

**The determinants of firm participation in financial incentive programme:
The case of subsidies for outward internationalisation**

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Abstract

Based on a sample of internationalised firms, this study explores the participation process in financial subsidies supporting outward foreign direct investment. Using firm-level data on granted firms and potential applicants, we show that the opportunity costs of application, the financial constraints, the riskiness of FDI projects and the level of engagement by the parent company significantly affect the choice to apply for public funds. Policy makers should be concerned about the existence of self-selection mechanisms among eligible firms, as they could reduce the expected impact of support programmes.

Key words: policy evaluation, firm participation process, outward FDI.

1. Introduction

The outward internationalisation of firms is an increasingly important target of public intervention in most OECD countries (UNCTAD, 2001) since internationalisation is acknowledged both as a determinant of growth and competitiveness for home countries and a driver of the development for host country (Te Velde, 2007; Westhead *et al.*, 2007; Dunning and Lundan, 2008). For these reasons, since the 1990s, governments have implemented home country measures (HCMs) to encourage internationalisation processes. These measures include financial support, investment insurance, fiscal measures, information provision and technical assistance (Sarmah, 2003).

Despite the increasing importance of such policy tools, we know surprisingly little about either their effects or their allocation processes among firms. Opposite to the large body of works that study the effectiveness and efficiency of host country's policy in attracting and sustaining inward investment, HCMs have been largely neglected (Globerman and Shapiro, 1999; Te Velde, 2007; Sarmah, 2003). On the one hand, systematic and rigorous analyses are still lacking and the few available empirical studies do not unanimously support the effectiveness of policy measures (see e.g. Sosvilla-Rivero and Herce, 2008; Atzeni and Carboni, 2008; Halkos and Tzeremes, 2009; UNCTAD, 2001), yet. On the other hand, no evidence exists on the processes that drive the allocation of public incentives among firms (Colombo *et al.*, 2007; Tanayama, 2007). The general push for collecting evidence about the impact of different policy measures by investigating their impact on growth and other performance indicators has somehow diverted attention away from the problems surrounding the incentive allocation.

Policy makers should be concerned about firm behavior in applying for a subsidy as it might reveal possible misalignments between policy goals and allocation outcomes (Scheirer, 1994). Moreover, the understanding of firms' participation process and the causes of those misalignments represents a compulsory premise in order to collect reliable evidence of an in-

centive's direct and indirect effects (Heckman and Smith, 2004). One possible cause for partial or total ineffectiveness might in fact be found in the participation process: agency selection may fail to reach the target population and self selection among firms may reduce the application rate by the target population.

In order to provide additional evidence on firm behaviour in filing a request for public financial support, this paper identifies the determinants of firm self-selection and controls for project eligibility, agency acceptance and firm enrolment (Heckman and Smith, 2004). To the authors' knowledge, this paper represents the first attempts to provide a theoretical interpretation and a rigorous evaluation of subsidy allocation in the case of HCMs.

The empirical analysis is based on information on the population of Italian firms that received at least one financial incentive for international growth outside the European Union during the period 1992-2007 and on a sample of potential applicants that internationalised without the support of public programme in the same period.

This paper is structured as follows. The next section surveys the existing literature, while section 3 formulates the hypotheses that drive the empirical analysis. The following section presents the data and the fifth section describes the model and the variables used in the empirical analysis. Section six illustrates the results of the econometric estimates, while final comments are reported in section seven.

2. Literature background

Public policy evaluation includes process (or implementation) evaluation and outcome (or impact) evaluation (Freeman *et al.*, 2004). Process evaluation, a particular form of *ex post* or *in medias res* evaluation, verifies whether or not a support programme is delivered as intended to the target subjects (Scheirer, 1994). It is worth noting that early literature framed implementation process as simple administrative routines that would occur of and by them-

selves once policy measures were brought into effect by legislation and agencies mandated with administrative authority (Corbett and Lennon, 2002; Vedung, 1997). This view has been undermined as a growing body of literature, also known as implementation research, has focused on comparing policy implementation with the original intentions of policy makers and on identifying the obstacles to successful programme execution (Wallman, 2007).

Implementation is a complex process involving distinct actors, namely, government bodies, public agencies and firms, all characterised by contrasting goals due to their different objectives, power and capabilities (Corbett and Lennon, 2002; Schilder, 2000). In particular, the allocative problem can be decomposed into five steps: eligibility, awareness, application, acceptance and enrolment (Heckman and Smith, 2004). Policy makers set the criteria of eligibility, which will be interpreted by the agencies in charge of incentive programme management. Based on their awareness (i.e., the extent to which a firm is informed about the existence of a public measure), firms decide whether to submit an application or not. Thus, firms self-select to participate in the allocation process. Finally, public agencies make granting decisions by choosing which applications will be accepted and which companies will be enrolled in the incentive programme.

Heckman and Smith (2004) argue that each step of the participation process is important for at least three reasons. First, it allows identifying the sources of inequality in the allocation of incentives, as differences in firm participation rate may result in very different distributions of the wealth function. In particular, studying the determinants of participation can reveal unexpected barriers to firm participation itself (Blanes and Busom, 2004). Second, participation patterns provide useful information about the functioning of support programmes by separating the role of the agency in charge of incentive allocation from the firm's choice to apply. Third, the participation process has important implications for the impact evaluation strategies. The understanding of the self-selection mechanisms among eligible firms, on one side

can help to draw the counterfactual scenario (Marschak, 1953; Moffit, 1991), and on the other one can suggest about what variables to collect in a survey or database. Enfasi su policy valutazione

Notwithstanding the importance recognised to programme implementation and notwithstanding studies investigating participation in subsidy programmes often indicate that many eligible subjects do not in fact participate (CIT), few papers analyse participation processes at the firm level as the outcome of agency selection processes (Giebe *et al.*, 2006; Schilder, 2000), and even less attention is paid to the application behaviour of firms. Only Blanes and Busom (2004) estimate reduced-form models of joint applications and granting decisions for R&D subsidies, while Colombo *et al.* (2007) investigate the determinants of firms' access to both public subsidies and private venture capitalist. Despite several studies have ascertained the existence of significant differences between benefiting firms and not benefiting ones, scholars have paid little attention to the underneath causes and consequences, so that we know surprisingly little about how potential applicants decide whether to apply or not. In the empirical literature on policy evaluation, the inclusion of variables for firms participation status in a public subsidy, always aims at controlling for selection bias in order to study the effects of a support measure (Blundell and Costa Dias, 2000). Moreover, when existing, the debate about the allocation of the incentives has centred on the identification of which benefiting projects maximise social returns and additionality (i.e. the public agency) rather than focusing on firms' behaviour (Giebe *et al.*, 2006; Schilder, 2000).

3. Research hypotheses

Assuming that firms are aware of the existence of public programmes and that eligibility rules are not too restrictive, the decision to apply for a financial incentive programme in support of outward FDIs depends on the expected benefits of participation compared to monetary and

non-monetary costs. On one side, subsidies help internationalising firms to overcome their financial constraints and reduce the costs of the internationalisation process. Moreover, a firm can share the economic and political risk of the foreign project with the supporting institutions and gather the needed information to reduce the economic risk related to the unfamiliar context abroad and to the liability of foreignness (Zaheer, 1995; Bannò and Piscitello, 2009; Te Velde, 2007). On the other side, the administrative burden and the effort of submitting an application can generate significant application costs (Sarmah, 2003).

Information gathering, reporting activities and form filling represent potential obstacles to actual participation (Sarmah, 2003). We expect managerial capability (Weasthed *et al.*, 2007; Blanes and Busom, 2004; González *et al.*, 2005) and experience in similar support programmes (Lerner, 2002; Duguet, 2004; Aschhoff, 2009) to reduce the costs of applying and increase the likelihood of self-selection in submitting a request. Consequently, the first research hypothesis can be detailed as follows.

HP 1: Managerial skills and international experience induce self-selection by reducing application costs.

The second hypothesis concerns the relationship between the firms' financial constraints and the decision to apply for a public incentive. The actual cost of going abroad may vary across firms as the result of differences in the availability and cost of financial resources. As discussed in recent literature on small and medium enterprises (SMEs), the market for investment financial support is subject to considerable imperfections, which often result in financial constraints (Beck *et al.*, 2005). Financial market imperfections can curb investment projects and limit a firm's capability to engage in FDIs (van Tongeren, 1998). Consequently, we expect a positive relationship between the financial constraints perceived by a firm and the probability of self-selection in applying for public funds (Hyytinen and Toivanen, 2005).

HP 2: Financial constraints affect self-selection by encouraging applications by firms with difficult access to private financial sources.

Country risk is an additional dimension of project uncertainty due to factors concerning the FDI destination country. Institutional differences between the home and the host country amplify the difficulties in gathering, organising and interpreting the information necessary for successful entry (Henisz & Zelner, 2003). Investors are consequently more likely to enter countries characterised by similar culture, similar institutional structures and a stable policy system (Henisz, 2004). Where the above conditions are not met, public aid is perceived as a means to lower systematic, country-level risk. In typical financial incentives in support of outward internationalisation, in fact, the granting agency takes economic and political risk to the full extent of the loan in case of project failure, while in case of success the firm is in charge of repaying the loan. Moreover, firms sensitive to contracting and political hazard¹ will take mitigating actions and partner with home country institutions endowed with a comparative advantage in interacting with the host country institutions (Henisz, 2004). Thus, we expect that firms will submit the most risky projects to public agencies and finance the least risky ones internally or through the private capital market. Moreover the greater is the resource commitment level assumed by the parent company, the greater is the exposure to country risk and consequently the greater is the probability to apply for public fund as a mean to lower the exposure to the risk. For these reasons, besides firm-specific characteristics, project characteristics are also expected to affect the decision to self-select.

HP 3: The riskiness of an FDI project affects the propensity to apply for a public incentive by increasing the benefits of participation.

4. Data description

¹ Henisz (2004) defines political hazard as the probability that a policy change by the host country government will either directly (seizure of assets) or indirectly (adverse changes in taxes, regulations or other agreements) diminish the expected return on assets of FDI.

4.1 The Italian Agencies in support of outward FDIs: Simest and Finest

In 2007, Italy invested about 3 percent of total industrial policy expenditures in promoting exports, inward and outward internationalisation. The implementation of HCMs is carried out by two public agencies working under guidelines issued by the central government or by local public administrations: Simest and Finest.

Simest, established as a limited company in 1990 (Law 100/1990), is a public-private partnership controlled by the Ministry of International Trade and Commerce (76%). It promotes the competitiveness of the Italian industry and service sector by providing funding and advice to outward Italian investors. Finest was founded in 1992 as an investment company (Law 19/1991). It collaborates with companies located in the North-East of Italy and its main shareholders are local public administrations² and Simest.

This paper focuses on Law 100/1990 (executed by Simest) and Law 19/1991 (executed by Finest), which provide a particular form of financial HCM. The examined subsidies consist of capital loans at interest rates below the market rate that are not paid back in case of failure of the foreign project (Law 394/1981). According to those laws, the agencies can directly acquire up to 25% of the equity of a foreign venture and benefiting firms agree to buy back the agency equity share within 8 years³. Although the agencies can, in principle, accept investment proposals presented by firms, partners of cooperative agreements, cooperatives, consortia and business associations, priority should be given to initiatives by SMEs investing in Eastern Europe. Projects in the same sector of the parent company are encouraged, while the support programme excludes FDIs in the European Union and FDIs that entail the divestment of R&D, sales or production activities in Italy (Law 80/2005).

² Participating local administration include the regional governments of Friuli Venezia Giulia and Veneto and the autonomous province of Trento .

³ Since 2005 Simest and Finest are entitled to acquire up to 49% of the equity of a foreign venture for a longer period.

Most recent available data show that every year the two agencies receives between 150 and 250 applications. From the beginning of their operations, the agencies approved more than 1000 investment projects outside the European Union and acquired shareholdings in Italian foreign affiliates for a total amount of more that 1000 million euros.

4.2 The Dataset

The dataset used in the empirical analysis combines four different sources of data: Reprint, a database which provides a census of outward and inward FDIs in Italy since 1986⁴; the balance sheets of Simest and Finest, which provide information about the incentives granted to outward Italian FDIs; AIDA, an archive developed by Bureau van Djick, which provides structural and financial data for Italian public limited companies. The dataset obtained by merging the above sources includes information on 568 firms that received financial incentives between 1992 and 2006 and 991 internationalised firms that received no support from Simest or Finest in the same period. The sampled firms represent 98 percent of funded firms and 10 percent of the control group.

5. The model and the variables

The allocation process is particularly difficult to analyse because researchers can seldom separately observe application behaviours by firms and grant allocation decisions by public agencies (Blanes and Busom, 2004). The most frequent limitation faced by researchers is the impossibility to identify unsuccessful applications and the characteristics of rejected projects⁵. This constrain obstacles the separate identification of the agency selection criteria from the factors driving firm behaviour. Also the present empirical analysis has to cope with missing information on rejected applications. As in the case of previous studies (see *e.g.* Blanes and

⁴ Reprint is updated yearly and is sponsored by the Italian Institute for Foreign Trade. For further information, see Mariotti and Mutinelli (2008).

⁵ Two exceptions are represented by Ali-Yrkko (2005) and Tanayama (2007).

Busom, 2004), this limitation forces us to combine application and allocation processes into a single step. We try to relax this limitation by including determinants of firm behaviour as well as control variables accounting for the agency screening rules.

The empirical analysis is based on a probit regression where the dependent variable, $D_Incentive$, is a dummy variable equal to 1 if a firm has launched an FDI project with the support of a public financial incentive and zero otherwise. The model is:

$$D_Incentive_i = \alpha Firm_behaviour_i + \beta Control_variables_i + \varepsilon_i$$

The selection of variables used to explain firm behaviour and agency allocation process are based on the hypotheses described in Section 3 and on previous empirical studies (Table 1).

Hypothesis 1 argues that managerial skills and experience affect the propensity to self-selection. The proxies employed to assess managerial skills include firm size and membership to a group (see, e.g., González *et al.*, 2005; Duguet, 2004; Tanayama, 2007). We expect that larger firms will be more likely to apply for an incentive, as their higher managerial resources and competences reduce application costs. Moreover, large firms may have advantages in investing to scout for granting opportunities, since the costs can be spread over larger revenues (Aschooff, 2009). Similar effects are expected for firms belonging to a group (Tanayama, 2007). The proxies employed to assess experience include age and previous participation in public incentives (Lerner, 2002). Firms which have participated in the same or similar programmes might in fact benefit from learning effects so that they can use their experience for submitting projects more suitable for funding (Tanayama, 2007; Duguet, 2004).

As for the second hypothesis, which states that the imperfection of financial markets can limit engagement in FDIs, we expect a positive relationship between the existence of financial constraints, proxied by the ratio between equity and total assets, and the probability of going abroad thanks to public fund (Hyytinen and Toivanen, 2005; Duguet, 2004).

The third hypothesis suggests a positive relationship between the riskiness of the FDI project and the propensity to apply for public aid. The country risk measurement in this paper reflects the agency view and it is expressed by a value of the country risk rating managed by SACE, one of Italy's leading actors in credit management⁶. In particular, we expect that the greater is the risk associated with the FDI's destination country, the greater is the probability to apply for the public aid. Moreover country risk has both a direct and indirect effect on the probability of applying for a grant a higher country risk directly encourages firms to look for a public support and indirectly rises application rates by discouraging high-commitment entry modes in the risky market abroad. Quer *et al.* (2007) in fact demonstrate that greater target country risk reduces the likelihood of using higher-commitment entry strategy. For these reasons, modes of entry involving higher levels of commitment, higher transaction costs and higher investment costs (i.e., a greenfield project or a foreign majority stake) are expected to positively influence a firm's decision to apply for public intervention in order to mitigate the exposure of the firms to the risk of the foreign project (Rolfe *et al.*, 1993; Mudambi, 1999 *ctr se adeguata*).

The existence of previous FDIs, diversifies risk and makes a firm less bounded by risk exposure. Moreover, past experience in countries characterised by high political hazard reduces a firm's sensitiveness to this type of risk in subsequent entry decisions (Henisz, 2004), consequently reducing the propensity to apply for a public incentive.

As previously mentioned, Simest and Finest allocate incentives according to selective funding practices. Policy guidelines (Law 100/1990 and Law 19/1991) state that agencies should favour SMEs, investments in Eastern Europe and firms operating in the same sector as the parent company. Three dummy variables are consequently added to our estimates to check whether SMEs projects in East Europe and operations in the same sector as the parent com-

⁶ SACE collaborates with the Italian government in order to promote internationalisation and provides insurance cover in more than 155 countries.

pany increase the probability to obtain the subsidy, as expected. In addition, a dummy variable controls for temporal heterogeneity caused by higher availability of public funding from 2002 onwards. We also include industry dummies as further control variables⁷.

The explanatory and dependent variables are summarised in Table 1. All independent variables are calculated for the year before the FDI start-up or the nearest available year. Table 2 reports the descriptive statistics for the explanatory variables for the whole sample and provides preliminary tests of the difference between firm-specific and project-specific features of FDIs launched with and without public financial support. The high significance of differences between the two groups provides preliminary evidence of the opportunity to investigate the likeliness of obtaining an incentive based on firm-specific and project-specific variables.

6. Results of the empirical analysis

Estimated results of the probit regression are shown in Table 3. Due to the strong correlation between the variables SMEs and Group, two distinct specifications were tested (respectively, Model 1 and Model 2). The proxies for application costs, financial constraints and project riskiness support the existence of firms' self-selection.

The hypothesis that firms with high managerial skills and resources are more likely to obtain the incentive is supported by the positive impact of being part of a group. Previous successful applications to the same programme also have a positive impact on the probability of obtaining a subsidy and suggest that experience in dealing with public administration bureaucracy cuts application costs through learning processes. In summary, when application costs are not negligible, managerial capabilities and experience help in overcoming them.

⁷ Ten industry dummies have been considered: services, wood products, raw materials, chemical and pharmaceutical, building and construction, electronics, industrial machinery, automotive, food tobacco and beverages, textile, with plastic and rubber as baseline.

Moreover, this evidence suggests that application costs represent a barrier for some firms and they may partially crowd out the target population⁸.

In accordance with hypothesis two, firms with financial constraints are more likely to participate. *Prima facie*, the higher the total amount of debts, the higher the likelihood to apply for and obtain a subsidy. Some projects will be not realised because foreign projects may require external funding and firms may be financially constrained. By providing public support to this kind of projects the public agency fulfils the target to fund profitable projects that would not be otherwise carried out.

In accordance with the third hypothesis, the mode of entry influences the probability of obtaining a public incentive. The acquisition of a majority share in the foreign venture as well as the willingness to invest in greenfield projects increase the likeliness to obtain a subsidy, revealing that the higher is the commitment, the higher is the phenomenon of firm self-selection.

Firms investing in risky countries are more likely to enjoy financial incentives, confirming that the riskiness of FDI projects significantly affects firm behaviour in applying insofar as public aid is perceived as a means to lower systematic, country-level risk. Coherently, a firm's international experience reduces the odds of receiving an incentive. Firms with past FDIs are less bounded by risk diversification and consequently less interested in asking for public aid.

Selection guidelines favour initiatives by small firms, however, contrary to expectations, the coefficient of the dummy SME is negative and significantly different from zero. We may assert that public agencies are not reaching target firms. This might be either because SMEs' project are more likely to be rejected or, in line with the first hypothesis, because SME do not apply due to the existence of application costs or other kind of barrier. Unfortunately we can-

⁸ Crowding out occurs when public incentives drive private resources out partially or completely (CIT).

not distinguish whether the allocation of funding is due to the firms' self selection behaviour or to the agencies' selection rule. In any case, this result indicates that participation in public incentives is not well-matched with the declared policy goal and suggests the difficulty of involving an important share of targeted SMEs.

Finally, when looking at the other control variables, and consistent with the guidelines stated by the involved laws, the regressions show a significant coefficient for initiatives in Eastern Europe and in the same business sector as the parent company. Cohort dummy shifts intertemporal effects caused by different availability of public funding, indicating that firms had a higher probability of receiving incentives after 2002. Finally, the regressions show small cross-industry differences in the probability of applying for the examined public programmes.

7. Conclusions

Implementation process is often unforeseeable and difficult to monitor for public authorities, so that researchers fail to provide conclusive evidence on its functioning. Moreover, literature has paid little attention to understanding the firm's behaviour in applying for a subsidy (Blanes and Busom, 2004).

This article provides new evidence in this direction and yields substantial insights on program equity and on the design of non-experimental program evaluation. In particular, this is the first paper that explicitly addresses the participation process with regards to HCMs. Although the model is applied to the Italian context, some general lessons for the analysis and design of public programmes in support of outward FDI are elicited.

By studying how subsidies are allocated among firms and FDI projects, we try to verify whether the resulting outcomes are consistent with public policy goals and intents. First, the analysis reveals the complex nature of the implementation process and suggests that application costs significantly affect the outcome of a supporting programme. Not all the findings, in

fact, are in line with the stated funding policy and criteria. Our findings suggest that after controlling for agency selection criteria, differences in participation status caused by firm self-selection are due to application costs. In particular the objective of the policy maker to encourage SMEs participations not fully achieved. Application costs may in fact induce eligible SMEs not to file for a programme.

This result opposes the idea that merely increasing the amount of funds to promote outward internationalisation will inevitably lead to greater program benefits. In fact an increased amount of dedicated resources may only partially affect self-selection mechanisms in the eligible population. The evidence of the existence of application costs suggests that, rather than increasing the amount of public funds, measures for reducing application costs, such as help desk or information networks, could increase participation rates by eligible firms, especially SMEs. As suggested by Sarmah (2003), greater transparency, minimisation of bureaucracy, simplification and standardisation of application procedures can contribute to increase application activity.

Most studies ex-post test the entity of the additionality by developing a counterfactual for benefiting firms (Lenihan, 2004). However, only few studies analyse the characteristics of benefiting firms in order to predict and control for the deadweight effect (see, e.g. Feldaman and Kelly, 2006). The understanding of the participation process can help the identification of desirable project characteristics so that policy agencies could ex-ante identify those profitable FDI projects which would not be carried out without an incentive.

Two aspects in our analysis suggest that public equity participation is moving in the right direction. First, several studies have highlighted that SMEs are often financially constrained (see, e.g. Beck *et al.*, 2005), so the provision of financial incentives, especially in bank-based country like Italy, may help firms to overcome these limits. Second, those financial measure seems to be more effective in reaching firms that never went abroad, as they seem to induce a

change in the behaviour of non-internationalised firms as the probability of receiving grant is higher among firms with no previous FDI experience. At this stage, we cannot conclude whether firms are substituting government funds for projects that they would pursue anyway. However, the positive and significant effects generated by financial constraints and lack of FDI experience on firm self-selection suggest that the public measure is moving in the right direction of additionality.

A last remark concerns the generation of spillovers both in the home and in the host country. We suggest that incentives should be project-specific, since the source of positive spillovers is likely to differ across FDIs. Governments may seek to encourage certain types of outward FDIs, and the subsidy should only be granted if the investment is perceived to advance the long term economic and social goals of both the home and the host country (Young-Han, 2009). For this reason we suggest to study how screening rules can formulate for the selection of projects which can in principle generate positive spillovers both on the home and host country.

The empirical results about risk-shifting suggest that if the institutions absorb too much risk, investing firms may be induced to further increase the risk of their foreign projects and to restrict their applications to more risky projects. Careful consideration regarding incentive allocation procedures is consequently necessary to discourage risky behaviours (Giebe *et al.*, 2006).

In summary, we believe that the analysis of implementation process is recommendable both in the evaluation of subsidy effects and in practical policy making. Additional efforts in the *ex ante* assessment of both firm and project characteristics may provide the agencies in charge of incentive assignment with better operative tools. Of course, better data would allow improving the proposed analysis. In particular, repeated observations of the same firm across

all stages of the participation process would permit a detailed analysis of firm self-selection behaviour, agencies selection process and their consistency with policy goals.

The analysis suggests a rich agenda for further research. The study of outward FDI promotion is still an underdeveloped area of research in international business. Nevertheless, the increasing role played by national governments in investment promotion entails that more study in this area is necessary.

Table 1 - Descriptions of the variables and sources of data

Variable	Description	Sources
Dependent Variable		
D_Incentive	Dummy variable taking value 1 if the firm launched an FDI project backed by an incentive in t_0 , zero otherwise	SIMEST and FINEST balance sheets
Independent Variables		
SME	Dummy variable taking value 1 if the firm has less than 250 employees in t_{0-1} , zero otherwise	AIDA
Group	Dummy variable taking value 1 if firm belongs to a group, zero otherwise	AIDA
Overall_experience	Logarithm of the age of the firm in t_{0-1} , expressed by number of years from firm's foundation	AIDA
Funding_experience	Dummy variable taking value 1 if the firm got a subsidy at least once before t_{0-1} , zero otherwise	SIMEST and FINEST balance sheets
Financial_constraints	Ratio between equity and total assets in t_{0-1}	AIDA
Greenfield	Dummy variable taking value 1 if the foreign affiliate is a greenfield project, zero otherwise	REPRINT
Majority	Dummy variable taking value 1 if the foreign affiliate is majority-owned by the parent company in t_{0-1} , zero otherwise	REPRINT
Country_risk	Country risk rating elaborated by SACE	SACE
International_diversif	Dummy variable taking value 1 if the firm held at least a FDI before t_{0-1} , zero otherwise	REPRINT
International_experience	Numbers of years elapsing from when firm engaged in its first foreign activity in t_{0-1}	REPRINT
East_Europe	Dummy variable taking value 1 if the FDI destination country is Eastern Europe, zero otherwise	REPRINT
Diff_industry	Dummy variable taking value 1 if the foreign firm is not in the same sector as the parent company, zero otherwise	REPRINT, AIDA
Cohort_02_06	Dummy variable taking value 1 if the FDI is launched between 2002 and 2006, zero otherwise	REPRINT
Industry_dummies	Dummy variable taking value 1 if the firm is in the specific industry, zero otherwise	REPRINT

Table 2 - Comparison between benefiting firms and non-benefiting firms

	Benefiting Firms (568)	Non-Benefiting Firms (991)	Sign.
Firms' self selection variables			
SME ^c (%)	50.9	33.9	***
Group ^c (%)	40.4	53.1	***
Overall_experience ^a (log years)	1.3	1.2	***
Funding_experience ^c (%)	18.1	5.3	***
Financial_constraints ^a (%)	26.3	36.1	***
Greenfield ^c (%)	57.3	42.2	***
Majority ^c (%)	91.2	84.5	***
Country_risk ^b (median)	3	2	***
International_diversif ^c (%)	79.2	94.3	***
International_experience ^b (years)	1	2	***
Control variables			
East_Europe ^c (%)	64.0	24.2	***
Diff_industry ^c (%)	28.7	52.6	***
Cohort_02_06 ^c (%)	54.2	35.4	***

^a t-Test between the two categories; (mean)

^b Mann-Whitney Test between the two categories; (median)

^c Proportion Test between the two categories; (%)

Table 3 - Probit model, participation in financial incentive programmes

Probit Regression						
Dependent Variable: D_Incentive						
	Model 1			Model 2		
	Coeff.	Std. Err.	e^β	Coeff.	Std. Err.	e^β
Firms' self selection variables						
SME				-0.173 *	0.088	0.841
Group	0.284 ***	0.086	1.328			
Overall_experience	0.106	0.096	1.112	0.098	0.096	1.103
Funding_experience	1.065 ***	0.138	2.901	1.059 ***	0.138	2.883
Financial_constraints	-0.015 ***	0.002	0.985	-0.014 ***	0.002	0.986
Greenfield	0.413 ***	0.101	1.511	0.411 ***	0.101	1.508
Majority	0.328 ***	0.120	1.388	0.323 ***	0.120	1.381
Country_risk	0.052 **	0.021	1.053	0.052 **	0.021	1.053
International_diversif	-0.614 ***	0.126	0.541	-0.597 ***	0.127	0.550
International_experience	-0.136 ***	0.019	0.873	-0.132 ***	0.020	0.876
Control variables						
East_Europe	0.825 ***	2.282	2.282	0.816 ***	0.081	2.261
Diff_industry	-0.199 **	0.820	0.820	-0.179 **	0.089	0.836
Cohort_02_06	0.599 ***	1.820	1.820	0.600 ***	0.082	1.822
Industry_dummies	Yes			Yes		
Cons	-1.037 ***	0.356	0.355	-0.896 **	0.362	0.408
	Number of obs = 1572 LR chi ² (22) = 655.57 Prob > chi2 = 0.000 Pseudo R2 = 0.316			Number of obs = 1572 LR chi ² (22) = 596.23 Prob > chi2 = 0.000 Pseudo R2 = 0.290		

* Significance at the 10% level,
 ** Significance at the 5% level,
 *** Significance at the 1% level

References

- Ali-Yrkko, J. (2005). Impact of public R&D financing on private R&D: Does financial constraint matter? *Economic Policy ENEPRI Working Papers*.
- Aschhoff B. (2009). Who gets the money? The dynamics of R&D project subsidies in Germany. *ZEW Discussion Paper No. 08-018*.
- Atzeni G.E., Carboni O.A. (2008). The effects of grant policy on technology investment in Italy. *Journal of Policy Modeling*, 30: 381-399.
- Bannò, M., & Piscitello, L. (2009). The effectiveness of incentive to firms' outward internationalisation. *Applied Economics Letters*, forthcoming.
- Beck, T., Demirgüç-Kunt, A., Levine, R., & Maksimovic, V. (2005). Financial and legal constraints to growth: Does firm size matter?. *Journal of Finance*, 60: 137-177.
- Blanes, J.V., & Busom, I. (2004). Who participates in R&D subsidy programs? The case of Spanish manufacturing firms. *Research Policy*, 33(10): 1459-1476.
- Blundell, R. & Costa Dias, M. (2000) Evaluation methods for non-experimental data. *Fiscal studies*, 4: 427-468.
- Colombo, M., Grilli, L., & Verga, C. (2007). High-tech start-up access to public funds and venture capital: evidence from Italy. *International Review of Applied Economics*, 21(3): 381-402.
- Corbett, T., & Lennon, M.C. (2002). *Implementation analysis: an Evaluation approach whose time has come*. Washington, DC: The Urban Institute Press.
- Duguet, E. (2004). Are R&D subsidies a substitute or a complement to privately funded R&D? Evidence from France using propensity score methods for non-experimental data. *Review d'Economie Politique*, 114(2): 263-292.
- Dunning, J.H., & Lundan, S.M. (2008). *Multinational enterprises and the global*

- economy*. Second Edition. Cheltenham, England: Edward Elgar.
- Feldman, M. P., & Kelley, M.R. (2006). The ex ante assessment of knowledge spillovers: government R&D policy, economic incentives and private firm behaviour. *Research Policy*, 35: 1509-1521.
- Freeman, H.E., Lipsey, M.W. & Rossi, P.H. (2004). *Evaluation: a systematic approach*. Thousand Oaks, CA: Sage Publications.
- Giebe, T., Grebe, T. & Wolfstetter, E. (2006). How to allocate R&D (and other) subsidies: an experimentally tested policy recommendation. *Research Policy*, 35: 1261-1272.
- Globerman, S., Shapiro, D. (1999). The impact of government policies on foreign direct investment: the Canadian experience. *Journal of International Business Studies*, 30, 3, 513-532.
- González, X., Jaumandreu, J., & Pazó, C. (2005) Barriers to innovation and subsidy effectiveness. *RAND Journal of Economics*, 36(4): 930–950.
- Halkos, G.E., & Tzeremes, N.G. (2009). Economic efficiency and growth in the EU enlargement. *Journal of Policy Modeling*, 31 (6): 847-862. Ins cit in testo
- Heckman, J.J. & Smith, J. (2004). The determinants of participation in a social program: evidence from a prototypical job training program. *Journal of Labor Economics*, 22(2): 243-298.
- Henisz W.J., & Zelner, B.A. (2003). The strategic organisation of political risk and opportunities. *Strategic Organization*, 1(4): 451-460.
- Henisz, W.J. (2004). The institutional environment for international business. In P.J. Buckley (eds.), *What is international business?* (pp. 85-109). New York, NY: Palgrave.
- Hyytinen, A., & Toivanen, O. (2005). Do financial constraints hold back innovation

- and growth? Evidence on the role of public policy. *Research Policy*, 34(9): 1385-1403.
- Lenihan, H. (2004). Evaluating Irish industrial policy in terms of deadweight and displacement: A quantitative methodological approach. *Applied Economics*, 36(3): 229–252.
- Lerner, J. (2002). When bureaucrats meet entrepreneurs: The design of effective public venture capital programmes. *The Economic Journal*, 112(477): 73-84.
- Mariotti ,S., & Mutinelli, M. (2008). *Italia Multinazionale 2008. Le partecipazioni italiane all'estero ed estere in Italia*. Soveria Mannelli: Rubbettino.
- Marschak, J. (1953). Economic measurements for policy and prediction. In W.C. Hood & Koopmans T.C. (Eds.), *Studies in Econometric Method*. New York , NY: Wiley.
- Moffit, R. (1991). Program evaluation with non-experimental data. *Evaluation Review*, 15(3): 291-314.
- Mudambi, R. (1999). Multinational investment attraction: principal-agent considerations. *International journal of the economics of business*, 6(1): 65-79.
- Quer, D., Claver, E., & Rienda, L. (2007). The impact of country risk and cultural distance on entry mode choice: An integrated approach. *Cross Cultural Management: An International Journal*, 14(1): 74-87.
- Rolfe, R.J., Ricks, D.A., Pointer, M.M. & McCarthy, M. (1993). Determinants of FDI incentive preference of MNEs. *Journal of International Business Study*, 24(2): 335-355.
- Sarmah (2003) *Home country measures and FDI: Implications for host country development*. Centre for Competition, investment and economic regulation (CUTS). Jaipur: Jaipur Printers.

- Scheirer, M. A. (1994). Designing and using process evaluation. In J.S. Wholey, H. Hatry & K. Newcomer (Eds.), *Handbook of practical program evaluation* (pp. 40-68). San Francisco: Josey Bass.
- Schilder, A., (2000). *Government failures and institutions in public policy evaluation: the case of Dutch technology policy*. Assen: Van Gorcum & Comp. B.V..
- Sosvilla-Rivero, S. Herce, J.A. (2008). European cohesion policy and the Spanish economy: A policy discussion case. *Journal of Policy Modeling*, 30 (3): 559-570.
- Ins in test0
- Tanayama, T. (2007), Eligibility, awareness and the application decision: An empirical study of firm participation in an R&D subsidy program. *HECER Discussion Paper No. 161*.
- Te Velde (2007). Home Country Measures.
- Tongeren van, W. (1998). Microsimulation of corporate response to investment subsidies. *Journal of Policy Modeling*, 20(1): 55–75.
- UNCTAD (2001). Home country measures. New York and Geneva: United Nations Publication.
- Vedung, E. (1997). *Public Policy and Program Evaluation*. New Brunswick, USA and London, England: Transaction Publisher.
- Westhead, P., Wright, M., & Ucbasaran, D. (2007). Internationalization of small and medium-sized enterprises (SMEs) and international entrepreneurship: A critique and policy implications. *Regional Studies*, 41(7): 1013-1030.
- Young-Han, K. (2009). Cross-border M&A vs. greenfield FDI: Economic integration and its welfare impact. *Journal of Policy Modeling*, 31 (1): 87-101.
- Zaheer, S. (1995). Overcoming the liability of foreignness. *Academy of Management Journal*, 38 (2): 341-363.