



Financial performance in Mexican family vs. non-family firms

*Desempeño financiero de empresas familiares
vs. empresas no familiares en México*

Karen Watkins Fassler

Universidad Popular Autónoma del Estado de Puebla, México

Received 5 september 2016; accepted 07 april 2017

Available online 19 march 2018

Abstract

This paper analyses the effects of family ownership on Mexican firm performance. Annual data for 89 non-financial companies that quoted in the Mexican Stock Market during 2001-2015 (including the 2008-2009 crisis period) is employed. The relationship between family proprietorship and firm performance is empirically studied through GMM estimations. Results show that family firms outperform non-family businesses, while higher performance is appreciated in family corporates directed by family members rather than by outside CEOs. Firm size, Board independency, and company's age have a negative effect on return on assets, while ownership concentration is positively related with performance. There is no unanimity in the literature regarding the business opportuneness of family control and management, particularly differentiating between normal times and crisis periods. Even though there are quite a few papers on the topic for developed markets, studies for Latin American economies are rare. This paper adds to the scarce literature on the Latin American context with the Mexican case.

JEL Classification: G31, G34

Keywords: Corporate Governance; Mexico; Ownership Concentration; Family Firms; Firm Performance

E-mail address: karen.watkins@upaep.mx (K. Watkins)

Peer Review under the responsibility of Universidad Nacional Autónoma de México.

<http://dx.doi.org/10.22201/fca.24488410e.2018.1214>

0186- 1042/© 2018 Universidad Nacional Autónoma de México, Facultad de Contaduría y Administración. This is an open access article under the CC BY-NC-ND (<http://creativecommons.org/licenses/by-nc-nd/4.0/>)

Resumen

Este artículo analiza los efectos de la propiedad familiar en el desempeño empresarial mexicano. Para este fin se utilizan datos anuales de 89 firmas no financieras, que cotizaron en la Bolsa Mexicana de Valores durante el período 2001-2015 (el cual incluye el episodio de crisis 2008-2009). La relación entre propiedad familiar y desempeño empresarial se estudia empíricamente a través de estimaciones GMM. Los resultados muestran que las empresas familiares son más rentables que las no familiares. Asimismo, se aprecia un mejor desempeño en aquellas empresas familiares dirigidas por miembros de las mismas familias, en comparación con aquellas lideradas por CEOs externos. El tamaño de las firmas, la independencia del Consejo de Administración y la edad de la empresa tienen un efecto negativo en el rendimiento sobre los activos; en cambio, la concentración de la propiedad se asocia positivamente con el desempeño financiero. No hay unanimidad en la literatura con respecto a las ventajas de las empresas familiares, particularmente diferenciando entre períodos normales y de crisis financieras. Aunque hay una serie de artículos relacionados para mercados desarrollados, los estudios que involucran economías latinoamericanas son escasos. Este artículo aporta a la literatura para el contexto de América Latina, con el caso mexicano.

Código JEL: G31, G34

Palabras clave: Gobierno Corporativo, México, Concentración de la Propiedad, Empresas Familiares, Desempeño Empresarial

Introduction

In Latin America it is quite common that companies' ownership is concentrated in family hands and business groups. As external corporate governance mechanisms - labor markets, legal framework, and markets for corporate control- do not function as properly as in developed economies (Boubakri *et al.*, 2005; Chong and Lopez-de-Silanes, 2007), firms rely mostly on internal corporate governance schemes- such as ownership concentration- in order to protect stakeholders and enhance firm value (La Porta *et al.*, 1999; Steier, 2009; Santiago, 2009). However, after the most recent financial crisis, more debate has arisen regarding the convenience of this entrepreneurial environment for firms' performance, as it might limit access to capital markets and consequently increase companies' risk levels (Barca, Ferri and Pesaresi, 1998). Being Mexico the most injured Latin American economy during this crisis episode (according to Bank of Mexico (2009), its GDP declined 6.5% during 2009), makes Mexican companies a provocative case to study. According to the latest numbers, most corporates listed in the Mexican Stock Market are family owned (Watkins *et al.*, 2016).

There is no unanimity in the literature regarding the business opportuneness of family control and management, particularly differentiating between normal times and crisis periods (Miralles-Marcelo *et al.*, 2014). Even though there are quite a few papers on the topic for developed markets, studies for Latin American economies are rare (Martínez *et al.*, 2007). This has to do, among other things, to the fact that detailed corporate governance information for companies operating in these countries is scarce. This paper adds to the limited literature on the Latin American context with the Mexican case, where typically there is high ownership concentration in family hands, incipient external corporate governance schemes, and therefore strong reliance on internal governance mechanisms in order to protect stakeholders and look after profit maximizing strategies.

Corporate governance and financial data for 89 non-financial companies listed in the Mexican Stock Market during 2001-2015 (which includes the crisis period between 2008 and

2009) has been captured manually, from the firms' annual reports published at the Mexican Stock Market's webpage. Controllers are found for all cases through company and internet search. Through this novel database, the relationship between ownership concentration in family hands and firm performance during normal periods and times of crisis is studied. Results for non-family owned versus family owned companies are obtained and compared, considering both the percentage of shares owned by the family (control) and its participation in the firms' operations (management).

Results show that there are significant performance differences between family firms and non-family owned companies, considering return on assets (ROA) as the performance variable. Family firms outperform non-family owned businesses, while higher performance is appreciated at family corporates directed by family members rather than by outside CEOs. The latter effect is particularly strong during the crisis episode (2008-2009). Firm size, Board independency, and company's age have a negative effect on return on assets, while ownership concentration is positively related with performance, especially during crisis times.

The paper is organized in the following way: Section 2 deals with the literature review and hypotheses. Section 3 describes the data, variables, and methods; Section 4 presents the main results, based on GMM estimations; Section 5 deals with additional endogeneity concerns; Section 6 concludes.

Literature review

Authors such as Barca, Ferri and Pesaresi (1998) and La Porta et al. (1999) put forward that high ownership concentration (for instance in family hands) restricts capital markets' development, which limits access to financial resources and investment. The latter implies greater costs of capital, more entrepreneurial risk, and lower corporate performance. In addition, there is evidence in the literature that suggests that family owned companies' outcomes are comparatively lower, relative to other proprietorship structures. In particular, when these businesses are managed by family CEOs, they tend to offer and sustain executive positions regardless of their descendants' talents and administrative capabilities, which is not a good corporate practice (Galve, 2002).

The negative relationship between ownership concentration (particularly in family firms) and companies' outcomes is studied also by Bennedsen and Wolfenzon (2000); Baek *et al.* (2004); and Maury (2006). In accordance with the agency theory, it is shown in these studies that executives or majority shareholders expropriate minority shareholders and other stakeholders, with actions that evolve in lower earnings. The agency conflict arises as objectives are not always aligned. While owners search for profit-maximization, problems rise on issues such as the distribution of these benefits between minority and majority shareholders. As well, when majority shareholders are family entrepreneurs, they might search for socio-emotional objectives, which are not shared by other stakeholders (Gómez-Mejía *et al.*, 2007). The struggles between majority and minority shareholders are known as principal-principal problems (Jiang and Peng, 2011). On the other hand, executives are also interested in their own personal economic benefit (Berle and Means 1991; Jensen and Meckling, 1976), which creates divergences between their objectives and those of the shareholders (agent-principal problem).

During times of crisis, due to the greater uncertainty and destruction of firm value, it

becomes more attractive to expropriate different stakeholders (Mitton, 2002); therefore, the negative effects on companies are greater. In emerging market economies where there is weak investor protection, lack of transparency and consequently more possibilities for expropriation, control becomes very valuable (Setia-Atmaja, 2009; Borhanuddin and Ching, 2011). As stated by La Porta *et al.* (2000: 16): "In countries with poor protection, the insiders might treat outside investors well as long as future prospects are bright and they are interested in continued external financing. When future prospects deteriorate, however, the insiders step up expropriation, and the outside investors, whether shareholders or creditors, are unable to do anything about it".

On the contrary, Bunkanwanicha *et al.* (2008); Boubakri *et al.* (2005); and Kim (2006) conclude that high ownership concentration (as in family hands) reduces agency costs and favors firm performance. Majority shareholders have greater incentives to monitor companies, in order to maximize profits; they might also hold an executive position which diminishes struggles between private and collective interests. In addition, in emerging markets families' reputation might be needed in order to obtain external funding. High family ownership concentration favors long-term relationships in the companies, security and stability, together with knowledge transfer, which positively impacts investment and financial results - even during crisis times (Müller, 2014; Franks *et al.*, 2008, 2012; Hauswald *et al.*, 2015). Instead, in turbulent times, due to the circumstances, shareholders from widely dispersed-owned firms walk away from the corporations, which further deteriorates companies' value (for instance, by selling shares with discount).

Business ethics and stakeholder relations are key elements in setting up good reputation and long term success of family firms (Dou *et al.*, 2014); therefore, it has been argued that even during crisis periods, expropriation of minority shareholders and creditors is not the rule but rather the exception (Bunkanwanicha *et al.*, 2008). A main goal of the family business is to ensure its own long-term survival, and therefore family entrepreneurs would be more interested than non-family ones in building up trust and taking into account the interests of all stakeholders (Le Breton-Miller and Miller, 2016; Miralles-Marcelo *et al.*, 2014). Due to long-term orientation, family-member CEOs would be expected to present less opportunistic behaviour, to make better use of resources and to seek out business strategies that maximise the firm's value (Khanna and Palepu, 2000; Stanley and McDowell, 2014). According to Donaldson and Davis (1991), majority shareholders and family CEOs are well-intentioned individuals who want to avoid conflicts of interest and personal economic gains that can be harmful for other stakeholders.

A family-member CEO is expected to be more committed to the company, its present and future family generations, and to have more specific knowledge of the firm's affairs. The greater alignment between the interests of family members and the family CEO could improve corporate performance (Jiang and Peng, 2011; Zellweger, 2007). Furthermore, family-member CEOs usually have extensive family networks, connected to the worlds of politics and business, providing better access to information and resources, and reducing the uncertainty arising from emerging markets (Arregle *et al.*, 2007; Sraer and Thesmar, 2007).

In Latin America in general, and specifically in Mexico, family firms' norms and reputation can substitute for the lack of stakeholders' formal institutional protection through effective external corporate governance schemes. As reputation is a key element for companies' long-term success, there are arguments to anticipate a positive relationship between family ownership, family management, and firm performance, bearing in mind both normal and crisis

periods of time. As such, in line with the Latin American context, the following hypotheses are tested for non-financial companies listed in the Mexican Stock Market during 2001-2015 (including the 2008-2009 financial crisis period):

Hypothesis 1: Family firms outperform non-family owned businesses.

Hypothesis 2: There is a positive effect on performance when family firms are managed by CEOs who belong to the controlling families.

Data, variables, and methods

Sample

Data for 89 non-financial companies listed in the Mexican Stock Market during 2001-2015 (which includes the crisis period between 2008 and 2009) has been captured manually, from the firms' annual reports published at the Mexican Stock Market's webpage; it corresponds to 1335 observations. This work was supported by CONACYT. The database has been independently revised by the author and two research assistants.

Corporate governance and financial data is employed in order to construct independent variables (firms' family control and family management), dependent variable (firm performance), and control variables. This information includes the names of CEOs and Board members; their participation as shareholders, executives, and/or independent contributors; the names and percentage of shares held by the 10 main shareholders (controllers are found for all cases through company and internet search); exposure to international capital markets by issuing debt and/or equity; number of years since the firm was established; companies' total assets; net earnings; total debt, and equity.

Variables

Independent variables deal with firms' family control and family management, and are constructed as dummy variables:

1. Family ownership. There is not a single definition, or consensus on the definition of a family firm. Therefore, prior literature is followed in order to identify a company as such. Family firms are determined as those where a single person or family owns 30% or more of ordinary shares (family control). If a control trust, private investment fund, or company limited by shares appears as the main shareholder, its controller is identified in order to verify if the company is family owned, according to the present definition. This classification is even stricter than the European Union definition (2009) which considers a family business when a family possesses at least 25% of voting rights. Generally speaking, studies that perform empirical analysis of listed companies consider a company to be family owned when the family holds between 10 and 20% of the shares (Bennedsen *et al.*, 2007). Due to Mexican firms' high ownership concentration (on average shareholding for quoted firms corresponds to 53%), for robustness it was decided to employ also a superior level of shareholding in the definition of family firm: 51% or more of company's shares in family hands.

This follows prior papers in the topic for Mexico, as proposed by San Martín-Reyna and Durán-Encalada (2012), and Watkins *et al.* (2016).

CEO Family. This classification is used for CEOs who are members of the families that own the companies (family management). The criteria engaged in this characterization is last names' coincidence, which has been widely accepted in the literature (Barontini and Caprio, 2006; Andres, 2011; Anderson *et al.*, 2012).

The dependent performance variable is return on assets (ROA). It is calculated as net income over total assets, so it reflects book value.

The following control variables are collected from the data:

1. *Ownership concentration.* Firms are classified through the maximum percentage of ordinary shares held by the same party (family or not).
2. *Board independency.* Board's independency is calculated through the ratio of number of independent Board members over total number of proprietary directors.
3. *Internationalization.* In order to measure companies' internationalization, a dummy variable is employed to capture exposure to international capital markets by issuing debt and/or equity.
4. *Company's age.* It refers to the number of years since the company has been established.
5. *Firm size.* It is expressed as the natural logarithm of total assets.
6. *Leverage.* It refers to total debt over equity.

Methods

Given the characteristics of the database, it is possible to perform dynamic panel analysis. Panel data combines time series with cross sectional information. Panel analysis has the advantage that it allows to control for unobservable variables such as differences (that do not vary over time) in business practices between companies, as well as taking into account variables that change over time but not across firms (such as corporate law). As prior firm performance is an important determinant of current ROA (Tosi *et al.*, 2000), dynamics is attained by including in the regression lagged (one period) return on assets.

Regressions should also contain period effects (normal vs crisis), to contemplate performance differences between normal times and the most recent global financial crisis. For this purpose, a dummy variable (crisis) is introduced, being 1 if the years under consideration are 2008 and 2009, and 0 otherwise. Finally, in order to take into account the fact that ROA's reactions due to financial and corporate governance arrangements might not be immediate, independent and control variables are lagged one period.

Corporate governance and finance literature argue the potential existence of endogeneity issues in the relationship between ownership and performance (Demsetz and Villalonga, 2001), corporate governance (Pindado *et al.*, 2011), among others. In fact, family ownership might impact ROA, but ROA might also influence concentration of property in family hands. In order to deal with the endogeneity problem, regressions are run through the Generalized Method of Moments (GMM), for which a first differences transformation is employed in order to

remove cross-section fixed effects. GMM level instruments are obtained then through habitual Arellano-Bond methodology. Robust, White period weights (2-steps) are used to compute standard errors. As stated by Zhang (2013), GMM is useful to eliminate autocorrelation and heteroscedasticity problems, in addition to endogeneity (reverse causation) concerns.

The following equation is tested:

$$ROA_{it} = \partial_0 + \partial_1 ROA_{it-1} + \sum_{s=2}^9 \partial_s V_{sit-1} + \mu_{it} \quad (1)$$

where:

∂_0 is the constant term;

∂_2 - ∂_9 are parameters associated to each of the independent and control variables;

V refers to independent and control variables;

μ is the error term;

i refers to the companies;

t is time.

Equation 1 is expanded to account for differences between periods. The dummy variable "crisis" (C) is introduced, being 0 for normal times and 1 for the crisis episode (2008-2009):

$$ROA_{it} = \partial_0 + \partial_1 ROA_{it-1} + \sum_{s=2}^9 \partial_s V_{sit-1} + \sum_{s=2}^9 \beta_s V_{sit-1} * C + \mu_{it} \quad (2)$$

Results

Descriptive Statistics

Table 1 shows average annual values for both independent variables: family ownership (family control, according to both definitions employed) and CEO family (family management).

The companies under study display high ownership concentration (in family hands), which is stable throughout time, even considering the crisis period (2008-2009). On average, 77% of firms are family controlled, according to the less strict definition employed of family business (30% or more shareholding). When considering 51% or more of ordinary shares in family hands, on average family firms correspond to 58% of the sample. In addition, approximately 45% of family companies are managed by family members, percentage that does not vary significantly during the crisis episode.

Companies' ownership tends to re-structure during financial crises, although apparently this is not the case for Mexico. According to authors such as Bena and Li (2014), these events do not favor concentrated proprietorship, as firms' possibilities to obtain loans are limited. Often during these episodes' mergers and acquisitions take place, which incite a reduction in family ownership concentration.

Table 1
 Average Annual Values for Independent Variables

Year	Family Ownership ¹	Family Ownership ²	CEO Family
2001	0.77	0.77	0.31
2002	0.81	0.75	0.47
2003	0.77	0.62	0.40
2004	0.81	0.65	0.49
2005	0.81	0.65	0.46
2006	0.79	0.61	0.49
2007	0.82	0.58	0.47
2008	0.81	0.61	0.44
2009	0.77	0.60	0.45
2010	0.75	0.55	0.41
2011	0.71	0.55	0.43
2012	0.71	0.55	0.49
2013	0.74	0.54	0.45
2014	0.74	0.53	0.48
2015	0.75	0.48	0.45
Total	0.77	0.58	0.45

Average annual values do not differ from the rest, at 10% significance level.

1/ Family Ownership: A single person or family owns 30% or more of ordinary shares (family control).

2/ Family Ownership: A single person or family owns 51% or more of ordinary shares (family control).

CEO Family: CEOs are members of the families that own the companies (family management).

Data for 89 non-financial companies listed in the Mexican Stock Market during 2001-2015.

Source: Own elaboration

Table 2 shows average annual values for return on assets (ROA), from 2001 till 2015. These numbers fluctuate from minimum values of 1.6 and 2.3 per cent (2003 and 2008- crisis year) and maximum values of 5.8 and 5.9 per cent (2005 and 2006), being these differences statistically significant. The latter reflects the expected negative effect of the world financial crisis on Mexican firm performance. In addition, it shows relatively more ROA volatility (which indicates greater entrepreneurial risk) starting in 2007, when economic disturbances take place in the US.

Table 2
Return on Assets

Year	Average	Standard Deviation
2001	0.035	0.063
2002	0.028	0.060
2003	0.016**	0.081
2004	0.045	0.063
2005	0.058**	0.060
2006	0.059**	0.068
2007	0.045	0.093
2008	0.023*	0.087
2009	0.026	0.071
2010	0.039	0.066
2011	0.041	0.070
2012	0.034	0.107
2013	0.036	0.082
2014	0.033	0.056
2015	0.026	0.070
Total	0.037	0.077

**Average annual ROA values differ significantly, at 1% significance level.

* Average annual ROA values differ significantly, at 10% significance level.

ROA is calculated as net earnings over total assets.

Data for 89 non-financial companies listed in the Mexican Stock Market during 2001-2015.

Source: Own elaboration

Table 3 summarizes return on assets according to ownership structure. Generally speaking, family held firms display higher average ROA, relative to other companies. With respect to family management, apparently it does not make a difference on ROA.

Table 3
Return on Assets According to Ownership Structure

	ROA		ROA All
	Normal Times	Crisis Period	
No Family Ownership	0.027*	0.015	0.025*
Family Ownership^{1/}	0.044	0.031	0.041
CEO Family	0.042	0.033	0.040
No CEO Family	0.048	0.030	0.045
Family Ownership^{2/}	0.047	0.027	0.043
CEO Family	0.041	0.025	0.038
No CEO Family	0.052	0.028	0.048
Total	0.040	0.025	0.037

1/ Family Ownership: A single person or family owns 30% or more of ordinary shares (family control).

2/ Family Ownership: A single person or family owns 51% or more of ordinary shares (family control).

CEO Family: CEOs are members of the families that own the companies (family management).

ROA is calculated as net income over total assets.

* Average annual ROA values differ significantly, at 1% significance levels.

Data for 89 non-financial companies listed in the Mexican Stock Market during 2001-2015.

Source: Own elaboration

Econometric results

Table 4 presents econometric results, for studying the impact of family control and family management on firm performance.

Table 4: GMM Estimations

	1	2	3	4
ROA(-1)	0.01 (0.08)	0.03*** (0.01)	0.03 (0.11)	0.02 (0.02)
Family Ownership	0.06 (0.04)	0.02*** (0.00)	0.09** (0.04)	0.06*** (0.01)
Family Ownership*Crisis			-0.10 (0.13)	-0.08* (0.05)
CEO Family	0.00 (0.04)	0.01* (0.00)	0.00 (0.04)	-0.01 (0.01)
CEO Family*Crisis			0.09 (0.11)	0.08** (0.04)
Ownership Concentration	0.00 (0.00)	0.01*** (0.00)	0.00 (0.00)	0.00 (0.00)
Ownership Concentration*Crisis			0.00 (0.00)	0.01* (0.00)
Internationalization	0.00 (0.05)	0.01 (0.01)	-0.01 (0.05)	-0.01 (0.01)
Internationalization*Crisis			-0.10 (0.20)	-0.04 (0.06)
Firm Size	-0.06** (0.03)	-0.06*** (0.00)	-0.04 (0.04)	-0.04*** (0.01)
Firm Size*Crisis			0.00 (0.01)	0.00 (0.00)
Leverage	0.00 (0.01)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Leverage*Crisis			0.01 (0.03)	0.01 (0.01)
Board Independency	-0.13 (0.08)	-0.12*** (0.01)	-0.10 (0.08)	-0.07*** (0.02)
Board Independency*Crisis			0.04 (0.38)	0.01 (0.16)
Company's Age	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	-0.01** (0.00)
Company's Age*Crisis			0.00 (0.00)	0.00 (0.00)
J-Statistic	82.88	71.55	59.62	67.74
Prob (J-Statistic)	0.45	0.49	0.89	0.35

*** Significant at 1%

** Significant at 5%

* Significant at 10%

1 and 3 / Family Ownership: A single person or family owns 30% or more of ordinary shares.

2 and 4 / Family Ownership: A single person or family owns 51% or more of ordinary shares.

Notes:

ROA is the dependent variable.

GMM model for panel data analysis corresponds to firms listed on the Mexican Stock Exchange from 2001 till 2015. Specifications 1 and 2 do not differentiate between normal and crisis periods. Values in parentheses refer to standard errors.

The Sangan-Hansen J-Test examines the null hypothesis that the model is valid (that the instruments are valid). If Prob(J-Statistic) > 0.05, the null hypothesis is not rejected at 5% significance.

Source: Own elaboration.

These outcomes are based on Panel Generalized Method of Moments (GMM estimations), using White period standard errors and covariance. As stated by Zhang (2013), GMM is useful to eliminate autocorrelation and heteroscedasticity problems, in addition to endogeneity (reverse causation) concerns. As instruments, only stationary series are used, these being lagged first differences instead of variable levels. The latter follows Kleibergen and Mavroeidis (2009).

Return on assets (ROA) is the dependent variable; independent variables are family ownership and CEO family. Control variables refer to ownership concentration, internationalization, firm size, leverage, Board independency, and company's age.

The first two specifications include the whole time horizon, without differentiating between the crisis episode and normal times. In the first specification, equation 1 is run using as definition for family ownership when a single person or family owns 30% or more of the company's ordinary shares. According to the results, family firms do not outperform (statistically speaking) non-family owned companies. There are no significant differences either when comparing firm performance according to CEOs' family and non-family attributes. On the contrary, in specification 2, when shareholding rises to 51% or more in the definition of family ownership, a positive and highly significant effect of family firms on ROA is attained. In addition, there seems to be a slightly positive effect on ROA when family firms are managed by CEOs who belong to the controlling families.

With respect to control variables, both in specifications 1 and 2 there is an inverse size effect on return on assets. As the size of a business increases, its agency costs rise and, consequently, so do the possibilities of seeking objectives other than that of maximising business profit. Agents might be interested in investing in negative net present value projects, as firm size is related to compensation, power, reputation, and job stability (Jensen, 1986). According to Sharma et al. (1997) and Anderson et al. (2012), family owners would be interested in policies that favour socio-emotional wealth, even if they had a negative impact on the firm's financial performance.

In specification 2, Board independency also appears to negatively impact firm performance. Although this is an uncommon outcome in the literature, it is not surprising as in Mexico the definition of independency does not take into account the fact that Board members tend to be related to other firms of the same business group (Watkins et al., 2017). As stated by Valenti and Horner (2010), this type of interlocking directorates allow a specific group of company owners, managers, chairs of the Boards, and other directors to unify corporate policy and concentrate power, which facilitates not the interests of the company itself, but rather the interests of particular directors. Castañeda (2005) shows that in Mexico the Board chair is usually the main shareholder and CEO, so this person in practice does not have opposition even from independent Board members.

For specification 2, it also shows that ownership concentration has a positive effect on ROA. High ownership concentration reduces agent-principal problems, as majority shareholders have the incentive to monitor companies in order to maximize profits (Khanna and Palepu, 2000). In addition, large shareholders (family or not) have greater interest to have a firm running properly; business ethics and stakeholder relations are key elements in setting up good reputation and long term success. In these circumstances, the expropriation of minority shareholders as exposed in the principal-principal conflict is not the rule, but rather the exception (Bunkanwanicha et al., 2008).

The third and fourth specifications differentiate between normal times and the most recent global financial crisis. For this purpose, a dummy variable (crisis - C) is introduced in equation 2, being 1 if the years under consideration are 2008 and 2009, and 0 otherwise. Specification 3 takes into consideration a family firm when a single person or family owns at least 30% of the shares; specification 4 considers a family firm when this shareholding is 51% or more. In both specifications, regression results manifest that family ownership positively impacts ROA during normal periods of time, while being the CEO a family member or not makes no significant difference. Regarding control variables, during normal times specification 4 displays that firm size, Board independency, and company's age have a negative effect on performance. Mature companies tend to be less profitable, due to business cycle considerations (Ward, 2016).

The effects of independent and control variables on firm performance during the crisis episode (2008-2009), corresponding to specifications 3 and 4, were corroborated through Wald tests. Table 5 indicates that during 2008 and 2009 there was no direct association between family ownership and ROA. In fact, the test values are negative (not significant), which moderates the positive overall impact of family proprietorship on firm performance when considering the whole time horizon in specifications 1 and 2. Nevertheless, during the crisis episode ROA was greater when the family firm was directed by a family member CEO, particularly for the stricter definition of family business used (51% of shareholding). In specification 4, three of the control variables appeared to impact return on assets during 2008 and 2009: ownership concentration being directly related with ROA; firm size and company's age having a negative influence on performance.

Table 5
Wald Tests

Default hypothesis tested	Default Wald test	Test value ¹	Test value ²
During the crisis, family ownership had no impact on ROA	$\partial_2 + \beta_2 C = 0$	-0.01	-0.02
During 2008-2009, family member CEOs were not associated with ROA	$\partial_3 + \beta_3 C = 0$	0.09	0.07**
During the crisis, ownership concentration was not related with ROA	$\partial_4 + \beta_4 C = 0$	0.00	0.01*
During 2008-2009, internationalization had no effect on ROA	$\partial_5 + \beta_5 C = 0$	-0.11	-0.06
During the crisis, firm size was not related with ROA	$\partial_6 + \beta_6 C = 0$	-0.04	-0.04***
During 2008-2009, leverage and ROA were not associated	$\partial_7 + \beta_7 C = 0$	0.01	0.01
During the crisis, Board independency had no effect on ROA	$\partial_8 + \beta_8 C = 0$	-0.05	-0.06
During 2008-2009, company's age and ROA were not related	$\partial_9 + \beta_9 C = 0$	0.00	-0.01**

*** The default Wald test is rejected at 1% significance level.

** The default Wald test is rejected at 5% significance level.

* The default Wald test is rejected at 10% significance level.

1/ Family Ownership: A single person or family owns 30% or more of ordinary shares.

2/ Family Ownership: A single person or family owns 51% or more of ordinary shares.

Source: Own elaboration.

Endogeneity concerns

Endogeneity basically refers to the difficulty to determine a cause and an effect. The inquiry is if firm performance is the cause and family ownership the effect, or vice versa. We are interested in family ownership being the cause of higher Mexican firm performance. However, there is some evidence (see Villalonga and Amit, 2006; Maury, 2006) that families keep control only of well-performing firms (being performance the cause and family ownership concentration the effect). In addition, corporate performance can impact ownership concentration through mechanisms such as acquisitions taking place in the market for corporate control. The main concern with endogeneity is that one might under or overestimate the true effect of ownership concentration in family hands on firms' performance.

Although endogeneity has been taken into account using GMM estimation, it is important to go further and use another approach to study the potential magnitude of this problem. For this purpose, it is analyzed if control changes are a common practice for quoted firms in Mexico. Since these types of events typically take place after performance variations (the reverse causality issue), they are related many times to CEO turnovers (see Conyon and Florou, 2002; Fee and Hadlock, 2004). In the same direction, when a company is acquired by a different controller, very often a new CEO is hired. Table 6 shows the complete list of CEO turnovers for companies quoted in the Mexican Stock Market during 2002-2015. From the table it is possible to conclude that in Mexico control changes are quite rare. In fact, from a total of 110 CEO turnovers, only 6 (5%) coincided with a change in ownership: BEVIDES 2002 (who was experiencing negative ROA from 2001 till 2002, and from 2003 on this was no longer the case), GMARTI 2007 (ROA was positive during all quoted years; the firms' main shareholder and the Board of Directors accepted a tender offer), HOGAR 2007 (ROA was negative from 2005 till 2011), TMM 2009 (afterwards there was a positive performance effect), GMODELO 2013 (it was sold to Anheuser-Busch International Holdings), and AXTEL 2015 (it was suffering losses in 2014 and merged with ALESTRA). It is interesting to notice that there has never been a hostile takeover in the Mexican Stock Market, in part due to the high levels of family ownership concentration.

The information provided in table 6 suggests that in Mexico firm performance is not the cause for control changes, as property is quite stable; therefore, ownership concentration (family proprietorship) is more likely to impact company performance than vice versa. Hence, no further endogeneity concerns proceed.

Table 6:
CEO Turnovers in Mexico

Firm	Year	Firm	Year	Firm	Year	Firm	Year	Firm	Year	Firm	Year	Firm	Year	Firm	Year	Firm	Year
AHMSA	2004	AZTECA	2004	CMR	2004	GCARSO	2004	GRUMA	2007	ICH	2006	MEDICA	2013	SARE	2011		
ALFA	2009	AZTECA	2015	CMR	2009	GCC	2009	GRUMA	2010	IDEAL	2009	MEDICA	2015	SARE	2012		
ALSEA	2007	BACHOCO	2010	CNCI	2005	GEO	2005	GRUMA	2011	KIMBER	2007	MEXCHEM	2010	SARE	2015		
ALSEA	2009	BEVIDES	2002	COLLADO	2013	GEUPEC	2013	GRUMA	2009	KUO	2014	MEXCHEM	2012	TELMEX	2006		
ALSEA	2010	BEVIDES	2003	CONVER	2004	GEUPEC	2004	HILASAL	2010	KUO	2015	OMA	2009	TMM	2007		
ALSEA	2015	BEVIDES	2007	CONVER	2007	GEUPEC	2007	HOGAR	2011	LAB	2015	OMA	2011	TMM	2009		
ASUR	2002	BEVIDES	2011	CONVER	2012	GISSA	2012	HOGAR	2006	MASECA	2005	PASA	2010	VITRO	2008		
ASUR	2006	CABLE	2002	CYDSASA	2002	GISSA	2004	HOGAR	2008	HOGAR	2007	PENOLLES	2008	VITRO	2013		
ASUR	2011	CABLE	2012	ELEKTRA	2012	GISSA	2007	HOGAR	2014	MASECA	2008	POCHTEC	2007	WALMEX	2004		
ASUR	2013	CABLE	2013	ELEKTRA	2013	GISSA	2012	GMARTI	2007	MAXCOM	2008	POSADAS	2006	WALMEX	2009		
AUTLAN	2005	CEMEX	2014	ELEKTRA	2014	GMD	2015	ICA	2005	MAXCOM	2009	POSADAS	2011	WALMEX	2014		
AUTLAN	2012	CICSA	2007	FEMSA	2014	GMODELO	2014	ICA	2013	MAXCOM	2011	PYP	2009	WALMEX	2015		
AUTLAN	2013	CIE	2008	GAP	2007	GPH	2007	ICA	2015	MAXCOM	2013	SAB	2008				
AXTEL	2015	CMOCTEZ	2009	GAP	2010	GRUMA	2010	ICH	2005	MEDICA	2010	SARE	2006				

Turnovers that coincide with a change in ownership are shown in bold and italics.

Source: Own elaboration.

Discussion and conclusions

This study evidences high family ownership concentration for quoted Mexican non-financial firms, which is typical in Latin America. Considering a family firm when a single person or family owns 30% or more of ordinary shares, on average 77% of the enterprises are family controlled. With a stricter definition, when a single person or family owns 51% or more of ordinary shares, this percentage still remains high (58%). In addition, 45% of these companies are directed by family members. These entrepreneurial characteristics do not vary significantly considering crisis and normal periods of time; in fact, they are quite stable variables.

Overall, family controlled firms outperform non-family companies. This intimate entrepreneurial environment benefits corporate results, as it promotes long-term relationships and responsible management (Henssen et al., 2014; Fernando et al., 2014). In addition, CEOs who are members of the controlling families have a significant favorable impact on firm performance, particularly during crisis times. Family CEOs can reduce conflicts between managers and shareholders (Jensen and Meckling, 1976; Peng and Jiang, 2010), which is beneficial for the firms. In addition, a family-member CEO is more committed to the company, and usually has more experience and information on the business (Bertrand and Schoar, 2006). Also, family CEOs can access resources and reduce information constraints through their networks, which are above all beneficial when dealing with turbulent periods of time (Sitthipongpanich and Polsiri, 2015).

In Latin American and other emerging markets, where external Corporate Governance mechanisms - such as the implementation of laws and regulations - do not function as efficiently as in developed economies (Boubakri et al., 2005; Chong and Lopez-de-Silanes, 2007), firms rely more on internal governance schemes - such as family proprietorship - for stakeholder protection and consequently investor confidence (La Porta et al., 1999; Steier, 2009). Families' reputation is a key element for companies' long-term success, which provides a counterbalance against expropriation of minority shareholders and creditors (Bunkanwanicha et al., 2008; Estrin and Prevezer, 2011).

The combination of high ownership concentration in family hands, together with a family member CEO, is a strategy that excels financial outcomes in Mexican listed corporates. When the family owns an important percentage of the shares and participates in the administration of the company, it is easier to align objectives and reduce opportunistic behaviors, resulting in efficient resource and risk management (Galve, 2002). This is especially relevant during crisis times, when asymmetric information and business risk increases.

The previous results suggest that Mexican family entrepreneurs act as responsible owners, taking into account the interests of present and future generations, as well as those of other stakeholders. Long time orientation - which is a characteristic of family firms - favors solidary leadership, stakeholder protection, and trust, which enhances firm performance (Brigham et al., 2013; Sharma et al., 2014). As an area of opportunity, future research on Mexican family firms should explicitly integrate time orientation-related variables.

References

- Anderson, R.C., Duru, A., and Reeb, D.M. (2012). Investment policy in family controlled firms. *Journal of Banking and Finance*, 36 (6), 1744-1758. <https://doi.org/10.1016/j.jbankfin.2012.01.018>
- Andres, C (2011). Family ownership, financing constraints and investment decisions. *Applied Financial Economics*, 21 (22), 1641-1659. <https://doi.org/10.2139/ssrn.1101453>
- Arregle, J., Hitt, M., Sirmon, D., and Very, P. (2007). The development of organizational social capital: Attributes of family firms. *Journal of Management Studies*, 44(1), 73-95.
- Baek, J.S., Kang, J.K., and Park, K.S. (2004). Corporate Governance and firm value: Evidence from the Korean financial crisis. *Journal of Financial Economics*, 71 (2), 265–313. [https://doi.org/10.1016/s0304-405x\(03\)00167-3](https://doi.org/10.1016/s0304-405x(03)00167-3)
- Bank of Mexico (2009). Annual Report Summary: <http://www.banxico.org.mx/publicaciones-y-discursos/publicaciones/informes-periodicos/annual/%7B7447993F-55EF-F7FD-7E30-01015753E686%7D.pdf>
- Barca F., Ferri G., Pesaresi N. (1998) Banks and Corporate Governance in Italy: A Two-Tier Model. In: Balling M., Hennessy E., O'Brien R. (eds) Corporate Governance, Financial Markets and Global Convergence. Financial and Monetary Policy Studies, vol 33. Springer, Boston, MA https://doi.org/10.1007/978-1-4757-2633-6_2
- Barontini, R. and Caprio, L. (2006). The effect of family control on firm value and performance: Evidence from Continental Europe. *European Financial Management*, 12 (5), 689-723. <https://doi.org/10.1111/j.1468-036x.2006.00273.x>
- Bena, J. and Li, K. (2014). Corporate innovations and mergers and acquisitions. *Journal of Finance*, 69 (5), 1923-1960. <https://doi.org/10.1111/jofi.12059>
- Bennedsen, M., Nielsen, K.M., Perez-Gonzalez, F., and Wolfenzon, D. (2007). Inside the family firm: The role of families in succession decisions and performance. *The Quarterly Journal of Economics*, 122 (2), 647-691. <https://doi.org/10.1162/qjec.122.2.647>
- Bennedsen, M. and Wolfenzon, D. (2000). The balance of power in closely held corporations. *Journal of Financial Economics*, 58 (1, 2), 113-139. [https://doi.org/10.1016/s0304-405x\(00\)00068-4](https://doi.org/10.1016/s0304-405x(00)00068-4)
- Berle, A. and Means, G. (1991). The modern corporation and private property. New York: Routledge. <https://doi.org/10.4324/9781315133188>
- Bertrand, M. and Schoar, A. (2006). The role of family in family firms. *Journal of Economic Perspectives*, 20(2), 73-96.
- Borhanuddin, R.I. and Ching, P.W. (2011). Cash holding, leverage, ownership concentration and Board independence: Evidence from Malaysia. *Malaysian Accounting Review*, 10 (1), 63-88.
- Boubakri, N., Cosset, J.C., and Guedhami, O. (2005). Postprivatization Corporate Governance: The role of ownership structure and investor protection. *Journal of Financial Economics*, 76 (2), 369-399. <https://doi.org/10.1016/j.jfineco.2004.05.003>
- Brigham, K.H., Lumpkin, G.T., Payne, G.T., and Zachary, M.A. (2013). Researching long-term orientation: A validation study and recommendations for future research. *Family Business Review*, DOI: 10.1177/0894486513508980
- Bunkanwanicha, P., Gupta, J., and Rokhim, R. (2008). Debt and entrenchment: Evidence from Thailand and Indonesia. *European Journal of Operational Research*, 185 (3), 1578-1595. <https://doi.org/10.1016/j.ejor.2006.08.025>
- Castañeda, G. (2005). Consequences of firms' relational financing in the aftermath of the 1995 Mexican banking crisis. *Journal of Applied Economics*, 8(1), 53-79.
- Chong, A., Gullén, J. and López-de-Silanes, F. (2009). Corporate Governance reform and firm value in Mexico: An empirical assessment. *Journal of Economic Policy Reform*, 12 (3), 163-188. <https://doi.org/10.1080/17487870903105346>
- Canyon, M. and Florou, A. (2002). Top executive dismissal, ownership and corporate performance. *Accounting and Business Research*, 32 (4), 209-225. <https://doi.org/10.1080/00014788.2002.9728971>
- Demsetz, H. and Villalonga, B. (2001). Ownership structure and corporate performance. *Journal of Corporate Finance*, 7 (3), 209-233. [https://doi.org/10.1016/s0929-1199\(01\)00020-7](https://doi.org/10.1016/s0929-1199(01)00020-7)
- Donaldson, L. and Davis, J.H. (1991). Stewardship Theory or Agency Theory: CEO governance and shareholder returns. *Australian Journal of Management*, 16 (1), 49-65. <https://doi.org/10.1177/031289629101600103>

- 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), 259-274. <https://doi.org/10.1177/0894486514538449>
- Estrin, S. and Prevezer, M. (2011). The role of informal institutions in corporate governance: Brazil, Russia, India, and China compared. *Asia Pacific Journal of Management*, 28(1), 41-67.
- Fee, C.E. and Hadlock, C.J. (2004). Management turnover across the corporate hierarchy. *Journal of Accounting and Economics*, 37 (1), 3-38. <https://doi.org/10.1016/j.jacceco.2003.11.003>
- Fernando, G.D., Schneible, R.A., and Suh, S.H. (2014). Family firms and institutional investors. *Family Business Review*, 27(4), 328-345.
- Franks, J., Mayer, C., Pin, P., and Wagner, H.F. (2008). Elution of family capitalism: A comparative study of France, Germany, Italy and the U.K. Working Paper, London Business School, University of Oxford, and Bocconi University.
- Franks, J., Mayer, C., pin, P., and Wagner, H.F. (2012). The life cycle of family ownership: International evidence. *The Review of Financial Studies*, 25 (6), 1675-1712. <https://doi.org/10.1093/rfs/hhr135>
- Galve, C. (2002). Propiedad y gobierno: La empresa familiar. *Ekonomiaz*, 50 (2), 158-181.
- Gómez-Mejía, L.R., Haynes, K., Núñez-Nickel, M., Jacobson, K.J.L., 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), 106-137. <https://doi.org/10.2189/asqu.52.1.106>
- Hauswald, H., Hack, A., Kellermanns, F.W., and Patzelt, H. (2015). Attracting new talent to family firms: Who is attracted and under what conditions? *Entrepreneurship Theory and Practice*, 40 (5), 963- 989 doi: 10.1111/etap.12153.
- Henssen, B., Voordeckers, W., Lambrechts, F., and Koiranen, M. (2014). The CEO autonomy-stewardship behavior relationship in family firms: The mediating role of psychological ownership. *Journal of Family Business Strategy*, 5, 312-322. <https://doi.org/10.1016/j.jfbs.2014.01.012>
- Jensen, M.C. and Meckling, W.H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3, 305-360. [https://doi.org/10.1016/0304-405x\(76\)90026-x](https://doi.org/10.1016/0304-405x(76)90026-x)
- Jensen, M.C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *American Economic Review*, 76 (2), 323-329.
- Jiang, Y. and Peng, M. (2011). Principal-principal conflicts during crisis. *Asia Pacific Journal of Management*, 28(4), 683-696.
- Kim, E. (2006). The impact of family ownership and capital structures on productivity performance of Korean manufacturing firms: Corporate Governance and the “Chaebol problem”. *Journal of the Japanese and International Economies*, 20 (2), 209-233. <https://doi.org/10.1016/j.jjie.2005.02.001>
- Khanna, T. and Palepu, K. (2000). Is group affiliation profitable in emerging markets? An analysis of diversified Indian business groups. *The Journal of Finance*, 55 (2), 867-891.
- Kleibergen, F. and Mavroeidis, S. (2009). Weak instrument robust ttests in GMM and the new Keynesian Phillips Curve. *Journal of Business and Economic Statistics*, 27(3), 293-339.
- La Porta, R., López-de-Silanes, F., Shleifer, A., and Vishny, R. (1999). Corporate ownership around the world. *The Journal of Finance*, 54(2), 471-517. [https://doi.org/10.1016/s0304-405x\(00\)00065-9](https://doi.org/10.1016/s0304-405x(00)00065-9)
- La Porta, R., López-de-Silanes, F., Shleifer, A., and Vishny, R. (2000). Investor protection and Corporate Governance. *Journal of Financial Economics*, 58 (1), 3-27.
- Le Breton-Miller, I. and Miller, D. (2016). Family firms and practices of sustainability: A contingency view. *Journal of Family Business Strategy*, 7(1), 26-33.
- Martínez, J.I., Stöhr, B.S., and Quiroga, B.F. (2007). Family ownership and firm performance: Evidence from public companies in Chile. *Family Business Review*, 20 (2), 83-94. <https://doi.org/10.1111/j.1741-6248.2007.00087.x>
- Maury, B. (2006). Family ownership and firm performance: Empirical evidence from Western European corporations. *Journal of Corporate Finance*, 12 (2), 321-341.
- Miralles-Marcelo, J.L., Miralles-Quirós, M.M., and Lisboa, I. (2014). The impact of family control on firm performance: Evidence from Portugal and Spain. *Journal of Family Business Strategy*, 5, 156-168.
- Mitton, T. (2002). A cross-firm analysis of the impact of Corporate Governance on the East Asian financial crisis. *Journal of Financial Economics*, 64 (2), 215-241. [https://doi.org/10.1016/s0304-405x\(02\)00076-4](https://doi.org/10.1016/s0304-405x(02)00076-4)

- Müller, C. (2014). Knowledge transfer and family influence: Effects on innovation and performance. Working Paper, School of Economics and Business, University of Chile.
- Peng, M. and Jiang, Y. (2010). Institutions behind family ownership and control in large firms. *Journal of Management Studies*, 47(2), 253-273. <https://doi.org/10.1111/j.1467-6486.2009.00890.x>
- Pindado, J., Requejo, L., and de la Torre, C. (2011). Family control and investment-cash flow sensitivity: Empirical evidence from the euro zone. *Journal of Corporate Finance*, 17 (5), 1389-1409. <https://doi.org/10.1016/j.jcorpfin.2011.07.003>
- San Martín-Reyna, J.M., and Durán-Encalada, J.A. (2012). The relationship among family business, corporate governance, and firm performance: Evidence from the Mexican stock exchange. *Journal of Family Business Strategy*, 3, 106-117. <https://doi.org/10.1016/j.jfbs.2012.03.001>
- Santiago, M. and Brown, C.J. (2011). Corporate governance, expropriation of minority shareholders' rights, and performance of Latin American enterprises. *Annals of Finance*, 7 (4), 429-447. <https://doi.org/10.1007/s10436-009-0132-z>
- Setia-Atmaja, L.Y. (2009). Governance mechanisms and firm value: The impact of ownership concentration and dividends. *Corporate Governance: An International Review*, 17 (6), 694-709. <https://doi.org/10.1111/j.1467-8683.2009.00768.x>
- Sharma, P., Chrisman, J. J., and Chua, J. H. (1997). Strategic management of the family business: Past research and future challenges. *Family Business Review*, 10, 1-35. <https://doi.org/10.1111/j.1741-6248.1997.00001.x>
- Sharma, P., Salvato, C., and Reay, T. (2014). Temporal dimensions of family enterprise research. *Family Business Review*, 27(1), 10-19.
- Sitthipongpanich, T. and Polsiri, P. (2015). Do CEO and board characteristics matter? A study of Thai family firms. *Journal of Family Business Strategy*, 6(2), 119-129. <https://doi.org/10.1016/j.jfbs.2015.01.002>
- Sraer, D. and Thesmar, D. (2007). Performance and behavior of family firms: Evidence from the French stock market. *Journal of the European Economic Association*, 5, 709-751. <https://doi.org/10.1162/jeea.2007.5.4.709>
- Stanley, L.J., and McDowell, W. (2014). The role of interorganizational trust and organizational efficacy in family and nonfamily firms. *Journal of Family Business Strategy*, 5(3), 264-275. <https://doi.org/10.1016/j.jfbs.2013.07.001>
- Steier, L. (2009). Familiar capitalism in global institutional contexts: Implications for corporate governance and entrepreneurship in East Asia. *Asia Pacific Journal of Management*, 26(3), 513-535. <https://doi.org/10.1007/s10490-008-9117-0>
- Tosi, H.L., S. Werner, J.P. Katz, and Gómez-Mejía, L. (2000). How much does performance matter? A meta-analysis of CEO pay studies. *The Journal of Management*, 26 (2), 301-339. [https://doi.org/10.1016/s0149-2063\(99\)00047-1](https://doi.org/10.1016/s0149-2063(99)00047-1)
- Valenti, A., and Horner, S.V. (2010). Corporate directors' social capital: How centrality and density impact board monitoring. *Journal of Applied Business and Economics*, 11(4), 117-127.
- Villalonga, B. and Amit, R. (2006). *How do family ownership, control and management affect firm value?* *Journal of Financial Economics*, 80 (2), 385-417. <https://doi.org/10.1016/j.jfineco.2004.12.005>
- Ward, J.L. (2016). *Keeping the family business healthy: How to plan for continuing growth, profitability, and family leadership*. Palgrave Macmillan, UK.
- Watkins, K., Briano, G., and Rodríguez, L. (2016). Efectos de la capacidad y procedencia de los CEOs en el desempeño financiero de las empresas cotizadas familiares: Evidencias para México. José Ángel Vázquez (ed.). In: *Lecciones para empresarios familiares*, Volume VII, UDEM.
- Watkins, K., Fernández, V., and Rodríguez, L. (2017). President interlocking, family firms and performance during turbulent times: Evidence from Latin America. *European Journal of Family Business*, <http://dx.doi.org/10.1016/j.ejfb.2016.12.001>
- Zellweger, T. (2007). Time horizon, cost of equity capital, and generic investment strategies of firms. *Family Business Review*, 20(1), 1-15. <https://doi.org/10.1111/j.1741-6248.2007.00080.x>
- Zhang, J. (2013). *Foreign Direct Investment, Governance, and the Environment in China*. Palgrave Macmillan, UK.