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Policy Effectiveness and "Misalignment" with Firms' Strategies: A Study of Pro-Internationalization Incentives

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POLICY EFFECTIVENESS AND "MISALIGNMENT" WITH FIRMS' STRATEGIES: A STUDY OF PRO-INTERNATIONALIZATION INCENTIVES

Abstract

Purpose – Using the case of pro-internationalization policy intended to promote outward investment, this paper investigates whether a non-scientific approach to official policy design causes the persistence of inefficient "top-down" policies, that is to say, based on conventional wisdom, custom and practice, and potentially flawed evaluation methods. We ask if policy re-design using a "bottom-up" approach, to complement "top-down" policy, could better yield the desired specific and effective impacts sought by policy makers.

Design/methodology/approach – The paper reviews relevant conceptual approaches to policy design, and conducts an empirical investigation using a set of real policy measures, two indexes to quantify the alignment between government policy and firms' strategies, and a regression model – which is tested on primary survey data for 1025 Portuguese firms.

Findings – Considerable policy inefficiency is found, specifically: (1) the uptake of eleven public support measures is very low, peaking at just 29 per cent in the case of one measure (2) only three measures are ranked by more than 50 per cent of firms as "very important" or "essential" (3) existing foreign investors are more aligned with public policy than non-investors (that is, perception of the value of incentives is more in line with use) and they benefit from policy most. But if alignment in the less internationalized firms were improved by one level these firms would benefit by a 67 to 68 per cent increase in performance.

Originality/value –We conclude that considerable scope exists for beneficial policy re-design. Our findings suggest that conventional evaluations of policy effectiveness are flawed, being overly influenced by existing foreign investors to the detriment of the target group of firms with lower internationalization. To rectify this, the traditional "top-down" intervention paradigm of policy making should be complemented by policy designed from the "bottom-up", making use of reliable information about the true strategies of all firms', and taking better care to identify natural target groups of firms according to their existing, or potential, resources and capabilities.

Keywords: Policy design, Internationalization, Outward investment, Top-down & bottom-up, Alignment

index, Potential improvement index

Paper type Research paper

JEL: C13; F23; H23

1. Introduction

In recent years, the official promotion of outward foreign direct investment (FDI) has undergone something of a transformation, becoming more widespread, and more popular. Yet, in past decades, governments of established foreign investing economies were often ambivalent at best towards outward investment, fearing the export of domestic employment. Many, if not all, of these governments now have switched to seeing internationalization via FDI as a means of ensuring the international competitiveness of their domestic firms. But it is the newest cohort of outward investors, e.g., from the economies of the "South", notably the economies of southern Europe, and those of Asia, and not least of China, that are most often exhorted and incentivized by administrations that have embraced outward investment policy as a means of accelerating domestic economic development.

The theoretical link between economic development and outward investment has been a subject of academic interest, and has been influential in policy circles. The concept of the Investment Development Path (IDP) pointed to the pro-development effects of inward FDI, but it also suggested that outward investment by domestic firms was associated with development at home (Dunning, 1981; Narula and Dunning, 2010) through hypothesized mechanisms such as reverse knowledge transfer back from overseas affiliates (Narula and Guimón, 2010). It is the possibility of a causal relationship between outward FDI and development that has been picked up by policymakers. Particularly so when academic thinking and econometric studies have been supplemented by general recognition of the apparent growth in prosperity of those emerging and developing economies that have seen their outward investment accelerate.

This paper poses the question of how outward internationalization policy is currently designed, and how it should best be designed for maximum beneficial effect. This leads us, through a discussion of the principles of policy design, to investigate precisely how firms regard these policy measures, how they use them, and the impact these tendencies have on firm performance. We investigate whether the conventional default policy approach of "one-size-fits-all" suffers from a poor fit to the needs of a significant, and arguably, the most important natural grouping of firms – those which are the least internationalized, and which stand to benefit most from pro-internationalization policy. To do this we take the case of Portugal, which has the merit of being tractable in terms of research design as a small, open economy, and which has maintained a coherent and constant policy stance and suite of policy measures, consisting of support and incentives

towards outward internationalization, for a period of some fifteen years. The starting point of this paper is that, given governments do now regard outward internationalization by their domestic firms as desirable, and worthy of support, how do they currently go about it and how should they go about it?

We can characterize much policy design as being traditional, top-down and one-size-fits-all in nature. This may be sufficient in some circumstances, for example, in the initial stages of policy reform, when little evidence exists on which to base policy, a case in point is China's "Go Global Policy" (Clegg and Voss, 2012). However, this is the approach to policy design evident in the majority of policy actions by governments seeking to encourage outward internationalization by their domestic firms, and many of these economies are not in the early stages of policy reform. Therefore, it is reasonable to ask if policy might be inefficient or inefficacious, and capable of beneficial re-design. In this paper, we argue that an improvement in the alignment between a government's policy and firms' strategies should deliver higher levels of efficiency in the application of public resources to promote private activities of social value, and will improve firms' performance.

To explore this issue, we start with reference to early writings on the "old", or original, institutional economics, that is, Veblen-Commons institutionalism (Commons, 1934; Veblen, 1899), which signal that considerable potential benefit exists in reviewing and reforming present day policy design. This leads us to characterize the opposing views of new and old institutional economics, in particular upward and downward causation. More recently, Hodgson (2000) refers to the dominance of top-down policy design, at least since the Second World War, highlighting that the "danger is to see social order as a primarily top-down process in which individuals are formed and cajoled by institutions, with a neglect of individual autonomy and agency" (Hodgson, 2000, pp. 332). This observation becomes even more important when we consider the motivational, or teleological, function of institutions (as contrasted with the restrictive and cognitive functions) to deliver influence upon the ends that people, and firms, pursue (Dequech, 2002 & Hodgson, 1988).

Taking the case of the design of public incentives towards internationalization, this is often considered to be in need of better targeting towards firms, and this need has generated a flow of investigative research (Fischer & Reuber, 2003; Rodrik, 1987; Young, Hood & Wilson, 1994; Young & Hood, 1994; Young, Hood & Peters, 1994). However, the precise nature of this redesign has, to date, remained arcane. Revisiting the issue of redesign becomes particularly pertinent when policy makers and international organizations see the outward internationalization of firms to be a critical determinant of national competitiveness, via increasing the number of international and globalised firms (UNCTAD, 2001a). Ultimately, the ability to compete successfully in international markets, particularly by small and medium enterprises, is held to be crucial to the economic wealth of countries and is inevitably a major concern of policy makers (Acs, Morck, Shaver & Yeung, 1997; Sunesen, Jespersen & Thelle, 2010). Today, truly accurate tools to measure policy

efficiency are still lacking, and policy makers can have very little comprehensive and concrete evidence on, and certainty about, the efficacy of their existing interventions. This leaves policy makers devoid of the relevant information when attempting to design, and redesign general policy promoting outward internationalization (UNCTAD, 2001b).

By reason of this dearth, policy makers have elected to design top-down policy, of the two possible (and pure) alternatives that they have, i.e., top-down and bottom-up. And typically this design relies on custom and practice. However, the very distinct conceptual opposition between these two modes of policy design, which is rooted in the contrasting lines of old and new institutionalism, does not, necessarily imply the futility of an integrative approach. And this can be reasoned from scrutinizing the definitions of the two approaches.

We can define a top-down policy as one that uses incentivization measures, typically originating at the highest levels, to achieve very specific and tightly circumscribed behavioural responses. It is characteristic of circumstances in which policy makers believe, or act as if they believe, that they fully understand all details of the process of implementation of a policy or programme. This view takes individuals' behaviour as a given and their reactions as isomorphic, i.e., in line with the ideas of Ayres (1944), which can be summarized in the following statement: "there is no such thing as an individual" (Ayres, 1944, pp.175). Hodgson (2000) considers that this version of institutionalism has been so prominent in the post- Second World War era that many commentators take it to be representative of institutionalism as a whole, forgetting all the possibilities derived from other perspectives, namely, that of bottom-up design.

Bottom-up mechanisms in the design of policy, so emphasized by the earlier writings on institutionalism, are very different in nature from top-down. A bottom-up policy is one that seeks to achieve a desired response using measures that exploit behavioural mechanisms modelled at the individual level. In the literature, they are typically portrayed as working through conceptions of social power and learning of individuals. Employing the description of institutionalism furnished by Hamilton (1919) that individuals pursuing their self-interest do not simply (intentionally or unintentionally) create institutions through re-constitutive downward causation, but rather that they also affect institutions in a set of fundamental ways (Denzau & North, 1994; Hodgson, 2003, 2007; North, 1994). Therefore, these are systems in which complexity is assumed and it is recognized that no single policy maker, or group, understands the whole picture. On the other hand, they obtain individual-level understanding from observation, and construct policy applying simple rules from what is observed from the individuals populating the system.

According to Haynes (2003), the link of policy with politics and ideology is well established. Policies can vary, but in developed countries they are mainly created within a highly political and contested arena, emerging from political debate. The political process leads to a formalized process of government decisions and action, clarified through legislation by political institutions such as parliaments or council chambers.

Policy is about contested values and problematizing social behaviour and issues. This paper is not about policy per se, rather it is about policy intervention, that is, when the public sphere intervenes in the market to influence firms' behaviour, aiming to impact on their development and opportunities. Here, we attempt to follow earlier efforts in the realm of pro-internationalization policy (e.g., Torres, 2013) which focused on top-down policy impacts on outward investment, and pointed to the need for more coordination, coherence and, in particular, more accurate evaluation tools. However, the hallmark of studies to date is that their sole consideration is of top-down policy interventions. In view of the greater accuracy yielded by incorporating the bottom-up approach into policy design, there is the promise of finer-grained understanding and policy objectives, and an improvement in outcomes compared with the delusory top-down attempt to leap to institutional perfection (Easterly, 2008). We argue that some effort towards complementation between the two approaches be made. To reveal the existence of such complementarity, and as a way to (observe or) shed light upon the weaknesses of top-down policy design, we focus our enquiry on the presence of an important "link" between firms' use and their perceived importance of public incentives towards internationalization, which forms part of the process of application for public incentives. As a way to reveal the weaknesses of top-down policy design, we focus our enquiry on this precise "link". This objective necessitates a search for such complementarity dimensions as exist between bottom-up and top-down approaches.

Additionally, we believe that internationalization is one of the most important strategic decisions that a firm may take. Foreign direct investment (FDI) in particular, is the mode of entry in foreign markets with the highest theoretical level of commitment and risk. This is because FDI involves the long-term creation or acquisition of illiquid real productive assets within foreign markets. In view of this illiquidity and risk, we create a measure of the difference between use and perceived importance of public incentives, and contrast this measure for firms involved in FDI with non-foreign investors.

If the traditional top-down policy is well crafted and firms benefit from it properly, they will attach the highest values to each of the incentive measures being applied, and evidence of a good policy fit should be visible for all firms, whether those with FDI or not. However, if the values attached are relatively low, this could be a signal that policy redesign is indicated. And this could be performed through applying bottom-up policy to the redesign of top-down policy, to exploit beneficial complementarities.

This paper has the following structure. Section two proposes a framework to understand better the importance of alignment between government policies and firms' strategies. It contrasts top-down objectives with firms' reported testimonies and behaviours, as bottom-up evidence. Section three describes the data and methodology we employ to move from specific observations to the general, while section four presents the results. Section five discusses the findings and section six concludes.

2. A framework to measure the alignment between pro-internationalization incentives and firms' strategies

It is difficult to measure the impact of public incentives on outward internationalization, as we do not know what firms would have done in their absence (Blundell and Dias, 2009). To circumvent this, we propose a means to evaluate the levels of use and perceived importance of public incentives. First, the firms are required to make a full disclosure of the actual measures applied. Second, for these same firms, we estimate the differences between the use and the perceived importance of these measures. And then, third, we use these estimated differences to account for the contrasting risk and commitment exhibited in internationalization behaviour of the beneficiary firms.

2.1. Identification and full disclosure of measures

Policy design is the process by which governments implement measures to serve political objectives. As a rule, the evaluation of public policy only occurs in the later stages of public intervention. Some have argued that evaluation should be integrated within a cyclical process of policy making (Elmore, 1978; Palumbo & Hallett, 1993; Vedung, 1998, 2010). However, it is not only evaluation that matters. Good design can help to improve policy efficiency. Policy should be conducted in an environment of full disclosure, so leading the process of participation to become more transparent, to better support an evaluation process based on comparative analysis (Vedung, 1998).

This procedure, useful in itself, can achieve a higher purpose than evaluation in the strict sense. From the perspective of looking backwards in order better to steer forwards, it follows that full disclosure of implemented measures is essential to understanding the alignment of policy objectives. In top-down policy, outcomes are reported by firms and are the result of the interaction of policy measures with firms' strategies which, if we were able to discern them, would constitute bottom-up evidence. While conventional evaluation systematizes and grades government activities and ensuing results, it is still of limited value if acting merely as mechanisms for monitoring.

This situation could be changed if the potential for complementarity between top-down and bottom-up approaches were exploited. Complementarity exists when there is a reverse correspondence between at least part of one approach to part of another, in which circumstances there is the promise of better informing public officials in the design of policy (Braskamp, 1980; Sanderson, 2002) to avoid systematic deficiencies. Thus, exploiting complementary approaches can raise efficiency and effectiveness in the policy sphere.

2.2. First "Signal": the link between use and perceived importance of incentives

Capturing in concrete terms misalignments between policy objectives, on the one hand, and outcomes on the other, may be approached through measuring the difference between the use and the perceived importance – as reported by firms – of the public incentives that they use. We apply the "signal" as a metaphor to reify a point from which we can observe the differences between firms' use and perceived importance of public support incentives as a means of gauging the real impact of top-down policy. In order to record a higher degree of alignment between policy objectives and firms' strategies, for each firm, the level of recourse to public policy support should be directly accompanied by an appropriately higher level of perceived importance, and vice versa.

A misalignment, or mismatch, between recourse and perception, we argue, can be taken as a signal to question policy design. Thus, if firms' perceptions of the importance of public policy register as considerably different from their use, this can be taken as evidence of the inefficacy of public policy (and, again, vice versa) or at least that such policy is achieving other objectives than the ones envisaged by policy makers. It is especially in these situations that bottom-up studies, based on the impact of policies upon the ends that firms pursue, can be of relevance for policy making, ultimately contributing towards more informed and fine-tuned decisions within the domain of public support policy.

2.3. Second "Signal": the intensity of firms' commitment and risk taken

Another way to capture the differences in terms of alignment between government policy and firms' strategies is to observe the involvement of firms in contrasting situations in terms of commitment and risk. Internationalization is one of the most important strategic decisions that may be taken in a company. As noted above, FDI is characterized as having the highest theoretical level of commitment and risk. It is therefore considered in the theoretical and empirical international business literature to be the most demanding internationalization mode (Hymer, 1960; Kindleberger, 1969; Johnson, 1970; Caves, 1971). This being so, some scholars, for example, those rooted in the Uppsala school, see FDI as the last step in a set of internationalization process decisions (Johanson & Vahlne, 1977). It follows that, in comparison with non-foreign investors, the cohort of firms undertaking FDI should be in possession of greater capabilities. On the basis of this well-established difference in capabilities, it is reasonable to argue that the measures available to foreign investing firms should be differentiated from the measures available to firms that have never previously engaged in FDI. But traditional top-down policy does not recognize this argument.

3. Methodology

3.1. Empirical Setting and Data

The lack of prior research on this topic is justification for a single country study. Here, we seek to prove the evidence in favour of the reasoning set out above on possible policy misalignment, and on the incorrect arrangement and positioning of policy measures relative to firms' strategies and, therefore, for the joint harnessing of top-down with bottom-up policy design. Portugal offers an ideal test bed for our enquiry because, since 1994, Portugal has maintained a coherent, objective and unified policy towards the promotion of outward internationalization.

The lack of appropriate secondary data for our purposes, that is, with which to compare the level of importance with the use of public incentives, and to compare firms with and without FDI, obliged us to generate new data. We adopted a primary data collection strategy that employed contacts with 89 Portuguese business associations, with a number of consultants, and with a number of commercial lawyers. We collected the data through two main routes. First, for information on policy intervention, we explored and classified the law relevant to outward internationalization enacted during a period of 15 years, between 1994 and 2009. Then, as an operationalization of policy intervention, using the set of 11 different home country support measures (HCSMIs), displayed in Table 1, we developed a questionnaire, which was then applied to a sample of 4,637 firms, proportionally distributed by industry and by region in Portugal. Within six months, we received a total of 1025 responses through an online survey conducted between December 2009 and May 2010.

Table 1: Pro-internationalization Incentives and Legal Instruments

Type	Legal Instruments
Public support for trade fairs and state missions (HCSMIs1)	law 560/2004 and law decree 1463/2007
Public support through training and consulting services (HCSMIs2)	law 560/2004
Public support through informational services (HCSMIs3)	law 560/2004 and law decree 245/2007
Public support for exchanging human resources (HCSMIs4)	law decree 245/2007 and law 249/2009
Public support through international agreements (HCSMIs5)	law decree 245/2007
Public support through investment and credit insurance or mutual funds (HCSMIs6)	law decree 245/2007
Public support through venture capital (HCSMIs7)	law decrees 290/1994, 401/1999 and 249/2009
Public support through fiscal benefits (HCSMIs8)	law decrees 290/1994, 401/1999 and 249/2009
Public support through other public financial support (HCSMIs9)	laws 1254/2003, 560/2004, in the ministerial decree 1998/2006, and in law decrees 187/2007, 1463/2007, 250/2008, 65/2009 and 353-A/2009
Public support through protocols of governmental agencies and banks (HCSMIs10)	law decree 245/2007
Public support for acquiring or developing brands, marketing, or sales (HCSMIs11)	laws 1254/2003 and 560/2004, and in law decrees 290/1994, 1463/2007, 250/2008, 353-A and 1020

Source: Authors

3.2. Descriptive Statistics

We have an entire sample of use and perceived importance attaching to public incentives for internationalization for 1025 firms, which we split into two subsets: one subset including the 269 firms

reporting that they are already foreign investors, and another subset comprising 756 firms, which reported having no foreign owned affiliate. Additionally, we collected information about performance for the entire sample. We then develop two indexes that will help to measure the putative "misalignment". These indexes shed some light on public incentives that could be more efficient, and how it might be possible to move from the present policy situation towards an ideal in which there is no "misalignment". Moreover, we are able to identify some firm characteristics that may help in better targeting (and consequently improving the efficiency) of public incentives.

Table 2 reports the description and measurement of each variable employed in our study, including the following experimental variables: "type of incentive" (β); "use of each type of incentive" (Uβ); "importance of each type of incentive" (Iβ)[7]; "percentage of firms using or evaluating each type of incentive" (ψ); "potential improvement" index (PIβ); "misalignment" index (Mβ); "foreign direct investment" (FDI). The dependent variable is firm performance measured through the "return on equity" ratio (ROE), and the following control variables are included in a parsimonious specification: human capital (HC), productivity (PROD) and number of employees (SIZE), which are established as determinants of firm performance.

Table 2: Variables Description and Measurement

Variable	Description	Measurement
Type of incentive (β)	Each home country support measure towards internationalization illustrated in Table 1	$\beta \in \mathbb{N}_{(HCSM1,\ldots,HCSM11)}$
Use of each type of incentive (U_β)	Categorical variable (0 if "not applicable", 1 if "not used", and 2 if "used")	$U_\beta \in \mathbb{N}_{(0,1,2)}$
Importance of each type of incentive (I_β)	Categorical variable (0 if "not applicable", 1 if "unimportant", 2 if "of little importance", 3 if "important", 4 if "very important" and 5 if "essential")	$I_\beta \in \mathbb{N}_{(0,\ldots,5)}$
Level of perceived importance (η)	Categorical variable (level 1 if (β) was categorised as "unimportant", 2 if "of little importance", 3 if "important", 4 if "very important" and 5 if "essential".	$\eta \in \mathbb{N}_{(0,\ldots,5)}$
Percentage of firms using or evaluating each type of incentive (ψ)	Percentage of firms using or evaluating each β	$\psi \in \mathbb{Q}_{(0,1)}$
Misalignment index (M_β)	A composite index that measures how far (misaligned) are firms' objectives relatively to (a set of) policy measures. It is based on the ratio of the sum of percentages of the number of firms (ψ) evaluating each home country support measures towards internationalization in five levels of perceived importance, weighted by ($\eta - 5$), i.e., $[(\eta - 5) * \psi I_{\eta\beta}]$, to the percentage of firms (ψ) using the (β) type of incentive (ψU_β)	$M_\beta = \frac{\sum_{\beta=1}^{11} (\eta-5)*\psi I_{\eta\beta}}{\psi U_\beta}, M_\beta \in \mathbb{R}_{\leqslant 0}$
Foreign direct investment (FDI)	Binary variable (0 if a firm does not control any foreign subsidiary, and 1 otherwise)	$FDI \in \mathbb{N}_{(0,1)}$
Return on equity (ROE)	Natural logarithm of the weight ratio of the net income (NI) returned as a percentage of shareholders equity (SE), during the year (t)	$ln(ROE) = ln(\frac{NI_t}{SE_t})$
Potential for improvement index (PI_β)	The arithmetic mean of the potential improvement in the levels of importance ($I_{\eta-5}$) that a firm would benefited, in each of a set of policy incentives (β), if these same incentives were crafted according to the firm's objectives, i.e., if the incentives were rated at the highest ranking level	$PI_\beta = \frac{\sum_{\beta=1}^{11} I_{\eta-5}}{11}, PI_\beta \in \mathbb{R}_{\leqslant 0}$
Human capital (HC)	Weight ratio of the number of employees with a bachelor degree (BA) to the number of employees (SIZE), during the year (t)	$HC = \frac{BA_t}{SIZE_t}$
Productivity (PROD)	Natural logarithm of the weight ratio of annual SALES to the number of employees (SIZE), during the year (t)	$ln(PROD) = ln(\frac{SALES_t}{SIZE_t})$
Number of employees (SIZE)	Natural logarithm of the number of employees (SIZE), during the year (t)	$\ln(SIZE_t)$

Source: Authors

Table 3 summarizes the statistics of our sample. Broadly speaking, a typical firm has on average 242 employees, a ratio of €127,000 in sales per worker, 23.6 per cent of the sample's workers are qualified with a bachelor's degree, a return on equity ratio of 8.3 per cent, and a potential for improvement (measured as the complement of the maximum perceived importance on a scale of 5) with regard to public support of 3. That is, a typical firm rated each measure at the second level of importance ("of little importance"). The average firm made use of at least two types of policy measures.

Table 3: Summary Statistics (N= 1025)

Variable	Mean	Std. Dev.	Min	Max
Return on equity	0.083	20.752	-288.949	251.534
Potential for improvement	-3.767	1.216	-5	-0.091
Use (number of measures)	2.220	3.031	0	11-0.091
Human capital	0.236	0.301	0	1
Productivity	129,645	145,648	22,319	2.00e+06
Size	241,63	1348,58	1	20869,00

Source: Authors

Table 4: Cross-correlation

Ind. Variables	P	HRQ	PROD	SIZE
PI	1.000			
HC	-0.015	1.000		
ln(PROD)	-0.110	-0.008	1.000	
ln(SIZE)	0.405	-0.254	-0.441	1.000

Source: Authors

Table 4 presents the correlation coefficients between the independent variables included in the regression model employed to test the impact of the firm's potential for improvement on firm performance. That is, if a firm were totally satisfied with its use of each of the measures, it would rate them all as essential to the firm's performance. The following equation illustrates our model.

Equation 1: Regression Model

$$ln(ROE) = PI + HC + ln(PROD) + ln(SIZE) + Intercept$$

Source: Authors

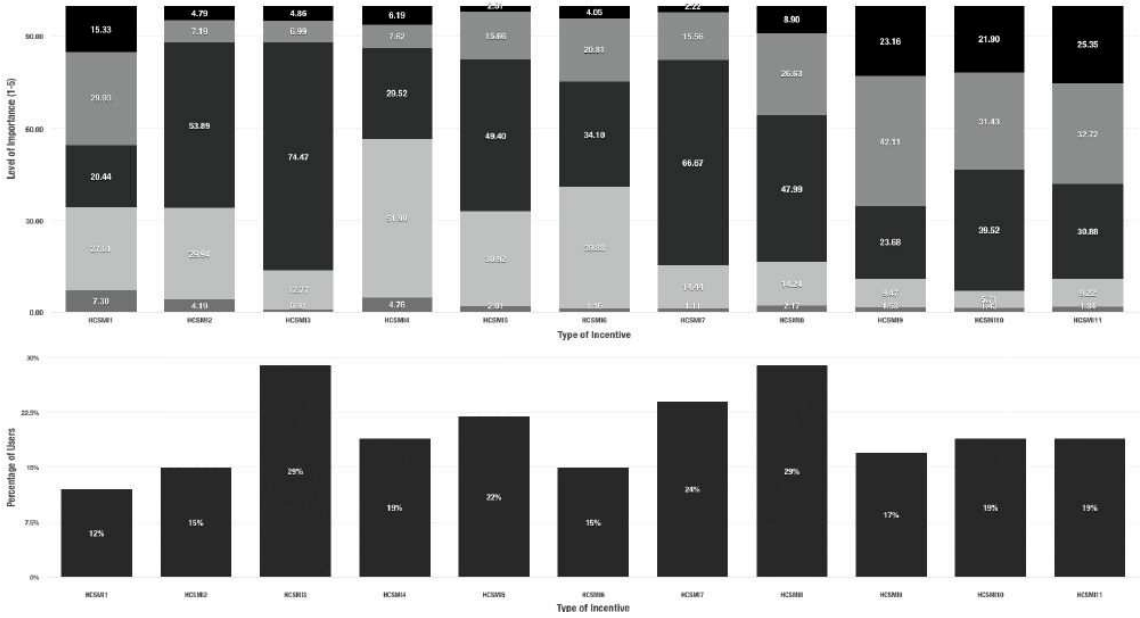
4. Results

Here we give an item-by-item comparison of the use and the revealed, or perceived, importance of each type of public support. We also compare the degree of alignment, or misalignment, for firms with, and without, FDI. Finally, we explore the role of government policy in relation to firms' performance, through identifying the potential performance improvement that a firm would gain if each of the home country policy incentives were crafted (perfectly) according to the firm's objectives, i.e., if the fit were ideal and the firm utilized the measures with the highest level of efficiency.

Starting with information included in figures 1 to 3 (respectively, the entire sample, the sub-sample of firms with FDI, and the sub-sample of firms without FDI) we see that all firms report relatively low levels of use of public incentives. This raises the question of how far public policy is working efficiently. For the general sample of 1025 firms, 29 per cent is the peak rate of use for any type of incentive (HCSMI8, "incentives through fiscal benefits") and 12 per cent is the lowest rate of use of any incentive (HCSMI1, "incentives through trade fairs and state missions").

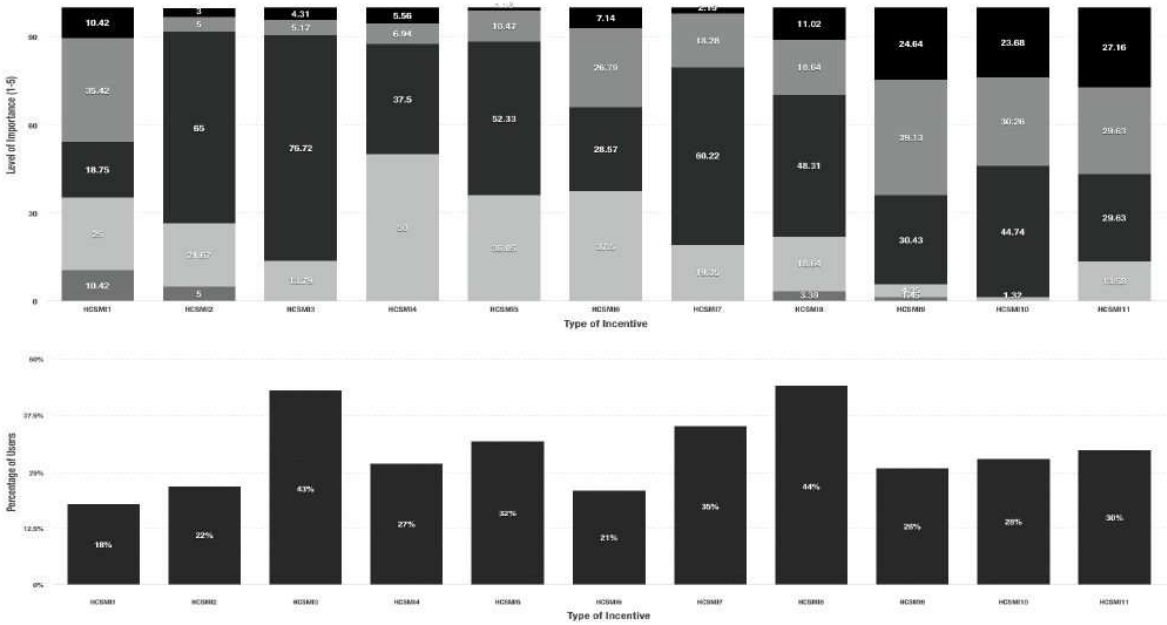
Besides the low level of use, firms generally reported relatively low levels of importance for incentives. This result suggests that even those firms who have used incentives perceived their importance to be considerably below any rank commensurate with their use. This simple observation can be taken as evidence of the inefficacy of public policy, or at least that such policy is achieving other objectives than the ones envisaged by policy makers. These same figures also show that only three measures are ranked by more than 50 per cent of firms as "very important" or "essential", that is, only three policy measures achieve the highest levels of importance. This signals a considerable "misalignment" between the government's policy and firms' strategies. For the record, the three measures in question are HCSMI9, "support through other public financial support"; HCSMIs10, "support through protocols of governmental agencies and banks"; HCSMIs11, "support for acquiring or developing brands, marketing, or sales".

Figure 1: Use and Perceived Importance of Public Incentives (N= 1025)



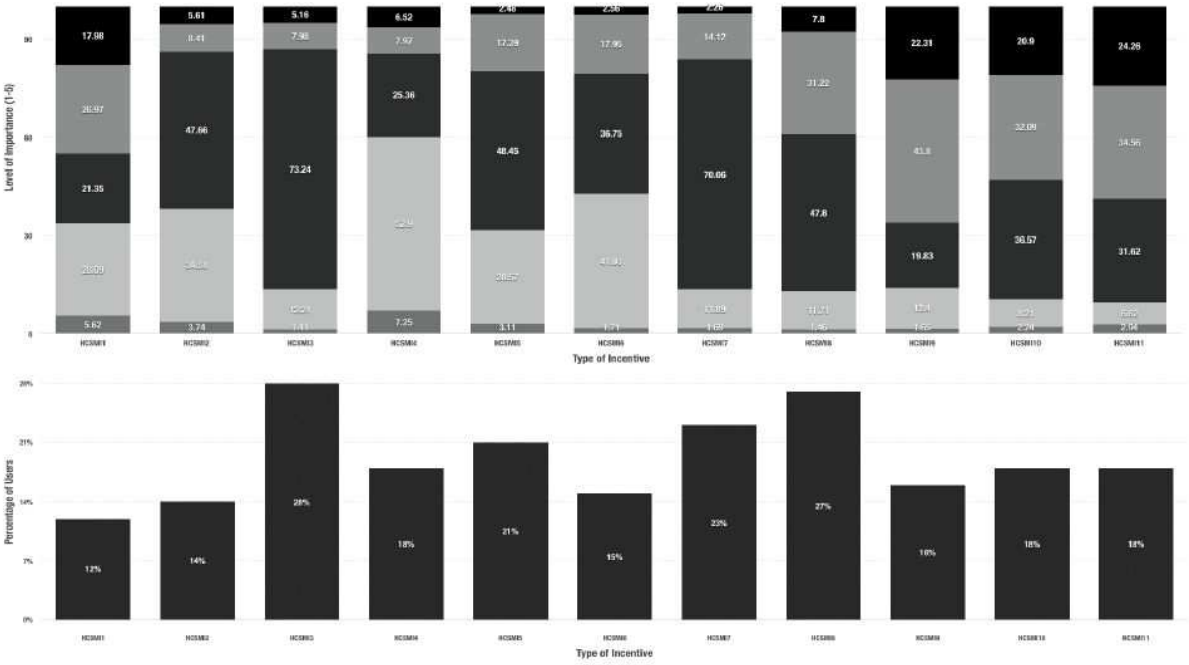
Source: Authors

Figure 2: Use and Perceived Importance of Public Incentives ($N_{WithFDI}$ = 269)



Source: Authors

Figure 3: Use and Perceived Importance of Public Incentives ($N_{WithoutFDI}$ = 756)



Source: Authors

This comparative analysis, item-by-item, does not uncover substantial differences in the model between firms with or without FDI. Therefore, we need to go further, to understand whether firms with activities involving higher commitment and risk behave differently or not, that is, to determine the impact of high foreign commitment on alignment between government's policy and firms' strategies. To this end, we computed two indexes, which we termed as the "misalignment index" and the "potential improvement index" in order to highlight this underlying relationship in the data.

Regarding these two indexes we should note the following. First, the "misalignment index" is a composite index that measures the (mis-) alignment between firms' objectives and (a set of) policy measures. It is based on the ratio of the sum of percentages of the number of firms evaluating each home country support measures towards internationalization in five levels of importance, weighted by the percentage of firms using the each type of incentive. Second, the "potential improvement index" is obtained through the arithmetic mean of the potential improvement in the levels of importance from which a firm would benefit in all policy incentives utilized, if these same incentives were crafted totally in accordance with firm's objectives, i.e., if the incentives were rated at the highest ranking level (see Table 2 for details).

Equation 2: Misalignment Index

$$M_\beta = \frac{\sum_{\beta=1}^{11} (\eta - 5) * \psi I_{\eta\beta}}{\psi U_\beta}, M_\beta \in \mathbb{R}_{\leqslant 0}$$

Source: Authors

Equation 3: Potential Improvement Index

$$PI_\beta = \frac{\sum_{\beta=1}^{11} I_{\eta-5}}{11}, PI_\beta \in \mathbb{R}_{\leqslant 0}$$

Source: Authors

Figure 4 illustrates the first results of the misalignment index. Here, in general we can observe more fine-grained evidence in terms of divergence of objectives, or the space for potential improvement, between government policy and firms' strategies. We found some policy instruments present lower levels of misalignment and which, on the basis of their better "fit", we designate as the most bottom-up of the top-

down suite instruments. Notable are the cases of financial incentives: HCSMI7, "support through venture capital" which, we surmise may result from the strong scrutiny in business planning inherent in this incentive; HCSMI8, "support through fiscal benefits" which, again, may have a strong element of conditionality. And the three measures of HCSMI9, "support through other public financial incentives" (mainly subsidies); HCSMI10, "support through protocols of governmental agencies and banks" and HCSMI11, "support for acquiring or developing brands, marketing, or sales" in each of which a clear business case from the applicant is needed to qualify, i.e., these instruments are arguably the most bottom-up of the top-down suite of instruments. The exception to these incentives is HCSMI3, "support through informational services", a non-financial type of incentive that also appears ranked with a lower level of misalignment. As a type of market research service, this is by nature more customized to the client than others. For both sets of firms, the instruments that have lower values of misalignment are the same as observed in the general case.

These results seem to have important implications for policy design in terms of ranking of options; however, the most powerful result is obtained when contrasting the values of the misalignment index for firms with FDI with those for firms without FDI. Here we observe that along all types of incentives, firms with FDI have lower values of the misalignment index than firms without FDI.

Table 5: Results of the Regression Model

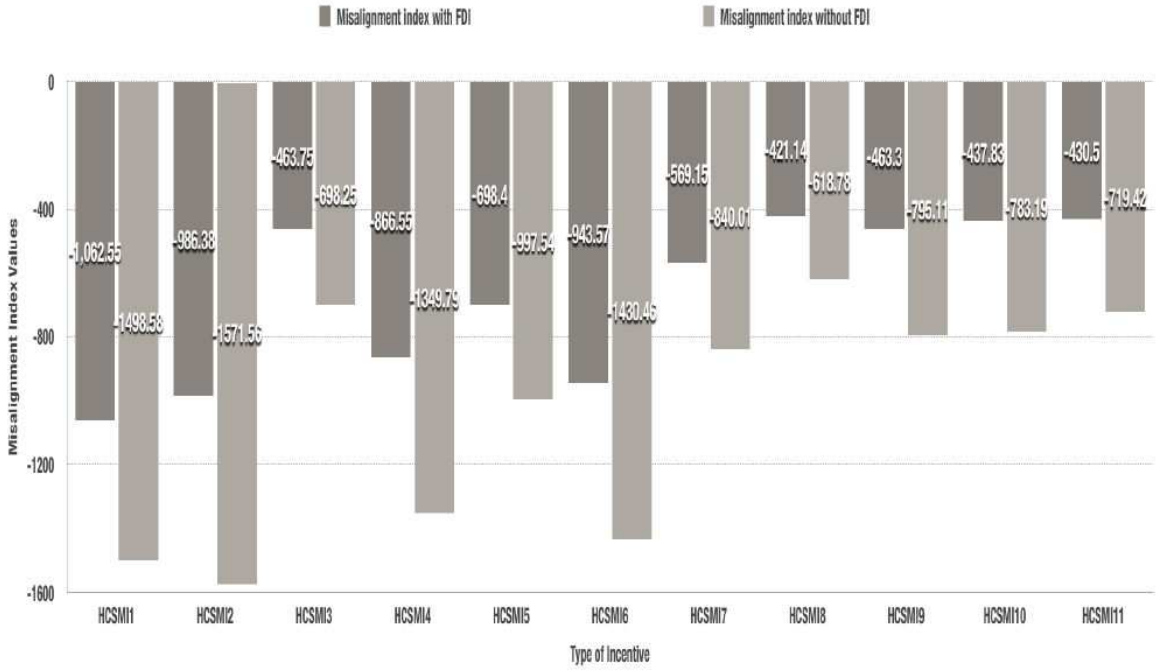
Number of Obs		878
F (4, 873)		280.27
R-squared		0.562
Adj. R-squared		0.560
Root MSE		1.556
Ind. Variables	**Coefficient**	**St. Error**
PI	-0.507***	(0.05)
HC	-0.234	(0.19)
ln(PROD)	0.850***	(0.02)
ln(SIZE)	0.501***	(0.04)
Intercept	-13.696***	(0.49)
Significance levels:	*: 10%	**: 5% ***: 1%

Source: Authors

Analyzing Table 5, which presents the results of the regression model testing the link between firms' performance and potential improvement in perception of policy (and a set of control variables, including human capital, productivity and size) we should expect a negative relation among higher values of potential improvement and firm's performance, that is, the more misaligned a firm's perception is from its ideal in policy terms, the lower its performance would be. Exploring the marginal effects of this simple model, we

are able to determine that an increase of one level in terms of potential improvement for all types of incentives (e.g., if a firm's perception were to raise in rank for all measures from three to four) this will lead to performance gains that are 67 per cent to 68 per cent higher, other factors remaining the same. Our results also point to a statistically significant and positive impact of both productivity and size upon firm performance. Analyzing the marginal effects of these last variables, we observe that an increase of one per cent in productivity will lead to an improvement of performance of 0.16 per cent, while a unitary increase in size, i.e., hiring an additional employee, will lead to performance gains that are close to 0.7 per cent higher than other factors could explain.

Figure 4: Results of Misalignment Index



Source: Authors

5. Discussion

Using a sample of Portuguese firms, we found that the levels of use of policy instruments are very low and the importance attached to public incentives towards outward internationalization is such that only three measures, the ones that offer money on strict or well-established conditions, rank for more than 50 per cent of firms in the two highest levels of importance. What is more, that firms with FDI have lower values of the misalignment index than firms without FDI suggests that the strategies of firms with FDI have greater congruence with government policy than firms without FDI. This suggests that there may exist a common purpose between policy design and certain beneficiary firms. An implication from the pattern of our findings is that incentives have been introduced, or crafted, to better suit existing foreign investors to the

disadvantage of non-investors. This would reflect the cumulative weight of feedback information (from evaluations and lobbying) that the government has about the preferences of internationalizing firms, and it would naturally favour existing investors as they are the primary and most articulate source of this information. That is to say, that the incentives have been shaped, or have evolved over time through custom and practice, and evaluation, to fit best with the needs of an established and possibly vocal group of firms, that is, earlier foreign investors.

From these findings, we are able to further infer a powerful implication for the design and targeting of policy. To improve both the efficiency and effectiveness of policy actions, the traditional top-down paradigm for intervention in the sphere of policy making should be complemented by policy designed from the bottom-up, making use of reliable information about each distinct constituency of firms' and their strategies, and their existing, or potential resources and capabilities. Our findings, therefore, point to existing foreign investors having influenced the government to introduce incentives that they like (and use) most to the comparative disadvantage of non-foreign investors, who generally are (in this sample) smaller firms. It follows that the argument of top-down policy making remains intact, but is enriched by scientific evidence that the formation of policy and its instruments are constructed within a coterie of policy makers in conjunction with existing, and larger, foreign investing firms. We may continue to describe policy making as top-down, as policy remains ostensibly intended to target non-foreign investors, to enable them to engage in FDI for the first time to the benefit of their performance.

Bottom-up interventions, which focus on giving voice to non-foreign investors, will make these firms more aware of the possibilities at their disposal in terms of public support and, consequently, the problem of low levels of use may become partly remedied. Conventional policy evaluation, however, remains worthy of consideration as a tool to appraise the fit of policy and programmes' delivery but, the results suggest, should be extended to capture those firms from whom no feedback on past use is available, that is, non-foreign investors. Adding such bottom-up evidence to top-down policy will enable the persons responsible for, or involved in, formulating policies to target policy to those groups for which the objectives of policy are better aligned with the requirements of the firms.

Policy makers may seek to deliver policy using different organizational forms, to stimulate the take-up of policy instruments, or to deliver them in a more cost effective manner. Changes of focus such as these can result from conducting appropriate policy evaluations. Learning how existing policy can be delivered more effectively as a result of accumulated experience in evaluation remains an option, but the enhanced enfranchisement of non-foreign investors is essential to compensate for the natural bias in these evaluations towards existing foreign investors.

Analysis of the importance attached to public incentives by users raises questions not often addressed in

research and policy debates. It may reveal problems with information about public incentives that need to be tackled by policy officials. The observed misalignment between use and perceived importance in the main sample, but also the differential between the two subsets of firms with and without owned and controlled foreign subsidiaries, reveals that public policy is not fully efficient. Using the "misalignment index", we observe that firms with FDI are more aligned, or less misaligned, with policy objectives and that they are even more aligned in terms of financial measures. This result is suggestive of important policy implications, and may offer some insights into why home countries have chosen to support outward FDI by domestic firms.

First, FDI is the most demanding internationalization mode, as is often claimed by internationalizing firms. However, these same firms should, according to received theory and empirical work (Hymer, 1960; Kindleberger, 1969, Johnson, 1970, Caves, 1971) possess greater capabilities, which result in greater advantages, in comparison with non-investors and, therefore, there is no logic to supporting these firms, unless they are following more precisely what policy officials wish. Therefore the question becomes "what do policy officials wish, and why, precisely, do they wish it?" Our results suggest that an element of the apparent efficiency of public policy is illusory. The use of public money for more capable existing investors, in some sense, would only appear to be more efficient as a means of achieving a certain outcome from policy, but this is for a group that is already within the intensive margin of foreign investors. If this were to be true, measures applied to these existing investors should be differentiated from measures applied to the firms that have never invested abroad as part of their international portfolio. Therefore, in order to increase the efficiency of pro-internationalization measures, at least two main sets of incentives should be established, e.g., for firms without FDI (who may, for example, be exporters) and foreign direct investors separately, based on their distinctive needs and strategies.

Second, given the varying behaviours of firms, associated with their levels of capabilities and involvement in internationalization projects with different requirements, we suggest systematizing support for these firms in natural groups, or clusters, for example, according to levels of human capital, productivity or size. A corollary of this is that new models are required that are capable of capturing and better predicting different patterns in firms' behaviour, connecting to the ideas of rationality of economic activity explored by another early twentieth-century institutional economist, Wesley Mitchell (1910, 1914). Deeper understanding of the mechanisms by which policy impact is achieved and how policy might be adjusted is fundamental to aligning the distinct policy approaches.

Third, the implications for adopting the approach of the old institutionalism are considerable. We have argued in this paper that the groups of foreign investors and non-investors are naturally distinct. But it also follows that the non-investor may, indeed should be expected to, migrate to being an investor, and this change in categorization carries with it multiple inferences we are able to make about the firm's capabilities,

and will also eventually influence the shaping of policy. Accordingly, concepts of social power and learning can be placed at the centre of routines applied in economic analysis (Hodgson, 2006, 2007). This supports the view that institutionalism is well suited to address questions of structural change and economic development, as in the case of public support incentives but, in the process, the analysis becomes much more complicated and less open to formal modelling.

Looking to the "potential improvement index" – an index to measure the firm's relation with policy actions – we see this as a challenge for firms. It may offer a valuable routine to identifying, from a bottom-up perspective, the way in which firms evaluate public incentives. The evidence of this study is that public incentives do indeed exert a positive impact on firms' performance (given that our control variables account for resources and capabilities) however, the way in which public policy towards outward internationalization has been applied can be criticized as unduly naïve. If it is true that firms build their competitive advantage in the market upon their resources and capabilities, and that public incentives are applied to increase firms' resources and capabilities, it is also true that public incentives could be a powerful source of competitive advantage. The "potential improvement index" may transpire to be the first formal development to measure the efficiency of firms in accessing and using public incentives and therefore a means to better understand the absorptive capacity of firms towards public incentives. If so, it may offer a very useful tool to redesign measures and improve their efficiency through the empowerment of all potential beneficiary firms, and avoid benefitting only one dominant and influential sub-group.

6. Conclusion

This paper presents a framework, together with two novel indexes, to study the alignment between government's policies and firms' strategies. To improve both the efficiency and effectiveness of policy actions, and the firm performance, the traditional top-down interventionist paradigm of policy making would benefit from being complemented by policy designed from the bottom-up, that is, making use of reliable information about all firms' strategies and an accurate assessment of their existing, or potential, resources and capabilities, as well as their market positioning.

In the light of what we now know, the future research agenda should include investigating how firms evaluate public support measures, considering firms' capabilities as well as the specificities of their states of internationalization. If pro-internationalization policy is to be pursued, as it is being pursued by many governments keen to develop domestic firms through international experience, then innovation in the design and management of pro-internationalization measures should be a priority for politicians, decision makers, and scholars. And it should become normal for public servants administering internationalization programmes to seek continuous improvements and ensure efficient adaptation to changing conditions.

In order to highlight problems related to coordination, coherence and evaluation in policy design, this study

starts a discussion of the usefulness of bottom-up policy. It focuses on the specific nature of the expected impacts of pro-internationalization policy upon outward investments, and how far these are effective in terms of policy intentions. The framework is crafted and tested for a set of policy measures applied over fifteen years by the government of a small and open European economy. From these exploratory results, we propose that government has a predilection to engineer "top-down policy", based on high-level presumptions about the nature of all firms' strategies towards internationalization and international expansion, not necessarily aligned with the real strategies, and therefore needs, of each distinct constituency of firms.

The observed misalignment between top-down policy instruments and the real needs of all firms, according to their testimony, suggests the benefit that will be felt from a change in the paradigm of policy making, by adding a comprehensive bottom-up approach. Complementing top-down with bottom-up within public support policy also demands that we re-visit how we operationalize these conceptual principles. Conducting evaluations of policy performance using existing investors introduces an element of bias which is manifest in our results. This pro-established investor bias is defeating of the intention of pro-internationalization policy, as it should apply to non-investors. We can say that policy tends to be top-down for non-investors but bottom-up (or at least more so) for existing investors. These become the template for policy design.

A re-thinking of policy design rests on developing the quality of the participatory processes in improving of policy efficiency. This would provide valuable data and would also establish a process of engaging the entire community of firms towards contributing to policy re-design. This would create an opportunity for empowerment of all potential beneficial firms, and strengthen the links between government policy and firms' strategies.

References

Acs, Z., Morck, J., Shaver, M., & Yeung, B. (1997). The internationalization of small and medium-sized enterprises: A policy perspective. Small Business Economics, 9 (1), 7-20.

Ayres, C. E. (1944). The Theory of Economic Progress (1st ed.). Chapel Hill, NC, USA: University of North Carolina Press.

Blundell, R. & Dias, M. C. (2009). Alternative approaches to evaluation in empirical microeconomics. Journal of Human Resources, 44 (3), 565-640.

Böhringer, C. (1998). The synthesis of bottom-up and top-down in energy policy modeling. Energy economics, 20(3), 233-248.

Braskamp (1980). Utilization of Evaluative Information. New Directions for Program Evaluation (1st ed.). Number 5. San Francisco, CA, USA: Jossey-Bass.

Caves, R. E. (1971). International corporations: The industrial economics of foreign investment. Economica, 38 (149), 1-27.

Commons, J. R. (1934). Institutional Economics: Its Place in Political Economy (1st ed.). New York, USA: Macmillan.

Clegg, J. & Voss, H. (2012). Chinese Investment in the European Union. London, U.K. Europe China Research and Advice Network.

Denzau, A. & North, D. (1994). Shared mental models: Ideologies and institutions. Kyklos, 47(1), 3-31.

Dequech, D. (2002). The demarcation between the "old" and the "new" institutional economics: recent complications. Journal of Economic Issues, 36 (2), 565-572.

Dunning, J. H. (1981). Explaining the international direct investment position of countries: towards a dynamic or developmental approach, Weltwirtschaftliches Archiv, 119, 30–64.

Easterly, W. (2008). Design and reform of institutions in LDCs and transition economies: Institutions: Top down or bottom up? The American Economic Review, 98(2), 95-99.

Elmore, R. (1978). Organizational models of social program implementation. Public Policy, 26(2), 185-228.

Fischer, E. & Reuber, A. R. (2003). Targeting export support to SMEs: Owners' international experience as a segmentation basis. Small Business Economics, 20(1), 69-82.

Hamilton, W. (1919). The institutional approach to economic theory. The American Economic Review, 9(1), 309-318.

Haynes, P. (2003). Managing complexity in the public services (1st ed.). Maidenhead, UK: McGraw-Hill International.

Hodgson, G. M. (1988). Economics and Institutions (1st ed.). Philadelphia, PN, USA: University of Pennsylvania Press.

Hodgson, G. M. (2000). What is the essence of institutional economics? Journal of Economic Issues, 34(2), 317-329.

Hodgson, G. M. (2003). The hidden persuaders: Institutions and individuals in economic theory. Cambridge Journal of Economics, 27(2), 159-175.

Hodgson, G. M. (2006). What are institutions? Journal of Economic Issues, 15(1), 1-25. Hodgson, G. M. (2007). Institutions and individuals: Interaction and evolution. Organization Studies, 28(1), 95-116.

Hymer, S. H. (1960). The International Operations of National Firms: A Study of Direct Foreign Investment. PhD thesis, Massachusetts Institute of Technology (Published posthumously 1976), Cambridge, MA, USA.

Johanson, J. & Vahlne, J.-E. (1977). The internationalization process of the firm: A model of knowledge development and increasing foreign market commitments. Journal of International Business Studies, 8 (1), 23-32.

Johnson, H. G. (1970). The effciency and welfare implications of the international corporation. In Charles P. Kindleberger (ed.), The international corporation, chapter 3, 33-56.

Kindleberger, C. (1969). American Business Abroad (1st ed.). New Haven, CT, USA: Yale University Press.

Mitchell, W. C. (1910). The rationality of economic activity. The Journal of Political Economy, 18 (3), 197-216.

Mitchell, W. C. (1914). Human behavior and economics: A survey of recent literature. The Quarterly Journal of Economics, 29 (1), 1-47.

Narula, R., and Dunning, J.H. (2010). Multinational enterprises, development and globalisation: Some clarifications and a research agenda, Oxford Development Studies, 38(3), 263-287.

Narula, R., & J. Guimón (2010). The investment development path in a globalised world: implications for Eastern Europe. Eastern Journal of European Studies, 1(2), 5-19

Palumbo, D. & Hallett, M. (1993). Conflict versus consensus models in policy evaluation and implementation. Evaluation and program planning, 16(1), 11-23.

Rodrik, D. (1987). Policy targeting with endogenous distortions: Theory of optimum subsidy revisited. The Quarterly Journal of Economics, 102(4), 903-911.

Sanderson, I. (2002). Evaluation, policy learning and evidence-based policy making. Public administration, 80(1), 1-22.

Sunesen, E., Jespersen, S., & Thelle, M. (2010). Impacts of EU Outward FDI. Final Report (1st ed.). Copenhagen, Denmark: Copenhagen Economics.

Torres, M. M. (2013). Pro-Internationalisation Policies and Outward Foreign Direct Investment. PhD thesis, University of Aveiro, Aveiro, Portugal.

UNCTAD (2001a). Home country measures. Technical report, United Nations, New York, USA and Geneva, Switzerland.

UNCTAD (2001b). World investment report 2001: Promoting linkages. Technical report, United Nations, New York, USA and Geneva, Switzerland.

Veblen, T. (1899). The theory of the leisure class. An economic study of institutions (1st ed.). New York, USA: MacMilan Company.

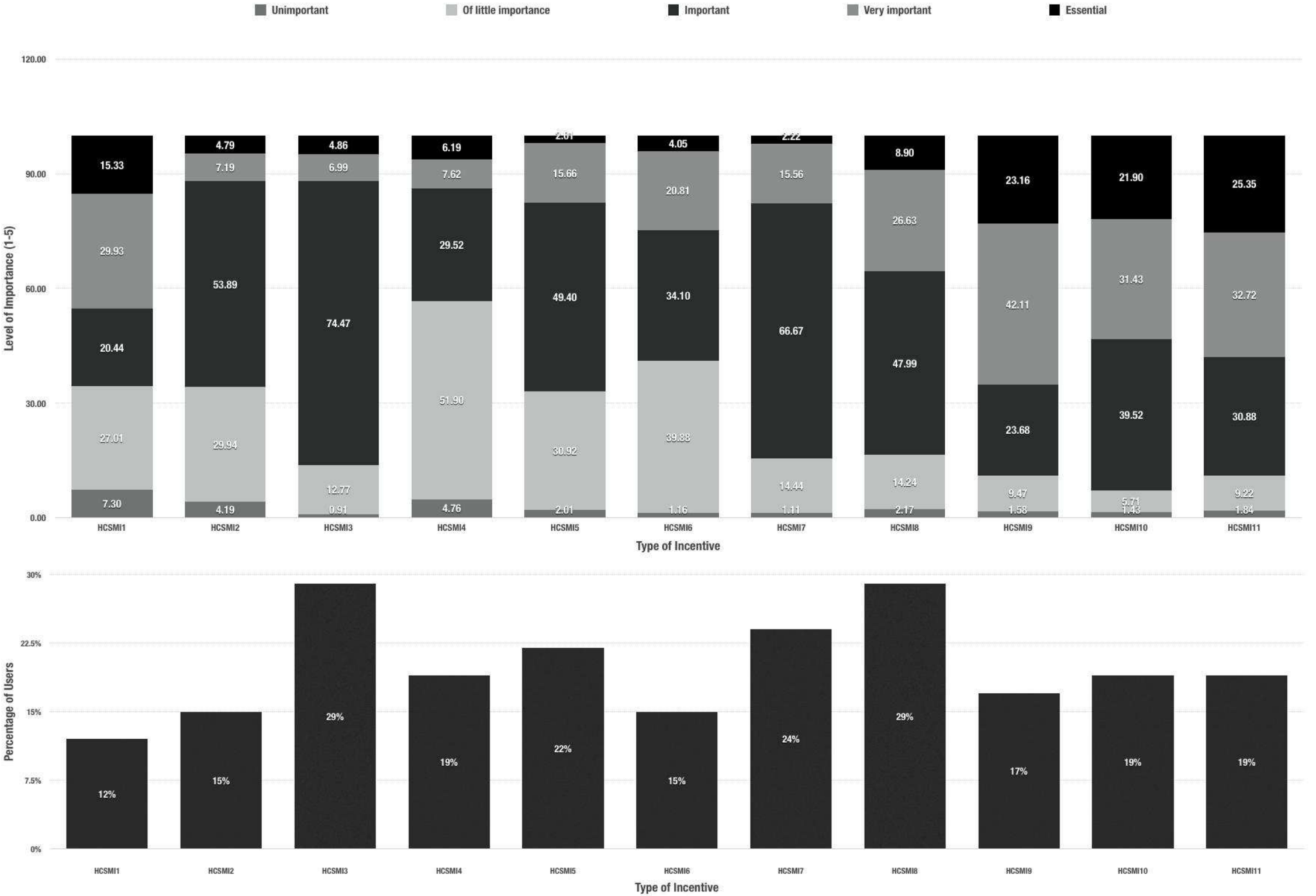
Vedung, E. (1998). Policy instruments: Typologies and theories. In M.-L. Bemelmans-Videc, R. C. Rist, & E. Vedung (Eds.), Carrots, Sticks and Sermons: Policy Instruments and Their Evalu- ation (1st ed.). Chapter 1, (pp. 21-58). New Brunswick, USA and London, UK: Transaction Publishers.

White, H. (1980). A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity. Econometrica, 48 (4), 817-830.

Young, S. & Hood, N. (1994). Designing developmental after-care programmes for foreign direct investors in the European Union. Transnational Corporations, 3(2), 45-72.

Young, S., Hood, N., & Peters, E. (1994). Multinational enterprises and regional economic development. Regional Studies, 28(7), 657-677.

Young, S., Hood, N., & Wilson, A. (1994). Targeting policy as a competitive strategy for European inward investment agencies. European Urban and Regional Studies, 1(2), 143-159.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Important
Very important
Essential
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Type of Incentive
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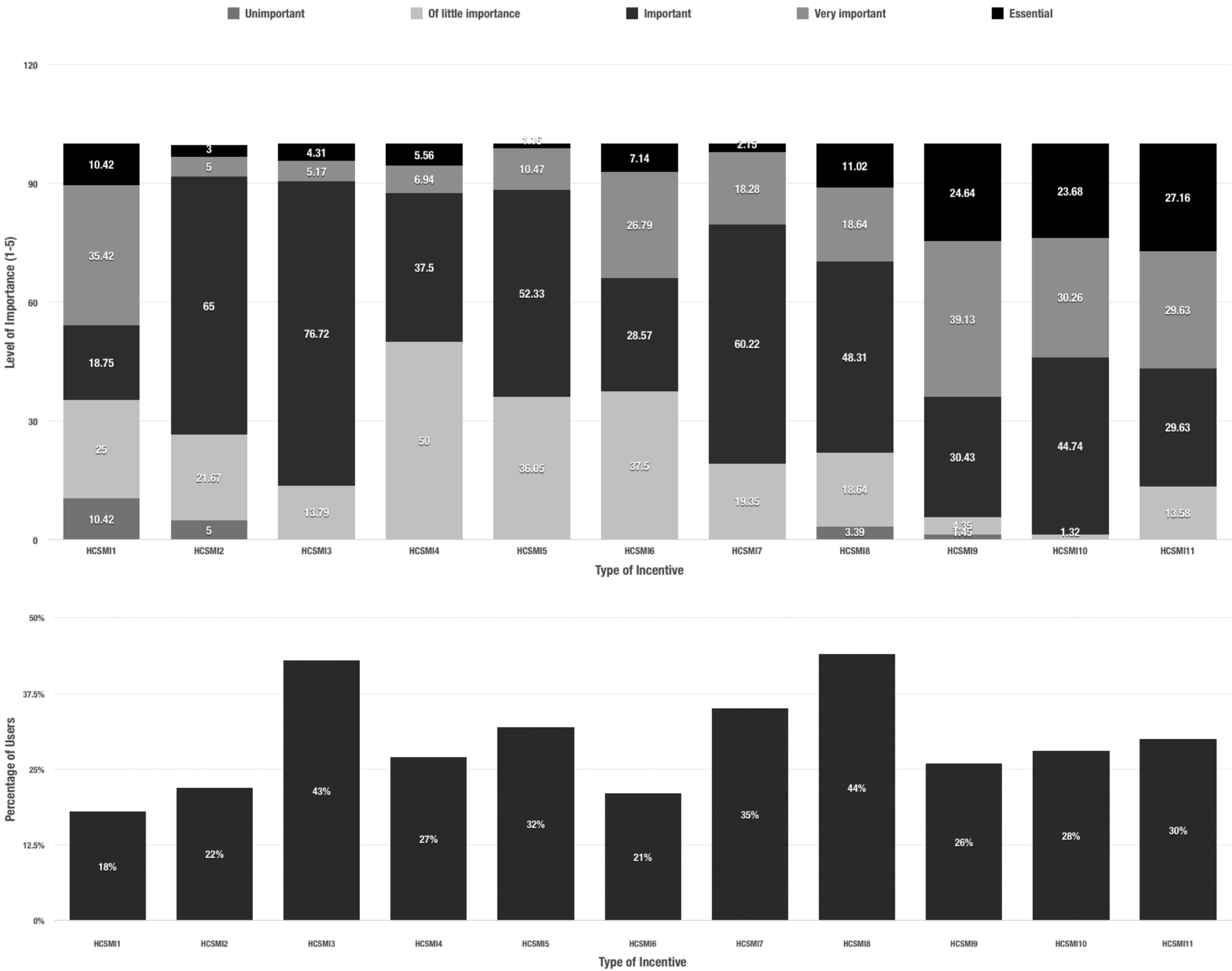
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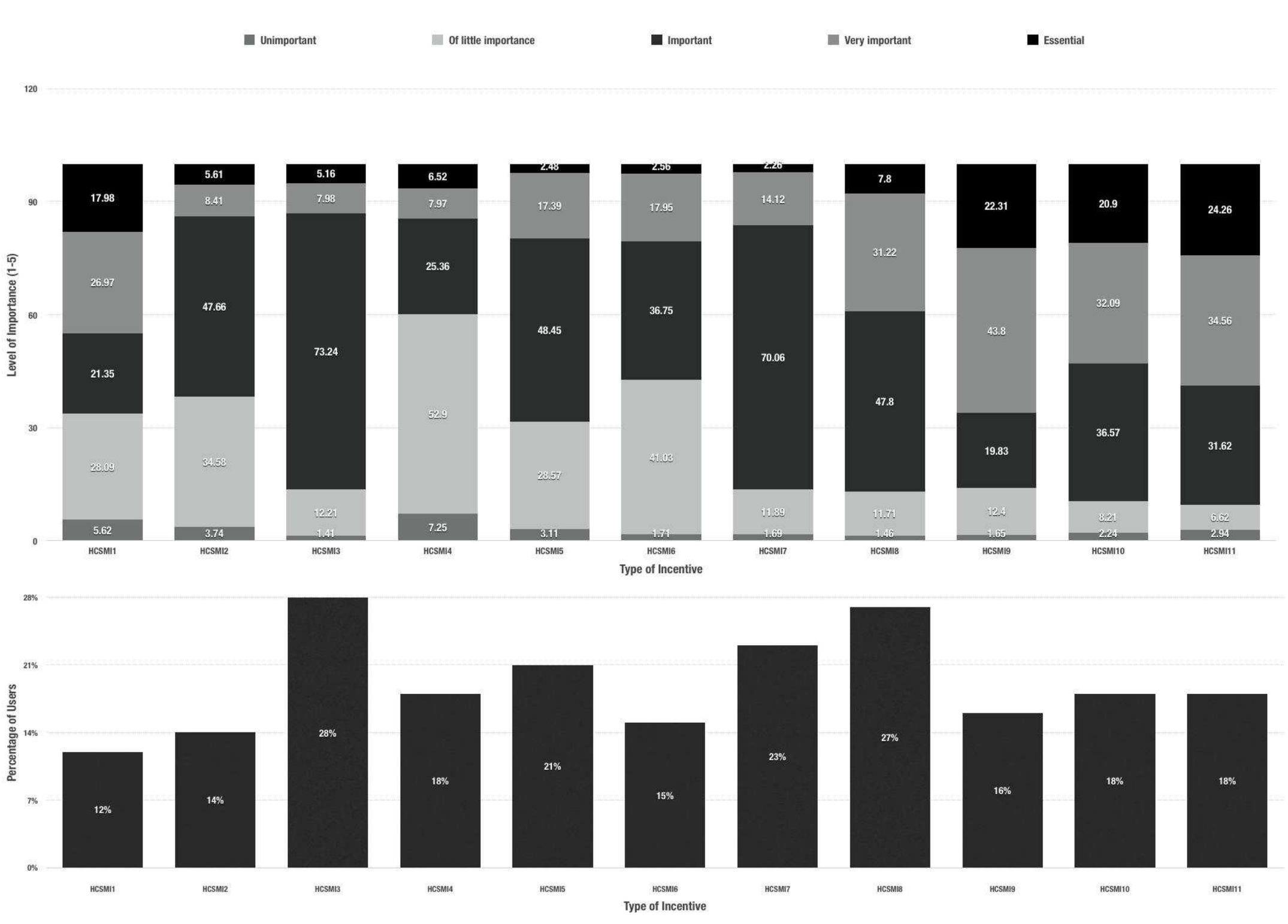
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6.62
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Type of Incentive
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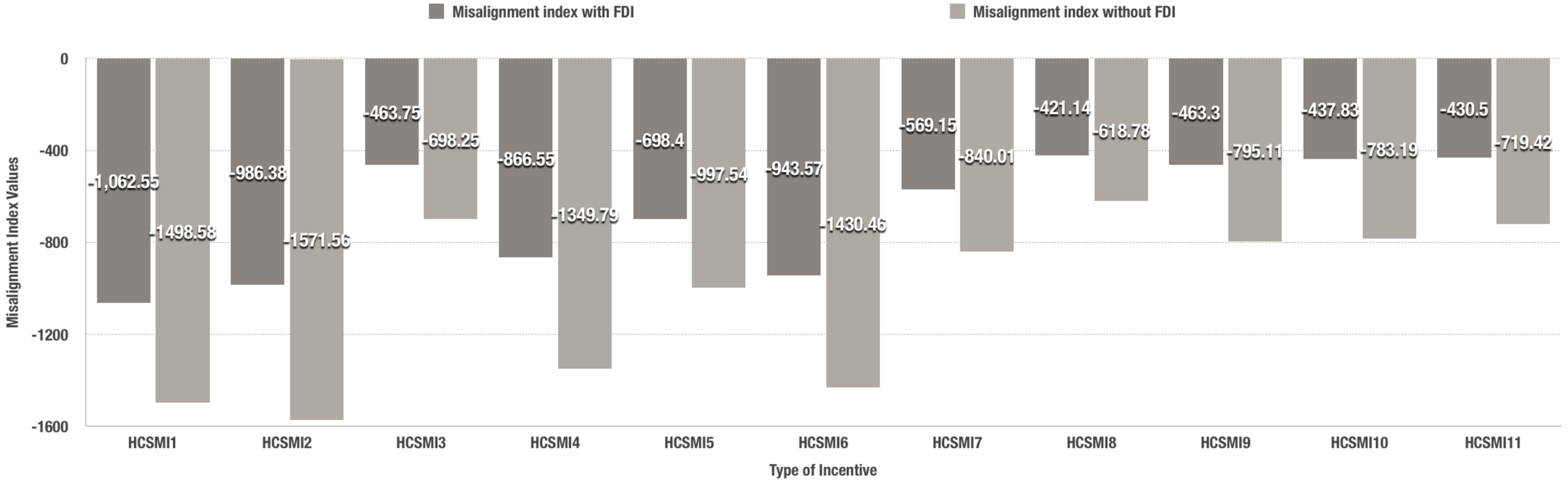
Type of Incentive


Misalignment index with FDI
Misalignment index without FDI
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-800
-1200
-1600
Misalignment Index Values
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-1571.56
-463.75
-698.25
-866.55
-1349.79
-698.4
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HCSMI1
HCSMI2
HCSMI3
HCSMI4
HCSMI5
HCSMI6
HCSMI7
HCSMI8
HCSMI9
HCSMI10
HCSMI11
Type of Incentive

Type	Legal Instruments
Public support for trade fairs and state missions (HCSMIs1)	law 560/2004 and law decree 1463/2007
Public support through training and consulting services (HCSMIs2)	law 560/2004
Public support through informational services (HCSMIs3)	law 560/2004 and law decree 245/2007
Public support for exchanging human resources (HCSMIs4)	law decree 245/2007 and law 249/2009
Public support through international agreements (HCSMIs5)	law decree 245/2007
Public support through investment and credit insurance or mutual funds (HCSMIs6)	law decree 245/2007
Public support through venture capital (HCSMIs7)	law decrees 290/1994, 401/1999 and 249/2009
Public support through fiscal benefits (HCSMIs8)	law decrees 290/1994, 401/1999 and 249/2009
Public support through other public financial support (HCSMIs9)	laws 1254/2003, 560/2004, in the ministerial decree 1998/2006, and in law decrees 187/2007, 1463/2007, 250/2008, 65/2009 and 353-A/2009
Public support through protocols of governmental agencies and banks (HCSMIs10)	law decree 245/2007
Public support for acquiring or developing brands, marketing, or sales (HCSMIs11)	laws 1254/2003 and 560/2004, and in law decrees 290/1994, 1463/2007, 250/2008, 353-A and 1020

Variable	Description	Measurement
Type of incentive (β)	Each home country support measure towards internationalization illustrated in Table 1	$\beta \in \mathbb{N}_{(HCSM1,\ldots,HCSM11)}$
Use of each type of incentive (U_β)	Categorical variable (0 if "not applicable", 1 if "not used", and 2 if "used")	$U_\beta \in \mathbb{N}_{(0,1,2)}$
Importance of each type of incentive (I_β)	Categorical variable (0 if "not applicable", 1 if "unimportant", 2 if "of little importance", 3 if "important", 4 if "very important" and 5 if "essential")	$I_\beta \in \mathbb{N}_{(0,\ldots,5)}$
Level of perceived importance (η)	Categorical variable (level 1 if (β) was categorised as "unimportant", 2 if "of little importance", 3 if "important", 4 if "very important" and 5 if "essential".	$\eta \in \mathbb{N}_{(0,\ldots,5)}$
Percentage of firms using or evaluating each type of incentive (ψ)	Percentage of firms using or evaluating each β	$\psi \in \mathbb{Q}_{(0,1)}$
Misalignment index (M_β)	A composite index that measures how far (misaligned) are firms' objectives relatively to (a set of) policy measures. It is based on the ratio of the sum of percentages of the number of firms (ψ) evaluating each home country support measures towards internationalization in five levels of perceived importance, weighted by $(\eta - 5)$, i.e., $[(\eta - 5) * \psi I_{\eta\beta}]$, to the percentage of firms (ψ) using the (β) type of incentive (ψU_β)	$M_\beta = \frac{\sum_{\beta=1}^{11} (\eta-5)*\psi I_{\eta\beta}}{\psi U_\beta}, M_\beta \in \mathbb{R}_{\leqslant 0}$
Foreign direct investment (FDI)	Binary variable (0 if a firm does not control any foreign subsidiary, and 1 otherwise)	$FDI \in \mathbb{N}_{(0,1)}$
Return on equity (ROE)	Natural logarithm of the weight ratio of the net income (NI) returned as a percentage of shareholders equity (SE), during the year (t)	$ln(ROE) = ln(\frac{NI_t}{SE_t})$
Potential for improvement index (PI_β)	The arithmetic mean of the potential improvement in the levels of importance ($I_{\eta-5}$) that a firm would benefited, in each of a set of policy incentives (β), if these same incentives were crafted according to the firm's objectives, i.e., if the incentives were rated at the highest ranking level	$PI_\beta = \frac{\sum_{\beta=1}^{11} I_{\eta-5}}{11}, PI_\beta \in \mathbb{R}_{\leqslant 0}$
Human capital (HC)	Weight ratio of the number of employees with a bachelor degree (BA) to the number of employees (SIZE), during the year (t)	$HC = \frac{BA_t}{SIZE_t}$
Productivity (PROD)	Natural logarithm of the weight ratio of annual SALES to the number of employees (SIZE), during the year (t)	$ln(PROD) = ln(\frac{SALES_t}{SIZE_t})$
Number of employees (SIZE)	Natural logarithm of the number of employees (SIZE), during the year (t)	$\ln(SIZE_t)$

Variable	Mean	Std. Dev.	Min	Max
Return on equity	0.083	20.752	-288.949	251.534
Potential for improvement	-3.767	1.216	-5	-0.091
Use (number of measures)	2.220	3.031	0	11-0.091
Human capital	0.236	0.301	0	1
Productivity	129,645	145,648	22,319	2.00e+06
Size	241,63	1348,58	1	20869,00

Ind. Variables	P	HRQ	PROD	SIZE
PI	1.000			
HC	-0.015	1.000		
ln(PROD)	-0.110	-0.008	1.000	
ln(SIZE)	0.405	-0.254	-0.441	1.000

Number of Obs	878
F (4, 873)	280.27
R-squared	0.562
Adj. R-squared	0.560
Root MSE	1.556

Ind. Variables	Coefficient	St. Error
PI	-0.507***	(0.05)
HC	-0.234	(0.19)
ln(PROD)	0.850***	(0.02)
ln(SIZE)	0.501***	(0.04)
Intercept	-13.696***	(0.49)

Significance levels: * : 10% ** : 5% *** : 1%

$$ln(ROE) = PI + HC + ln(PROD) + ln(SIZE) + Intercept$$

$$M_{\beta} = \frac{\sum_{\beta=1}^{11} (\eta - 5) * \psi I_{\eta\beta}}{\psi U_{\beta}}, M_{\beta} \in \mathbb{R}_{\leqslant 0}$$

$$PI_{\beta} = \frac{\sum_{\beta=1}^{11} I_{\eta-5}}{11}, PI_{\beta} \in \mathbb{R}_{\leqslant 0}$$