Index to degree of adhesion to good practices of corporate governance and their effect on financial performance: evidence for Chilean companies

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Index to degree of adhesion to good practices of corporate governance and their effect on financial performance: evidence for Chilean companies

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ABSTRACT
Over recent decades, numerous financial crises have affected the global economy, which were caused by the lack of ethical values and conflicts of interest amongst the leaders of organisations. To protect organisations and their interest groups, regulators have developed norms to discourage and prohibit unethical practices through promotion of good practices of corporate governance. However, the literature on good corporate governance practices focuses mainly on developed economies without considering the challenges of developing countries. Therefore, this research proposes an index to measure the degree of adherence to good corporate governance practices in an emerging economy, like Chile, and estimate its effect on the financial performance of companies. Through a panel analysis, this research provides evidence that shows the existence of a positive and significant relationship between this index and financial performance of organisations, as well as a persistence of its benefits over time when companies adopt good practices.

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KEYWORDS
Corporate governance; financial performance; Chile; adhesion to good practices

JEL CODES
G3; G34; G32; G38; O16

1. Introduction
Over recent decades, the world’s economy has been affected by numerous financial crises mostly caused by the lack of ethical values and conflicts of interest amongst those in charge of important organisations and interest groups (Goel, 2018; Handley-Schashler & Li, 2007; Mansur & Tangl, 2018). However, this type of behaviour is not new, and for this reason was initially studied by Adam Smith in 1776, who suggested the divergence of objectives and interests between those who administer an organisation and its owners (Benavides-Franco, 2005).

In a pioneering study done by Berle and Means (1933) who identified and analysed the benefits and costs between the separation of a property and its control, the
divergence of interests between administrators (agent) and owners (principal) was recognised and later defined by Jensen and Meckling (1976) as agency conflict. Jizi et al. (2014), Rankin et al. (2012), and Shleifer and Vishny (1997) proposed that a system of corporate governance would help diminish the problems and costs of agency, as it would facilitate monitoring and control of organisations, indicating the rights and responsibilities between stakeholders (Arora & Bodhanwala, 2018; Rankin et al., 2012; Shivani et al., 2017). Thus, an effective system of corporate governance favours a company’s sustainability over time (Hopt, 2013; Hussain et al., 2018).

Initially, adhering to corporate governance norms proposed by regulatory bodies was voluntary. However, due to recent financial crises and scandals, many countries have made it mandatory for organisations to follow the norms to discourage these unethical behaviours (Berthelot et al., 2010; Black et al., 2006; Burneo & Lizarzaburu, 2016).

The benefits of adopting best practices of corporate governance have been understood and incorporated mainly in developed countries; however, in emerging economies, a recent process of adoption of such practices that seeks to increase competitiveness of local companies and promote greater transparency of information is observed (Achim & Borlea, 2013; Disli et al., 2022; Reed, 2002; Siddiqui, 2010).

For this reason, in recent years, researchers have shown interest in studying the effects of corporate governance on organisational performance (Gordon et al., 2012; Turrent & Ariza, 2016), highlighting previous research in this field that was carried out in developed and emerging economies (Achim et al., 2016; Black & Kim, 2012; Guo & Kga, 2012; Korent et al., 2014; Lipton & Lorsch, 1992; Main & Johnston, 1993; Ntim et al., 2013; Pearce & Zahra, 1992).

However, this development is not sufficient, as it has mainly considered that the existence and efficiency of a system of corporate governance is explained by the independence, experience, diversity, size, and compensation of the board, as well as the existence of codes of ethics (Dewji & Miller, 2013; Grace et al., 2018; Narwal & Jindal, 2015). It has not, however, recognised the degree of a company’s compliance with the norms of good conduct required by the regulatory bodies (Gruszczynski, 2006; Pinteae et al., 2020).

Therefore, this research proposes an index to measure and ponder the degree of compliance to the best corporate governance practices by companies listed on the stock exchange of an emerging economy, like Chile, and its relationship with their financial performance.

2. Literature review and hypotheses development

2.1. Regulatory process and control of corporate governance

Corporate governance is understood as a set of norms and processes that regulate the relationship between shareholders, company administration, creditors, government, employees, and all the interested parties in relation to their rights and obligations (Jones & Pollitt, 2004; Rusmanto & Lisal, 2019; SETYAHADI & Narsa, 2020; Wibowow, 2010). Therefore, the system of corporate governance allows the monitoring of high-level executives and establishes strategic objectives that ensure the sustainability of a company (Johnson et al., 1996; Savitri et al., 2020).
Prior research shows that corporate governance positively and significantly affects organisational performance (Ammann et al., 2011; Ashbaugh et al., 2004; Black et al., 2006; Brown & Caylor, 2006; Drobetz et al., 2004). Among past research, the work of Leng (2004); Jackling and Johl (2009), Jensen (1993); Kiel and Nicholson (2003, 2005); Lipton and Lorsch (1992); Pearce and Zahra (1992) who studied the effects of the composition and size of the board on a company’s financial performance, stands out.

In terms of studies done in emerging economies, the research of Fuzi et al. (2016); Liu (2015); and Topak (2011) done in India, China, Malaysia, and Turkey, respectively, is highlighted, in addition to the work of Alabdullah et al. (2019) and Kao et al. (2019) done in Asia and Oceania, respectively.

Meanwhile, scholars have pointed out that in Latin America, the development of literature on corporate governance and its effects is still limited given that many Latin American countries do not have capital markets or adequate legal frameworks to foster these practices (Baker et al., 2020; Chong & López de Silanes, 2007a, 2007b; Watkins Fassler, 2018).

To evaluate the effects of corporate governance on performance, the use of unidimensional indices that are based on the realities or contexts of developed countries and do not necessarily apply to the reality of developing countries has been proposed (Al-ahdal et al., 2020; Sami et al., 2011). However, defining the efficiency and benefits of a system of corporate governance is a complex and multidimensional process (Drobetz et al., 2004; Gompers et al., 2003; Putri & Prasetyo, 2020; Renders et al., 2010).

Gompers et al. (2003) proposed an index composed of 24 governance variables grouped into five categories: tactics for delaying hostile bidders (delay), voting rights (voting), director/officer protection (protection), other takeover defenses (other), and state laws (state). The authors found that companies with stronger shareholder rights had higher firm value, higher profits, higher sales growth, lower capital expenditures, and made fewer corporate acquisitions.

Mollah et al. (2012) found a relationship between control mechanisms of corporate governance and guarantee of the rights of outsiders with respect to opportunistic behaviour of the board and controlling shareholders. Along these lines, Ujunwa et al. (2012) found that good practices of corporate governance are useful in resolving organisational conflicts of separation of property and control, as they positively and significantly affect the performance of a company. However, other studies show a negative relationship between corporate governance and company performance (Akbar et al., 2016) or show inconclusive results (Berthelot et al., 2010; Black et al., 2006; Saygili, Saygili, & Taran, 2021; Shahwan, 2015).

Abdallah and Ismail (2017) measured the efficiency of corporate governance in terms of its impact on company performance through an index of 43 variables classified in three subgroups (commercial history, corporate communications, and information disclosure). The results show a positive and significant relationship between the proposed index and company performance, and this effect is greater when lower levels of property concentration are observed.

Munteanu et al. (2020) proposed an index of global efficiency that analyses the influence of managerial responsibility and compliance with sustainability reports for public institutions in Romania. The results revealed the need to constantly evaluate managerial responsibility and ethics because it improves governance and increases company responsibility, allowing organisations to perform better.
As a way of promoting compliance with good practices of corporate governance, the Sarbanes-Oxley Law (SOX) makes an effort to monitor companies listed on the stock exchange and thus diminishes the risk of both bankruptcy and loss of investor value. Additionally, the Securities and Exchange Commission (SEC) has implemented improvements in the norms of corporate governance (Sayari & Marcum, 2018).

This is why corporate governance that promotes good practices and control environment is crucial to facilitate the achievement of the objectives of an organisation and its interest groups (Bhagat & Bolton, 2014; Gompers et al., 2003; La Porta et al., 1999, 2002; Pinzón et al., 2018; Price et al., 2011; Sayari & Marcum, 2018; Saygili, Saygili, & Taran, 2021).

### 2.2. Regulatory process and control of corporate governance in Chile

In 2012, the Chilean Securities and Insurance Commission (SVS) issued the first regulatory framework that sought to raise the corporate governance standards for open Chilean companies through General Character Regulations 341. The General Character Norms 341 are centred on those good practices that are not regulated to increase the standards and control in the area of voluntarily adopted corporate governance, under a methodology of complying or explaining. That is to say, this methodology does not force the fulfilment of determined practices or principles, rather requires companies to make declarations concerning voluntary fulfilment. The general objective of these norms is to provide incentives for investors to invest in those companies where their interests are better protected (Godoy et al., 2018; SVS, 2015).

Later, in 2015, the SVS repealed these norms and released the General Character Norms 385, a self-evaluation regulation concerning the implementation of a set of practices of corporate governance that must be answered each year by all companies and places a greater emphasis on the control role of the board and the incorporation of standards in areas of corporate governance, social responsibility, and sustainable development. These new norms consider four key sections to be evaluated, which are: a) functioning and composition of a board, b) relationship between a company, shareholders, and general public, c) risk management, and d) evaluation by a third party.

Finally, these new norms of General Character Norm No. 385 allow for a greater disaggregation of practices, a reordering of these same practices, and greater precision in terms of the contents of General Character Norm No. 341. For this reason, good corporate governance practices must develop expanded from 19 to 99 items to be evaluated (Godoy et al., 2018). Thus, we propose the following hypotheses.

**Hypothesis 1:** A positive relationship exists between the index of compliance to the set of good practices of corporate governance and financial performance of companies.

**Hypothesis 2:** A positive relationship exists between the index of compliance to good practices of corporate governance over time and financial performance of companies.

### 3. Data and methodology

#### 3.1. Data base, variables, and methodology

The sample for the current study was obtained from Thomson Reuters Eikon which contains information of non-financial Chilean companies that are traded on the stock
exchange in Santiago. The period under study spanned from 2013 to 2019. Additionally, the study considers all those companies that have responded to the questionnaire related to the adoption of good practices of corporate governance.

The data from General Character Norms 341, in force until the year 2014 considering 19 questions and perfected by the General Character Norms 385, in force from the year 2015 and with 99 questions related to the adoption of good practices of corporate governance of companies was obtained from the web page of the Financial Market Commission (CMF). This data was entered into and tabulated through the STATA 14 statistical programme. Once answers were tabulated, we proceeded to present them in percentage (%) (or factors) to isolate the effect of change of norm in year 2014, and then the Indicator of the Adoption of Company Corporate Governance (IAGCE) proposed by Moraga and Ropero (2018) was calculated and this calculation is shown in equations (1) and (2).

\[
IAGCE_{i,t} = 0,37 \times RAS_{1,i,t} + 0,32 \times RAS_{2,i,t} + 0,10 \times RAS_{3,i,t} + 0,21 \times RAS_{4,i,t} \quad (1)
\]

\[
IAGCE_{i,t} = 0,52 \times RAS_{1,i,t} + 0,22 \times RAS_{2,i,t} + 0,22 \times RAS_{3,i,t} + 0,04 \times RAS_{4,i,t} \quad (2)
\]

To validate our research hypotheses, we considered the research done by Korent et al. (2014), Javaid and Saboor (2015), Carvalhal da Silva and Leal (2005) who used data panels to estimate the relationships proposed in this research. As indicated by Wooldridge (2002), data panels have transversal dimensions and temporal series highlighting the models of fixed and random effects (Yaffee, 2005). In the model of fixed effects, the individual effect is a random variable that can correlate with explicative variables and the model of random effects supposes that the individual effect is random and therefore its effect is not correlated with explicative variables (Borenstein et al., 2010). For this, two indexes that measure the degree of compliance to good practices of corporate governance are proposed.

To determine the index of adoption of good practices of corporate governance, we propose equation (1) because it considers the answers associated with each of the questions of the General Character Norm Nº 341. The second index of compliance to good practices of corporate governance considers the answers associated with each of the questions in the General Character Norm Nº 385 and equation (2) is proposed. Finally, the relationship between the performance of a company and the degree of compliance to good practices of corporate governance is shown in (3).

\[
DESi,t = \alpha + \beta_1 LEV_{i,t} + \beta_2 GROW_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 TANG_{i,t} + \beta_5 INV_{i,t} + \\
+ \beta_6 CASH_{i,t} + \beta_7 LIQ_{i,t} + \beta_8 DIV_{i,t} + \beta_9 IAGCE_{i,t} + \epsilon_{i,t} \quad (3)
\]

\[
DESi,t = \alpha + \beta_1 LEV_{i,t} + \beta_2 GROW_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 TANG_{i,t} + \beta_5 INV_{i,t} + \\
+ \beta_6 CASH_{i,t} + \beta_7 LIQ_{i,t} + \beta_8 DIV_{i,t} + \beta_9 IAGCE_{i,t} \times YEAR_{i} + \epsilon_{i,t} \quad (4)
\]

To estimate the relationship between the index of compliance to good practices of corporate governance over time and financial performance of companies, interactive variables were developed between the degree of adoption measured by IAGCE and a
dummy variable that recognises the year of adoption, which is reported by companies, as shown in equation (4).

3.2. Measurement of variables and descriptive statistics

To reduce bias in estimations of the effect of the index of compliance to good practices of corporate governance on the performance of companies as a consequence of sub-identification of variables, company-specific control variables have been included, such as leverage, sales growth, company size, tangible assets, capital expenditure, operational cash flow, liquidity of a company, and dividends (Ahmed & Hamdan, 2016; Guney et al., 2020; Jara et al., 2019; Li et al., 2020). For detailed explanations of control variables (See, Table 1).

As indicated, to estimate the relationship between a company’s performance and its degree of compliance to good practices of corporate governance and its effect on performance in equations (3) and (4), panel data methodology was used. The specification test of Hausman confirmed that it is preferable to utilise the model of fixed effects over the model of random effects (Labra & Torrecillas, 2014).

Another aspect worth considering and that can induce errors in inference are the problems of endogeneity, which arise when one or more independent variables are determined simultaneously with the dependent variable or when the independent variable correlates with the error. It is for this reason and due to the fact that the literature recognises problems of endogeneity between performance variables and proposed control variables that it is proposed to lag as valid instruments (Blundell & Bond, 1998).

4. Results

The summary of descriptive statistics of all variables (See, Table 2) shows an average profitability measured through ROA of 16.07%, an average ROE of 7.19%, and a Tobin’s Q of 1.0507. Tobin’s Q performance measure has a higher standard deviation than that of ROA and ROE. Further, the mean of the level of debt (LEV) reaches up to 49.44%, indicating the importance of third-party financing for a company’s assets.

On average, tangible assets (TANG) represent 38.41% of the total assets of companies. Companies invest annually, on average, 4.66% of their total assets in capital assets (INV).

On reviewing liquidity (LIQ), we noticed that companies maintain, on average, 5.93% of their assets as cash and/or cash equivalent for normal functioning of their

<table>
<thead>
<tr>
<th>Performance variables</th>
<th>Abbreviation</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on assets</td>
<td>ROA</td>
<td>Operating income to total assets</td>
</tr>
<tr>
<td>Return on equity</td>
<td>ROE</td>
<td>Net income after taxes to equity</td>
</tr>
<tr>
<td>Tobin’s Q</td>
<td>Q</td>
<td>Accounting value of total liabilities plus stock capitalisation to total assets</td>
</tr>
<tr>
<td>Leverage</td>
<td>LEV</td>
<td>Total debt to total assets</td>
</tr>
<tr>
<td>Sales growth</td>
<td>GROW</td>
<td>Percentage of change in sales with respect to previous year</td>
</tr>
<tr>
<td>Company size</td>
<td>SIZE</td>
<td>Natural logarithm of total assets</td>
</tr>
<tr>
<td>Tangible assets</td>
<td>TANG</td>
<td>Property, plant, and equipment to total assets</td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>INV</td>
<td>Capital expenditure to total assets of a company</td>
</tr>
<tr>
<td>Operational cash flow</td>
<td>CASH</td>
<td>Earnings after tax plus annual depreciation to total assets</td>
</tr>
<tr>
<td>Liquidity</td>
<td>LIQ</td>
<td>Cash and cash equivalent to total assets</td>
</tr>
<tr>
<td>Dividends</td>
<td>DIV</td>
<td>Dividend per share to closing price</td>
</tr>
</tbody>
</table>

Source: Own elaboration.
operations. An aggregated average degree of fulfilment of 43.17% of good practices of corporate governance, regulated in the general character norms 341 and 385, is observed in companies.

In terms of our variables of interest, we observe positive correlations between variable IACGCE and ROA and ROE performance variables of 0.124 and 0.1080, respectively. However, a negative correlation is noticed between IACGCE and Tobin’s Q of −0.014. In terms of the control variables, mixed correlations are observed with performance variables proposed (See, Table 3).

When equation (3) is estimated, considering distinct forms of clusters in a context of fixed effects, mixed results are observed for leverage (LEV), as it shows a significant and positive relationship when return on assets (ROA) is used, as seen from coefficients like 0.091, 0.089, and 0.091; for return on equity (ROE), we observe coefficients like 0.195, 0.0197, and 0.0192. These results are in accordance with other studies (Abor, 2005; Dar et al., 2011; Gill et al., 2011; Olorunfemi & David, 2010). When Tobin’s Q is used, its relationship is negative as shown by coefficients like −0.463, −0.462, and −0.450, and greater variability is noticed. These results are in accordance with prior research (Ahmad et al., 2012; Seetanah et al., 2014; Zeitun & Tian, 2007).

Growth in sales (GROW) shows a positive but insignificant effect when the measure of profitability is ROA, and positive and significant effect when the measure of profitability used is ROE, as evident from coefficients like 0.102 and 0.108. These results are in accordance with an earlier study (Chiang et al., 2002). However, when

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>0.1607</td>
<td>0.0673</td>
<td>−0.2964</td>
<td>0.3456</td>
</tr>
<tr>
<td>ROE</td>
<td>0.0719</td>
<td>0.1391</td>
<td>−0.3725</td>
<td>0.5682</td>
</tr>
<tr>
<td>Q</td>
<td>1.0507</td>
<td>0.4884</td>
<td>0.3125</td>
<td>3.1983</td>
</tr>
<tr>
<td>LEV</td>
<td>0.4944</td>
<td>0.1851</td>
<td>0.1977</td>
<td>0.7959</td>
</tr>
<tr>
<td>GRO</td>
<td>−0.0012</td>
<td>0.2176</td>
<td>−0.7814</td>
<td>0.7071</td>
</tr>
<tr>
<td>SIZE</td>
<td>12.8451</td>
<td>1.8487</td>
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<td>16.8220</td>
</tr>
<tr>
<td>TANG</td>
<td>0.3841</td>
<td>0.2144</td>
<td>0.0000</td>
<td>0.8324</td>
</tr>
<tr>
<td>INV</td>
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<td>0.0390</td>
<td>−0.1859</td>
<td>−0.0003</td>
</tr>
<tr>
<td>CASH</td>
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<td>0.0424</td>
<td>−0.0942</td>
<td>0.2130</td>
</tr>
<tr>
<td>LIQ</td>
<td>0.0593</td>
<td>0.0529</td>
<td>0.0030</td>
<td>0.2370</td>
</tr>
<tr>
<td>DIV</td>
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<td>0.0434</td>
<td>0.0000</td>
<td>0.2638</td>
</tr>
<tr>
<td>IACGCE</td>
<td>0.4317</td>
<td>0.2402</td>
<td>0.0000</td>
<td>.94666</td>
</tr>
</tbody>
</table>

Source: Own computation using STATA 14 software.

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<td>0.0390</td>
<td>−0.1859</td>
<td>−0.0003</td>
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<td>0.0529</td>
<td>0.0030</td>
<td>0.2370</td>
</tr>
<tr>
<td>DIV</td>
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<td>0.0434</td>
<td>0.0000</td>
<td>0.2638</td>
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<tr>
<td>IACGCE</td>
<td>0.4317</td>
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<td>0.0000</td>
<td>.94666</td>
</tr>
</tbody>
</table>

Source: Own computation using STATA 14 software.
the profitability measure is Tobin’s Q, a negative and significant relationship of −0.088 with GROW is observed, as well as the highest standard deviation (Baños-Caballero et al., 2014; Goddard et al., 2005; Simerly & Li, 2000).

Size (SIZE) also shows mixed results. When the measure of profitability is ROA, its effect is positive and not significant, but when the measure of profitability is Tobin’s Q, it is positive and significant, as shown by coefficients like 0.104, 0.103, and 0.149. These results are in accordance with other studies (Mainelli & Giffords, 2010; Mardones & Cuneo, 2019). However, its effect is negative and significant (-0.089) when the profitability measure used is ROE and these results are in accordance with research literature (Fama & French, 1993; Klapper & Love, 2004; Wu, 2006).

A significant relationship is observed between tangibility (TANG) and ROA, as depicted by coefficients like 0.068, 0.064, and 0.068. A similar result is also observed with Tobin’s Q with coefficients like 0.719, 0.715, and 0.799. These results show the benefit of using this type of investment as a collateral asset, as it reduces the costs of financing (Dang et al., 2012; Margaritis & Psillaki, 2010; Öztekin & Flannery, 2012).

In terms of capital expenditure (INV), we observe a significant positive relationship of 1.325, 1.318, and 1.095 when we used Tobin’s Q and these results are in accordance with prior research (Mainelli & Giffords, 2010). This result is a fundamental signal of estimations of future profitability (Lev & Thiagarajan, 1993). A negative relationship is observed between operational cash flow (CASH) and ROA, as is evident from coefficients like 0.154, −0.165, and −0.163. This result shows that a reduction in free cash flow under the control of managers reduces agency costs and increases the performance of a company (Brush et al., 2000, Park & Jang, 2013; Wang, 2010). With respect to liquidity (LIQ), a positive relationship is observed with ROA (coefficients: 0.153, 0.197, and 0.196). Further, liquidity shows a positive relationship (coefficients: 0.707; 0.665, and 0.626) when Tobin’s Q is used as a performance variable. This is because greater liquidity increases the capacity to raise debt, allowing for better access to sources of financing and increasing the capacity to adapt to changes in the surroundings, reducing the level of risk (Goddard et al., 2005; Myers & Rajan, 1998).

In terms of the index of compliance to good practices of corporate governance, a significant positive relationship is observed for each of the proposed measures of performance, ROA, ROE, and Tobin’s Q. In detail, 0.035, 0.034, and 0.031 are observed as coefficients when ROA is considered as the measure of profitability. However, when ROE is considered, we observe 0.109, 0.110, and 0.123 as coefficients. Finally, on considering Tobin’s Q, we observe 0.130, 0.130, and 0.129 as coefficients and these results are in agreement with other studies (Abdallah & Ismail, 2017; Brown & Caylor, 2006; Heenetigala & Armstrong, 2011; Iqbal et al., 2019; Mollah et al., 2012; Ujunwa et al., 2012). This result shows that when companies adopt good corporate governance practices and communicate them to the market, they are valued positively by investors.

This allows us to assert that the degree of compliance to good corporate governance practices helps companies deliver a better performance. These results allow us to accept hypothesis 1 because a positive relationship exists between the index of compliance to good practices of corporate governance and financial performance of companies (See, Table 4).
Table 4. Estimation of relationship between the index of compliance to practices of corporate governance and financial performance.

<table>
<thead>
<tr>
<th></th>
<th>Model (3) - ROA</th>
<th>Model (3) - ROE</th>
<th>Model (3) - Tobin’s Q</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>Coefficient</td>
<td>Coefficient</td>
</tr>
<tr>
<td>L1. LEV</td>
<td>0.091***</td>
<td>0.091**</td>
<td>-0.463**</td>
</tr>
<tr>
<td></td>
<td>(0.049)</td>
<td>(0.050)</td>
<td>(0.212)</td>
</tr>
<tr>
<td>L1. GROW</td>
<td>0.002</td>
<td>0.000</td>
<td>-0.053</td>
</tr>
<tr>
<td></td>
<td>(0.011)</td>
<td>(0.012)</td>
<td>(0.049)</td>
</tr>
<tr>
<td>L1. SIZE</td>
<td>0.016</td>
<td>0.017</td>
<td>-0.089***</td>
</tr>
<tr>
<td></td>
<td>(0.014)</td>
<td>(0.015)</td>
<td>(0.031)</td>
</tr>
<tr>
<td>L1. TANG</td>
<td>0.068*</td>
<td>0.068*</td>
<td>0.104***</td>
</tr>
<tr>
<td></td>
<td>(0.044)</td>
<td>(0.045)</td>
<td>(0.060)</td>
</tr>
<tr>
<td>L1. INV</td>
<td>-0.090</td>
<td>-0.087</td>
<td>1.325***</td>
</tr>
<tr>
<td></td>
<td>(0.098)</td>
<td>(0.098)</td>
<td>(0.190)</td>
</tr>
<tr>
<td>L1. CASH</td>
<td>-0.154**</td>
<td>-0.163**</td>
<td>0.719***</td>
</tr>
<tr>
<td></td>
<td>(0.075)</td>
<td>(0.076)</td>
<td>(0.321)</td>
</tr>
<tr>
<td>L1. LIQ</td>
<td>0.153***</td>
<td>0.196**</td>
<td>0.707***</td>
</tr>
<tr>
<td></td>
<td>(0.066)</td>
<td>(0.070)</td>
<td>(0.328)</td>
</tr>
<tr>
<td>L1. DIV</td>
<td>-0.089</td>
<td>-0.103</td>
<td>-0.052</td>
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<tr>
<td></td>
<td>(0.065)</td>
<td>(0.067)</td>
<td>(0.276)</td>
</tr>
<tr>
<td>GRADO</td>
<td>0.035**</td>
<td>0.031*</td>
<td>0.109**</td>
</tr>
<tr>
<td></td>
<td>(0.015)</td>
<td>(0.020)</td>
<td>(0.032)</td>
</tr>
<tr>
<td>CONS</td>
<td>-0.179</td>
<td>-0.183</td>
<td>1.045**</td>
</tr>
<tr>
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<td>(0.170)</td>
<td>(0.181)</td>
<td>(0.352)</td>
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Fixed effects

<table>
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<th>Firm</th>
<th>Year</th>
<th>Industry</th>
<th>Observations</th>
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<td>Yes</td>
<td>Yes</td>
<td>628</td>
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<tr>
<td>Adj. R-squared</td>
<td>0.293</td>
<td>0.298</td>
<td>0.299</td>
<td>0.357</td>
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</tbody>
</table>

Standard deviation in parentheses.

* p < 0.1.

** p < 0.05.

*** p < 0.01. Source: Own computation using STATA 14 software.

Source: Author's elaboration.
As observed, the index of compliance to good corporate governance practices positively and significantly affects the performance of organisations; however, as discussed earlier, in Chile, adherence to these good practices and their disclosure was voluntary until 2015 and it became mandatory only after 2015. Accordingly, equation (4) was estimated, and mixed results are observed. When the performance measure is ROA, a positive and significant relationship is observed for the years 2014, 2016, and 2018, as evident from coefficients of 0.0417, 0.0459, and 0.0436, respectively. A similar result is obtained when the performance measure is Tobin’s Q because a positive and significant relationship is observed only for the years 2017 and 2018 with coefficients of 0.3090 and 0.2297, respectively. Finally, a positive and significant effect is observed for the years 2014, 2015, 2016, 2017, 2018, and 2019 with coefficients of 0.0417, 0.0333, 0.0459, 0.0263, 0.0436, 0.0177, respectively, when considering 2013 as the base year and ROE as the measure of performance (See, Table 5).

### Table 5. Evolution between the index of compliance to practices of corporate governance and financial performance.

<table>
<thead>
<tr>
<th></th>
<th>Model (4) - ROA</th>
<th>Model (4) - ROE</th>
<th>Model (4) – Tobin’s Q</th>
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<tr>
<td>L1. LEV</td>
<td>0.0925**</td>
<td>0.0925**</td>
<td>-0.5031***</td>
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<tr>
<td></td>
<td>(0.0499)</td>
<td>(0.0499)</td>
<td>(0.2041)</td>
</tr>
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<td>L1. GROW</td>
<td>0.0015</td>
<td>0.0015***</td>
<td>-0.0727</td>
</tr>
<tr>
<td></td>
<td>(0.0117)</td>
<td>(0.0117)</td>
<td>(0.0478)</td>
</tr>
<tr>
<td>L1. SIZE</td>
<td>0.0152</td>
<td>0.0152***</td>
<td>0.1212**</td>
</tr>
<tr>
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<td>(0.0146)</td>
<td>(0.0146)</td>
<td>(0.0596)</td>
</tr>
<tr>
<td>L1. TANG</td>
<td>-0.0716*</td>
<td>-0.0716</td>
<td>0.7706***</td>
</tr>
<tr>
<td></td>
<td>(0.0446)</td>
<td>(0.0446)</td>
<td>(0.1824)</td>
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<tr>
<td>L1. INV</td>
<td>-0.0828</td>
<td>-0.0828</td>
<td>1.1906***</td>
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<td>(0.0984)</td>
<td>(0.0984)</td>
<td>(0.4024)</td>
</tr>
<tr>
<td>L1. CASH</td>
<td>-0.1517**</td>
<td>-0.1517</td>
<td>0.2723</td>
</tr>
<tr>
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<td>(0.0751)</td>
<td>(0.0751)</td>
<td>(0.3070)</td>
</tr>
<tr>
<td>L1. LIQ</td>
<td>0.1587****</td>
<td>0.1587</td>
<td>0.5447**</td>
</tr>
<tr>
<td></td>
<td>(0.0663)</td>
<td>(0.0663)</td>
<td>(0.2711)</td>
</tr>
<tr>
<td>L1. DIV</td>
<td>-0.0991</td>
<td>-0.0991</td>
<td>0.2699</td>
</tr>
<tr>
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<td>(0.0660)</td>
<td>(0.0660)</td>
<td>(0.2696)</td>
</tr>
<tr>
<td>G_13</td>
<td>Omitted</td>
<td>Omitted</td>
<td>Omitted</td>
</tr>
<tr>
<td>G_14</td>
<td>0.0417****</td>
<td>0.0417****</td>
<td>-0.0040</td>
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<td>(0.0166)</td>
<td>(0.0677)</td>
</tr>
<tr>
<td>G_15</td>
<td>0.0333</td>
<td>0.0333***</td>
<td>-0.1118</td>
</tr>
<tr>
<td></td>
<td>(0.0258)</td>
<td>(0.0258)</td>
<td>(0.1055)</td>
</tr>
<tr>
<td>G_16</td>
<td>0.0459**</td>
<td>0.0459***</td>
<td>0.0338</td>
</tr>
<tr>
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<td>(0.0259)</td>
<td>(0.0259)</td>
<td>(0.1057)</td>
</tr>
<tr>
<td>G_17</td>
<td>0.0263</td>
<td>0.0263***</td>
<td>0.3090***</td>
</tr>
<tr>
<td></td>
<td>(0.0185)</td>
<td>(0.0185)</td>
<td>(0.0758)</td>
</tr>
<tr>
<td>G_18</td>
<td>0.0436**</td>
<td>0.0436***</td>
<td>0.2297***</td>
</tr>
<tr>
<td></td>
<td>(0.0249)</td>
<td>(0.0249)</td>
<td>(0.1018)</td>
</tr>
<tr>
<td>G_19</td>
<td>0.0177</td>
<td>0.0177**</td>
<td>0.1078</td>
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<td>(0.0245)</td>
<td>(0.0245)</td>
<td>(0.1000)</td>
</tr>
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<td>CONST</td>
<td>-0.1647</td>
<td>-0.1647****</td>
<td>-0.5956</td>
</tr>
<tr>
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<td>(0.1779)</td>
<td>(0.1779)</td>
<td>(0.7272)</td>
</tr>
</tbody>
</table>

Fixed effects
- Year: Yes
- Observations: 628
- Adj R-squared: 0.293

Standard deviation in parentheses.
* p < 0.1.
** p < 0.05.
*** p < 0.01. Source: Own computation using STATA 14 software.
Source: Author’s elaboration.
The results show that companies that adopt good corporate governance practices and inform their stakeholders achieve better performance, and when this is measured through ROE, its effects are sustainable over time. These results allow us to accept hypothesis 2 because of a positive and consistent relationship over time between the rate of compliance to good corporate governance practices and performance during the study period.

Therefore, we can say that companies can improve their management and business processes to reach higher levels of performance by complying with good practices of corporate governance proposed and declared by the norms in force. These results validate hypothesis 2, as we have evidence to prove a positive relationship between the index of compliance to good practices of corporate governance and performance during each study period.

5. Conclusions

The benefits of adopting best corporate governance practices have been mainly understood and incorporated in developed countries, although a recent interest in this aspect is observed in emerging economies as well.

To evaluate the effects of corporate governance, scholars have proposed the use of indices based on the realities of developed countries, which, however, do not necessarily apply to developing countries. Therefore, this study proposes a multifactorial index that measures and ponders the degree of compliance to best corporate governance practices recommended by regulatory bodies in an emerging economy, like Chile, and its effect on financial performance of organisations listed on the stock exchange in Santiago.

This index considers in detail all the aspects required by the regulator that are related to a) functioning and composition of a board b) relationship between a company, shareholders, and general public, c) risk management, and d) evaluation by a third party. This research contributes by recognising the regulatory bodies’ demands and describing a set of good corporate governance practices in the context of a developing economy.

We found a positive and significant effect of the proposed index of compliance to best corporate governance practices on the performance of organisations for each of the performance measures proposed in this research, ROA, ROE, and Tobin’s Q and this is in agreement with prior research (Abdallah & Ismail, 2017; Iqbal et al., 2019). This result shows that when a regulator requires organisations to report the degree of compliance to best corporate governance practices, it is a way of signalling to interest groups the existence of control mechanisms that reduce the costs and problems of agency, favouring organisations’ sustainability (Pinzón et al., 2018; Price et al., 2011; Sayari & Marcum, 2018).

Further, this research concludes that when companies sustainably adopt best corporate governance practices and communicate the same to interest groups, it facilitates control, increases confidence, and results in good performance (Dewji & Miller, 2013; Grace et al., 2018; Shleifer & Vishny, 1997).
This research has some limitations. It lacks variables of a strategic nature that favour control environments that promote competitive advantage. For future research, we propose the identification of strategic variables that contribute to better performance and control of the management of companies, as well as extending this research to other countries in Latin America.

Disclosure statement

No potential conflict of interest was reported by the authors.

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Data availability

All data generated or used during the study are available from the corresponding author by request.

References


