International diversification, ownership structure and performance in an emerging market: evidence from Chile

Christian Espinosa-Méndez, Luis Araya-Castillo, Mauricio Jara Bertín & Juan Gorigoitía

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ABSTRACT
This research analyzes the impact of international diversification on the performance of Chilean exporting firms. Considering a sample of 47 companies listed on the Santiago Stock Exchange during the period 2003–2013, we found an international diversification discount. Secondly, when investigating the relationship between international diversification and performance, we found that they are related through an inverted U curve. Finally, we investigated how the ownership structure moderates the relationship between international diversification and performance, finding that the ownership concentration and pyramidal ownership positively impact the performance of companies initiating international diversification strategies; and that the business groups’ affiliation negatively impacts in the international diversification-performance relationship.

1. Introduction
The internationalization of firms is considered one of the main areas of study of international business (Hennart, 2007, 2011; Hitt et al., 1997; Kirca et al., 2012). Given this, researchers became interested in analyzing why some firms perform better than others when operating in foreign markets (Banalieva & Robertson, 2010; Oh & Contractor, 2014; Ruigrok & Wagner, 2007), and have studied the relationship between international diversification and firm performance (Contractor et al., 2007; Kirca et al., 2012; Lu & Beamish, 2004). In spite of the large volume of research carried out in the past 40 years, the theoretical foundations and the empirical findings concerning the nature of the relationship between international diversification and performance (ID-P) vary greatly (Mendoza et al., 2020), which explains why there is
no consensus regarding how this relationship takes place (Bobillo et al., 2010; De Jong & van Houten, 2014; Shin et al., 2017).

In emerging economies, the studies in this area are incipient, mainly because the emerging market multinational companies (EMNCs) were relative latecomers to the international marketplace (Mathews, 2006) but have expanded into distant markets aggressively since the 2000s (Gaur et al., 2014; Gaur & Delios, 2015; Guillen & Garcia-Canal, 2009).

We focused on Chile as it is an interesting case study that, on one hand, it has different characteristics compared to developed countries and emerging economies where literature has focused on studying the relationship between international diversification and performance; and, on the other hand, companies in this economy have a high ownership concentration that contributes to form pyramidal ownership structures, and where the internal capital markets inside business groups are an efficient way of resources allocation. In fact, Chile, firstly, is an emerging economy that has a corporate system essentially based on bank financing, where banks have a main role in comparison to capital markets (Fernández, 2005; Fernández et al., 2010). Second, most common agency conflict is between majority and minority shareholders, which favors expropriation of wealth for the benefit of the first (Santiago-Castro & Brown, 2007). Third, ownership concentration is high and belongs to just one shareholder or business consortium; thus, there is a pyramidal structure that allows excessive control emerge (Lefort & González, 2008; Lefort & Walker, 2000). Fourth, the kind of legal system of Anglo-Saxon countries with more dispersed ownership is dominated by common law system, whereas Chile has a civil law system (La Porta et al., 1997, 1998).

Given the above mentioned, our research analyses, on one hand, how the international diversification strategies are related to Chilean firms’ performance. Considering a sample of 47 companies listed on the Santiago Stock Exchange during the period between 2003 and 2013, we study the nature of the relationship between a firm’s internationalization and performance. However, in line with what literature suggests, this paper explores the role of moderating factors underlying the ID-P relationship. Specifically, we analyze how the local institutional context not only affects the external governance environment in which firms operate (manifested by the ownership concentration and pyramidal ownership), but also becomes manifest in firms’ internal governance structures (manifested by the business groups affiliation), affecting the internationalization of EMNCs and the value they derive from it.

2. Literature review and hypotheses development

2.1. International diversification and firm value

The international diversification can be considered as a strategic decision for the company that not only is focused on reducing risks derived from the reduction of demand in the domestic market (Ciravegna et al., 2014; Hernández-Perlines et al., 2020), but also as a growth strategy that allows companies to capture opportunities offered by foreign markets (Bobillo et al., 2008; Capar & Kotabe, 2003).

However, there is no consensus on the shape and direction of the relationship between international diversification and performance of multinational firms.
Positive linear relationship (Delios & Beamish, 1999; Hitt et al., 2006b; Loncan & Meucci, 2010); negative linear (Bobillo et al., 2012; Geringer et al., 2000; Lin et al., 2011); U-shaped (Contractor et al., 2007; Li & Yue, 2008; Ruigrok & Wagner, 2007); inverted U-shaped (Garbe & Richter, 2009; Hitt et al., 1997; Lampel & Giachetti, 2013); S-shaped (Contractor et al., 2003; Kumar & Singh, 2008; Lu & Beamish, 2004); M-shaped (Almodóvar, 2012; Almodóvar & Rugman, 2014; Lee, 2010, 2013); and even without relationship (Dess et al., 1995; Genthon, 2008; Kahloul & Hallara, 2010) have been reported.

Thus, a series of factors and/or moderators have been reported to explain the different findings (Fleming & de Oliveira Cabral, 2016). For instance, the size and age of the company (Qian et al., 2008), intangible assets (Bausch & Krist, 2007), institutional environment (Estrin et al., 2008), human capital (Tuppura et al., 2008), geographical focus (Mendoza et al., 2020), and the company’s internal and external competitive advantages (Bobillo et al., 2010) have been reported as variables influencing the relationship between international diversification and performance.

Besides, there are still economies where it is not known how this relationship operates, even more so in emerging markets with a highly concentrated ownership and pyramidal ownership structures, and where it is observed the prevalence of business groups organizational forms. Specifically, in Chile there is no evidence as to how international diversification strategy is related to performance, even when Chile’s successful gestation of multinational firms can be explained by looking at its recent economic history (Aguilera et al., 2017), because Chilean firms benefitted earlier than other Latin American firms from operating in a competitive economy, so when other markets in the region implemented similar reforms, they were well-placed to enter them and outcompete some of the local or global incumbents (del Sol & Kogan, 2007). Therefore, our first hypothesis could be posed as follows:

**Hypothesis 1:** It is possible to expect an award for international diversification.

Our second objective is to investigate the shape that the relationship between international diversification and performance adopts. In general, the proposal that currently predominates is that which proposes the existence of an S-shaped relationship between the international diversification degree and performance (Garbe & Richter, 2009), even when in the last years, some authors have proposed the existence of an M-shaped curve (Almodóvar, 2012; Almodóvar & Rugman, 2014; Lee, 2010, 2013).

Authors that propose an S-shaped relationship (Contractor et al., 2003; Lu & Beamish, 2004; Outreville, 2010, 2012) argue that the benefits and costs of internationalization change between the different states of company’s international expansion process (Kumar & Singh, 2008; Tsai, 2014; Verbeke & Brugman, 2009). In the first state companies must cope with liabilities of newness and foreignness with a negative impact on their performance levels, as the costs derived from implementing an international expansion strategy exceed the benefits. However, after the initial stage, companies get positive returns from foreign markets, as they have knowledge and experience levels that allow them improve their levels of efficiency by better allocating resources. At the same time, these companies are gaining legitimacy in the foreign markets and are able to exploit the opportunities of the market, extend the product life cycle and exert global market power. However, after this growth stage,
companies exceed the optimal level of internationalization, which explains why they are not able to respond to foreign market demand, and along with this, to cope with the costs of transactions, communication, control, and coordination increase, and due to this fact, companies experience negative returns derived from the international expansion of their operations.

Nevertheless, empirical evidence about the existence of the S-curve is limited and inconclusive (Bausch & Krist, 2007; Hennart, 2007, 2011; Hitt et al., 2006a). The empirical studies that have confirmed the existence of a horizontal S-curve have been carried out in the most advanced countries (European Union, Japan, Switzerland and US) (Benito-Osorio et al., 2016), while researchers doubt that emerging market firms may have reached stage 3 (excessive internationalization) (Contractor et al., 2007) given that these firms are ‘late internationalizers’ (Gaur & Kumar, 2009).

Thus, it is argued that the model does not consider in its theoretical development the analysis of internationalization context, especially that which refers to cultural and institutional environment and it is not able to show the nature of the impact of internationalization dispersion on performance (Mendoza et al., 2020). For EMNCs, internationalization is a relatively recent phenomenon (Gaur & Delios, 2015; Mathews, 2006; Ramamurti & Singh, 2009). These firms have difficulty to achieve high levels of international diversification and they likely confront problems associated with learning and operating in the new environment (Gaur & Delios, 2015). Also, they must make high levels of investment in installations (Genthon, 2008) and they are exposed to the complexity of managing subsidiaries located in distinct geographic markets (Chen & Tan, 2012). Whence the coordination and organization costs likely still exceed the benefits. However, the firms that overcome these initial costs to acquire the level of experience and operational efficiency needed to operate in foreign markets (Pan & Tsai, 2012) are able to achieve a stage in which the benefits of internationalization outweigh its costs (Contractor et al., 2007). Considering the above, and taking into account that studies have analyzed the existence of an S-shaped relationship have not considered South American companies in their samples, the relationship shape between internationalization diversification strategy and performance is a purely empirical matter. Therefore, our second hypothesis could be posed as follows:

- Hypothesis 2: The relationship between international diversification and performance variables shows a U-shaped curve.

### 2.2. Ownership structure

#### 2.2.1. Ownership concentration

Emerging markets are characterized by weak institutional environments and external governance structures (Singh & Gaur, 2009). Firms in emerging markets face unique challenges associated with doing business because of labor, capital, and technological voids (Khanna & Palepu, 2000). Given this, Gaur and Delios (2015) argue that the differences between developed and emerging economy firms are not limited to their resource configurations but are also related to their internal governance standards and the institutional environment in which they operate (Wright et al., 2005).
Despite the above, limited research investigates how the ownership structure affects a firm’s internationalization strategies (Gaur & Delios, 2015; Singh & Gaur, 2013; Zahra, 2003). Some international business scholars describe emerging economy firms with concentrated ownership as facing “principal-principal” rather than principal-agency challenges (Bhaumik & Selarka, 2012), which explains that firm wealth is neither invested profitably nor disgorged in the form of dividends that would enrich minority shareholders (Bhaumik et al., 2019). In this line, Chilean firms present a high ownership concentration (Jara-Bertin et al., 2015), primarily in the hands of individual shareholders or well-diversified conglomerates (Larrain & Vergara, 2000; Lefort & Gonzalez, 2008; Lefort & Walker, 2000) who control the firms through direct ownership and/or pyramidal structures (Buchuk et al., 2014; Masulis et al., 2011; Silva & Majluf, 2008). This is because the Chile legal system has not given enough protection to the investors to avoid these concentration levels. On the contrary, this has traditionally operated in a reactive way toward increasing the protection of existing pension systems’ administrators (Iglesias, 2000).

This situation leads to, among other consequences, a high ownership concentration (Espinosa et al., 2018; Leal & Carvalhal-da-Silva, 2005; Lefort & Walker, 2000), mainly dominated by individual shareholders or highly diversified consortia (Lefort & Gonzalez, 2008; Lefort & Walker, 2000). Thus, ownership concentration instead provides effective internal governance against the self-serving actions by managers, to minimize the costs and maximize the benefits for firms rather than for individual managers (Gaur & Delios, 2015). So as international diversification may harm firms, effective international governance due to ownership concentration may limit the extent of international diversification. Therefore, our third hypothesis could be posed as follows:

Hypothesis 3: Ownership concentration has a positive effect on the impact that an international diversification strategy has on performance levels.

2.2.2. Business groups

Companies affiliated to a business group are more likely to invest in emerging markets than in developed countries (Bhaumik & Driffield, 2011) because these business groups can overcome market friction (Khanna & Tice, 2001), as in markets with little skilled labor they can optimize resources by transferring human capital within the group (Torres et al., 2017).

The performance result of companies that are part of an emerging market business group can be expressed in two ways. On the one hand, it could increase the performance of internationally diversified companies since companies affiliated with business groups are often able to face the institutional challenges associated with doing business in these markets and obtaining the necessary resources and capacities from foreign markets more effective compared to companies not affiliated with a business group (Singla & George, 2013). Similarly, these companies are part of a network governance mode (Singla & George, 2013). These networks are not only channels of resources, but also mechanisms to search for and monitor companies’ strategies and actions (Lin et al., 2009). In fact, among the companies linked to the group, those that are more central in the network are more likely to expand abroad than those in the periphery (Singh & Delios, 2017). In addition, group-affiliated companies have the opportunity to learn from other network
companies (Singla & George, 2013), and they also have broader and relatively easy access to capital, both domestic and foreign, and enjoy more access to labor and product markets more easily than companies that are not part of any business group (Khanna & Rivkin, 2001).

On the other hand, the benefits held by the companies affiliated to the group are due to an important extent to the specific characteristics of the context in which these groups operate, among which are the presence of institutional gaps, which facilitates the formation of these business groups, enjoying government support or a combination of other factors, such as market failure and the absence of market intermediaries (Gaur & Kumar, 2009). In foreign economies with a different institutional framework from that of business groups in local markets, they cannot easily take advantage of market weaknesses and failures and must incur additional costs, which together could diminish the group’s benefits and decrease the performance of internationally diversified companies.

Although nowadays companies affiliated with business groups continue to dominate the economic scenario in emerging markets (Gaur & Delios, 2015), we do not know how ex-before the affiliation to a business group can moderate the relationship between international diversification and performance in emerging economies. For this reason, we propose the following alternative hypotheses:

- Hypothesis 4a: Business group affiliation has a positive effect on the impact that an international diversification strategy has on performance levels.
- Hypothesis 4b: Business group affiliation has a negative effect on the impact that an international diversification strategy has on performance levels.

2.2.3. Pyramidal ownership

The traditional argument to explain the formation of pyramidal structures is the separation of cash flow rights from control rights (Almeida & Wolfenzon, 2006). As cash flow rights as well as the control of the main owner are typically used in the definitions of Claessens et al. (2002) and Faccio and Lang (2002), the first is measured by the sum of the products of the ownership proportion along the control chain, whereas the latter is measured as the minimal ownership proportion along the control chain. Thus, literature argues that it is common to adopt a pyramidal ownership structure when there is greater separation of control rights from cash flow rights (Almeida & Wolfenzon, 2006; Claessens et al., 2000), what is known as excess control rights.

Excess control rights are considered as the difference between control rights or voting rights minus cash flow rights (Liu & Tian, 2012), and also as the ratio or leverage defined as cash flow rights to control rights (Djankov et al., 2008; Faccio et al., 2001; Paligorova & Xu, 2012). Basically, it has been said that excess control rights represent an opportunity for the controlling shareholders to expropriate private benefits from minority shareholders by transferring companies’ resources to others, diverting profits to avoid creditors and the expropriation of corporate opportunities (Bertrand et al., 2002; Shyu & Lee, 2009; Yeh et al., 2001). At the same time, excess control rights create strong incentives for the controlling shareholders to expropriate wealth from minority shareholders by diverting resources to themselves at the
expense of the latter (Shyu & Lee, 2009). In this context, the literature related to a company’s pyramidal ownership structure, international diversification, and performance is almost inexistent.

Chile has a legal system of Civil Law (La Porta et al., 1999; Lefort & González, 2008; Lefort & Walker, 2000), which is characterized by providing less protection for the external investor and minority shareholder; this made it easier for Chilean companies to have high degrees of ownership concentration throughout the past 20 years (Espinosa, 2009; Lefort & Walker, 2000), mainly in the hands of individual shareholders or well diversified business consortiums, which have given rise to pyramidal structures that allow an excess of control (Lefort & González, 2008; Lefort & Walker, 2000). Structurally, in these groups the most common way of separating voting rights from cash flow rights is through pyramidal structures, which is how approximately one-third of the listed companies are structured (Lefort & Walker, 2000, 2007; Majluf et al., 1998). This explains why the relatively high ownership concentration in Chile, in comparison to other more developed countries, is the natural response to the weaker investor protection of external shareholders (Saona et al., 2018).

Despite the existence of pyramidal ownership structures in Chile, studies in this area have focused mainly on reporting evidence about how ownership concentration (Espinosa, 2009), and business line diversification strategies and the ownership of other companies (Jara-Bertin et al., 2015) impact the performance of Chilean companies, and there is no evidence on how pyramidal ownership structures impact the relationship between international diversification and performance. Therefore, the impact of the pyramid ownership structure of internationally diversified companies on their performance becomes merely empirical. Thus, we propose the following alternative hypotheses:

- Hypothesis 5a: Pyramidal ownership structures have a positive impact on the relationship between international diversification and performance of Chilean companies.

- Hypothesis 5b: Pyramidal ownership structures have a negative impact on the relationship between international diversification and performance of Chilean companies.

### 3. Data and methodology

#### 3.1. Data and sample

Data corresponding to exports were obtained from the Santiago Chamber of Commerce. Accounting and financial information was obtained from Thomson Reuters and Economatica. Information about cash flow rights and control rights was gathered from companies’ records and reports. It is worth noting that this procedure was done company by company, as there is no data base in Chile containing this information.

The procedure to build our sample was as follows. Based on the information provided by the Santiago Chamber of Commerce, we looked for companies that had public and sufficient information to construct the variables used in this research (Public Limited Companies). For the selected companies we faced two difficulties. First, to find reliable information to calculate the cash flow rights; and second, to have a good estimate of the share price that allows calculating the market-to-book ratio.
ratio. In the latter case, we apply a restriction that consisted of including only adjusted market presence values, that is, those that at the date of making their determination have a presence equal to or greater than 25%\(^1\).

The final data correspond to a panel made up of 47 non-financial companies that have been listed on the Santiago Stock Exchange during the period between 2003 and 2013. The combination of the firms included and the periods analyzed provides an unbalanced panel with 309 observations.

The definition of used variables is given in Table 1.

We used market-to-book ratio to measure company performance (PERFORM), which is a Tobin’s \(q\) proxy. We calculated market-to-book ratio as the total value of assets minus common equity book value plus common equity market value, divided by total value of assets. This way of calculating company value has been widely used in literature (Khanna & Palepu, 2000; Lensink & Van der Molen, 2010). International diversification is measured by the ratio of foreign sales (export) over total sales (FORSALES). This measure has been regularly used in literature to measure international diversification (Capar & Kotabe, 2003; Gaur & Kumar, 2009).

As variables of the ownership structure we use the Excess of voting rights (DVDFC) as a proxy for a pyramidal ownership structure (Jara-Bertin et al., 2015), where DVDFC corresponds to the separation of cash flow rights from control rights. The traditional argument to explain the formation of pyramidal structures is the separation of cash flow rights from control rights (Almeida & Wolfenzon, 2006). Therefore, we calculated the quotient between control rights and cash flow rights as an approximation to pyramidal structure. Control rights (DV1) and cash flow rights (DFC1) and are estimated using the definition of Claessens et al. (2002) and Faccio and Lang (2002), where cash flow rights are the sum of the product of the ownership proportion along the control chain. In the same line, control rights are the minimal ownership proportion along the control chain. Business Group (BUSGROUP) is a dummy of the business group affiliation according to the capital markets law’s definition, which states that a firm belongs to a business group if any of the following conditions hold: (i) the firm has the same controller as other firms, and the controller

<table>
<thead>
<tr>
<th>Table 1. Definition of the variables.</th>
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<tbody>
<tr>
<td><strong>Abbreviation</strong></td>
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<td>------------------</td>
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<tr>
<td><strong>Value measure</strong></td>
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<tr>
<td><strong>International diversification measures</strong></td>
</tr>
<tr>
<td><strong>Ownership structure measures</strong></td>
</tr>
<tr>
<td><strong>DVDFC</strong></td>
</tr>
<tr>
<td><strong>DFC1</strong></td>
</tr>
<tr>
<td><strong>DV1</strong></td>
</tr>
<tr>
<td><strong>BUSGROUP</strong></td>
</tr>
<tr>
<td><strong>Firm-level control variables</strong></td>
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<td></td>
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</table>

Source: The Authors.
holds at least 25% of direct ownership; (ii) a significant portion of the firm’s assets are allocated to business groups; or (iii) the firm is controlled by one or more firms that belong to a business group controlled by an ultimate shareholder.

We included a series of control variables that potentially influence value of the company (Berger & Ofek, 1995; Campa & Kedia, 2002), such as company size (LNTAB) measured using a logarithm of total sales; degree of indebtedness (DTTA), measured by the ratio of total indebtedness over total assets; the profitability (EBITSAL), calculated as earnings before interest and taxes over sales; tangibility (TANG), measured by the ratio between total fixed asset over total assets; sales growth (GROWSALES), measured by the percentage change of total sales; and the age of the company (LNAGE), measured using a logarithm of the total age. Lastly, we introduced a set of dichotomous sectoral variables (INDUSTRY) and a set of temporal dichotomous variables (YEAR).

### 3.2. Methodology

To investigate the relationship between international diversification and performance we estimate the following model:

$$\text{PERFORM}_{i,t} = \beta_0 + \beta_1 \text{FORSALES}_{i,t} + \beta_2 \text{FORSALES}_{i,t}^2 + \sum_{i=3}^{n} \beta_i X_{it} + \sum_{i=6}^{n} \beta_i CV_{it} + i_k + \gamma_t + \varepsilon$$  \hspace{1cm} (1)

Where \text{PERFORM} is the market-to-book ratio; \text{SALESFOR} is the ratio of foreign sales over total sales; \text{X}_{it} is the set of ownership structure variable (DVDFC, DFC1 and BUSGROUP); \text{CV}_{it} is the set of control variables previously defined. In addition, we include a set of fixed effects at different aggregation levels to control for unobservable time-invariant and time-variant fixed effects. In particular, fixed effects are included at industry level (i_k) k and year level (\gamma_t).

To investigate how some variables of the property structure moderate the relationship between international diversification and performance, we estimate different models from the following general model:

$$\text{PERFORM}_{i,t} = \beta_0 + \beta_1 \text{FORSALES}_{i,t} + \beta_2 \text{FORSALES}_{i,t}^* \sum_{i=3}^{n} \beta_i X_{it} + \sum_{i=6}^{n} \beta_i CV_{it} + i_k + \gamma_t + \varepsilon$$  \hspace{1cm} (2)

Estimation of model (1) or (2) by ordinary least squares would yield biased and inconsistent results. On the other hand, the literature on diversification and performance has highlighted the existence of endogenous selection problems in the models that incorporate these variables (Campa & Kedia, 2002; Jara-Bertin et al., 2015). Specifically, international business literature portrays international diversification as a strategic decision through which the company leverages its firm-specific advantages in foreign markets (Bobillo et al., 2010), however, the causality link with performance
can be in two directions, either its advantages allow the firm to increase its profitability and with additional resources expand into foreign markets or its advantages allow the firm to enter into foreign markets and as a result increase its profitability (Mendoza et al., 2020). Therefore, it could be considered that the adoption of an international diversification strategy and the increase in company performance are closely related, inferring an endogenous relationship between these variables. Given this endogenous relationship, we can expect that FORSALES (Export over total sales) is correlated with the error term of equation (1) and because of this, the estimated coefficients $\beta_i$ may present some biases derived from the presence of endogenous model selection problems.

Therefore, we have estimated equation (1) and (2) using the panel data methodology. This methodology allows us to control unobservable heterogeneity and endogeneity problems, providing estimators with higher efficiency than other estimation methods (Alonso-Borrego & Arellano, 1999; Arellano, 2003). Specifically, we estimate a dynamic panel using the generalized methods of moments (G.M.M.) which was developed by Arellano and Bond (1991), augmented by Arellano and Bover (1995) and fully developed in Blundell and Bond (1998). The G.M.M. estimator is valid only if two conditions are met. The first condition requires that the over-identifying restrictions (all chosen instruments) are valid, while the second condition excludes the presence of second-order serial correlation in residuals. The overall validity of the instruments (the first condition) is tested with the Hansen test, while the second condition can be verified with Arellano and Bond’s test statistics. Therefore, the GMM estimator will be consistent even if first-order autocorrelation exists (m1); however, second-order autocorrelation (m2) must not be present in the model (Pervan et al., 2019).

4. Empirical results

Table 2 shows the general statistics of the variables under study. 65% of the companies in the sample have more than 1% of exports with respect to their sales. In turn, on average, exports represent 17% of its sales. Also on average, Chilean companies that export more than 1% of their sales (exporting companies) are smaller (ASSETS = 547,500 thousand Chilean pesos), younger (AGE = 76 years), have less debt (DTAT = 0.417) and they have better financial performance (PERFORM = 1,596) compared to those with less than 1% of their sales (non-exporting companies).

Regarding their ownership structures, internationally diversified companies have a lower concentration of ownership (DF1 = 37%; DV1 = 32%), are less affiliated with economic groups (BUSGROUP = 58%) although they have a similar pyramidal ownership structure (DVDFC = 1.3) regarding non-internationally diversified companies.

Table 3 report the results of the estimates in equation (1) using the market-to-book ratio as a dependent variable as a measure of the firm performance and FORSALES, FORSALES$^2$ as measures of international diversification. Columns 1 to 4 show that, in the case of Chilean firms, the relationship between international diversification and performance take the shape of an inverted U curve. As we incorporate
Table 2. Descriptive statistics.

<table>
<thead>
<tr>
<th>VARIABLES of Regressions</th>
<th>mean (Total Sample)</th>
<th>sd</th>
<th>Min</th>
<th>Max</th>
<th>Mean (Diversified)</th>
<th>sd</th>
<th>min</th>
<th>max</th>
<th>Mean (No Diversified)</th>
<th>sd</th>
<th>min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORSALES</td>
<td>0.170</td>
<td>0.232</td>
<td>1.08E-07</td>
<td>0.961</td>
<td>0.259</td>
<td>0.243</td>
<td>0.00982</td>
<td>0.961</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>PERFORM</td>
<td>1.546</td>
<td>0.749</td>
<td>0.557</td>
<td>5.263</td>
<td>1.596</td>
<td>0.762</td>
<td>0.664</td>
<td>4.218</td>
<td>1.453</td>
<td>0.719</td>
<td>0.557</td>
<td>5.263</td>
</tr>
<tr>
<td>LNTAB</td>
<td>19.48</td>
<td>1.582</td>
<td>15.45</td>
<td>23.2</td>
<td>19.04</td>
<td>1.476</td>
<td>15.45</td>
<td>23.2</td>
<td>20.32</td>
<td>1.436</td>
<td>16.62</td>
<td>23.18</td>
</tr>
<tr>
<td>DTTA</td>
<td>0.422</td>
<td>0.17</td>
<td>0.0132</td>
<td>0.876</td>
<td>0.417</td>
<td>0.186</td>
<td>0.0497</td>
<td>0.876</td>
<td>0.433</td>
<td>0.134</td>
<td>0.0132</td>
<td>0.704</td>
</tr>
<tr>
<td>EBITSA</td>
<td>0.12</td>
<td>0.18</td>
<td>-2.314</td>
<td>0.681</td>
<td>0.12</td>
<td>0.207</td>
<td>-2.314</td>
<td>0.681</td>
<td>0.12</td>
<td>0.111</td>
<td>-0.2</td>
<td>0.452</td>
</tr>
<tr>
<td>TANG</td>
<td>0.686</td>
<td>0.176</td>
<td>0.233</td>
<td>0.993</td>
<td>0.65</td>
<td>0.167</td>
<td>0.233</td>
<td>0.993</td>
<td>0.755</td>
<td>0.172</td>
<td>0.246</td>
<td>0.989</td>
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<td>0.64</td>
<td>-0.837</td>
<td>7.639</td>
<td>0.192</td>
<td>0.646</td>
<td>-0.569</td>
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<td>0.211</td>
<td>0.631</td>
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<td>0.625</td>
<td>2.303</td>
<td>5.236</td>
<td>4.186</td>
<td>0.596</td>
<td>2.639</td>
<td>5.236</td>
<td>4.176</td>
<td>0.679</td>
<td>2.303</td>
<td>5.081</td>
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<tr>
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<td>0.477</td>
<td>0.579</td>
<td>0.495</td>
<td>0.794</td>
<td>0.406</td>
<td>0.579</td>
<td>0.495</td>
<td>0.794</td>
<td>0.406</td>
<td>0.579</td>
<td>0.495</td>
</tr>
<tr>
<td>DVDFC</td>
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<td>0.545</td>
<td>3.026</td>
<td>1</td>
<td>1.314</td>
<td>0.528</td>
<td>1</td>
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<tr>
<td>DFC1</td>
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<td>0.225</td>
<td>0.0844</td>
<td>0.994</td>
<td>0.371</td>
<td>0.189</td>
<td>0.0844</td>
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<td>0.514</td>
<td>0.256</td>
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<tr>
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<td>0.223</td>
<td>0.0672</td>
<td>0.994</td>
<td>0.319</td>
<td>0.202</td>
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<td>0.984</td>
<td>0.429</td>
<td>0.245</td>
<td>0.1</td>
<td>0.994</td>
</tr>
</tbody>
</table>

Other Variables

| INTDIV                   | 0.654               | 0.477 | 0.579 | 0.495 | 0.794            | 0.406 | 0.579 | 0.495 | 0.794             | 0.406 | 0.579 | 0.495 |
| SALES                    | 538.500             | 1.443.000 | 1 | 1223.750.000 | 341.900 | 719.900 | 1 | 6.769.000 | 909.700 | 2.203.000 | 211 | 1223.750.000 |
| ASSETS                   | 889.000             | 1.721.000 | 5.127 | 11.850.000 | 547.500 | 1.225.000 | 5.127 | 11.850.000 | 1.534.000 | 2.633.000 | 1640 | 11.720.000 |
| DEBT                     | 453.200             | 1.039.000 | 1.919 | 9.109.000 | 312.700 | 913.800 | 1.919 | 9.109.000 | 718.600 | 1.203.000 | 3585 | 6.419.000 |
| FIXASSETS                | 665.400             | 1.316.000 | 2.652 | 9.245.000 | 386.900 | 968.700 | 2.652 | 9.245.000 | 1.191.000 | 1.681.000 | 10970 | 8.634.000 |
| AGE                      | 77.35               | 40 | 10 | 188 | 76.42 | 38 | 14 | 188 | 79.09 | 44 | 10 | 161 |
| Industrials             | 0.476               | 0.569 | 0.059 | 0.299 | 0.0149 | 0.271 | 0.028 | 0.206 | 0.0196 | 0.196 | 0.107 |
| Utilities               | 0.104               | 0.233 | 0.278 | 0.028 | 0.233 | 0.278 | 0.028 | 0.206 | 0.0196 | 0.196 | 0.107 |
| Agricultural            | 0.165               | 0.178 | 0.206 | 0.028 | 0.233 | 0.278 | 0.028 | 0.206 | 0.0196 | 0.196 | 0.107 |
| Telecommunications      | 0.188               | 0.178 | 0.206 | 0.028 | 0.233 | 0.278 | 0.028 | 0.206 | 0.0196 | 0.196 | 0.107 |
| Others                  | 0.068               | 0.202 | 0.196 | 0.107 | 0.068 | 0.202 | 0.196 | 0.107 | 0.068 | 0.202 | 0.196 |

Obs.                     | 309                 |          |          |          |          |          |          |          |          |          |          |

SALES, ASSETS, DEBT and FIXASSETS in thousands Chilean pesos.
Source: The Authors.
the property structure variables (columns 2 to 4), the relationship between international diversification and performance remains. It can be corroborated that the growth of Chilean exports during the first years of the last decade was taken by companies as an opportunity to cover new markets and increase their performance. However, the costs and inexperience of participating in international markets has led firm performance to decrease.

Regarding the concentration of ownership, this is negatively related to performance (column 2, DFC1 = -1.531), a result similar to that reported in previous studies for Chile (Espinosa et al., 2018; Jara-Bertin et al., 2015). Affiliation with an economic group has a positive effect on financial performance (column 3, BUSGROUP = 0.939), in line with that reported by Torres et al. (2017), like pyramidal property, although the latter is only significant at 10% of the significance level (column 4, DVDFC = 0.545).

At the end of Table 3 are the model statistical adjustments, chi-square, whose p-values are significant at 1%. Aside from this, validating the estimators’ consistency,
critically depends on the absence of second-order serial autocorrelation of residuals and instrument validity, and we present p-values of second-order autocorrelations. The Hansen test shows satisfactory p-values at the 1% level.

Columns 5, 6, and 7 show how each of the property structure variables used in this study moderate the relationship between international diversification and performance. The results indicate that the greater the concentration of ownership in internationally diversified companies, the greater their performance (FORSALES x DFC1 = 5,713). A similar result occurs when the internationally diversified company has a pyramidal ownership structure (FORSALES x DVDFC = 5,778). In the case where the internationally diversified company belongs to a business group, its performance is negative (FORSALES x BUSGROUP = −0.938) although it is not statistically significant.

5. Discussion

Chile is a country that has responded to changes in the global economy with an export-based growth model (López & Yadav, 2010; ÓRyan et al., 2011). We found an international diversification discount for Chilean exporting multinationals (see Table 2), which is also observed in the study developed by Álvarez (2004). In addition, the results in columns 1 through 4 show that the performance of Chilean multinationals is represented through an inverted U-shaped curve. These companies are small (ASSETS = 889,000 thousand Chilean pesos) and have relatively few years of experience (AGE = 77 years), which explains why in the first part of the curve they face the so-called “born-global illusion” (Almodóvar & Rugman, 2014), since the firms are responding in an opportunistic (rather than strategic) manner to foreign export orders mostly taking place in countries that are culturally and geographically closer to the domestic market (Maldifassi & Chacón Caorsi, 2014). At this stage, exporting companies take advantage of the benefits derived from internationalization, because they engage in exporting activities first as a reaction to a stagnant local market and underexploited firms’ internal conditions, and second as a result of strategic planning. (Maldifassi & Chacón Caorsi, 2014). Given this, once the exporting companies pass this initial stage they must face the costs of adaptation, learning and coordination, with negative results in terms of performance.

Regarding the ownership structure, on the one hand, we find that the concentration of ownership in Chilean companies has a negative effect (column 2), while in internationally diversified companies the moderating effect is positive (column 5). This infers that the controller, in international markets, aligns its interests with those of the company, allowing the firm to increase its performance by participating in foreign markets.

Results for business groups differ. On the one hand, this ownership structure mechanism can fill institutional gaps and, therefore, help affiliated companies to overcome the problems that arise due to a weaker institutional environment (Khanna & Palepu, 2000), they have a larger and relatively easy access to capital and can also access labor and product markets more easily than companies that are not part of any business group (Khanna & Rivkin, 2001). Therefore, it would have a positive
effect on the performance of the companies, which is observed in column 3. However, the benefits enjoyed by the companies affiliated to the group are limited to the characteristics of the market where they operate, among which there are institutional gaps as well as government support, or a combination of other factors, such as market failure and the absence of market intermediaries (Gaur & Kumar, 2009). In foreign economies with a different institutional framework than the one that business groups operate in local markets, they cannot easily take advantage of market weaknesses and failures and must incur additional costs, which together decrease the group’s profits and decrease the performance of internationally diversified companies (column 6).

Regarding pyramid ownership structures, controlling shareholders can participate in diversification strategies by designing a chain of control that allows them to achieve private benefits of control and maximize the value of the chain’s base company at the expense of the minority shareholders of the companies. Subsidiaries (Claessens et al., 2000; Faccio & Lang, 2002). Theoretical arguments about this impact are twofold so that the pyramidal property structure can lead to tunneling and propping (Cheung et al., 2006). While tunneling refers to a transfer of resources from a lower level company to a higher level company in the pyramid chain, propping is the transfer in the opposite direction to rescue the receiving company from bankruptcy for example (Riyanto & Toolsema, 2008). Friedman et al. (2003) show that in countries with weak legal systems, under certain conditions, entrepreneurs can carry out both activities. Thus, the positive effect between an excess of control rights and performance, both for the complete sample (column 4) and for internationally diversified companies (column 7), can be explained by this type of activity. On the one hand, in the local market (Chile), a weak legal and institutional system makes it easier for companies to have a high concentration of ownership (Espinosa, 2009; Lefort & González, 2000) where most of them belong to individual shareholders. or highly diversified business groups (Lefort & González, 2008; Lefort & Walker, 2000), which facilitates the formation of pyramid-owned structures. By having these ownership structures, companies can obtain benefits by increasing the performance of the firm. In the same way, they can act as a mechanism to overcome the difficulties of entering international markets.

6. Conclusion

Our work is centered on the relation between international sales diversification and performance. For this we considered Chile, country with a French civil-law-based system (La Porta et al., 1998), with a relatively low legal investor protection (Lefort & González, 2008), high ownership concentration (Espinosa, 2009; Lefort & Walker, 2000), with an important role of business groups (Lefort & Walker, 2000; Majluf et al., 1998) and with important pyramidal ownership structures of its firms (Lefort & González, 2008). Although Chilean exports have performed well in recent decades, they are still largely confined to a few products, a few markets and a small number of firms (Álvarez, 2004). This despite the fact that Chile has a long history of liberalization and, through reciprocal trade deals, it has been able to build a sizable number of
informal trading relationships with various countries (Aulakh et al., 2000), and that the largest firms from Chile began looking for mechanisms for growth other than their domestic market, searching for partners, allies, and markets to enter (Aguilera et al., 2017).

The results of this investigation are in line with a large part of the literature on the impact that the international diversification strategy has on the performance of firms and allows us to confirm that internationally diversified companies perform better when compared to companies that do not opt for this strategic option (Hypothesis 1), and that the international diversification-performance relationship adopts a non-linear shape, namely a U-shaped curve Inverted (Hypothesis 2).

The form that the international diversification-performance relationship takes is explained by the characteristics of Chilean exporting companies, which when compared with companies from developed countries or other emerging economies, are relatively smaller, despite the fact that companies exporters are much larger and have much higher levels of productivity and human capital than the rest (Alvarez, 2004). In the first section of the inverted U shape where the relationship between international diversification and performance is positive, the firm would export in those foreign countries with which it is more familiar, probably both geographically and culturally close, and in which it could exploit its competitive advantages (FSAs) developed in its country of origin and during its prior internationalization experience (therefore reducing risk). However, to the extent that the firm tries to export itself in new foreign markets, the geographical, cultural and institutional distance will be greater, which will negatively affect its performance due to the additional costs derived from a greater liability of foreignness, which can be accentuated when beginning operations in a new geographic region, which would explain the second descending section of inverted U shape.

The results of the estimations when including variables of the ownership structure in Chile show that the ways to increase corporate control are not always a mechanism of expropriation of wealth and these differ in their relation to financial performance in internationally diversified companies. In this context, the interests of business groups would not be in line with those of internationally diversified companies (Hypothesis 4 b), whereas when they have a high concentration of ownership (Hypothesis 3) or have a pyramidal ownership structure (Hypothesis 5a), their performance would improve. Market structures such as the law, regulation and competition system, among others, could explain these results.

Our results may be interesting for researchers, professionals and those involved with public policy. For the academic world, this work contributes to literature by broadening the empirical evidence on the effect that international diversification strategies have on the performance of firms in emerging regions, where studies in this area have been incipient. In addition, we showed, for the firms first time, the curve shape of the relationship between international diversification and performance in a South American economy (the Chilean case). For professionals and investors, we reported how the ownership concentration, business group affiliation and pyramidal ownership structures affect company valuation, and thus we suggest the need to consider ownership structure when valuing companies. Lastly, policymakers can find in
our article some keys to improve regulations in order to have better corporate governance that seeks to minimize the possibilities of wealth diversion from minority shareholders to the controller.

Future related lines of research could expand this study’s analysis to a wide sample of emerging countries. This way, we could have a better understanding of national and international factors that make international diversification strategies more valuable for companies, and, at the same time, investigate the determinants that explain the curve shape of the relationship between international diversification and performance.

Note

1. For the calculation of the adjusted presence, only the days with transactions for an amount equal to or greater than 1,000 Development Units (approximately USD 44,000 as of December 2013) are considered, over the last 180 stock market business days (General Norm 327, 2012, of the Commission for the Financial Market CMF, former Superintendency of Securities and Insurance).

Disclosure statement

No potential conflict of interest was reported by the authors.

References


