Value-Enhancing Social Responsibility:

Market Reaction to Donations by Family vs. Non-Family Firms with Religious CEOs

Min Maung

mim555@mail.usask.ca

University of Saskatchewan

Danny Miller

danny.miller@hec.ca

HEC Montreal

Zhenyang Tang

ztang@clarku.edu

Clark University

Xiaowei Xu

xiaowei@uri.edu

University of Rhode Island

August 28, 2019

Value-Enhancing Social Responsibility:

Market Reaction to Donations by Family vs. Non-Family Firms with Religious CEOs

ABSTRACT

Using a signaling framework, we argue that ethical behavior as evidenced by charitable donations is viewed more positively by investors when seen not to be based on self-serving motives but rather authentic generosity that builds moral capital. The affirmed religiosity of CEOs may make their ethical position more credible, while their embeddedness within a family business suggests that CEOs are backed by powerful owners with long- time horizons and a desire to build moral capital with stakeholders. We find in a study of market responses to 1572 corporate donations by S&P 1500 firms that financial markets react more positively to charitable initiatives from firms with religion-declared CEOs, but only if these are family businesses.

Keywords: Family Firms, Religion, Moral Capital, Philanthropy

JEL Classification: G14, M14

We argue that CEO religiosity combined with family governance signals authentic ethicality behind philanthropic activities, a source of moral capital valued by stakeholders and financial markets (Kane, 2001; Pastoriza et al., 2008). Studies have shown that religious beliefs play a role in whether someone is generous and makes charitable donations (Brooks, 2004; Guo et al., 2013; Will & Cochran, 1995). They also find that executive religiosity fosters authentic social responsibility (CSR) (Mazereeuw-van der Duijn Schouten et al., 2014). Therefore, corporate charitable behavior may be viewed as more ethical and thus accruing of moral capital when conducted under the auspices of a CEO who has been public about his or her religious affiliation -- a minority among today's executives. *Moral capital* is a quality that garners admiration and trust from stakeholders who feel rewarded by associating with a party of exemplary moral standing (Sison, 2003). The philanthropy of firms whose CEOs do not report any religious affiliation may not signal the same ethical authenticity or therefore accrue as much moral capital. As a result, investors may place less value upon their initiatives.

Where religious CEOs of *family firms* engage in charitable behavior, the signaling of moral capital may be even greater, and therefore, too the positive market perceptions. Indeed, among family firms, philanthropy may be an especially strong signal of generosity given the enduring social and emotional bonds many families have to their firms (Arregle et al., 2007; Berrone et al., 2010; Gomez-Mejia et al., 2007; Ward, 2006). Family ethical and religious beliefs are often deeply rooted, and span generations (Neal & Vallejo, 2008; Sorenson, 2013), sometimes due to a founder's legacy (Kellermanns, 2013). Therefore, where ethical initiatives such as charity come from religious CEOs operating within family firms, observers are more apt to see this as an enduring policy supported by an ethical cadre of powerful non-transient owners who can sustain moral capital from stakeholders over the long run (Miller & Le Breton-Miller, 2005). Thus, investors may view such initiatives as positive signals that enhance firm valuations.

From the perspective of signaling theory, particular signals may determine whether corporate charitable donations can represent authentic, value-adding moral capital. Here, the signaler is a CEO whose religious and family status signal moral capital, resulting in a positive reputation with stakeholders, and thus favorable economic results. And the receivers of the signal are financial investors who wish to benefit from the rents derived from the firm's moral capital (Certo, 2003; Connelly, 2011; Gomulya & Boeker, 2014).

In this study, we analyze investor reactions to philanthropic donations by S&P 1500 firms and investigate how such reactions vary for family- and non-family firms with religion-declared and other CEOs. Focusing on market reactions allows us to evaluate how outside investors perceive these donations. It also helps to identify signals that differentiate between whether discretionary philanthropic donations are viewed as authentic, value-enhancing generosity versus opportunism or obligatory conformance to social standards (Godfrey, 2005; Wokutch & Spencer, 1987).

Following Patten (2008), we use 5-day cumulative abnormal returns (CAR) around philanthropic donation announcements to measure market reaction. On average, we find that donations made by firms with religious CEOs enhance firm value. However, the positive effect of religion mainly comes from family firms; in other words, *CEO religiosity is only associated with greater CAR for donations made by family firms, not for donations made by non-family firms.* Donations by family firms without a religious CEO do not enhance CAR.

We make several contributions to the literature. We adopt a signaling perspective (Certo, 2003; Connelly et al., 2011) to theorize how financial markets react to charitable contributions by family firms. In doing so, our study augments the limited literature on corporate philanthropic donations and significantly conditions prior work documenting positive market reactions (Patten, 2008). It also adds to a growing body of work on how religion provides an overarching rationale for family- (and other-) firm conduct and the moral capital that may arise from such conduct (Balog et al., 2014; Kane, 2001; Portes & Sensenbrenner, 1993; Sorenson 2013). Indeed, most scholars of family business have neglected the notion of moral capital (Sison, 2003). Our study also enlightens the debate on whether social initiatives such as charity enhance shareholder wealth. Finally, our large data sample affords unusually robust, encompassing analyses on how CEO religious beliefs affect the way philanthropic donations are perceived by financial markets.

The remainder of the paper is organized as follows. We first conduct a brief review of the literature and develop our hypotheses. Then we summarize our method and present our empirical findings, before concluding with a discussion.

SIGNALING MORAL CAPITAL

The performance consequences of ethical initiatives such as charitable donations may depend in part on how investors interpret their underlying motives, specifically, their authentic generosity as a source of enduring value-enhancing moral capital versus an opportunistic attempt to curry favor (Godfrey, 2005, Godfrey et al., 2009). As these motives are difficult for investors to know directly due to information asymmetries, they seek signals of such authenticity (Connelly et al., 2011). We shall argue that CEO religiosity and their embeddedness in a family business represent such signals to investors, thereby enhancing the value of CSR initiatives such as charitable contributions.

Charity, Moral Capital and Market Valuations

Despite ample research, there remains a good deal of uncertainty about how financial markets react to corporate CSR initiatives such as charity. Some argue that these elicit positive responses from financial markets because they represent long-term ethical positions that build moral capital and valuable reputation among stakeholders (Konar & Cohen, 2001; Jo & Harjoto, 2011; Patten, 2008; Servaes & Tamayo, 2013; Sison, 2003; Yadav et al., 2016). Such initiatives may attract employees and investors who see a firm as being ethical, progressive and farsighted (Edmans, 2011; Goss & Roberts, 2011; Lee et al., 2013; Ye & Zhang, 2011; Vlachos et al., 2013). They also may be favored by business and institutional partners who wish to associate themselves with firms having a positive public image (Campbell, 2007; Homburg et al., 2013). By contrast, other research suggests that philanthropy like other CSR initiatives represent self-serving acts aimed at private benefits that contribute little to stakeholders or society, and often are treated as such by the larger public (Boatsman & Gupta, 1996; Brown et al., 2006; Godfrey et al., 2009; Patten, 2008).

As investors often have no direct knowledge to differentiate the motives behind these initiatives, they must rely on signals of authenticity (Sanders & Bolvie, 2004). We shall argue that executive religiosity and family governance represent such signals and thereby augment firm valuations accruing from charitable initiatives.

HYPOTHESES: CEO RELIGIOSITY AND FAMILY GOVERNANCE

In developing our hypotheses, we present two factors that we believe cast light on the conditions under which financial markets reward or punish firms for charitable donations. Godfrey (2005) argues that philanthropic activities may destroy reputational capital if they are inconsistent with prevalent ethical values or are perceived as ingratiating attempts. *Thus, the ethical sincerity of firms' leaders and owners in initiating charity may be an important signal to investors.* In family firms, *backing by stable and influential ownership may also be critical* for signaling that such ethical efforts are sustainable and intended to build valuable moral capital.

We pursue two theses: First, that *the religiosity of top managers signals more authentic ethical behavior* and moral capital, and less opportunism (Connelly et al., 2011). Second, that having a *family versus a non-family ownership structure* signals stable, influential ownership that ensures the enduring ethical and reputational advantages of a religious leader (Miller & Le Breton-Miller, 2005).

CEO Religious Values

The religiosity of a leader may infuse and reinforce shared values of honesty and ethical conduct that shape corporate behavior (Ramasamy et al., 2010; Paterson et al., 2013). Indeed, several studies have demonstrated the effects of executive religion on corporate behavior. For example, Grullon et al. (2010) find religiosity to suppress 'misbehavior' that is detrimental to shareholders. Religion may also promote desirable behavior. Because they can be less self-serving, religious CEOs may work to serve a broader constituency of stakeholders (Harjoto & Rossi, 2018). They therefore are apt to be more honest and far-sighted in their initiatives (Ramasamy et al., 2010; Paterson et al., 2013).

Thus investors may view charitable donations more positively when the religiosity of a CEO signals authentic ethicality (Sison, 2003). Such philanthropy is more likely to build moral capital with stakeholders such as employees, suppliers, customers and the community who supply resources to the firm. It is also less likely to be viewed as self-serving or a product of executive opportunism (Godfrey, 2005). Accordingly, we hypothesize the following.

Hypothesis 1: Market reaction to donations made by firms with religious CEOs will be more positive.

Religious CEOs in Family Firms: Family Values and Corporate Governance

Family Values and Religion in Family Firms: Because some families hope their businesses will provide security, status, and enduring careers for current and perhaps subsequent family generations, they invest in the company and its reputation, in part via initiatives such as charity (Miller & Le Breton-Miller, 2005; Lumpkin et al., 2010; Gomez-Mejia et al., 2007). Family firms are distinct in that business values must align with family values (Astrachan et al., 2002).[1] According to Tapies and Ward (2008), these firms place more emphasis on moral values or virtues such as "reputation" and "fairness." Studies of family firms in different countries yield similar findings. For example, in a study of Finnish family firms by Koiranen (2002), values such as "honesty" and "credibility" rank higher than "economic returns." A study of Canadian family firms by Chrisman et al. (1998) and Indian family firms by Sharma and Rao (2000) also find that moral values such as integrity rank high. Similarly, Payne et al. (2011), in a sample of S&P 500 firms, identify values such as "empathy" and "warmth" to be particularly prevalent among family firms.

It is not surprising then that some of the most ethical family businesses base their conduct on ideals grounded in religious belief (Le Breton-Miller & Miller, 2019; Saroglou et al., 2005). Indeed, Neal and Vallejo (2008) argue that family firms are often "incubators" for spirituality, sometimes based on a charismatic authority and deeply rooted values and beliefs that nurture the family and its company. For example, Yan and Sorenson (2004, 2006) confirm the impact of Confucian ideology on Chinese family businesses, while Paterson et al. (2013) maintain that family businesses are more receptive to religious values, which are shown to shape their many policies and practices; as they say "it touches everything (p. 148)." What remains to be seen is

[1] According to Rokeach (1973, p.5), "Values are generalized, enduring beliefs about the personal and social desirability of certain modes of conduct or end-states of existence."

how these values of religion and altruism affect financial outcomes.

Family Firm Governance: Given the purported prevalence of ethical values within family businesses, they may be especially likely to support religious CEOs who foster charitable initiatives that enhance moral capital and reputation, and contribute to firm value. Many family owners eschew short-term careerist expedients and support reputation building behavior (Le Breton-Miller & Miller, 2019; Miller & Le Breton-Miller, 2005). This may be less true in non-family firms whose financially-driven, often impatient owners dwell on quarterly returns. Moreover, such owners, due to information asymmetries and disempowerment, are less able to stop their agent CEOs from using corporate donations for self-serving private benefits (Fama & Jensen, 1983).

In addition, the stable and often concentrated ownership structure of family firms allows them to pursue policies of building moral capital and reputation among stakeholders with great consistency, such that their initiatives may signal to investors as being oriented toward long-term benefits for the company and its stakeholders (Connelly et al., 2011). Moreover, the religiosity of CEOs appointed and supported by major family owners makes their ethical stance and charitable contributions more meaningful to investors because continuity is assured by powerful principals known to care about enduring reputation (Le Breton-Miller & Miller, 2019). Given financial investors' preferences for firms with a long-term orientation (Flammer & Bansal, 2017), the market will react more positively to these charitable initiatives.

Hypothesis 2: Donations made by firms with religious CEOs will engender more favorable market reaction for family vs. non-family firms.

Family Founder and Family Managed Firms with Religious CEOs

Hypothesis 2 is expected to be especially strongly confirmed when a religious founder or his or her family member acts as CEO. First, because of personal influence on company policy and often visibility, executive religiosity and moral capital will be a particularly powerful and transparent signal to financial markets. Second, founders and family member CEOs tend to have exceptionally enduring tenures and are concerned with long-term results for the firm and the family (Beckhard & Dyer, 1983; Le Breton-Miller & Miller, 2019). Third, founders and family member CEOs tend to have a great deal of power to continue to implement their policies, and little need to engage in opportunistic short-term expedients to augment their salaries or find alternative employment (Anderson & Reeb, 2003).

Hypothesis 2a: Donations made by family firms with religious founders or family member CEOs will engender more favorable market reactions than donations from non-family firms.

METHOD

Sample

Our initial sample comes from a database of charitable donations -- the Million Dollar List, compiled by the Indiana University Lilly Family School of Philanthropy. This database covers publicly reported gifts of $1 million and more, made since 2000. The database also provides detailed information on each donation, including donor name, type of donation, recipient information, donation amount, and announcement date. We retain donations made by corporations or corporate foundations only; doing so results in a sample of 6,503 donations made by 1,019 corporations and 448 corporate foundations. We then manually match the donor names with Compustat and CRSP for their financial information. In addition, we identify the firms affiliated with corporate foundations. If a donation is made by a corporate foundation, we classify it as being from the affiliated corporation.[2] Approximately half of the donations (3,308 out of 6,503) could be matched to public companies with available financial data.

We merged the donations sample with data sources on family firm ownership and religion. Our data on family firms is from Dr. David Reeb's website and includes family ownership from 2001 to 2010, covering the largest 2,000 firms as of 2001; the data represents a combined and augmented sample from Anderson, Duru and Reeb (2009) and Anderson, Reeb and Zhao (2012).

Data on religion were collected manually from Marquis Who's Who. Specifically, we identified all CEOs of S&P 1500 firms in ExecuComp and consulted their personal profiles on Who's Who for their religious affiliations. It was voluntary for CEOs to disclose their religions, and most of our CEOs did *not* do so in Who's Who. However, those that did, we reason, are more likely to identify with and pursue the values and ethics of their affirmed religions versus CEOs that do not publicly declare religious affiliation. Public declaration in a widely available source also makes it likely that informed investors will be aware of a CEO's religious affiliation. Indeed as our firms are major companies followed by analysts and sophisticated investors, many of the latter will be well-informed about the CEOs personal profile, partly as a result of making reference to sources like Who's Who, a fundamental reference (Malmendier et al., 2011; Olsen et al., 2016; Bernile et al., 2017). Finally, non-reporting by CEOs would not bias our results – it merely introduces noise into the data that could prevent significant findings (however, see our

[2] As a robustness check we removed all donations by corporate foundations and reran our analyses on the smaller sample. Our results remained robust.

section on limitations below). The majority of our CEOs with declared faiths are Christians, primarily Protestants; we also have some Jewish and Hindu CEOs in our database.

We dropped observations if we could not match donor names to firm names in Compustat and CRSP, or if the firm could not be matched to either of the religion or family firm data sources. We also dropped observations for which financial information or stock returns are not available. Our final sample consists of 1572 donations. Of these, 472 are made by family firms, and 269 by firms with religious CEOs.

Variables

Our dependent variable is the cumulative abnormal return (CAR) following announcements of donations. This CAR measure parallels the study by Patten (2008) which examines how philanthropic donations are valued by the market. Following convention in the finance literature, we estimate CAR by summing daily abnormal returns over the 5-day event window starting on day -1 (one trading day before the donation announcement date) and ending on day +3. Daily abnormal returns are estimated using the Fama-French 3-factor model. The CAR measure removes common pricing factors unrelated to donations such as market movement, size effect and value effect, and reduces endogeneity concerns (Fama et al., 1969; Fama & French, 1992).

Following Anderson et. al (2009; 2012), Perez-Gonzalez (2006), and many other scholars, we define a firm as family-owned if at least 5% of outstanding shares are family-owned.[3]

[3] Anderson, Reeb and Zhao (2012) report an average family ownership of 25.5% in their sample, using the 5% cutoff.

Therefore, *FAMILY* is a dummy which equals 1 if the firm has a family ownership of greater than 5%, and 0 otherwise.

We measure religion with the CEO's declared religious affiliation. Specifically, in any given year, the dummy variable *RELIGION* equals 1 if a firm's CEO is declared publicly as affiliated with any religion, and 0 otherwise. Although the CEO's religious beliefs do not necessarily reflect the religious values of the founding family, those values may channel through the decisions of the CEO, especially if he or she is a family member (Sorenson, 2013).

We incorporate several control variables in our analyses. Firm size, measured by log value of book assets at the beginning of year, has been shown to impact stock returns (Fama & French, 1992); in addition, donations by larger firms may be less likely to be perceived as genuine manifestations of social responsiveness (Amato & Amato, 2007). Similarly, we incorporate book to market ratio, which may affect both returns and incentives to donate (Fama & French, 1992; Brown et al., 2006). We also include return on assets (ROA), measured as net income divided by total assets, operating cash flow divided by total assets, and financial analyst coverage. ROA and operating cash flow measure profitability and cash available, both of which affect donation (Crampton & Patten, 2011; Seifert et al., 2003). Analyst coverage increases firm visibility (Mola et al., 2012), which may motivate managers to engage in CSR activities including donations; it also partly controls for differences in CEO propensity to release information (Chiu & Sharfman, 2011; Jo & Harjoto, 2014). We measure analyst following by the log number of financial analysts who issued forecasts of the firm's financial performance in the previous year.

Finally, we control for characteristics of donations. *Donation Amount*, measured as log of dollar donations, accounts for potential market attention to larger donations (Patten, 2008).

Corporate Foundation is a dummy equal to 1 if the donation is made by the company foundation and 0 otherwise. *Disaster* is a dummy indicating whether the donation is disaster related, and thus more spontaneous and less planned. (In un-tabulated robustness analyses we included a dummy variable for each recipient category, and our results remain robust). Lastly, we incorporate a control for *Past Donations* that equals 1 if a firm has announced a donation within the prior 3 years.

In addition to the CAR analysis, we analyze how family ownership and religious affiliation affect a firm's overall willingness to donate.[4] For each firm-year, we define the amount of donation as the total of charitable donations made in the year, scaled by total assets or sales at the beginning of the year. Unlike the CAR analysis which only includes donation events, this analysis includes all firms with religion and family data and hence the sample size is larger. Because of the panel structure of the data, we employ random effect models with year and industry fixed effects.

RESULTS

Table 1 reports summary statistics (Panel A) and the correlation matrix (Panel B). Of the 1,572 observations, 30% are family firms and 17% of the sample CEOs report their religion publicly. The average five-day cumulative abnormal return around the announcement window CAR[-1,3] is about 0.4% and is significant at the 1% level. The correlation matrix shows that family firms have a positive correlation with religious CEOs, with a coefficient of 0.019. Both family and religion dummies are positively correlated with *Donation Amount*, with coefficients of 0.01 and 0.05, respectively. In Panel C, we report univariate results showing that compared to

[4] Very few studies directly investigate charitable donations by family firms and we are not aware of any study that investigates donations by S&P 1500 family firms. Dyer and Whetten (2006) is the only paper that uses the U.S. data for large corporations (S&P 500). Our study both extends the sample of firms and the number of years.

non-religious CEOs, donations made by religious CEOs have a more significant CAR in family firms. The difference is no longer significant in the subsample of non-family firms.

[Insert Table 1]

Table 2 demonstrates the relationship between family, religion and stock market reactions to donations. For each donation event, we regress the announcement returns, CAR[-1,3], on (1) the family dummy, (2) the religion dummy, and (3) both family and religion dummies using pooled regressions with robust standard errors. We also control for variables such as total assets (log), book to market, ROA, operating cash flow/assets, number of analysts (log), donation amount (log), corporate foundation, disaster related donation, and past donation to account for firm characteristics and donation differences. Industry and year fixed effects are included in all regressions. All continuous variables are winsorized at 1%.

In Table 2, we report regression results on market reactions to donation announcements. In columns 1 and 2, we only include *FAMILY* and *RELIGION*, respectively. The coefficient for *FAMILY* is positive but insignificant, suggesting that without a religious CEO, donations made by a family firm do not result in different market reactions than those made by a non-family firm. The coefficient of *RELIGION*, however, is positive and significant at the 10% level. The impact of *RELIGION* on CAR is also economically significant: On average, CAR around donation announcements is 0.4% higher for donations made by a religious CEO. The significance of *RELIGION* is robust in column 3, where *FAMILY* is included in the regression, indicating that the explanatory power of *RELIGION* does not stem from its correlation with *FAMILY*. These findings are consistent with Hypothesis 1 that market reactions to donations made by firms with religious CEOs are indeed more positive.

[Insert Table 2]

In Table 3, we investigate the potential interaction between *FAMILY* and *RELIGION*. If philanthropic donations add to more market-valued moral capital when made by a religious CEO of a family business, we should expect a positive coefficient for the interaction term of *FAMILY* and *RELIGION*. In addition, we should expect that *RELIGION* only matters in the subsample of family firms. Indeed, in column 1, we find the interaction between family and religion to be positive and significant with a coefficient estimate of 0.015 or 1.5%. *This is economically significant given that the average CAR is 0.4% for all donation announcements*. In columns 2 and 3, we further show that the religion dummy is only significant for family firms (with a coefficient of 1.6% and t=2.40). These results support Hypothesis 2, suggesting that donations signal more moral capital when their sources are seen to represent ethical and sustainable religious values resonant with the community of stakeholders.

[Insert Table 3]

Indeed, Godfrey (2005) postulates that donations create more moral capital when they are consistent with the ethical values of communities. Since religious followers in the US are predominantly Christians, it may be that the donations of firms with Christian CEOs will have a more positive impact on valuations vis-à-vis CEOs of other beliefs. In Table 4, we investigate different religious beliefs by separating them into the two main groups of religion in our sample: Christian and Jewish.[5] Indeed, we show that our results are driven mainly by CEOs with Christian beliefs. Although the coefficient estimates for Judaism are also positive, they are not

[5] We also have 41 cases with Hindu beliefs, but those CEOs are exclusively from non-family firms and hence cannot be analyzed separately.

statistically significant, perhaps because of the smaller sample. Analysis of other religions such as Islam and Buddhism was impossible given the composition of our sample.

[Insert Table 4]

We also investigate a subsample of CEOs who are likely family firm founders and family members. As elaborated in Hypothesis 2a, the values of such CEOs are more likely to permeate their firms, and affect how their philanthropic donations are perceived by investors. We follow convention in assuming that firms are born in the year they appear in the CRSP database (Fama & French, 2001; Pastor & Veronesi, 2003). We identify family firm CEOs as *Family Founders* if their tenure equals firm age. In addition, we use BoardEx to identify whether a CEO has the same family name as other board directors or executives. If so the likelihood of a CEO belonging to the owning family is much higher, and we designate a dummy variable *Family Member CEO*. Table 5 indicates that our finding of superior CAR is even more pronounced for the subsample family firms with religious CEOs who are family firm founders (coefficient=0.047, t=2.27) or family members (coefficient=0.017, t=3.18). In short, religious CEOs instill more value when they are members of the owning family.

[Insert Table 5]

We address the issue of endogeneity in religious affiliation using the Coarsened Exact Matching approach (CEM) (Iacus et al., 2011). We match firms with religious CEOs to those with similar characteristics (e.g. family firm status and CSR ratings) but no affirmed CEO faith. We show in Table 6 that our results are robust, and even slightly stronger, after accounting for the endogeneity of CEO religious affiliation.

[Insert Table 6]

Finally, in Table 7, we show that although firms with religion-declared CEOs tend to donate more generously, there is no difference between family- and non-family firms in this regard. The *FAMILY*RELIGION* interaction is not significant in columns 2 or 4. This suggests that the interaction between religious beliefs and family values primarily affects how philanthropic activities are viewed by investors; it does not impact the size of such donations.

[Insert Table 7]

DISCUSSION AND CONCLUSION

Using a signaling perspective (Certo, 2003; Connelly et al., 2011), we show how financial markets react to charitable contributions by family firms. In our model, the signaler is the CEO who signals his or her credibility as an authentically ethical, influential corporate actor via religious and family ownership status. The receivers are firm investors who anticipate economic benefits from the moral capital and reputation of the firm. Where investors are uncertain about CEO motives dues to information asymmetry (Elitzur & Gavious, 2003; Stiglitz, 2000), such signals can be useful to the latter in facilitating interpretation.

Our study suggests that investors may use such signals to aid in interpretation where firms engage in charitable acts that are ambiguous in their ulterior motivations and implications. More generally, signaling theory may be a useful lens for resolving debates about the consequences of corporate social initiatives in uncertain contexts by identifying characteristics that signal the authenticity and longer- term implications of those initiatives.

We also add to a growing literature on how religion provides an encompassing rationale for the conduct of some family organizations and the consequent moral and financial capital that may arise from signaling such conduct (Balog et al., 2014; Kane, 2001; Portes & Sensenbrenner, 1993; Sorenson, 2013). We also contextualize the work on corporate philanthropy by conditioning previous studies that document positive market reactions (Patten, 2008). In addition, we highlight the commercial importance of signaling moral capital, a reputation-building resource that thus far has been under-appreciated and under-researched (Sison, 2003). And we contribute to the debate on whether CSR enhances shareholder wealth, better specifying some of the conditions that strengthen that relationship. Finally, our research clarifies how a CEO's declared religious beliefs may serve as a positive signal that enhances the moral capital of their philanthropic donations hence the positive market reactions to those donations.

Our findings are consistent with the literature suggesting that family firms are perceived to have long-term reputational goals and a relational, beneficent orientation towards stakeholders such as the community (Miller & Le Breton-Miller, 2005; Lumpkin et al., 2010). In addition, they support the argument that religion-declared CEOs may be viewed by investors as making decisions that are more apt to add to value-enhancing corporate moral capital (Dyreng et al., 2010; Grullon et al., 2010; McGuire et al., 2012). Our findings also indicate that family and CEO religious values are not independent in their effects - our results are stronger when CEOs are founders and family members and thus owners. This is consistent with Sorenson (2013) who finds that the religious beliefs in family firms are typically rooted in founders' religious convictions, and eventually permeate the business and shape organizational values and culture.

Opportunities for Further Research: Whereas our findings suggest an important role for religion and family ownership as potential signals to investors of ethicality and valuable moral capital, the former are heterogeneous categories. It might be useful to consider more fine-grained indicators of religious beliefs and spirituality more generally to discover whether the depth and consistency of related behavior has an impact on stakeholder interpretations and sentiments. Furthermore, family business is an extremely diverse category. Some private family firms have terrible reputations, in part because of principal-principal agency issues, secrecy, and remoteness from investor and government scrutiny (Morck & Yeung, 2003). Moreover, the generation of the managing family, their level of ownership, and their embeddedness in a local community may all have an effect on their conduct and its motivations (Miller & Le Breton-Miller, 2014). Later generations may embody less the ethics and religious values of their forbearers. Would that mitigate market responses to firm charity or other CSR initiatives? And what is the role played by religion and family ownership and management in how the market values other CSR practices such as community and green initiatives? Finally, scholars embracing an upper echelons perspective have neglected executive religion as a force of action and moderator of market response. Our study suggests that this represents an additional research opportunity (Hambrick, 2007).

Limitations: Certainly, our study is subject to a number of limitations. First, due to data constraints, we are not able to identify the religious beliefs of the non-CEO founders of family firms. However, this is unlikely to influence our conclusions unless family founders systematically opt for non-family CEOs of a different religion. If religious belief is important to founders, it will likely be a key factor in succession decisions and the choice of non-family CEOs (Sorenson, 2013). That is an issue worth investigating in future studies.

A second limitation of our study is that we can identify the religious belief of a CEO only if he or she chooses to report it. Whereas it is reasonable to expect that CEOs who report their religious beliefs publicly are more apt to identify with and possess those beliefs than those who do not, it is also possible that some CEOs are influenced by their faiths but decide not to report. Indeed, some CEOs may be reluctant to disclose their religions because they fear that could hurt the image of the firm (Crimm, 2008), while other CEOs may believe that reporting their religion actually helps improve their company's reputation. The latter may be better at signaling their CSR achievements, thereby benefitting from a more positive market reaction, and introducing bias in our results (Du et al., 2010). This is another question for future research, perhaps via qualitative analysis of CEO interviews and texts.

Another limitation is that we define family firms using a 5% family ownership criterion, following Anderson et al. (2003, 2009, 2012). Although the 5% cutoff is widely used in the corporate finance literature (e.g. Shleifer & Vishny, 1986), we recognize that a family firm can assume various definitions (Villalonga & Amit, 2006). We urge more research with alternative definitions.

Finally, we were not able to analyze the importance of influential religions outside the US, such as Islam, Buddhism, and Hinduism, or to analyze the degree of religiosity (Guiso et al., 2006; Hilary & Hui, 2009). It will be useful for subsequent researchers to conduct studies to address this gap. Parallel research in different cultures and regions could be of great interest.

Conclusion: Despite years of research, whether CSR activities such as charitable contributions add social or moral capital or are mere manifestations of deeper agency issues remains unresolved. By documenting market reactions to charitable contributions by family vs. non-family firms and their religious or other CEOs, we have begun to address this issue.

The literature has shown that family firms tend to do well on aspects related to charity, which includes pro-active giving and donations to local institutions (Viswanathan & Rosa, 2010; Weidner et al., 2010). Stavrou et al. (2007) and Dou et al. (2014) also find that family ownership positively affects charitable donations to the community. However, whether this improves or hurts how the financial markets value the social initiatives of these firms remained unknown. Godfrey (2005) argues that whereas philanthropic activities such as donations may enhance moral capital and thus shareholder wealth, only those acts perceived as authentic manifestations of social responsiveness add value; those considered as ingratiating or self-serving do not. We have demonstrated that declared CEO religious affiliation, coupled with family ownership, signal such authentic social responsiveness and moral capital. Thus, investors and other stakeholders are more likely to view the donations of family firms with religious CEOs in a more positive light, hence improving their financial market valuations. We urge others to continue to examine the consequences of other kinds of CSR initiatives within their broader ethical context.

Compliance with Ethical Standards

Disclosure of Potential Conflicts of Interest: The authors have no conflict of interest to disclose.

Ethical Approval: This article does not contain any studies with human participants or animals performed by any of the authors.

Informed Consent: Not applicable. This article does not contain any identifiable personal data.

REFERENCES

Amato, L.H. and Amato, C.H., 2007. The effects of firm size and industry on corporate giving. *Journal of Business Ethics*, *72*(3), pp.229-241.

Anderson, R.C., Duru, A. and Reeb, D.M., 2009. Founders, heirs, and corporate opacity in the United States. *Journal of Financial Economics*, *92*(2), pp.205-222.

Anderson, R.C. and Reeb, D.M., 2003. Founding‐family ownership and firm performance: evidence from the S&P 500. *The Journal of Finance*, *58*(3), pp.1301-1328.

Anderson, R.C., Reeb, D.M. and Zhao, W., 2012. Family‐controlled firms and informed trading: Evidence from short sales. *The Journal of Finance*, *67*(1), pp.351-385.

Arregle, J.L., Hitt, M.A., Sirmon, D.G. and Very, P., 2007. The development of organizational social capital: Attributes of family firms. *Journal of Management Studies*, *44*(1), pp.73-95.

Astrachan, J.H., Klein, S.B. and Smyrnios, K.X., 2002. The F‐PEC scale of family influence: A proposal for solving the family business definition problem1. *Family Business Review*, *15*(1), pp.45-58.

Balog, A.M., Baker, L.T. and Walker, A.G., 2014. Religiosity and spirituality in entrepreneurship: a review and research agenda. *Journal of Management, Spirituality & Religion*, *11*(2), pp.159-186.

Beckhard, R. and Dyer Jr, W.G., 1983. Managing continuity in the family-owned business. *Organizational Dynamics*, *12*(1), pp.5-12.

Bernile, G., Bhagwat, V., and Rau, P. R. 2017. What doesn't kill you will only make you more risk‐loving: Early‐life disasters and CEO behavior. *The Journal of Finance*, *72*(1), 167-206.

Berrone, P., Cruz, C., Gomez-Mejia, L.R. and Larraza-Kintana, M., 2010. Socioemotional wealth and corporate responses to institutional pressures: Do family-controlled firms pollute less?. *Administrative Science Quarterly*, *55*(1), pp.82-113.

Boatsman, J.R. and Gupta, S., 1996. Taxes and corporate charity: empirical evidence from microlevel panel data. *National Tax Journal*, pp.193-213.

Brooks, A. C., 2004. Faith, secularism and charity. *Faith & Economics*, 43 (Spring), pp. 1–8.

Brown, W.O., Helland, E. and Smith, J.K., 2006. Corporate philanthropic practices. *Journal of Corporate Finance*, *12*(5), pp.855-877.

Campbell, J.L., 2007. Why would corporations behave in socially responsible ways? An institutional theory of corporate social responsibility. *Academy of Management Review*, *32*(3), pp.946-967.

Certo, S. T. 2003. Signaling with board structures. *Academy of Management Review*, 28: 432-446.

Chiu, S.C. and Sharfman, M., 2011. Legitimacy, visibility, and the antecedents of corporate social performance: An investigation of the instrumental perspective. *Journal of Management*, *37*(6), pp.1558-1585.

Chrisman, J.J., Chua, J.H. and Sharma, P., 1998. Important attributes of successors in family businesses: An exploratory study. *Family Business Review, 11*(1), pp.19-34.

Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. 2011. Signaling theory: A review and assessment. *Journal of Management*, 37: 39-67.

Crampton, W. and Patten, D., 2008. Social responsiveness, profitability and catastrophic events: Evidence on the corporate philanthropic response to 9/11. *Journal of Business Ethics*, *81*(4), pp.863-873.

Crimm, N. J. 2008. Muslim-Americans' Charitable Giving Dilemma: What About a Centralized Terror-Free Donor Advised Fund?. *Roger Williams University Law Review*, 13 (2). Available at: http://docs.rwu.edu/rwu_LR/vol13/iss2/3.

Dou, J., Zhang, Z. and Su, E., 2014. Does family involvement make firms donate more? Empirical evidence from Chinese private firms. *Family Business Review*, *27*(3), pp.259-274.

Du, S., Bhattacharya, C.B. and Sen, S., 2010. Maximizing business returns to corporate social responsibility (CSR): The role of CSR communication. *International Journal of Management Reviews*, *12*(1), pp.8-19.

Dyer Jr, W.G. and Whetten, D.A., 2006. Family firms and social responsibility: Preliminary evidence from the S&P 500. *Entrepreneurship Theory and Practice*, *30*(6), pp.785-802.

Dyreng, S.D., Mayew, W.J. and Williams, C.D., 2012. Religious social norms and corporate financial reporting. *Journal of Business Finance & Accounting*, *39*(7-8), pp.845-875.

Edmans, A., 2011. Does the stock market fully value intangibles? Employee satisfaction and equity prices. *Journal of Financial Economics*, *101*(3), pp.621-640.

Elitzur, R., and Gavious, A., 2003. Contracting, signaling, and moral hazard: A model of entrepreneurs, “angels,” and venture capitalists. *Journal of Business Venturing*, 18, pp.709-725.

Fama, E.F., Fisher, L., Jensen, M.C. and Roll, R., 1969. The adjustment of stock prices to new information. *International Economic Review, 10*(1), pp.1-21.

Fama, E.F. and French, K.R., 1992. The cross-section of expected stock returns. *Journal of Finance*, *47*(2), pp.427-465.

Fama, E.F. and French, K.R., 2001. Disappearing dividends: changing firm characteristics or lower propensity to pay?. *Journal of Financial Economics, 60*(1), pp.3-43.

Fama, E.F. and Jensen, M.C., 1983. Separation of ownership and control. *The Journal of Law and Economics*, *26*(2), pp.301-325.

Flammer, C. and Bansal, P., 2017. Does a long-term orientation create value? Evidence from a regression discontinuity. *Strategic Management Journal*, *38*(9), pp.1827-1847.

Godfrey, P.C., 2005. The relationship between corporate philanthropy and shareholder wealth: A risk management perspective. *Academy of Management Review*, *30*(4), pp.777-798.

Godfrey, P.C., Merrill, C.B. and Hansen, J.M., 2009. The relationship between corporate social responsibility and shareholder value: An empirical test of the risk management hypothesis. *Strategic Management Journal*, *30*(4), pp.425-445.

Gómez-Mejía, L.R., Haynes, K.T., Núñez-Nickel, M., Jacobson, K.J. and Moyano-Fuentes, J., 2007. Socioemotional wealth and business risks in family-controlled firms: Evidence from Spanish olive oil mills. *Administrative Science Quarterly*, *52*(1), pp.106-137.

Gomulya, D., & Boeker, W. 2014. How firms respond to financial restatement: CEO successors and external reactions. *Academy of Management Journal*, 57, pp.1759-1785.

Goss, A. and Roberts, G.S., 2011. The impact of corporate social responsibility on the cost of bank loans. *Journal of Banking & Finance*, *35*(7), pp.1794-1810.

Grullon, G., G. Kanatas, and J. Weston. 2010. Religion and Corporate (Mis) Behavior. Working paper, Rice University.

Guo, C., Webb, N.J., Abzug, R. and Peck, L.R., 2013. Religious affiliation, religious attendance, and participation in social change organizations. *Nonprofit and Voluntary Sector Quarterly*, *42*(1), pp.34-58.

Guiso, L., Sapienza, P. and Zingales, L., 2006. Does culture affect economic outcomes?. *Journal of Economic perspectives*, *20*(2), pp.23-48.

Harjoto, M.A. and Rossi, F., 2018. Religiosity, female directors, and corporate social responsibility for Italian listed companies. *Journal of Business Research, 95,* pp.338-346.

Hilary, G. and Hui, K.W., 2009. Does religion matter in corporate decision making in America?. *Journal of Financial Economics*, *93*(3), pp.455-473.

Homburg, C., Stierl, M. and Bornemann, T., 2013. Corporate social responsibility in business-to-business markets: How organizational customers account for supplier corporate social responsibility engagement. *Journal of Marketing*, *77*(6), pp.54-72.

Iacus, S. M., King, G., & Porro, G. 2011. Causal inference without balance checking: Coarsened exact matching. *Political Analysis*, 20: 1-24.

Jo, H. and Harjoto, M.A., 2011. Corporate governance and firm value: The impact of corporate social responsibility. *Journal of Business Ethics*, *103*(3), pp.351-383.

Jo, H. and Harjoto, M., 2014. Analyst coverage, corporate social responsibility, and firm risk. *Business Ethics: A European Review*, *23*(3), pp.272-292.

Kane, J. 2001. The politics of moral capital. Cambridge University Press.

Kellermanns, F.W., 2013. Spirituality and religion in family firms. *Journal of Management, Spirituality & Religion*, *10*(2), pp.112-115.

Konar, S. and Cohen, M.A., 2001. Does the market value environmental performance?. *Review of Economics and Statistics*, *83*(2), pp.281-289.

Koiranen, M., 2002. Over 100 years of age but still entrepreneurially active in business: Exploring the values and family characteristics of old Finnish family firms. *Family Business Review*, *15*(3), pp.175-187.

Le Breton-Miller, I. and Miller, D., 2019, July. Ideals-Based Accountability and Reputation in Family Firms. *Journal of Business Ethics*, in press.

Lee, E.M., Park, S.Y. and Lee, H.J., 2013. Employee perception of CSR activities: Its antecedents and consequences. *Journal of Business Research*, *66*(10), pp.1716-1724.

Lumpkin, G.T., Brigham, K.H. and Moss, T.W., 2010. Long-term orientation: Implications for the entrepreneurial orientation and performance of family businesses. *Entrepreneurship and Regional Development*, *22*(3-4), pp.241-264.

Malmendier, U, Tate,G and Yan, J. 2011, Overconfidence and early-life experiences: The effect of managerial traits on corporate financial policies, *Journal of Finance*, 66, pp.1687-1733.

Mazereeuw-van der Duijn Schouten, C., Graafland, J. and Kaptein, M., 2014. Religiosity, CSR attitudes, and CSR behavior: An empirical study of executives' religiosity and CSR. *Journal of Business Ethics*, *123*(3), pp.437-459.

McGuire, S.T., Omer, T.C. and Sharp, N.Y., 2012. The impact of religion on financial reporting irregularities. *The Accounting Review*, *87*(2), pp.645-673.

Miller, D. and Le Breton-Miller, I., 2005. *Managing for the long run: Lessons in competitive advantage from great family businesses*. Harvard Business Press.

Miller, D. and Le Breton-Miller, I. 2014. Deconstructing socioemotional wealth, *Entrepreneurship Theory & Practice*, *38*(4): 713-720.

Mola, S., Rau, P.R. and Khorana, A., 2012. Is there life after the complete loss of analyst coverage?. *The Accounting Review*, *88*(2), pp.667-705.

Neal, J. and Vallejo, M.C., 2008. Family firms as incubators for spirituality in the workplace: Factors that nurture spiritual businesses. *Journal of Management, Spirituality & Religion*, *5*(2), pp.115-159.

Olsen, B. C., Sisodiya, S. R., and Swisher, J. 2016. A note on assessing the relation between CEO characteristics and stock performance: Alpha above Replacement. *Accounting & Finance*, *56*(3), pp.787-802.

Pastor, L. and Veronesi, P., 2003. Stock prices and IPO waves (No. w9858). National Bureau of Economic Research.

Pastoriza, D., Arino, M. A., & Ricart, J. E. 2008. Ethical managerial behaviour as an antecedent of organizational social capital. *Journal of Business Ethics*, *78*(3), pp.329-341.

Paterson, T.A., Specht, D. and Duchon, D., 2013. Exploring costs and consequences of religious expression in family businesses. *Journal of Management, Spirituality & Religion*, *10*(2), pp.138-158.

Patten, D.M., 2008. Does the market value corporate philanthropy? Evidence from the response to the 2004 tsunami relief effort. *Journal of Business Ethics*, *81*(3), pp.599-607.

Payne, G.T., Brigham, K.H., Broberg, J.C., Moss, T.W. and Short, J.C., 2011. Organizational virtue orientation and family firms. *Business Ethics Quarterly*, *21*(2), pp.257-285.

Pérez-González, F. 2006. Inherited control and firm performance. *American Economic Review*, *96*(5), pp.1559-1588.

Portes, A. and Sensenbrenner, J. 1993. Embeddedness and immigration: Notes on the social determinants of economic action. *American Journal of Sociology*, *98*(6), pp.1320-1350.

Ramasamy, B., Yeung, M.C. and Au, A.K., 2010. Consumer support for corporate social responsibility (CSR): The role of religion and values. *Journal of Business Ethics*, *91*(1), pp.61-72.

Rokeach, M., 1973. *The nature of human values*. Free press.

Saroglou, V., Pichon, I., Trompette, L., Verschueren, M., & Dernelle, R., 2005. Prosocial behaviour and religion: New evidence based on projective measures and peer ratings. *Journal for the Scientific Study of Religion*, 44(3), pp. 323–348.

Seifert, B., Morris, S.A. and Bartkus, B.R., 2003. Comparing big givers and small givers: Financial correlates of corporate philanthropy. *Journal of Business Ethics*, *45*(3), pp.195-211.

Servaes, H. and Tamayo, A., 2013. The impact of corporate social responsibility on firm value: The role of customer awareness. *Management Science*, *59*(5), pp.1045-1061.

Sharma, P. and Srinivas Rao, A., 2000. Successor attributes in Indian and Canadian family firms: A comparative study. *Family Business Review*, *13*(4), pp.313-330.

Shleifer, A. and Vishny, R.W., 1986. Large shareholders and corporate control. *Journal of Political Economy*, *94*(3, Part 1), pp.461-488.

Sison, A. G. 2003. *The moral capital of leaders: Why virtue matters*. Edward Elgar Publishing.

Sorenson, R.L., 2013. How moral and social values become embedded in family firms. *Journal of Management, Spirituality & Religion*, *10*(2), pp.116-137.

Stavrou, E., Kassinis, G. and Filotheou, A., 2007. Downsizing and stakeholder orientation among the Fortune 500: Does family ownership matter?. *Journal of Business Ethics*, *72*(2), pp.149-162.

Stiglitz, J. E., 2000. The contributions of the economics of information to twentieth century economics. *Quarterly Journal of Economics*, 115, pp.1441-1478.

Stulz, R.M. and Williamson, R., 2003. Culture, openness, and finance. *Journal of Financial Economics*, *70*(3), pp.313-349.

Tàpies, J. and Ward, J. eds., 2008. *Family values and value creation: The fostering of enduring values within family-owned businesses*. Springer.

Villalonga, B. and Amit, R., 2006. How do family ownership, control and management affect firm value?. *Journal of Financial Economics*, *80*(2), pp.385-417.

Viswanathan, M. and Rosa, J.A., 2010. Understanding subsistence marketplaces: Toward sustainable consumption and commerce for a better world. *Journal of Business Research*, *63*(6), pp.535-537.

Vlachos, P.A., Panagopoulos, N.G. and Rapp, A.A., 2013. Feeling good by doing good: Employee CSR-induced attributions, job satisfaction, and the role of charismatic leadership. *Journal of Business Ethics*, *118*(3), pp.577-588.

Ward, J. ed., 2006. *Unconventional Wisdom: Counterintuitive Insights for Family Business Success*. John Wiley & Sons.

Weidner, K.L., Rosa, J.A. and Viswanathan, M., 2010. Marketing to subsistence consumers: Lessons from practice. *Journal of Business Research*, *63*(6), pp.559-569.

Will, J.A. and Cochran, J.K., 1995. God helps those who help themselves?: The effects of religious affiliation, religiosity, and deservedness on generosity toward the poor. *Sociology of Religion*, *56*(3), pp.327-338.

Wokutch, R.E. and Spencer, B.A., 1987. Corporate saints and sinners: The effects of philanthropic and illegal activity on organizational performance. *California Management Review*, *29*(2), pp.62-77.

Yadav, P.L., Han, S.H. and Rho, J.J., 2016. Impact of environmental performance on firm value for sustainable investment: evidence from large US firms. *Business Strategy and the Environment*, *25*(6), pp.402-420.

Yan, J. and Sorenson, R.L., 2004. The influence of Confucian ideology on conflict in Chinese family business. *International Journal of Cross Cultural Management*, *4*(1), pp.5-17.

Yan, J. and Sorenson, R., 2006. The effect of Confucian values on succession in family business. *Family Business Review*, *19*(3), pp.235-250.

Ye, K. and Zhang, R., 2011. Do lenders value corporate social responsibility? Evidence from China. *Journal of Business Ethics*, *104*(2), pp.197-206.

Table 1. Summary Statistics, Correlation Matrix & Univariate

Panel A. Summary Statistics

	N	Mean	p25	Median	p75	St.dev
CAR [-1,3]	1572	0.004	-0.014	0.006	0.024	0.034
Family	1572	0.30	0.00	0.00	1.00	0.46
Religion	1572	0.17	0.00	0.00	0.00	0.38
Assets (log)	1572	10.26	9.45	10.38	11.13	1.41
Book to Market	1572	0.33	0.18	0.30	0.42	0.21
ROA	1572	0.09	0.05	0.09	0.13	0.06
Op CF/Assets	1572	0.14	0.10	0.14	0.18	0.06
Analysts (log)	1572	3.06	2.94	3.22	3.47	0.82
Donation Amount (log)	1572	14.49	13.82	14.22	14.77	0.85
Corporate Foundation	1572	0.70	0.46	0	1	0.70
Disaster Related	1572	0.12	0.33	0	1	0.12
Past Donation	1572	0.69	0.46	0	1	0.69
Christian CEO	1572	0.13	0.33	0	1	0.13
Jewish CEO	1572	0.04	0.19	0	1	0.04

Panel B. Correlation Matrix

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	CAR[-1,3]	1.00													
2	Family	-0.11	1.00												
3	Religion	0.01	0.02	1.00											
4	Assets (log)	-0.12	0.17	-0.08	1.00										
5	Book to Market	-0.18	0.08	-0.06	0.01	1.00									
6	ROA	0.15	-0.16	0.18	-0.13	-0.51	1.00								
7	Op CF/Assets	0.02	-0.13	0.24	-0.08	-0.43	0.66	1.00							
8	Analysts (log)	-0.06	0.11	0.09	0.24	-0.04	0.01	0.14	1.00						
9	Donation Amount (log)	0.02	0.01	0.05	0.05	-0.07	0.10	0.07	-0.08	1.00					
10	Corporate Foundation	0.11	0.04	-0.05	0.08	-0.03	0.02	0.00	0.02	-0.21	1.00				
11	Disaster Related	-0.07	-0.03	0.02	-0.07	-0.02	0.03	0.00	-0.05	-0.06	-0.42	1.00			
12	Past Donation	0.07	0.07	0.02	0.15	-0.12	0.10	0.10	0.11	0.05	0.14	-0.15	1.00		
13	Christian CEO	-0.02	-0.09	0.69	-0.22	0.07	0.01	0.10	0.02	0.01	0.02	-0.01	0.01	1.00	
14	Jewish CEO	-0.05	0.23	0.43	0.03	-0.11	0.17	0.21	0.14	0.10	-0.26	0.11	0.02	-0.07	1.00

Panel C. CAR by family/religion

	(1) Religion		(2) Non-Religion		Diff ((1) – (2))	
	n	CAR	n	CAR	CAR	t
Family	86	0.33%	386	-0.32%	0.65%*	(1.75)
Non-Family	183	0.46%	917	0.63%	-0.17%	(0.81)

Table 2. Family, Religion and Donation Announcement Returns

Regression analysis of the cumulative abnormal returns when donation announcements are made and family/religion. *, ** and *** indicate statistical significance at the p<0.1 p<0.05 and p<0.01 levels, respectively.

DEP: CAR[-1,3]	(1)	(2)	(3)
Family	-0.000		0.000
	(-0.12)		(0.07)
Religion		0.004*	0.005*
		(1.65)	(1.74)
Assets (log)	-0.002	-0.002*	-0.002
	(-1.55)	(-1.81)	(-1.36)
Book to Market	-0.029***	-0.029***	-0.036***
	(-4.04)	(-4.02)	(-3.38)
ROA	0.046*	0.047*	0.035
	(1.79)	(1.81)	(0.98)
Op CF/Assets	-0.083***	-0.085***	-0.097***
	(-3.81)	(-3.91)	(-3.79)
Analysts (log)	-0.000	-0.000	-0.001
	(-0.28)	(-0.30)	(-0.75)
Donation Amount	0.000	0.000	-0.000
	(0.15)	(0.07)	(-0.29)
Corporate Foundation	0.004	0.003	0.002
	(1.37)	(1.36)	(0.84)
Disaster Related	-0.003	-0.003	-0.003
	(-0.75)	(-0.77)	(-0.82)
Past Donation	0.004**	0.004**	0.004**
	(2.06)	(2.05)	(2.08)
Constant	0.012	0.015	0.030
	(0.62)	(0.77)	(1.29)
Industry & Year FE	Yes	Yes	Yes
Observations	1,572	1,572	1,572
R-squared	0.235	0.236	0.207

Table 3. Religion and Donation Announcement Returns: Family versus Non-family

Regression analysis showing how the announcement returns differ in family/non family firms when a religious CEO is present. *, ** and *** indicate statistical significance at the p<0.1 p<0.05 and p<0.01 levels, respectively.

	(1)	(2)	(3)
DEP: CAR[-1,3]	All	Family=1	Family=0
Family	-0.003		
	(-0.76)		
Religion	-0.000	0.016**	0.000
	(-0.08)	(2.40)	(0.06)
Family * Religion	0.015**		
	(2.56)		
Assets (log)	-0.002*	-0.003	0.001
	(-1.66)	(-1.14)	(0.75)
Book to Market	-0.031***	0.004	-0.027***
	(-4.23)	(0.25)	(-3.30)
ROA	0.041	0.144	0.014
	(1.62)	(1.35)	(0.53)
Op CF/Assets	-0.086***	-0.030	-0.078***
	(-3.95)	(-0.36)	(-3.34)
Analysts (log)	-0.000	-0.003	-0.000
	(-0.33)	(-0.58)	(-0.31)
Donation Amount	0.000	-0.002	0.000
	(0.11)	(-0.91)	(0.16)
Corporate Foundation	0.004*	-0.015*	0.008***
	(1.65)	(-1.96)	(2.91)
Disaster Related	-0.003	-0.012	-0.002
	(-0.74)	(-1.54)	(-0.49)
Past Donation	0.004*	0.003	0.001
	(1.91)	(0.93)	(0.42)
Constant	0.015	0.053	-0.016
	(0.80)	(1.22)	(-0.75)
Industry & Year FE	Yes	Yes	Yes
Observations	1,572	472	1,100
R-squared	0.240	0.546	0.169

Table 4. Family, Donation, and Type of Religion

Regression analysis showing how the announcement returns differ in family/non family firms when a religious CEO is present, by type of religion. *, ** and *** indicate statistical significance at the p<0.1 p<0.05 and p<0.01 levels, respectively.

DEP: CAR[-1,3]	(1)	(2)	(3)
Family	-0.003	-0.002	-0.002
	(-0.90)	(-0.56)	(-0.45)
Christian	-0.003	-0.003	
	(-1.00)	(-0.97)	
Family*Christian	0.015***	0.014***	
	(2.97)	(2.90)	
Jewish	-0.004		-0.004
	(-0.39)		(-0.33)
Family*Jewish	0.021		0.020
	(1.38)		(1.32)
Assets (log)	-0.002	-0.001	-0.002*
	(-1.65)	(-1.35)	(-1.84)
Book to Market	-0.030***	-0.030***	-0.029***
	(-4.18)	(-4.11)	(-4.10)
ROA	0.039	0.044*	0.041
	(1.53)	(1.70)	(1.62)
Op CF/Assets	-0.085***	-0.082***	-0.086***
	(-3.86)	(-3.76)	(-3.91)
Analysts (log)	-0.000	-0.000	-0.001
	(-0.36)	(-0.17)	(-0.46)
Donation Amount	0.000	0.000	0.000
	(0.13)	(0.14)	(0.13)
Corporate Foundation	0.004*	0.004	0.004
	(1.70)	(1.42)	(1.64)
Disaster Related	-0.002	-0.003	-0.002
	(-0.71)	(-0.80)	(-0.67)
Past Donation	0.004*	0.004**	0.004*
	(1.91)	(2.08)	(1.90)
Constant	0.015	0.011	0.016
	(0.78)	(0.57)	(0.83)
Industry & Year FE	Yes	Yes	Yes
Observations	1,572	1,572	1,572
R-squared	0.240	0.237	0.238

Table 5. Family, Religion, and Donation: founder CEO and family CEO

Regression analysis showing how the announcement returns differ when a religious family founder CEO is present (column 1) and a religious family member CEO is present (column 2). *, ** and *** indicate statistical significance at the p<0.1 p<0.05 and p<0.01 levels, respectively.

	(1)	(2)
Dep Var: CAR[-1,3]	Family Founder CEO	Family Member CEO
Family Founder/Family Member CEO	-0.032*	-0.005
	(-1.96)	(-1.32)
Religion	0.002	0.001
	(1.03)	(0.23)
Family Founder/Family Member CEO *Religion	0.047**	0.017***
	(2.27)	(3.18)
Assets (log)	-0.002**	-0.001
	(-2.00)	(-1.11)
Book to Market	-0.030***	-0.031***
	(-4.08)	(-4.24)
ROA	0.043*	0.043*
	(1.71)	(1.67)
Op CF/Assets	-0.085***	-0.083***
	(-3.90)	(-3.81)
Analysts (log)	-0.001	-0.000
	(-0.48)	(-0.28)
Donation Amount	-0.000	0.000
	(-0.04)	(0.14)
Corporate Foundation	0.003	0.004
	(1.36)	(1.52)
Disaster Related	-0.002	-0.003
	(-0.67)	(-0.89)
Past Donation	0.004**	0.004**
	(2.06)	(1.97)
Constant	0.020	0.010
	(1.05)	(0.52)
Industry & Year FE	Yes	Yes
Observations	1,572	1,572
R-squared	0.243	0.240

Table 6. Family, Religion, and Donation: CEM Analysis

Coarsened Exact Matching analysis where a religious CEO is matched to a non-religious CEO with similar family status and firm characteristics. We then report regression analysis showing how the announcement returns differ in family/non family firms when a religious CEO is present between the treatment sample and the matched sample. *, ** and *** indicate statistical significance at the p<0.1 p<0.05 and p<0.01 levels, respectively.

DEP: CAR[-1,3]	All	Family=1	Family=0
Family	0.002		
	(0.55)		
Religion	0.002	0.021***	0.003
	(0.84)	(3.67)	(1.07)
Family * Religion	0.015***		
	(2.61)		
Assets (log)	-0.001	-0.003*	0.000
	(-1.50)	(-1.83)	(0.24)
Book to Market	-0.023***	0.016	-0.019***
	(-3.84)	(1.21)	(-2.72)
ROA	0.062***	0.197***	0.028
	(2.66)	(3.16)	(1.11)
Op CF/Assets	-0.105***	-0.029	-0.092***
	(-5.31)	(-0.51)	(-4.33)
Analysts (log)	-0.002	-0.002	-0.003*
	(-1.62)	(-0.47)	(-1.87)
Donation Amount	-0.000	-0.002	-0.000
	(-0.38)	(-1.29)	(-0.15)
Corporate Foundation	0.001	-0.011**	0.005*
	(0.49)	(-2.36)	(1.79)
Disaster Related	-0.004	-0.012**	-0.002
	(-1.21)	(-2.25)	(-0.60)
Past Donation	0.004**	0.004	0.001
	(2.31)	(1.10)	(0.58)
Constant	0.022	0.049	-0.001
	(0.50)	(1.46)	(-0.03)
Industry & Year FE	Yes	Yes	Yes
Observations	1,351	467	883
R-squared	0.287	0.592	0.158

Table 7. Amount of Donation

Regression analysis showing how the donation amount differs in family/non family firms when a religious CEO is present. Donation amount is scaled by total assets (column 1 & 2) or total sales (column 3 & 4). *, ** and *** indicate statistical significance at the p<0.1 p<0.05 and p<0.01 levels, respectively.

	(1)	(2)	(3)	(4)
Dep Var:	Donate/Assets	Donate/Assets	Donate/Sales	Donate/Sales
Family	-1.080	-1.236	-0.406	-0.505
	(-0.39)	(-0.42)	(-0.11)	(-0.13)
Religion	16.6***	16.2***	19.7***	19.4***
	(4.48)	(3.66)	(4.07)	(3.27)
Family*Religion		1.382		0.774
		(0.17)		(0.08)
Total Assets	-2.981**	-3.005**	-2.431	-2.428
	(-2.33)	(-2.35)	(-1.48)	(-1.48)
Book to Market	-7.802**	-7.836**	-8.812*	-8.824*
	(-2.07)	(-2.08)	(-1.77)	(-1.77)
ROA	9.163	9.088	4.890	4.828
	(0.56)	(0.56)	(0.22)	(0.21)
Op CF/Assets	50.5***	50.5***	44.8*	44.7*
	(2.74)	(2.74)	(1.84)	(1.84)
Analysts (log)	0.218*	0.218*	0.410**	0.410**
	(1.84)	(1.84)	(2.48)	(2.48)
Corporate Foundation	224***	224***	274 ***	274***
	(42.63)	(42.60)	(39.06)	(39.03)
Disaster Related	133***	133***	155***	155***
	(21.11)	(21.09)	(18.34)	(18.33)
Past Donation	27.95***	28.08***	39.75***	39.7***
	(7.47)	(7.51)	(8.00)	(7.98)
Constant	113.8***	113.9***	148.8***	148.9***
	(2.85)	(2.85)	(2.78)	(2.78)
Industry & Year FE	Yes	Yes	Yes	Yes
Observations	5,867	5,867	5,922	5,922
R-squared	0.481	0.481	0.441	0.441