

Home Country Measures for Outward FDI: An Analysis at The Regional Level

Abstract:

The promotion of outward investment through a number of home country measures has become prominent in recent years (hereafter HCMs) (UNCTAD, 2001). Scope and justification for public intervention are motivated by two reasons. First, HCMs can correct for market and coordination failures and, second, they are good for home country development (UNCTAD, 2001). In particular, governments may provide policy measures in the attempt to encourage investment activity and hence induce business growth and competitiveness and reduce regional disparities (Atzeni and Carboni, 2008; Craig et al., 2008; Skuras and Tzelepis, 2004; Haapanen et al., 2005). Nevertheless, public intervention can limit competition and give rise to market inefficiencies (Wollman, 2007). Moreover, when public incentives substitute for resources that can be traded on markets and support projects that would take place in any case, they generate a net transfer of resources from taxpayers to granted firms (the so-called dead-weight effect; see Marglin, 1963). Although many empirical analyses on the impact of policy measures on the level of investments have been carried out, there is no agreement on their effectiveness. Indeed, the policy and regulatory stance of the capital-exporting country has been largely neglected and HCMs towards O-FDI are scarcely discussed in the literature.

The relative scarcity of empirical studies of the impacts of these FDI-specific policies is surprising in light of the strong policy interest in the issue and the active role towards FDI that government policy in most countries has taken.

Within this context, this study investigates the effectiveness of Italian HCMs by developing an empirical model that uses information on the population of Italian firms that received incentives from 2000-2006. Data, aggregated at the regional level, refer to the major public tools addressed to promoting Italian companies' FDIs outside the European Union. The objective is to identify the effectiveness of investment support by measuring the impact of different HCMs on regional levels of internationalisation.

The analysis suggests that not all the provided measures generate intended effects. In particular financial incentives (i.e. equity and venture capital funds) and regional service encourage investment activity and hence can induce business growth and competitiveness and reduce regional disparities. On the contrary, feasibility studies and other public services seem to be ineffective, as they do not generate an increase in the level of internationalisation.

Competitive Paper

1. INTRODUCTION

Attracting foreign direct investments (hereafter FDI) has become a policy priority in many developed and developing countries since the end of the 1980s (UNCTAD, 2003). Recent trends in public incentives show that competition in attracting FDI has been growing not only among central governments (Oxelheim and Ghauri, 2004), but also among local public administrations, regionally and in cities (Gergely, 2003). While this trend is likely to continue, the promotion of outward investment has become more prominent only in recent years. It is a traditional domain of developed countries that have started to promote outward FDI beginning in the early 1990s by offering a large number of home country measures (hereafter HCMs) (UNCTAD, 2001).

Scope and justification for public intervention are motivated by two reasons. First, HCMs can correct for market and coordination failures and, second, they are good for home country development (UNCTAD, 2001). In particular, governments may provide policy measures in the attempt to encourage investment activity and hence induce business growth and competitiveness and reduce regional disparities (Atzeni and Carboni, 2008; Craig et al., 2008; Skuras and Tzelepis, 2004; Haapanen et al., 2005). Nevertheless, public intervention can limit competition and give rise to market inefficiencies (Wollman, 2007). Moreover, when public incentives substitute for resources that can be traded on markets and support projects that would take place in any case, they generate a net transfer of resources from taxpayers to granted firms (the so-called deadweight effect; see Marglin, 1963). Although many empirical analyses on the impact of policy measures on the level of investments have been carried out, there is no agreement on their effectiveness. Moreover no specific research has been conducted on the effect of HCMs on the level of outward FDI (hereafter O-FDI).

In the case of outward incentives, the question arises as to whether policy schemes stimulate additional O-FDI¹ (Lenihan, 2004) and produce positive externalities and spillovers. Of

course in the field of O-FDI, there has been a large body of work that looks at how firms choose their investment destinations, how they behave in host countries, the impact of the investment in host and home countries, the impact of investment climates in the host economy for attracting and sustaining firms. However, the policy and regulatory stance of the capital-exporting country has been largely neglected and HCMs towards O-FDI are even much less discussed (Brewer, 1993; Globerman and Shapiro, 1999; Sarmah, 2003; Te Velde, 2007; UNCTAD, 2001). The relative paucity of empirical studies of the impacts of these FDI-specific policies is also surprising in light of the strong policy interest in the issue and the active role toward FDI that government policy in most countries has taken (Globerman and Shapiro, 1999). Of course some works examined the effects of inward investment incentives (Guisinger, 1992), others investigated the role of host country policy and non policy determinants (Loree and Guisinger, 1995; Olibe and Crumbley, 1997), while several others analysed the role played by investment agencies in attracting foreign investors and initiatives. On the contrary, no studies have analysed the equivalent role of incentives in promoting O-FDI.

Within this context, this study investigates the effectiveness of Italian HCMs by developing an empirical model that uses information on the population of Italian firms that received incentives from 2000-2006. Data, aggregated at the regional level, refer to the major public tools addressed to promoting Italian companies' FDIs outside the European Union. The objective is to identify the effectiveness of investment support by measuring the impact of different HCMs on regional levels of internationalisation.

The remainder of this paper is organised as follows. Section 2 provides the theoretical background and develops the research hypotheses, while Section 3 illustrates the model and variables. The data employed to empirically test the effectiveness of public policy tools are reported in Section 4. Section 5 illustrates the econometric findings, while the last section concludes with summary remarks, policy implications and suggestions for future research.

2. THEORETICAL BACKGROUND

2.1 HCMs

Home country institutions, and particularly their enforcement mechanisms (Dunning and Lundan, 2008) are important drivers of national and international competitiveness of firms. Government intervention by enforcement mechanisms is justified by reasons related to market failures, imposition of social values and distribution of income and wealth (Blomstrom and Kokko, 2003; Lim, 2005). In particular the rationale for HCMs is that O-FDI is good for home country welfare by contributing to the growth and competitiveness of firms. The social wealth created by outward FDIs provides the rationale for the public effort in creating the institutional preconditions to outward FDIs², as the institutional content and form might affect the cognition, behaviour and motivation of firms in their decision on whether or how to go abroad. Home country governments' actions must, in fact, be directed at mitigating O-FDI barriers motivated by two primary kinds of market failures: information or co-ordination failures in the international investment process. The promotion of FDI seeks to overcome uncertainties, to make good any shortfalls in resources and capabilities in a company embarking on the internationalisation process, or seeking to invest in an environment that is distant in geographical, cultural and institutional terms (Duran and Ubeda, 2001). Nonetheless, some of these measures set to promote O-FDI may well be contributing to an increase in other type of market failures, as advanced by Brewer in 1993³. As far as outward FDI is concerned, Brewer (1993) organised policy actions⁴ in 4 quadrants, based on its effects (increase or decrease) over market imperfections and O-FDI (Table 1).

UNCTAD (2001) suggest that HCMs can be laws, regulations, policies and programmes, more recently, Te Velde (2007) organised them on the basis of how they can affect motivations for FDI, to developing countries in particular. He identifies four categories of HCMs.

One group of measures provides support for economic fundamentals and governance structures in host countries required for successful investment projects. (e.g. investment in infrastructure, macroeconomic stability, so called FDI- or investment-related aid).

Second, HCMs may reduce the economic and political risks associated with the investment. Financial support, along with improved information about projects and demonstration effects, may improve profitability of projects and reduce uncertainties for foreign investors, thus reducing economic risks. Moreover, political risk insurance helps foreign investors to manage such kind of risk.

Third, HCMs can impact on FDI by reducing the information gap in home countries. The provision of information can have spillover effects since investment by a multinational firm may send positive signals about the host country so that it is followed by investment by other firms.

Finally, there are other policies that affect the viability of investment projects, such as trade preferences, tax, labour and competition policy, which may enhance host country's attractiveness, or, otherwise anchor firms to their home economies (e.g. restrictive labour policies).

2.2 The role of subsidies programme in stimulating investments

Considering the various motivations and determinants for FDI, one may ask at which point certain government policy at home country level can interfere (or interfered) with the firm decision to engage in FDI. In a globalizing market economy, does the home country have much significance, as most investment decisions must be market-determined? Are these set of policies efficient in the sense of promoting additional FDI?

One way to demonstrate the effectiveness of investment incentives is to measure the incidence they have in stimulating additional investment project (Lenihan, 2004). For this reason we conducted a broad search of the literature in an attempt to identify studies that addressed

efficiency of investment incentive programme in terms of additionality in the level of new investments.

Our search confirmed that there is a voluminous literature on the efficiency of policy measure in reducing local disparities, however there is no agreement on their effectiveness in stimulating additional investments. Moreover there are very few studies addressing the effectiveness of policy measure toward both inward and outward FDI.

While there is some evidence that capital subsidies stimulate investment *tout court* because the incentives lower the costs of investment (see for example Lerner, 1999; Schalk and Untiedt, 2000; Wallsten, 2000), mixed evidence is provided about inward incentives. The effectiveness of those public tools has been investigated in the 1990s and early 2000s, yet no agreement exists on their effects on MNEs' investment location decision (Farrel, 1985; Guisinger, 1992; Loree and Guisinger, 1995; Sethi et al., 2000). Theoretical and empirical research confirms that policy tools play only a limited role in firm decisions: attraction policies can alter the location choice, but do not affect the decision of whether or not to carry out an FDI so that public incentives may reduce the costs borne by MNEs without benefits for the host countries as a whole (Guisinger, 1985). The only effect is a redistribution of such investments in recipient countries.

Although we agree with Barba Navaretti and Venables (2004) that inward incentives normally play a marginal role on the choice of whether or not to invest, we think that the same may be not true for HCMs. The literature review gives evidence of only four studies that address HCMs in particular. Only one of these (Duran and Ubeda, 2001) is empirical.

Duran and Ubeda (2001) tests the efficiency of Expotecnia, a programme of fairs showing products in various countries with a view to increasing exports and direct investment launched in the 1980s by the Spanish Institute for Foreign Trade. They tested if the firms' probability of investing abroad changed after participating in this programme. Companies par-

ticipating in these Expotecnia missions receive generic and specific information about the country and suitable arrangement are made for making contacts with local businessman. They demonstrated that the efficiency of the Expotecnia mission in affecting the propensity to invest depends on the degree of internationalisation of the company: is low for companies having only exporting experience; medium for companies that have sales subsidiaries abroad; and high for companies with production facilities abroad.

Te Velde (2007), UNCTAD (2001) and Sarmah (2003) discuss in an appreciative form developed countries measures to promote O-FDI in developing countries. The focus on the UNCTAD (2001) report is on the impact HCMs exert on FDI flows and on how public measures might increase such flows, including associated technology transfer, to developing countries. Sarmah (2003) reviews the main HCMs launched by developed countries. He suggests that FDI is attracted to industrial countries due to their opportunity for high returns. Hence, HCMs could play a role mainly in directing O-FDI into developing countries that are usually capital-scarce. Te Velde (2007) reviews and evaluates the efficiency of United Kingdom HCMs on its FDI in developing countries in the last three decades and discusses under what micro level circumstances are they more effective (e.g. in what industries, or type of country; type of HCMs). Based on anecdotal evidence Te velde (2007) concludes that investment-related aid has been useful, but political insurance risk insurance provided by the public sector does not seem to have led to additional FDI.

Concluding, we think that financial incentives to outward FDI can overcome the financial constraints perceived by firms (De Maeseneire and Clayes, 2006) and can compensate for uncertainty and risk related to the foreign context and to the firms' "liability of foreignness" (Zaheer, 1995).

Non-financial incentives (e.g. provision of information, technical assistance, feasibility studies) are approached in much the same way: they seek to relax the limits due to bounded re-

sources and capabilities in a company embarking on an internationalisation process, especially when a large geographical, cultural and institutional distance exists between the home and the host country. Focused information and technical assistance are expected to reduce contextualisation costs and consequently to increase the odds in favour of success (Duran and Ubeda, 2001).

Moreover policy variables may well be more important than non-policy ones due to the ease with which home governments can quickly alter them (Loree and Guisinguer, 1995). In opposition, non policy determinants, such as market-size and infrastructure, may take many years to modify. In summary, this paper argues that policy incentives might impact both the decision to undertake a foreign investment as well as the decision regarding investment size.

3. THE MODEL AND THE VARIABLES

The fundamental need for all public policy evaluations is to observe the counterfactual conditions, in order to answer the causal question as to whether the observed outcomes are actually caused by the examined public policy (Marschak, 1953). Because it is impossible to determine what would have happened in the absence of an incentive, we need a methodology that allows us to identify the causal relationship between the incentive and its outcome (i.e., the regional intensity of internationalisation), controlling for other possible determinants of the outcome itself (Bartik and Bingham, 1995).

Assuming the extent of the internationalisation process as a proxy of the HCMs effectiveness at the regional level, the dependent variables have been identified in the degree of internationalisation. For each Italian region it has been measured the stock of FDIs at time t in term of number of foreign investments (Model 1) and in term of their sales volume (Model 2). The uniqueness of our data in fact, allow us to measure the amount of FDIs; on the contrary, in the literature, the research question referred to how large the investment is, is usually driven by

the absence of reliable information regarding the amount of investment. Therefore, our dependent variables for the two models are:

(Model 1) $Int_number_{r,t}$ is the level of internationalisation, measured as the total number of FDI's on total number of firms, in regions r and year t .

(Model 2) $Int_turnover_{r,t}$ is the level of internationalisation measured as the total FDI turnover on total amount of firms, in region r and year t .

where the subscript r refers to the region ($r = 1, \dots, 21$) and t to time ($t = 2000, \dots, 2006$).

The evaluation of public policy then requires a model that links the target variables to the policy tools and to the other non-policy determinants⁵ in a causal relationship (Duran and Ubeda, 2001). To this end, the present analysis classifies the factors affecting the outward FDI into two categories, namely policy and non-policy related variables.

By policy related variable, we mean any variable under the direct influence of public authorities or their agencies, including different HCMs. Financial support, such as venture capital funds, loans and equity participation for investment projects in foreign countries and regional subsidies should increase the profitability of the investment and reduce the economic risk related to the foreign unfamiliar context and to the firms 'liability of foreignness' (Zaheer, 1995). Information provision and technical assistance through regional organised offices and feasibility studies should help the international investor to answer if it is worth to invest in the country. Moreover they should reduce contextualization costs and consequently increase the internationalisation level of the region.

Among exogenous non-policy determinants and following Mariotti et al. (2008), we include both structural and behavioural variables. Structural variables include the presence of large firms within the region that can develop production networks, implement multinational market-seeking strategies and induce local firms to go abroad by imitation (i.e. leadership effect) (Rugman and Verbeke, 2003). Other variables include spillover effects, induced by the pres-

ence of foreign-owned multinational corporations that might provide a bridge to foreign markets thanks to the provision of skills, services and competitive stimuli (Baldwin et al., 2005). Domestic rivalry, which educates and trains firms in how they compete internationally, could also be a structural push towards international growth (Sakakibara and Porter, 2001). Behavioural determinants include firm experience (both through export and FDI), which reduces information costs and innovation capacity and facilitates major commitment and agreements with foreign companies (Johanson and Vahlne, 1993; Markusen, 1995) and innovation which give rise to proprietary advantages that enable firms to go abroad (Cooke and Morgan, 1998). The effect of more developed regions is also taken into account.

For a detailed description and definition of policy and non-policy variables see Table 2

The role of timing in estimating impacts is very important (Venetoklis, 2001). A fundamental assumption that is implicitly accepted in all causality arguments is that public intervention precedes the dependent variable in occurrence. A time lag between the public intervention and the measurement of expected impacts assures that causal relationships have time to evolve. In many cases, it is not clear when the effects of an incentive begin to unfold (Venetoklis, 2001). For example, firms expecting to receive a subsidy could anticipate their investment plans before the incentive is disbursed. As in the observed financial incentive allocations, public intervention often overlaps with the investment implementation (e.g., equity participation and venture capital funds), we assume a null time lag between financial incentive allocation and investment, while a time lag equal to one for the provision of information and the technical assistance. Moreover the rates of change of structural and behavioural variables are typically much slower those that of pure policy variables (e.g., the level of financial incentives versus the export rate of a region). Consequently, most non-policy variables (i.e., *Leader*, *International_leader*, *Hefindhal*, *Export* and *Innovation*) are based on the Firm Census carried out by the Italian national statistical service (ISTAT) in 2001.

In summary, the regression for the outcome (i.e., intensity of internationalisation) as a function of the policy tools (i.e., the different HCMs) controlling for the other observable explanatory variables (i.e., structural and behavioural variables) is:

$$(1) \text{Int_number}_{r,t} = f(P_{r,t}, NP_{r,t}) \quad (\text{Model 1})$$

$$(2) \text{Int_turnover}_{r,t} = f(P_{r,t}, NP_{r,t}) \quad (\text{Model 2})$$

where the subscript r refers to the region and the subscript t to time and where:

$$P_{r,t} = \text{Feas_incentive}_{r,t}, \text{Comm_incentive}_{r,t}, \text{Fin_incentive}_{r,t},$$

$$\text{VK_fund}_{r,t}, \text{Reg_incentive}_{r,t}, \text{Spec_index}_{r,t}$$

$$NP_{r,t} = \text{Export}_{r,t}, \text{Experience}_{r,t}, \text{Innovation}_{r,t}, \text{Leader}_{r,t},$$

$$\text{Int_leader}_{r,t}, \text{Herfindhal}_{r,t}, \text{North}_{r,t}$$

The estimates of the panel data are conducted using a random effects approach.

4. DATA

Italy has been traditionally active in promoting both outward and inward FDIs and started to invest earlier than other European Union countries (UNCTAD, 1998). Between 2000 and 2006, the Italian government spent more than 1,000 million euro to promote outward investment and export, with about three percent a year of public funds to be used for industrial policy. In particular, since the late 1990s, the major public instruments in support of outward internationalisation have been the acquisition of equity in direct investments abroad by Italian Firms (Law 100/90; Law Decree 143/98; Law 35/05; Law 19/91); financial support to feasibility studies; training programmes and technical assistance for exports and direct investment abroad (Law Decree 143/98; Law 35/05; Ministerial Decree 136/00); the provision of financial resources for the creation of permanent marketing structures abroad (Law 394/81) and participation in international tenders (Law 304/90); the stabilisation of interest rates for export credits and for capital goods; interest rate support on bank financing of the Italian share of investments in foreign companies in which public agencies have a stake (Law Decree 143/98;

Law 100/90). Two agencies (Simest⁶ and Finest⁷) allocate and manage venture capital funds in order to provide additional support to the investments in strategic non-EU markets, scout for partners and investment opportunities, and give technical and financial assistance and advice in the preparation and implementation of projects.

The largest portion of financial incentives is granted by the central government; nevertheless, a fraction of the yearly budget is allocated by regional administrations.

The regional distribution of the investment incentive rate (i.e., public incentives / FDIs) and the level of investment incentives in 2006 (i.e., in millions of euro per year) can be seen in Figure 1. The public intervention is much more significant for firms in Northern and Central Italy than in Southern Italy, while the rate is highest in Southern Italy and lowest in Northern Italy. There are also significant regional differences in the level of incentives. The level is highest in Lombardia and Emilia-Romagna (68.6 and 50.5 million euros per year, respectively). Notice also that the level is relatively small in Sicilia, Calabria and Basilicata (8.6, 1.0 and 8.4 million per year, respectively), even though its incentive rate is very high (15.3%, 33.3% and 22.2%, respectively).

The dataset employed in the empirical analysis combines several sources of data (Table 3):

- 1) Reprint provides a census of outward and inward FDI in Italy since 1986. It is updated yearly, and it is sponsored by the Italian Institute for Foreign Trade.
- 2) Four Overseas Trade Ministry annual reports and annual publications collect information on Italian industrial policy between 2000 and 2006.
- 3) Simest and Finest public agencies' balance sheets provide information about the assignment of financial incentives (i.e., equity participation and venture capital funds) to Italian firms throughout the period from 1991-2007.
- 4) Istat census data report structural characteristics of the Italian regions in 2001, and annual Istat publications provide data on Italian export activities between 2000 and 2006.

5) The EP-CESPRI database, developed by Cespri Università Bocconi, provides information on patents applied for at the European Patent Office (EPO) since 1978. The EP-CESPRI database is based upon applications published on a regular basis by the Espacenet Bulletin and is updated yearly.

Given 20 Italian regions and 7 years (2000-2006), the data set provides us with a total of 140 observations.

5. ECONOMETRIC FINDINGS

This section presents the estimates of the proposed models for the degree of internationalisation of Italian regions between 2000 and 2006 (Table 4).

Among the different kinds of HCMs, the equity participations and venture capital funds have proven to be the most effective in stimulating outward internationalisation. In particular, controlling for other confounders, our results show that this kind of financial incentive helps companies go abroad (both the variables *Equity_Particip* and *VK_fund* show a coefficient that is positive and significantly different from zero at $p < 0.10$ in Model 2 and $p < 0.01$ in Model 1, respectively), thus confirming that financial gaps hinder firms in their internationalisation strategies (De Maeseneire and Clays, 2006). Additionally, government involvement in FDI by equity participation and venture capital fund seems to reduce the uncertainty and risk associated with an unfamiliar host country (Henisz and Zelner, 2003).

Information provision and technical assistance through regional organised offices help the international investor by reducing contextualization costs and consequently increasing the internationalisation level of the region (*Reg_service* shows a coefficient that is positive and significantly different from zero at $p < 0.05$ in Model 1).

Contrary to our expectations, financial support for feasibility studies, the provision of financial resources for the creation of permanent marketing structures abroad and regional subsi-

dies (Feas_incentive, Comm_incentive and Reg_subsidies have a non significant coefficient in both Model 1 and 2) are not effective in stimulating investment⁸.

As far as the structural variables are concerned, both the leadership and local rivalry effects interact in guaranteeing a sound international growth at the regional level. In Model 1 the variables Leader and Int_leadership show positive and significant coefficients (at $p < 0.01$), while the variable Herfindal has a negative and significant coefficient in Model 1 (at $p < 0.01$). As far as the behavioural variables are concerned, experience significantly increases the level of regional internationalisation. The variable Export show in Model 1 and 2 positive coefficients that are significantly different from zero (at $p < 0.01$ and at $p < 0.10$, respectively). Likewise, innovation seems to be effective in enabling firms to grow abroad and establish themselves in strategic markets (In Model 1 the variable Innovation shows a coefficient that is positive and significantly different from zero at $p < 0.01$).

6. CONCLUSION AND POLICY IMPLICATIONS

The evaluation of public intervention has recently been the subject of an increasing number of studies. This is partly due to the European Union legislation that makes the evaluation of public intervention compulsory (1993) and to the development of subsidiarity concept at different administrative level. Moreover in the developed and developing countries, a number of policy changes occurred and HCMs have been launched by the Governments to encourage outward FDI flows (UNCTAD, 2003). So far there has been no systematic discussion or quantification of HCMs. Our survey through the existing literature reveals that not only HCMs are much less discussed than other factors affecting FDI, as also their effectiveness and efficiency have never been studied in detail.

The paper aims at filling this gap and it offers an empirical contribution in order to discuss the effectiveness of different public measures to firms' O-FDI. In particular we construct an

original longitudinal dataset on HCMs granted by the Italian Government. The novelty of our study is in the emphasis on the role played by public policy tools in determining the degree of internationalisation of a region. In particular, our study examines the effect of different types of HCMs addressing firms' internationalisation and provides useful suggestions to policy makers for the design of appropriate incentives and the improvement of existing ones.

Despite the limited extension of the time frame in our sample, the empirical findings are in line with the theoretical hypotheses: public incentives are key for promoting outward investments, and they have to be seen in the broader context of the determinants of FDI. The findings confirm that financial incentives (i.e. equity and venture capital funds) can help firms overcome their financial constraints and can compensate for uncertainty and risk related to the foreign context. On the contrary, only regional non financial measures are effective in stimulating new investments. In fact, support for feasibility studies seem to be ineffective, as they do not generate an increase in the level of internationalisation.

There is no need to point out that the results should be taken with proper care, especially when they are expressed via a "counter-factual" analysis, since we simply do not know what would have happened had the aid not existed. Additionally, we should also take care when considering the possible crowding-out effects that the HCMs may have had on private initiatives.

Concluding, our results support Te Velde (2007), Unctad (2001) and Samah (2003) position that the influence of HCMs can be increased through tailor-made approaches and regional and country targeting; on the formulation and administration of measures, as well as the extent to which they complement host country measures and firm level barriers for O-FDI.

Bearing in mind the novelty of the subject, the future agenda could expand the analysis on the effectiveness of outward public policies. First of all, the effectiveness of HCMs can, and does, vary from industry to industry. We therefore suggest that future investigations should take

into account inter-industry differences. Secondly, this paper demonstrates the effectiveness of outward investment incentives but does not compare social costs and benefits. The finding that outward policy tools are effective by no means implies that they raise the home country's social welfare. It is also important to note the importance of incorporating both intended effects such as additionality and unintentional effects such as displacement (Lenihan, 2004) and indirect effects.

In conclusion, the findings of this paper seem to justify greater research efforts in the area of incentive for outward internationalisation and there is ample scope for further research on measuring and assessing the effectiveness of HCMs towards O-FDI.

	Description (Model 1)	Description (Model 2)
Policy variables		
Equity_participation _{r,t}	Number of financial incentives (i.e. acquisition of equity interests in Italian firms' direct investment abroad)	Total amount (€) of financial incentives (i.e., acquisition of equity interests in Italian firms' direct investment abroad)
VK_fund _{r,t}	Number of venture capital funds set up by the Government to support investments in areas such as the Far East, Eastern Europe, the Balkans, Africa, the Middle East and Central and South America	Total amount (€) of venture capital funds set up by the Government to support investments in areas such as the Far East, Eastern Europe, the Balkans, Africa, the Middle East and Central and South America
Comm_incentive _{r,t}	Number of financial incentives for the creation of permanent marketing structures abroad	Total amount (€) of financial incentives for the creation of permanent marketing structures abroad
Feas_incentive _{r,t}	Number of advice in preparation and implementation of projects (i.e., feasibility studies, training programmes and technical assistance)	Total amount (€) of advice in preparation and implementation of projects (i.e., feasibility studies, training programmes and technical assistance)
Reg_subsidies _t	Total amount (€) of regional incentive to internationalisation and export	Total amount (€) of regional incentive to internationalisation and export
Reg_service	Dummy variable taken value 1 if in the region r in year t is provides information service	Dummy variable taken value 1 if in the region r in year t provides information service
Spec_index _{r,t}	Specialisation index	Specialisation index
Non Policy variables		
Leader _{r,2001}	Incidence of firms with more than 250 employees on the total number of firms in the region r in 2001	
Int_Leader _{r,t}	Ratio of the number of employees in foreign affiliates of firms with over 250 employees in region r in year t and the number of employees in the leader firms located in the same region in 2001	
Herfindhal _{r,2001}	<p>The Herfindhal index is calculated utilizing the number of employees belonging to Istat classes for each region j</p> $\sum_{i=1}^7 Nr,i \left(\frac{Er,i / Nr,i}{\sum_{i=1}^7 Er,i} \right)^2$ <p>where Nr,i is the number of firms belonging to class i in region r and Er,i is the number of employees in class i and region r</p>	
Export _{r,t}	Ratio of the amount of export in region r in year t and the total number of firms in region j in 2001	
Experience _{r,t}	Number of years elapsing from when region r reached 50% of the number of employees engaged in foreign activities in year t	
Innovation _{r,t}	Ratio of the number of patents in region r in year t and the total number of firms in 2001	
North _r	Dummy variable taking value 1 when the region r is located in Northern of Italy	

Table 2: Description of the independent variables

Effects of home country policies on market imperfections

		Increase	Decrease
Effects on O-FDI	Increase	Overvalued currency Subsidies on outbound FDI Export controls Price controls	Liberalization of capital controls on outbound FDI
	Decrease	Undervalued currency Wage controls Export subsidies	Privatization Enforcement of arm's-length transfer pricing

Table 1. Effects of home country policies on O-FDI (Adapted from Brewer, 1993)

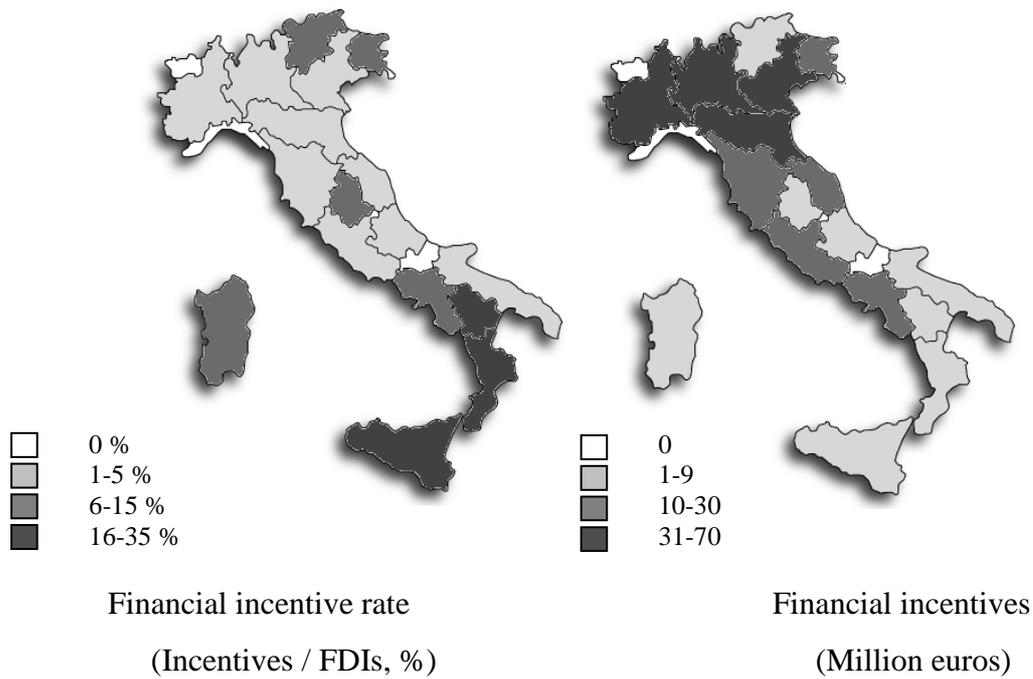


Figure 1: Public incentive rate and level at the regional level, 2006

	Source	Laws	Years
Dependent Variables			
Int_number	REPRINT Database		2000-2006
Int_turnover	REPRINT Database		2000-2006
Explanatory Variables			
Policy variables			
Equity_participation	SIMEST and FINEST balance sheets	Law 100/90 Law Decree 143/98 Law 35/05 Law 19/91	2000-2006
VK_fund	Elaborazioni Osservatorio Economico Ministero Commercio Internazionale su dati della Direzione Generale per le Politiche per l'Internazionalizzazione	Venture Capital Funds	2000-2006
Comm_incentive	Elaborazioni Osservatorio Economico Ministero Commercio Internazionale su dati SIMEST	Law 394/81	2000-2006
Feas_incentive	Elaborazioni Osservatorio Economico Ministero Commercio Internazionale su dati SIMEST	Law Decree 143/98 Law 35/05 Ministerial Decree 136/00	2000-2006
Reg_subsidies	Elaborazioni MET su dati Ministero delle Attività Produttive	Regional Law	2000-2006
Reg_service	Region desk	Regional_Law	2000-2006
Spec_index	Elaborazioni MET su dati Ministero delle Attività Produttive		2000-2006
Non Policy variables			
Leader	ISTAT Census Data		2001
Int_Leader	REPRINT Database		2000-2006
Herfindhal	ISTAT Census Data		2001
Export	ISTAT		2000-2006
Experience	REPRINT Database		2000-2006
Innovation	EP-Cespri Database		2000-2006

Table 3: Sources of data for dependent and explanatory variables

	MODEL 1		MODEL 2	
	Int_number		Int_turnover	
	Coeff.	Std. Err.	Coeff.	Std. Err.
Policy variables				
Feas_incentive	-	-	- 0.000	0.000
Comm_incentive	0.281	0.680	- 20.966	47.312
Fin_incentive	0.330	0.321	72.817*	46.489
VK_fund	2.993***	0.953	- 102.045	74.545
Reg_incentive	- 0.00	0.000	0.000	0.000
Reg_service	0.001**	0.001	- 0.000	0.002
Export_subs	0.001	0.004	0.036	0.330
Spec_index	0.000**	0.000	0.000	0.001
Non Policy variables				
Leader	1.548***	0.398	65.438***	17.226
Int_leader	0.001***	0.000	0.024**	0.012
Herfindhal	-0.516***	0.156	- 1.369	6.628
Export	0.012***	0.002	- 0.211*	0.094
Eperience	0.000	0.000	0.001*	0.000
Innovation	0.037***	0.007	0.896	0.396
North	0.001*	0.000	- 0.017*	0.011
Const	- 0.000**	0.000	- 0.025**	0.009
Number of observ. = 120		Number of observ. = 120		
Number of groups = 20		Number of groups = 20		
P>chi2 = 0.000		P>chi2 = 0.000		
R-sq: Within = 0.788		R-sq: Within = 0.144		
Between = 0.917		Between = 0.695		
Overall =0.915		Overall =0.5670		
Sigma_u = 0.0003		Sigma_u= 0.010		
Sigma_e = 0.0001		Sigma_e = 0.006		
Rho = 0.916		Rho = 0.713		

Table 4: Results of the random effects GLS regression

¹ Subsidies should induce firms to growth internationally by undertaking projects that they would not develop on their own

² An extensive literature (surveyed in Dunning and Lundan, 2008) documents the presence of spillovers: over time, domestic MNEs create new jobs, raise the level of wages and carry out R&D activities.

³ In what can be considered a seminal article on the effects of home country public policies over inward and outward FDI, Brewer (1993) delineates a set of home country policies and their effects on market imperfections and FDI. Home country financial measures associated with outbound FDI can also affect the composition of the bundle of factors that are transferred internationally for an FDI project, may affect the initial investment but not reinvested earnings, and so on. These aspects are not considered in our paper.

⁴ Some of the measures considered are not specific policies towards FDI but they affect nevertheless indirectly FDI flows.

⁵ For a thorough review of the literature concerning the determinants of FDI, see Dunning (2008) and Mariotti et al., 2008.

⁶ Simest is the largest institution for Italian businesses abroad, and it administers various forms of public support for the internationalisation of the Italian economy. Simest was set up as a limited company in 1990 (Law 100/1990). It is a public-private partnership controlled by the Ministry of International Trade and Commerce (76%), while private shareholders include banks and industrial business organisations. The primary objective of Simest is to promote the competitiveness of the Italian industry and the service sector by providing funding and advice to business outward investments.

⁷ Finest was founded in 1992 pursuant to Italian National Law 19/1991 as an investment company that promotes economic co-operation with Eastern European countries. The main shareholders of Finest are the Regional Governments of Friuli Venezia Giulia and Veneto, the Autonomous Province of Trento (local public administrations of North East of Italy) and Simest. Finest provides its assistance to all companies whose headquarters are located in north eastern Italy (i.e., Friuli Venezia Giulia, Veneto and Trentino Alto Adige regions). Finest collaborates with companies to create or expand their businesses in foreign countries or to set up industrial and commercial relations with firms in target areas.

⁸ We also estimated the two models with different time lag, and the results were the same.

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