

**BEYOND THE DISCIPLINARY ROLE OF GOVERNANCE:  
HOW BOARDS AND DONORS ADD VALUE  
TO SPANISH FOUNDATIONS**

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# **BEYOND THE DISCIPLINARY ROLE OF GOVERNANCE: HOW BOARDS AND DONORS ADD VALUE TO SPANISH FOUNDATIONS**

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## **Abstract**

Foundations play a key role in the development of modern societies, helping to funnel private wealth to social services and educational and research activities. Using a sample of Spanish foundations, we present evidence on the effect of the board composition and institutional donors on foundations' organizational efficiency. We show that board size and independence do not directly impact the entity's efficiency. Instead, the heterogeneity of knowledge inside the boardroom and the proactive character of trustees have a positive influence on resource allocation. We confirm the benefits of a private institutional donor who effectively monitors managerial decisions.

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# BEYOND THE DISCIPLINARY ROLE OF GOVERNANCE MECHANISMS: HOW BOARDS AND DONORS ADD VALUE TO SPANISH FOUNDATIONS

## 1. INTRODUCTION

During last decades we have seen important growth in nonprofit organizations and an increased involvement of these organizations in the development process of a country's society. Nonprofits are supposed to be specially shaped to assist the governments in the country's progress, because they combine the best characteristics of for-profit corporations and governments (Gauri & Galef, 2005).

In the nonprofit world, there is one legal status that has acquired exceptional relevancy. We refer to the foundations that, due to their idiosyncratic characteristics, are experiencing remarkable growth. According to the legal definition, these foundations are independent entities that have their own boards, and whose endowments, by the express wish of their private or public founders, are tied to the pursuit of diverse objectives of general interest. In the aggregate, these foundations act as a conduit that transfers private wealth today to charitable beneficiaries in the future (Sansing & Yetman, 2006).

From the era of Andrew Carnegie and John D. Rockefeller to the start of this century, the growth of nonprofit foundations reflects the evolution of philanthropy (Fleishman, 2007). Nonprofit foundations have been a popular and effective method for wealthy families and private corporations to create a legacy of philanthropy. A contemporary and outstanding example of this trend is the Bill and Melinda Gates Foundation, which dedicates its endowment (about US\$31.9 billion by October 2006) to enhancing healthcare and reducing extreme poverty worldwide.

Although the philanthropic phenomenon is more closely related to the United States than to Europe, in recent years we have witnessed its growth in Europe. According to the data of the European Foundation Centre, at the beginning of this century European foundations allocated more than €51,000 million, mainly to social services (Spain, United Kingdom, Holland, and Germany), arts and culture (Belgium and Italy), education (Finland), health (France), or science (Sweden) (EFC, 2005).

“It seemed as if Europe was about to rediscover itself through the eyes of an American legacy. What Tocqueville had detected in the formative process of the United States –the role of freely founded associations formed by active citizens- became an important point of reference in Europe” (Evers & Laville, 2004:1).

Beyond their purely philanthropic role, European nonprofit foundations have acquired a unique role in the European research activities and funding. Due to their economic independence and autonomy in their decision making, foundations have been described as “philanthropic venture

capitalists” that add value by taking risks, fostering innovation and testing feasibility, and implementing new concepts (European Commission, 2005).

As the size and scope of foundations grows, the society’s concern over the allocation of their voluntary contributions increases, and so too does the need for an effective governance model that guarantees the optimal allocation of the nonprofit resources.

Although nonprofit practitioners have indicated that good governance is critical to the success of these entities (European Commission, 2005), there are few studies that have analyzed the relationship between the governance mechanisms and the organizational performance (e.g., Bradshaw *et al.*, 1992; Callen & Falk, 1993; Callen *et al.*, 2003; Brown, 2005; O’Regan & Oster, 2005; Andrés *et al.*, 2006) and even less focus on the foundations (e.g., Stone, 1975; Sansing & Yetman, 2006).

In this paper, we examine the role of the governance mechanisms in the foundations and provide empirical evidence on the foundations of a particular European country, Spain. The main growth of the Spanish third sector coincided with the introduction of the democracy in the 1970s. In 2001, Spanish foundations managed more than €1,700 million and employed 80,000 workers. Using unique data from a survey that comprised 144 entities during the year 2004, we explore the influence of the board and the donors on the foundation’s efficiency.

In contrast to what codes of best practices indicate, our results show that there is no "one size that fits all," and that it is not always advisable to increase the number of independent directors on a board. According to our data, size and independence do not have a direct effect on a foundation’s efficiency. Instead, their directors’ diversity of knowledge emerges as particularly relevant to determining the best allocation of the foundation’s resources. Additionally, although foundations lack owners in a legal sense, we find that some types of donors carefully monitor the allocation of their contributions and thus become a positive influence on the entities’ efficiency.

We develop these arguments and results as follows. First, we revisit the traditional studies on nonprofit governance and identify those mechanisms that are effective in the nonprofit world from a traditional view of the agency theory. Second, we introduce the cognitive dimension to build an extended model of governance. This framework helps us to define our hypotheses on the mechanisms that affect the foundations’ efficiency. Next, we describe our data collection, empirical model and variables, and the statistical technique we use to contrast their significance. Finally, we present the results of the model estimation and the primary conclusions we derive from our empirical analysis.

## **2. NONPROFIT GOVERNANCE FROM A DISCIPLINARY VIEW**

Agency theory has been the dominant theory used to explain problems of corporate governance. According to agency theory, the firm is a nexus of contracts between principals (primarily owners) and agents (managers). As owners delegate their control over decisions to the managerial team, the latter can behave opportunistically and expropriate the wealth of the principals. In this

context, agency theory defines corporate governance as a set of mechanisms that constrain the managerial decisions and, by limiting their discretionary behavior, reduce the threat of expropriation.

The search for an effective model of governance for the foundations leads us to apply the traditional arguments of the agency theory to the relationships established in this kind of nonprofit. However, extrapolating the agency framework to the nonprofit world becomes more complex, since in the nonprofit setting there are no legally defined ownership rights, and because there are no legal owners in nonprofits, some of the governance mechanisms that are useful in for-profit corporation are questionable or vague.

We refer particularly to managerial remuneration, the takeover market, and the owners' active monitoring. In foundations, since they are not for profit, some forms of incentive remuneration are illegal, and when these forms do exist, they do not influence the managers' performance or organizational effectiveness (Hartarska, 2005). Additionally, since there are no strong takeover markets (Glaeser, 2003; O'Regan & Oster, 2005) or owners with legal control rights (Hansmann, 1980; Brody, 1996; Glaeser, 2003), the responsibility for monitoring and counseling the managers mainly devolves to the board and, when they exist, those donors who are especially committed to the nonprofit's mission. According to previous studies, the board and the significant donors are the only effective mechanisms of governance in the nonprofit world (O'Regan & Oster, 2002, 2005; Callen *et al.*, 2003; Andrés *et al.*, 2006).

On the one hand, as the legal governing body of the organization, the foundation's board of trustees is responsible for monitoring and counseling the nonprofit managerial team. On the other hand, some significant donors are specially involved and qualified to govern. Key donors are motivated to monitor the entity because they assume any cost (economic or not) that derives from an inadequate management of the nonprofit's resources. Key donors are also empowered to control, because their contributions are vital to the financial survival of the foundation, so they acquire a *de facto* right to make organizational decisions.

Under a traditional agency framework, both board and donors basically play a monitoring role. Thus, they can only add value to the organization by avoiding the resources expropriation. However, this narrow focus of the governance role is frequently criticized, and even more when it is used to explain the nonprofit world (Miller, 2002).

### **3. AN EXTENDED MODEL OF NONPROFIT GOVERNANCE**

To overcome some of the shortcomings of the traditional agency framework, we introduce an extended model of governance that establishes more complex links between governance and value creation. This model is inspired by Charreaux (2004, 2005), in which he constructs a theory of corporate governance where disciplinary and cognitive aspects are simultaneously at work. By including the disciplinary model of governance, we can consider the effects of conflicts of interest

among the stakeholders of the organization in relation to resource allocation. Further, by introducing a cognitive dimension, we assume that the system of governance also influences the strategic decisions, particularly those related to the innovation process (Charreaux, 2005).

The inclusion of the cognitive dimension in the model of governance for the nonprofit sector is especially pertinent, given the environment in which nonprofit organizations function and the higher involvement of their boards. On the one hand, whenever there is a high level of information asymmetry and uncertainty, both customers and donors seem to have more trust in nonprofit organizations than in for-profit corporations (Arrow, 1963; Hansmann, 1980). The occurrence of information asymmetries and high uncertainty not only supposes a source of agency problems and a need for effective mechanisms of control (Jensen & Meckling, 1976), but also generates the need for more critical and reflective processes of interactive decision (Forbes & Milliken, 1999). In such environments, it is advisable to take advantage of mental schemes that differ or conflict. The presence of this type of cognitive conflict in a group stimulates discussions and the consideration of more alternatives or viewpoints, and a more accurate evaluation of the different options. This careful decision-making process helps to create value in environments where there is high uncertainty (Forbes & Milliken, 1999).

On the other hand, in addition to the specific studies on the nonprofit sector, the board's involvement in strategic planning is often highlighted, as is its influence on the organizational performance (Bradshaw *et al.*, 1992; Brown, 2005). Even when compared with their counterparts in the corporate sector, the boards of trustees stand out for their level of commitment to the strategic planning and decision processes (Judge & Zeithmal, 1992). Certainly, eliminating this role from the analysis of the model of governance would diminish its explanatory power.

The inclusion of a cognitive dimension presupposes the redefinition of some of the good practices related to the effectiveness of the governance mechanisms. First, board composition, which is traditionally defined in terms of size and independence, requires a more complex definition. When adding the cognitive dimension to the board, the accumulation of heterogeneous knowledge and the proactivity of the members becomes more important than the number of trustees or its objectivity. Second, the presence of significant donors in a foundation not only means a careful monitoring, but also a decision-making, control that translates into an efficient allocation of the nonprofit resources.

So, to examine their influence on the entity's efficiency, we will go along with the main characteristics of the board and the weight and nature of the major donors of a foundation.

### **3.1. Board of trustees**

Using an extended model of governance, we can examine the functions and composition of the board of trustees from a less parochial, more global perspective. Trustees do not limit themselves to monitoring the managerial team. They also play an active part in the strategic decision-making

process, the definition of the organizational mission, and the agreements on resource allocation. Therefore, the composition of the board (size, independence, and individual characteristics of the trustees) must be defined not only in terms of increasing its disciplinary ability, but also in terms of introducing the knowledge that is critical to constructive decision making.

### **Size and independence**

As we note above, traditional agency theory defines the monitoring effectiveness of the boards in terms of size and independence. Agency theory proponents argue that a substantial increase of the board size could result in a slowdown in decision making and an increase in costs (Yermack, 1996; Callen *et al.*, 2003; O'Regan & Oster, 2005). And, when considering the independence of the board, both codes of good governance and researchers emphasize the benefits of an increase in the number of outsiders (defined as those board members who also have an executive charge in the organization). The directors' independence assures their objectivity when monitoring the managerial team, thus reducing the managers' opportunistic behavior and increasing the organizations' efficiency (Baysinger & Hoskisson, 1990; O'Regan & Oster, 2005). However, there is no conclusive empirical evidence on the influence of board size and independence on the organizations' efficiency.

When we introduce the cognitive role of the board, the effect of board size and independence becomes more ambiguous. The inclusion of more directors in the board implies more access to sources of information (Hambrick & Mason, 1984; Olson, 2000) and a major volume of cognitive resources for decision making (Bantel & Jackson, 1989; Olson, 2000). Therefore, a bigger board might not always have a negative influence on the efficient resources allocation. When we focus on the nonprofit sector, this statement is even more appropriate. Because boards of trustees represent the "voice of the society" (Herzlinger & Krasker, 1987: 104), its size should reflect many different interests, so its size should be bigger, and the board members must assume more tasks than do their for-profit corporation counterparts (Houle, 1989; O'Regan & Oster, 2005).

However, the independence of the board is not such a favorable factor when we incorporate the cognitive dimension. The presence of independent directors (outsiders) in the board can harm the innovation and creativity of the organization (Hill & Snell, 1988; Baysinger & Hoskisson, 1990). Additionally, in the nonprofit sector, where the trustees are normally unpaid helpers, the voluntary character of the outsiders might reduce the amount of effort and time they give to their roles as directors (Brody, 1996).

So, according to all these arguments, we cannot define the influence of both size and independence of the board on the organizations' efficiency in advance. Our definition needs to be supplemented by a description of the resources (such as knowledge and attitude) that any new director needs to bring to the board. Thus, we hypothesize that:



Hypothesis 1: Board size and independence do not have a direct effect on the nonprofit foundation's efficiency.

### **Knowledge and proactive character of the trustees**

As a mechanism for creating value through the contribution of experience and knowledge (Donaldson, 1990; Castanias & Helfat, 1991), the board benefits from the different kinds of knowledge that the individual board members bring to the board, not only in the corporate sector (Boeker & Goodstein, 1991; Judge & Dobbins, 1995), but also in the nonprofit area (Bowen, 1994). Thus, our second hypothesis is:

Hypothesis 2: The cumulative knowledge of the board has a positive effect on the nonprofit foundation's efficiency.

But it is not only the cumulative of knowledge that influence the organizational efficiency. According to previous studies, the heterogeneity of this knowledge is even more important, because it favors the creativity of the board (Bantel & Jackson, 1989) and increases the decision-making capabilities of the group. Heterogeneous groups can offer many possible solutions to a problem, because they have many different sources of information (Hambrick & Mason, 1984). Also, groups with diverse points of view can better select the best option for each problem (Olson, 2000). Thus, heterogeneous groups seem to favor the optimal allocation of nonprofit resources. Hypothesis 3 tests this effect.

Hypothesis 3: The diversity of trustees' knowledge has a positive effect on the nonprofit foundation's efficiency.

Nevertheless, the breadth and heterogeneity of knowledge on the board does not guarantee an effective use of that knowledge (Forbes & Milliken, 1999). The extended model of governance differs from the resource dependence theory by considering not only the accumulation of resources (e.g., knowledge, skills, and capabilities), but also its active use. Although earlier evidence is limited, it suggests that the most effective boards show the highest levels of dynamism and proactivity (Axelrod *et al.*, 1990; Chait *et al.*, 1996). Therefore. We hypothesize that:

Hypothesis 4: Trustees' proactive character has a positive effect on the nonprofit foundation's efficiency.

### **3.2. Significance and nature of donors**

In addition to the board, there is another governance mechanism that can also influence the efficient allocation of a foundation's resources. Similar to the shareholders of a public company, but

without residual economic rights, significant donors can (and do) monitor resources' allocation in the nonprofit organizations (Olson, 2000). These stakeholders have been called "quasi-owners" (Ben-Ner & Van Hoomissen, 1994). They have also been considered the best way to encourage the board to take on its monitoring role (Vanderwarren, 2002).

Nowadays, it is very common to find wealthy families and corporations financing foundations that become the family's or firm's public image in the society. When donors make a substantial contribution to a foundation, they are usually interested in the efficient use of their contributed funds, especially if they are a private company or a public donor (O'Regan & Oster, 2002; Andrés *et al.*, 2006). In this line of arguments, a single donor achieves internalizing all externalities and solving the "common pool-problem" which might arise where there are many small donors financing the organization's mission. Thus, we can argue that:

Hypothesis 5: The presence of a significant donor, especially when that donor is a public institution or a private company, has a positive effect on the nonprofit foundation's efficiency.

#### **4. DATA AND MODEL DESCRIPTION**

We used a mail survey to obtain the necessary data for our study. Since the essential source of both money and resources for the nonprofits is voluntary contributions, we expect nonprofits to have a high level of transparency and visibility. Nevertheless, the scarcity of data has been an obstacle for the researchers interested in the nonprofit world (Hartarska, 2005). In Spain, there are more than 7,000 registered foundations, although more than two thirds of them are inactive entities (García *et al.*, 2004). In October 2004, we sent more than 2,200 questionnaires to those Spanish foundations that were listed in a national register, but ignored *ex ante* if all of them were still active. According to the statistical data of García and his collaborators (2004), our expected active population was about 650 entities.

Our questionnaire was made to be responded by the main executive of the foundation. We contacted them by mail, e-mail, and telephone, and received a total of 124 responses with complete information. This response level represents an answer rate of about 19% over the expected active population. In economic terms, our 124 foundations manage more than €360 million in 2003, which comprises more than a third of the total resources spent by Spanish foundations (EFC, 2005).

##### **4.1. Variables and description of the sample**

In Table 1, we summarize the general description of the sample and the different variables we use for proving the hypotheses.

**Table 1. Hypotheses, variables, and descriptive analysis.**

	TYPE of VARIABLE	VARIABLE	PREDICTION	DESCRIPTIVE STATISTICS				
				mean	std. dv.	min.	max.	
Dependent variables	Administrative efficiency (administrative costs/ total costs)	ADEF	----	0.18	0.16	0.00	0.67	
	Economic efficiency (using Data Envelopment Analysis)							
	(1) INPUTS: total income, total number of workers, total assets, and OUTPUTS: resources destined to the mission of the foundation, number of activities, geographical dispersion*	Made from various questions of the survey, such as total income, number of workers, administrative costs, etc.	ECEF1	----	0.30	0.36	0.00	1.00
	(2) INPUTS: total income, total number of workers and volunteers, total assets, and OUTPUTS: resources destined to the mission of the foundation, number of activities, geographical dispersion*.	ECEF2	----	0.29	0.36	0.00	1.00	
Hypothesis 1.	Board size (Total number of trustees – normalized)	SIZE	no relationship	12.02	7.54	3.00	41	
About size & independence	Independence (% trustees without executive charge in the foundation)	Directly extracted from a question of the survey	OUTS	no relationship	0.87	0.23	0.00	1.00
Hypothesis 2 About knowledge	Trustees who are also directors of other nonprofits (%)	KNOW1	positive	0.30	0.28	0.00	1.00	
	Trustees who are also executives of other nonprofits (%)	KNOW2	positive	0.15	0.23	0.00	1.00	
	Trustees who are also executives of a for-profit firm (%)	KNOW3	positive	0.33	0.32	0.00	1.00	
	Trustees who are expert in law (%)	KNOW4	positive	0.15	0.15	0.00	1.00	
	Trustees who are expert in auditing (%)	KNOW5	positive	0.06	0.09	0.00	0.55	
Hypothesis 3. About diversity of knowledge	Sum of dummy variables that recognize the existence or not of trustees with knowledge of type 1 to 5 (KNOW1, KNOW2, KNOW3, KNOW4, KNOW5) divided by 5 (types of knowledge and experience)	Made from the 5 previous questions changed to dummies (1 if KNOW>0 and 0 otherwise)	DIVER	positive	0.64	0.29	0.00	1.00
Hypothesis 4. About proactive character	Trustees who are proactive in the decision- making process (propose new ideas and future lines of action for the foundation) (%)	Directly extracted from a question of the survey	PROAC	positive	0.37	0.34	0.00	1.00

	The total income provided by the principal public donor (%)		PUBDON	positive	0.16	0.25	0.00	1.00
Hypothesis 5. About donors	The total income provided by the principal private institutional donor (%)	Directly extracted from a question of the survey	INSDON	positive	0.23	0.32	0.00	1.00
	The total income provided by the principal private individual donor (%)		INDDON	positive	0.05	0.15	0.00	1.00
Control variables	Size of the foundation (total expenses in thousands of Euros-normalized)	Directly extracted from a question of the survey	INCOME	positive	2,907.60	6,672.17	1.31	44,100.00
	Age of the foundation (age of the foundation – normalized)		AGE	positive	14.20	17.20	1.00	112

\* We use a categorical variable (1=local; 2=regional; 3=national; 4=international) to measure geographical dispersion.

We measure the foundations' efficiency with three different variables. The first is a traditional ratio (ADEF), usually defined as administrative or technical efficiency. This ratio indicates the portion of costs dedicated to administrative functions, so the lower the value, the smaller amount of administrative expenses, and, in the end, a better result for the entity.

According to some previous nonprofit studies (Callen & Falk, 1993) and watchdog agencies (Sargeant & Kaehler, 1998), donors' principal concern is the average percentage of their contributions that is dedicated to the principal organization's mission. However, it is easy for the managers to manipulate the quantities integrated in administrative costs. To avoid this problem, we think it may be advisable to calculate other measures of efficiency. To do so, we include two additional measures, the Data Envelopment Analysis (ECEF1 and ECEF2). This kind of analysis has been widely used to value the efficiency of those organizations that use multiple inputs to obtain multiple outputs. It has been also used whenever the definition of prices and the weight of each input and output or the specification of the production function is problematic (Färe *et al.*, 1985). Data Envelopment Analysis generates a multidimensional measure of efficiency that consists of all the inputs and outputs without including prices for factors or distributed services. Thus, this method has become popular, especially in the public and voluntary sectors (Callen & Falk, 1993).

To calculate our measures of efficiency, we include people (workers and volunteers); facilities (total assets and money); and total income as operational inputs, and the resources dedicated to the mission, the number of activities, and their geographical dispersion as the primary outputs of the foundation. Clearly, this multidimensional measure makes it possible for researchers to include more concepts so as to more accurately reproduce the performance of any organization.

The average size of the board (SIZE) in our sample rises to 12 trustees, which is somewhat lower than the average size (16-19 trustees) of the typical board of a North American nonprofit (O'Regan & Oster, 2005). Although more than half of our sample has no insiders in their boards of trustees, the average independence of the boards of Spanish foundations (OUTS) is lower than that shown by American studies: 87% of outsiders in the Spanish nonprofits compared with 98% of the American boards (Callen *et al.*, 2003).

When we examine the knowledge, diversity, and proactive character of the members of the board, we find that about 45% of the board members are also directors (30%) or executives (15%) of other nonprofits (KNOW1 and KNOW2 respectively), and a third of the board members are also executives of a for-profit firm (KNOW3). Finally, about 21% are experts in law (15%) or auditing (6%) (KNOW4 and KNOW5 respectively). Additionally, every board contains at least one director with a specific type of knowledge of all the five kinds (KNOW1 to KNOW5) we differentiate in our study (DIVER), and only 37% adopt a proactive character in the decision-making process (PROAC).

According to our data on the nature and significance of their founders and donors, 16% of the total resources that Spanish foundations handled in 2003 came from a public source (PUBDON), 23% from a private institution (INSDON), and 5% from a private individual source (INDDON). The rest of

the foundations' income derived from small donations (less than 5% of the foundation's income), its economic activity, or the monies from their endowments' investment.

In the nonprofit research, size and age are traditionally associated with the legitimacy and reputation of the organization. Both dimensions have been always related to synergies and knowledge accumulation that increase their performance (Marcuello & Salas, 2001; O'Regan & Oster, 2002; Callen *et al.*, 2003). Thus, we expect size and age to influence positively on the organizational efficiency. On average, the foundations we analyze were constituted 12 years ago (AGE) and handled an average of funds close to €3 million (INCOME).

## 4.2. Empirical model and statistical techniques

The empirical model to test the hypothesis takes the following form:

$$\text{EFFICIENCY}_i = \alpha + \beta_1 \text{SIZE}_i + \beta_2 \text{OUTS}_i + \beta_3 \text{KNOW1}_i + \beta_4 \text{KNOW2}_i + \beta_5 \text{KNOW3}_i + \beta_6 \text{KNOW4}_i + \beta_7 \text{KNOW5}_i + \beta_8 \text{DIVER}_i + \beta_9 \text{PROAC}_i + \beta_{10} \text{PUBDON}_i + \beta_{11} \text{INSDON}_i + \beta_{12} \text{INDDON}_i + \beta_{13} \text{INCOME}_i + \beta_{14} \text{AGE}_i + \mu_i$$

We measure  $\text{EFFICIENCY}_i$  using three different variables (ADEF, ECEF1, and ECEF2). In this model, as explanatory variables we include the size (SIZE) and independence (OUTS) of the board; the different types of knowledge of the members that comprise the board (KNOW1, KNOW2, KNOW3, KNOW4, KNOW5); its heterogeneity (DIVER); and how proactive it is (PROAC). The model also contains diverse measurements of the importance of the major stakeholders (PUBDON, INSDON, INDDON) and two control variables for the organizational size (INCOME) and mature (AGE).

We propose a single-equation model that we estimate by using *tobit* analysis. The nature of the efficiency variables (ADEF, ECEF1 and ECEF2), with a substantial volume of observations concentrated on their limit values, requires a hybrid analysis. A *tobit* analysis not only considers the values of the intermediate variables, but also the occurrence probability of the limit values (Tobin, 1958)

## 5. EMPIRICAL RESULTS

Table 2 shows the results of the estimation of the model. We use two different models to avoid multicollinearity problems (see "Correlation matrix" in Appendix A).

**Table 2. Results of the model estimation**

Dependent variable:		EFAD				ECEF1				ECEF2			
Method of estimation:		Model 1 with KNOW1,		Model 2 with KNOW2,		Model 1 with KNOW1,		Model 2 with KNOW2,		Model 1 with KNOW1,		Model 2 with KNOW2,	
Tobit analysis		KNOW3 & DIVER		KNOW4 & KNOW5		KNOW3 & DIVER		KNOW4 & KNOW5		KNOW3 & DIVER		KNOW4 & KNOW5	
H1	SIZE	-0.0022	(0.883)	-0.0081	(0.590)	0.0610	(0.200)	0.0705	(0.120)	0.0606	(0.206)	0.0687	(0.133)
	OUTS	0.0205	(0.748)	0.0267	(0.678)	0.0110	(0.956)	0.0032	(0.987)	0.0314	(0.875)	0.0199	(0.919)
H2	KNOW1	0.0372	(0.502)	-----	-----	-0.0626	(0.726)	-----	-----	-0.0786	(0.662)	-----	-----
	KNOW2	-----	-----	0.0043	(0.947)	-----	-----	0.5470	(0.008)	-----	-----	0.5246	(0.011)
	KNOW3	0.0401	(0.431)	-----	-----	-0.0403	(0.805)	-----	-----	-0.0376	(0.819)	-----	-----
	KNOW4	-----	-----	0.0261	(0.791)	-----	-----	-0.1117	(0.738)			-0.1622	(0.631)
	KNOW5	-----	-----	0.0935	(0.572)	-----	-----	0.3677	(0.466)			0.3898	(0.443)
H3	DIVER	-0.0930	(0.095)	-----	-----	0.3125	(0.080)	-----	-----	0.3056	(0.089)	-----	-----
H4	PROAC	-0.0778	(0.065)	-0.0813	(0.059)	-0.0354	(0.793)	-0.0670	(0.617)	-0.0412	(0.762)	-0.0695	(0.607)
H5	PUBDON	-0.0109	(0.861)	-0.0203	(0.744)	0.1082	(0.592)	0.0697	(0.720)	0.0593	(0.771)	0.0238	(0.903)
	INSDON	-0.0347	(0.477)	-0.0270	(0.586)	0.4375	(0.006)	0.4390	(0.005)	0.4516	(0.005)	0.4503	(0.005)
	INDDON	0.1260	(0.205)	0.1544	(0.122)	0.4442	(0.152)	0.4418	(0.141)	0.4397	(0.159)	0.4329	(0.152)
	INCOME	-0.0194	(0.187)	-0.0242	(0.098)	0.1631	(0.002)	0,1665	(0,001)	0,1661	(0,002)	0,1693	(0,001)
	AGE	-0.0284	(0.064)	-0.0285	(0.071)	-0.1062	(0.059)	-0,1316	(0,021)	-0,1058	(0,061)	-0,1296	(0,023)
	C	0.2215	(0.002)	0.1700	(0.010)	-0.0874	(0.690)	0,0209	(0,915)	-0,0915	(0,678)	0,0204	(0,918)
No. observations		124		124		124		124		124		124	
Prob > chi2		0,1046		0.2154		0.0014		0.0002		0.0012		0.0002	

The estimation coefficients of the variables are shown with the levels of significance in parentheses.

According to our results, neither size nor independence has a direct effect on the efficiency of the foundation. In fact, although the rest of our results do not change, the model's explanatory ability increases when we exclude both of these variables (see "Model estimation without size and independence" in Appendix B). These results verify Hypothesis 1. Certainly, the traditional disciplinary model of governance alone cannot effectively explain the foundations' efficiency.

Regarding the knowledge composition of the board, not all kinds of knowledge is favorable for value creation in a foundation. Only those trustees who are simultaneously managers of another nonprofit organization have a positive effect on the efficient allocation of the resources. However, this effect is only significant when we use the multidimensional measures (ECEP1 and ECEP2). Therefore, we cannot completely verify our second hypothesis. Not every kind of knowledge has a positive influence on the adequate assignment of the foundation's funds to its ultimate mission.

In fact, when we look at the rest of the types of knowledge, we can see that they have a negative effect not only on the administrative costs, but also on the multidimensional measure of the economic efficiency. Even though none of our variables has a significant influence on the efficiency, according to the results, the breadth of knowledge implicit in having on the board executives of for-profit corporations, directors of other nonprofits, and experts in law or auditing does not mean better monitoring or counseling for the executive team of the foundation.

As we note above, the cumulative knowledge in the board is not as influential as its heterogeneity. Looking at the results of the model estimation, we see that the diversity of knowledge in the members of the board of trustees is the only variable that has a positive effect on every measure of efficiency. When many different types of cognitive schemes join the same board, the impact they have on each other generates more creative decision-making processes. This result verifies our third hypothesis on the value generation derived from the cognitive conflicts. This result also makes it possible for us to support the increase in the explanatory ability of the agency theory when we include the cognitive arguments.

Contrary to this result, when trustees use their knowledge, their proactive character is not as conclusive. This variable seems to have a positive effect on the reduction of the administrative costs, but when we include the human dimension and the facilities in the economic efficiency, it loses its good effect. Therefore, our data do not verify our fourth hypothesis.

For our fifth hypothesis, which deals with the subject of donors, our results illustrate that not every kind of donor who makes major gifts to a foundation plays an effective monitoring role. However, institutional private donors seem to be especially favorable for nonprofits. Although they do not significantly lessen the administrative costs, when we use a multidimensional measurement, we find that institutional private donors seem to be the most qualified to design an efficient allocation of those resources that they have provided. Our research indicates that those foundations that are essentially financed by a company are usually identified with the for-profit corporation itself. The results in table 2 show us that the company carefully monitors how the foundation expends its funds.



The first control variable we introduce in our model show us that, according to previous studies, economies of scale have a good effect on the foundation's performance. The size of the entity, measured as the volume of resources that it handles, is positively related to the efficiency of the foundation. But when we examine the second control variable, the nonprofit's age, the effect turns out to be quite confusing. Although experience seems to reduce administrative expenses, when we include more dimensions in the construction of the efficiency measurement, it changes the sign and shows an adverse effect on the foundation's value creation. When entities age they lose creativity, and with that loss, their use of the resources becomes less efficient. In this respect, the introduction of dynamic trustees with heterogeneous types of knowledge might help to relieve the problem derived from the unavoidable life cycle of the foundation.

## **6. CONCLUSIONES**

Our results confirm that the extended model of governance, including both disciplinary and cognitive dimensions, is actually much more revealing than is the traditional view of the agency theory. Therefore, we conclude that those organizations that operate in an uncertain and dynamic world not only need a monitoring board that keeps the managerial team under control, but also need an active group of creative people who comprehend and foresee the world changes, or at least those changes concerning the organization to which they belong.

We observe that some of the so-called "best practices of governance" are not best practices for every organization. According to our results, there is no "one size that fits all," and that it is not always wise to add an independent trustee to the board. The directors' ability to create value for the organization depends not only on their objectivity, but also on their specific knowledge and proactive character. In particular, the efficient allocation of resources seems to be related to the existence of mental schemes that conflict inside the board or with the heterogeneity of directors' knowledge. This evidence confirms that nowadays, foundations, as independent thinking and pioneering spirits, must promote diversity and differentiation in thought if they wish to achieve their mission in the development of the modern societies. Thus, these organizations and their boards can benefit from a high breadth of expertise that will allow them to adapt to the environment and to take advantage of any investment opportunities that might arise.

Our data also prove that the vital finance provided by a private institution favors the foundation's efficiency. Despite the fact that nonprofits are the "voice of the society," and therefore they should handle resources that come from multiple sources, when foundations depend on a unique corporation they appear to be especially efficient. Thus, we observe the emergence of a "new model of charitable corporate donations" in which the benefactors are no longer passive agents of the organizations they finance, but instead are active stakeholders. When a foundation and its role in the society become the public image of a corporation, the corporate board and managerial team monitor

the allocation of the foundation's resources. Clearly, when there is a significant corporate donor, the foundation's efficiency benefits highly. The impact of foundations' activities in the world development depends on their adequate resource allocation, which in the end is influenced by the effectiveness of the governance system. The results we present in this paper can serve as a guideline for those foundations that want to accept the challenge of ensuring proper levels of governance; for those trans-European bodies, such as the EFC, that develop best-practice regulations; and for those donors who want to identify those nonprofits that will make the best use of their contributions.

## References

- Andrés, P., Martín, N., & Romero, M.E. (2006): "The Governance of Nonprofit Organizations. Empirical Evidence from Nongovernmental Development Organizations in Spain." *Nonprofit and Voluntary Sector Quarterly*, n. 35, vol. 4, pp. 588-604.
- Arrow, K. (1963): "Uncertainty and the welfare economics of medical care." *American Economic Review*, n. 53, pp. 941-973.
- Axelrod, N. R., Gale, R., & Nason, J. (1990): *Building an Effective Nonprofit Board*. San Francisco: Jossey-Bass.
- Bantel, K., & Jackson, S. (1989): "Top Management and Innovations in Banking: Does the Composition of the Top Team Make a Difference?" *Strategy Management Journal*, n. 10, pp. 107-124.
- Baysinger, B.D., & Hoskisson, R.E. (1990): "The composition of boards of directors and strategic control: Effects on corporate strategy." *Academy of Management Review*, n. 15, pp. 72-87.
- Ben-Ner, A., & Van Hoomissen, T. (1994): "The Governance of Nonprofit Organizations: Law and Public Policy." *Nonprofit Management & Leadership*, n. 4, vol. 4, pp. 393-414.
- Boeker, W., & Goodstein, J. (1991): "Organizational Performance and Adaptation: Effects Of Environment And Performance On Changes In Board Composition." *Academy of Management Journal*, n. 34, vol. 4, pp. 805-826.
- Bowen, W.G. (1994): *Inside the boardroom*. New York: John Wiley.
- Bradshaw, P., Murray, V., & Wolpin, J. (1992): "Do Nonprofit Boards Make a Difference? An Exploration of the Relationships Among Board Structure, Process, and Effectiveness." *Nonprofit and Voluntary Sector Quarterly*, n. 21, pp. 227-249.
- Brody, E. (1996): "Agents Without Principals: The Economic Convergence of The Nonprofit and Forprofit Organizational Forms." *New York Law School Law Review*, n. 40, pp. 457-528.
- Brown, W. A. (2005): "Exploring the Association Between Board and Organizational Performance in Nonprofit Organizations." *Nonprofit Management & Leadership*, n. 15, vol. 3, pp. 317-339.
- Callen, J.L., & Falk, H. (1993): "Agency and Efficiency in Nonprofit Organizations." *Accounting Review*, n. 68, pp. 48-65.
- Callen, J.L., Klein, A. & Tinkelman, D. (2003): "Board Composition, Committees, and Organizational Efficiency: The Case of Nonprofits." *Nonprofit and Voluntary Sector Quarterly*, n. 32, vol. 4, pp. 493-520.
- Castanias, R.P. & Helfat, C.E. (1991): "Managerial Resources and Rents," *Journal of Management*, n. 17, vol. 1, pp. 155-171.
- Chait, R. P., Holland, T. P., & Taylor, B. E. (1996): *Improving the Performance of Governing Boards*. Phoenix, Arizona: Oryx Press.

- Charreaux, G. (2004): "Corporate Governance Theories: From Micro Theories to National Systems Theories". Working Paper of FARGO n° 1041202.
- Charreaux, G. (2005): "Pour une gouvernance d'entreprise «comportementale»: une réflexion exploratoire... Toward a Behavioral Corporate Governance Theory: An Exploratory View". Working Paper. FARGO n° 1050601.
- Donaldson, L. (1990): "The Ethereal Hand: Organizational Economics and Management Theory." *Academy of Management Review*, n. 15, vol. 3, pp. 369-381
- European Commission (2005): "Giving More for Research in Europe: The role of foundations and the non-profit sector in boosting R&D investment." Report by an Expert Group of the European Foundation Centre.
- European Foundation Centre (EFC) (2005): "Dimensions of the Foundation Sector in the European Union." A survey of the EFC European Union Committee Research Task Force with the support of the King Baudouin Foundation.
- Evers, A., & Laville, J.-L. (2004) (ed.): *The Third Sector in Europe. Globalization and Welfare*. Cheltenham, UK: Edward Elgar.
- Färe, R., Grosskopf, S., & Lovell, C. A. K. (1985): *The Measurement of Efficiency of Production*. Boston: Kluwer-Nijhoff.
- Fleishman, J.L. (2007): *The foundation. A great American secret*. New York: PublicAffairs.
- Forbes, D.P., & Milliken, F.J. (1999): "Cognition and corporate governance: Understanding boards of directors as strategic decision-making groups." *Academy of Management Review*, n. 24, vol. 3, pp. 489-505.
- García, J.L., Jiménez, J.C., Sáez, J., & Viaña, E. (2004): *Las Cuentas de la Economía Social. El Tercer Sector en España*. Biblioteca Civitas Economía y Empresa. Colección Economía. Madrid: Civitas.
- Gauri, V., & Galef, J. (2005): "NGOs in Bangladesh: Activities, Resources, and Governance." *World Development*, n. 33, vol. 12, pp. 2045–2065.
- Glaeser, E.L. (2003): "Introduction." In E. L. Glaeser (ed.) *The Governance of Not-For-Profit Organizations* (pp. 1-44). Chicago: University of Chicago Press.
- Hambrick, D. C., & Mason, P. (1984): "Upper Echelons: The Organization as a Reflection of its Top Managers." *Academy of Management Review*, n. 9, pp. 193-206.
- Hansmann, H. B. (1980): "The role of nonprofit enterprise." *Yale Law Review*, n. 89, pp. 835-899.
- Hartarska, V. (2005): "Governance and Performance of Microfinance Institutions in Central and Eastern Europe and the Newly Independent Status." *World Development*, n. 33, vol. 10, pp. 1627-1643.
- Herzlinger, R.E., & Krasker, W. (1987): "Who profits from nonprofits." *Harvard Business Review*, n. 65, vol. 1, pp. 93-106.

- Hill, C. W., & Snell, S. A. (1988): "External control, corporate strategy, and firm performance in research-intensive industries." *Strategic Management Journal*, n. 9, pp. 577-590.
- Houle, C.O. (1989): *Governing Boards: Their Nature and Nurture*. San Francisco: Jossey-Bass Inc.
- Jensen, M. C., & Meckling, W. H. (1976): "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure." *Journal of Financial Economics*, n. 3, vol. 4, pp. 305-360.
- Judge, W. Q., & Dobbins, G. (1995): "Antecedents and effects of outside director's awareness of CEO decision style." *Journal of Management*, n. 21, vol. 1, pp. 43-64.
- Judge, W. Q., & Zeithaml, C. P. (1992): "Institutional and strategic choice perspectives on board involvement in the strategic decision process." *Academy of Management Journal*, n. 35, vol. 4, pp. 766-794.
- Marcuello, C., & Salas, V. (2001): "Non-for-Profit Organizations, Monopolistic Competition and Private Donations: Evidence from Spain." *Public Finance Review*, n. 29, vol. 3, pp. 183-207.
- Miller, J. L. (2002): "The Board as a Monitor of Organizational Activity. The Applicability of Agency Theory to Nonprofit Boards." *Nonprofit Management and Leadership*, n. 12, vol. 4, pp. 429-450.
- O'Regan, K., & Oster, S. (2002): "Does Government Funding Alter Nonprofit Governance? Evidence from New York City Nonprofit Contractors." *Journal of Policy Analysis and Management*, n. 21, vol. 3, pp. 359-379.
- O'Regan, K., & Oster, S. (2005): "Does the structure and composition of the board matter? The case of nonprofit organizations." *Journal of Law, Economics and Organization*, n. 21, pp. 205-227.
- Olson, D. E. (2000): "Agency Theory in the Not-for-Profit Sector: Its Role at Independent Colleges." *Nonprofit and Voluntary Sector Quarterly*, n. 29, vol. 2, pp. 280-296.
- Sansing, R., & Yetman, R. (2006): "Governing private foundations using the tax law." *Journal of Accounting and Economics*, n. 41, vol. 3, pp. 363-385.
- Sargeant, A., & Kaehler, J. (1998): "Benchmarking Charity Costs." *CAF Research Programme*. Research Report 5.
- Stone, L.M. (1975): "The Charitable Foundation: Its Governance." *Law and Contemporary Problems*, 39, vol. 4), 57-74.
- Tobin, J. (1958): "Estimation of relationships for limited dependent variables." *Econometrica*, n. 26, pp. 24-36.
- Vanderwarren, K. (2002): "Financial Accountability in Charitable Organisations: Mandating an Audit Committee Function." *Chicago-Kent Law Review*, n. 77, pp. 963-988.
- Yermack, D. (1996): "Higher market valuation of companies with a small board of directors." *Journal of Financial Economics*, n. 40, pp. 185-211.

**APPENDIX A. Correlation Matrix**

	ADEF	ECEF1	ECEF2	SIZE	OUTS	KNOW1	KNOW2	KNOW3	KNOW4	KNOW5	DIVER	PROAC	PUBDON	INSDON	INDDON	INCOME	AGE
<b>ADEF</b>	1.000																
<b>ECEF1</b>	-0.142	1.000															
<b>ECEF2</b>	-0.145	0.995	1.000														
<b>SIZE</b>	-0.024	0.103	0.104	1.000													
<b>OUTS</b>	0.001	0.094	0.104	0.157	1.000												
<b>KNOW1</b>	0.003	-0.028	-0.034	0.124	0.071	1.000											
<b>KNOW2</b>	-0.09	0.193	0.181	0.066	0.014	0.358	1.000										
<b>KNOW3</b>	0.073	0.084	0.097	-0.006	0.049	0.284	-0.016	1.000									
<b>KNOW4</b>	-0.004	-0.129	-0.145	-0.132	-0.054	0.114	-0.099	0.171	1.000								
<b>KNOW5</b>	0.076	0.102	0.107	0.023	0.032	0.031	0.086	0.178	0.183	1.000							
<b>DIVER</b>	-0.187	0.206	0.203	0.288	0.045	0.289	0.365	0.230	0.188	0.398	1.000						
<b>PROAC</b>	-0.154	0.022	0.021	-0.079	0.047	0.047	0.098	0.096	0.083	0.033	0.080	1.000					
<b>PUBDON</b>	-0.032	-0.016	-0.046	-0.031	-0.018	-0.015	0.124	-0.260	0.031	-0.087	0.027	-0.006	1.000				
<b>INSDON</b>	-0.015	0.185	0.193	-0.141	-0.019	-0.025	-0.089	0.175	-0.110	0.007	-0.058	-0.017	-0.293	1.000			
<b>INDDON</b>	0.207	0.007	0.010	-0.088	0.056	-0.147	-0.158	0.107	-0.124	0.025	-0.183	-0.017	-0.087	-0.146	1.000		
<b>INCOME</b>	-0.178	0.280	0.284	0.074	0.131	-0.006	0.129	0.014	-0.057	0.008	0.233	0.079	0.082	-0.158	-0.074	1.000	
<b>AGE</b>	-0.139	-0.193	-0.189	0.017	0.038	0.013	0.158	-0.203	0.112	-0.126	-0.059	-0.091	-0.103	-0.158	-0.095	-0.005	1.000

Dependent variables

Hypothesis 1

Hypothesis 2

Hypothesis 3

Hypothesis 4

Hypothesis 5

**APPENDIX B. Model estimation without size and independence**

Dependent variable:	<b>EFAD</b>				<b>ECEF1</b>				<b>ECEF2</b>			
Method of estimation:	Model 1 with		Model 2 with		Model 1 with		Model 2 with		Model 1 with		Model 2 with	
Tobit analysis	KNOW1, KNOW3, & DIVER	KNOW3, & DIVER	KNOW2, KNOW4, & KNOW5	KNOW4, & KNOW5	KNOW1, KNOW3, & DIVER	KNOW3, & DIVER	KNOW2, KNOW4, & KNOW5	KNOW4, & KNOW5	KNOW1, KNOW3, & DIVER	KNOW3, & DIVER	KNOW2, KNOW4, & KNOW5	KNOW4, & KNOW5
KNOW1	0.0379	(0.492)	-----	-----	-0.0413	(0.817)	-----	-----	-0.0565	(0.754)	-----	-----
KNOW2	-----	-----	0.0028	(0.965)	-----	-----	0.5643	(0.007)	-----	-----	0.5410	(0.010)
<b>H2</b> KNOW3	0.0410	(0.419)	-----	-----	-0.0600	(0.713)	-----	-----	-0.0572	(0.728)	-----	-----
KNOW4	-----	-----	0.0319	(0.742)	-----	-----	-0.1786	(0.590)	-----	-----	-0.2295	(0.494)
KNOW5	-----	-----	0.0924	(0.576)	-----	-----	0.3873	(0.443)	-----	-----	0.4121	(0.419)
<b>H3</b> DIVER	-0.0951	(0.078)	-----	-----	0.3713	(0.033)	-----	-----	0.3649	(0.038)	-----	-----
<b>H4</b> PROAC	-0.0765	(0.067)	-0.0784	(0.067)	-0.0597	(0.657)	-0.0899	(0.503)	-0.0649	(0.632)	-0.0912	(0.501)
PUBDON	-0.0100	(0.872)	-0.0172	(0.780)	0.0768	(0.702)	0.0348	(0.857)	0.0284	(0.888)	-0.0099	(0.960)
<b>H5</b> INSDON	-0.0333	(0.490)	-0.0217	(0.656)	0.4058	(0.010)	0.3884	(0.011)	0.4211	(0.008)	0.4018	(0.010)
INDDON	0.1293	(0.191)	0.1643	(0.096)	0.4227	(0.172)	0.3741	(0.208)	0.4216	(0.176)	0.3688	(0.218)
INCOME	-0.0188	(0.198)	-0.0237	(0.102)	0.1639	(0.002)	0.1698	(0.001)	0.1677	(0.001)	0.1730	(0.001)
AGE	-0.0280	(0.067)	-0.0276	(0.078)	-0.1091	(0.053)	-0.1364	(0.017)	-0.1082	(0.056)	-0.1336	(0.020)
C	0.2392	(0.000)	0.1895	(0.000)	-0.0924	(0.533)	0.0605	(0.573)	-0.0800	(0.592)	0.0732	(0.498)
No. observations	124		124		124		124		124		124	
Prob > chi2	0.0487		0.1250		0.0007		0.0001		0.0007		0.0001	

The estimation coefficients of the variables are shown with the levels of significance in parentheses.

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