Regulating European grant-making foundations. Lessons from the USA experience?

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Regulating European Grant-Making Foundations. Lessons from the USA Experience?♣

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Abstract

Grant–making foundations are private institutions that distribute their income to deserving organisations. In the USA, they enjoy fiscal incentives, but have to comply with complex rules securing that incentives are well deserved. In contrast, European countries have an embryonic legislation. This paper investigates whether the different tax rules adopted in the USA for independent and community foundations influence the grant-making behaviour of these organisations. Our econometric investigation underlines the existence of a large heterogeneity in the activities of both types, suggesting that the introduction of new regulations could benefit from a careful analysis of the nature and the features of these organisations.

Keywords: community foundations, independent foundations, tax rules, minimum payout requirement, public support test, grant-making behaviour

JEL Codes: H39, L31, K29

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1. Introduction

Grant-making foundations and trusts (GMFs) are nongovernmental, nonprofit organisations whose assets (the endowment, generally donated by one or more donors) are managed by a board of trustees to generate the financial resources that are distributed in grants to pursue the specific goals stated by the foundations' donors and codified in their charters[1] (Andrews 1956). GMFs distribute their grants in several fields, from culture to research, from education to health. These grants support deserving charitable organisations and fund innovative policies. The grant-making activity is very relevant nowadays that the economic crisis has reduced the spending capacities of the public sector, and the governments are looking for new ways of funding services to the population at large.

While GMFs exist on both sides of the Atlantic, large differences occur in their diffusion. They are very common in the USA and their activity is so typical of the North American culture that they have been considered 'a unique American answer to the problem of excess wealth in a society with limited income redistribution' (Anheier and Toepler 1999) and a strong aversion to public welfare policies (McDonald and Miller, 2010). According to the latest available statistics of the Internal Revenue Service[2] (IRS), the assets of American GMFs exceeded $ 613 billion in 2010, out of the about $ 2.9 trillion net assets held by the entire nonprofit sector[3]. In the same year, they disbursed more than $ 44 billion in charitable grants, funding many cultural, research and welfare activities and organisations. No comparable figures are available in Europe, where data are collected by a few states only[4]. However, research conducted for the European

[1] Examples of these organisations include the Wellcome Trust in the UK, the Volkswagen Stiftung in Germany, the Van Leer Stichting in the Netherlands, the Carlsbergfondet in Denmark, the Fondazione Cariplo in Italy, and the Bill & Melinda Gates, Rockefeller, Ford and Mott foundations in the USA.
[2] All data are available from the IRS website: http://www.irs.gov/uac/Tax-Stats-2
[3] We refer to the so called 'tax-exempt 501(c)3 organisations'.
[4] For example, in 2009, Istat (the Italian statistical office) published a comprehensive survey of Italian foundations (Istat 2009).

Commission (CSI & Max Planck 2008) shows that GMFs are increasing their role in Europe too, and new institutions of this kind are coming into life every year.

Unsurprisingly, historical differences in the diffusion of GMFs have influenced their regulation. In most legal systems GMFs benefit of fiscal incentives or exemptions because of their activities in favour of society. At the same time, they are the target of specific regulations trying to guarantee that those incentives are well deserved. However, the development of legal and tax rules varies widely. In the USA, a sophisticated system of federal rules - developed in the late 1960s - applies to GMFs all over the country. On the contrary, many European countries are characterised by a much more incomplete regulatory framework, although in recent years a wide debate on the nature of foundations, as well as on their legal and tax treatment, has developed[5]. For example, in the UK, in 2010, the government launched a public consultation on the possible introduction of a minimum compulsory level of grants for foundations[6], a rule similar to the Minimum Payout Requirement included in the American legislation since 1969. In Italy, in 2011, the government drafted a bill (not enacted by the Parliament) introducing different legal rules for foundations pursuing the well-being of the whole society, as opposed to those benefiting a limited number of individuals. Moreover, at the EU level, in February 2012, the Commission presented a proposal for a *European Foundation Statute*, 'a new European legal form intended to facilitate foundations' establishment and operation in the single market' and to 'allow foundations to more efficiently channel private funds to public benefit purposes on a cross-border basis in the EU.' (European Commission 2012, p. 3).

[5] On the possible disadvantages of harmonized taxation and fiscal legislation in the EU, and what could be learned from the experience of the USA see, for example, Salvatore (2002).

[6] In particular, in the Green Paper on giving (H.M. Government 2010) one can read that 'some suggest that foundations should make a minimum payout annually, as is the case in some other countries, as this could result in extra income for charities. Others suggest that a requirement would not help charities in the long term, and could generate unintended consequences. We would like to explore this issue further and welcome views on foundation giving.' (H.M. Government 2010, p. 18). Most consultation responses were against the minimum requirement, so that the government decided not to introduce this new piece of legislation (H.M. Government 2011, p. 59).

Overall, however, not much attention has been paid by European legislators on the possible effects of legal and tax rules on the grant-making activities of different types of foundations, mainly because GMFs are a relatively recent phenomenon in many European countries and evidence is lacking. The goal of this paper is to contribute filling the gap in policy analysis by looking at the regulation of foundations in the USA, in the attempt to learn general lessons that can contribute to the regulatory debate about foundations that is taking place in Europe. In particular, we concentrate on the effects on grant-making of the different tax rules that in the USA apply to 'independent' and 'community' foundations. Independent foundations (whose endowment is donated by a very small group of donors, often one person) have to comply with the Minimum Payout Requirement (MPR), while community foundations (whose endowment results from a very large number of donations) are subjected to the Public Support Test (PST). Using tax return data provided by the Internal Revenue Service for the period 2000 to 2006, we estimate how grants paid change with size and income sources, and test whether the MPR and the PST rules have a differential impact on the behaviour of independent and community foundations.

Our results support the idea that a 'one size fits all' rule is undeserved. The grant-making activity of the *larger* independent and community foundations is consistent with the expected effects of the MPR and the PST rules that the two kinds of organisations have to comply with. The same does not hold true for the *smaller* organisations, whose behaviour does not respond to, and is often inconsistent with, the incentives generated by the USA regulatory approach. This indicates that size is an important factor influencing the grant-making of foundations, and should therefore be considered by policy makers. Further research is needed to identify the factors (besides size, or proxied by size) that influence the grant-making behaviour of foundations and to

understand if (and how) they could be exploited in devising more sophisticated regulatory approaches.

The remaining part of the paper is structured as follows. Section 2 describes the most relevant characteristics of GMFs. Section 3 depicts the fiscal provisions dealing with community and independent foundations in the USA. Section 4 illustrates our data while Section 5 describes the determinants of the pay-out policies for the foundations included in our sample and depicts the differences in the grant-making behaviour of independent and community foundations. Section 6 discusses the policy implication of our work and concludes the paper.

2. The characteristics of GMFs

While sharing the same institutional characteristics, generally speaking, GMFs can be divided into two large groups that, using a terminology developed in the USA, we may name as independent and community foundations. Independent foundations are institutions whose assets are provided by a very small group of people (sometimes just one single person), usually members of the same family, or by a corporation. On the contrary, the assets of community foundations result from the donations of wide groups of donors, both individuals and institutions, belonging to the same community.

Independent GMFs are very common in the USA, totalling more than 78,000 in 2010. Some of them are extremely large, such as the Bill and Melinda Gates Foundation, the best endowed GMF in the world, with more than $ 31 billion in assets and about $ 2.6 billion giving in year 2012[7]. Besides very large GMFs, a huge number of much smaller institutions is also active in the USA.

[7] More ancient examples of this group of foundations in the USA are the Ford Foundation (the second largest in the USA by assets size), the Robert Wood Johnson Foundation and the W. K. Kellogg Foundation, each of them with assets over $ 5 billion and more than $ 300 million in grants paid in 2012.

European independent GMFs are probably not as famous, but some of them are comparable (for size and relevance of activities) to their largest American counterparts, such as the Wellcome Trust in the UK (the largest European GMF, with more than £ 14 billion in assets and about £ 640 million in grants in 2012)[8].

Community foundations are far less numerous than the independent ones, both in Europe and in the USA. Nonetheless, their number is rapidly increasing in both areas. In fact, about 700 such institutions existed in the USA in year 2000, while they became 880 in 2010. The increase in Europe is even more striking: from 103 institutions in year 2000 to 631 in 2010 (WINGS 2010), although their total assets are much smaller than those of their USA counterparts[9].

3. Fiscal regulation of GMFs in the USA

Given their not-for-profit nature and their attitude to undertake activities that can benefit society as a whole, GMFs – all over the world - benefit from several fiscal incentives[10]. Foundations are generally exempt from income and real estate taxation, and donors are often allowed to deduct from income (part of) their donations to these organisations[11]. These tax advantages can – directly and indirectly - benefit foundations and increase both their endowments and the donations they can raise. However, they

[8] Other European independent GMFs are smaller in size, but not so different from many American GMFs, such as the Fundación ONCE in Spain, the Hertie and the Thyssen Stiftung in Germany, the Fundação Gulbenkian in Portugal, or the Fondazione Vismara in Italy. Unfortunately, no aggregate figures are available for these entities at the European level.

[9] In the USA, community foundations include some very large institutions such as the Tulsa Community Foundation (the largest one, with more than $ 4 billion in assets), the Silicon Valley Community Foundation, the New York Community Trust, and the Chicago Community Trust, all of them with assets over $ 1.5 billion and grants exceeding $ 100 million in 2011 (Foundation Center 2012). European community foundations, probably because of their recent origin, are not as large, and their total assets, at the continental level, are smaller than those of their counterparts in the state of Michigan only (WINGS 2010).

[10] For a detailed description of tax incentives see Bater and Habighorst (2001) for Europe, and Hopkins (2007), for the USA.

[11] The economic literature has intensively investigated the determinants of individual donations (to foundations as well as to other charitable organisations) and the possible crowding out of private donations by government grants (see, for example Andreoni 2008, Andreoni and Payne 2003 and 2011). We do not focus on this strand of analysis, as we are interested in grants paid (and not received) by GMFs.

imply relevant costs for the public purse, so that governments need to be sure that these provisions are well deserved, and balanced by a relevant amount of activity undertaken by the foundations in favour of the entire society. The measurement of these activities is complex so that, unsurprisingly, a frequently used proxy is simply the amount of grants paid by GMFs to deserving grantees.

The USA is an interesting case study of how tax rules can be designed to balance fiscal advantages with the amount of grants made by foundations. In this country, GMFs have to comply with tax rules that – broadly speaking – divide them into two separate categories: 'private foundations' and 'public charities'[12]. A GMF – after receiving its 501(c)3 nonprofit status - is generally qualified by the tax law as a private foundation and it is therefore subjected to the Minimum Payout Requirement (MPR). This rule states that private foundations have to make annual eligible charitable expenditures that are at least equal to 5 per cent of the average monthly value of their endowment (i.e., the net investment assets calculated the previous year). If this rule is not met, the foundation should pay a penalty excise tax, the value of which is approximately equal to 30 per cent of the shortfall.

GMFs can then qualify as public charities if they pass the Public Support Test (PST), which occurs if the organisation 'normally' receives at least one-third of its aggregate income from individual contributions, each of which not exceeding 2 per cent of the charity's total income.

Among the American grant-making institutions, the independent foundations created by individuals or families generally do not receive enough donations to pass the PST. Most of them are endowed by their founders in just one or a few episodes and they do not receive other donations during their existence, neither they engage in fund-raising

[12] This distinction was introduced in the tax legislation of 1969 as 'a proxy for the amount of control the donor retained over her gift after dedicating it to philanthropy and taking the corresponding tax deduction' (Marsh 2002, p. 139). Accordingly, public charities are institutions over which donors retain a lower degree of control with respect to private foundations.

activities. For this reason, they have been named 'cold' institutions (Sansing and Yetman 2006) and they generally fall into the legal group of private foundations.

On the contrary, community foundations (usually funded by many individuals every year) generally pass the PST and therefore qualify as public charities. As such, they benefit from a more generous fiscal treatment than independent (private) foundations. In fact, although both types of organisations are exempt from income and real-estate taxes, the legal status of private foundation carries some disadvantages, such as a 2 per cent excise tax on the investment income gained by the foundation[13], as well as penalty excise taxes on 'certain taxable expenditures', on 'self-dealing', on 'excess business holdings', and on 'jeopardizing investments'[14]. Moreover, also the indirect benefit of deductibility of individual contributions is subjected to different rules: tax deductions for donations to private foundations are generally limited to 30 per cent of the donor's income, while those to public charities enjoy a more favourable 50 per cent rate.

The classification of a GMF into the group of private foundations (subjected to the MPR) or that of public charities (complying with the PST) is not permanent and, in principle, a member of the first group could decide to become part of the second, or the other way around. In practice, this never happens. Therefore, organisations that institutionally perform the same task (making grants) comply with two different sets of fiscal rules: independent foundations have to comply with the MPR, while community foundations have to observe the PST. Both rules intend to balance the tax benefits of foundations with a relevant amount of grants. The MPR regulates *directly* the grant-making activity of independent foundations (stating a minimum legal level); the PST, on the contrary, represents an *indirect* constraint, but its purpose is not different. In fact,

[13] Foundations whose 'qualifying distributions exceed their historical average in any given year receive a favourable one per cent rate' (Marsh 2002, p. 156).

[14] For a detailed description of these rules see: IRC 4945(d)(1), IRC 4945(d)(2), IRC 4945(d)(3), IRC 4945(d)(4), and IRC 170(c)(2)(B) ('Taxable expenditures'); IRC 4941 ('Self-dealing');IRC 4943 ('excess business holdings'); IRC 4944 ('Jeopardizing investments').

the rationale behind the PST is that, in order to collect donations from a large set of individual donors on a regular basis, a community foundation should build its reputation through an effective and abundant grant-making activity.

Since its introduction, the MPR has been widely debated by legal scholars and practitioners (e.g., Troyer 2000; Marsh 2002, and Billitteri 2005 for discussions and reviews). Some interpret the rule as a useful device to discipline the activities of the foundations and avoid the risk of private appropriation of public benefits. Conversely, others consider the MPR an excessive public intrusion in the life of fully private institutions, and a rule that could jeopardise their existence. Several studies analyse the impact of this rule on the behaviour of private foundations and support one of the two different views (see, for example, Steuerle 1977; Steuerle and Sullivan 1995; DeMarche Associates 1999; Kogelman and Dobler 1999; Mehrling 1999; Cambridge Associates 2000; Toepler 2004; Deep and Frumkin 2006; Sansing and Yetman 2006).

On the contrary, the impact of the PST (and the connected exemption from the MPR) is much less investigated and, to our knowledge, there are no comparative analysis of the effects of these two different rules on the grant-making behaviour of both independent and community foundations. This is the aim of the following sections of the paper.

4. Sample description and stylized facts

Our econometric exercises are based on a pooled cross-section of GMFs, including both independent and community foundations active in the USA between 2000 and 2006. Our dataset is built upon information released by the Statistics of Income (SOI) division of the Internal Revenue Service (IRS) and combined with data published by the Council on Foundations. The sampling procedures adopted by the IRS are different between the two groups of grant-making institutions.

As for independent foundations, the SOI provides a sample of forms 990-PF that private foundations must file with the IRS every year[15]. Forms 990-PF are filed by several types of private foundations, but we concentrate on independent GMFs only[16]. As for community foundations, the analysis is based on the SOI sample of forms 990 that 501(c)3 tax-exempt organisations must file with the IRS each year. These forms are filed annually by 200,000 to 300,000 organisations that qualify as public charities, most of which are operating organisations that don't make any grants. We rule out all operating institutions and examine community foundations only[17].

Our final sample includes - over the entire time period - 44,046 observations. The sample mirrors quite well the actual distribution of the number of independent and community foundations in the USA nonprofit sector. In fact, for both independent and community foundations, our sample covers about 10 per cent of the overall population[18].

The two types of organisations included in our sample are quite different in size, with community foundations that are on average larger than independent foundations (see Table 1). In particular, the average endowment of community foundations is more

[15] See the website: http://www.irs.gov/taxstats/charitablestats/article/0,,id=212357,00.html. Note that 'the SOI sample of private foundations is stratified based on both the size of fair market value of total assets and the type of organization '…'. The private foundation sample is designed to provide reliable estimates of total assets and total revenue. To accomplish this, 100 per cent of returns filed for foundations with fair market asset value of $10 million or more are included in the samples '…'. The remaining foundation population is randomly selected for the sample at various rates, ranging from 1 per cent to 100 per cent, depending on asset size'.

[16] In order to get information referring to independent tax-exempt GMFs only, we excluded from the SOI sample: a) all 'operating' foundations (identified through codes Q030 and Q100 of the SOI files, referring respectively to part VII-A, question 9 and to part XIV of the 990-PF form); b) foundations that did not distribute any grants; c) all foundations that were not 501(c)3 tax-exempt charitable organisations (identified through code E050 of the SOI files, referring to question H of the 990-PF form); d) foundations using a 'cash' and not an 'accrual' accounting method (identified through code E090 of the SOI files, referring to question J of the 990-PF form).

[17] We identify as such the organisations that ticked Form 990, Schedule A, part IV, question 11b (as reported in code S100(11b) of the SOI files) and are also included in the list of community foundations published by the Council of Foundations. This list can be found at the website: www.cof.org.

[18] Conversely, in terms of endowment and grants, the percentage of the population represented by the sample of independent foundations is about three times larger than that of community ones. This characteristic of our sample follows directly from the sampling procedure of the SOI data. In particular, the SOI data include all the public charities with endowments above $ 50 million, but only a fraction of the smaller organisations. As the largest community foundations are, on average, smaller than the largest public charities, community foundations are under-represented in the SOI sample of 990 forms. Nonetheless, this is unlikely to affect the results of our analysis given that the sample of community foundations is quite large.

than 2.5 times larger than that of independent foundations, while the median is about four times larger[19]. Disparities between the two groups emerge also when considering grants paid and sources of income, with average grants being three times larger, and donations six times larger, for community than for independent foundations[20]. Interestingly, note that the median of received donations is zero for independent foundations.

<Table 1 about here>

Considering the payout activity more closely, community foundations pay out larger amounts of grants (as a share of total assets) than independent foundations; in fact, the median of the grants-to-assets ratio is higher in each year considered in our sample. This median behaviour hides a large variability, which appears to be much bigger for community than for independent foundation[21]. While the (median) behaviour of independent foundations remains close to the 5 per cent threshold in all years, that of community foundations appears to be more volatile over time. When analysing the grants-to-assets ratio for quintiles of the distribution of foundations by asset size we note, quite interestingly, that the variability in the grant making behaviour sharply decreases for the largest independent foundations. On the contrary, for community foundations, a large variability is observed in all quintiles, with the largest variance at the two ends of the distribution.

Looking at the income of the two types of foundations, two sources of revenues need to be explored: the returns from the financial management of the endowment, and the

[19] Note that, in the absence of the sample bias discussed in footnote 19, the observed differences would have been even larger.

[20] Following Mehrling (1999), we do not include administrative expenses in the calculation of grants paid by foundations. This is consistent both with the idea of comparing the grant-making behavior of the two classes of foundations (as comparable data on administrative expenses for community foundations are not available), and with the idea that society does not care how much foundations are spending on their rent, or how much they are giving to their top executives. What is in the social interest is actual charitable giving.

[21] Statistics discussed below are not reported here for brevity, but are available upon requests from the authors.

donations collected from individuals and private firms. The returns from financial management (defined as the income-to-assets ratio) appear to have a median value that is slightly larger for independent than for community foundations, a result suggesting that the former are better at managing their resources. However, the risk profile of independent foundations' investments is likely to be higher than that of community foundations, as they are characterised by a larger variability of returns. In particular, the returns of community foundations are much more clustered around the median than those of independent foundations. When looking at the evolution of returns over time, we observe a similar pattern for the two types of foundations that closely mirrors the evolution of the stock market indices: from the peak of the dot-com bubble in 2000, passing through its burst in 2002, and ending with the market recovery in the second half of our sample period.

When analysing the income-to-assets ratio for quintiles of the distribution of foundations by assets size, we note that the variability of returns is almost always larger for independent than for community foundations. Furthermore, the variability of returns is clearly increasing with the size of assets for independent foundations, while community foundations behave very differently. Indeed, the highest (smallest) variability of returns is observed for the smallest (largest) foundations.

Finally, focusing on the donations-to-assets ratio for the two types of foundations, we find (unsurprisingly) that community foundations rely more heavily on this source of income than independent foundations. The median of the donations received by independent foundations is zero for all the years considered in the sample, while it is about 10 per cent for community foundations. Furthermore, the variability of donations received by independent foundations appears to be significantly lower than that observed for community foundations. The same findings are confirmed when looking at the cross-sectional variability of the donations-to-assets ratio. In particular, the

variability of the ratio for independent foundations is very limited and decreasing across quintiles (being essentially nil for the largest foundations). A similar pattern is observed for community foundations where, however, the variability of the donations-to-assets ratio remains significantly larger than for independent foundations.

Overall, the descriptive evidence suggests that independent foundations, especially the largest ones, are better than community foundations in managing their assets; moreover, they tend to apply a 'fixed rule' in their grant-making activity, strictly complying with legal requirements. These stylized facts are consistent with the findings of both Deep and Frumkin (2006) and Sansing and Yetman (2006)[22] and with the incentives given by the MPR. Conversely, community foundations appear to be more successful in collecting donations, a behaviour consistent with their need to comply with the PST. The collection of donations is likely to be the reason why community foundations pay more grants than independent foundations, a fact that - to the best of our knowledge - has not been pointed out in the literature. However, despite a distinct 'specialization' of the two groups of foundations, there remains a wide *within-group* heterogeneity that we will take into account in the following empirical analysis.

5. Empirical analysis

Our empirical analysis focuses on grants paid by independent and community foundations. The main goal of our econometric specifications is to test whether different tax rules generate different incentives for the grant-making behaviour of foundations.

[22] Deep and Frumkin (2006) analyze a panel of 290 private foundations for the period 1972 to 1996 finding that most foundations simply pay out the mandated minimum amount each year, regardless, of other relevant considerations. Furthermore, they argue that the minimum rate has gone from being a floor when it was enacted decades ago to a ceiling today. Sansing and Yetman (2006), using a larger sample of about 3,800 foundations between 1994 and 2000, show that 'the minimum distribution requirement is a binding constraint for foundations that are 'passive' in terms of management expenditures and 'cold' (as opposed to 'hot') in the sense of having no source of new donations and a relatively low rate of asset growth' (Sansing and Yetman 2006, p. 365).

Two hypotheses seem natural, based on the MPR constraint and on the incentives created by the PST.

The MPR can be expected to establish a direct correlation between grant-making activities and the size of a foundation's endowment, since pay-out requirements are measured precisely against it. In particular, the correlation between grant-making and endowment is expected to be stronger for independent than for community foundations, as the former are subjected to the MPR while the latter are not (unless they lose their status as 'public charities'). One could also conjecture that the MPR rule gives independent foundations strong incentives not to increase grants above the minimum level stated by the law, and at the same time, to manage effectively their assets, so as to avoid depleting their endowments after paying out the minimum amount of grants. In fact, any ineffective management of its financial assets may affect the integrity of a foundation's endowment. Although our data do not allow us to test how effective foundations are in managing their financial assets, the descriptive evidence provided in section IV is consistent with the idea that independent foundations stick to the 5 per cent rule imposed by the MPR.

As for the PST, one may expect that it determines a positive correlation between grant-making activities and donations received. This follows from the observation that, in order to attract the volume of donations needed to pass the test, a foundation must find ways to signal its quality. The extent and effectiveness of its grant-making activities are natural ways to provide such a signal. Therefore, also consistently with the descriptive evidence presented in section IV, one may expect to find a stronger positive correlation between grants paid and donations received for community foundations than for independent foundations. In fact, only the former comply with the PST.

5.1. The empirical strategy

We use Ordinary Least Squares to estimate the following model[23]:

$$GRANTS_{it} = B_0 + B_1 ENDOWMENT_{it} + B_2 DPF_i + \sum_j B_{3j} X_{jit} + \sum_j B_{4j} Z_{jit} + \sum_t B_{5t} T_t + \varepsilon_{it}\,, \qquad (1)$$

where the dependent variable $GRANTS_{it}$ is the amount of grants paid by the i-th foundation in year t, $ENDOWMENT_{it}$ is the size of the i-th foundation measured by its total assets in year t, DPF_i is a dummy variable taking value 1 if the i-th foundation is an independent foundation and value 0 in the case of a community foundation, X_{jit} is a set of covariates capturing the sources of revenues of the i-th foundation in year t, Z_{jit} is a set of dummy variables allowing us to explicitly control whether the i-th foundation in year t does not receive donations or it misses one or more of the j-th sources of income described by variable X_j. Finally, T_t is a set of dummy variables for years 2001 to 2006 (with year 2000 as a benchmark) controlling for time fixed effects that takes value 1 in year t and value 0 in any other year.

The set of covariates X_{jit} includes the level of donations raised by the i-th foundation (*DONATIONS*), as well as all other sources of income that a foundation may obtain from its endowment. These other sources of income take account of the total amount of interests and dividends stemming from the management of the foundation's assets (*INTERESTS*), the total amount of rents gained (*RENTS*), the amount of capital gains (*CAPGAIN*) and capital losses (*CAPLOSS*), and any other positive (*OTHER*) or negative sources of income (*MINUSOTHER*). Descriptive statistics for all the variables are in Appendix Table 1.

In order to provide a better characterization of the different behaviour of independent and community foundations, we augment the empirical model in Equation (1) by interacting the variables *ENDOWMENT* and X_j with the *DPF* dummy. This augmented model is described by the following Equation (2):

$$GRANTS_{it} = B_0 + B_1 ENDOWMENT_{it} + B_2 ENDOWMENT_{it} \times DPF_i + B_3 DPF_i + \sum_j B_{4j} X_{jit} + \qquad (2)$$

[23] In all models, continuous variables are in log.

$$+ \sum_j \beta_{5j} X_{jit} \times DPF_i + \sum_j \beta_{6j} Z_{jit} + \sum_t \beta_{7t} T_t + \varepsilon_{it} .$$

Given the use of a number of group dummy variables, we do not rely on a fixed-effects panel specification because of the large correlation between the individual fixed effects and the group variables, which would result in inefficient estimators. In order to control for unobserved heterogeneity among foundations, Equations (1) and (2) are estimated using a pooled regression model with cluster-corrected standard errors.

However, Equations (1) and (2) do not allow us to fully disentangle the impact of the different variables on the grant-making behaviour of the two types of foundations we are dealing with. According to the descriptive evidence discussed in section IV, one may in fact conjecture that the size of a foundation influences its granting behaviour in ways that cannot be directly captured by a unique size coefficient only. Therefore, we enrich our econometric specification splitting both independent and community foundations into three groups – 'small', 'medium' and 'large' foundations - based on the size of their endowment. In particular, we consider as 'small' those foundations with total assets lower than the 25th percentile of the asset distribution, and as 'large' those with assets higher than the 75th percentile of the asset distribution[24]. In order to identify specific effects for the different types of foundations, we define with *DSIZE* the set of dummy variables for each group[25], and interact them with the variables *ENDOWMENT* and X_j. This enriched model is described by the following Equation (3), where k indicates the group to which each foundation belongs:

$$GRANTS_{it} = \beta_0 + \beta_1 ENDOWMENT_{it} + \sum_k \beta_{2k} ENDOWMENT_{kit} \times DSIZE_{ki} + \sum_j \beta_{3j} X_{jit} + \quad (3)$$

$$+ \sum_j \sum_k \beta_{4jk} X_{jkit} \times DSIZE_{ki} + \sum_j \beta_{5j} Z_{jit} + \sum_k \beta_{6k} DSIZE_{ki} + \sum_t \beta_{7t} T_t + \varepsilon_{it} .$$

[24] The 25th and 75th percentile thresholds are of $ 19,793,978 and $ 122,467,728 for community foundations and of $ 6,184,155 and $ 32,208,116 for independent foundations.

[25] We define *DCF-SMALL*, *DCF-MEDIUM*, *DCF-LARGE* as, respectively, the small, medium, and large community foundations, and *DPF-SMALL*, *DPF-MEDIUM* the small and medium independent foundations, with large independent foundations being used as the benchmark group.

Given the arbitrariness in the definition of the three foundation sizes, as a further robustness check of our results, we also explore the effects of different thresholds in the definition of small, medium and large foundations in the estimate of Equation (3)[26]. Although we do not report them in the paper, in all our econometric specification we control for time-effects by means of year dummies, finding that they capture quite closely the impact of the stock market cycle, which is not controlled for by the other variables.

5.2. Results

Our econometric exercises deliver several results on the major determinants of the grant-making behaviour of foundations, which are consistent with common wisdom. First, we find that *size matters*, as the amount of grants paid-out by foundations is strongly positively correlated to the magnitude of their endowments. In our baseline model (Table 2, Model 1), including the *DPF* dummy for the type of foundations (independent and community) but not controlling for their different class sizes, a one per cent increase in the size of the endowment is associated with a 0.67 per cent increase in grants paid by the foundation. This correlation is statistically significant at the one per cent level. A similar effect is found also in Model (2) (Table 2), where we allow for the interaction effects between the main covariates and the *DPF* dummy, finding that the elasticity of grants to the endowment is 0.52, again statistically significant at the one per cent level.

<Table 2 about here>

[26] More precisely, we use the 20th and the 30th percentiles, together with the 80th and 70th percentiles, as alternative thresholds for small and large foundations, respectively. The 20th and 80th percentile thresholds are of $ 12,800,000 and $ 161,000,000 for community foundations and of $ 3,900,000 and $ 40,100,000 for independent foundations. Correspondingly, the 30th and 70th percentile thresholds are of $ 24,700,000 and $ 101,000,000 for community foundations and of $ 10,200,000 and $ 26,600,000 for independent foundations.

Second, we show the existence of a *positive correlation between grants and donations received* that, although quantitatively small, is strongly statistically significant at the one per cent level, with a coefficient of 0.04 in the baseline model (Table 2, Model 1). The elasticity of grants to donations increases to 0.07 when interacting the covariates with the type of foundations, a result statistically significant at the ten per cent level (Table 2, Model 2).

Third, turning to other income sources different from donations, we find evidence of a *positive relationship between income and grants*. In both Models (1) and (2) (Table 2) interests and dividends (*INTERESTS*) and capital gains (*CAPGAIN*) - that are among the most important sources of revenues for foundations besides donations - show a strong correlation with grants. More precisely, the elasticities of grants to interests are 0.15 in the baseline model and 0.25 in the interacted model, while those of capital gains are 0.08 and 0.11, respectively. All coefficients are statistically significant at the one per cent level.

The above results are consistent with the standard view of the determinants of the grant-making behaviour of foundations. However, when focusing on the main goal of our empirical analysis, we fail to find evidence of a different behaviour of independent and community foundations. In fact, in both Models (1) and (2), the *DPF* dummy variable has no statistically significant impact, neither on the intercept nor on the slope coefficients. This is at odds with our expectations on the effects of the different tax-rules that the two types of foundations have to comply with. We will extensively discuss this finding below, in subsection 3.

To better understand the key determinants of the grant-making behaviour of the two types of foundations, the models in Table 3 provide a more refined analysis splitting the sample in different class sizes based on the thresholds discussed above.

<Table 3 about here>

Focusing on the correlation between grants and endowments, the effect of size seems to be larger for independent than for community foundations, a result that is particularly strong for large foundations. More precisely, while a one per cent increase in endowment is associated with a 0.74 per cent increase in grants for large independent foundations, this coefficient diminishes by 0.45 per cent for large community foundations. Analogous results are obtained when adopting different thresholds for class sizes, as shown in the second and third column of Table 3. Interestingly, we also find that small independent foundations behave much more as community than as the other independent foundations (with an elasticity coefficient of 0.51 against that of 0.74 of large independent foundations), a point we will return to below.

Looking at the relationship between grants and donations, our estimates reveal the existence of a stronger correlation for medium and large community foundations than for the group of independent foundations. In our baseline specification, a one per cent increase in donations to large and medium community foundations is associated with a 0.38 per cent and a 0.55 per cent increase in grants, respectively, while the same effect is only 0.04 per cent for the benchmark group of large independent foundations. These results are qualitatively robust to our alternative definitions of class sizes. In particular, we obtain the same result for large community foundations, but a weaker (and not statistically significant) correlation for medium size community foundations. Our findings about the correlation between grants and donations are consistent with the idea that the world of community foundations – at least the large ones - is now dominated by 'donor advised funds'. This means that many donors use the community foundation as a simple and convenient pass-through for their donations, with no intention of building an endowment. In this case, the constraint of perpetuity, that influences the life of many – but not all of - independent foundations[27], is simply much less relevant. We may

[27] For a discussion of 'limited life foundations', see Ostrower (2009).

therefore conclude that, while community foundations directly transfer to beneficiaries the donations they receive, increasing the level of their grants, independent foundations (at least the 'hot' ones[28]) accumulate donations for future grants, increasing the size of their endowments. This is also consistent with the idea that the managers of independent foundations compete with their peers on the basis of the size of their endowment. By spending more than the minimum required by the tax rules, they might risk losing 'their relative standing in the pecking order, as defined by net worth' (Billitteri 2005, p. 5).

According to the results of all our specifications of Model 3, small independent foundations represent an exception to this behaviour, as the correlation between donations and grants is systematically larger than that observed for the benchmark group of large independent foundations. This may be due to the fact that, given the limited size of their endowments, these foundations need to rely on donations to pay out a significant level of grants.

Focusing on the relationship between sources of income and grants, we fail to find evidence of a differential impact of the different sources of income on the grant-making behaviour of foundations of different type and size, but for the effects of interests and dividends (*INTERESTS*) and of capital gains (*CAPGAIN*). More precisely, on the one end, the effect of *INTERESTS* on grants is stronger for large community foundations than for all other groups, with a one per cent increase in *INTERESTS* being associated to a 0.37 per cent increase in grants. This finding suggests that the simple picture of a community foundation solely involved in collecting donations, acting as a pass-through for large donors or as a pool of funds for the community, needs to be better qualified. In fact, large community foundations also seem to actively manage their financial assets, so that their grant-making behaviour turns-out to be sensitive to the returns of their

[28] In the sense of Sansing and Yetman (2006).

investments as well. Capital gains have instead a strong impact on grants for small independent foundations with an elasticity coefficient of 0.07 in the baseline specification and, although with lower statistical significance, for medium size community foundations, with an elasticity coefficient of 0.12. Interestingly, as already observed for donations and endowment, small independent foundations seem to behave more similarly to community foundations than to all other independent foundations.

Finally, more puzzling results are obtained when looking at the coefficients of *CAPLOSS* and *MINUSOTHER*, which indicate an unexpected positive correlation between losses and grants. Although many factors may concur in explaining these results, we conjecture that they mainly depend on the fact that foundations making losses are still forced to pay-out grants in order to comply with legal regulations, possibly by exploiting accumulated reserves.

5.3. Discussion

As we highlighted in the previous section, Models (1) and (2) in Table 2 show that we fail to find evidence of a systematic difference in the grant-making behaviour of independent and community foundations[29].

This result suggests that the different tax-rules to which independent and community foundations are subjected in the USA do not systematically impact on their activities. This does not mean that the tax-rules are necessarily ineffective, but it suggests that their effectiveness is likely to depend on the interplay between the regulation and the specific characteristics of different foundations, which seems to drive their grant-making behaviour more than the tax-rules *per se*. Although our dataset does not allow for an in-depth analysis of these characteristics, more refined implications already arise when controlling for different groups of foundations based on their size (as

[29] Recall that the DPF dummy variable for independent foundations is never statistically significant at the usual levels in any of our econometric exercises.

shown in Table 3). In particular, we show that the grant-making activities of large and medium-sized community foundations are more correlated to donations, while those of large and medium-sized independent foundations are more correlated to the size of their endowments. Hence, at least for these types of foundations, the differences in the grant-making behaviour of community and independent foundations seem to be consistent with the different regulations to which they are subjected. The PST - by requiring community foundations to receive yearly donations for at least one-third of their aggregate income in order to maintain the status of public charity - establishes an immediate link between donations and grant-making activities. Analogously, the MPR - by requiring all independent foundations to distribute 5 per cent of their assets yearly in charitable grants – establishes a clear link between grants and endowment for this type of foundations.

Entirely different implications arise when focusing on small size foundations. Two results are particularly interesting in this respect. First, the amount of grants made by small community foundations relies less on donations and more on endowment than that of large community foundations. Thus they appear to behave more similarly to large independent foundations than to the other community ones. This may be due to the fact that small community foundations often still have to build a solid reputation, which prevents them from collecting a sufficient amount of donations and consequently forces them to rely on their endowments to support their grant-making activities. Second, the amount of grants paid by small independent foundations seems to rely more on donations and less on endowment than that of large independent foundations, which makes them more similar to community foundations. To make sense of this last finding, note first that small independent foundations are, on average, smaller than their community counterparts (the average level of assets being about $ 2.2 million for the former and $ 8.5 million for the latter), which makes it difficult for them to rely on

endowment to support grants. Furthermore, small independent foundations are often either 'corporate' foundations[30], or 'single donor' foundations still building-up their endowments. In the first case, the grant-making activity is almost entirely financed by the annual donations made by the parent company. In the second one, it is supported by the occasional donations made by the founder, typically targeted – at least partially - to new grants.

The USA regulator has so far concentrated on regulatory schemes building on the *nature* ('private' foundation or 'public charity') of the different institutions performing the same grant-making activity, imposing to comply with the MPR to the former and to pass the PST to the latter. The relative ineffectiveness of this regulatory scheme, as well as the large heterogeneity in the grant-making behaviour of both independent and community foundations belonging to different class sizes documented above, suggest the need for a more refined model of regulation. A new approach should complement the one based on the nature of the foundation by appropriately taking into account other characteristics (simply proxied by the foundations' size in our analysis) that impact on grant-making. It is worth underlining again that the differences between foundations belonging to distinct class sizes captured by our econometric specifications may indeed reflect relevant characteristics (correlated to size) not captured by tax-return data. The discussion above on corporate and 'single-donor' foundations well exemplifies the importance of the issue[31].

[30] 'Corporate' foundations are generally created by for-profit corporations with a very limited endowment and funded annually by their parent company.

[31] For instance, corporate foundations – considered as private foundations by the law – because of their small endowments can legally distribute only a limited amount of grants to charitable activities. This indirectly allows parent corporations to use a non-negligible share of the donations made to their foundations to distribute grants to 'non charitable' activities or to give perks. This indicates that the MPR may not be an effective device to foster grant-making activities for this type of foundations, suggesting the opportunity of different kinds of regulations (e.g., requiring them to distribute to charitable activities a large share of the donations received by their parent corporations).

6. Conclusions

Although GMFs - archetypical American institutions - were not so common outside the USA, they are now spreading in Europe and in other areas of the world as a consequence of privatization processes, inter-generational transfers of wealth, and reductions in public expenditures for the welfare state. While precious from an economic point of view, quite often foundations – because of lack of tradition - operate in legal and fiscal environments not as developed as the North American one. In Europe, with the new interest in GMFs comes the proposal of new rules to regulate their activities. However, in many European countries, these proposals have been advanced without a proper consideration and analysis of their effects on foundations' grant-making behaviour. In this paper we focus our attention on the American experience to draw indications for the debate on regulation of GMFs in Europe. In the USA, the legislator awards fiscal privileges to grant-making institutions to the extent that they operate in the 'public interest'. To guarantee their effective contribution to the social welfare, foundations have to comply with specific forms of regulations.

Considering IRS data, we show these rules have the expected impact on *large* GMFs only. In particular, on the one hand, the amount of grants paid by large independent foundations - subjected to the MPR - is positively correlated with the size of their endowment and (although to a more limited extent) with the level of their income. On the other hand, the grants made by large community foundations – complying with the PST - are positively correlated with the level of donations they collect. Nonetheless, and perhaps more interestingly, our analysis shows a large heterogeneity in the behaviour of the two groups of independent and community foundations, with smaller ones behaving differently from their largest counterparts. This illustrates that – besides the group they belong to – other characteristics of grant-making institutions (proxied here by the size of

their endowments) are important in explaining their behaviour, and may therefore be exploited to devise more refined regulatory schemes, complementing - or, in some cases, even substituting - the traditional regulatory approaches.

The lessons learnt from the analysis of the USA experience may be helpful in guiding the action of the regulators in Europe, where an established regulatory tradition of grant-making foundations does not exist. According to our analysis, the experience of the USA suggests that quantitative and automatic regulatory mechanisms, such as those implied by the MPR and the PST, although relatively inexpensive and easy to implement (and therefore quite attractive), could fail capturing some characteristics of foundations that may bear a significant impact on their grant-making behaviour. Size is certainly one of these characteristics that deserve the attention of policy makers. More generally, this indicates that an effective regulatory approach should not abstract from a careful analysis of the foundations' nature and institutional features.

Two issues emerge as important in the European perspective. First, policy makers should invest in the production of more reliable statistics on foundations in Europe. Most European countries, as well as the European Union (EU), currently lack the basic information needed to undertake any analysis of the nature and the behaviour of GMFs. In fact, a few data are available in some countries, either coming from public sources (such as Italy, where the Italian Statistical Office in 2011 run a comprehensive census of non-profit organizations, including foundations) or from private organizations (such as Germany, where the Association of German Foundations compiles a comprehensive Directory of German foundations). However, these data are not based on common definitions and collection methods, so that they are hardly comparable and one cannot completely rely on them. Moreover, many countries do not produce any figures on GMFs, and no official data are available at the European level. Hence, anyone interested in better understanding the scope, role and behaviour of GMFs can only rely on the

aggregate data compiled by the European Foundation Centre, a private source of information. Eurostat should be put in charge of compiling information at the EU level, using common definitions and collection procedures. Given the diversities of GMFs acting in different countries, statistics should adopt the most comprehensive approach, surveying the whole vast sector and producing different possible taxonomies. In particular, information should be collected concerning the relationships between foundations and their founding entities, be they single individuals, families, groups of individuals and communities, private firms and corporations or public bodies. In fact, it is most likely that different founding entities – given their unalike interests in the GMF – could induce different grant-making behaviour of the GMF that they establish. Therefore, the nature of founders could contribute explaining some of the puzzling results of our analysis, in particular the unusual behaviour of small foundations in the US, quite incoherent with the incentives created by the tax laws of that country.

As a second policy issue, European policy makers should tackle the question of unification and harmonization of foundation laws addressing, in particular, the relationship between fiscal incentives to GMFs and how beneficial to society their activities are. For example, no unique distinction exists between 'private benefit' and 'public purpose' organizations, so that foundations generating different benefits to society could – in some legal systems – enjoy the same amount of fiscal incentives. Moreover, while in the US context it is quite clear that foundations are privileged (by fiscal law) so far as they give back to society (hence the MPR and the PST), in many European countries this is far from being obvious. For example, in Germany foundations are legally required to preserve the value of their endowments over time (Anheier and Leat 2013, p. 461), and the same holds true for some kind of foundations in Italy (such as the foundations of banking origin). These legal requirements – which most likely induce a very conservative approach to both asset management and grant-making – are

barely compatible with the idea of foundations as 'tools to give back to society'. So, while in the US the MPR (and foundations subjected to that rule) has sometimes been criticized for being a costly and inefficient way of creating benefits to society (Porter and Kramer 1999), in Europe the laws create negative incentives to giving back. Furthermore, different national legislations could create illegal barriers to the activities undertaken by foundations established in other European countries, as established by the sentences of the European Court of Justice (European Foundation Centre, 2014). This could represent a further obstacle to foundations that want to give back more to society. The creation of a common 'European Foundation Statute' could therefore represent a good occasion to clarify why European societies should foster and protect foundations.

References

Andreoni, J. (2008) Charitable giving. In *New Palgrave Dictionary of Economics*, 2nd edition (S.N. Durlauf and L.E. Blume, Eds). New York (NY) Palgrave Macmillan.

Andreoni, J. and Payne, A.A. (2003) Do government grants to private charities crowd out giving or fund-raising? *American Economic Review,* 93(3), 792-812.

Andreoni, J. and Payne, A.A. (2011) Is crowding out due entirely to fundraising? Evidence from a panel of charities. *Journal of Public Economics,* 95, 334-343.

Andrews, F.E. (1956) *Philanthropic foundations.* New York (NY): Russell Sage Foundation.

Anheier, H.K. and Leat, D. (2013) Philanthropic foundations: what rationales? *Social Research,* 80(2), 449-472.

Anheier, H.K. and Toepler, S. (1999) Philanthropic foundations. An international prespective. In *Private funds, public purpose. Philanthropic foundations in international perspective (*H.K. Anheier and S. Toepler, Eds). New York (NY) Kluwer.

Bater, P. and Habighorst, O. (2001) Tax treatment of foundations and their donors. In *Foundations in Europe. Society, management and law (*A. Schluter, V. Then and P. Walkenhorst, Eds). London The Directory of Social Change.

Billitteri, T.J. (2005) Money, mission, and the payout rule: in search of a strategic approach to foundations spending. The Aspen Institute, *Working paper series*.

Cambridge Associates Inc. (2000) *Sustainable payout for foundations.* Grand Haven (Michigan): The Council of Michigan Foundations.

CSI & Max Planck Institute (2008) *Feasibility study on a European foundation statute.* Available from the EU website at: http://ec.europa.eu/internal_market/company/eufoundation/index_en.htm.

Deep, A. and Frumkin, P. (2006) The foundation payout puzzle. In *Taking Philanthropy seriously* (W.V.B. Damon and S. Verducci, Eds). Bloomington (IN) Indiana University Press.

DeMarche Associates (1999) *Spending policies and investment planning for foundations: a structure for determining a foundation's asset mix.* Washington (DC): Council on Foundations.

European Commission (2012) *Proposal for a Council Regulation on the Statute for a European Foundation (FE)*. COM(2012) 35 final.

European Foundation Centre (2014) *Taxation of cross-border philanthropy in Europe after Persche and Stauffer. From landlock to free movement?* Brussels: The European Foundation Centre.

Foundation Center (various years) *Foundations growth and giving estimate, Current report*. New York (NY): The Foundation Center.

Foundation Center (2012) *Key facts on community foundations*. New York (NY): The Foundation Center.

H.M. Government (2010) *Giving. Green paper. A*vailable from the UK Government website at: www.cabinetoffice.gov.uk.

H.M. Government (2011) *Giving. White paper. A*vailable from the UK Government website at: www.cabinetoffice.gov.uk.

Hopkins, B.R. (2007) *The law of tax-exempt organisations*. Hoboken (NJ): John Wiley and Sons.

Kogelman, S. and Dobler, T.A. (1999) *Sustainable spending policies for endowments and foundations*. New York (NY): Goldman Sachs.

IRS (various years) *SOI tax Stats*. Available from the IRS website at: http://www.irs.gov/taxstats/charitablestats/article/0,,id=96996,00.html#4

Istat (2009) *Le fondazioni in Italia.* Roma: Istat, Collana "Informazioni".

Marsh, T. D. (2002) A dubious distinction: rethinking tax treatment of private foundations and public charities. *Virginia Tax Review,* 22, 137-186.

McDonald, B.D. and Miller, D.R. (2010) Welfare programs and the state economy. *Journal of Policy Modeling,* 32, 719–732.

Mehrling, P. (1999) *Spending policies for foundations: the case for increased grants payout.* San Diego (CA): National Network of Grantmakers.

Ostrower, F. (2009) *Limited life foundations. Motivations, experiences and strategies*. Washington (DC): The Urban Institute Center on Nonprofts and Philanthropy.

Salvatore, D. (2002) Relative taxation and competitiveness in the European Union: what the European Union can learn from the United States. *Journal of Policy Modeling,* 24, 401–410.

Sansing, R. and Yetman, R. (2006) Governing private foundations using the tax law. *Journal of Accounting and Economics,* 41, 363-384.

Steuerle, E. (1977) Payout requirements for foundations. In *Research Papers*, vol. III (Public Commission on Private Philanthropy and Public needs) 1663-1678. Washington: Department of the Treasury.

Steuerle, E. and Sullivan,M.A. (1995) Toward a more simple and effective giving: reforming the tax rules for charitable contributions and charitable organisations. *American Journal of Tax Policy*, 12(2), 399-447.

Toepler, S. (2004) Ending payout as we know it: a conceptual and comparative perspective on the payout requirement for foundations. *Nonprofit and Voluntary Sector Quarterly*, 33, 729-738.

Troyer, T. (2000) The 1969 private foundation law: historical perspective on its origin and underpinning. *The Exempt Organisation Tax Review*, 27, 52-65.

WINGS, (2010) *Global Status report on community foundations*. Available from the website at: http://www.wings-community-foundation-report.com/gsr_2010/gsr_theme_facts/facts.cfm

TABLE 1
Summary statistics (million $)

Type of foundation	Observations (number)	Mean	Median	Std. Dev.	Min	Max
Endowment						
Community	483	127	55	227	1	2,040
Independent	43,563	50	15	399	0	32,800
Grants paid						
Community	483	9	3	19	0	232
Independent	43,563	3	1	17	0	1,570
Donations received						
Community	483	12	5	21	0	228
Independent	43,563	2	0	25	0	3,690
Total income (w/out donations)						
Community	483	6	1	14	-17	146
Independent	43,563	3	1	30	-401	2,250

Source. Own elaborations.

TABLE 2
The determinants of GRANTS

	Model 1		Model 2	
	Coefficient	Robust SE	Coefficient	Robust SE
ENDOWMENT	.67***	.018	.52***	.178
ENDOWMENT×DPF			.15	.178
DONATIONS	.04***	.004	.07*	.040
DONATIONS×DPF			-.03	.040
INTERESTS	.15***	.014	.25***	.079
INTERESTS×DPF			-.10	.078
RENTS	.03***	.010	.02	.015
RENTS×DPF			.01	.012
CAPGAIN	.08***	.005	.11***	.021
CAPGAIN×DPF			-.03	.021
CAPLOSS	.06***	.005	.10***	.023
CAPLOSS×DPF			.04**	.023
OTHER	.02***	.004	.04***	.013
OTHER×DPF			-.02	.012
MINUSOTHER	.01*	.008	-.01	.049
MINUSOTHER×DPF			.03	.046
NO-DONATIONS	.90***	.114	.87***	.113
NO-INTERESTS	4.06***	.404	4.10***	.399
NO-RENTS	.81***	.227	.81***	.228
NO-CAPGAIN	2.14***	.132	2.12***	.131
NO-CAPLOSS	1.53***	.142	1.49***	.142
NO-OTHER	.49***	.080	.47***	.079
NO-MINUSOTHER	.31*	.186	.32*	.184
DPF	.01	.119	-.64	2.070
CONSTANT	-2.55***	.205	-1.89	2.079
Year dummies	Yes		Yes	
N. obs.	44046		44046	
R-squared	.73		.73	
F	1525.20		1163.15	
Prob > F	.000		.000	

All variables in log
Significance levels: *>90%; **>95%; ***>99%
Robust standard errors adjusted for 10086 clusters

TABLE 3
The determinants of GRANTS (different size thresholds)

	Model 3 (Threshold 25%, 75%)		Model 3 (Threshold 30%, 70%)		Model 3 (Threshold 20%, 80%)	
	Coefficient	Robust SE	Coefficient	Robust SE	Coefficient	Robust SE
ENDOWMENT	.74***	.022	.74***	.021	.75***	.025
ENDOWMENT×DCF-Small	-.47	.433	-1.21	.856	.19	.260
ENDOWMENT×DCF-Medium	-.32	.237	.13	.328	.004	.497
ENDOWMENT×DCF-Large	-.45***	.134	-.39***	.122	-.40**	.167
ENDOWMENT×DPF-Small	-.23***	.031	-.19***	.028	-.26***	.035
ENDOWMENT×DPF-Medium	.03	.030	.01	.038	.02	.028
DONATIONS	.04***	.004	.04***	.004	.04***	.004
DONATIONS×DCF-Small	.04	.029	.09*	.050	.01	.019
DONATIONS×DCF-Medium	.51*	.287	.19	.174	.26	.317
DONATIONS×DCF-Large	.34***	.051	.33***	.057	.37***	.051
DONATIONS×DPF-Small	.02***	.002	.01***	.001	.02***	.002
DONATIONS×DPF-Medium	.001	.001	.001	.001	.001	.001
INTERESTS	.15***	.013	.14***	.016	.13***	.018
INTERESTS×DCF-Small	-.0008	.017	.15	.124	.003	.021
INTERESTS×DCF-Medium	.12	.140	-.004	.014	.12	.113
INTERESTS×DCF-Large	.22**	.104	.22**	.091	.26**	.122
INTERESTS×DPF-Small	-.02	.013	.003	.015	.0001	.019
INTERESTS×DPF-Medium	-.02	.015	.02	.015	.02	.018
RENTS	.02**	.009	.02**	.009	.021**	.009
RENTS×DCF-Small	-.08	.069	-.03	.036	.003	.012
RENTS×DCF-Medium	.003	.009	.001	.010	-.01	.015
RENTS×DCF-Large	.002	.004	.002	.004	-.0001	.004
RENTS×DPF-Small	.0001	.005	.0001	.004	-.00003	.007
RENTS×DPF-Medium	-.002	.002	-.001	.002	-.001	.002
CAPGAIN	.06***	.005	.07***	.005	.06***	.005
CAPGAIN×DCF-Small	.002	.020	.03	.038	.02	.016
CAPGAIN×DCF-Medium	.06*	.031	.05	.031	.05*	.028
CAPGAIN×DCF-Large	-.003	.011	-.004	.008	-.02	.025
CAPGAIN×DPF-Small	.01***	.004	.01***	.003	.01***	.004
CAPGAIN×DPF-Medium	.002	.003	.001	.003	.002	.004
CAPLOSS	.04***	.006	.05***	.006	.04***	.006
CAPLOSS×DCF-Small	.03	.025	.06*	.033	.02	.015
CAPLOSS×DCF-Medium	.06*	.034	.04	.031	.06**	.031
CAPLOSS×DCF-Large	-.0004	.012	.0001	.008	-.02	.026
CAPLOSS×DPF-Small	.01***	.004	.01***	.004	.01**	.004
CAPLOSS×DPF-Medium	.001	.003	-.0004	.003	.0001	.004
OTHER	.01***	.004	.01***	.004	.01***	.004
OTHER×DCF-Small	.04*	.022	.06**	.024	.02*	.013
OTHER×DCF-Medium	.02	.019	.0003	.008	.03*	.020
OTHER×DCF-Large	.0004	.004	.001	.004	.001	.004
OTHER×DPF-Small	.007***	.002	.006***	.002	.008***	.002
OTHER×DPF-Medium	.003***	.001	.002*	.001	.004***	.001
MINUSOTHER	.004	.008	.008	.008	.003	.008
MINUSOTHER×DCF-Small	.07***	.022	.06***	.021	.07***	.026
MINUSOTHER×DCF-Medium	-.04	.059	-.06	.060	-.03	.059
MINUSOTHER×DCF-Large	.001	.007	.002	.007	.002	.006
MINUSOTHER×DPF-Small	.003	.004	.007**	.003	-.0006	.004
MINUSOTHER×DPF-Medium	.002	.002	.001	.002	.003	.002
NO-DONATIONS	1.14***	.117	1.10***	.116	1.18***	.117
NO-INTERESTS	3.53***	.359	3.62***	.364	3.34***	.358
NO-RENTS	.61***	.22	.64***	.215	.66***	.220
NO-CAPGAIN	1.80***	.121	1.89***	.122	1.74***	.120
NO-CAPLOSS	1.28***	.148	1.31***	.147	1.19***	.146
NO-OTHER	.37***	.084	.38***	.083	.36***	.084
NO-MINUSOTHER	.13	.202	.22	.201	.10	.199
DCF-Small	6.65	5.99	17.18	12.264	-1.85	3.866
DCF-Medium	-4.38	4.093	-5.71	4.469	-6.19	4.755
DCF-Large	-0.29	1.379	-1.03	1.108	-2.20	1.603
DPF-Small	3.39***	.419	3.01***	.376	3.80***	.468
DPF-Medium	-.84*	.450	-.56	.596	-.61	.389
CONSTANT	-3.07***	.281	-3.08***	.260	-3.04***	.308
Year dummies	Yes		Yes		Yes	
N. obs.	44046		44046		44046	
R-squared	.74		.74		.74	
F	1048.68		1046.01		1098.24	
Prob > F	.000		.000		.000	

All variables in log
Significance levels: *>90%; **>95%; ***>99%
Robust standard errors adjusted for 10086 clusters

APPENDIX TABLE 1
Summary statistics

Variable	Observations (number)	Mean	Std. Dev.	Min	Max
GRANTS	44,046	2,861,057	16,800,000	0	1,570,000,000
ENDOWMENT	44,046	50,900,000	397,000,000	28	32,800,000,000
DONATIONS	44,046	2,191,085	24,700,000	0	3,690,000,000
INTERESTS	44,046	1,197,152	11,600,000	0	1,240,000,000
RENTS	44,046	40,519.75	632,699.6	0	64,700,000
CAPGAIN	44,046	2,158,351	20,400,000	0	1,280,000,000
CAPLOSS	44,046	267,348.8	3,266,175	0	417,000,000
OTHER INCOME	44,046	215,711.3	3,093,682	0	362,000,000
MINUSOTHERINCOME	44,046	22,989.22	394,293.4	0	29,800,000

Source. Own elaborations.