# The demand side of Industrial Policies: Evidence and Methodology for Italian firms

Brancati, Raffaele and Ciferri, Davide

MET

14 September 2007

Raffaele BRANCATI*, Davide CIFERRI**

# The demand side of Industrial Policies
# Evidence and Methodology for Italian firms

*MET, Rome, IT and University of Naples, "L'Orientale".
**MET, Rome, IT and Tor Vergata University, Rome, IT.

www.met-economia.it
r.brancati@met-economia.it
d.ciferri@met-economia.it

**Preliminary version**

Paper presented at

**European Network on Industrial Policy International Conference 2007**

10th International Conference of the European Network on Industrial Policy
Faculty of Economics of the University of Florence, Prato–12 - 14 September 2007

ABSTRACT

From the second post-war, a significant amount of resources have been used to support Italian industrial policy. Several studies has been developed in order to evaluate these types of interventions, but less efforts have been devoted to understand what were the real needs of Italian firms. The main aim of this paper is to analyze the demand of public subsides describing the experience of the Italian firms with regard to a complex structure of public interventions actually supplied by both central and local government. This type of demand is related to both the financial benefits led by the public grants and the firms' needs produced by the potential new investments. A deep understanding of these mechanisms could improve the efficiency of the public sector policy design favouring the development of coherent and adequate program of grants with respect to the complex scenario in which Italian firms operate. Qualitative information and data were gathered trough interviews with managers of about 5400 firms. *Logit* techniques are developed in order to describe and quantify this demand. The main results are: firstly, it is difficult to outline a general demand framework in which all firms can be collocate independently by their specific characteristics: secondly, a significance and well-clear demand seems to stand out form those firms which represent the more innovative and dynamic sectors of the Italian economic system; finally, a more general and traditional view of the industrial policy related to the development of physic infrastructures is not such appreciated by the firms, mainly because of a lack of trust on the effective efficiency of these types of interventions.

Corresponding author. E-mail: r.brancati@met-economia.it, d.ciferri@met-economia.it.

# Introduction

An area of the economic policy appears negative and distorting for anyone who has an economic studies' background: it is that one that tries to take part directly on the agents' behaviour in order to influence and to modify directly their choices.

This is the field of action of the industrial policy and it is common to register a negative bias that is widespread in the political and journalistic position, beyond international institutions. Nevertheless industrial policy is quite widespread in every country, USA included.

From a scientific point of view the empirical evidences that would prove the failure of industrial policies are weak and anecdotic news perhaps would not quickly be accepted as common sense in the debate if they were not coherent with a dominant opinion.

Still weaker seem to be the analyses that prove the distortions to the competition derived from industrial policies' interventions (at least general interventions oriented to SME)[1].

In a specular way a positive bias is characteristic of other policies partially related: those for the support to the innovation and the research. Public supports are considered desirable from all, surely with solid reasons and sturdier theoretical support, but strong empirical evidences about the positive effects of the subsidies are still missing.

The present paper is based on a systematic and wide-ranging job that is carried out annually for Italy from the work group of the MET, a private centre of specialized research[2].

The report, from over 5 years, introduces an analytical summary of the effective dimension of regional flows of public policy also through financial transformations in order to compare the values (i.e. capital Grant and ESL calculated for loans and other form of low cost money to enterprises).

In the last two years the job has been enriched with a large field survey (more then 5400 interview) on a representative champion of the Italian enterprises in order to provide to meaningful picture of the regional situation for enterprises in the manufacturing, industrial and related services activities[3].

---

[1] Cfr Lenihan (2004), Brancati (2007)

[2] www.met-economia.it

[3] The several editions of *Rapporto MET* have a general section and a sectoral analysis that vary from year to year: cfr. Rapporto MET, R. Brancati, Donzelli, Rome several years. Some of the more important analysis have regarded: Research and Innovation (2003-04), Policy for internationalization (2005), Policy for feminine entrepreneurship (2001), New enterprises and academics spin-off (2001), The guidelines of European politics (2001), Private equity (2001).

The analytical structure that inspires the present job and the whole report follow a simple logical framework.

The industrial policy is considered, as many other public policy contexts, as a situation in which we can recognize a sort of *pseudomarkets*: public supply from the various administrations is confronted with firm's demand.

The price that regulates the matching between demand and supply (in truth, the supply is inelastic and is defined from the allocation of public budget, or better from the available cash) is given from the advantage for the firms induced by public policy.

The policy maker tries (or would have to try) to articulate this pseudomarket according to various objectives that have their own hierarchy.

The governments should known the needs of the enterprises and sketch out a coherent intervention on the quantitative level (that is a plan that considers the quantity of interested enterprises and resources adapted to the aim and the kind of intervention) and qualitative (technical form, modality, administrative costs): they must adapt the supply to the demand still remaining in the field of proper objectives of industrial policy. Policy makers select relevant objectives and in this area trying to follow firms' needs and characteristics.

The supply is fixed from the policy maker, but its real characterization depends closely - therefore - on administrative measure, on the conditions of access, and on the technical form of the "contract" (for example, the typology of admitted expenses, the relationship between the various aids, the services accessories, the guarantees, and so on).

Like in the case of the supply for the self markets, there are various subjects that supply "policy" partially substitute: national and regional administrations put into practice a lot of facilities so there is a kind of competition between instruments, so the demand tends towards one or the other facility based on the convenience and the expendable funds.

For many policies there is also a problem of identification: once recorded some level of expense associated to a specific public action, it isn't clear if that level depends on a shortage of the potential demand, on an inadequate convenience in order to use all the resources allocated from the public budget, or on the real availabilities of cash that blocks the administration.

The logical structure described is useful, the consequences for the policy maker and the analyst are that indistinct industrial policy does not have to be considered, but rather support that, in the given market conditions, could reduce ties to the growth or the realization of fixed capital.

In the first place, it is necessary to finalize the policy in favour of those requirements of the enterprises that coincide with collective interests.

A part from the regional differentiation, three general object seem to emerge: the support to the innovation and the scientific and technological research, the structural and dimensional strengthening of enterprises and the reduction of the environmental impact.

The allocation of the funds should be tied to relevance of the objective weighted by the performance expected.

Therefore it could be appropriate not only to reserve space and resources for an important part of political RTDI (support for our productive system that needs actions for the technological advance and the transformation, and needs the availability on the territory of technological platforms), but also to dedicate to them adequate professional abilities.

The actual allocation of funds for industrial policy doesn't seem to be related to such an orientation (cfr. Rapporto MET) with the wide majority of resources dedicated to general objectives with only 20% devoted to RTDI.

Beyond the implementation of the research and the introduction of innovations, two objectives seem particularly important in the Italian case: the dimensional growth and the structural consolidation of the enterprises, on one side, and the reduction of environmental impact, from the other.

Not only the funds for those objects are few, but the technical structure of the instruments that seem privileged in the actually industrial politics, is such to represent a deterrent if compared to the other measures of industrial policy.

The devil is in the details: the procedural and access aspects are more important than the general objectives reported in the laws. It is indispensable that the plan, coherent with objectives, takes care itself of such apparently smaller aspects.

The present contribution focuses on an original analysis of the demand of industrial policy from the enterprises. The survey we already mentioned has been used in order to extract information for direct evaluations and for a quantitative estimation.

# Some stylized fact

Before analyzing the empirical model for the demand side, can be useful to develop a rapid outline of the Italian industrial policy[4] at least in a quantitative way and to show the main results of our survey.

The reconstruction of flows is particularly difficult in a country characterized by a strong interregional disequilibrium and by very complex institutional structure. We focus on the effective industrial policy, that is public resources that are really paid to the firms benefited by the programs: the figures of the expenditures to the firms are usually quite different from that from the public budget documents and it is necessary, for an independent analysis, to collect data from each relevant administration that has the final relationship with the enterprises.



Fig.1  "Equivalent" grants in Italy, (mln Ū, constant price, 2000
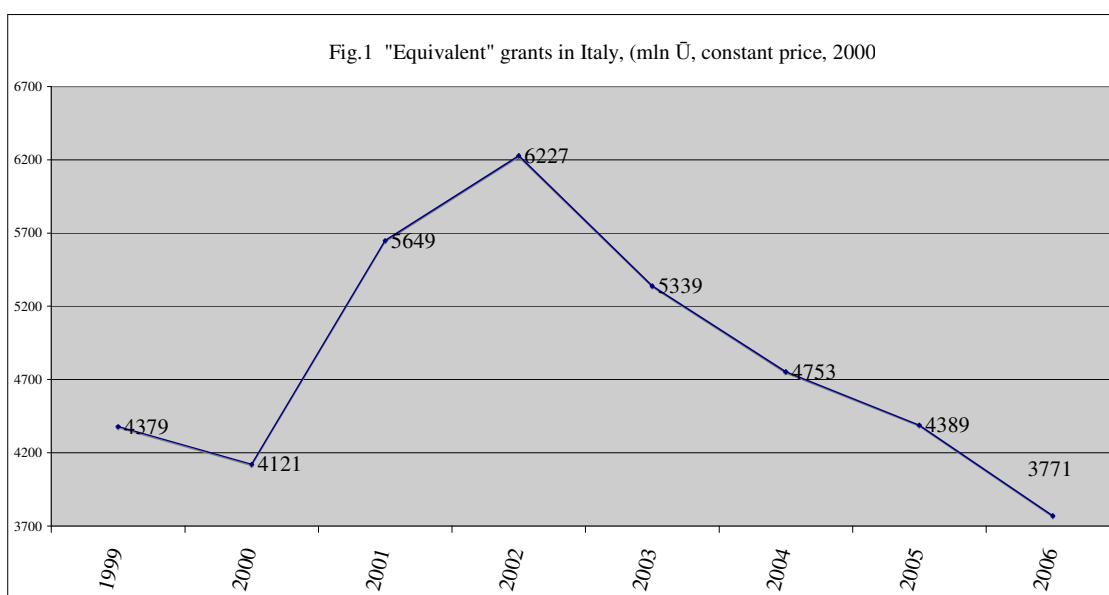
*Source: Rapporto MET 2007*

In fig 1 it is clearly shown the strong downgrading of Italian industrial policy in its relevance for the general public expenditures and for the firms.

---

[4] It is very important to note that the technical debate on the effectiveness od structural policies in Italy has a long tradition mainly joint to the Mezzogiorno policies

Between 2002 and 2006 industrial policy, in monetary terms, decreased deeply (-39,5%), but the historical shortcomings remained unchanged: lack of strategy, uncertainty of resources, too many instruments without well defined goals, weak governance with too many actors: regions, local governments and national administration.

**Fig 2 - Industrial policy in Italy, 2006, expenditures by objective, %**
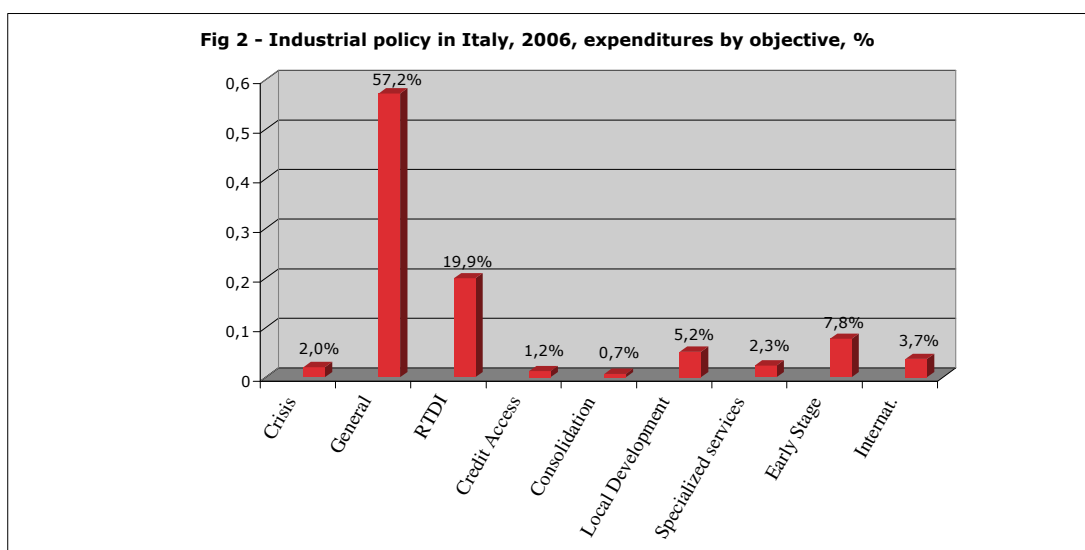
| | Crisis | General | RTDI | Credit Access | Consolidation | Local Development | Specialized services | Early Stage | Internat. |
|---|---|---|---|---|---|---|---|---|---|
| **Italia, 2006** | 2,0% | 57,2% | 19,9% | 1,2% | 0,7% | 5,2% | 2,3% | 7,8% | 3,7% |
| **Italia, 2005** | 2,3% | 58,9% | 20,5% | 0,8% | 1,0% | 6,6% | 1,5% | 5,1% | 3,3% |

Source: Rapporto MET 2007

An aggregate picture of the preferences of the governments can be derived from Fig 2 that divides the global flows by objective: it's easy to note that the majority of resources are devoted to the main objectives –two- and that the structure of funds' allocation is quite stable over the years. The "general" measures, mainly oriented to the simple accumulation process of the firms (in a particular way to the so called depressed regions), register more or less 60% of the total, while only 20% is directed to sustain RTDI. Other aims, beside their importance, receive only minor shares. In some regions the same objectives can receive so few money that becomes questionable the opportunity to allocate resources not coherent with the dimension of the problem they want to cope for.

The aggregate picture has, as argued in the introduction, two sides: the supply and the demand. The supply side, at least in Italy, is analysed trough the examination of the specific –over 250- measures and laws, with the relevant resources allocated in the public budget. The demand side for industrial policy must represent the firms' needs that are not adequately fulfilled by the market: it is very complex to evaluate this aspect and we tried to develop an insight through a wide survey (5400) limited to manufacturing activities and services to the enterprises.

The sample was stratified according to three criteria: region (20), sector (4), dimension (4 groups).

The questionnaire was divided in sections: market and competitive advantages, structural aspects of production, innovation and investments, development constraints, demand for policies (mainly through indirect demands). For the same survey firms were associated the balance sheets with a complete picture of the financial and real data.

Before presenting some estimation in the following section, here we can illustrate same evidence referred to few specific questions that can give a sketch of the structure.

It is worth noting that at least 1/3 of the Italian firms are not to be considered at all as a target of industrial policy. The 36,5% of the sample is quite static in his behaviour: the characteristic of this group is given by no innovation, no investments and no growth of turnover. The same group is not homogenous for the contemporary presence of marginal firms with crisis' indicators associated with other firms that register high profitability also in a not-dynamic situation (probably related to the exploitation of niche or captive markets), but the conclusion in an industrial policy scheme should be the same.

**Do you consider as useful a specific policy for local development?**
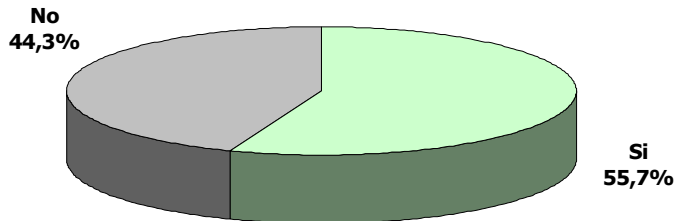


|  | Si | No |
|---|---|---|
|  | % riga | % riga |
| PIE | 52,20% | 47,80% |
| VDA | 29,60% | 70,40% |
| LOM | 55,90% | 44,10% |
| TRE | 41,60% | 58,40% |
| VEN | 61,30% | 38,70% |
| FVG | 56,30% | 43,70% |
| LIG | 50,90% | 49,10% |
| EMR | 47,70% | 52,30% |
| TOS | 54,10% | 45,90% |
| UMB | 56,30% | 43,70% |
| MAR | 60,60% | 39,40% |
| LAZ | 54,90% | 45,10% |
| ABR | 60,80% | 39,20% |
| MOL | 69,60% | 30,40% |
| CAM | 51,40% | 48,60% |
| PUG | 53,70% | 46,30% |
| BAS | 73,00% | 27,00% |
| CAL | 57,30% | 42,70% |
| SIC | 69,50% | 30,50% |
| SAR | 68,80% | 31,20% |
| Totale | 55,70% | 44,30% |

The general attitude towards local development policy is widely positive. We have to consider, nonetheless, that the same picture is rapidly worsening from 2006 to 2007[5].

The last year the same question registered over 20% more positive answers: one possible reason is the increasing lack of confidence of agents in presence of massive programs of local development that never become real actions. This is the case of southern regions where the worsening is stronger.

Other answers put in evidence the complexity of this kind of policy with firms' needs strongly associated to the development of a real project.

The consciousness of the problems and constraints for the firms' development seems widespread: the main problems are focused in the market functions, while technical and managerial constraints are identified by one third of the interviews. It is worth noting that the financial area is signalled by only 23,5% of the total firms.
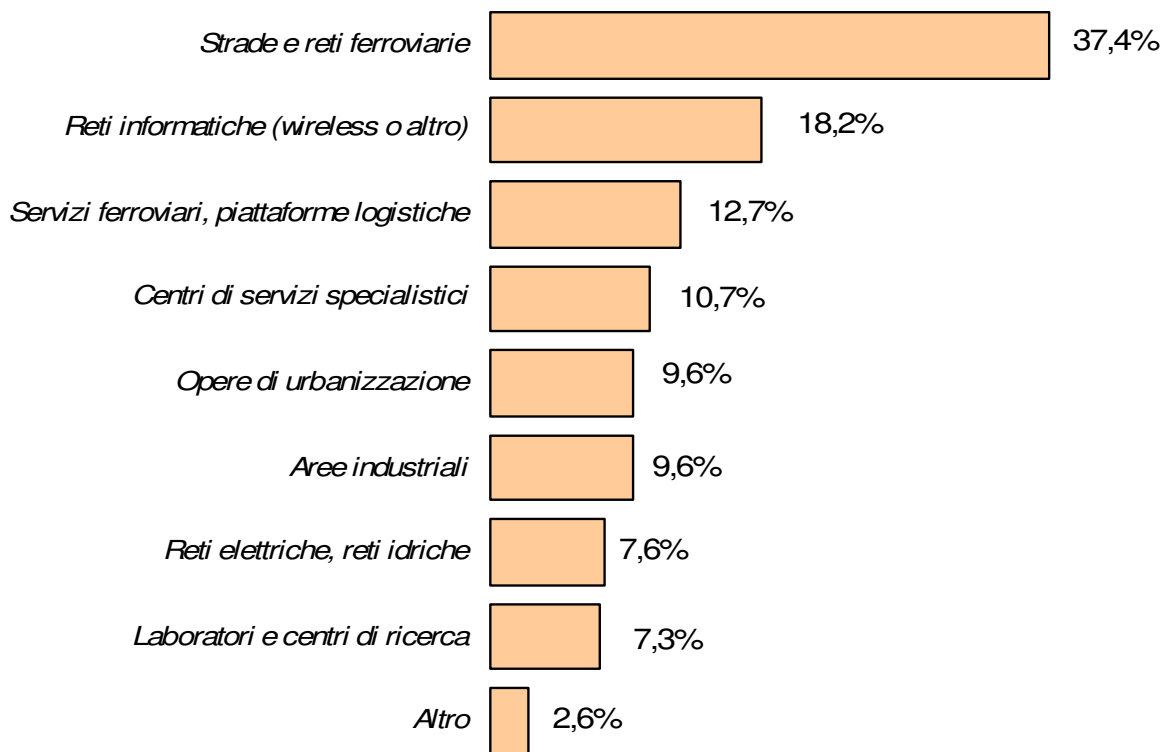
---

[5] We have to note that our survey is based on a panel methodology that allows some intertemporal comparison.

**Can you indicate your main weakness?**

| | |
|---|---|
| Mercato | 45,8% |
| Tecnico | 39,6% |
| Manageriale | 36,8% |
| Finanziario | 23,5% |
| Altro | 0,0% |
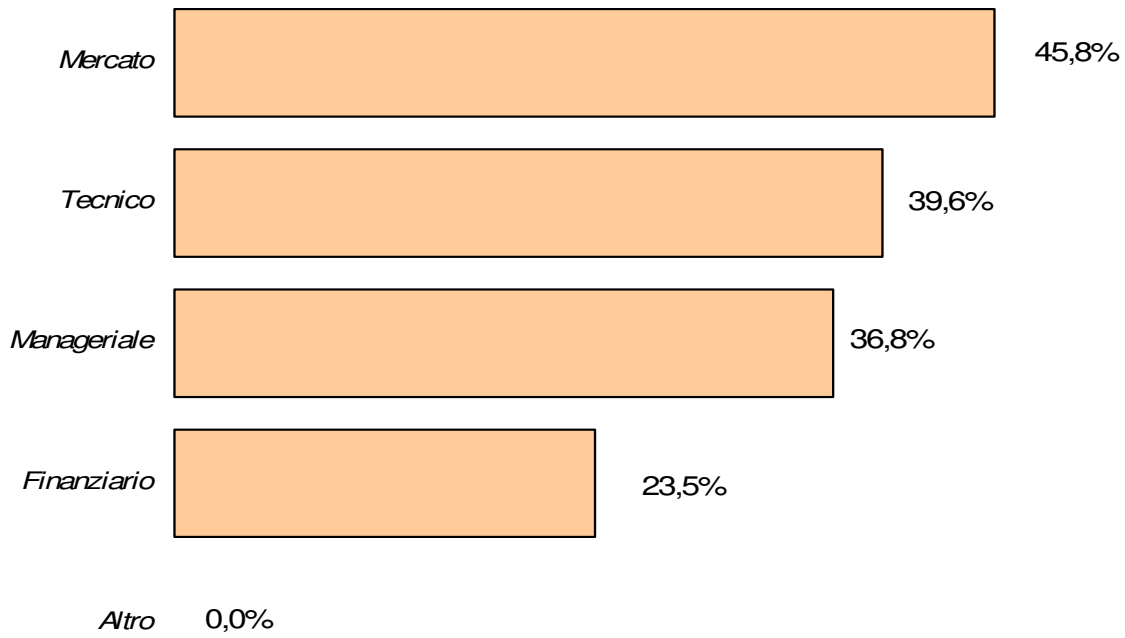
**Can you underline the infrastructures with a stronger impact on your own economic perspective?**

| Infrastructure | Percentage |
|---|---|
| Strade e reti ferroviarie | 37,4% |
| Reti informatiche (wireless o altro) | 18,2% |
| Servizi ferroviari, piattaforme logistiche | 12,7% |
| Centri di servizi specialistici | 10,7% |
| Opere di urbanizzazione | 9,6% |
| Aree industriali | 9,6% |
| Reti elettriche, reti idriche | 7,6% |
| Laboratori e centri di ricerca | 7,3% |
| Altro | 2,6% |

**Did you receive any public aid in the last three years?**

Si
22,9%

No
77,1%
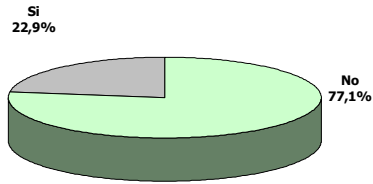
Se sì,

*Quante volte ?*

Base 1224
rispondenti, %
calcolate al
netto dei "no"

| | |
|---|---|
| Una | 58,1% |
| Due | 21,1% |
| Tre | 11,3% |
| Non specifica | 5,4% |
| Oltre 3 | 4,2% |

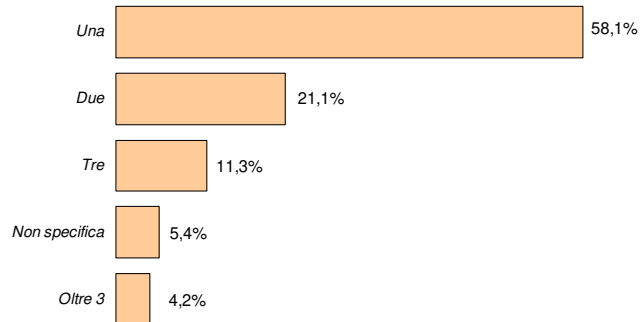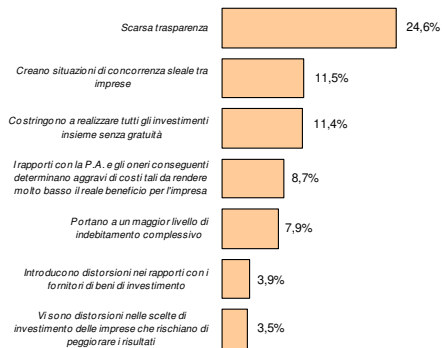One of the most relevant section of the questionnaire is devoted directly to the industrial policy asking the effective access to policy measures.

You can find the answers in the following pictures and the main results can be quickly summarized:
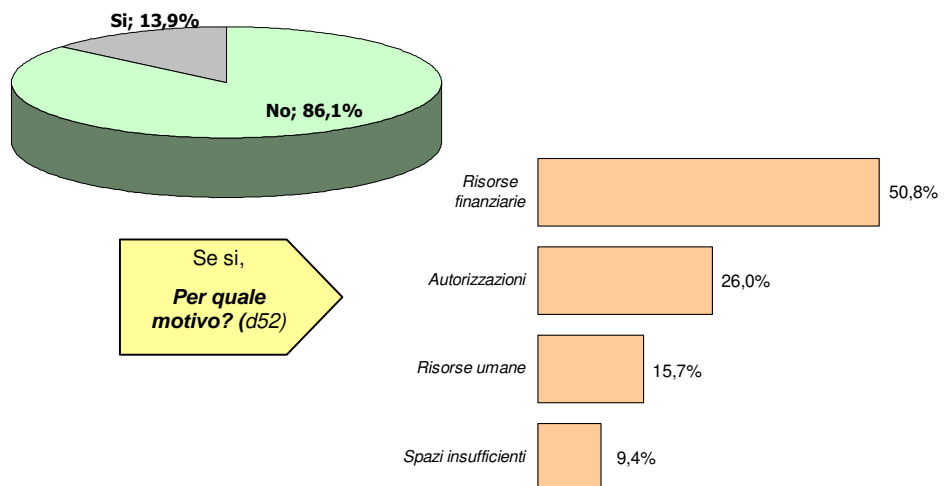
At least 22% of Italian firms receive public support, if we consider that there is a substantial bias towards an underestimate of public role (a check for one southern region on the administrative data give a share of 47% instead of 28% of the survey).

- The deadweight is substantial, but not so high, if compared to other analysis of the same nature; the acceptable level of deadweight depends on a number of factors considering also the fiscal flows of the new activities (cfr. Met Report 2006).

- The general mood of the firms towards industrial policy is not so negative as reported by newspapers and analysts: 43,1% of the enterprises have a negative judgement of the interventions. The displacement is considered possible only by less than 5% of the total and other aspects are indicated by less than 4%. This share are not so different between firms that benefited of the subsidies and the others.

- There is still an area for industrial policy. A general picture can be derived from the presence of potentially profitable investments that the firms didn't realize for lack of money: over 6% of the firms signal this aspect as influent.

If your judgement on Industrial policy measures is negative (43,1% of interviews), which is the reason for?

| | |
|---|---|
| *Scarsa trasparenza* | 24,6% |
| *Creano situazioni di concorrenza sleale tra imprese* | 11,5% |
| *Costringono a realizzare tutti gli investimenti insieme senza gratuità* | 11,4% |
| *I rapporti con la P.A. e gli oneri conseguenti determinano aggravi di costi tali da rendere molto basso il reale beneficio per l'impresa* | 8,7% |
| *Portano a un maggior livello di indebitamento complessivo* | 7,9% |
| *Introducono distorsioni nei rapporti con i fornitori di beni di investimento* | 3,9% |
| *Vi sono distorsioni nelle scelte di investimento delle imprese che rischiano di peggiorare i risultati* | 3,5% |

**Did you have investment programs that you miss for lack of resources ?**

**Si; 13,9%**

**No; 86,1%**

Se si,

***Per quale motivo? (d52)***

| | |
|---|---|
| *Risorse finanziarie* | 50,8% |
| *Autorizzazioni* | 26,0% |
| *Risorse umane* | 15,7% |
| *Spazi insufficienti* | 9,4% |

# Some Empirical Evidence

The aim of the empirical model is to estimate the determinants of the industrial policy demand of the firms. In particular, it has been attempted to analyze which are the features of the enterprises that ask a policy support and which are the factors that differentiate this last from the others that do not seem to be interested to the public support. The data used are obtained merging the result of the survey with the information on the balance sheets dataset.

The questionnaire in the survey is very articulate and covered a host of topics. The survey is carried out in the first months of 2007, over a representative sample of 5350. However, we have only 2869 for which are available balance sheets from AIDA dataset. We take into account three fundamental aspects of the industrial policy: those concerning a general demand of local economic development programs, those relative to the physical infrastructure demand, and finally, those associated with a general support for the innovation and R&D activities of the firms. Many question in the questionnaire concerning public incentives are judgmental, then we try to use opinion information in order to evaluate the demand of different type of intervention programs formulated by the firms. In particular, we focused on two specific questions: (i) *"Do you consider useful for your firm a general policy for the local development?"* and (ii)*"Which policy do you think will be better in order to improve the performance of your firm?"*.

The first question allows for a dichotomous answer, while the second has different options which can be chosen by the interviewed. Then the answers to the first question give us a general figure of how much the firms consider useful a policy design focused on the local development. Several reasons can induce the interviewed to answer positively to this issue. If there does not exist deep lack of confidence about the State aid, we expect that the results are a good proxy of the demand …

The possible answers to the second question are instead more articulated, but this leads to a bigger variety of useful information. Then, we followed this line of reasoning: we organize the different options into two homogenous sub-sets in which we merge the answers belonging to the same general policy trend. In table 1 are described the three dependent variables used and the associated questions extract from the survey. With respect to the last two variables, therefore, we have chosen to identify two groups of answers. The first one collects all the positive opinion regarding material and immaterial good and services potentially provided by the public authorities closer to the technological and innovative activities of the firms. While the second one collects all the firms' needs mainly in terms of physical infrastructures.

Table 1.Dependent variables

| | | | |
|---|---|---|---|
| Local Development | Do you consider useful for your firm a general policy for the local development | $\begin{cases} \text{1 if the answer is "yes".} \\ \quad \text{0 otherwise.} \end{cases}$ | $\begin{cases} 51.8\% \to 1; \\ 48.2\% \to 0. \end{cases}$ |
| Innovation and Human capital formation support | Which policy do you think will be better in order to improve the performance of your firm? | $\begin{cases} \text{1 if the naswer is: support for human capital formation} \\ \quad \text{or support for specialized and technologial services;} \\ \qquad\qquad \text{0 otherwise.} \end{cases}$ | $\begin{cases} 35.6\% \to 1; \\ 64.4\% \to 0. \end{cases}$ |
| Physical infrastructure | | $\begin{cases} \text{1 if there answer is: roads or railways (services and networks)} \\ \quad \text{or electric system or water system ;} \\ \qquad\qquad \text{0 otherwise.} \end{cases}$ | $\begin{cases} 60.1\% \to 1; \\ 39.9\% \to 0. \end{cases}$ |

**Note**: Number of observations is equal to 2869

Through this transformation we have binary variables which can be used to estimate a logit model in which the coefficients associated to the independent variables measure the impact of each regressor on the probability that the firm has a demand of the respective policy described by the dependent variable. The estimated logit model is expressed by the (1):

$$prob(\ y = 1\ ) = \frac{e^{\beta'X}}{1 + e^{\beta'X}} = \Lambda(\ \beta'X\ ), \tag{1}$$

where $\Lambda$ is the well-known notation for the logistic distribution and the X matrix contains explanatory variables. The determining variables[6] includes in the equation (1) are the following. Turnover and ratio between total immobilization and turnover as proxy of the firm size and dynamism. The amount of resources employed in R&D and the share of sales exported.

Furthermore, we introduce dummies variables constructed using the information of the survey. In particular, three variables described the weakness of the firms. We have asked to the firms which is the main weakness of their activity. There were three possible options: managerial, technical and market weaknesses. Thus, we constructed three different variables that assume value 1 if the respective weakness has been indicated by the interviewed, 0 otherwise. We used the results derived form other two questions in the survey: (i) Do the purchases in your localization area important for your business?"; "have you never thought to move your production activity abroad?". These take value 1 if the firm

---

[6] All the continuous variables contained in equation (1) are expressed in natural logarithms.

has answered "yes", 0 otherwise. Finally, we control for the other two policy demand variables not used as dependent and for the south Italy.

In Table 2 the main results of the logit model (1) are shown.

Tabella 2. Firms' policy demand

| Dep. variable | Local development demand | | Inn. and Human cap. | | Physical capital demand | |
|---|---|---|---|---|---|---|
| | [a] | [b] | [a] | [b] | [a] | [b] |
| ln(turnover) | -2.217*** | -0.322 | -1.841*** | -0.454 | 0.401 | 0.088 |
| ln(imm./turnover) | 0.028** | 0.004 | 0.003 | 0.001 | 0.019 | 0.004 |
| managerial weakness | 0.415*** | -0.052 | 0.157* | 0.038 | 0.132* | 0.030 |
| technical weakness | -0.017 | -0.002 | 0.255*** | 0.062 | 0.077 | 0.017 |
| market weakness | 0.039 | -0.005 | 0.105 | 0.026 | 0.192** | 0.043 |
| resources in R&D | -0.056 | | 0.425*** | 0.101 | -0.099 | -0.021 |
| purchases form the same localization area. | 0.354*** | 0.057 | 0.110 | 0.027 | 0.238*** | 0.054 |
| move the production abroad | 0.623*** | 0.109 | -0.028 | -0.007 | 0.093 | 0.093 |
| export | 0.237* | | 0.216* | 0.052 | 0.341*** | 0.079 |
| human capital demand | 0.806*** | 0.147 | . | . | -0.639*** | -0.122 |
| physical capital demand | 0.876*** | 0.163 | -0.638*** | -0.158 | . | |
| south | -0.015 | -0.002 | -0.156 | -0.038 | 0.257** | 0.059 |
| Number of obs. | 2869 | | 2869 | | 2869 | |
| LR $\chi^2$ | 285.55*** | | 120.89*** | | 106.3*** | |

Note.: *, ** and *** denote 10%, 5% and 1% level of significance, respectively.

The $\chi^2$ statistics for the joint impact of the explanatory variables allow us to conclude the dependent variables are jointly significant in all the models.

The first specification takes into account a general demand of local development support. The results suggest that more the firm is big (i.e. with a high turnover) and less it is the probability of this firm needs this type of policy. However, the coefficient associated with the ratio between immobilization and turnover is positive, then we expect the investment programs have a positive impact on the demand of local development. Managerial and market weaknesses have opposite signs. The first affects positively the demand, while the latter negatively. If the purchases in the local market are very important for the firm then its

demand of local development programs will be higher.

The coefficients associated with the demand of support for "innovation and human capital formation activities" and physical infrastructure are both significant even if the latter seems to be bigger. Finally, there is no evidence that the localization in the Southern Italy is a significant determinant of the demand of local development.

The second specification underlines the determinants of the demand of a policy which supports the innovation and human capital formation activities of the firms. The results indicate the small firms with managerial, technical and market weaknesses seem to be more interested into this type of programs. Furthermore, the higher is the share of sales exported and bigger is the demand of this policy, while this is negatively correlated with the demand of physical infrastructure. As we expected, the total amount of resources devoted for the R&D activities has a positive impact on the demand of this policy. The regional control is basically not significant, showing how this type of demand does not assume any specific feature of localization.

The last specification describes the determinants of the physical infrastructure demand. The results show how difficult is to identify a clear model for this type of needs. In general, it is possible to suppose that this demand is associated with a very heterogeneous class of agents and does not exist a specific group of economic variable able to describe its structure. However, estimated coefficients indicates, as we expected, the exporting firms have an higher need of physical infrastructure and that the demand of these policy is bigger in the South.

## Conclusion

Public policies decreases deeply in the last years.

The policy makers needs to know which are the needs of the firms in order to optimize its policy design and the allocated resources.

Empirical results of the logit model estimated. Small firms with several weaknesses have an high demand of local development and Innovation and human capital formation policies. The firms which demand the latter are usually very dynamic, exporting, with an considerable amunt of resources devoted in R&D.

The demand general policy of implementation of physical infrastructure is presence expecially in the south and for the firms which declare to have market weaknesses.

# Bibliography

Blundell, R., Costa Dias, M. (2000), *Evaluation Methods for Non-Experimental Data,* Fiscal Studies vol. 21, n. 4, pp. 427-468.

Blundell, R., Costa Dias, M., Meghir, C., Van Reenen J., (2001), *Evaluating the employment impact of a mandatory job search assistance program*, Working paper n. 20, Institute for Fiscal Studies, UK.

Blundel, R., Costa-Dias, M., (2002), *Alternative Approaches to Evaluation in Empirical Microeconomics*, Working Paper n. 10, CEMMAP Centre for Microdata, Methods and Practice.

Boscá J.E., Escribá F.J. e Murgui M.J., (2003), "The effect of pubblic infrastructure on the Private productive sector of Spanish Regions", Journal of Regional Science, 42 (2), 301-326.

Brancati R. (2001) Analisi e metodologie per la valutazione delle politiche industriali, F.Angeli, Milano.

Brancati, R. (a cura di), (2001-2003-2005), Rapporto MET, Donzelli editore, Roma.

Brancati R., (2001), Un quadro generale, in (a cura di) Brancati R., Le politiche industriali nelle regioni, -Rapporto Met 2000-, Donzelli Editore, Roma.

Brown Marilyn A., Randall T. Curlee, e Steven R. Elliott (1995) "Evaluating Technology and Innovation Programs: The use of Comparison Groups to Identify Impacts," ResearchPolicy 24, 669-684.

Carlucci C., Centra M., Parancandolo P., (2001), *Una valutazione di efficienza e di efficacia della legge 488/92,* Atti del Convegno SIS 2001 "Processi e metodi statistici di valutazione", Università di Tor Vergata, Roma, giugno 2001.

Chiri, S., Pellegrini, G., (1995), Gli aiuti alle imprese nelle aree depresse, *Rivista economica delMezzogiorno*, n. 3.

Chiri, S., Pellegrini, G., Sappino, C., (1998), *L'attuazione dell'intervento per lo sviluppo degli investimenti nelle aree depresse,* Rassegna Economica, n. 1.

De Castris M., Pellegrini G. (2005), Complementarietà e sostituzione tra diverse politiche di sviluppo locale: i contratti di programma e la legge 488/92, Rassegna italiana di valutazione, anno IX, n.32, pp. 79-96.

Del Monte A., Giannola A., 1997, Istituzioni economiche e Mezzogiorno. Analisi delle politiche di sviluppo, NIS, Roma e lavori di Del Monte ivi citati

Dowall D.E. (1996), An evaluation of California's Enterprise Zone Programs, EconomicDevelopment Quarterly, 10: 352-368.

Faini R., 1985, Incentivi e piccole e medie imprese nel Mezzogiorno, Ricerche Economiche XXXIX 3

Farrell, M.J. 1957, *The measurement of productive efficiency,* in «Journal of the Royal Stastical Society –Series A General-», 120(3), 253-290.

Lenihan, H., 2004. 'Evaluating Irish industrial policy in terms of deadweight and displacement: a quantitative methodological approach'. Applied Economics, 363. pp. 229-252.

Lenihan, H. and M.Hart, 2004. 'Additionality and Public Sector Support to Irish Industry: some methodological issues'. Research and the Knowledge based Society-Measuring the Link, European conference on good practice in evaluation and indicators, NUI Galway, May 24th, pp. 129-147invited paper.

Ministero Attività Produttive (2003), "Valutazione della legge 488/92. Gli effetti occupazionali sul territorio".

M.Mollelman-Y.Prince-R.Kemp, (2004) Review of methodologies to measure the effectiveness of state aid to SMEs, Report to the European Commission, Draft,

Pellegrini G., Carlucci C. (2003), *Gli effetti della legge 488/92: una valutazione dell'impatto occupazionale sulle imprese agevolate*, Rivista Italiana degli Economisti 2003/2;

Pellegrini G., Carlucci C. (2001), *La valutazione degli effetti degli aiuti alle imprese: metodi emodelli statistici*, Atti del Convegno SIS 2001 "Processi e metodi statistici di valutazione", Università di Tor Vergata, Roma, giugno 2001.

Pellegrini, G., (1999), *L'efficacia degli aiuti alle imprese nel Mezzogiorno. Il vecchio e il nuovo intervento*, in Giannola A. (a cura di), *Mezzogiorno tra Stato e Mercato*, Il Mulino, 1999

PON "Sviluppo Imprenditoriale Locale" (2006)

Rubin B.M. e Wilder M.G. (1989), Urban Enterprise Zones. Employment impacts and fiscal incentives, Journal of American Planning Association, 55: 418-431.

Rubin M.M. (1991), Urban Enterprise Zones in New Jersey: have they made a difference?, in Enterprise Zones. New directions in economic development, Green R. E. (ed.), Sage Publications, Newbury Park CA.

Scalera, D. e Zazzaro A. (2000) "Incentivi agli investimenti o rendite alleimprese? Una riflessione sulla procedura di allocazione dei sussidi previsti dalla legge n. 488 del 1992," Rivista di Politica Economica, 90(5), 69-100.