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Preprint

This is the submitted version of a paper published in *Entrepreneurship: Theory & Practice*.

Citation for the original published paper (version of record):

Gómez-Mejia, L R., Chirico, F., Martin, G., Baù, M. (2021)
Best Among the Worst or Worst Among the Best? Socioemotional Wealth and Risk-
Performance Returns for Family and Non-Family Firms Under Financial Distress
Entrepreneurship: Theory & Practice

Access to the published version may require subscription.

N.B. When citing this work, cite the original published paper.

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Best Among the Worst or Worst Among the Best?
Socioemotional Wealth and Risk-Performance Returns
for Family and Non-Family Firms Under Financial Distress

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ABSTRACT

A firm's proactive engagement in risk, which has been deeply intertwined with the entrepreneurship literature, is essential to sustaining a firm's long-term competitive advantage. Drawing on BAM's mixed gamble logic in a family firm context, the present study offers a theoretical framework examining how firm risk returns differ in the contexts of distressed (the worst) and nondistressed (the best) family and nonfamily firms. We predict that family control moderates the risk taking-performance relationship. That is, compared with nonfamily firms, a mixed gamble featuring the prospect of socioemotional and financial losses leads family firms to extract higher financial returns from risk taking when in financial distress, but lower financial returns when they are not in financial distress. Our theoretical expectations are supported using a matched sample of Swedish firms.

Keywords: family firm, risk taking, financial distress, firm performance

*Accepted in **Entrepreneurship, Theory and Practice***

The extent to which firms in financial distress are able to overcome their precarious situation or succumb to business failure has long been a topic of interest in the academic and practitioner literature (e.g., Baumohl, Iwasaki & Kocenda, 2020; Musso & Schiavo, 2008; Ponikvar, Kejzar & Peljhan, 2018; Thorburn, 2000). While firms tend to respond to distress by taking more risks, the literature suggests that these risks often tend to fail and accelerate financial decline (Bowman, 1980; Bromiley, Miller & Rau, 2001; Wiseman & Bromiley, 1996). A missing piece in much of this research exploring firm risk-return relations under financial distress is the influence of family control. This is surprising given the prevalence of family firms around the world (LaPorta, Lopez-de-Silanes & Shleifer, 1999) and the purported risk aversion of this organization type (Feldman, Amit & Villalonga, 2016). We respond to this call in the present study by examining the extent to which firms' vulnerability to catastrophic failure (as captured by *financial distress*) may lead firms that are controlled by a family to draw a greater performance advantage (over nonfamily firms) from their risk-taking endeavors (what Gomez-Mejia et al., 2007, refer to as "venturing risk"). Under financial distress (high vulnerability), successful risk taking can potentially enable a firm to turn the hazardous situation around, ensuring its survival in the long term. Conversely, because there is less margin for error, under financial distress, risk taking with poor outcomes may spell disaster, as firm failure could involve significant pain for firm owners, external investors, employees and the community at large (Kim et al., 2019; Hoskisson et al., 2017)¹. How firms handle risk taking under financial distress is likely to be the primary determinant of their demise or continued solvency (Faccio et al., 2016). The ubiquity of financial distress (Babina, 2020) and the role of risk taking in firm survival (Hoskisson et al., 2017) underline the importance of examining risk taking under financial distress conditions to better understand how family and non-family firms confront performance challenges.

To gain deeper theoretical insight into the unique role of firm risk taking in differentiating the financial performance of family versus nonfamily firms as a function of financial distress (high

¹ The statistics bear this observation out. For instance, a large-scale longitudinal study of 250,000 privately held and publicly traded European companies revealed that approximately half of financially distressed firms (under high vulnerability conditions) do not survive more than five years, leaving millions out of work (Faccio, Marchica and Mura (2016). Similar results have been reported in the United States (Altman, 1968; 1983; Ferrier et al., 2002; Miller & Reuer, 1996).

vulnerability) conditions, we draw on the mixed gamble logic of the behavioral agency model (BAM) and socioemotional wealth (SEW) to examine how family control, risk taking, and firm vulnerability combine to affect firm performance outcomes. Since it was first introduced into the family business area by Gomez-Mejia et al. (2014) to analyze R&D expenditures, the mixed gamble model has been used in multiple family business studies to explain such diverse phenomena as portfolio entrepreneurship (Cruz & Justo, 2017); IPO underpricing (Kotlar, Signori, DeMassis & Vismara, 2018); internationalization (Alessandri, Cerrato & Eddleston, 2018); restructuring (Fuad, Thakur & Sinha, 2021; Gomez-Mejia, Patel & Zellweger, 2018; Hussinger & Isaah, 2019); firm growth (Bauweraerts, Diaz-Moriana & Arzubiaga, 2020); tax evasion (Eddleston & Mulki, 2020); and patenting (Chirico et al., 2020a), among others. A mixed gamble is a situation with potential for both gain and loss outcomes, as opposed to a pure gamble, which has the potential for either loss outcomes or gain outcomes but not both (Gomez-Mejia et al., 2018). According to this theoretical model decision makers balance the fear of losing endowed wealth with the prospects of enhancing or protecting the future value of that wealth. The greater the ratio of the prospective gains relative to the prospective losses in their mixed gamble is, the more likely that risk is pursued by decision makers (Chirico et al., 2020a). Family firms are argued to highly value SEW—the nonfinancial utility associated with firm control (Gomez-Mejia et al., 2007). Thus, when assessing strategic choices, family decision makers are loss averse regarding their socioemotional endowment; however, like other firms, they are also loss averse regarding their financial endowments. In the present study, we theorize that family control influences performance through differences in the returns derived from risk in the contexts of distressed (the worst or most vulnerable) and nondistressed (the best or least vulnerable) firms. We propose that family control moderates the risk taking-performance relationship; that is, family firms extract lower financial returns from the limited risk they take when they are not in financial distress but higher financial returns when in financial distress. Under duress, family firms' focus on the task at hand is sharpened by the prospective potential SEW and financial losses if risk taking were to fail which could lead to the firm's demise.

With supportive empirical results based on a large population of Swedish firms, our theory and findings offer important contributions. First, we advance knowledge concerning the risk-return

relations of family firms relative to nonfamily firms by examining how their mixed gambles differ under financial distress. In doing so, we respond to the call for contingency analysis to advance understanding of family firm performance (Carney et al., 2015; Dyer, 2018; Van Essen et al., 2015). To construct our theory, we extend the use of the mixed gamble theoretical approach derived from BAM to analyze the unique decision-making process of family firms, supplementing recent research using this lens (e.g., Alessandri et al., 2018; Chirico et al., 2020a; Eddleston and Mulki, 2020; Gomez-Mejia et al., 2014, 2018). We do so by focusing on the role of firm risk in explaining firm performance under distressed and nondistressed situations (Anderson et al., 2007; Fama & French, 1992) and the family firm's unique calculus when assessing the consequences of risk taking for its financial and nonfinancial wealth endowments. Specifically, we argue that compared with nonfamily firms, a mixed gamble featuring the prospect of socioemotional losses leads family firms to extract higher financial returns from risk taking when in financial distress but lower financial returns when they are not in financial distress. To our knowledge, our work is the first to explicitly consider the role of financial distress shaping the family firm mixed gamble to predict risk return in family and nonfamily firms.

Second, unlike previous studies that focused on the level of firm risk under duress (e.g., Chirico et al., 2020b; Chrisman and Patel., 2012; Gomez-Mejia et al., 2010, 2018), our work focuses on the performance consequences of risk taking under financial distress. This adds important texture to the literature examining the performance consequences of the unique strategic risk behavior of family firms. To do so, our theoretical arguments have required integrating two streams of literature that have previously evolved in silos: the study of firm risk taking and its financial consequences when the firm is in trouble and the body of work on family firm risk taking. We demonstrate that there is benefit in combining these studies to enhance knowledge regarding why family firms may outperform or underperform nonfamily firms under certain conditions. We offer the insight that distressed family firms derive higher risk returns, making them less susceptible to failure than nonfamily firms when in financial distress (*best among the worst*). Conversely, when there is less perceived vulnerability to catastrophic SEW losses, family firms avoid exploiting business opportunities that could be leveraged

from their internal sources of competitive advantage, which leads to their lower financial returns relative to those of nonfamily firms (*worst among the best*).

THEORETICAL FRAMEWORK

Family Firms, Mixed Gambles and Firm Risk

Mixed gambles and firm risk. Dess and Lumpkin (2005: 152) explain that “[t]o be successful via corporate entrepreneurship, firms usually have to take on riskier alternatives, even if it means foregoing the methods or products that have worked in the past.” Risk taking refers to a firm’s pursuit of business opportunities despite the uncertain payoffs (Dess & Lumpkin, 2005; Zahra, 1996), which Gomez-Mejia et al. (2007) refer to as venturing or firm risk to distinguish it from risk that is not deliberate or attributed to forces that may be totally beyond management control (such as the COVID pandemics). The study of firm risk taking examines subjective assessments of risk based on the potential payoffs—downside (prospective losses) and upside (prospective gains). If those payoffs include both the potential for gains and the potential for losses, as most business decisions do, then it is described as a mixed gamble (Bromiley, 2009, 2010; Martin et al., 2013). In that mixed gamble, if the prospective gains are sufficient to justify accepting the risk that the prospective losses are realized, the individual proceeds with the decision (Wu & Markle, 2008). For instance, empirical research suggests that, on average, if the prospective gain is more than twice the prospective loss, the gamble is accepted (Kuhberger, 1998). This model is consistent with the concept of loss aversion—losses are weighed more heavily than gains when individuals consider the consequences of their gamble and whether they should proceed with it (Martin et al., 2013).

Socioemotional wealth and firm risk. The family business literature has adopted a mixed gamble logic to explore how subjective estimates of potential payoffs—losses and gains—in firm risk are likely to differ for decision makers within family firms relative to nonfamily firms (Allesandri et al., 2018; Eddleston and Mulki, 2020; Gomez-Mejia et al., 2014, 2018). In that mixed gamble, family firm decision makers also highly value SEW—the nonfinancial aspect of the firm that meets the family’s affective needs (Gomez-Mejia et al., 2007); that is, family decision makers consider prospective socioemotional losses as well as financial losses in their mixed gambles (Gómez-Mejía et

al., 2011; Hoskisson et al., 2017; Kim et al., 2019). For instance, if the risk-taking fails, family firms may lose family control (e.g., by having to sell or liquidate the firm; Chirico et al., 2020b), and the loss of family control by definition implies the loss of all firm-embedded SEW elements, such as social capital, emotional attachment, family identification, and the possibility of dynastic succession. Hence, family decision makers are assumed to have more to lose from failed risk taking, making them less likely to pursue “venturing risks” or the search for new strategies or routines that increase the variability in firm performance outcomes. Equally, however, continued family control—and hence the rest of the SEW elements that depend on it—would be enhanced through higher prospective financial wealth (if risk taking is successful); however, due to the loss aversion premise that the losses weigh more heavily than gains, family firms are generally predicted to shy away from venturing risks to prevent potential SEW losses (Feldman et al., 2016; Hoskisson et al., 2017).

Financial distress, socioemotional wealth and firm risk. Financial distress, which we employ as an indicator of a firm’s vulnerability to failure, has commonly been used in the study of risk and firm decision making (e.g., Iyer & Miller, 2008; Chen & Miller, 2007). Financial distress is a corporate finance term used to indicate a condition in which promises to company creditors are either broken or honored with difficulty. Specifically, it refers to a situation in which the probability that a firm will go into bankruptcy within two years is high (Altman, 1968; 1983; Miller & Reuer, 1996). The literature suggests that when the survival of family firms is threatened (as would be the case when under financial distress), family firms are likely to modify their normally conservative (or risk averse) proclivity. This change is made because both SEW and the financial welfare of the family might be destroyed under financial distress unless the family firm is willing to change its existing routines (or embrace “venturing risks”; Gomez-Mejia et al., 2007), such as trying new technologies or markets (Duran et al., 2015), investing more in R&D (Chrisman & Patel, 2012; Gomez-Mejia et al., 2014), engaging in more diversification (Gomez-Mejia et al., 2010) and/or restructuring the firm (Chirico et al., 2020b; King, Meglio, Gomez-Mejia, Bauer & De Massis, 2021). The literature also suggests that the pursuit of prospective financial gains becomes more attractive for the family firm under distress, as potential improvements in financial wealth may also preserve SEW (e.g., through continued family

control, thus enabling emotional attachment to the firm, identification with the firm, social ties and dynasty succession; Berrone et al., 2012).

Yet, we know little about the influence of family firm risk taking on firm performance, regardless the level of risk taking. Below, before building a bridge between the family firm risk and performance literature, we briefly summarize the research examining family firm performance.

Family Firm Performance

Beyond the behavioral consequences of family control, family firm scholars have long sought to understand performance differences between family and nonfamily firms. It has been argued, for instance, that the pursuit of nonfinancial goals may have negative performance effects given that the preservation of these goals may result in suboptimal decisions from an economic perspective (Gomez-Mejia et al., 2001; Hoskisson et al., 2017; Schulze et al., 2003). However, it has also been suggested that SEW may have positive financial consequences (Berrone et al., 2010; Dyer & Whetten, 2006). For instance, facilitated by their superior social ties (Zahra, 2010), the strong desire to pass the firm on to the next generation (Miller, Le Breton-Miller, & Scholnick, 2008), or the need to preserve the family's reputation, given that the family's name would suffer if their firm were to fail (Gomez-Mejia et al., 2019; Martin & Gómez-Mejía, 2016), family firms tend to invest greater effort and resources in their firm.

Recent reviews and meta-analyses have added greater nuance to considering factors that may explain performance differences by family firm status. In a review of the research on family firm performance, Amit and Villalonga (2014) conclude that “cumulative evidence suggests that family businesses significantly outperform their non-family-owned peers” (p. 164), yet they also underline the role of the founder as the catalyst for superior family firm performance. If the management team is dominated by the controlling family, performance benefits accrue to the firm given that owner-managers are directly in charge and have high-powered incentives to exert greater effort (Anderson & Reeb, 2003; Anderson, Duru & Reeb, 2009; McConaughy, Walker, Henderson, & Mishra, 1998). In another meta-analysis, Carney and colleagues (2015) find that privately held family firms are more conservative than their non-family counterparts but that their performance is similar. Van Essen and colleagues' (2015) meta-analysis instead finds that family firms outperform due to being less

diversified and less leveraged; however, this gain is at least partially offset by the lesser internationalization of family firms, which negatively affects their performance. Dyer's (2018) review of the family firm literature regarding the family control and performance relationship suggests other important contingencies, such as firm size and cultural dimensions, as well as family firm definition or performance measures (see also Wagner et al., 2015).

Interestingly, Calabro et al. (2021) report that "evidence on comparing the financial performance of family and nonfamily firms during the 2008-10 crisis was rather mixed, indicating that family firms were either worse (e.g., Lins et al., 2013) or better (e.g., Bauweraerts, 2013; Minichilli et al., 2016; Zhou et al., 2017) able to cope with the consequences of the crisis". A study by Lins, Volpin & Wagner (2013) of family firm performance during the financial crisis finds that family firms underperformed during that period and that in an attempt to maintain liquidity and therefore control, cut investment more than did nonfamily firms. However, Minichilli et al. (2016) report that family firms' financial performance during that financial crisis was higher than that of nonfamily firms. Zhou et al. (2017) conclude that founder-led family firms contributed to this outperformance because they did not overinvest to increase short-term earnings during the global financial crisis.

A key factor missing in the literature noted above is the role of firm risk under various distress conditions in shaping family firm performance. We bridge this gap by examining how the returns from risk of family firms differ from those of nonfamily firms in distressed and nondistressed situations. In particular, using the mixed gamble theoretical logic featuring the prospect of socioemotional losses due to failed risk taking, we theorize that prospective SEW losses incentivize family firms to leverage their unique advantages and extract higher returns on risk than nonfamily firms in a distressed situation.

HYPOTHESIS DEVELOPMENT

Prior literature has described how some firms are likely to extract higher returns from the same level of risk, meaning that not all risk delivers equal returns (e.g., Andersen et al., 2007; Martin et al., 2015). This is an important issue from a mixed gamble perspective: some firms may develop capabilities such that their prospective gains in any mixed gamble are higher for a given level of risk (Andersen et al., 2007). Similarly, the probability that the prospective gain (rather than the

prospective loss) is realized is prone to be higher for some firms. We argue that family firms' prescience regarding prospective SEW losses in their mixed gamble if risk taking fails may incentivize behaviors that translate into higher prospective gains and probability of success under duress. This preference might allow them to reverse the negative situation—thereby assuring the family's economic welfare and their SEW.

Accordingly, we theorize that family control positively moderates the risk taking-performance relationship under distress situations such that family firms are more likely to derive higher returns from their risk-taking efforts than nonfamily firms. Using the logic of the mixed gamble, we suggest that family firms anticipate higher prospective gains and a higher probability that they will realize those prospective gains than do nonfamily firms. First, when in financial distress, family firms are cognizant of the potential for dual SEW-financial losses, motivating them to leverage on all resources at their disposal to prevent those prospective catastrophic losses—which are larger than the equivalent prospective losses for a nonfamily firm's mixed gamble (Feldman, Amit & Villalonga, 2016; Gómez-Mejía *et al.*, 2010, 2011; Hoskisson *et al.*, 2017). This combination of prospective financial and SEW losses distinguishes their mixed gamble from that of nonfamily firms. Family control is an enabling condition that allows family members to enjoy SEW-related utilities, such as social ties, emotional attachment, identification with the firm, or the benefits created by dynastic succession (Berrone *et al.*, 2012). The bearing of both prospective financial and socioemotional risk creates a stronger incentive for family firms to rigorously execute projects that could improve the firm's financial prospects of survival; that is, this heightened awareness of the potential for catastrophic prospective socioemotional losses associated with the mixed gamble focuses family firms on leveraging their unique resources when executing risky projects (LaBarge, 1995). That is, the heightened drive of distressed family firms (to avoid failed risk taking that may result in bankruptcy; Lingo and Elmes, 2019) is likely to result in higher returns from risk. Emotional attachment, strong identification with the firm, and dynastic succession reasons (all of which require continued family control as a necessary precondition) should bring affective involvement and intense commitment at the top to ensure risky decisions succeed (Gomez-Mejia *et al.*, 2011). Resources are limited, and there is less room to experiment with disparate activities, increasing the importance of succeeding. Thus, we expect family firms to be

inclined to focus more on the execution of risky projects when the firm faces distress. Hence, family firms should be more likely to take calculated risks, avoid less diligent trial and error, and maximize risky projects' prospective economic utility (Hoskisson et al., 2017). For example, Lumpkin, Brigham, & Moss (2010) suggest that in an attempt to revitalize the business and mitigate the hazard of losing it altogether, a family firm is more effective in exploiting opportunities in difficult situations. Lingo and Elmes (2019) suggest that positive collective action within family firms can be driven by family actors during a crisis (such as financial distress), improving the likelihood that the family firm will thrive through that crisis (see also Carney et al., 2015). Also, because it is inextricably attached to the firm, unlike the decision makers of nonfamily firms who may secure a job elsewhere, the decision makers for family firms bear the full brunt of failure if risk taking is not successful.

Additionally, family literature has described the enhanced binding social ties—or greater social capital—of family firms (Berrone *et al.*, 2012; Zahra, 2010), reflected in a strong concern for nurturing relationships outside of the firm (Arregle, Hitt, Sirmon, & Very, 2007; Berrone *et al.*, 2010; Berrone *et al.*, 2012). In the words of Duran et al. (2015), “given the long term, trust-based nature of those ties family firms are particularly likely to receive valuable support from network partners and also likely to pay attention to, and ultimately implement, the suggestions of those selected sources...also fostering the ability to internalize and harvest external knowledge (absorptive capacity).” The distressed situation strengthens the incentive for the family firm to leverage on its social ties, given the urgency of maximizing the probability that risk taking provides the returns necessary to ensure survival and preserve the family's good name and reputation. In other words, in a difficult situation, the social capital of family firms and associated investment opportunities are likely to offer family firms stronger prospects for realizing prospective gains from their mixed gamble than nonfamily firms that may lack the same social networks.

In summary, we argue that a distressed situation strengthens the incentive for the family firm to effectively execute risky projects by leveraging on their available resources, given the urgency of maximizing the probability that risk taking provides the returns necessary to protect endangered wealth and deliver prospective gains (SEW and financial) in the family firm's mixed gamble. Family owners have a stronger drive than those in charge of nonfamily firms to make sure that risk taking is

successful as they have fewer options to shelter themselves from the consequences of failure. This suggests that family control positively moderates the relationship between risk taking and firm performance such that family firms are more prone to derive higher returns from risk taking when in financial distress. Their higher levels of risk bearing incentivize the successful execution of higher-yielding investments under conditions of high vulnerability. In formal terms, we hypothesize the following:

Hypothesis 1. *Family control moderates the relationship between risk taking and firm performance such that in distressed situations, family firms extract higher financial returns from firm risk taking than nonfamily firms.*

In contrast, we expect that family firms in a low vulnerability financial condition are likely to receive lower returns from their risk taking; that is, we predict that family control negatively moderates the risk taking-performance relationship in a nondistressed situation. Family firms that are in a solid economic position may feel less financial pressure to change strategic directions and to engage in actions to maximize the returns from risky projects (Chrisman & Patel, 2012). These projects indeed may be perceived by family firms as too unpredictable and as having a large potential downside—when they consider their mixed gamble (Gomez-Mejia et al., 2014; Lumpkin et al., 2010). The family firms' inclination here will be more to “harvest rather than build”, as they can enjoy current SEW with relative financial safety; that is, when not in financial distress, the pursuit of prospective economic gains could potentially generate dual SEW-financial losses if the mixed gamble is unsuccessful. Hence, family firms may be less likely to exploit the returns of positive net present value projects and are thus at a disadvantage relative to nonfamily firms in terms of returns from risk taking. For example, when performance is above the aspiration level, the tendency to maintain family control has been found to place limits upon R&D investments (Chrisman & Patel, 2012) which may also imply limits to increase financial outcomes from R&D is successful.

Further, as noted by Feldman et al. (2016: 430), family firms often “fail to fully exploit available economic opportunities” because they focus on socioemotional (as opposed to financial) utilities (or prospective gains) when strategic choices are made. In the absence of financial distress, the additional resources and capabilities enjoyed by family firms (that assist in the distress situation) may be directed by family owners at nurturing their socioemotional endowments, even if they might be

rationalized under the umbrella of “doing well while doing good” (Cennano et al., 2012; Cruz et al., 2014). As an example, family owners might perceive that entering a new market (involving the deployment of financial resources creating financial risk) may create greater opportunities to employ more local people or nourish more local suppliers to enhance SEW but not necessarily to earn a strong return on capital (Martin & Gomez-Mejia, 2016; Schulze et al., 2003). That is, in financial health, the prospective gains that push the execution of a risky project may be dominated by the socioemotional dimensions of the gain (Martin & Gomez-Mejia, 2016). Phrased differently, when the business is more solvent, family firms may use excess available resources to translate risky strategic initiatives into prospective socioemotional gains rather than having distinct instrumental value from an economic perspective.

Finally, decision makers of nonfamily firms are hired agents who are often incentivized in their compensation package to meet challenging performance targets even when the firm is doing well, a reward system that is generally underemphasized for decision makers in family firms (Gomez-Mejia et al., 2003, 2018). Thus, translating attractive business opportunities into higher financial returns under low vulnerability (as a way to meet or exceed targets in the employment contract; Wiseman & Gomez-Mejia, 1998) is far more salient and should carry more weight in the mixed gamble for the decision makers of nonfamily firms than for their counterparts in family firms. This behavior is more likely to lead nonfamily firms to have a positive risk-return gap compared to family firms.

In summary, we contend that family control negatively moderates the relationship between risk taking and firm performance such that family firms are more likely than nonfamily firms to derive lower returns from risk taking when not in financial distress. Formally, we hypothesize the following:

Hypothesis 2: *Family control moderates the relationship between risk taking and firm performance such that in nondistressed situations, family firms extract lower financial returns from risk taking than nonfamily firms.*

METHODS

We rely on a longitudinal dataset provided by Statistics Sweden (SBC) with yearly data on all private firms registered in Sweden and information on all Swedish inhabitants (e.g., financial information, family relationships). These statistics are officially reported to the Swedish government and are known for their reliability. SBC is the national repository for all private and corporate

information. The Swedish government delegates to SCB, that is, the National Institute of Statistics, the collection of all relevant data. In particular, we combined three longitudinal Swedish databases—*registerbaserad arbetsmarknadsstatistik* (RAMS), the *longitudinell integrationsdatabas för sjukförsäkringsoch arbetsmarknadsstudier* (LISA), and the *Flergenerationsregistret* (a multigenerational population database). RAMS provides yearly financial data on all firms registered in Sweden. Indeed, in Sweden, for tax purposes, private firms are required to report financial information to the government through Statistics Sweden. These official statistics, certified by accountants and reported to the government, are considered to be highly accurate and reliable. The number of companies in our sample corresponds to the population for which there is available data and no missing data (e.g., on the ownership side) in this census dataset. LISA provides yearly data on all 9 Million Swedish inhabitants, including employment information and tax declarations. The multigenerational database provides information on couples and on biologically linked families. This is accomplished by mapping the connections among individuals in terms of parental links or marriage to reconstruct family ties among individuals. These datasets are available (for a fee) for research purposes. However, data are anonymized with unique identifiers for individuals and firms. Based on the data available, our sample and analyses refer to annual data observations of privately held firms—a total of over ninthly thousand Swedish companies—during the period 2004–2007.

Coarsened Exact Matching

Coarsened exact matching (CEM) was used to improve the balance of the family and nonfamily firm groups (Blackwell, Iacus, King, & Porro, 2009; Iacus, King & Porro, 2009; 2011a,b) by matching observations exactly across a number of dimensions simultaneously while improving the estimation of causal effects (Blackwell *et al.*, 2009; Iacus *et al.*, 2011a,b). In the present analyses, we run a *finer-grained exact matching* (Stata option: #0), where CEM does not coarsen the matching variables and thus does not reduce the value of matching in adjusting for differences across the control and case groups (Heckman & Navarro-Lozano, 2004; Rogan & Sorenson, 2014). The goal of CEM is to reduce the imbalance in pretreatment covariates between the treated and control groups, thereby reducing the degree of model dependence and bias. Additionally, to avoid losing relevant information, we enabled balanced matching within each matched strata (Blackwell *et al.*, 2009; Iacus

et al., 2009, 2011a,b); that is, CEM maximizes the use of information, providing matched strata that can include different treated and control unit numbers (see also De Figueiredo, Meyer-Doyle & Rawley, 2013; Feldman *et al.*, 2016; Rogan & Sorenson, 2014; Younge, Tong & Fleming, 2015). We selected the CEM procedure as opposed to other matching procedures (e.g., propensity score matching) because evidence suggests that CEM has important advantages over alternative matching techniques and offers more accurate matching results (Iacus, King, & Porro, 2011a,b; 2017). In particular, although CEM works well with continuous variables because it does not require that the matched observations have identical values; it also allows us to rely on “exact” matching variables to perform an exact matching (as in our case) and easily calculate the accuracy of the matching performed (L1 below) (Blackwell *et al.*, 2009). The CEM finds and matches “twin” observations across a set of predetermined variables, thereby holding all covariates constant except for the variable(s) of interest. Thus, CEM is particularly beneficial for examining complex relationships, as in moderated mediation analysis (Klingbeil *et al.*, 2019; Iacus *et al.*, 2009). We matched firm-years on firm size, firm age (the total of individuals employed)², and on a determination of whether the founder is involved in the firm and the industry. First, firm age and size and the related liability of newness and smallness (Hannan & Freeman, 1977; Stinchcombe, 1965) may affect firm risk and performance (Leonard-Barton, 1992). Second, the existing literature indicates that founders tend to influence how a firm is managed and how it performs (e.g., Block, 2012; Miller *et al.*, 2007). Third, a firm’s risk and performance levels may also be a product of the industry in which a company operates (Zahra & Bogner, 2000). The matching technique resulted in a final matched sample of 73,154 companies, with an improvement in the in-sample multivariate imbalance from $LI = 0.3704$ to $LI = 2.258e-14$, showing a high balance (as indicated by $L1 = 0$; higher values indicate greater imbalance between the groups, with a maximum of $L1 = 1$ indicating complete separation (Blackwell *et al.*, 2009)).

Variables and Measures

² In relation to the data on firm age, the information is not available from Statistics Sweden for all firms (missing if firm age > 21 years). We relied on CEM’s routine of “matching on missingness” by treating the missing values as an additional class on which to match (Blackwell *et al.*, 2009). In relation to the data on firm size, we considered both part-time and full-time employees, and to avoid losing relevant information, we matched on the highest number of individuals employed in the time frame considered.

Performance and financial distress (the Altman Z-score). To measure firm performance and to differentiate companies in financial distress (high vulnerability) from well-performing companies (low vulnerability), we used the Altman Z-score model (Miller & Reuer, 1996), which produces a continuous measure of financial performance: a high Z-score indicates a condition of financial health; a low Z-score indicates financial distress (Chakravarthy, 1986; Ferrier, Fhionnlaoich, Smith & Grimm, 2002; Miller & Reuer, 1996). Specifically, the convention for interpreting the Z-score is as follows: Z-scores below 1.81 indicate financial distress, and Altman Z-scores equal to or above 1.81 indicate the absence of financial distress (see Altman, 1968; 1983; Chen & Miller, 2007; Dichev, 1998; Iyer & Miller, 2008; Robbins & Pearce II, 1992). The power of the Z-score has been established for more than four decades; the main reason for its relevance and durability is that it incorporates within a single measure five measures: business profitability, liquidity, efficiency, productivity and leverage. Therefore, the Altman Z-score is considered a robust, accurate and relevant tool for predicting financial distress ($Z\text{-score} < 1.81$; Altman, 1968; 1983) and for measuring financial performance through its continuous measure (see, e.g., Chakravarthy, 1986; Ferrier *et al.*, 2002). In line with Altman (1968, 1983) and subsequent literature (e.g., Chen & Miller, 2007; Iyer & Miller, 2008; Opler & Titman, 1994), we calculated the Altman Z-score = $A*3.3 + B*.99 + C*.6 + D*1.2 + E*1.4^3$.

Risk. Following previous studies (e.g., Gómez-Mejía *et al.*, 2007; Gómez-Mejía, Nunez-Nickel & Gutierrez, 2001; Miller & Reuer, 1996; Miller *et al.*, 2002; Neckebrouck, Schulze & Zellweger, 2018; Palmer & Wiseman, 1999), we measure firm risk as the coefficient of variation for each firm by dividing the standard deviation in sales by the average sales over the past 5 years. As a measure of risk, it reflects the volatility and uncertainty of revenues and therefore earnings over a multiyear period (Palmer & Wiseman, 1999). Revenue uncertainty is associated with greater firm risk, making it one of the most common measures of risk in the strategic management literature (e.g., Bromiley *et al.*,

³ A = Earnings Before Interest & Taxes/Total Assets (measures the productivity of firm assets); B = Net Sales/Total Assets (sales-generating ability of firm assets); C = Book Value of Equity/Total Liabilities (measures the potential for insolvency); D = Working Capital/Total Assets (measures net liquid assets relative to total capitalization); and E = Retained Earnings/Total Assets (measures the amount of reinvested earnings and/or losses in the firm; Altman, 1983).

2001; March & Shapira, 1992), especially among private firms (Neckebrouck et al., 2018). It is also commonly referred to as venturing risk, as revenue variation is a holistic reflection of firm-, industry- and macro-level factors influencing the viability and risk of the business venture (Gómez-Mejía et al., 2007; Neckebrouck et al., 2018).

Family firm measures. We used a binary measure (family firm dummy) and a continuous measure (family firm continuous) of family control through ownership and management (Chrisman & Patel, 2012). We first labeled family-controlled firms as those that were owned and managed by two or more family members (Miller et al., 2007) who were either in a household (spousal couple) or in a biologically linked family (i.e., fathers, mothers, and children living in either the same household or different households; see Wennberg et al., 2011; Wiklund et al., 2013). The family firm dummy variable was coded as 1 if the firm was a family-controlled firm and coded as 0 otherwise. Multiple studies have used a family firm dummy to differentiate between family and nonfamily firms (see, e.g., Feldman *et al.*, 2016; Berrone *et al.*, 2010; Leitterstorf & Rau, 2014). However, theoretical attempts have been made to distinguish characteristics of family control (see Gómez-Mejía *et al.*, 2011). The presence of owners and managers from within the family (e.g., Chrisman & Patel, 2012), the presence of a family CEO (e.g., Berrone *et al.*, 2010) and involvement across generations of the family (e.g., Chrisman *et al.*, 2012) have often been used. Thus, we used these indicators of family control in the firm: a) *family owners' percentage* (family owners/total owners)—where owners are those individuals who declare part ownership to the tax authorities; b) *percentage of family members managing the business* (family managers/total managers); c) *presence of a family CEO*; and d) *generational involvement*, that is, the presence of family members across generations (Chirico et al., 2020b). Strong convergence was found across these measures given that they were loaded highly on a single factor (principal component analysis: factor loading 1= 0.97; factor loading 2= 0.97; factor loading 3= 0.88; factor loading 4= 0.91) and had strong internal consistency (Cronbach's alpha = 0.96). As a result, we created a composite measure of family control using the sum of the standardized values of these measures (for a similar technique, see Finkelstein, 1992; Martin, Gómez-Mejía & Wiseman, 2013). Family control was measured using these variables when the family ownership and management

criteria were compiled. Firms without these conditions were categorized as nonfamily firms (coded as 0), resulting in a left-censored variable (e.g., Chrisman & Patel, 2012; Patel & Chrisman, 2014).

Control variables. We also included additional controls to adjust for additional potential differences (Blackwell et al., 2009; Younge *et al.*, 2015). First, we controlled for *high-* (level of cash reserves) and *low-discretion slack* (debt-to-equity ratio), which may impact firm outcomes (George, 2005). In line with the work of Chen (2008), we created a general slack index and summing these two measures. Second, we controlled for environmental characteristics that may affect firm performance (Bettis & Hitt, 1995). Specifically, we controlled for *environmental dynamism* and *munificence*. Munificence was computed by averaging the regression coefficients of a given industry's (four-digit NACE code) net sales and operating income. Dynamism was calculated as the average standard error of regression slopes for net sales and operating income regressions that we used in the industry munificence calculations (Keats & Hitt, 1988).

RESULTS

Table 1 provides the descriptive statistics and the Pearson correlation coefficients. The variance inflation factors (VIFs) and tolerance demonstrated that multicollinearity was not a concern. The VIF coefficients were below the threshold of 5 (O'Brien, 2007). The focus of the present paper is on *firm risk return*, and as such our hypotheses predict that the relationship between risk taking and performance is moderated by family control under distressed (Hypothesis 1) and nondistressed situations (Hypothesis 2). Yet, following previous research (e.g., Chirico et al., 2020b; Chrisman and Patel., 2012; Gomez-Mejia et al., 2010, 2018), we also run some empirical analyses in relation to the *firm risk level* – that is, whether family firm risk level is higher *or* lower than nonfamily firms under distressed and nondistressed situations. To do so, we used structural equation modeling (SEM) because of its utility in testing moderated mediation models (Hayes, 2013; Preacher & Hayes, 2004; Preacher, Rucker, & Hayes, 2007) in which the moderator 'family firm measure' also affects directly the independent variable 'risk' (see Hayes, 2013; Model 74). Our analyses were conditioned on the set of matched cases and controls (see Blackwell *et al.*, 2009; Iacus *et al.*, 2009; 2011a,b; Rogan & Sorenson, 2014). Given that the variables in our model are observed rather than latent, the confirmatory factor analysis shows a perfect fit with our measurement model (see Bagozzi & Yi,

1988; Bollen, 1989; Kline, 2011; Stata, 2012). We report the findings for both the family firm dummy and the family firm continuous measure of family control in Tables 2 and 3, respectively.

Insert Tables 1, 2 and 3 about here

In Tables 2 and 3, model 1 reports the results for distressed firms, and model 2 reports the results for nondistressed firms along with the related coefficients of the structural paths on risk and on performance. Model 1 in Tables 2 and 3 confirms that family control positively moderates the risk taking/firm performance relationship in the distressed subsample, as predicted by Hypothesis 1. We plotted the interaction effect in Figure 1, which shows that family control weakens the negative relationship between risk taking and firm performance for distressed firms. Family firms extract higher returns from risk taking than nonfamily firms, while outperforming nonfamily firms across all levels of risk (see Figure 1). That is, our model indicates that the risks taken by distressed family firms are more likely to lead to higher returns than the risks taken by distressed nonfamily firms, advancing the insight that family control helps explain the risk/return relationship under duress.

Regarding Hypothesis 2, which predicts that family control negatively moderates the risk taking/firm performance relationship, a negative interaction in the nondistressed subsample is confirmed (although marginally significant) with the family firm's continuous measure (Model 2, Table 3) but not with the family firm dummy measure (Model 2, Table 3). We plotted the significant interaction effect in Figure 2, which shows that family control weakens the positive relationship between risk taking and firm performance for nondistressed firms. That is, in nondistressed situations, family firms extract lower financial returns from risk taking than nonfamily firms. Finally, we compared the coefficients related to our hypotheses in the two models (distressed and nondistressed groups), and the results confirmed their statistical significance.

Insert Figures 2 and 3 about here

Controlling for Endogeneity

Performance and risk can be endogenous to the family firms' unique features. In other words, factors that might influence performance could also influence the preference for maintaining a family

business. Furthermore, the relationships we observe may be subject to a reverse causality interpretation. Although the matching approach addresses the most pressing endogeneity concerns (see De Figueiredo *et al.*, 2013; Wooldridge, 2002), we further employed a two-stage residual inclusion (2SRI) model (see Patel, Criaco, & Naldi, 2016; Terza, Basu, & Rathouz, 2008) to control for endogeneity. The 2SRI estimator is similar to a linear two-stage least squares estimator; the exception is that in the second-stage regression, endogenous variables are not replaced by first-stage predictors. In addition, first-stage residuals are included as regressors added. The literature on institutional pressure suggests that families may be more inclined to keep control over their firm if it is located in areas and/or operates in an industry with higher concentrations of family-controlled firms (Royston & Suddaby, 2006). In our study, we rely on the percentages of family firms in municipalities and in industries (four-digit NACE code) as instrumental variables that can potentially correct for endogeneity. The weak identification test (Cragg-Donald Wald; F statistics=2172.069 which is below the Stock-Yago weak ID test, 10% threshold= 19.93) and the Kleibergen-Paap test (p-value= 0.000 which is below the 0.05 threshold) confirmed that the instruments are valid (i.e., not weak) and properly identified (Clougherty et al. 2016; Stock & Yogo, 2005). In the first stage, we used these two instruments to predict the existence of a family firm using a probit model. In the second stage, we included these variables' residuals as predictors of our dependent variables (Terza *et al.*, 2008) together with our independent variables. Thus, we controlled for the endogeneity score in all analyses (see Tables 2 and 3).

Robustness and Additional Tests

We ran some robustness tests to further confirm our results. First, we used the four measures of family control separately, and the results were consistent with our predictions. However, Hypothesis 2 was supported at $p < 0.10$ with the measure of the percentage of family owners and family managers and supported at $p < 0.05$ with the measure of family generational involvement. Second, we also calculated two alternative internal (firm's historical performance) and external performance measures (firm's social performance) (Chen, 2008). These are not financial distress measures per se but capture the extent to which the firm is below/above a "reference point". Hypothesis 1 was confirmed but not Hypothesis 2. Third, we also used the median split of ROA as a proxy of high and low performance.

Our two hypotheses were supported. Fourth, we run a three-way interaction among the family firm measure, risk and ROA split whose result supported our main findings. Fifth, we excluded all founder firms from the initial sample, and the results remained substantially similar to those reported. Sixth, we excluded all firms that exited during the time period considered. Both hypotheses were confirmed. Seventh, we relied on a wider cutoff point as a robustness test of our results (Altman, 2013)—that is, firms with an Altman Z-score “below 3.0 [which] signal[s] some level of financial distress” (Wennberg *et al.*, 2010: 367)—and found that the results remained similar to the main analyses, yet Hypothesis 2 did not reach a statistical significance. Eighth, we also followed the Baron and Kenny’s (1986) multistage method, and again results were consistent with those of our main analyses. Ninth, to test the sensitivity of our results to our matching procedure, we first reran the analyses before the matching, and second, we opted for a coarser matching procedure (rather than the finer-grained exact matching). In both cases, the results did not differ from those of our main analyses, and hypotheses were confirmed.

Finally, in relation to the *firm risk level*, the family business literature suggests that overall, family firms risk less yet “are willing to trade risk reduction for SEW conservation when performance hazard is higher” (Gomez-Mejia *et al.*, 2010: 232) and thus risk *more* under tough situations. Importantly, our additional analyses exploring the direct effect of the family firm measures on risk (Tables 2 and 3; Models 1 and 2) shows that family firms consistently take *less* risk than non-family both in distressed and nondistressed situations, yet under financial distress, this lower risk translates into more positive performance outcomes for family firms. It is worth noting that in line with existing literature (e.g., Wiseman and Bromiley, 1996) our results (Tables 2 and 3; Models 1 and 2) show that overall risk is negatively (positively) related to firm performance under financial distress (health), yet family firms seem to avoid this conundrum.

DISCUSSION

Drawing from the mixed gamble logic in a family firm context and the firm risk-performance literature, this study aimed to explore the role of risk taking in explaining performance differences between family and nonfamily firms in distressed and nondistressed financial situations. We find that family control moderates the relationship between risk taking and firm performance; specifically,

family firms are more likely to derive better (worse) returns from risk when (not) in distress (see Figures 1 and 2). These findings offer important theoretical contributions.

Our study advances the existing entrepreneurship and management literature through a contingency framework to explain the performance differences of family and nonfamily firms as a function of risk, family control and financial distress (Carney et al., 2015; Dyer, 2018; Van Essen et al., 2015). In particular, while risk and performance have been separately examined by family firm scholars, the role of risk and financial distress in shaping firm performance remains underresearched in family firms. While it has been demonstrated that family firms across the board are likely to be more conservative in strategic choices than non-family firms (e.g., Feldman et al., 2016; Alessandri et al., 2014) and that this gap is attenuated during times of financial duress (e.g., Chrisman & Patel, 2012), the question of how risk taking efforts translate into performance outcomes remains poorly understood. Through the lens of the mixed gamble, our study provides the insight that financial distress shapes the family firm mixed gamble. In particular, financial distress combines with risk taking to affect family firm performance. The risk returns of family firms under distress are superior to those of nonfamily firms because of the intensified focus created by the possible synoptic catastrophic losses of prospective SEW and the family's financial wealth if risk taking fails. Hence, by bridging BAM and family SEW literature with management research exploring risk and performance, we advance both (1) the literature exploring contingencies that explain family firm performance relative to that of nonfamily firms (e.g., Dyer, 2018; Van Essen et al., 2015) and (2) the literature exploring how financial distress changes the risk-taking returns in family firms (Chrisman & Patel, 2012).

Our additional test on firm risk *level* extends the research stream which suggests that family firms prioritize financial objectives and take more risk (such as investing more in R&D; Chrisman & Patel, 2012) when under duress. This is also consistent with the literature arguing that family firm behaviors converge with nonfamily firm behaviors as performance declines (Gomez-Mejia et al., 2014). However, this view was questioned by evidence that family firms experiencing distress due to liquidity issues during the 2008-09 financial crisis reduced risk, challenging the view that family firms will take more risk when performing below aspirations (Lins et al., 2013). We add to this

literature by showing how the family firms' approach to risk—such as in risk evaluation and execution, is likely to change when they are under financial distress. We provide evidence that the family firms' risk aversion (in both financial health and distress) is coupled with a stronger capability to extract higher returns from risk under financial distress. That is, family firms consistently take *less* risk, yet under financial distress (high-vulnerability) conditions, lower risk translates into more positive performance outcomes for these firms. Thus, our study advances the findings from existing studies on family firms under duress that systematically converge to a logic implying a switch in the family firm reference point from being more risk adverse to being more risk loving as performance hazards increase (cf. Gomez-Mejia et al., 2010: 232). Bridging the risk and performance literature in the context of family firms under financial distress has provided greater clarity as to how the unique nature of family firms' risk contributes to performance differentials. Specifically, our argument and related results on the better risk returns of family firms resemble the innovation literature showing that family firms get more innovation outputs from less innovation inputs (Patricio et al., 2016). Apparently, family firms envision risk as a “survival strategy” so that peculiar family firm characteristics make the execution of risk under firm vulnerability more efficient. We have provided important boundary conditions that allow for a greater understanding of why and in which circumstances family firms tend to outperform nonfamily firms. In so doing, we advance the literature exploring family firm performance, which has been the subject of a large number of studies (see, for instance, a series of papers by Villalonga and Amit: Villalonga & Amit, 2006; 2009; 2010), multiple comprehensive literature reviews (e.g., Amit & Villalonga, 2014; Gedajlovic *et al.*, 2012; Sacristán-Navarro, Gómez-Ansón, & Cabeza-García, 2011) and meta-analyses (e.g., Carney et al, 2011, 2015; van Essen et al., 2015).

Our work also contributes to the risk literature by offering a framework for explaining the role of family control in the risk-performance relationship (Andersen *et al.*, 2007; Anderson & Reeb, 2003; Anderson, Reeb & Zhao, 2012; Miller *et al.*, 2007; Villalonga & Amit, 2006). While management scholars have suggested that the high performance of low-risk firms may be due to the quality of management or of other resources residing within the firm (cf. Andersen *et al.*, 2007), the studies on competitive behaviors suggest that firms that fail to proactively take risks or pursue positive net

present value projects will suffer competitive and financial decline (Gupta & Turban, 2012; Mirchandani, 1999). These unresolved perspectives in the risk literature underline the importance of considering additional variables, such as family ownership and management, in analyzing the relationship between risk and financial performance. That is, studies examining the relationship between firm risk taking and performance (e.g., Iyer & Miller, 2008; Pepper, 2015; Wiseman & Bromiley, 1996) must consider both the decision makers' risk preferences and their ability to extract superior returns from risk taking. In so doing, we address the call from Martin et al. (2015: 493) to investigate "the quality [returns] of risk taking...rather than confining the [risk] model to predictions of risk magnitude [level]", thus expanding our understanding of the value-enhancing or value-destroying nature of risk taking.

We extend the classical version of behavioral agency theory (Wiseman & Gómez-Mejía, 1998; Gómez-Mejía et al., 2000) and the related family-centric literature (Hoskisson et al., 2017; Kim et al., 2019) by theorizing that the framing of strategic decisions is not circumscribed to financial concerns and that the salience of the financial reference point depends on the decision makers' utilities subject to loss. In the terminology of Cyert and March (1963), family firms tend to be satisfied with financial performance to protect their noneconomic endowment, and given that the latter depends on a firm's financial viability, family firms are more inclined to become active prospectors when required. In a context that involves tradeoffs between preventing losses of one form of wealth (financial) and preserving another form of wealth (nonfinancial), family firms balance economic and noneconomic objectives by maximizing performance when under financial distress but, in contrast, avoid performance-maximizing strategies—and their ensuing dangers in case of failure—when doing well. The present study explicitly considered how the mixed gamble of family decision makers nuances the performance effects of risk and financial distress.

Our insights regarding the roles of family control and risk in performance have other important theoretical implications. Family firms are argued to pursue the goal of nurturing their business across generations, requiring long-term success (Habbershon, Nordqvist & Zellweger, 2010; Berrone et al., 2010, 2012, 2021). However, compared to nonfamily firms, family firms are also argued to be more risk averse with regard to their strategic investments and general levels of business risk. These family

firm characteristics—long-term oriented and risk averse—create a challenge that is difficult to overcome: that of engaging in a level of risk taking that enables the renewal necessary to sustain performance benefits and long-term success. This suggests that proactive engagement in risk or exhibiting behaviors associated with corporate entrepreneurship (Thomson & McNamara, 2001; Zahra and Covin, 1995) are less likely to occur in family firms (Aldrich & Cliff, 2003). However, to date, the family firm and risk-performance literatures have not been integrated to consider the performance implications of the family firms' risk tolerance. By providing insights regarding the returns on risk by family firms relative to those by nonfamily firms, the present study advances the existing literature by demonstrating that the firm's ownership structure matters when explaining heterogeneity in risk and firm performance. More specifically, our study offers a richer understanding regarding the conditions under which family firms successfully take the risks necessary—and extract superior returns from the risks taken—to prevent the inertia, complacency and performance declines that may potentially threaten the business.

Our findings that family firms obtain better results from risk taking (although, they risk *less*) when positive outcomes are most needed due to financial distress questions the long string of studies with a more negative view of family control. These studies generally argue that dominant family owners and their managers impose an “expropriation tax” upon minority shareholders (Fan & Wong, 2002; Schleifer & Vishny, 1997) or that they are more prone to suffer agency problems (Schulze et al., 2001; Lubatkin, Ling & Schulze, 2007). In addition to the opportunity costs of risk aversion for family firms (Anderson et al., 2009), it has been suggested that family firms take advantage of minority shareholders because the family is likely to find ways to extract private benefits, such as the employment of family members (Schulze et al., 2001), generous compensation (Gómez-Mejía, Larraza-Kintana & Makri, 2003), and a failure to remove family members as they would non-family executives (Gómez-Mejía, Nuñez-Nickel, & Gutierrez, 2001). Favoritism toward family members may result in non-family employees withholding effort, which creates additional headwinds for family firm performance (Lubatkin et al., 2007; Neckebrouck et al., 2018). In addition, the preservation of nonfinancial utilities may occur at the expense of financial wealth; for instance, family firms may invest in costly projects that enhance the family's image in the community (Berrone *et al.*,

2010). In summarizing this negative view, Schulze and colleagues (2001: 101) conclude that family firms are prone to have “an agency problem with themselves.” At least in the case of risk taking, family firms seem to do better for themselves as well as for other stakeholders who depend on the firm (e.g., employees, investors) when there is impending doom in the horizon (which is not an uncommon situation; see Faccio et al., 2016). This may help explain why employees of family firms report greater perceived organizational caring than those of non-family firms (Christensen-Salem et al., 2021). From a practical perspective, our study thus suggests that shareholders should be less concerned with monitoring family firms when they are under financial distress than when they are not facing such threats. When there is no financial distress, close monitoring may instead be necessary to ensure that family firms are exploiting their valuable resources rather than avoiding attractive projects that are expected to be value enhancing.

Finally, we derived the above insights using a sample of private firms, whereas public firm samples have dominated this research stream (e.g., Anderson & Reeb, 2003; Anderson et al., 2012; Miller *et al.*, 2007; Villalonga & Amit, 2006). Our focus on privately held firms is important given that they represent “the world’s most common form of economic organization” (Neckebrouck et al., 2018: 574). Thus, we offer a strong empirical base for developing a framework of how risk and performance are related to the private owners’ desire to protect their financial and nonfinancial endowments. Relatedly, our focus on how financial distress shapes strategic behavior is topical at the time of this writing given the vast proportion of private and small and medium sized firms thrown into severe levels of financial distress both in the aftermath of the “grand recession” of 2008 and by the recent outbreak of COVID-19—the greatest global downturn over the last one hundred years—which is creating profound and unexpected business challenges in most (if not *all*) economies.

As with all research, our work has some limitations that suggest paths for future research. First, similar to recent studies (e.g., Boellis *et al.*, 2016; Chrisman & Patel, 2012; Souder *et al.*, 2016), we do not directly measure nonfinancial utilities. Thus, we invite future scholars to directly measure elements of SEW (see Berrone *et al.*, 2012), the related noneconomic and economic goals pursued by family firms (Chrisman et al., 2012; Chua, Chrisman, & De Massis, 2015), and their potential effects on entrepreneurial behaviors and financial outcomes (Becerra et al, 2020). Other dimensions of SEW

beyond family control (such as identification and emotional attachment) could not be measured with the archival data at our disposal. However, as proposed by Berrone et al. (2012), these other SEW dimensions cannot exist in the absence of family control, and this control would be lost if the firm fails due to bad risk taking under distress. Second, the present work did not consider the different strategies and possible conflicts and views of different types of owners and managers, including those belonging to the same or different generations, with regard to possible different risk levels and future directions that firms must take. Third, emotional commitment may tend to decrease (Gómez-Mejía *et al.*, 2007, 2011) or increase (Chirico et al., 2020b) with the advancing life stages of a family firm from one generation to the next. Future studies may focus on this issue and the related phenomena of generational successions. Fourth, our finding that family firms take less risk also under financial distress (in contrast with most previous studies; e.g., Chrisman and Patel, 2012; Gomez-Mejia et al., 2018) deserves further attention. For instance, cultural or context related reasons may be investigated. Studies show that overall Swedish family companies are risk averse, yet innovative (Christiansen, 2021; Sekerci, 2020). Fifth, although we perform a fine-grained exact matching on whether the founder is involved in the firm and we also run a further robustness test by excluding founder firms, future studies may discriminate between founder firms, family firms and nonfamily firms to explore the role of the founder on risk-taking strategies and returns (Block, 2012; Miller et al., 2007). Similarly, future studies may look at the risk-performance relationship depending on the family and the nonfamily firms' resource availability. In the present study, we matched firm age, firm size and the industry in which the firm operates (Leonard-Barton, 1992; Zahra & Bogner, 2000). Finally, it would be valuable to study the risk levels and performance outcomes of publicly traded companies that have multiple ownership and management configurations and are subject to high-level market pressures.

In summary, we believe that our study advances knowledge regarding the situation under which family firms outperform their non-family counterparts. In doing so, we aim to provide a catalyst for future research exploring differences in risk and performance outcomes between family and nonfamily firms under duress.

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Table 1: Descriptive Statistics and Correlations.

	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11
1 Performance (Altman's Z-score)	3.88	2.18	1.00										
2 Distress	0.14	0.35	-0.55	1.00									
3 Risk	0.19	0.16	-0.06	0.11	1.00								
4 Family firm (dummy)	0.26	0.44	-0.00	0.00	-0.07	1.00							
5 Family firm (continuous)	0.00	3.83	-0.00	0.00	-0.07	0.99	1.00						
6 Slack	-0.02	0.99	0.01	0.02	0.01	-0.01	-0.01	1.00					
7 Dynamism	1.02	0.03	-0.00	-0.01	0.03	0.02	0.02	0.02	1.00				
8 Munificence	0.99	0.06	0.04	-0.06	-0.07	0.01	0.01	0.02	-0.04	1.00			
9 Firm age	8.66	5.30	0.03	-0.05	-0.15	0.09	0.09	-0.05	-0.02	0.02	1.00		
10 Firm size	8.21	9.32	0.01	-0.04	-0.07	0.12	0.12	0.05	0.06	0.06	-0.10	1.00	
11 Founder	0.29	0.46	-0.02	0.04	0.08	-0.02	-0.02	0.03	-0.00	-0.00	-0.44	0.02	1.00

Correlations with values of $|\cdot| \geq 0.01$ or greater are significant at $p < 0.05$

Table 2: Analyses for Distressed and Nondistressed Firms (family firm's dummy measure)

Structural Parameters	Model 1			Model 2		
	Distressed firms			Nondistressed firms		
<i>Structural paths on risk</i>						
Slack → Risk	0.00	(0.00)	**	0.00	(0.00)	***
Dynamism → Risk	0.41	(0.04)	***	0.17	(0.01)	***
Munificence → Risk	0.09	(0.02)	***	-0.10	(0.00)	***
Family Firm (dummy) → Risk	-0.02	(0.00)	***	-0.02	(0.00)	***
Endogeneity score → Risk	-0.42	(0.02)	***	-0.35	(0.01)	***
<i>Structural paths on performance</i>						
Slack → Performance	-0.07	(0.01)	***	0.07	(0.00)	***
Dynamism → Performance	-0.97	(0.25)	***	-0.94	(0.14)	***
Munificence → Performance	0.17	(0.09)	+	-0.42	(0.09)	***
Family firm (dummy) → Performance	0.05	(0.02)	*	-0.05	(0.02)	***
Risk → Performance	-1.07	(0.04)	***	0.40	(0.04)	***
Family firm (dummy) × Risk → Performance	0.25	(0.08)	***	-0.10	(0.07)	
Endogeneity score → Risk	1.75	(0.12)	***	1.87	(0.08)	***
Log Likelihood	68,619.17			509,454.15		

Note: coefficients reported. Standard errors are in parentheses. + $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table 3: Analyses for Distressed and Nondistressed Firms (family firm's continuous measure)

Structural Parameters	Model 1			Model 2		
	Distressed firms			Nondistressed firms		
<i>Structural paths on risk</i>						
Slack → Risk	0.00	(0.00)	**	0.00	(0.00)	***
Dynamism → Risk	0.41	(0.04)	***	0.17	(0.01)	***
Munificence → Risk	0.09	(0.02)	***	-0.10	(0.01)	***
Family Firm (dummy) → Risk	-.003	(0.00)	***	-.002	(0.00)	***
Endogeneity score → Risk	-0.41	(0.02)	***	-0.35	(0.01)	***
<i>Structural paths on performance</i>						
Slack → Performance	-0.07	(0.01)	***	0.07	(0.01)	***
Dynamism → Performance	-0.96	(0.25)	***	-0.95	(0.14)	***
Munificence → Performance	0.17	(0.09)	+	-0.42	(0.09)	***
Family firm (dummy) → Performance	0.01	(0.00)	*	-0.01	(0.00)	**
Risk → Performance	-1.00	(0.03)	***	0.37	(0.03)	***
Family firm (dummy) × Risk → Performance	0.03	(0.01)	***	-0.01	(0.01)	+
Endogeneity score → Risk	1.74	(0.12)	***	1.86	(0.08)	***
Log Likelihood	-61,560.22			-274,586.04		

Note: coefficients reported. Standard errors are in parentheses. + $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Figure 1: The Moderating Role of Family Control in the Relationship between Risk Taking and Performance for Distressed Firms

Figure 2: The Moderating Role of Family Control in the Relationship between Risk Taking and Performance for Nondistressed Firms