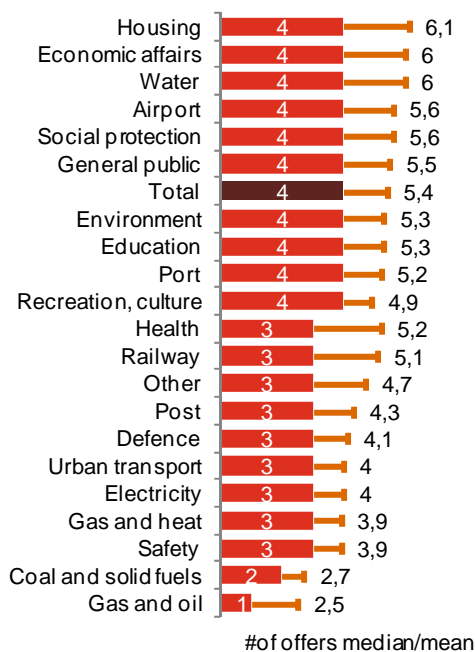
In the graphs, however, we note that some authorities in these areas receive a high number of offers. This would seem surprising given that negotiated procedures receive on average substantially fewer bids than other types of procurement.

One possible explanation is that a large part of the procurement carried out by utilities is not actually for the procuring of services in the areas that fall under the utilities directive. In other words, utilities procure services in many other areas (e.g. economic advice, construction, supplies).

Below we look for statistical significance of the differences in numbers of offers observed above. The results are strikingly different but the problems with interpretation that we mentioned above similarly apply.

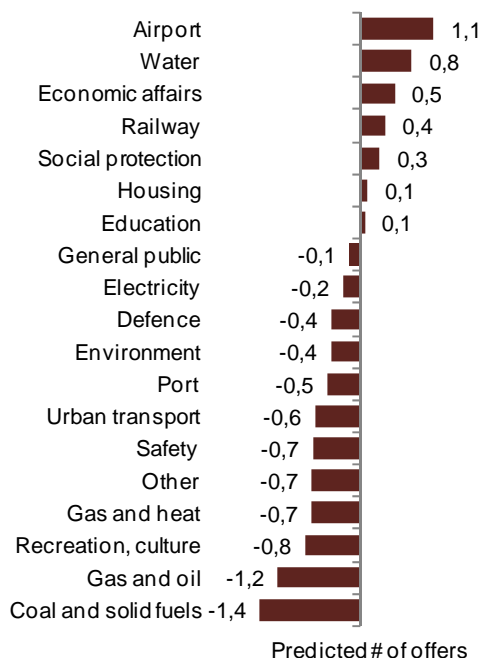
Authorities in the areas of housing and recreation receive the most bids

Figure 2.39 Number of offers by activity of the procuring authority (median, mean in lines)



Airport authorities predicted to receive the most bids

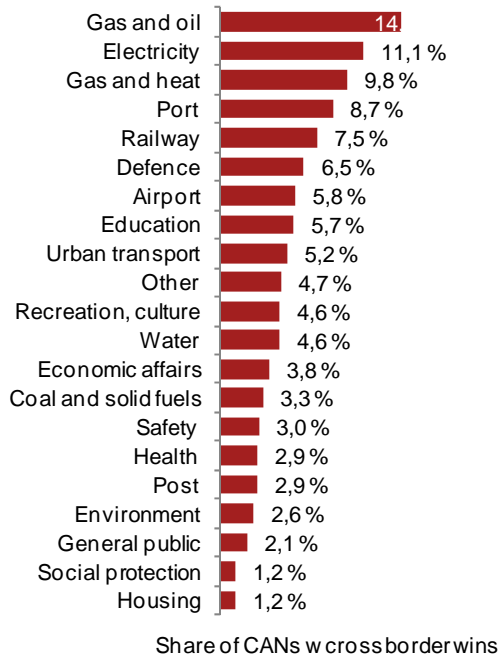
Figure 2.40 Estimated impact of authorities' sector on number of offers (baseline: health)



The behaviour of cross border wins across authority sector of activity is very different again, some of the results being particularly counter-intuitive, such as the high incidence of cross border wins in the education and recreation, culture and religion sectors.

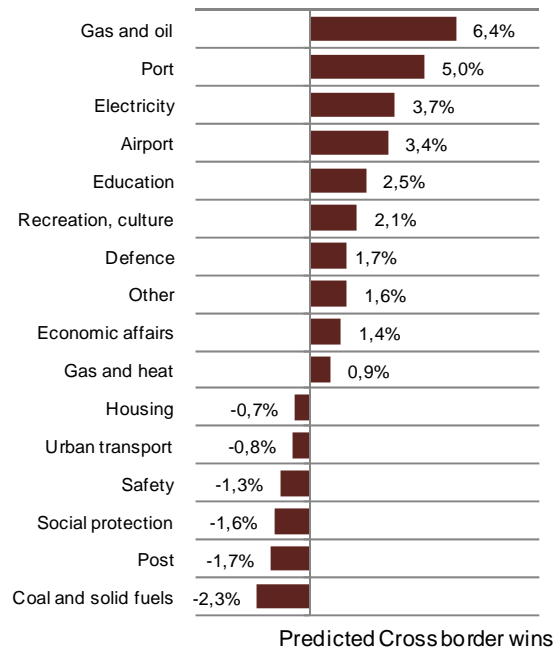
Utilities has many cross border wins

Figure 2.41 Incidence of cross border wins per authority sector



... but education and culture also predicted to have much foreign competition

Figure 2.42 Estimated impact of authority sector on percentage of cross border wins



We next turn to an analysis of procurement efficiency by calendar time spent.

2.4 Time efficiency

This section looks at the time taken by procurement procedures. Time data refers to two stages: (1) time to offer – from the day of the contract notice until the deadline for the receipt of tenders and (2) time to award – from receipt of tenders to award of contract.

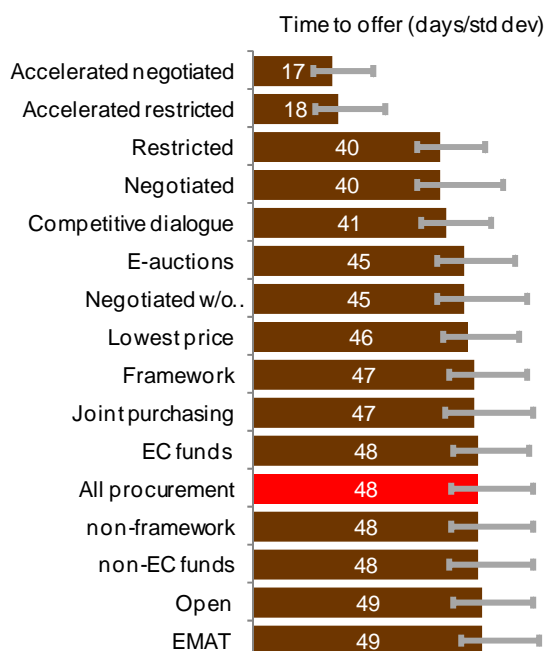
As expected the first stage is relatively consistent across procedures and techniques. The time spent from publication of a contract notice to offer is regulated (minimum requirements). The standard deviation is quite small meaning that there is a great deal of concentration around the prescribed time. There are some shorter time spans allowed.

Most of the variation in procedural times can be attributed to the second stage; the time taken by the authorities to award the contract. This is particularly noticeable in relation to restricted and negotiated procedures where the time to offer is lower than average but the time to award is much larger.

Negotiation without publication shows longer time than the open procedure. Competitive dialogue is the most time consuming process. With regards to framework contracts it should be noted that there will be additional lead times for each call under the framework agreement.

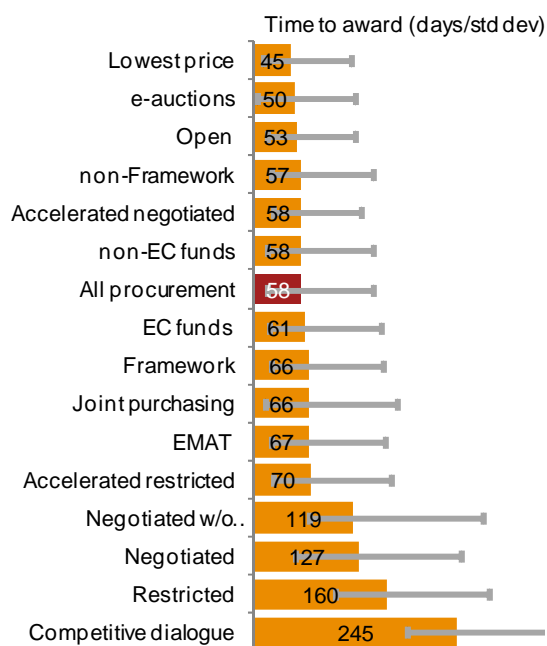
Small variation in tender deadlines...

Figure 2.43 Calendar time spent to tender deadline (medians, standard deviation)



...but the time taken to award decision varies greatly

Figure 2.44 Calendar time to award by procedure and technique (medians, standard deviation)



Using regression analysis, we have a different view on how the different numbers of days can be attributed to the use of specific procedures.

Negotiated procedures take by far the longest to complete. This, however, is likely to be in large part due to the more complex nature of what is being procured. Restricted procedures are considerably more time-consuming than open procedures. Again, this may be partly explained by the relative simplicity of works/services/supplies commissioned under open procedures.

While dynamic purchasing systems perform well in attracting a relatively large number of bidders, they are predicted to be significantly more time-consuming than other types of procurement.

It should be noted that the Directives provide for specific durations of the time to offer of procedures, see Table 2.3.

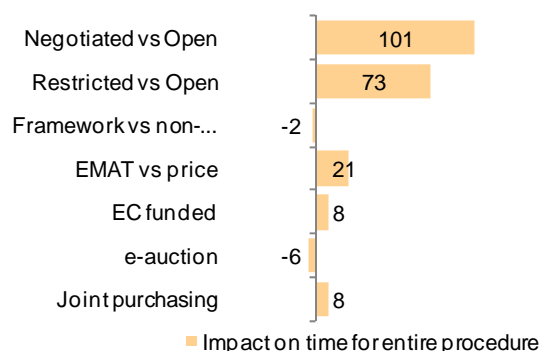
Table 2.3 Duration of procedures

	Minimum time limits					
	<i>registering interest</i>	<i>registering interest if electronic</i>	<i>Tender submission</i>	<i>Tender submission with PIN</i>	<i>Reduction if electronic</i>	<i>Strict minimum</i>
Open			52	36	-5	22
Restricted	37	30	40	36	-5	22
Accelerated restricted	15	10	10	10	-5	10
Negotiated and competitive dialogue	37					
Accelerated negotiated	15					

Source: (Directive 2004/18/EC, Article 38).

Restricted and negotiated procedures predicted to take longest

Figure 2.45 Estimated impact of type of procedure on time for entire procedure



For individual countries, time to offer ranges between 40 days for Liechtenstein and 57 days for Malta. For time to award, large differences can be observed with Latvia taking on average only 37 days to award a contract, while in Malta the average award period equals 185 days.

When analysing the time to offer and time to award per country for the various procedures, a couple of curious observations can be made. The observed lack of timeliness of procurement processes in certain countries is driven primarily by the period between offer and award, i.e., by authorities.

Greece and Malta take a substantially longer time to complete an average procurement process. Poland, Latvia and Hungary are among the fastest at completing procurement processes. Denmark and Germany can also be considered fast since the regression results indicate that their procurement times are not statistically distinguishable from the fastest group.

The econometric analysis of the country effects on time for the entire procedure supports the description above. Malta and Greece are the countries where procurement takes longest; Romania, Poland, Latvia, Hungary and Germany where it takes least time.

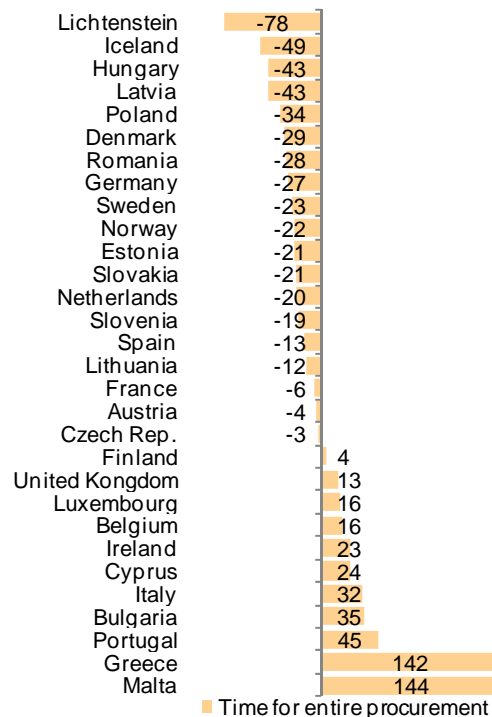
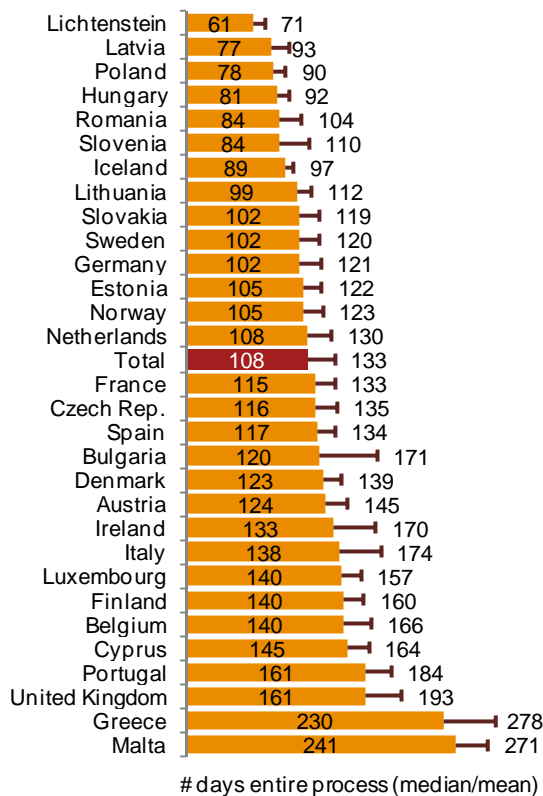
It is worth noting some differences between the descriptive analysis and the econometric results. For example, in relation to the UK we see a worst ranking in the descriptives than in the regression. This implies that average time taken by procedures in the UK is high because of other characteristics of the procurement process. The fact that the UK authorities make more use of restricted procedures and that the UK may have more procurement in sectors where purchasing tends to take longer, may contribute to explaining this discrepancy. In general, we expect the results of the regression to provide a clearer picture of the country effects when those effects cannot be attributed to other aspects of the procurement. A similar discrepancy occurs for Italy.

Very efficient purchasers in Hungary, Latvia, Lichtenstein Poland and Iceland...

...and many are predicted to be slower than average

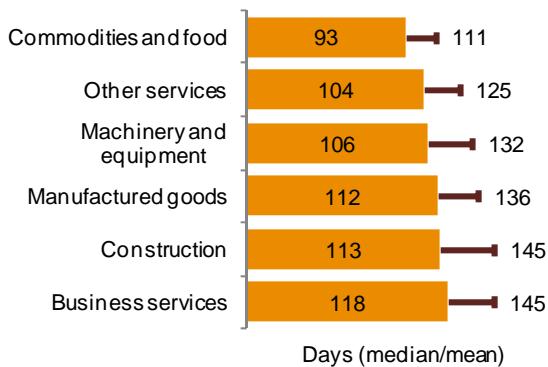
Figure 2.46 Time for entire procurement process by country (median/mean number of days)

Figure 2.47 Estimated country effects on time for the entire procurement process (number of days relative to average)



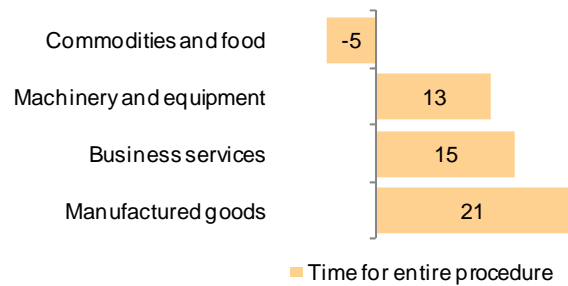
Business services take longest but not much variation by sector

Figure 2.48 Number of days for the entire procedure, by sector of contract (median, mean in lines)



Procurement times predicted vary somewhat with sector of contract

Figure 2.49 Estimated impact of contract sector on time for entire procedure (baseline: construction)

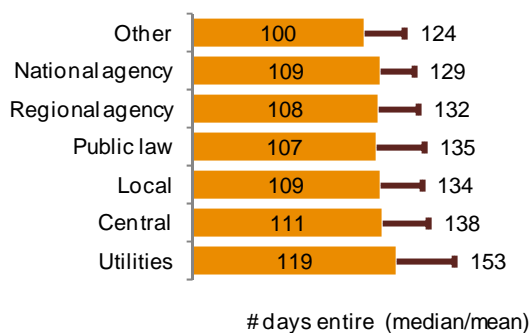


A look at business sector shows that procurements that involve more complex objects, business services and construction take longer time to complete. The quickest is commodities and food, possibly because of more standardized objects and easier to evaluate. The regression analysis finds that more sectors may actually take longer times than construction than what the descriptive analysis indicated. The higher value sin construction may explain this, and adjusted for value and other factors, manufactured goods appear to take 21 days longer than construction.

When viewed by type of government we find less overall difference. Interestingly, local and central are about even and both close to the average 108 days. The regression, and here shown as decomposed with time to offer and award, confirms that utilities takes longer. It also shows that the differences for regional agencies and “other” may be larger than the descriptive indicated. These types of governments are a bit quicker than local governments. Central government shows as insignificantly different form local government.

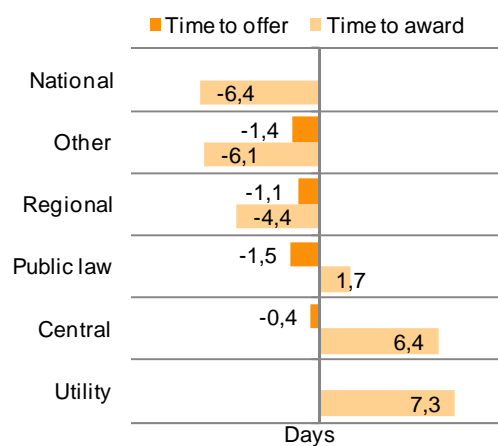
Central and local government about even

Figure 2.50 Number of days for the entire procedure, by type of government (median, mean in lines)



Utilities predicted take longest to award their contracts

Figure 2.51 Estimated impacts of type of authority on time to offer and time to award (baseline: local government)

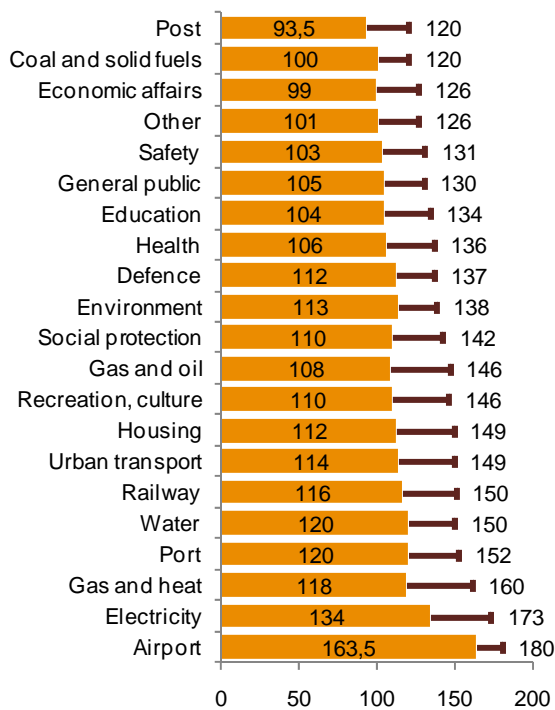


Finally, the type of authority has little effect on the time to offer, but there are large differences with respect to the time that authorities take to make an award. The utilities authorities take an average of almost 10 days more than local government authorities; both regional and national authorities are faster to award than local government. Some predictably more complex procurements in activities such as airports and electricity take much longer to complete.

Some of these differences disappear when running the regression analysis. In fact electricity activities can be predicted to have purchases that are more time efficient than health. The same goes for urban transport. Defence and housing are predicted to take longest.

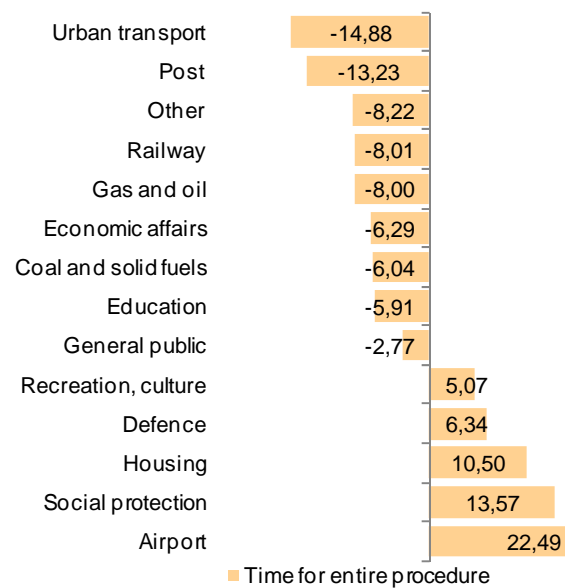
Longest lead times in utilities related activities

Figure 2.52 Number of days for the entire procedure, by activity of government (median, mean in lines)



Procurement by authorities in urban transport predicted to take least time

Figure 2.53 Estimated impact of authority main activities on the number of days taken by a procedure (baseline: health)



Now we will turn to analyzing the choices made by authorities when selecting a procedure.

2.5 What determines purchasers' choice?

Within the constraints imposed by the EU procurement directives, there remains considerable freedom for procuring authorities to select the procedure used for each purchase. Given their experience and ranking of objectives, the choices made by procurers convey information on what factors are rated most important by different types of authorities and on what the advantages and disadvantages of particular processes are.

This isn't entirely a free choice. Regulatory constraints are important in structuring the decision, and as we have seen and analyzed extensively, various structural and market characteristics have an impact. The choice does not appear to be independent of the country, type of government, the sector of delivery or the size of the procurement, amongst other factors.

In this section we investigate how purchasers rate the influence of different factors on their choice of procurement procedure. We have asked thousands of purchasers across Europe a series of questions to better understand their purchasing decisions and behaviour.

Respondents were asked to rate ten factors that may influence their choice of procedure. The questions can be grouped into '**process**', comprising transparency, fairness, risk of litigation, costs and time, and '**outcomes**', comprising price, quality, efficiency, number of bidders and number of cross border bidders.

The issues of costs and time are looked at in a more qualitative light than in the sections above. Respondents were asked to rate how the consideration of costs and time was important in the selection of the procedure and then to compare costs and time of procurement under the directives with procurement under national regulations and procurement in the private sector.

The survey furthermore considered factors for which there are no other data available, such as the importance of transparency and fairness of the procurement process, and of quality of the outcome. These objectives are important for the procurement legislation, but few indicators of such objectives exist. The same set of questions was also asked again to the same respondents in a different way: to compare EU against *national* procurement regulations, and to *firms* we asked for a comparison against private sector procurement. We will return to these findings later in the chapter.

Like any measurement of perception, there is room for interpretation of the results. The survey was conducted in 30 countries and in 23 different languages. Variations in meaning of different languages and in understanding of different concepts may have played a role. About 5400 purchasers responded, a very high response rate by the standards of similar surveys, and the resulting sample is representative of countries and procedures. The margin of error for authorities' responses is 1,3 percent (at the 95 percent confidence level). Firms' response rate was somewhat lower, yielding a 2,2 percent margin of error.

The surveys were individualized to each single purchaser. The survey questions referred to a particular and recent purchase which the person administered. This could have helped their motivation to respond and most importantly, improves the validity of the findings as the respondents answered in relation to a particular purchase that actually took place. In addition, about 130 interviews have been conducted across Europe, much more qualitative in nature, and focusing on selected broader issues. We will discuss key findings from these in the following section.

Procedures

Purchasers

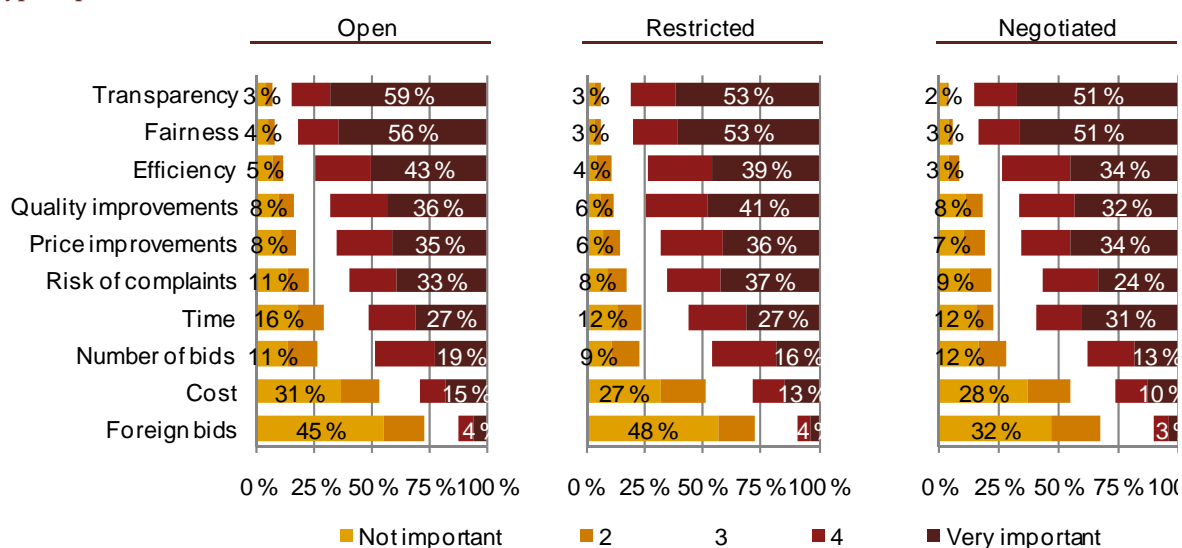
Overall, we find **very little difference among procedures** in terms of either procedural or outcomes ratings by authorities. This is perhaps the most significant finding. There are consistent patterns in terms of how factors are rated across procedures and the ranking order of factors is the same across procedures.⁴⁷

Overall, authorities attribute reassuringly high importance to procurement outcomes such as quality and price, but even more to procedural aspects. Considerations of time and cost rank relatively low. This may be partly because the authorities do not perceive that neither time nor costs vary substantially from procedure to procedure.

Disappointingly, authorities give low importance to attracting a large number of bidders and even much less so to attracting cross border competition. Strictly speaking, we do not know whether purchasers are unconcerned about competitive aspects because they are actually comfortable with the level of competition they normally achieve, because they do not consider it important, or because they do not see the choice of procedure as an influencing factor on the level of competition. We have seen above in the analysis of competition that there turns out to be little difference among procedures in terms of how much competition they generate. Purchasers may see this as a justification for not rating this aspect very high in terms of the choice of procedure. Authorities also probably do not see ‘a very large number of bids’ as a particularly attractive outcome in itself as it entails huge costs to them. What authorities probably value most is receiving a small number of high quality bids from suppliers that aggressively compete among them.

Authorities give low importance to process costs in their choice of procedure

Figure 2.54 Importance **purchasers** put on different aspects of the procurement process when selecting the type of procedure.



⁴⁷ This is based on the responses to the following question: How important were the following aspects for deciding on the type of procurement procedure that would be used?

- costs of the procurement process
- time for completion of the entire procurement process
- improvement in price of the offered goods, works, or services
- improvement of quality of the offered goods, works or services
- fairness of the procurement process
- transparency of the procurement process
- efficiency of the procurement process
- the number of bids received
- the number of bids received from abroad
- the risk of complaints and litigation

When we **compare across** the three main types of procedures we find a remarkable alignment of criteria. Figure 1.1. We may nonetheless highlight the following:

Fairness and transparency is considered very important by authorities. There are very few differences between the responses from authorities having used any of the three types of procedures.

Achieving quality improvement is considered important, and slightly more important than price. Price competitiveness is considered high or very high by a large majority of authorities across all types of procedures.

Procurement process costs are not important when selecting a procedure according to a large number of respondents. Open procedures receive slightly lower ratings on this measure. Costs are seen even less important in restricted procedures.

On the other hand, the efficiency of the procurement process is seen as important. All types of procedures rate high in terms of efficiency with little noticeable differences among them.

Time efficiency is seen as more important than costs when choosing a procedure. Respondents in relation to negotiated procedures find this to be even more important.

Authorities who choose the open procedure puts more emphasis on competition. The importance of competition from abroad is very low for all procedures.

Authorities puts much emphasis on the risk of litigation. This is particularly pronounced in restricted and open procedures, while somewhat less so in negotiated procedures. Quality, risks of complaints and timeliness are all seen as important for authorities that select restricted procedures.

Econometric analysis further help to determine which factors impact on the choice of procedure. Figure 2.55 reports only on the few variables that had a statistically significant effect on the choice of procedure.

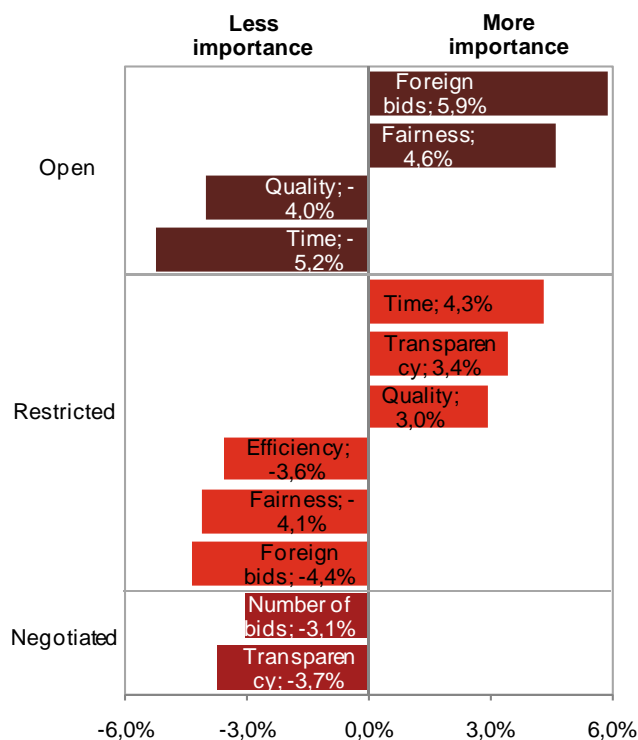
For **open procedures** we observed that these are less likely to be chosen by authorities of large size or by those more specialised in procurement techniques. Open procedures are also less likely to be chosen by authorities that place a relatively large weight on timeliness.

The use of **restricted procedures** is more common among authorities with a degree of procurement specialty, those who place a high weight on timeliness and those who are most concerned about the risk of litigation. While the expectation of foreign bidders and the importance attributed to designing procedures that attract foreign bidders are very low throughout all the responses, these are particularly low for restricted procedures. **Negotiated procedures** are more likely to be used by larger authorities and those with a high level of procurement experience.

In-depth conversations with about **130 purchasers** have revealed more insights into these factors. The respondents were chosen randomly among those who have completed a purchase in the

Authorities that choose open procedures give most importance to attracting foreign bidders

Figure 2.55 Estimated effect of importance purchasers attributed to different aspects of the procurement process on the likelihood of a particular procedure being used



last years. They are from a number of countries and represent different types of authorities, objects purchased and contract values.

One key issue discussed was how they think the type of EU-procedure impacts on the result of the procurement.

A general idea is that the **determining factor** for the outcome of the procurement is the specification of criteria. The design details are overwhelmingly seen as most important regardless of procedure. This is about specifying the need. Issues like price-quality ratios are also seen as having an effect regardless of procedure chosen.

Beyond these general purchasing considerations, procedures are seen as having different characteristics which are useful for particular purposes.

There is some reluctance expressed with regards to the open procedure. We should keep in mind that this procedure is chosen for nearly three-quarters of all purchases and as such, the reluctance does not translate to actual behaviour. However, misgivings expressed may still be valid as the choice of procedure is not entirely free. The use of restricted procedures is always a possible alternative, but these tend to take even longer because of the two-stage process. Negotiated procedures can only be selected in specific situations.

The positive aspects of the open procedure that are highlighted are increasing competition, including with foreign bidders. This type of procedure is also indicated as being fairly straight forward to use and that it streamlines the process. The **risks** seem to relate to the difficulty for the purchaser to properly specify requirements upfront. This is seen as critical and, as such, other procedures may have some advantages in reducing risk.

Negotiated and restricted procedures seem to be preferred mostly as a sort of quality management and risk reduction technique. There are two aspects in connection to this:

One aspect is the ability to restrict competition to a **short list**. Presumably, this would give purchasers the ability to determine the “genuine competitors” from “the sheer timewasters”. Only suppliers meeting certain criteria would be invited for the actual tender process. This may be a legitimate issue in markets with a lot of competition, i.e. where the call for tender attracts a large number of bidders. This effect is also about reducing total costs for both purchasers and firms, as the second round of specifications and proposals is more demanding for both sides. However, as we have seen in the analysis on competition, the need to restrict the number of bidders may not be legitimate in all countries and there are several markets where the median number of bidders is already very small.

The other aspect is about improving the **ability to negotiate**. This does not seem to be so much about price negotiations as about having discussions about the match of the proposals with the purpose of the contract. Purchasers consider that a negotiated process mitigates the risk of having a poorly specified request their inability to specify upfront all the requirements with a high level of specificity. Some also see the ability to negotiate as more conducive to invite solutions and proposals which are more innovative and that provide solutions which the purchaser may not have considered. This seems to be a concern mostly with the purchasing of (business) services where the range of quality and specialization may be large. The Directives may not have foreseen this use of negotiations although it seems to be happening in response to perceived needs.

We should also keep in mind that overall we have found declining use of the restricted procedure and more stability with regard to the negotiated procedure (though also declining if measured in value). Open procedure has increased in use.

Drivers of cost and time are quite consistently reported as being mostly the lengthy standstill periods and the risk of litigation and complaints. The latter is reported as leading to more cumbersome design of the process, and to a specialization of the purchasing function which may lead

to a loss of focus on the actual objectives of the purchase. Some mention aspects of importance for suppliers, most notably the need to repeatedly deliver identical formal documentation. The differentiation (or perceived lack thereof) between A and B services is pointed to as creating difficulties. Threshold levels are also mentioned as being too low. Few point to specific regulatory provisions beyond this.

Competitive Dialogue

Competitive dialogue was added as the fourth main procedure with the revised directives of 2004. By design it prescribes a process whereby the purchaser will hold an ongoing dialogue with firms and together shape up the design details until the stage where the firm submits the tender. There is a strict criterion for its use; it is only to be used for very complex purchases.

There is particular interest in how the use of this procedure evolves, and partly because in value terms, its use is increasing quite rapidly and becoming significant. It may quickly rise to become the second largest procedure in value terms if the growth continues at the same rate. The current level of use is however still quite low for a robust quantitative analysis and so we focused particularly on this type of procedure in the interview sessions. There is a more extensive discussion of experiences with the procedure in a recent publication and we will not repeat those findings here.⁴⁸ The study focused on those with experience with the procedure – and not on those who had decided against it.

Value added for this discussion is with regards to how the competitive dialogue relates to other procedures. We discussed with both users and those who had decided against using the procedure.

First, there is some indication that the procedure is substituting the negotiated procedure with regards to the large purchases. As we know, negotiated procedure is decreasing in value terms, but remains near constant in numbers – indicating that it is the high value purchases that are “disappearing”. Several purchasers mention competitive dialogue as an alternative to negotiated procedure.

Second, many users report broadly the same issues that are known from other studies – that the procedure has some merit with regards to complicated purchases.

Third, the barriers against using the procedure are considered significant for most of our respondents – and they have thus decided against it. The reasons reported include:

- Considered too complex and expensive for authorities.
- The legal barriers and risks are considered too high. The interpretation of the “highly complex” criterion is considered by many as too restrictive. Also, as the procedure involves close dialogue with firms in the tendering process, which is tightly regulated, there is a fear of legal challenges. Quite a few report active discouragement against using it for this reason.
- High expenses for firms and lack of participation. This latter issue is not confirmed by our data on actual competition using competitive dialogue. It receives bids almost as much as others. Our data are however biased in the sense that they do not include cancelled competitions. However, we cannot discount entirely the possibility that some processes are simply not done using competitive dialogue in the first place because there is a perceived risk that firms will not participate.

Fourth, open procedure is as we have seen also an alternative for larger purchases. In fact, in terms of numbers it is being used much more frequently than competitive dialogue (including for high value purchases). Value is not of course synonymous with “highly complex” and these purchases might not have qualified for competitive dialogue due to the nature of what was being purchased. Respondents who have chosen the open procedure do however emphasize its straightforwardness and its perceived ability to attract more competition.

⁴⁸ Procurement of PPP and the use of Competitive Dialogue in Europe. A review of public sector practices across the EU. European PPP Expertise Centre. 2010

Firms

Next we turn to how **participating firms** perceive the procurement process. Participating firms were asked to rate several aspects of procurement processes under the EU Directives.⁴⁹ About 1800 firms across Europe responded.

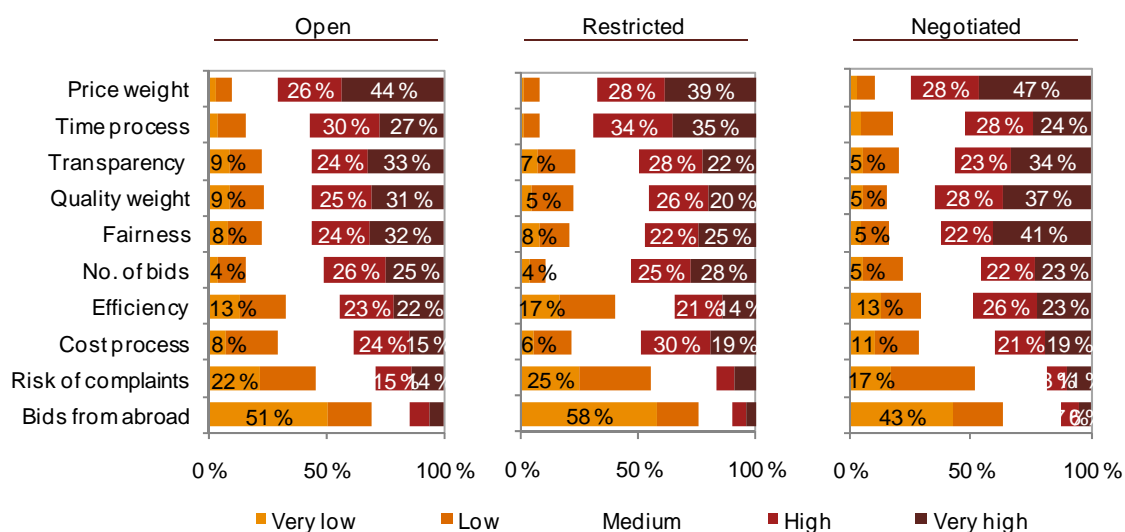
We should note that the responses we got were from winning firms, which may create a bias. Although few are likely to be regular winners –the average win-loss ratio is reported to be in the area of 1:4 – the results are reasonably consistent with our data on median number of bids per contract notice. There are more pronounced differences between those who have used various procedures than for the purchasers shown in Figure 2.56.

Weight put on price competitiveness is very high by firms across all procedures. The weight put on price competitiveness was deemed to be either "high" or "very high" by slightly more than 60% of the respondents. This figure is broadly similar across procedures. Quality of provisions is considered important, but considerably less so than price (only about 40% attribute it high or very high importance).

Time for completion of the entire procurement process is found to be "high" or "very high" by the majority of respondents. The perception of high costs seems to be stronger in restricted procedures followed by open procedures and finally by negotiated procedures. Relatively more responses in the lower cost areas are found in negotiated procedures. Relatively higher costs are perceived in restricted procedures.

Firms consider EU procurement performance as good; restricted is less efficient

Figure 2.56 Importance by firms of different aspects of the procurement process and bid preparation



⁴⁹ In terms of preparation of your bid, how would you rate the following aspects?

- costs of proposal preparation
- time for completion of the entire procurement process
- weight put on price competitiveness of offered goods, works, or services
- weight put on quality of goods/services or works offered
- fairness of the procurement process
- transparency of the procurement process
- efficiency of the procurement process
- expected number of competitors
- expected number of competitors from abroad
- the risk of complaints and litigation

There is a positive perception of fairness of the procurement process. This is, somewhat surprisingly, highest for negotiated procedures. It is lower for restricted than open procedures. The results in relation to transparency are similar to those for fairness.

Competition is perceived relatively high across all types. About 40% of respondents expect the number of competitors to be “high” or “very high”. The expected number of competitors is also considered high or very high by about 1/3 of negotiated procedure respondents. The vast majority of respondents have very low expectations of competition from outside their respective national boundaries. This is true for all types of procedures.

Efficiency of the procurement processes receives mixed reviews, with similar numbers of respondents considering them efficient and inefficient.

The risk of litigation is perceived to be very low by firms. There is a general perception of low risk of litigation, with only about 20% of respondents considering this risk to be high or very high. Open procedures fare somewhat worse in this respect.

Frameworks

Use of framework agreements is increasing. It is a newer instrument than the standard procedures and there is interest in how its use evolves. We constructed a sub-sample in the survey targeting experienced framework purchasers. The corresponding responses can be contrasted to those by non-framework purchasers.

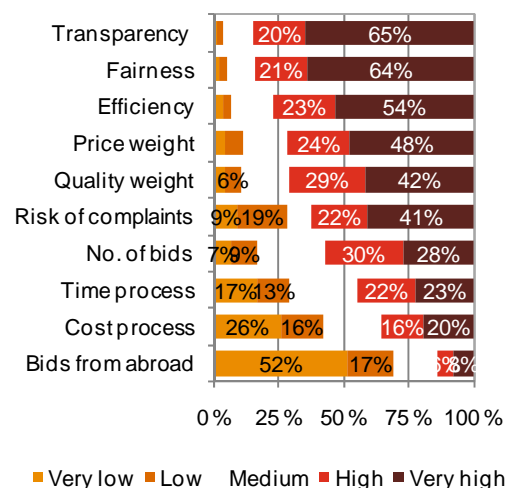
There are few differences between the procedures used when procuring frameworks.

Framework purchasers are more process cost-conscious. This stands out compared to non-framework purchasing. Similarly, efficiency of the procurement process is rated as important. Price and quality gains are also seen as more important than for average procedures. These questions focused on “over the lifetime of the agreement”, meaning they were about both the first and second stages.

This is consistent with the results in the cost analysis chapter. Framework agreements are cheaper to run over their lifetime – though the savings are very sensitive to the number of requests issued under the framework.

Framework purchasers are more cost-conscious

Figure 2.57 Perceptions of purchasers when selecting a framework agreement by procedure (Open procedure)



We asked four specific questions related to the functioning of a framework agreement.⁵⁰

The authorities put a high rating on the level of transparency of the selection among suppliers within the framework. As we see below, this view is not entirely shared by framework firms.

There is medium to high level of expected competition among selected framework suppliers. The respondents for restricted procedures expect the strongest competition among suppliers.

Very low rating is given to access to the market by suppliers outside the framework. Respondents recognize that access to the market by firms that are not selected as part of the framework is likely to be low or very low.

Indeed, this issue of whether frameworks may actually lead to decreased competition over time is something to monitor closely as the usage evolves. We will see in the next sub-section that firms are more concerned about competitive aspects than the purchasers.

Framework agreements can take different forms within the regulations. In particular, frameworks can select one or multiple suppliers and when multiple suppliers are selected, the way in which individual contracts are then awarded also differs (mini-competition or sequentially from the highest ranked framework member, moving down only if the top one is unavailable to bid). There may be different competitive dynamics in these configurations. The dynamics may also change over the lifetime of the agreement. For example, some respondents report that unsuccessful participants lose motivation and as a result competition within the framework decreases over time.

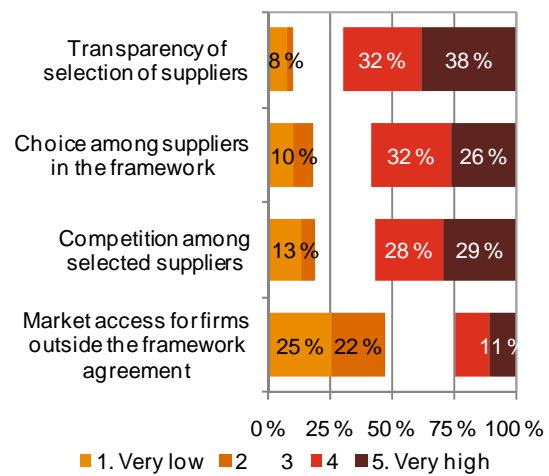
These issues became more apparent during **the 130 in-depth interviews** where we also focused on framework agreements. Some frameworks include a large number of suppliers and operate similarly to a qualification system in the utilities sector whereby the purchaser has established a long-list of suppliers who meet basic criteria and subsequently organizes mini-tenders within the framework. On the other extreme are the single supplier frameworks. The average framework has about 4,4 suppliers as identified in the larger survey.

Three key topics emerged in the interviews:

- There are cost savings (also confirmed in our costs analysis), there is a certain flexibility for example if the purchaser is not sure of the quantity required, fewer more formal procedures, and saves time all emerge as positive aspects. Many of these findings are consistent with the larger survey sample. Some emphasize the relationship aspects, i.e. increased trust reduces transaction costs. Others view relationship issues as a source of inefficiency due to purchasers getting comfortable with old, known suppliers.
- There are concerns about competitive aspects. Three aspects are brought up here: competition within the framework may wither off over time; market closure for firms not being part of the framework, in particular concerns about SMEs access; and mixed

Purchasers give high rating for transparency during framework

Figure 2.58 Perceptions of purchasers when operating a framework agreement (All procedures)



⁵⁰ How would you rate the following aspects of framework agreements?

- choice among suppliers in the framework over the life of the agreement
- competition among selected suppliers over the life of the framework agreement
- transparency of selection of suppliers over the life of the framework agreement
- market access for firms outside the framework agreement

experiences with competition when consecutive frameworks are issued. There is also concern that reissuing consecutive frameworks favours incumbents, as experience requirements may close out challengers – many report experience with a roll-over of contracts with incumbents with no new entrants.

- Countries that use the frameworks to a lesser extent emphasized that they require some capacity and planning to manage them successfully. Such type of acquisition needs programming. In this regard it is also emphasized by respondents that the anti-competitive aspects of frameworks can be mitigated by deliberate management, though this may require resources and experience.

These are indications of potential policy aspects. Frameworks have increased in importance throughout the EEA, and a closer look may be warranted, especially on competitive effects in the long run.

Firms report that they put more weight on price competitiveness when bidding for framework agreements.

There are quite interesting differences in how purchasers view framework agreements. Cost of process is not rated significantly lower than for regular procurements, and time for completions of the entire process is seen as long. The efficiency of the process is not regarded by firms as positively as by authorities.

Fairness and transparency are rated considerably lower by firms than by authorities. Transparency is rated particularly lower than for regular procedures.

They do expect more competition than under regular procedures. The respondents for restricted procedures expect strong competition much more so than respondents for the other types of procedure. As much as 70 percent rate the competition from abroad as low or very low.

The differences with purchasers become even more pronounced when we review the specific framework questions.

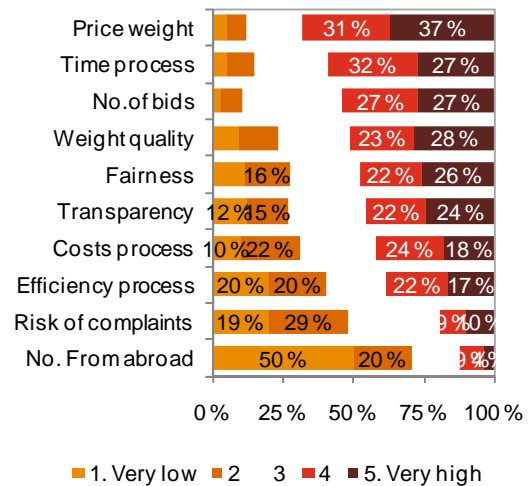
There is a very low rating for access to suppliers outside the framework. Respondents recognise that access to the market by firms that are not selected as part of the framework is likely to be low or very low.

Also, transparency of selection of suppliers during an agreement is rated much lower than for purchasers.

Firms see less competition among suppliers than purchasers do.

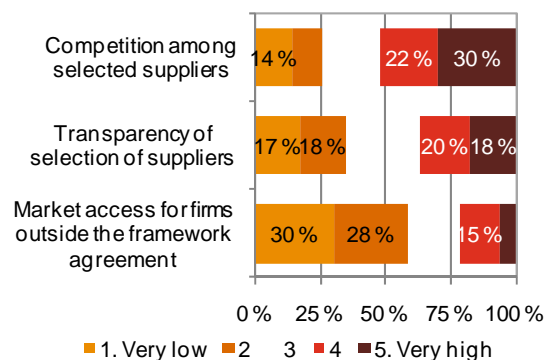
Firms expect much competition when bidding for frameworks

Figure 2.59 Perceptions of purchasers when selecting a framework agreement by procedure (All procedures)



Firms more concerned about poor competitive aspects of frameworks

Figure 2.60 Perceptions of firms when operating a framework agreement (All procedures)



2.6 Compared against national regulations

Implementation of the EU directives have been analysed in several ways so far in this study. We have reviewed patterns of use, structural and market characteristics, costs, competition and determinants for choosing procedures and techniques. This brings out key characteristics of how the directives work.

Nevertheless, some key questions still remain. What would the patterns of procurement have been without the EU directives? How would that impact costs and effectiveness?

The counterfactual scenario is hard to establish and difficult to research with certainty. The scenario needs to be realistic and at the same time researchable across countries in a reasonably cost efficient way. We have as such determined a two-fold approach to this subject.

First, we review how purchasers and firms compare current regulations against a scenario with national regulations only. The specific scenario would be national regulatory regimes comparable to below threshold regulations. Clearly, a world without procurement regulations is not a realistic scenario. Below-threshold regulation may not be fully realistic either, as WTO agreements and national needs would most likely have required a more extensive national regulation of larger purchases than the national below threshold regimes deliver today. To further complicate matters, many countries have below threshold regulations that mirror the EU directives, and in some cases, a near transposition of them. Yet, as a counterfactual scenario it still serves to bring out some differences for a comparable procurement regime benchmark that can be investigated across countries.

Second, a comparison to and analysis of private sector procurement may offer additional ideas and perspectives. This will be discussed towards the end of the chapter.

Comparison against national regulations

In this section we look at the results of our survey of authorities and firms where we asked about perceptions of EU procurement processes' participants. For commissioning authorities we asked for comparisons between above and below EU-threshold procurement.⁵¹ For firms we asked similar questions, adding one group of questions on the comparison between above EU-threshold and private procurement, to which we will turn toward the end.

Two patterns stand out: First, there is very little difference between EU and national regulations. Most **purchasers** report no significant difference except for two factors. This response can either be seen as a statement of the fact that national regulations are in effect transposed EU regulations, or that the key driving parameters are identical for other reasons. Time and costs are the two exceptions and are seen as higher in above-threshold procurement by a majority of respondents. See Figure 2.61.

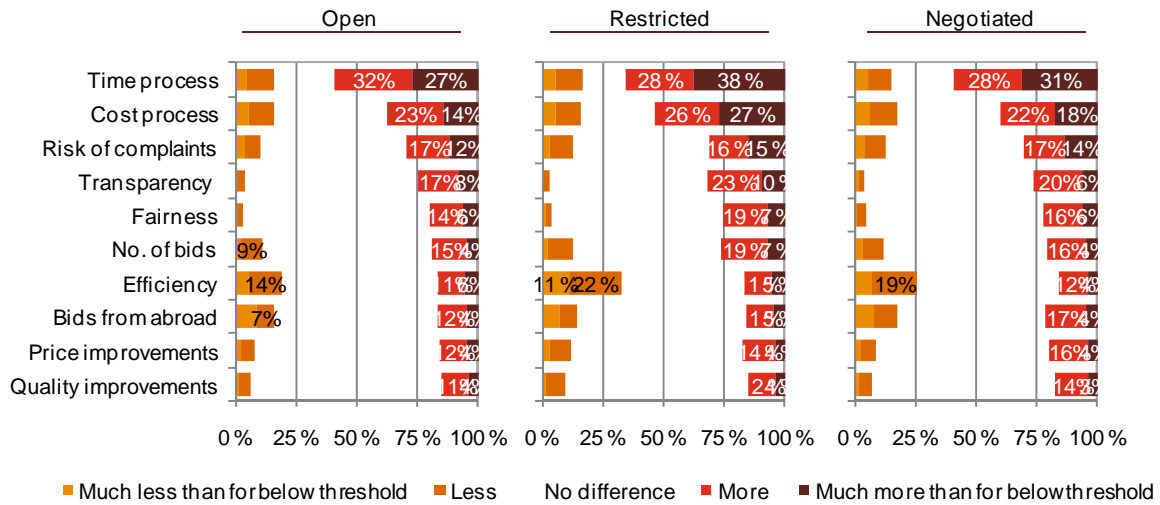
Overall, authorities consider that the above threshold procedures are more costly (close to 30% versus 13% who responded that below threshold were more costly). Time is a factor rated significantly higher than for below threshold. A large majority of respondents consider that the above threshold procedures take longer to complete. This is the case for all types of procedures.

⁵¹ How would you compare the following aspects of this procurement procedure with a below EU-threshold procurement procedure (where your national procurement rules apply)?

- costs of the procurement process
- time for completion of the entire procurement process
- improvement in price of the offered goods, works, or services
- improvement of quality of the offered goods, works or services
- fairness of the procurement process
- transparency of the procurement process
- efficiency of the procurement process
- the number of bids received
- the number of bids received from abroad
- the risk of complaints and litigation

Purchasers see EU regulations as more time consuming...

Figure 2.61 Comparison by purchasers: above versus below threshold procurement



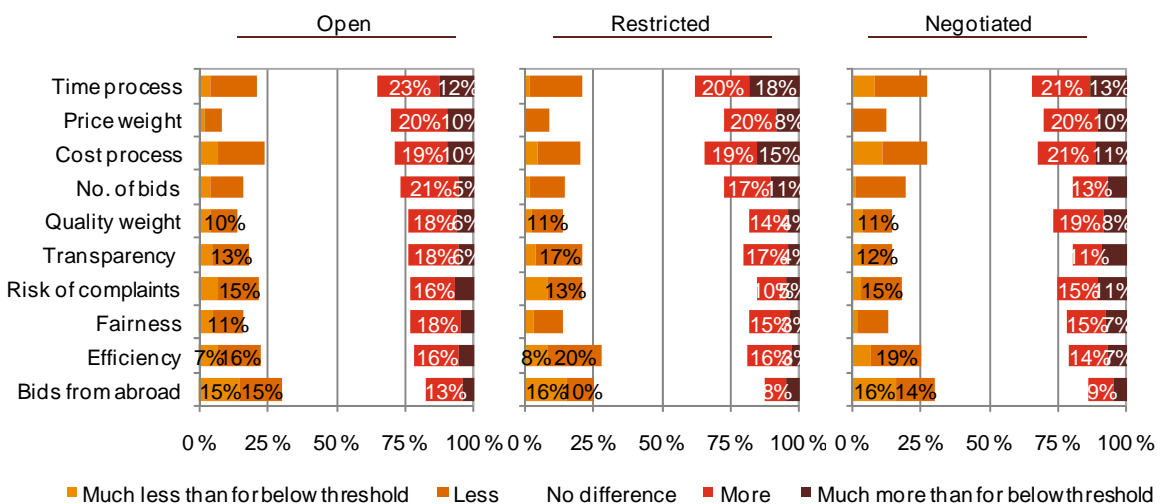
Efficiency is rated slightly lower for above threshold procedures. Although a majority of respondents see little difference between above and below threshold procedures' efficiency, there are more answers that view above threshold procedures negatively than in all the previous questions.

Competitiveness is seen as slightly higher for above threshold. Price competitiveness of tenders is generally rated high, and similarly for below threshold procedures, although slightly more respondents consider that above threshold procedures result in price improvements. Cross border competition is low for both and shows little difference between the above and below threshold procedures.

Authorities have a very high level of concern about the risk of litigation. The risk of litigation is perceived to be significantly higher for above threshold procedures. Transparency and fairness are rated slightly less so than for above threshold procedures

...but firms don't see it all that much worse

Figure 2.62 Comparison by firms: above versus below threshold procurement



Overall, firms find little difference between EU and national regulations, even less so than purchasers do. The comparison to below EU-threshold shows little perceived time difference, although slightly more respondents see below threshold procedures as less time consuming. When compared to below threshold procedures, most respondents find costs similar. There is an evenly split perceptions of efficiency of public procurement.

Perceptions of relatively high level of competition across all types are prevalent. A slightly larger number of respondents expect more competitors in below threshold procurement. The vast majority of respondents have very low expectations of competition from outside their respective national boundaries. This is the case across all types of procedures but significantly less cross border competition is expected than for above threshold procedures.

The weight put on price competitiveness is by comparison somewhat higher for below threshold public procurement; the perceptions of quality weight yield similar results.

Fairness and transparency yield no strong perceptions favouring any of the types.

2.7 Compared against private sector purchasing

Private sector purchasing has many similarities with public procurement, but there are also important differences. A key differentiation in theory is that private sector companies need very strongly to achieve success in the purchasing as the company may otherwise succumb to competitive pressures. These competitive pressures do not exist in public procurement and hence the need to regulate the purchasing processes more tightly. Yet, private sector entities, and in particular larger ones, are also faced with challenges of aligning the principal-agent interests. Owners may not by default be reassured that the best purchases are being made. There are also possible organizational and institutional aspects which may affect how purchasing is being done in practice. As such, there may be a need for larger firms to formalize and institutionalize their purchasing processes.

Based on this background we have set out to understand better how private sector purchasing is actually conducted. The key questions are:

- 1. How is private sector procurement actually performed in large European corporations?** For this purpose we have interviewed twenty large corporations across Europe. Our interviews involved European construction and service businesses in 8 countries: France, Germany, Netherlands, Norway, Poland, Spain, Sweden and the UK. The persons being interviewed were those with responsibility for their organization's sourcing activities. This typically included supply chain director, sourcing and logistics director or purchasing manager. The companies represent a cross-section of construction and services organizations operating in the European market – many of them large, mature organizations. We selected these sectors as targets, as they operate in sectors where most public purchasing takes place (construction and services).

This empirical work is of a different nature than what most of the study is based on. The interviews were more qualitative, and involved a very small group of respondents in comparison to thousands of authorities surveyed for the purpose of collecting data for the public procurement analysis. As companies also regard their purchasing process as a commercial secret and are very reluctant to share information, we have had to promise complete anonymity and cannot disclose the names, or any operational detail, of the companies who have participated in the survey.

- 2. How effective is private sector purchasing perceived in comparison to public procurement?** For this purpose we asked a large number of corporations who supply the public sector how they experience the private sector procurement in comparison to the public. This information was collected in the broader survey that has been discussed previously in this chapter. The information is based upon responses from about 1500 firms.

First we turn to the qualitative description of private sector purchasing. Following that we discuss the comparisons.

The use of purchasing procedures and techniques in the private sector

The majority of large companies in the private sector have established formalized internal purchasing procedures. These procedures shall be followed in most businesses for all procurements. However, many interviewees have also stated that the procedures are more formalized and adhere to procurement processes of direct materials, such as raw materials, high value contracts and procurements within high risk areas. Purchasing of indirect materials, such as procurements of various marketing services, is less governed by formalized purchasing procedures.

The majority of the companies have established two specific procedures for repetitive, standardized buying and for non-repetitive, one-time buying; however, these procedures are very similar to each other. Procedures for non-repetitive buying are often less comprehensive and less formalized than the ones governing repetitive buying.

When deciding how to conduct a purchase, i.e. selecting a specific procurement procedure, the majority of companies include the value of the future contract to be the most important criterion

followed by focus on achieving a better quality of purchased goods or services. Higher values brings in stricter rules and requirements for competition. Other and less important criteria influencing a purchaser's selection of procurement procedures are complexity of the goods or services that are being purchased and focus on achieving the best price possible within the market. Frequency of purchase, time and expense of the purchasing procedure, as well as fairness and transparency of the purchasing procedures, are factors that are seldom taken into consideration when deciding how to conduct a purchase in the private sector. The reason for excluding some of these criteria, such as achieving a better price, is that they are built in all processes and therefore have no impact on the selection of a specific procurement procedure.

More than a half of the interviewed companies have centralized their purchasing function to some extent. Centralized purchasing categories often include indirect materials, raw materials and high value or strategic procurements.

Framework agreements are used to some extent in the private procurement procedures. These agreements are usually signed for 1 to 2 years with 1 to 2 suppliers on average. The portion of purchasing contracted using a framework agreement varies from company to company and often correlates with degree of centralization of purchasing function in a company. Companies with centralized purchasing functions tend to use framework agreements to a larger extent than companies with decentralized purchasing.

e-Auctions are used in private sector as a negotiating tool to achieve lower prices. About half of the interviewed companies use e-Auctions or other electronic market places to a limited extent, while only a smaller portion use these solutions to a larger extent. The majority of these companies use a third-party solution rather than develop a proprietary eCommerce platform.

Pre-award process

One of the first steps in a private purchasing process is the identification of potential suppliers. Sources of potential suppliers will usually include a central information system, accounts payable, mailing lists, purchasing files, corporate knowledge, internet or corporate or external databases, a central supplier registration system, conferences and exhibitions. Most companies identify their suppliers using corporate knowledge supplied with an Internet search. Additionally, the majority of the companies state that they to some extent conduct a supplier market analysis prior to external initialization of the procurement.

Use of prequalification processes of suppliers prior to the tender process varies largely among the interviewed companies, from companies that require a prequalification for all of the suppliers participating in a procurement process to companies where prequalification is only necessary for areas with special demands.

Most of the interviewed companies use a request for information (RFI) to some extent, usually in procurements where purchasers lack information important for the purchase. The RFI procedure is often used where it is necessary to further develop or confirm the interpretation of customer specifications. An RFI is a standard business process whose purpose is to collect written information about the capabilities of various suppliers. Normally it follows a format that can be used for comparative purposes. An RFI is primarily used to gather information to help make a decision often related to a tender approach. In addition to gathering basic information, an RFI is often used as a solicitation sent to a broad base of potential suppliers for the purpose of conditioning suppliers' minds, developing strategy, building a database, and preparing for a tender.

All companies have established universal supplier requirements and standard practices and all interviewed companies state that their suppliers must comply specifically with their universal financial requirements. The majority of the interviewed companies state that all suppliers must comply with their social and environmental requirements or that these requirements are used in some selected, usually high risk, sourcing areas.

Award process

Tenders are not announced publicly in the private sector. Tenders are directed to specific suppliers. Number of suppliers receiving the tender varies from company to company and from procurement to procurement. About 50 percent of the companies send a tender to only a few selected suppliers while the other 50 percent of companies include a large number of suppliers in their tender process.

Competitive bidding is one of the most often used purchasing techniques in the private sector. Many of the purchasing processes in the private sector are in principle designed to achieve the lowest possible price and the highest possible quality. Best price evaluation is understood as a strategic sourcing approach used in many procurements. Sourcing techniques of this approach include internal price benchmarking, price re-negotiations, price unbundling, “threaten-back” leverage, price indexing/capping and competitive bidding.

The majority of the interviewed companies use predefined evaluation criteria to evaluate the suppliers’ offers, however none of the companies *must* share these evaluation criteria with the suppliers during the tender. Additionally, more than 50 percent of the companies state that they favor suppliers with whom they have worked successfully in the past, to a larger extent than just switching costs.

Suppliers are allowed to ask questions or have a dialogue during a tender process. The majority of the interviewed companies provide an answer only to the supplier asking the question and only a few of the companies inform all suppliers participating in the tender process. This is done usually in cases of tender conditions clarification issues. Offers submitted by the suppliers after the deadline are accepted by the majority of the interviewed companies if the supplier informs the purchaser in advance.

Tenders are followed by negotiations in most procurement processes in the private sector. Number of suppliers invited to the negotiations varies from 1 to 3 suppliers. Seldom are more than 3 suppliers invited to the negotiations.

Average length of process from invitation of the suppliers to tender process is 2-3 weeks. Contract is awarded on average in 4-6 weeks after a tender deadline. However, interviewed companies state that there are large variations on the procurement level, often being depended on the project complexity. Most companies have not experienced formal litigations from the suppliers due to decisions taken in the procurement process. In some rare cases an informal complaint from a supplier might occur.

Competition

Companies’ internal procurement procedures usually do not state a minimum number of suppliers that shall receive a tender. Formalized procurement procedures in some companies specify that there shall be at least three offers received in the tender phase unless a single or sole sourcing purchasing process has been formally approved. Those companies where internal procedures specify this, must usually invite at least three suppliers to a tender. However, the majority of the companies involved in this study state that the number of received offers in the tender phase of the purchasing process is a very important success factor for the procurement.

Most companies state that they receive 2-3 offers on each tender on average, although the interviewed companies state that the number may vary significantly from project to project. More than half of the interviewed companies state that the majority of their offers come from abroad. In some cases the portion of foreign bids is over 90 percent.

No specific number of foreign bidders is usually required for individual purchases. However, the majority of private companies state that it is important for them to receive offers from abroad. Many companies have had a focus on global sourcing possibilities that in this context often may represent a low-cost country sourcing giving a company a cost advantage. A broader selection of suppliers should help to identify those with lowest cost structures, superior technologies and highest quality levels. Techniques for global sourcing include expanding the geographical supply base, examining new suppliers, taking advantage of trade incentives, capitalizing on currency fluctuations, optimizing counter-trade and leveraging second-tier suppliers.

Comparison of effectiveness with public procurement

Firms are more decisive when it comes to comparing against private sector procurement. They find more differences across the ten factors. About 1500 of the 1800 firms in our sample report having experience with private sector procurement (sell side).

The comparison to private procurement shows a market perception that less time is needed to complete the entire procurement process. There is also a clear view that the costs of public procurement are higher or much higher. Efficiency of private sector procurement is also rated higher than for public procurement.

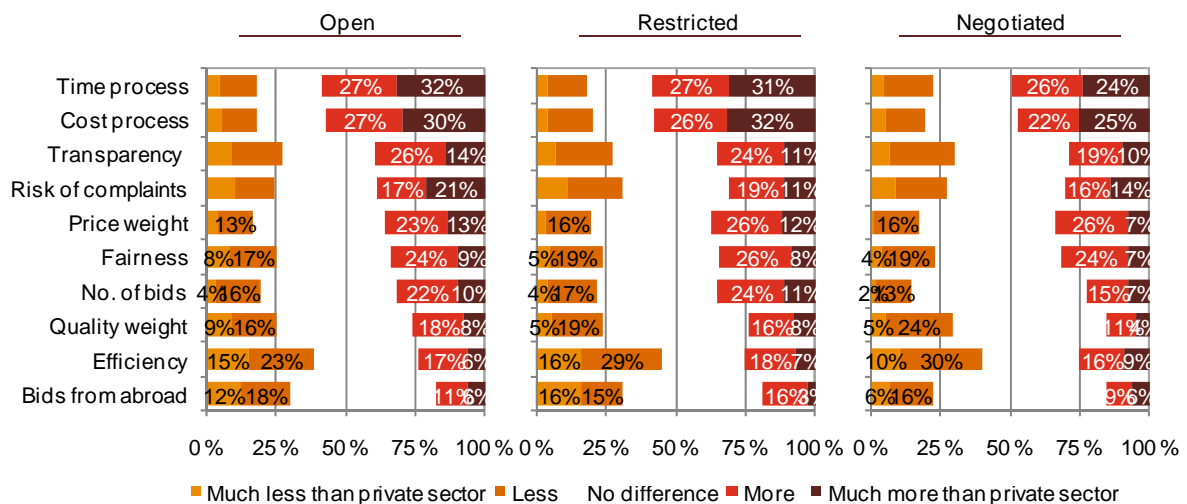
The weight put on price competitiveness is by comparison somewhat higher in public procurement. We do not know whether this means that the public sector actually gets better value for money as a result. Quality weight is rated about the same.

Less competition is seen in private sector, but there are perceptions of relatively high level of competition across all types. This may confirm the findings from interviews of companies. Interestingly, higher expectations of competition from abroad are seen, although overall, also here low expectations of competition from abroad are noted.

Fairness and transparency are rated higher in public procurement. Actually, given the mandatory disclosure requirements in public sector it is surprising that this is not rated even higher.

Firms find less competition in private sector; and time and costs are perceived significantly lower

Figure 2.63 Comparison by firms: above EU- threshold versus private procurement



Concluding remarks

3 Concluding remarks

This study investigated patterns of use, costs and effectiveness of EU procurement. The analysis should support the policy debate about the EU Public Procurement Directives, and inform the assessment of possible changes. The goal of the analytical work is not to determine “the right answer” but to advance the thinking around plausible options, using both qualitative and quantitative analytical techniques.

Our analysis is based on a large empirical basis comprising the entirety of contracts in the TED database in the period 2006-2010, a survey of over 7300 procurers and participating firms and in-depth interviews with 150 procurement professionals. This data sought for the first time to directly assess the costs of procurement and to compare costs across procedures, countries, authorities and sectors. We have also explored more qualitatively focused material to help enrich our understanding of observed patterns.

Overall, the study finds that the procurement directives support the core objectives of public procurement policy. In particular, public procurement markets are highly competitive and this should help bring about efficient purchasing outcomes. The regulatory dilemma is how to balance these positive core features of the system, while responding to a perceived need for increased efficiency and flexibility.

It is also possible that while the policy is very effective in supporting competition it does so quite indiscriminately of the costs. There are considerable process costs, in particular for participating businesses and these can become a significant burden on the system particularly for the low value contract ranges in which most purchasing takes place.

There is a tension between the objectives of increasing competition and limiting costs. Attracting a large number of bidders enhances competition and should lead to better procurement outcomes. However, more bids also mean more resources used by firms on preparing tenders and by authorities on reviewing them. This would point to the use of approaches that restrict the number of bidders.

There is equally a tension between fairness and transparency on one hand and flexibility on the other. If an authority has to specify in great detail all the elements of the requirement, it loses the flexibility of adjusting the purchase to particularly innovative or technically superior submissions. This would point to the use of procedures such as negotiated or competitive dialogue where the full specification of the requirements may not be precisely completed beforehand.

Procurement costs and effectiveness were found to vary significantly across countries. The analysis of these differences and a better understanding of the driving forces behind them should also inform the discussion of possible avenues for change.

There are reasons to believe that considerable gains could be achieved by each country, within the existing regulatory framework. A dominant feature of our study is that the cross-country variation is significant and a large part of this variation does not seem to be explained by any of the factors that were included in the study. There is evidently much scope for country performance improvements and the potential gains from exchange of best practices appear substantial. Consistent with these findings is a policy with strategies and instruments aimed at supporting performance of the countries.

Core features of the system such as competition and cost effectiveness also vary significantly across type of procedure, technique and contracting authority. Further understanding of the drivers of such observed differences should assist in the identification of policy variables that can be used to improve public procurement processes and outcomes.





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