JOURNAL OF PUBLIC PROCUREMENT, VOLUME 8, ISSUE 1, 36-69 2008

SIZE, COMPETITION AND QUALITY IN THE ITALIAN MARKET FOR CONSULTING SERVICES

Raffaello Cervigni, Oriana Cuccu, and Raffaele Miniaci*

ABSTRACT. The quality of consulting services informing project decisions is crucial for the effectiveness of public investments. We analyze the ability of the consulting industry to provide adequate services to government agencies in Italy. At the aggregate level we observe that the value of the public demand for consulting services is a small and highly variable share of revenues of the consulting firms. At the micro level, we analyze the procurement data for some 300 feasibility studies. Although the market for those studies has been reasonably competitive, it has attracted a small fraction of the all consulting sector, and the quality of the studies has been unsatisfactory. We claim that an increasing public demand would provide more incentives for firms to focus their business on the provision of quality consulting services to the public sector.

INTRODUCTION

The modernization of government agencies has been at the forefront of development and cohesion policies in Italy over the past few years, since it is considered a key condition for more effective public investment choices. The development programs financed with national and European Union funds have been increasingly aimed at improving the ability of local and central authorities to better evaluate

---

Raffaello Cervigni, Ph.D., is a Senior Economist at The World Bank, Washington DC, USA; and formerly at the Evaluation Unit, Department for Development Policies, Ministry of Economy and Finance, Italy. Oriana Cuccu, M.A., is a Senior Economist at the Evaluation Unit, Department for Development Policies, Ministry of Economy and Finance, Italy. Raffaele Miniaci, Ph.D., is an Associate Professor of Econometrics at the University of Brescia, Italy. His research interests are in micro-econometrics, finance and labour economics

the needs of firms and individuals and to plan, design, implement and operate the infrastructures necessary to meet those needs.

Given the complexity and the high degree of specialized knowledge required to carry out these activities, it would not be realistic or efficient to expect government agencies to have the full range of technical skills and competencies available in-house. On the contrary, effective project design and implementation can only come about through fruitful interaction between informed government agencies and a competent market of external experts. This interaction in turn lays the foundation upon which policy-makers can make sound public investment decisions.

When the production of the technical knowledge for selecting and managing public infrastructures becomes pivotal for development policies, it is reasonable to ask whether the firms to which government usually turns to are up to the task, in terms of skills, organizational structure and incentives required to devote adequate resources to the provision of the services required by government agencies.

This paper will focus on a specific set of consulting services of special importance for the program and project cycles of public investment. In particular, we will consider the research services to evaluate the impacts of public-investment plans and programs, and the technical assistance (TA) for preparing them. In terms of the individual projects, the analysis will concentrate on the cycle encompassing the feasibility studies (FS) for the ex-ante evaluation of the projects and on project design services.

Given that the main goal of this inquiry is to determine whether the market is properly equipped to provide quality services to meet the demand of government agencies, this paper will address the following questions:

On the demand side:

a) What is the government agencies' total demand for relevant external consulting services?

b) To what extent have the different component of the government demand for consulting services changed over the past few years?

On the supply side:

c) What are the firms that fulfill the demand for services by government agencies? What is their size?

d) How important is public demand vis-à-vis the total market for consulting services?

In terms of interaction between demand and supply:

e) What are the operators' participation rates in tenders launched by government agencies for consulting contracts?

f) What is the degree of competition among operators actively engaged in the market for consulting services? Is there any empirical evidence of dominant positions?

g) Should policy actions be taken to improve the functioning of the market? Specifically, is there a role for the following types of public action?

- Increasing the public sector's demand;
- Encouraging entry of new operators into the market;
- Introduction of incentives to encourage operators to specialize in the provision of certain services– including by means of consolidation processes and growth of average firm size

All things being equal, it is reasonable to expect that the quality of consulting services will be higher: the broader and more competitive the market, the more the market structure fosters the accumulation of technical knowledge, the greater and more stable public demand as a share of total demand, the higher the ability of government agencies to define clearly their knowledge needs, and to monitor the services rendered to fulfill such needs.

The paper is organized as follows. The following section illustrates the working hypotheses and the conceptual framework utilized to define the scope of the inquiry. We then identify the main characteristics and changes in the public demand for, and market supply of, consulting services in recent years. Next, we analyze the interaction between public demand for, and supply of, consulting services, using a case study concerning a specific market niche: the preparation of feasibility studies co-financed by Italy's Interministerial

Committee for Economic Planning (CIPE) between 1999 and 2002. A micro data set on individual calls for tender, bidders and awardees of study contracts, managed by the Evaluation Unit (UVAL) of the Ministry of the Economy, makes it possible to analyze in detail the functioning of the market for consulting services in Italy. We then develop estimates of the potential supply of consulting services for feasibility studies, as a way to measure the effect of CIPE studies on the degree of participation in tenders by private operators. Moreover, a statistical model is developed to determine the probability of bidding as a function of demand and the characteristics of the firms concerned. This is used to identify policy actions that can encourage greater participation, and hence better chances of obtaining quality services from private firms. In the final section findings are summarized, and policy implications are discussed.

THE MARKET FOR CONSULTING SERVICES: A CONCEPTUAL FRAMEWORK

Government agencies resort to the consulting market because they need skills and knowledge relevant to their institutional mandate, which are not readily available in the public sector. Our interest here is to determine whether the interaction between the public and the private sectors is likely to produce quality results for the planning and project design cycles of public investments. To this end, we need first to develop a general conceptual framework to define some key variables that are likely to affect the quality of the consulting services rendered. Next, we need to adapt the framework to the specifics of the consulting services required to carry out public investments.

In light of standard notions of the information economics literature (see for instance Laffont and Martimort, 2001), consulting services have two key features: a) the nature of the service required is highly variable and cannot be easily standardized; seldom does a single operator have all the skills and expertise to provide it; b) for a given skill level, the quality of the service depends on the effort of the consultant. However, this effort cannot be easily defined *ex ante* and, in some cases, cannot be readily assessed *ex post*.

Therefore, a government agency looking for consulting services is confronted with two problems: a) finding the “right consultant” (a firm, or most likely a grouping of firms), i.e. the one that has the

proper mix of skills and capabilities for dealing with the task at hand; b) providing adequate incentives (of financial or reputational nature) to prompt the consultant to put sufficient effort into the execution of the contract and into the delivery of high quality services. Schematically, quality q is a function of the abilities and skills of the consultant hired, (α), and of the abilities of the awarding agency, (β), to define clearly the nature and scope of the analysis needed, to monitor directly the quantity and quality of the effort made, and to introduce into the contract effective incentive mechanisms:

$$q = f(\alpha, \beta) \qquad \text{(Eq. 1)}$$

The first problem (finding consultants with high enough α), is normally tackled by establishing ex-ante minimum requirements in terms of experience, qualifications, etc. that consultants have to meet in order to be shortlisted for the tenders. This strategy might keep quality from falling below a minimum threshold, even though it may not attract the most qualified operators in the market. Specifically, the best operators might focus on market segments where demand is more stable or the average contract amount is higher, thus neglecting service types where demand is lower on average or more unpredictable.

The second problem (encourage adequate effort) may be harder to deal with. Possible solutions might include the specification in the contract of quality indicators to be met as a condition for payment of the consultants' fees. This may not be viable when it is difficult to spell out ex ante verifiable indicators of quality. The problem might be mitigated by having a "certification" procedure whereby, upon completion of the contract, experts from within or without the awarding agency would attest to the achievement of a minimum quality level. Such certification might be used as one of the criteria to evaluate the firms in subsequent tenders, particularly as part of the eligibility requirements in case the minimum level has been reached, and as a preferential qualification, in case such minimum level is exceeded.

Other things being equal, it is plausible to surmise that both the "adverse selection problem" (hiring the "wrong" consultants) and the "moral hazard" problem (inability to provide the consultant with the "right" incentives to deliver a quality service) can be mitigated if:

a) The median market level of qualified human capital and technical knowledge stock is high;

b) The market is competitive, that is, there are many players, each controlling a relatively small market share.

The first condition should increase, for any given tender, the likelihood of finding the proper combination of technical knowledge, even setting high (minimum) skill requirements. The second condition (competitiveness) can leverage to maximum effect reputation mechanisms, given that, in order to be awarded a contract, a firm has to submit high-quality technical bids followed by equally high-quality deliverables, allowing it to gain and/or maintain its reputation in the market.

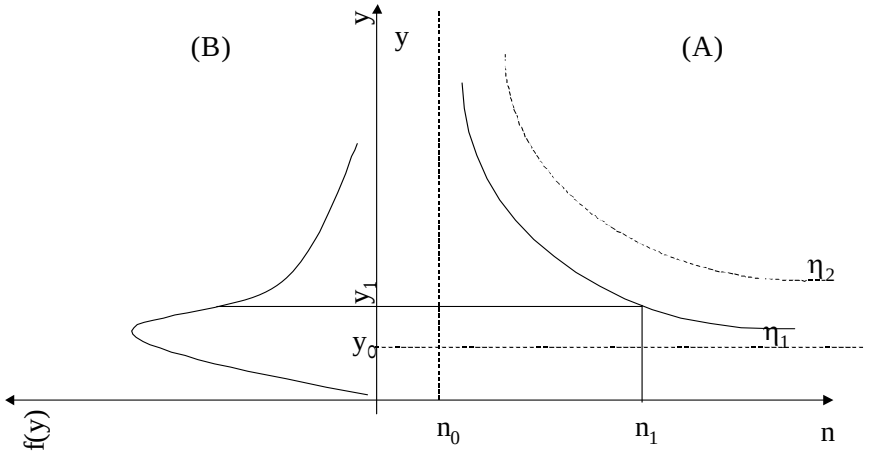
These considerations can be summarized formally by expressing – for a given "capacity" level n_0 of the government agency - the probability of finding quality services at least equal to a given minimum threshold as a direct function of the number of potential bidders in a tender (n) and the median accumulation level of human capital. In light of the difficulties to construct a suitable measure of the latter variable, median revenues, $\hat{y}$, are used here as a reasonable proxy, assuming a direct correlation between the size of a firm's activity and the total stock of knowledge capital used by it:

$$\eta = \Pr(q \geq \hat{q} \mid \beta_0) = g(\underset{(+)}{n}, \underset{(+)}{\hat{y}}) \qquad \text{(Eq. 2)}$$

The hypotheses summarized in Equation 2 can be discussed more thoroughly with the help of a chart. In Figure 1, Part (A) shows the relationship between the probability to obtain services that meet minimum quality requirements, number of operators and average revenues through iso-probability curves: a given probability level n_1 to obtain quality services can be achieved either by high median revenue levels -in the presence of a limited number of operators, or via the combination of lower median revenue levels and a greater number of active operators.

The iso-probability curves are not defined to the left of n_0 and below $\hat{y}_0$: n_0 is a critical threshold of the number of operators, a floor below which there would be oligopoly effects with the possible deterioration of service quality, while $\hat{y}_0$ is a minimum revenue

FIGURE 1
Quality of Consulting Services, Number of Operators and Revenue Distribution



Source: Authors' analysis.

threshold, below which a firm may not have the required skill levels. In order to improve quality, for instance shifting from the iso-probability curve n_1 to n_2, it is necessary for median revenues to rise, given the same number of operators, or for the number of operators to increase, given the same median revenues, or a combination thereof.

Part B of the figure shows the frequency distribution of market operators by revenue. If the median of the distribution is $\hat{y}_1$, n_1 is the minimum level of operators to be activated to reach probability n_1. If the number of operators that government can attract for a tender is lower than n_1, all things being equal, the probability to achieve the desired quality level will be lower.

In the near term, the distribution of operators by revenue class (thus the level of skill accumulation, according to the original assumption) is given. Government agencies will then be able to affect the probability of finding suitable skills by encouraging a sufficiently high number of operators to bid in tenders. This can be done, for instance, via the amount of the contracts put out to tender. Suppose that the decision to submit a bid will be adopted only if the expected

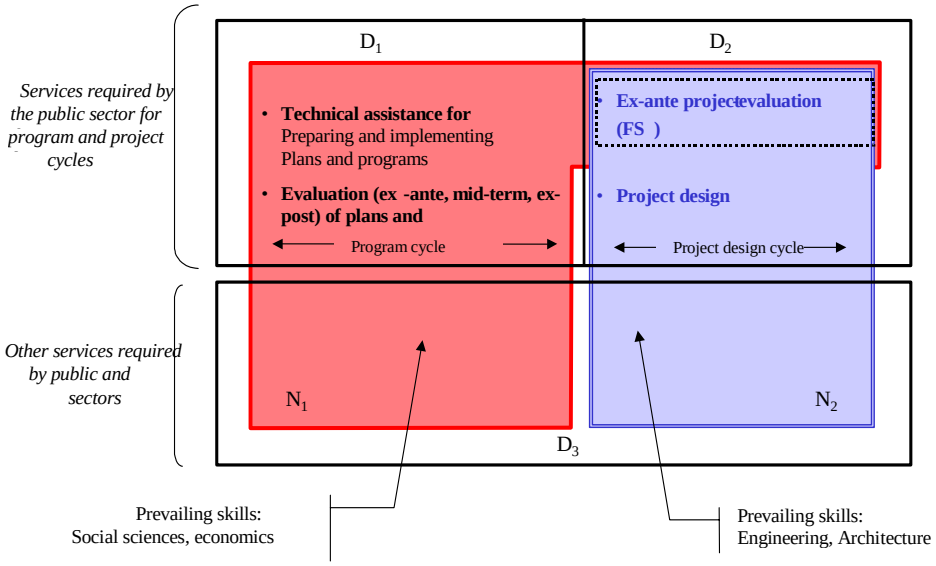
amount of the contract is at least equal to a certain percentage of the firm's total revenues (e.g. 5 percent or 10 percent). In this case, for that particular contract amount, the agency will only be able to attract operators for which such condition is fulfilled: small operators for small contracts, small and big operators for bigger contracts.

However, in the medium-to-long run the market's productive structure may change: the goal to improve service quality may be pursued by encouraging operators not only to be active bidders but also to consolidate their skill accumulation levels. This can be achieved via mergers among market operators or by having larger service providers shift their focus from the private sector to the public sector. For this to happen, it is arguably necessary to have the public sector account for a larger share of the total demand for consulting services: in the absence of such condition, operators are unlikely to be sufficiently motivated to move from a market segment to another or to grow in size.

This paper will not explore the whole range of consulting services required by government agencies, but only that sub-set of services needed to manage the program- and project cycle of public investments. In the program cycle, services needed include technical assistance for preparing and implementing plans and programs, and for undertaking their external evaluation (ex ante, mid-term, ex post). In the project design cycle, the main services are the preparation of Feasibility Studies to evaluate the merit of individual projects and, once the investment decision has been taken, the preparation of the engineering and technical documents required by law for the execution of public works.

Once the services of interest have been identified, the interaction between government agencies and the consulting market can be represented as in Figure 2. Consulting services required by the public sector include services related to both the program cycle (D1) and the project design cycle (D2). This demand is met with services supplied by firms and professionals specializing in social sciences (N1) and in engineering and architecture (N2). Suppliers of the N1 type tend to provide D1 services and the feasibility studies (FS) component of the D2 services. Suppliers of the N2 type focus on D2 services. In addition to fulfilling the demand by the public sector (D1+D2), suppliers of the N1 and N2 types provide to the private sector, as well

FIGURE 2
Conceptual Framework



Source: Authors' analysis

as to the public sector, services different from those that are of interest here. These residual services are lumped in the D3 component of total demand.

DEMAND AND SUPPLY OF CONCULTING SERVICES: MACRO-LEVEL ESTIMATES

The demand for consulting services related to the design and implementation cycle of public investment programs, and to the selection and design cycle of the individual projects, was estimated by using several national and EU databases, as illustrated in detail Cervigni, Cuccu, Miniaci (2005). Table 1 summarizes the results of the exercise. As was to be expected, the most important component is the demand for project design services, with an annual average of more than 5,000 contracts put out to tender, for an annual average of over 540 million euros. The other market segments have more or less the same size, with the number of tenders ranging, on average,

from 16 to 100 per year, for an amount of 10 to 60 million euros per annum. The demand for project design services seems to increase, on average, at the lowest annual rate (27 percent), but it is the least variable: growth was positive in 5 out of the 6 years considered. The average growth rates for the other demand components appear to be significantly higher (between 100 percent and 200 percent) but also much more variable, featuring positive growth in one-half or one-third of the years analyzed. Overall, the available evidence seems to indicate that, while there are substantial incentives for firms to focus their business strategy on project design services (high volumes and steady demand growth), other demand components appear, on the face of it, less attractive: the total annual amount of the tenders is, on average, relatively low and widely varying.

Estimating the supply of consulting services relevant for the program and project cycles of public investments requires a preliminary identification of the firms and professionals capable of

TABLE 1
Estimates of the Public Demand for Selected Consulting Services

		Total		Annual Average		Tenders value Δ%	Years with positive growth (%)
	Period	N	Value[a]	N	Value[b]		
D1: Program cycle							
Technical assistance	00-04	218	316	44	64	233	50
Evaluation	00-04	80	56.6	16	10.7	113	50
D2: Project cycle							
Feasibility Studies :							
FS only	98-04[c]	651	150	102	24	191	50
FS and other services	98-04[c]	399	300	63	47	115	33
Project design	96-03	40,211	4,345	5,026	543	27	86

Notes: [a] : Only initial tender values are considered, millions of Euro; [b]: Average annual rate; [c] : January – April 2004.

Source: Authors' calculations based on OICE, TELEMAT and TED data. [Online]. Available at www.oice.it; www.telemat.it.

providing the required services. Drawing in part on material that will be subsequently presented in greater detail (see section on market participation), information on the market of Feasibility Studies can be used to identify certain components of the service sector that are likely to be relevant for the whole public investment cycle.

Table 2 provides an overview of the changes, during the 1998-2001 period, of the number and revenues of firms operating in seven sectors which, based on the participation in tenders for Feasibility Studies, might be reasonably expected to play a key role in the provision of the consulting services of interest in the present context.

Though at a varying rate, the firms operating in the selected sectors have been growing relatively fast, in terms of both number (with average growth rates ranging from 4% to 23% per year) and revenues (from 3% to 31% per annum). Generally, firms operating in the selected sectors are mainly small, and very small: in 2001, firms with revenues lower than 250,000 euros accounted for over 90 percent of the total, those with revenues in excess of 2.5 million euros represented less than 1 percent of the whole.

In order to evaluate the relevance of the public sector's demand for the Italian consultancy market Table 3 shows the ratio of the

TABLE 2
Number and Revenues of Firms Active in Selected Sectors
(Main Activity Codes) (1998-2001)

Sectors	Number of firms		Revenues		
	2001	Average Δ% 98-01	2001 Total*	Average Δ% 98-01	2001 Average*
Software	33,297	13	20,300	21	0.61
Data processing	27,404	5	6,020	12	0.22
R & D	7,618	12	1,640	12	0.22
Market research	6,749	23	2,460	31	0.36
Business consultancy	50,033	7	8,270	18	0.17
Engineering	210,086	10	16,410	6	0.08
Other consultancy	68,382	4	9,560	3	0.14

Note: *: Millions of Euros.
Source: ISTAT.

average tender value to the average annual revenues by type of service and industry. Since not all types of firm are qualified to provide all the types of service required, the shaded cells indicate the most likely "matches" between skills required and services offered.

Generally, based on the limited information available in the existing databases on tenders for service contracts, public demand represents a small share of the total revenues of the firms concerned: between 0.1 percent and 5 percent of the total demand for each type of service; between 0.5 percent and 10.3 percent considering the demand for services characterized by a high match between skills and nature of the services required; and between 1.4 percent and 13 percent, if low-match cases are also included in the analysis.

TABLE 3
Public Sector Demand for Consulting Services as a Share of Total Revenues of Firms in Selected Sectors

Average tender value (96-03, billions of euros)		Technical assistance	Program evaluation	FS	Project design	Total (a)	Total (b)
		0.06	*0.01*	*0.07*	*0.54*		
Sectors	**Average revenues***	**As a share of total revenues (%)**					
Software	15.29	**0.4**	*0.1*	**0.5**	*3.6*	4.6	0.9
Data processing	5.3	*1.2*	*0.2*	**1.3**	*10.2*	12.9	1.3
R & D	1.41	**4.5**	**0.8**	**5.0**	NA	10.3	10.3
Market research	2.01	**3.2**	**0.5**	**3.5**	NA	7.2	7.2
Business consultancy	7.26	**0.9**	**0.1**	**1.0**	NA	2.0	2.0
Engineering	15.59	*0.4*	*0.1*	**0.5**	**3.5**	4.5	4.0
Other consultancy	10.41	*0.6*	*0.1*	**0.7**	NA	1.4	0.7

Legend: shaded, bolded cells: high likelihood of suppliers' skills matching demand needs; non-shaded, italicised cells: low likelihood; NA: no match.

Notes: The total (a) is calculated for the cells on the row; the total (b) for shaded cells alone. (*) 1998-2001, billions of euros. *Source*: authors' calculations based on ISTAT, OICE, TED, TELEMAT data.

However, if one considers – again ensuring an adequate match between skills required and supplied - the ratio of the average value of the individual tender to the revenues of the individual firm, public sector's demand becomes much more attractive, since the average tender value is nearly ten times average firm revenues (Table 4). To be sure, this ratio is heavily affected by the large share of very small enterprises that in fact cannot bid individually when the tender requires (as it is typically the case) that firms bidding for the contract have total revenues equal to a given share of the tender value. Using, as in Table 4, the conservative assumption that tenders require total revenues for the past three years to be not lower than the tender value – or that the average revenues for the three-year period be at least equal to the tender value – it follows that, in order to participate in the average tender process, very small firms have to join in groupings of nearly 4 operators and small firms in groupings of 1.2 operators. Based on the same assumptions, firms sized from medium-small and up can bid alone.

In short, empirical evidence seems to suggest that, in the aggregate, the demand for consulting services associated with public investments is fairly small when compared to the revenues of

TABLE 4
Ratio of Average Tender Value to Average Firm Revenues by Revenue Class

Revenue class	Number	Average tender value/ average firm revenues	Minimum grouping size (number of operators)
Very small (less than €100,000)	332,977	11.2	3.7
Small (€100,000 - €250,000)	42,816	3.4	1.2
Medium-small (€250,000 – €750,000)	21,277	2.5	1.0
Medium-large (750,000 – 2.5 MM euros)	3,906	0.8	1.0
Large (over 2.5 MM euros)	2,593	0.1	1.0
Total	403,569	9.7	3.3

Source: authors' calculations based on ISTAT, OICE, TED, TELEMAT data.

potential suppliers, and that other (public or private) components of the total demand for the services offered can affect to a more significant extent the strategies of the firms involved. At the same time, at the individual tender level, the public sector's demand seems potentially attractive for consulting firms. This attractiveness is higher, the smaller the firm's size, though this is probably mitigated, for small and very small firms, by the high transaction and management costs involved in setting up the groupings that meet the minimum financial and operating requirements typically set forth by tenders.

DEMAND AND SUPPLY OF SERVICES FOR FEASIBILITY STUDIES CO-FINANCED BY THE CIPE

To analyze in greater detail the interaction between demand for, and supply of consulting services, and to evaluate if the market is competitive and capable of delivering quality results, this section explores a particular type of service, i.e. the preparation of Feasibility Studies. The decision to focus on this specific segment within the broader market for consulting services was due to several reasons. First, Italian regulations of public investments assign a key role to feasibility studies. Secondly, a database was available with detailed information on individual tenders and individual market operators, set up by DPS-UVAL as part of the process of monitoring the program of feasibility studies co-financed by the CIPE between 2000 and 2002. Finally, despite the specificities of the market analyzed for this paper, the issues explored and the approach utilized may provide some clues on the overall functioning of the market for consulting services provided to government agencies.

In 1999 the CIPE provided 50% co-financing for the preparation of over 390 Feasibility Studies, drawing on funds appropriated for under-developed areas in Italy. The goal of the initiative was to generate a project pipeline to expedite and put to better use domestic and community funds under the EU-sponsored 2000-2006 Community Support Framework (CSF). More generally, the studies co-financed by the CIPE were meant to disseminate technical tools and methodologies suited to support better investment decisions.

Ultimately, the effectiveness of the interaction between government agencies and the market for consulting services should be gauged on the basis of the quality of the service rendered. A

preliminary assessment of quality can be obtained through the results of an evaluation exercise conducted on a set of 20 CIPE studies, selected among those for which the documentation was complete. The exercise was carried out on the basis of an evaluation form consisting of eleven questions, closely related to the guidelines of the minimum requirements outlined by the CIPE at the time of program inception (for details, see Cervigni, Cuccu & Miniaci, 2005). The data were used to compute a set of indexes that equal 100 percent when the quality of the study is completely satisfactory and zero when it is considered unsatisfactory. The results of the exercise are shown in Table 5. The average coefficient value was 43 percent, that is, more than half the aspects that characterize the quality of the studies had not been dealt with satisfactorily. The transport studies were the most satisfactory, local development studies the least. Arguably, in the transport sector the evaluation demand was mostly formulated on the basis of reasonably well-defined project ideas, whereas the tender specifications for studies relating to local development frequently lacked actual project ideas to be evaluated, and often consisted in requests to develop one.

Given the limited number of FS considered, care should be exercised in interpreting the results. Such results should also be used as an indication of highly variable quality among different components in individual studies and among studies in different sectors.

These quality problems can be explained both on the demand side (in terms of limited ability of government agencies to formulate

TABLE 5
Quality Evaluation by Sector (20 Feasibility Studies)

Sectors	Number of studies	Average score (%)
Transports	5	60
Environment	5	44
Culture resources	5	43
Tourism	2	38
Local Development	3	16
Total	**20**	**43**

Source: authors' evaluations based on data contained in the DPS-UVAL database.

clearly the questions to be answered by the studies) and on the supply side (incentives to participate in FS tenders, and ability and/or motivation to provide pertinent answers based on solid methods). The following sub-section will look at the demand side (value, sectors, timing and awarding procedures of the FS tendered by government agencies). The bulk of the analysis in this paper, however, will focus on the behavior and characteristics of the supply side.

Analysis of the Demand by Government Agencies

The government agencies that participated actively in the FS initiative co-financed by the CIPE resorted extensively to private operators for their research requirements, through open bidding procedures. Overall, the size of the demand for consulting services was approximately 56 million euros over a three-year period. The tenders for the Feasibility Studies had values ranging from 17,000 euros to 1.2 million euros, with a mean of 180,000 euros and a median of 130,000 euros. Relatively smaller tenders appear to prevail, with 60% of them below 150,000 euros and 35% below 100,000 euros. Only 12% of the tenders (37 studies) had a value in excess of 350,000 euros while in two cases the tender value was over one million euros. Tender values were significantly variable over time: tenders published in 2000 (year in which the largest number of tenders was published) had a low average value while larger-value tenders were few and were published in 2001. After a slow start, between September 2000 and January 2001 tenders grew significantly, peaking in numbers in November 2000 (60 open tender, and in value in the last quarter of 2001 (11.5 million of euros worth of open tenders).

The efficiency of the awarding entities plays a key role on the demand side. This can be gauged through the time required to sign the contract between the awarding entity and the awardees.

As shown in Table 6, on average, it took 79.7 days to sign the contract after the award. The contract was signed within 21 days from the award only for one-quarter of the tenders. For 25 percent of the tenders it took more than 98 days, with a peak of 176 days or more in 10 percent of the cases. Delays did not appear to be attributable to technical problems (such as the high number of bids to review or the greater complexity of the tender as reflected by its

TABLE 6
Time Required for Tender Award and Signing of Contract

		Percentage of feasibility studies				
Number of days	Average	10%	25%	50%	75%	90%
For tender awarding*	93.6	14	25	76	132	190
Elapsed between awarding and contract signing**	79.7	8	21	50	98	176
Elapsed between bidding deadline and contract signing***	176.0	55	100	155	211	281

Notes: Tenders with available information: * = 166; ** = 162; *** = 145.
Source: Authors' calculations based on data contained in the DPS-UVAL database.

higher value), but rather to the organizational and administrative capabilities, or lack thereof, of the awarding entities.

Arguably, sluggish awarding procedures may induce operators, as a way to cope with uncertainty, to bid in excess of their capacity. In some situations, these can lead to spreading firms' resources too thin, with negative consequences on service quality. It is reasonable to infer that a more stable demand for these services would make the situation a lot easier for awarding entities on one side, and firms and professionals on the other.

Supply Side Analysis

The DPS-UVAL database has information available on the operators that participated in the tenders for 110 of the 313 FS co-financed by the CIPE. Bids for these studies were submitted by 946 operators while the estimated number of bidders (see Cervigni, Cucci and Miniaci for details) for all of the CIPE studies amounted to approximately 2,200 (Table 7). Half the participants were individual consultants while firms, regardless of their legal form (joint-stock companies, limited liability companies etc.), accounted for 40 percent of the total. The number of universities was marginal (1 percent) while the other types of operator (including foundations and research centers other than Universities) represented the remaining 10%. Most participants (85 percent) bid for tenders as part of a temporary

grouping. Universities were an exception, as they joined groupings in 43 percent of the cases, i.e. nearly half the overall average.

The average value of the tender for which operators bid was approximately 244,000 euros. As was to be expected, individual consultants bid for smaller contracts while corporate entities (hereinafter corporations, together with cooperatives, will also be referred to as "firms required to file their financial statements with the Chamber of Commerce") and larger universities bid for larger contracts (277,000 and 361,000 euros on average, respectively). On average there were 6.3 bids for each tender, of which 3.2 were submitted by groupings consisting, on average, of 3.2 firms, for a total of 14.1 participants.

The information available on the awardees relates to 313 CIPE studies. Overall, 613 operators were awarded at least one of the Feasibility Study contracts for which they submitted a bid. Comparing this figure with the estimated 2,200 bidders (Table 7), it appears that slightly less than one bidder out of three was awarded at least one contract. A comparison between the bidder set and the awardee

TABLE7
CIPE Feasibility Studies: Number and Type of Participants, Participation in Tenders, Propensity to Join Groupings, and Tender Value

	Participants			Groupings	Average	Average
Type of firms	Observed*	Estimated**	n at least one grouping (%)	submitting a bid (if at least one)	number of bids	tender value***
A1	337	763	84	2.25	2.88	275.85
A2	42	92	83.3	1.49	1.93	217.97
B	463	1.206	85.5	1.19	1.26	196.82
C	7	21	42.9	1	1.29	421.5
D	97	154	88.7	1.26	1.43	361.6
Total	**946**	**2.236**	**84.9**	**1.58**	**1.89**	**244.47**

Notes: Relevant tenders: *110; **313. ***: 000's of Euro.
Legend: A1: Firms required to file financial statements, A2: Other firms, B: Individual consultants, C: Universities, D: Other operators.
Source: Authors' calculations based on data contained in the DPS-UVAL database.

subset, in terms of distribution of the firms by revenues and number of employees shows that, despite differences between the respective averages, the two groups are shaped in an essentially similar manner.

Shifting the focus on the relatively high number of awardees, it is important to note that the large majority was awarded only one contract (Table 8). Firms required to file their financial statements (Type A.1) accounted for 33 percent of the operators that were awarded more than one contract. The operators with the largest number of contracts awarded (up to 20 contracts) were part of this group of firms.

The distribution of the value of the contracts awarded among awardees carries important implications for the competition among operators and the quality of consulting services. In the absence of direct, detailed information on the agreements among operators that submitted their bids as a grouping, a simple but plausible assumption was made: that the Lead firm in a grouping of awardees receives 25 percent of the contract value, individual consultants (if participating in a grouping) 10 percent (to be divided among them), and that the remaining amount is equally distributed among the remaining operators, including the Lead firm. Based on these assumptions, the market shares of the individual awardees were calculated, to

TABLE 8
Awardees by Type and Number of Contracts Awarded

Type of firms	Number of contracts awarded						
	1	2	3	4	5-9	10+	Total
A1	147	35	17	9	8	2	218
A2	22	5	4	1			32
B	278	35	6	3	1		323
C	6	3					9
D	28	2		1			31
Total	**481**	**80**	**27**	**14**	**9**	**2**	**613**

Legend: A1: Firms required to file financial statements, A2: Other firms, B: Individual consultants, C: Universities, D: Other operators. *Source*: authors' calculations based on data contained in the DPS-UVAL database

determine the Herfindal-Hirschman maximum possible value) as to suggest a competitive marketplace. Further confirmation of the competitive nature of the CIPE FS tenders can be obtained by comparing the distribution of the CIPE tenders with the distribution of the firms' overall revenues. The concentration of the contracts is much lower than the revenue concentration: the top 5 percent of the firms in the contract distribution received 40 percent of the total put to tender, while the top 5 percent of the firms in terms of revenues accounts for 80 percent of total revenues.

While this is not enough to reach a conclusion on the effective degree of competition in the market, on the other hand it shows that, in case of the CIPE studies, the concentration of contracts has certainly been lower than that observed in market at large.

To evaluate competition in the market we look at the probability of a successful outcome for any given bid. Table 9 shows – for the subset of 110 studies with full information on both awardees and non-awardees – that as the number of bids submitted by individual operators increases, so does the *number* of contracts awarded in absolute terms. However, the *likelihood* of a successful outcome for a bid (ratio of contracts awarded to number of bids) does not change significantly.

TABLE 9
Multiple Bids and Probability of Success

Bids submitted	Bidders with available information	Percentage of awardees of at least one contract	Average number of contracts awarded	Average contracts awarded as a percentage of bids
1	667	20.5	0.2	20.5
2	130	46.9	0.6	30.0
3-5	100	63.0	1.2	33.8
6-10	37	78.4	2.5	32.6
More than 10	12	91.7	6.2	31.0
Total	**946**	**31.8**	**0.5**	**23.9**

Source: Authors' calculations based on data contained in the DPS-UVAL database.

A probability function was estimated to verify whether the operators' characteristics (activity sector, revenues, etc.) and their inclination to join in groupings (nature of grouping and number of operators joining) might have affected their chances to be awarded a contract. The main conclusions that can be drawn are as follows (see Cervigni, Cuccu and Miniaci [2005] for further details):

1. Bids submitted by individual consultants have the same probabilities of a successful outcome as the bids of individual corporate entities; bids submitted by temporary groupings of firms and/or individual consultants) are much more likely to be successful: for corporate entities the probability of a successful outcome is 10 percent for bids on a stand-alone basis, 20 percent for bids submitted by a temporary grouping among firms and 15 percent for bids submitted by a temporary grouping among firms and individual consultants. For individual consultants this probability ranges from 10 percent for bids on a stand-alone basis to 15 percent for bids by temporary groupings with other individual consultants. Given participation in a temporary grouping, the larger the number of participants in the grouping the greater the likelihood of success;
2. The larger the number of bids submitted for any given tender, the lower the probability of any given firm to be awarded the study, thus attesting to a high degree of competition in the market;
3. There is no clear evidence that the chances of being awarded a contract increase with the firm's revenues: the rank correlation between revenues and share of total tender value was 0.49, while the elasticity of the contracts awarded with respect to changes in revenues was 0.32. On the other hand, the largest firms (with revenues in excess of 20 million euros) are certainly more likely to submit a successful bid; while the firms with revenues between 250,000 euros and 20 million euros enjoy the same chances of success (other things being equal).

Overall, the data show that larger firms tend to be awarded larger-value contracts, but the relation between the revenues of a firm and the size of the contracts awarded is less than proportional.

MARKET PARTICIPATION AND ROLE OF ECONOMIC POLICIES

This section provides a tentative estimate of the size of the potential supply of consulting services for the preparation of feasibility studies, in terms of number of entities and volume of activity. This may be useful to provide broad indications on the market segment that the CIPE initiative has been able to mobilize, as well as to analyze the likely market response of a rise in demand for FS.

The analysis of the potential suppliers of the services is conducted focusing on the firms required (A1) or not required (A2) to file their financial statements, individual consultants (B) and Universities (C). Estimates of revenues or other measure of business volume were developed only for types A1 and C. The types of supplier selected to determine the quantity of services accounted for over 93 percent of the bidders for the CIPE studies. As to the estimation of the revenues or the business volumes, the selected firms (types A1 and C) represented approximately 35 percent of the bidders in the CIPE tenders, but nearly 70% of those that acted as lead firms in groupings.

In order to identify the potential bidders, a representative random sample of firms was drawn from the Infocamere database, stratified by the main activity codes of the firms actually bidding for the CIPE studies. The potential ability of each of the 2,500 firms included in the sample to bid for FS tenders was evaluated on the basis of the description of the its activity; in addition, potential bidders were classified in accordance with the roles they would presumably play in bidding groupings (such as “lead firms”, “specialists” and “non-specialists”) for the studies (see Cervigni, Cuccu & Miniaci [2005] for details).

For individual consultants, the number of potential bidders was estimated on the basis of different sector studies (*studi di settore*) prepared by the Italian Tax Revenue Agency, by selecting those activities pertinent to the preparation of the feasibility studies.

Finally, for universities, the research centers active in Italy were accurately screened (based on data from the Ministry of Education and University, MIUR) according to the activities performed in connection with the Feasibility Studies. Moreover, based on the

average inflows from private sources, an average revenue level was determined for each center.

Overall, the CIPE tenders mobilized private operators to a fairly significant extent (Table 10): for firms the ratio of actual to potential bidders varied from 10 percent to 20 percent, in terms of number of entities, but was equivalent to 70 percent, in terms of revenues. For individual consultants, the ratio in terms of numbers was 11 percent, while the share of Universities attracted was rather low (4.2 percent).

For firms, participation increased with revenues. Specifically, considering the companies deemed capable of acting as lead firms in a temporary grouping of several operators, the participation rate in tenders by the top two revenue classes was 41 percent (the overall average was 16%). Participation varied also in relation to the firms' business fields: data processing operators had the highest participation rate compared with other sectors (30 percent).

The assumption underlying this paper is that, other things being equal, greater participation by operators enhances competition and affects the quality of the services provided. This section purports to use the CIPE experience to empirically identify the characteristics of the tenders that exercise the greatest influence on the bidding decision of operators with the required skills. This information, in turn, can be useful to evaluate the policy tools aimed at encouraging participation. The approach followed is to compare the attitude of the bidders (see section on demand for, and supply of feasibility studies) with that of the potential bidders, based on the available information.

The analysis focused on firms required to file their financial statements (Type A1) with the Chambers of Commerce which, reportedly, carry out their main business in the seven sectors utilized to classify potential bidders. For these firms, we drew a random sample (stratified by sector and revenue class) of nearly 4,400 potential bidders, corresponding to about 5 percent of the total population.

With reference to actually observed bidders, the analysis was restricted to a subset of 100 tenders for which full information was available on both awardees and non-awardees and on the tender publication date. There were 209 firms classified as A1, and assigned to one of the seven ATECO codes considered, which bid for at least

TABLE 10
Actual and Potential Bidders in the CIPE Tenders for the Feasibility Studies

Type of firms	CIPE tenders (Estimates for the entire set of 313 tenders)				Potential bidders		Bidders in the CIPE studies as a share of potential bidders (%)		
	Number of firms	Revenues+	Tenders value+	Tender value over revenues (%)	Estimated number	Estimated revenues+	Actual /potential bidders	Actual /potential bidders revenues	Tender value / potential bidders' revenues
(A)	(B)	(C)	(D)	(E) = (D)/(C)	(F)	(G)	(H) = (B)/(F)	(I) = (C)/(G)	(J) = (D)/(G)
A1	763	10,827	56.37	0.6					
Of which in the classes selected	432	3,319	56.37	1.7	3,922(*)	6.279(*)	11.0	52.9	0.9
Of which a lead firm	253	1,328	56.37	4.7	1,349(**)	1.785(**)	19.0	74.4	3.2
A2	92	n.a.	56.37	n.a	1,517	n.a	6.1	n.a	n.a
B	1,206	n.a.	56.37	n.a	11,000	n.a	11.0	n.a	n.a
C	21	n.a.	56.37	n.a	500	27	4.2	n.a	209.0
D	154	n.a.	56.37	n.a	n.a	n.a	N.a	n.a	n.a
Total	**2,236**								

Notes: (*) Operators *Lead firms* and *Specialists* + *Non-Specialists*: for definitions, see footnote 16; (**) Only *Leaders* and *Specialists*. +: millions of Euro.

Source: Authors' calculations based on data contained in DPS-UVAL database, and on data provided by ISTAT, Infocamere, Agenzia delle Entrate, Conferenza dei Rettori delle Università Italiane.

one contract. Calculations were performed to assign to each of these firms a probability of bidding for at least one contract in one of the four consecutive time intervals during which bids could be submitted for the CIPE contracts. This enables us to examine how bidding probabilities change with the characteristics of published tenders. In particular, the effect of a 50% increase (about 10 million euros in absolute terms) of the overall tender value was simulated via two possible alternatives: a) increase by 50% the average tender value or b) increase by 50% the total number of studies put to tender (see Cervigni, Cuccu and Miniaci [2005] for further details).

The results of the simulations suggest that, if policy objectives include broadening the range of actual bidders, then the second instrument appears to be more effective. Table 11 shows that the initial actual-to-potential bidders ratio is on the whole equal to 5.6%. If the first alternative is selected, the 98 studies would attract 48 additional bids (a 15.7 percent increase). In the event the second option is adopted, 49 new tenders would generate 95 additional bidders (a 31 percent increase).

TABLE 11
Simulated Effects of an Increase in the Average Tender Value or the Number of Tenders on the Number of Bidders

Item	Value
Estimated number of potential bidding firms	5,439
Number of actual bidders	209
Total number of actual bids for the CIPE tenders included in the simulation	305
50% increase of average tender value:	
Change in the number of bids	48 (+15.7%)
Change in the number of bidders	33 (+ 15.8%)
50% increase of FS tenders:	
Change in the number of bids	95 (+31.1%)
Change in the number of bidders	65 (+31.1%)

Source*:* authors' calculations based on data contained in Infocamere and DPS-UVAL database

It is important to note that more bids do not translate into a commensurate increase in the number of bidders. In fact, it was shown that firms tend to bid for more than one contract (1.46 on average). This means that, under a best-case scenario, a 50 percent surge in the number of studies would attracts approximately 65 new firms while a 50 percent rise in the average tender value would invite bids from 33 new firms. These changes reflect elasticities (ratio of the percentage change in bids to the percentage change in the tender value and number of tenders) of 0.32 and 0.62, respectively.

The responsiveness of firms to the demand for FS varies according to revenues (from +13% for the largest firms to +21% for those with revenue below the 100,000 euro threshold in the first scenario, from 28% to 41% respectively with the scenario b); and according to activity (from 13% for R&D companies to 19% for software houses in the first scenario, and from 25% to 36% respectively with the scenario b). However, an increase in the number of tenders seems more effective than a rise in the average tender value, regardless of the characteristics of the potential bidders.

Shifting the focus on Lead firms alone (Table 12), it appears that bids submitted by these operators respond less to higher average tender value and more to number of studies being tendered. In the latter case, a 50 percent increase in the number of FS, given the same average tender value, translates into a 38 percent increase in

TABLE 12
Simulated Effects of an Increase in the Average Tender Value or the Number of Tenders on the Number of Lead Firms

Variable	Value
Estimated number of bidders that might take a lead role in a grouping	1,949
Number of actual bidders	110
Total number of actual bids for the CIPE tenders included in the simulation	156
50% increase of FS tenders:	
Change in the number of bids	61 (+39.1%)
Change in the number of bidders	42 (+38.1%)

Source: authors' calculations based on data contained in the DPS-UVAL database

the number of lead firms who bid. For some lead firms, the elasticity of the number of bidders to a change in the number of tender contracts is even greater than 1. It is important to note that, even though lead firms account for only 5.6 percent of total bids, the estimated share of the larger firms (over 2.5 million euros in revenues) is 38.6 percent. A 50 percent increase in the number of tenders might determine a rise in excess of 50 percent of these potential lead firms. Among potential bidders, Lead firms are more reactive to a rise in the demand for Feasibility Studies. In particular, very small potential lead firms (revenues lower than 250,000 euros) seem to be most interested in a market expansion.

CONCLUSIONS

This paper has analyzed certain segments of the market for consulting services that play an important role in the public investment cycle, to evaluate if the market is both adequately competitive, and capable of accumulating sufficient technical knowledge. Services analyzed include technical assistance (TA) for the preparation of public investment plans and programs, and applied research for their evaluation. In terms of the project cycle, this paper focused on feasibility studies (FS) and project design activities.

During the 1996-2004 period, public sector demand for consulting services was estimated to amount to approximately 690 million euros per year, slightly less than 80 percent for project design services and the remaining 20 percent for feasibility studies, technical assistance and program evaluation. Project design services rose in nominal terms at a slow but steady rate. The higher fluctuation of the demand for feasibility studies, technical assistance and project and/or policy evaluation services may have discouraged firms from specializing in these areas. The data seems to suggest that the demand for consulting services in connection with public investments accounts for a small share of the total revenues of potential service suppliers. Nevertheless, at the level of individual tender, Government demand appears potentially attractive for consulting firms. Such attractiveness is higher for smaller firms, though it might be somewhat mitigated by the transaction and management costs associated with the formation of groups of

operators big enough to meet the minimum capital and financial requirements typically set by tenders.

In order to gain a deeper understanding of the interaction between demand and supply, the study analyzed 313 published tenders for feasibility study contracts co-financed by the national government in the 2000-2002 period, for a total of 56 million euros. An estimated total of over 2,200 operators bid for the CIPE contracts and 613 were awarded at least one (80% of the awardees obtained only one contract). Based on the characteristics of the bidders (revenues, number of employees, activity sector), it was estimated that the broader set of operators potentially qualified to bid for FS tenders may consist of some 5,800 firms, 11,000 individual consultants, and 500 university research centers. Excluding firms that do not engage primarily in feasibility studies, there were approximately 1,900 potential bidders.

Considering the actual bidders, the potential ones, and the structure of the contract awardees' groupings, the market for feasibility studies appears to be fairly competitive. First of all, the number of bidders was relatively high: for firms, the ratio of actual to potential bidders varied between 10 percent and 20 percent in terms of number of operators, but reached 70% in terms of revenues. Secondly, little evidence of market concentration or dominant positions was found: the concentration of market shares appears limited, with a Herfindal – Hirschman index of 0,011, well below the value of 1 which indicates monopoly. Third, awardees of more than one contract were not necessarily the largest operators: a 1 percent change in revenues causes the value of the contracts awarded to vary by only 0.32 percent. On balance, the evidence suggests that larger firms tend to secure larger contracts, but that the relationship between tender value and revenues, although positive and statistically significant, is less than proportional. Fourth, more active operators do not have an advantage: the probability of success does not change with the number of bids submitted, even though as the number of bids increases, so does the number of contracts awarded. What really seems to make the difference is the ability to set-up temporary groupings: the probability of success of a bid by a grouping is 24 percent, versus 14 percent for a bid submitted by and individual operator.

Despite the large number of bidders, price competition was limited, as markdowns averaged less than 10 percent, and were not related to the number of bids submitted. This was partly due to the evaluation criteria selected to award the contracts, which placed greater emphasis on the technical and methodological quality of the bids than their price. Another possible explanation of the limited weight of price in the awarding decisions may be the fact that, during the period under review, the demand for Feasibility Studies jumped, prompting operators to consider price reductions for the service a secondary factor in their bids for contracts.

Notwithstanding the overall competitive nature of the market, a subset of operators played a leading role: firms with revenues ranging from 1.5 million euros to 4.6 million euros had a "success" rate of 60 percent (award of at least one contract) compared to an overall average of 46 percent. The relative success of these firms may be explained with their high degree of specialization, low costs, and ability to team up effectively with other operators.

Policy implications

Even though the data on the tenders for the CIPE studies showed that basic market forces were at work, the technical evaluation of the studies available suggests that quality was not always satisfactory. While caution is in order, due to the limited number of studies analyzed, in general it might be inferred that the existence of an active and competitive market, although necessary, is not a sufficient condition to ensure high-quality services. This raises the question of the role of economic policy in increasing quality.

Strengthening Government Demand

The analysis shows that there is much scope for improvement in the way government agencies manage the demand for services. Awarding entities appear generally slow in carrying out the contract award and signing procedures. This may have negative consequences on quality, by inducing firms to bid in excess of their capacity as a way to cope with uncertainty on the timing of contract inception and completion, and in particular to reduce the risk of keeping human resources idle.

Another set of issues relate to the technical skills of the awarding entities. The CIPE experience makes it possible to highlight at least three problem areas: 1) the preparation of the tender specifications, where in most cases the precise nature of the evaluation services requested is not spelled out clearly; 2) the ability to monitor the quality of the work-in-progress and to assess the robustness of the data and methods utilized for the analyses; 3) the ability to assess the completion of the work not only from an administrative standpoint, but also in terms of the quality of the end products.

These considerations go back to the more general problem of establishing quality standards for consulting services as a way to improve the interaction between public and private sectors. As things stand now, it is unrealistic to expect that Italian government agencies have in all cases the know-how required to evaluate the quality of the services contracted to the market. In fact, one of the key reasons they resort to outside consultants in the first place is that they do not have technical expertise in-house. The institution of technical evaluation units in all central and regional government agencies, required by Law 144 of 1999, may be part of the solution. However, many of the evaluation units activated so far are unable to provide adequate technical support to awarding entities. A complementary solution might be the preparation and dissemination of guidelines, methodologies and other tools that would make quality assessment faster and easier, and foster the establishment and adoption of common quality standards.

Strengthening Supply

The analysis of policy options on the supply side may be conducted with reference to the conceptual framework set at the beginning of this paper and the empirical evidence summarized in Table 13. If quality depends not only on the number of active operators, but also on the existing stock of knowledge, it then becomes key to analyze market behavior by revenue class (assuming that this factor is somehow correlated to the accumulation of expertise and knowledge). As noted before, the market features mostly small and very small firms, which account for 85 percent of the whole. In terms of skills, only a small proportion of firms is potentially capable of providing the consulting services required by government agencies (in the case of the FS, this portion is estimated

TABLE 13
CIPE FS: Participation Rates in CIPE FS Tenders; Potential Bidders and Distribution of Firms by Revenue Class

Revenue class	Participation rates [a]	Share of potential bidders (%) [b]	Total firms (%) [c]
Very small [d] (less than 100,000 euros)	13.3	1.3	79.0
Small (100,000 – 250,000 euros)	14.4	6.7	6.7
Medium-Small (250,000 – 750,000 euros)	44.7	4.6	7.5
Medium-Large (750,000 – 2.5 mm. euros)	55.9	5.2	4.5
Large (over 2.5 mm. euros)	109.5[e]	4.2	2.3
Total	27.5	2.1	100.0

Notes: Data relate to firms engaging in the sectors listed in Table 2. [a] Ratio of actual bidders to potential bidders; [b] Potential bidders as a percentage share of total firms in the same revenue class; [c] As a share of total firms; [d] Includes firms for which revenues were not reported; [e] An amount in excess of 100 indicates estimate errors due to the limited number of firms in the top revenue class.

Source: Authors' calculations based on data contained in Infocamere and DPS-UVAL database

at around 2 percent). The number of potential bidders among very small enterprises is extremely limited, but it is no more than 5%-6% of the total for medium and large firms. The CIPE FS tenders were highly effective in attracting the larger revenue-generating firms, while they were less so for firms in the first two revenue classes.

In the near term, there seems to be significant room to encourage a larger number of small and very small firms to bid. These were the firms with the lowest participation rate. In fact, the econometric analysis (see section on market participation) of the probability of bidding for contracts, given the characteristics of the tenders and potential bidders, suggests in fact that small firms are the most reactive and that the most effective way to attract more bidders is to increase the number of tenders as opposed to raising the average

tender value. While the average elasticity of the number of bidders with respect to the number of tenders is 0.62 (a 1 percent change in the number of tenders causes a 0.62 percent change in the number of bidders), the elasticity of the number of lead firms with revenues lower than 250,000 euros is significantly greater than 1.

However, it cannot be ruled out that, while they are more sensitive to a change in demand in the short run, small operators have less experience and thus are less capable of bringing additional expertise to the market, compared with their more established competitors.

Therefore, in the medium-to-long run it might be a good idea not to increase participation rates *per se* but to encourage bids by more qualified operators. To this end, considering the very high participation rates of firms in the top revenue classes, it might be necessary to enlarge the pool of potential bidders. In terms of Table 13, this would mean increasing the share of total firms capable of providing consulting services pertinent to public investments, particularly in the higher revenue classes.

To achieve such an objective, a steady expansion of government demand for consulting services might be necessary. In fact, this might encourage larger operators to shift their focus from the private to the public sector and to invest in the development of the skills required to evaluate public-investment programs and plans.

In short, initiatives such as that of the CIPE FS co-financing program have elicited active short-term responses by consulting service providers. However, only strong and stable motivating factors appear to be able to steadily increase service quality. At the same time, the role of government agencies to bring about rising quality standards, by improving their technical and organizational capabilities, should not be underestimated.

ACKNOWLEDGMENTS

A more extended version of this research (Cervigni, Cuccu, Miniaci, 2005) has been published as working paper. We wish to gratefully acknowledge the staff at Evaluation Unit, Department for Development Policies, Ministry of Economy and Finance, Rome, Italy (particularly Ms M.A. Cannata) for indispensable assistance with the data, and OICE, TELEMAT Infocamere and ISTAT for providing their

datasets. We benefited of comments by F.Barca, P. Casavola, S. de Luca, G. Marchesi, G. Miozzi, S. Pancheri, G. Pellegrini,L.Raimondo, P. Rubino, B. Stratta, and L. Tagle. All errors and omissions are our own.

REFERENCES

Agenzia delle Entrate (various years). *Studi di Settore*. [Online]. Available at www.agenziaentrate.it.

Bover, O., & Arellano, M. (2002). "Learning about Migration Decision from Migrants: Using Complementary Datasets to Model Intra-Regional Migration in Spain." *Journal of Population Economics*, *15*: 357-380.

Cochran, W. G. (1977). *Sampling Techniques*. New York: John Wiley and Sons.

Cervigni, R., Cuccu, O., & Miniaci, R. (2005). *The Market for Evaluations: Opportunity or Constraint for Public Decision-Makers?* (Materiali Uval No. 3). Rome, Italy: Dipartimento per le Politiche di Sviluppo, Ministero dell'Economia. [Online]. Available at http://www.dps.tesoro.it/documentazione/uval/materiali_uval/ MUVAL_3_Inglese.pdf

Cervigni, R., Cuccu, O., Miozzi, G., & Stratta, B. (2002). *Studi di Fattibilità: Relazione Dell'unità Di Valutazione Sullo Stato Di Attuazione Degli Studi Avviati Con Delibera CIPE 70/98*. [Online]. Available at www.dps.mef.gov.it.

Cervigni, R., Cuccu, O., Miozzi, G., & Stratta, B. (2003). *Studi di Fattibilità per gli Investimenti Pubblici: Monitoraggio Degli Studi CIPE e prospettive per il futuro*. [Online]. Available at www.dps.mef.gov.it

DPS, Dipartimento per le Politiche di Sviluppo e Coesione (2004, May). *Il fondo per le Aree Sottoutilizzate. Elementi Informativi Sull'Attuazione 2003* [Online]. Available at www.dps.tesoro.it.

Dosi, C. (2002). *Gli Studi di Fattibilità Degli Investimenti Pubblici: Finalità e Requisiti*. Rome, Italy: Formez. [Online]. Available at http://db.formez.it.

Laffont, J., & Martimort, D. (2001). *The Theory of Incentives: The Principal-Agent Model*. Princeton, NJ: Princeton University Press.

Manski, C. F., & McFadden, D. (1981). *Structural Analysis of Discrete Data with Econometric Applications*, Cambridge, MA: MIT Press.

Martinelli, F., & Gadrey, J. (2000). *L'economia dei Servizi*, Bologna, Italy: Il Mulino.