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Keywords: Board of Directors, Social Diversity, Ethnic Diversity, Gender Bias, Corporate Performance, CEO Turnover, Corporate Governance, Board Meeting Attendance

JEL Classifications: G33, G34

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1. Introduction

Over the past two decades, corporate social responsibility, which emphasizes a corporation's role in enhancing environmental, social, and governance (ESG) performance, has gained importance. Its G-factor refers to inclusion and diversity at all levels within the corporation (Bernile et al., 2018; Campbell & Mínguez-Vera, 2008; Adams & Ferreira, 2009; Carter et al., 2003; Frijns et al., 2016; Westphal & Milton, 2000). A diversified board reflects the multicultural, gender-sensitive, and varying personal backgrounds of its members (van der Walt & Ingley, 2003). Diversity at the board level is not merely a matter of equitability, but also has cognitive and communication-oriented consequences (Milliken & Martins, 1996). Board diversity, defined by not only skills such as education, occupation, functional background, and industry experience but also by ethnicity, nationality, or gender, induces a different ability to process information, interpret results, and make decisions.[4] Cox (1991) includes effective decision-making, creativity, and innovations, as the benefits of diversified groups. Diverse boards may also be more independent given the heterogeneity of viewpoints, which may reduce agency costs in the firm. However, board heterogeneity could also induce problems as disagreements between directors could escalate to conflicts (Adams & Ferreira, 2009) and could constrain fast and efficient decision-making (Goodstein et al., 1994).

[4] Carter et al. (2003) find that ethnic minority representation on Fortune 1000 boards is positively and significantly associated with firm value. This positive connection with performance is confirmed for large US firms by Erhardt et al. (2003) and attributed to woman and ethnic minority directorships. Adams & Ferreira (2004) observe a greater sensitivity of CEO turnover to corporate performance in firms with gender-diverse boards. CEO turnover is more sensitive to performance in Norwegian and Swedish firms with Anglo-American directors (Oxelheim & Randøy, 2003).

In this paper, we focus on the effects of board social diversity on corporate performance in a country with significant linguistic, religious, and ethnic heterogeneity: Sri Lanka. Cooperative behaviour by different ethnic groups within a company may not be obvious given that the country was torn by civil war for more than a quarter of a century (1983-2009), during which more than 70,000 people were killed, and more than 100,000 displaced. The wounds of this civil war, which even led to genocide, only had a little more than a decade to heal. Voors et al. (2012) document that civil wars and massacres permanently affect people's behaviour towards others. Those who are greatly exposed to violence are more risk-seeking and use discount rates above the endowed level for discounting future payoffs of investments, but are also more altruistic. Accordingly, we would expect that the long-lasting violent ethnic conflict between Tamil and Sinhalese in Sri Lanka as well as other cultural idiosyncrasies impact corporate boards' functioning. The main research question of this study is therefore: "How does social diversity in corporate boards affect corporate performance, CEO turnover, and board attendance in Sri Lankan firms?"

While the majority of board diversity studies have concentrated on gender, only a few studies focus on ethno(-linguistic) diversity (Carter et al., 2003; Erhardt et al., 2003; Buse et al., 2016). We consider four aspects of diversity at the board level: *ethnicity and religion*, *language*, *gender*, and *nationality*. Social groups in Sri Lanka have clearly demarcated boundaries based on the country's complicated ethno-linguistic and religious fractionalization, although the population is similar in skin color and physical appearance. In Sri Lanka, ethno-linguistic and religious fractionalization has evolved historically. The *Sinhalese* are the natives in Sri Lanka belonging to an *Indo-Aryan* ethnic group.[5] The majority of Sinhalese live in southern, central, and west parts of the country, representing 74.9% of the population (Figure 1). The native *Tamils'* ancestry originated from the Tamil Nadu state in India and the Tamils account for 11.1% of the population of whom the majority lives in the Northern and Eastern provinces. The Indian Tamils in Sri Lanka (4.1%) are the descendants of people who migrated more recently, namely in the 1800s, as plantation workers. The Moors make up 9.3% of the population, and their ancestry are Arab traders who settled in Sri Lanka in the 9th century. The Sinhalese speak Sinhala and adhere predominantly to Buddhism (which is followed by 70.1% of the population) or Christianity (7.6%). Both the Sri Lankan (native) and Indian Tamils speak Tamil and are

[5] *Indo-Aryans* are the natives in the northern part of India. It is alleged that the Sinhalese originated from the Indo-Aryan migrants from Sinhapura, India in 543 BCE.

Hindus (12.6% of the population) (Figure 1). The Moors also speak Tamil affected by a mix of Sinhala and Arabic dialects and they are predominantly Muslim.

[Insert Figure 1 about here]

Over the centuries, the ethnicities engaged in specific economic activities, such that companies in some industries are still dominated by specific ethnic groups. For instance, while the Sinhalese are often active in farming, animal husbandry, lathe work, clay work, metalwork, and handicrafts, the Muslim Moors and Sri Lankan Tamils concentrated on trading activities. These economic specializations continued through the colonial era (which started in AD 1505) until the present-day. In 1861, the British Colonial authority introduced the Joint Stock Companies Ordinance to legalize business entities, and in 1938, the Companies Ordinance No 51 allotted stockholders' rights to local investors. As a consequence, individuals and families of specific ethno-linguistic backgrounds became the main shareholders. From the independence in 1948, labor laws also ensured equal employment opportunities for every ethnic group and the educational reforms gave everyone the right to free and indiscriminate education. Following the opening of the economy to foreign investors in 1977, foreign direct investments started to flow to the country. In1995, the *Takeovers and Mergers Code* regulated the market for corporate control. The *Companies Act* of 1982 (updated in 2007) strengthened the board of directors' authority to design the financial and operating corporate policies.

As to the corporate landscape, most businesses are clearly ethnically oriented: they are Sinhalese, Tamil, and Moor-oriented firms. In family firms, external directors with the same ethnicity as the leading family are usually appointed. Some ethnic groups are more than proportionally present in specific industries; e.g., Tamils own most firms in the plantation and trading industries. Also, in older firms, the ethnically dominant owners are Tamils or Moors because these people originally constituted the business-oriented class. Still, inviting directors from another ethnicity than that of the main owner (family) could lead to decision making that is more considerate of the sensitivities of customers or, more generally, stakeholders from other ethnicities. Likewise, linguistic heterogeneity on the board can bring benefits when business deals are made with customers or firms from regions in which another language is most prevalent. For instance, as the target market of many businesses is the Sinhalese population, it is important to appoint Sinhala-speaking directors in Tamil or Moor controlled firms as they can oversee e.g. the development of marketing strategies in the country's dominant language.

We do indeed observe that frequently at least one Sinhala-speaking director is appointed in Tamil- or Moor-owned/oriented firms.

Gender bias against women is relatively less important in Sri Lanka, as the country has a tradition of female emancipation.[6] In spite of well-developed emancipation, female representation on boards is still modest, with exception of family businesses that often appoint female family members as chairpersons or CEOs. Ample research shows that gender diversity in boards positively impacts corporate performance (Campbell & Mínguez-Vera, 2008; Erhardt et al., 2003; Sabatier, 2015; Carter et al., 2003; Fidanoski et al., 2014; Green & Homroy, 2018; Mahadeo et al., 2012). Our fourth diversity measure is based on nationality as foreign individuals appear on boards of Sri Lankan firms representing foreign business affiliations. The majority of foreign directors are from India, China, Japan, and Malaysia. The finance literature also provides evidence on the impact of the presence of foreign board members on firm output and profitability. Masulis et al. (2012) find that US firms with foreign independent directors show poorer corporate performance, lower board attendance rate, and higher executive pay relative to their peer companies. But such companies gain significant benefits from cross border acquisitions and other foreign operations in the home countries of these foreign directors. Estélyi & Nisar (2016) point out that UK firms with foreign directors become more successful in foreign market operations, and perform overall better.

We gather data on the social diversity of boards, and other corporate governance and firm-specific factors for a panel of 205 firms listed on the Colombo Stock Exchange over the period April 2011 to March 2018, resulting in 1436 firm-year observations. It should be noted that when we use the term directors, we refer to executive and non-executive directors (serving on one-tier boards). We use a Herfindahl index[7] to capture board social diversity combining linguistic, ethnic, and gender diversity, as well as diversity based on the nationality of directors. We also follow the diversity literature (e.g. Bear et al., 2010; Fidanoski et al., 2014; Roberson & Park, 2007) that uses a Blau index to capture the heterogeneity of a group of people based

[6] In 1960, the world's first female Prime Minister was appointed in Sri Lanka; in 1994, the first female President of the country was elected; in 2011, a female Chief of Justice was appointed. In 2018, the government passed a new law requiring a minimum of 25% women representation in local governments. Woman entrepreneurship is recently trending in many sectors (e.g. health care, education, hotels, trading, etc.) in Sri Lanka.

[7] The Herfindahl concentration index is a common measure in the literature to capture (ethno-linguistic) fractionalization of societies (Liu & Pizzi, 2018; Anderson & Paskeviciute, 2006; Alesina & La Ferrara, 2005). A Herfindahl index is also used to measure boards' cultural diversity (Frijns et al., 2016), social diversity (Upadhyay & Zeng, 2014), and occupational and social diversity (Anderson et al., 2011).

on demographic criteria, and adopt Blau indices for language diversity, ethnic diversity, and gender diversity on the board. We perform panel analyses controlling for industry- and year-fixed effects and many firm-specific variables. We follow an instrumental variable approach by means of two-staged least squared regressions (IV-2SLS) to address concerns about endogeneity.

We find that firms with greater board social diversity generate a stronger financial performance and maintain financial stability. Even if some firms may suffer from some communication problems and interpersonal conflicts within the boardroom, the overall potential benefits of social diversity outweigh its possible costs. In contrast to Roberson & Park (2007) who report a curvilinear U-shaped relationship between leader racial diversity and corporate performance in the US, we demonstrate that board social diversity enhances financial performance and that this relation does not disappear for the "overly diversified" firms. Also, we show evidence that financially distressed firms are characterized by poor social diversity on the board. Firms that are well socially-diversified typically exhibit healthy balance sheets and have a lower probability of default. In addition to testing the impact of social diversity aspects on financial performance, we also test its influence on the functioning of the board, proxied by CEO turnover and directors' board attendance. While we do not find a relation with CEO turnover, we observe a negative relation between social diversity and board attendance. It can also be noticed that social diversity is lower in firms owned by large companies (S&P SL20)[8] and firms with strong institutional ownership stakes (i.e. pension funds). We also document that in firms with diversified boards, the tasks of the CEO and chairman are often combined by one person, and that this person belongs more frequently to an ethnic minority.

The above results which consider the various diversity aspects (such as ethnicity, language, religion, gender, nationality) jointly, are upheld when we test the impact of these diversity-related measures by means of separate Blau indices. Accordingly, the presence of directors speaking a minority language, of those belonging to an ethnic minority (particularly, Tamils and Moors), and of those with a different country of origin helps to achieve financial success. In contrast, the presence of female directors do not enhance corporate performance. We also performed a matched-company analysis to further investigate the cost of ignoring the social

[8] S&P SL20 is a price index which covers the most liquid, financially viable, and largest 20 companies in Sri Lanka.

heterogeneity on Sri Lankan corporate boards. We find that for firms with diversified boards financial distress is less likely to occur. Overall, our robustness tests confirm that socially inclusive boards perform better than socially exclusive ones.

The benefits from ethno-linguistic board diversity go hand-in-hand with the government's ethnic harmony policy that requires that every state employee is required to speak a second Sri Lankan language competently. Consequently, both communication barriers and marginalization of linguistic groups are reduced. The government has also taken important steps over the past decade to improve corporate governance standards as well as diversity and inclusion. In spite of the country's stability over slightly more than a decade, the country remains vulnerable to erupting conflicts such as the Moor (Muslim) extremist attack in 2019, which tarnished ethnic harmony. Such terrorist actions could also adversely affect the functioning of diversified boards and hence affect corporate performance.

The structure of our paper is as follows. In the next section, we review the theoretical and empirical literature followed by hypotheses. Section 3 discusses data, sample, and methods. In section 4, we empirically test the impact of board social diversity on output measures. Section 5 brings our robustness tests, and finally, in section 6, we present our conclusions, and suggestions for future research.

2. Literature Review

2.1. Theories on Inter-group Behaviour of Executives

There is no simple model that describes group behaviour of corporate board members, especially in a complex context such as that of Sri Lanka. Although classical agency theory can help us to understand board interactions to a certain extent, one needs to broaden the set of relevant theories. We mainly borrow from various social sciences and briefly discuss the *social identity approach, social capital theory, resource-based view, upper echelons theory, resource dependency theory,* and *critical mass versus tokenism.*

Social Identity Approach

In terms of group behaviour, the social identity approach produces two interrelated theories: self-categorization theory and social identity theory. Tajfel (1978) and Tajfel & Turner (1979) treat social categorizations as cognitive tools that help individuals to determine their place in

society and trigger varying social actions. Turner (1999) distinguishes an individual's social and personal identity whereby the latter is independent of group memberships. Within a social group, members are allotted a unique social identity. Social identity theory argues that people attempt to assure a positive social identity, often based on favourable comparisons between in-groups and out-groups. According to Tajfel (1982), a positive social identity can be reached if one's social interactions are largely determined by his or her group memberships.

Social Capital Theory

As a member of society, a person accumulates economic, cultural, and social capital (Häuberer, 2011). Social capital is defined by the attributes of a social organization that contains networks, norms, and social benefits (Putnam, 2000); it is hence based on engagement in social activities or groups and requires trust. Alesina & La Ferrara (2005) claim that if the social capital is poor, public policies in racially fragmented societies are bound to be unsuccessful. Social networks create value, particularly for a board of directors and corporate organizations (van der Walt & Ingley, 2003). Westphal & Milton (2000) stress that social capital is advantageous for minority directors who can then have a larger influence on strategic decision-making.

Resource-Based View

The resource-based model (Barney, 1991) focuses on the utilization of corporate resources for gaining sustained competitive advantages. Richard (2000) also refers to this model to evaluate firms' cultural diversity, which is in itself is a knowledge-based resource that enables firms to cater to market demand and meet competitive challenges. Thus, a diversified organizational culture in terms of human capital is thought to be a source of sustained competitive advantages. If there is racio-ethnic diversity in a country, it is worthwhile for firms to ensure that the human resource mix of the board reflects this situation.

Upper Echelons Theory

Hambrick & Mason's (1984) upper echelons theory states that managerial attributes, both psychological traits (cognitive bases, values, and perceptions) and observable characteristics (age, functional track and career experience, formal education, socioeconomic background) determine organizational outcomes. Recent work (Carpenter et al., 2001) on upper echelons theory underlines the importance of resource and capability perspectives of upper echelons to better predict organizational outcomes. This requires converting the skills and capabilities of upper echelons into actual competitive advantages.

Resource Dependency Theory

Pfeffer (1972) launched the resource dependency model to discuss a board's critical links with its external environment. The board of directors is a mechanism to reduce firms' interdependence on its environment. Pfeffer and Salancik (1978) argue that the responsiveness to this interdependence is subject to the board's size and its composition, which should align with the conditions of the external environment. In this way, a board should include directors with diverse skills and backgrounds who can address the political, economic, or social challenges that firms face.

Agency Theory

A primary task of the board of directors is the monitoring of management and possible mitigations of agency problems between management and shareholders (Jensen & Meckling, 1976). According to Fama & Jensen (1983), outside board members play the role of arbitrators for resolving the conflicts among managers and curtail managerial opportunism. Besides, they interfere in mitigating agency problems between managers and residual claimants e.g. in relation to executive compensation or top management replacements. Even so, the extent of the monitoring function is subject to the composition of the board. Particularly, the monitoring role of outside directors who represent different cultural backgrounds is important. Carter et al. (2003) and Buse et al. (2016) argue that ethnic diversity in boards enhances board independence, which is caused by the fact that diversified directors tend to raise concerns more often than directors with a homogeneous background.

Critical Mass versus Tokenism

Granovetter (1978) discusses the concept of 'threshold' to model the collective behaviour of a group. The threshold is an equilibrium point where the net benefits of social interactions of the group begin to exceed the net costs. According to Etzkowitz et al. (1994), critical mass requires a strong minority of at least 15% of the total membership. The diversity literature (Konrad et al., 2008; Torchia et al., 2011; Liu et al., 2014) applies this critical mass concept to account for women directors' contributions to the board. As cited by Liu et al. (2014), Kristie (2011) refers to critical mass theory for women on the boards as "one is a token, two is a presence, and three is a voice".

2.2. A Concise Literature Overview on Board Social Diversity

With exception of the focus on gender, the corporate finance literature has said little about the consequences of cultural diversity on corporate boards. In this section, we summarize some of those studies that examine ethnic and linguistic diversity and its impact on firm output. Ethnic diversity and inclusion are not only important from the perspective of corporate social responsibility but also for corporate performance. Evidence on the relation between firm performance and ethnic diversity is however mixed. Carter et al. (2003) investigate the relation between board diversity (measured by the presence of women, African-Americans, Asians, and Hispanics) and firm value for a sample of Fortune 1000 firms. They document that although boards are on average composed of eleven directors, no ethnic minority directors are present in nearly half of the firms.[9] This may surprise given that they document that the presence of ethnic minorities establishes a significant and positive relationship with firm value. Erhardt et al. (2003) also demonstrate that in large US firms the presence of female directors and of directors from ethnic minorities leads to higher corporate performance. Roberson & Park (2007) observe a convex relationship between the racial diversity of top managers and the corporate performance of fortune firms. This seems to imply that firms can be overly diversified, to the point where social diversify hinders corporate decision-making. Frijns et al. (2016) focus on the national cultural diversity of board members (measured by means of Hofstede's country-culture framework) and their results indicate that corporate performance negatively responds to board cultural diversity. Even so, they also show that this negative impact is minimized in a context of high business complexity and an important level of foreign operations. For Indian firms, Kagzi & Guha (2018) find a positive linear relation between demographic board diversity and corporate performance, while Ben-Amar et al. (2013) show a non-linear (at first increasing, then decreasing) relation between board demographic diversity (based on culture, nationality, gender, and experience of the directors) and M&A performance for Canadian firms.

Multi-linguistic corporate boards can bring benefits to a firm but also impose costs. Henderson (2005) analyzes the language diversity of international management teams in multinational corporations. The demand for language diversity largely depends on the need to align with the dynamics of international business group collaborations. Lazear (1999) treats a global firm as a multi-cultural team and points out that a gathering of workers from different cultures, legal

[9] Likewise, Stewart (2016) claims that in the UK, women and black and ethnic minorities that are significantly underrepresented in senior management and on the board. Bravo et al. (2018) report that on the boards of S&P 500 firms ethnic diversity is largely absent.

systems, and languages induces costs and rigidities in collaboration. Tenzer et al. (2014) also claim that cognitive and emotional reactions of multinational team members to language barriers can affect team members' trust in one another. Brannen et al. (2014) point out that when board members express their views in one language but think in another, this contributes to a less one-sided framing of problems and better subsequent decision-making. Conversely, Piekkari et al. (2015) discuss the 'silencing effect' of board language diversity. Referring to Nordic countries, they observe impoverished and silenced discussions in board meetings of firms that are unprepared to adopt a new working language (in this case, English). Consequently, time-consuming conflicts and transaction costs induced by the use of non-native languages on boards can arise (Makkonen et al., 2018).

In terms of diversity, the corporate finance literature has focused mostly on gender and extensively documented that board gender diversity affects a firm's output. Following Daily et al. (1999), the majority of the subsequent literature agrees (while addressing the obvious endogeneity problem) that women in top management or board positions enhance corporate performance (Campbell & Mínguez-Vera, 2008; Erhardt et al., 2003; Sabatier, 2015; Carter et al., 2003; Fidanoski et al., 2014; Green & Homroy, 2018; Mahadeo et al., 2012). Moreover, Campbell & Mínguez-Vera (2008) argue that gender-diverse boards are better prepared to penetrate new markets, increase a firm's creativity and potential to innovate, and solve problems. In the context of critical mass theory, Torchia et al. (2011) demonstrate that boards with a strong presence of (at least three) female directors are more innovation-oriented. Furthermore, board gender diversity minimizes stock return volatility (Jizi & Nehme, 2017), and is correlated with more equity-based compensation for directors (Adams & Ferreira, 2009). Several studies examine the impact of mandatory minimum gender representation on the board – the first country with gender quota was Norway (with 40%) (see e.g. Ahern and Dittmar, 2012).

A board's cultural diversity could also affect board monitoring effectiveness (proxied by e.g. CEO turnover) and the commitment to board decision making (proxied by e.g. director's attendance of board meetings). When a board counts foreign independent directors, Masulis et al. (2012) and Daniel et al. (2013) observe a lower sensitivity of CEO turnover to corporate performance. In contrast, this sensitivity is greater in firms with outsider-dominated boards (Weisbach, 1988). In the presence of external board members, Norwegian and Swedish firms experience more sensitivity of CEO turnover to performance (Oxelheim & Randøy, 2003).

Adams & Ferreira (2009) discuss the responsiveness of CEO turnover to return performance in relation to board gender diversity, and find a greater sensitivity in firms with gender-diverse boards. In relation to board attendance, they observe more frequent board attendance by female directors compared to their male counterparts. Ferreira (2011) adds that male directors encounter fewer attendance problems in gender-diverse boards. Masulis et al. (2012) report that foreign independent directors in the US have a rather poor attendance record of board meetings.

2.3 Hypotheses

Corporate executives in Sri Lanka do not operate in a vacuum but are obviously affected by the political and social environment. As such, board members may be (of have been) strongly influenced by the long-lasting violent ethnic conflict between mainly the Tamils and Sinhalese and by other country-specific cultural factors. Voors et al. (2012) state that people's behaviour changes persistently after experiencing severe violent conflicts. After civil wars and atrocities, people are more altruistic but are also more risk-loving. The effects of the social conflicts and fragmentation in Sri Lanka may have long-lasting effects, which, in turn, can shape group behaviour within corporations.

In the final phase of and since the civil war, visible improvements in board social diversity have occurred. In 1997, Sri Lanka first adopted corporate governance standards that allowed regulators to monitor the board composition. As a result of these regulations and voluntary corporate governance practices, corporate boards gradually became more socially inclusive. For example, Wellalage et al. (2012) reported that minority representation on Sri Lankan boards took place in more than 42% of the boards by 2010. This positive evolution continued with ethnic diversity being present in 48.5% of the boards during the period 2012-2018. The end of the civil war and the subsequent government policy of reconciliation has contributed to this evolution towards a more cooperative business community. While segregation based on racism has declined at the board level, inviting Tamils and Moors as directors to Sinhalese firms has also yielded an immediate benefit in terms of an increase in available expertise in how to do business and in terms of the value of trading networks. We therefore hypothesize: *Ethnic diversity on corporate boards positively affects corporate performance (H1).*

The ethnolinguistic landscape of Sri Lanka is highly complex. Communities belonging to different ethnic backgrounds may speak the same language, while communities speaking

different languages can still belong to the same ethnicity. In particular, there are four major ethnic communities (Sinhalese-Buddhists, Sinhalese-Catholics, Tamils, and Moors) and two major languages (Sinhala and Tamil) in Sri Lanka. Religion is also related to ethnicity as there are Buddhist and Christian Sinhalese, Hindu Tamils, and Muslim Moors. This culturally rich atmosphere provides us a perfect social laboratory to investigate people's interactions within the society as well as within the organizations. We argue that directors speaking different languages engage in more successful business dealings with various types of stakeholders as they can address them directly in their own language. This is pivotal in relation to Tamils and Moors, who constitute, by origin, the merchant class. Traditionally, Tamil is the business language spoken by both Tamils and Moors (as Moors gradually and ultimately adopted this language as their mother tongue, at the expense of Arabic). This an an example of language disenfranchisement (Ginsburgh et al., 2005), the incapacity of accepting a language among the official ones or the fading of languages. Prior to 1987, this language disenfranchisement also extended to the Tamil language, which is the native tongue of Tamils but was discriminated against (and one of the reasons for the civil war). Consequently, an important part of the population was not able to get full access to official documents and institutional processes when using their native tongue. In many public and private Sri Lankan organizations, the working languages were (and still are) Sinhala and English (as a remnant of the British colonial period), but in order to reach out to the ethnic minority areas (e.g. north and east) where Tamil is the main language, at least part of the board members should be able to speak the minority language to facilitate connecting with minorities and local politicians as this could have a direct effect on business. We therefore propose: *Linguistic diversity on corporate boards positively impacts corporate performance (H2).*

In Sri Lanka, board participation by women is low, currently around 8%, which is lower than the (mandatory) ratio in developed economies. In family firms, female family members are often invited to their boards. In spite of all efforts to emancipate women, the decision-making power is still centralized to the male upper echelons in the corporate sector. However, the trend towards more women in business is gradually gaining strength. For instance, some leading businesses are headed by woman entrepreneurs (e.g. Abans, Janet, 4ever, House of Fashion, Spring and Summer, Lyceum group of schools, etc.), and nearly 7% of CEOs of listed firms are female. With equal opportunities created by education and civil liberties' movements, women are now slowly moving into top leadership positions. Gender diverse boards are shown to increase investments in innovations (Campbell & Mínguez-Vera, 2008), to generate

competitive advantages through enhancing a firm's reputation as an inclusive employer (Miller & Triana, 2009), value-enhancing CSR spending (Bear et al., 2010), to make more successful acquisition decisions (Levi et al., 2014), to enhance problem-solving capacities (Campbell & Mínguez-Vera, 2008), and ultimately, corporate performance (Campbell & Mínguez-Vera, 2008; Erhardt et al., 2003; Sabatier, 2015; Carter et al., 2003; Fidanoski et al., 2014; Green & Homroy, 2018; Mahadeo et al., 2012). We therefore hypothesize: *Gender diversity on corporate boards positively influences corporate performance (H3).*

In Sri Lanka, CEOs are typically powerful and politically oriented: often they have held or are holding positions in government-affiliated institutions. Furthermore, the average CEO holds more than four seats on different boards and has a tenure of more than seven years. As both long tenure and the prestige derived from a set of non-executive positions may make a CEO powerful, this raises the question as to whether corporate boards are able to monitor CEOs effectively and discipline them in case of underperformance. In the context of this paper, we wonder whether socially diversified boards are more effective to deal with such CEO entrenchment than homogeneous boards. The literature argues that well-diversified boards can monitor and discipline CEOs better, and can take actions against them in case of poor corporate performance (Adams & Ferreira, 2009; Ferreira, 2011). Masulis et al. (2012) (as well as Oxelheim & Randøy, 2003; Weisbach, 1988; Adams & Ferreira, 2009) show that non-voluntary CEO turnover usually follows poor corporate performance when boards are highly diversified. As such, board social diversity (ethno-linguistic, gender, and nationality-based diversity) could lead to better monitoring which then leads to more frequent CEO departures. We therefore hypothesize: *Social diversity in boards increases the likelihood of CEO turnover (H4).*

Our final question deals with as to how (diversified) boards operate: Does board attendance increase with board diversity? Although directors voluntarily accept a directorship, this does not imply that directors with different backgrounds necessarily get along well (especially after a three-decade-long ethnic civil war and after violent incidents such as the 2019 jihadist terrorist attacks). Taking decisions and even meeting regularly with the full board could be difficult in case of inter-ethnic discords. Pompper (2014) states that people are reluctant to associate with others from different racial backgrounds. If the behaviour and habits of other ethnicities are not acceptable, people may be isolated on the board which may lead to a lower

attendance of meetings. We therefore hypothesize: *Social diversity in boards decreases the overall board meeting attendance of directors (H5).*

3. Data and Methodology

Sri Lankan firms constitute a social laboratory for examining a spectrum of forms of diversity. We construct several indices to capture the various aspects of social diversity: i) a Herfindhal index to measure the general level social diversity, ii) Blau indices to measure specific types of diversity (based on ethnic, linguistic, gender and nationality-based diversity) separately. These indices are independent variables in our panel data analysis which tests their relation with firm performance, financial distress, board attendance, and CEO turnover.

3.1. Sample

Our sample comprises the firms listed on the Colombo Stock Exchange (CSE). We collect firm-specific data on financial and non-financial information as well as governance from the annual reports, which include the financial statements (of which the disclosure is compulsory according to the Companies Act No. 07 of 2007), the Corporate Governance Compliance Report (which is subject to mandatory disclosure according to the listing rules of the CSE), the List of Top-20 Shareholders, and the Report of the Directors (which also discloses directors' shareholdings). We gather information on 1435 firm-year observations related to 205 firms that are labelled as non-financial companies according to the Global Industry Classification Standard. We exclude banks, financial, and insurance firms because these institutions have different corporate reporting standards and practices. The financial year 2011-2012 necessarily marks the beginning of our sample window for two reasons: First, the CSE database publishes annual reports only from this year onwards. Second, a major reform of corporate governance codes occurred in 2011.[10]

We extract the social identity of the directors from the Profiles of Directors shown in annual reports, which show pictures of the directors, their status (executive or non-executive), and

[10] The Institute of Chartered Accountants of Sri Lanka (ICASL) and the Securities and Exchange Commission (SEC) of Sri Lanka jointly published the Code of Best Practice on Corporate Governance in 2008. The CSE included the governance codes into their listing rules. The Corporate Governance Committee of the ICASL performed the third major reform of corporate governance codes in 2011. In line with the benchmark governance codes of developed markets, they focused on strengthening internal control and risk management, on responsibilities of the board, audit committee, remuneration committee and the company secretary, on communication with shareholders, on material transactions, and on sustainability reporting.

their surnames that enable us to identify the ethnic background of a director's family.[11] In particular, we identify four ethnic backgrounds (Sinhalese-Buddhists, Sinhalese-Catholics, Tamils, and Moors*)* and the foreign directors. How to define ethnicity has been a delicate subject among social scientists. In this regard, we follow Fearon & Laitin's (2003) definition that is widely accepted in the extant literature and well-fit to the context of corporate governance. This definition considers several dimensions such as common ancestry, sense of community and self-consciousness, language, religion, customs, remembering the Homeland, and sharing common (his)stories.

3.2. *Measuring Social Diversity*

We construct several indices to measure the variety of social diversity aspects. Following the general convention in social sciences, we capture group diversity by means of the Herfindahl index (1950)[12] and the Blau index (1977). Our Herfindahl index for social diversity (*Herf.Soc.Div.*) captures board social diversity that incorporates linguistic, ethnic, gender, and international diversity of corporate boards: $Herf.Soc.Div = \frac{1}{s^2}[a^2 + b^2 + c^2 + d^2]$ where, a = non-Sinhalese language directors, b = ethnic minority directors (directors other than Sinhalese-Buddhists), c = foreign directors, d = female directors, and s = board size. The *Herf. Soc. Div.* values (theoretically) range from zero (0) to four (4) and a higher value indicates a greater social diversity of the board.[13]

The Blau index (1977) is commonly used in the diversity literature (Richard, 2000; Bear et al., 2010; Fidanoski et al., 2014; Roberson & Park, 2007) to measure the within-group variation for a specific demographic/ethnic/cultural criterion. When we measure the linguistic heterogeneity of a board, the Blau index (shown below) on linguistic diversity (*Blau Lang.*

[11] In Sri Lanka, an individual's family name clearly indicates the ethnic background. Sinhalese-Buddhist names evolved from the era of the King e.g. Appuhamy, Bandaranaike, Dissanayake, Ekanayake, etc. The Sinhalese-Catholic names (e.g. Silva, Fernando, Perera, Almeida, etc.) originated from the Portuguese presence. Even though Tamils and Moors speak Tamil, their surnames are quite different. While surnames of Tamils stem from the Tamil language (e.g. Mahendran, Ponnambalam, Rajaratnam, Subramaniam, etc.), names of Moors are of Arabic origin (e.g. Cader, Muhammad, Hameed, Rahman, etc.). Although skin color and physical appearance are almost the same for every Sri Lankan, their dress code also gives some reliable clues about their cultural origin.

[12] For example, Anderson & Paskeviciute (2006) and Alesina & La Ferrara (2005) apply a Herfindahl index as a fractionalization index to differentiate ethnic and linguistic heterogeneity across countries. Other corporate governance studies (Frijns et al., 2016; Anderson et al., 2011; Roberson & Park, 2007; Upadhyay & Zeng, 2014) also apply this index to measure some diversity aspects of board members and top-management teams.

[13] Assume that 9 directors are present in a board out of which there are 2 Sinhalese-Buddhists, 1 Sinhalese-Catholic, 2 Tamils, 2 Moors, and 2 foreigners. Four of nine directors are women. Sinhalese-Buddhists and Sinhalese-Catholics speak Sinhala, Tamils and Moors speak Tamil, and foreigners may speak one or two non-Sri-Lankan languages. Accordingly, s=9, a=6, b=7, c=2, and d=4 resulting in a Herfindahl index value of 1.30.

Div.) considers the relative proportions of members of each language category *l* (*Sinhala, Tamil,* and *Others*)[14]. The Blau index, *Blau Ethnic Div.* represents ethnic heterogeneity of the directors and *e* is the number of directors from a specific ethnic background (*Sinhalese-Buddhists*, *Sinhalese-Catholics*, *Tamils*, *Moors*, and *foreigners)*. As Sinhales can be Buddhists or Catholics, we consider them as two distinct groups. The index, *Blau Gend. Div.,* measures gender diversity where *g* stands for directors from each gender category. The general Blau index is calculated as: $y = 1 - [\frac{1}{s^2} \sum_{i=1}^{n} x_i^2]$ where, y represents respectively *Blau Lang. Div., Blau Ethnic Div., Blau Gend. Div.*, and x stands for *l, e and g* denote directors from each language category, ethnicity, and gender; s is the board's size. In robustness tests, we will test a set of alternative diversity variables.

3.3 *Measuring Firm Output*

We intend to examine the impact of social diversity of boards on (a) corporate performance, (b) financial distress, (c) board monitoring (CEO turnover), and (d) board functioning (meeting attendance). We measure firm performance by means of a market-based measure, Tobin's Q (market capitalization of equity plus book value of liabilities, divided by book value of total assets), and an accounting-based measure, return on assets (ROA, earnings before interest and taxes, divided by total assets). Besides, we use three proxies for financial distress. First, a firm is financially distressed when its interest coverage ratio (earnings before interest and taxes divided by interest paid on debt) is less than two (then, *Low Int. Cov.* equals 1 and is zero otherwise). At this level of coverage, a firm typically loses investment-grade status (Renneboog et al., 2017). The second indicator of distress is the distance to default from Merton's (1974) model which estimates the default probability by means of a firm's capital structure and the distributions of stock returns and volatilities. Our bankruptcy measure is given by *1-DD = 1 - n(dd)* where *n* is the standard normal cumulative distribution function, and dd is the distance to default.[15] Third, a firm is considered as financially distressed when its return on equity (ROE,

[14] Assume that a board comprises nine members who speak three different languages. If three directors belong to each language category, we achieve maximum linguistic diversity in the board. According to the Blau index, the maximum value in this case is 0.67.

[15] *1-DD = 1 - n(dd)* where *n* = standard normal cumulative distribution function. We use the equation below to compute the distance to default, where a = asset value, l = liabilities (short term plus current portion of long term liabilities), μ_A= asset drift from CAPM, σ = asset volatility, t = maturity period of liabilities.

$$dd = \frac{\left[\ln\left(\frac{a}{l}\right) + (\mu_A - 0.5\sigma_a^2)t\right]}{\sigma_a\sqrt{t}}$$

See Bhaearth and Shumway (2008) for a comprehensive review of the model.

net income after tax divided by book value of equity) is negative (the indicator variable negative return on equity (*Neg. ROE*) then equals 1 and is zero otherwise).

To investigate whether socially diversified boards have disciplining and monitoring power, we regress our social diversity index on CEO turnover, an indicator variable equal to one if the CEO leaves his position (corrected for retirement age >63 years and illness/death). To examine the relation between board social diversity and directors' attendance to board meetings, we calculate the arithmetic average of each director's board meeting attendance. Our board attendance measure is $bdat = [\frac{1}{b}\sum_{i=1}^{n} a_i]/n$ where *a, b,* and *n* denote attendance, number of board meetings, and number of board members respectively.

3.4 *Descriptive Statistics*

The descriptive statistics of the corporate performance and distress measures, social diversity indices, and other firm-specific variables are presented in Table 1. Panel A shows that Tobin's Q averages 1.48 and ROA amounts to 7%. A large number of Sri Lankan firms suffer from financial distress (Panel B). For instance, approximately 28% of the observations earn less than twice their interest payments; the average distance to default amounts to 0.13 and one-fifth of the firms incur earnings losses (negative return on equity). Panel C exhibits that the CEO turnover (corrected for retirement and death/illness) amounts to around 8%; this number is four times higher for firms with high default risk. Board attendance shows large variations across the boards: an average director attends only half of the board meetings (the mean amounts to 53% with a standard deviation of 41%). Panel D of Table 1 shows the basic distributional properties of our main independent variables, the diversity indices. There is a remarkable variation in ethnolinguistic diversity across Sri Lankan corporate boards. The average score on social diversity (Herfindahl index) may seem low at 0.43 (with a standard deviation of 40), but this is caused by the fact that the index captures diversity based on several diversity aspects (ethnicity, language, gender and nationality) among which gender diversity on the board is still lagging as is international board diversification. Linguistic and gender diversity indices (Blau indices) are respectively 32% and 12%, and the ethnic diversity index is the highest at approximately 50%. Panel E reports data distributions of alternative board inclusiveness variables some of which were jointly considered in the above diversity indices. The board representation of minority languages on the board (which comprise non-Sinhalese languages) and of minorities (non-Sinhalese-Buddhist such as Sinhalese-Catholics, Tamils, Moors, or

other) amounts to 24% and 42%, respectively. In terms of ethnicity, directors who do not belong to the dominant family ethnic background account for 36% of the directorships. Tamil and Moor minorities hold 22% of the directorships of the average board. One ethnicity dominates boards (with two-third of the board members) in approximately 50% of the boards. The other diversity indicators, the percentage of foreign directorships (11%) and of female directorship (8%), are relatively lower.

The ownership is largely concentrated to corporate and institutional shareholders (including corporate control) at 76% from which the largest listed companies belonging to S&P SL20, and pension funds account for 6% and 2% respectively. The rest belongs to families and individuals (they hold 13% on average), and executive and non-executive directors (who own together 8%) (Panel F). In firms with more than 25% family ownership (held by family executives, family directors, and other family members), the CEO (and his family) owns 16% and the directors (including their family's share stakes) own 38%.

Panel G of Table 1 presents the CEO and board characteristics. Almost half of the CEOs are from an ethnic minority (52% are not Sinhalese-Buddhists). The concentration of the tasks of chairman and CEO in the hands of a single person only occurs in 27% of the boards. CEOs usually serve on four boards of other firms as non-executive directors and have an average tenure of 7 years. While board size ranges from 2 to 14 directors, the average board comprises 8 directors or which 40% are independent non-executive directors. Four to five board meetings are held during a year by the average board. Nine firms that were financially distressed for four consecutive years and did not hold a single board meeting over this period.

[Insert Table 1 about here]

Table 2 presents the correlation matrix for the social diversity indices and the firms' output measures (Panel A), for corporate performance and firm characteristics (including ownership, CEO, and board characteristics) (Panel B), and for CEO, firm and board characteristics (Panel C). The table illustrates that board social diversity, linguistic diversity, and ethnic diversity display a significant positive correlation with Tobin's Q and ROA, but both performance measures are inversely related to gender diversity. Social diversity indices, particularly those on linguistic and ethnic diversity, correlate negatively with the financial distress measures. In Panel B, we note that large corporate ownership is positively correlated with firm performance (Tobin's Q and ROA), and both large company ownership and pension fund ownership are

negatively and significantly related to financial distress. Board size, board independence, and firm size are also negatively correlated with all three distress criteria. In Panel C, CEO turnover is inversely related to CEO ownership, duality, cross directorships, and CEO tenure. Board size and independence have a positive relationship with CEO turnover and with directors' board meeting attendance.

[Insert Table 2 about here]

Table 3 shows how firm performance and CEO/board characteristics differ between firms with high and low social diversity levels (firms belonging to quartiles 1 and 4 of the Herfindhal social diversity index). Corporate performance (both Tobin's' Q and ROA) is significantly higher in firms with socially well-diversified boards. Similarly, the cost of financial distress is lower for firms with socially diverse boards. This univariate analysis indicates that well-diversified boards have on average a 7% lower probability of default (proxied by Merton's distance to default) compared to boards lacking such social diversity. Moreover, it is striking that directors' attendance of board meetings and the number of board meetings are both smaller in firms with socially well-diversified boards (respectively by 8% and by 2 meetings). Furthermore, in firms with higher board social diversity, ownership held by large companies and pension funds is lower as is the board's independence. CEOs hold more non-executive directorships and have longer tenure in firms with low board social diversity and belong less often to an ethnic minority. Larger firms (measured by total assets) are characterized by lower social diversity.

[Insert Table 3 about here]

3.5. *Multivariate Analyses*

We regress corporate performance (*Corp. Perf.)* on the various lagged social diversity indices (*Soc. Div. Ind.*), while controlling for CEO traits, firm ownership, other board and firm characteristics, and time and industry fixed effects. The main regression model of the paper is the following:

$$
\begin{aligned}
Corp.\ Perf._{it} = {} & \beta_0 + \beta_1 Soc.Div.\ Ind._{it-1} + \beta_2 Corp.Own._{it-1} + \beta_3 Pension\ Own._{it-1} \\
& + \beta_4 Fam.Ind.Own._{it-1} + \beta_5 Exec.Own._{it-1} + \beta_6 Nonex.Own._{it-1} \\
& + \beta_7 CEO\ Duality_{it-1} + \beta_8 \ln(Board\ Size)_{it-1} + \beta_9 Board\ Indep._{it-1} \\
& + \beta_{10} \ln(Total\ Assets)_{it-1} + year\ fixed\ effects \\
& + industry\ fixed\ effects + \varepsilon_{it}
\end{aligned}
$$

The monitoring role of large shareholders is expected to mitigate expropriation of shareholder rights by management. In particular, we expect stricter monitoring by large corporate owners. Pension funds are mostly employee pension schemes managed by the Central Bank; they are the largest public funds in Sri Lanka and the fact that Central Bank can use their voting rights may add to the impact. We control for executive and non-executive director ownership as this may reduce agency costs, and account for internal governance-related controls (CEO duality, board size, and board independence) as well as firm-specific variables. As we will also examine the effect of board social diversity on CEO turnover, we add to the above model the following CEO-related factors: CEO ownership, CEO cross-directorships, and CEO tenure – each of which could proxy for CEO influence. In the models on board meeting attendance, we add to the above control variables: the number of board meetings and the ethnic status of the CEO.

In addition to the above base models, we also consider possible non-linear relationships between corporate performance and social diversity. It may be that there is a limit to social diversity as over-diversification of boards could be costly. For instance, Cox et al. (1991) and Lazear (1999) highlight increased turnover, personal conflicts, and communication barriers as the possible costs of diversity. According to Makkonen et al. (2018), the use of non-native languages on board meetings may create time-consuming conflicts and transaction costs. Roberson & Park (2007) and Richard et al. (2004) observe a non-linear relationship between racial diversity of top managers and corporate performance. Therefore, we include the quadratic forms of the social diversity indices into our model:

$$Corp.\ Perf._{it} = \beta_0 + \beta_1 Soc.Div.\ Ind._{it-1} + \beta_2 Soc.Div.\ Ind._{it-1}{}^2 + \beta_3 Corp.Own_{it-1} + \beta_4 Pension\ Own._{it-1} + \beta_5 Fam.Ind.Own._{it-1} + \beta_6 Exec.Own._{it-1} + \beta_7 Nonex.Own._{it-1} + \beta_8 CEO\ Duality_{it-1} + \beta_9 \ln(Board\ Size)_{it-1} + \beta_{10} Board\ Indep_{it-1} + \beta_{11} \ln(Total\ Assets)_{it-1} + year\ fixed\ effects + industry\ fixed\ effects + \varepsilon_{it}$$

Our results may be affected by endogeneity issues because decisions on board diversity could be taken simultaneously with those affecting corporate performance, CEO turnover or board attendance. We therefore apply an instrumental variable two-stage least squares approach (IV-2SLS), which includes instrumental variables that are associated with board social diversity but not with the firm's outcome measures.

4. Empirical Results

4.1. Corporate Performance and Board Social Diversity

Panel A of Table 4 shows that the board's social diversity (Herf. Soc. Div.) is positively and significantly related to corporate performance. Columns (1) and (3) include the base-case linear specifications, and columns (2) and (4) show the non-linear ones. In both specifications, corporate performance, captured by the market-based performance measure, Tobin's Q, and the accounting-based performance measure, ROA, increases with the composite social diversity index. A one-standard deviation increase in overall social heterogeneity (40%) correlates with a substantial increase in Tobin's Q (by 0.417) (Column (1)) and with a 1.4% increase in ROA (Column (3)). This finding is consistent with our hypothesis that social diversity in boards positively relates to corporate performance.

More detailed results based on the Blau indices on linguistic, ethnic, and gender diversity are presented in Panels B and C of Table 4. Both linguistic (Panel B) and ethnic diversity (Panel C) are positively and statistically significantly associated with Tobin's Q. For Model (1), one-standard deviation increase in linguistic diversity and ethnic diversity indices are (ceteris paribus) related with respective increases of Tobin's Q by 0.295 and 0.313. Models (2) of Panels B and C show non-linear relations whereby high linguistic diversity on the board non-linearly (regressively) augments corporate value. Models (3) and (4) reveal that ethno-linguistic diversity is correlated with ROA. Panel D exhibits whether the presence of female

directors on the board relates to corporate performance. Our results exhibit a negative correlation between gender diversity and firm performance, which conflicts with the extant literature that highlights the benefits of appointing women to the board room (Campbell & Mínguez-Vera, 2008; Erhardt et al., 2003; Sabatier, 2015; Mahadeo et al., 2012). The results are however not very strong as they do not persist in the non-linear model. We also find no relation for the ROA regressions (Models (3) and (4)).

We conclude that directors from different ethnic and linguistic backgrounds can affect performance, possibly through the value of business networks extending to minority communities, a higher sensitivity to cultural, religious, and linguistic differences in the Sri Lankan population, and more cooperative behaviour in board decisions.These results align with the social matching game model (Fearon & Laitin, 1996) which discusses the inter-ethnic groups' cooperation in communities and with Easterly & Levine (1997), Carter et al. (2003) on ethnic diversity enhancing economic performance.

[Insert Table 4 about here]

4.2. Financial Distress and Board Social Diversity

In this section, we turn to the costs of financial distress to firms insensitive to social diversity. In Table 5, we regress our social diversity indices on the three proxies of financial distress: (i) low interest coverage, (ii) (Merton's) distance to default, and (iii) earnings losses (negative ROE). In Panel A, we report statistically significant relations for the linear models (1), (3), and (5) that point out that a highly socially diversified board is negatively associated with all of the above measures of financial distress. For an average Sri Lankan firm, one standard deviation increase in social diversity is associated with 2.8% decrease in default likelihood (distance to default). We dissect the impact of social diversity in the subsequent panels. We turn to linguistic diversity in Panel B where models (1) and (3) indicate that linguistic diversity significantly reduces a firm's default probability (as measured by low interest coverage and distance to default). Model (3) of Panel C shows a significant relation between ethnic diversity and distance to default, but we do not find similar relations to firms with low interest coverage or negative returns (the positive significant ethnic diversity index and its negative square largely cancel out in models (2) and (4)). We also observe that female board presence relates to lower financial distress (low interest coverage and negative returns in models (1), and (4)) but the results are less consistent across models.

[Insert Table 5 about here]

4.3. CEO Turnover and Board Meeting Attendance in Socially Diverse Boards

We document that board social diversity has no effect on CEO turnover for Sri Lankan public firms as shown by the logistic regressions of Table 6 (Models (1) and (2)). This implies that board social diversity does not lead to stricter monitoring and quick decision-making on managerial departure issues. None of the included CEO traits (CEO shareholdings, CEO duality, CEO cross-directorships) affect turnover with the exception of CEO tenure which reduces the probability of departure (not tabulated). Likewise, we do not find any impact on turnover of various board measures (size, independence). For the sake of parsimoniousness, we do not report results on the relation between Blau diversity indices and CEO turnover as these relations are also statistically insignificant.

In Table 6, we further examine the board attendance by directors and show that board social diversity seems to discourage the directors' attendance as Model (3) points out that board social diversity negatively influences board attendance. When the positions of CEO and chairman are held by one person (CEO duality) which proxies for CEO power, the attendance records of directors are lower. Still, the presence of a CEO belonging to a minority, the frequency of board meetings, a high degree of board independence, higher corporate performance, and large firm size encourage regular meeting participation (not tabulated). An analysis capturing diversity by means of Blau indices shows that the gender diversity index is negatively and significantly correlated with director meeting attendance (not tabulated).

[Insert Table 6 about here]

5. Robustness Tests

In order to verify the robustness of our results, we implement an IV approach, retest the main hypotheses by means of other alternative board inclusiveness variables, and perform a matched-pair analysis on distressed and non-distressed firms. In this section, we will also show some further evidence that the benefits of socially diversified boards significantly outweigh the cost of social frictions among executives.

5.1. Instrumental Variable Approach

To test the impact of board social diversity on firm outcomes, we perform a two-stage least squares with instrumental variables (IV-2SLS). We use minority CEO (the CEO belongs to an ethnic minority) as our first instrument for board social diversity to test corporate performance

and financial distress. The second instrument, minority chairmanship (the chairman belongs to an ethnic minority) is used for board social diversity to test the relation between CEO turnover and board attendance. The idea is that when the leadership of the firm, be it the chairman or the CEO, are from an ethnic minority, there will be a higher inclination to increase the board's social diversity, which we argue above can affect corporate decision making leading different output measures (e.g. higher corporate performance).[16] A direct relation between a CEO belonging to an ethinic minority and corporate performance is not obvious as it is not clear that CEO who is from an ethnic minority, who speaks a specific language or is female would generally be able to consistently generate higher returns than a different type of CEO. Rather, we expect that the correlation runs from a 'minority CEO' to board social diversity which then is able to reach higher corporate returns. Admittedly, finding a good instrument for board social diversity is not straightforward, which is why our robustness tests will not only rely on these tests but we will also perform a set of alternative tests in the subsequent subsections.

Our instruments are economically and statistically relevant. First, CEO ethnicity has strong and significantly positive correlation with board social diversity ($\rho = 0.7$), but only a weak and insignificant correlation with our dependent variables (Tobin's Q ($\rho = 0.2$), ROA ($\rho = 0.1$), low interest coverage ($\rho = -0.1$), distance to default ($\rho = -0.1$), and negative return on equity ($\rho = -0.1$). Our second IV, namely minority chairmanship correlates with social diversity ($\rho = 0.7$) but is virtually unrelated to CEO turnover ($\rho = 0.1$) and board attendance ($\rho = -0.1$). In our analyses, we use the same lagged controls as in the models of Table 4.

Our IV results are consistent with our baseline specifications in the previous section. Table 7 shows that the (lagged) board social diversity significantly and positively impacts Tobin's Q (model (1)) and ROA (model (2)). As before, firms with high board social diversity avoid financial distress (proxied by low interest coverage (model (3)), distance to default (model (4)), and negative returns (model (5)). Model (6) confirms our earlier lack of relation between board diversity and CEO turnover, whereas in model (7), we confirm that social diversity is related

[16] The CEO (in the models on corporate performance) and the chairman (in the models on CEO turnover and board attendance) are part of the board and hence affect the measurement social diversity. However, the average board comprises 8 people such that the impact of one person on the whole board's social diversity is limited. Furthermore, the index combines diversity based on ethnicity, language, gender and nationality, which diminishes the impact of the one single person on the global diversity index. The reason why the CEO (chairman) belonging to an ethnic minority could ex ante be a good instrument is that a CEO (chairman) could shape the constitution of the board and affect the hiring of a more diverse board.

to lower meeting attendance by directors. This IV approach suggests that ethnolinguistically diversified boards generate higher corporate performance and avoid financial distress.

[Insert Table 7 about here]

5.2. Alternative Board Diversity Variables

In this subsection, we retest our hypotheses using alternative diversity variables capturing the presence of the language of minorities, ethnic minority directorships, nationality of directors, female directors on the board, and a board's ethnic dominance. We provide detailed definitions of these variables in Appendix A. We include the same set of lagged controls as in Table 4, and present the results of these models in Appendices B1 (corporate performance) and B2 (financial distress).

In line with our previous findings, we exhibit in Table B1 that linguistic diversity (minority language representation in model (1)) is positively correlated with Tobin's Q. When directors speak a Sri Lankan minority language, the firm may communicate better with or at least be more sensitive to the need to address people in every region in Sri Lanka in their native tongue. In addition, such a board may be more sensitive towards the requirements by and expectations of minorities. Likewise, ethnic minority representation (the presence of ethnic minority directors) is correlated with Tobin's Q (model (2)). Our next definition of minority directors is somewhat different than in the base-case analysis (Table 4) where we measured ethnic heterogeneity of boards through ethnic minorities (non-Sinhalese-Buddhists) representation on boards. Although Sinhalese-Buddhist directors belong to the majority ethnicity in the country, in the context of a board they may be part of a minority. There are ethnicity-oriented (Sinhalese-Buddhist, Tamil, Moors firms, etc.) family firms or business groups whose major shareholders or/ and the majority of directors belong to one ethnicity. We address this issue, namely the cases where a firm's board has a majority of Tamils, Moors, or Sinhalese-Catholic directors and where Sinhalese-Buddhist directors are a minority. We therefore define a variable Within-Board Ethnic Minority (whereby minority reflects that any ethnicity can be a minority on the board). In particular, this is proxied by the proportion of directors who do not belong to the major ethnicity of the board and we show a positive correlation with Tobin's Q (Model (3)). The presence of Tamil and Moor minorities (Model (4)) also correlates with market-based performance. Inversely, but in line with these results, we document that firm performance negatively relates to a lack of diversity, here captured by ethnic board dominance (Model (5)). All in all, all these models point out the importance of ethnically diverse boards. Board

diversity in terms of the presence of foreign directors is also positively related to Tobin's Q (Model (6). We documented earlier that there was no relation or a weak negative one between the presence of female directors and performance, which we confirm in Model (7). In Panel B of Table B1, we present similar regressions but now for accounting performance. We find no relation between board inclusiveness and accounting performance with exception of the variable presence of Minority Directorships, which positively correlates with ROA.

In Panels A to C of Table B2, we revisit the relation between financial distress and the alternative board inclusiveness variables. We consistently find that the presence of ethnic and linguistic minorities on the board as well as female directors are related to a lower probability of default and lower financial distress (measured by interest coverage and negative earnings). In keeping with these results, ethnic dominance, which indicates board homogeneity, is positively correlated with the financial distress/default measures (models (5) in Panel A-C).

5.3. Financial Distress and Matched-pair Analysis

We also discuss how social diversity explains financial distress in a matched-pair setting whereby we partition firms into financially distressed and non-distressed firms based on interest coverage (being below or above 2). We use firm size, industry, and the financial year as matching criteria, such that one-to-one matching generates 187 pairs of distressed and non-distressed firm-years. Our matching sample includes 72% of the listed firms on the Colombo stock exchange (the remainder cannot be matched).

First, we perform a mean comparison analysis to examine how board diversity measures, ownership, CEO traits, and board and firm characteristics compare for distressed and non-distressed firms. Our analysis, presented in Panel A of Table C1 (Appendix C), demonstrates that board social diversity is greater in non-distressed firms. Moreover, the alternative diversity measures of Panel B also reflect a greater diversity in non-distressed firms. Second, we perform a conditional logistic regression analysis in Table C2 (Appendix C) to estimate to what extent the probability of financial distress is affected by social diversity (in our matched sample). After controlling for the usual set of control variables (as in Table 5), we conclude that the board social diversity index and the Blau linguistic, ethnic, and gender diversity indices negatively predict distress (Panel A). Panel B shows the relations with the alternative board inclusiveness variables, which yield further confirming evidence that socially exclusive firms suffer from higher default probabilities relative to socially inclusive ones.

6. Conclusion

This study examines the social diversity of Sri Lankan corporate boards in terms of ethnicity of the directors (Sinhalese-Buddhist, Sinhalese-Catholic, Tamil, Indian-Tamil, or Moor), the languages they speak, their gender and, in case of foreign directors, their nationality. Social diversity and inclusiveness on corporate boards is expected to improve decision making and hence affect corporate performance, monitoring of top management (e.g. CEO replacement) and how boards function (e.g. board meetings attendance). Diversity and inclusion are sensitive objectives in Sri Lanka firms, given the context of the extreme social frictions – the civil war which extended over three decades and even led to genocide terminated barely a decade ago - and regional segregation of peoples based on ethnicity, language, and religion. This study demonstrates that board social diversity is positively related to market-based performance and accounting returns, and negatively to financial distress and board attendance. Monitoring in socially diverse firms by the board is not related to increased CEO turnover.

The Sri Lankan example teaches us that firms with inclusive boards significantly outweigh firms with less socially diverse boards in terms of performance and financial stability despite the communication challenges in the boardrooms that ethnolinguistic diversity engenders. Firms can create a socially diversified board by assigning board seats to individuals representing different ethnic, religious, and linguistic minorities, to women and to foreign directors. Since a diversified board comprises people from different communities, their cultural heterogeneity is expected to lead to better, more balanced decision making. We show that directors' ethnolinguistic diversity can bring about more cooperative behaviour in board decisions, which translates to corporate success. When directors represent different cultural aspects of societies within a country, firms can gain a competitive edge following from directors' social connections and sensitivity to the expectations and requirements of minorities. Still, making directors from different ethnicities work together may still be challenging considering the recent wounds of the civil war and occasional resurfacing tensions. The evidence put forward in this paper confirms that governance reforms focused on reconciliation and efforts to stimulating ethnolinguistic diversity have a conspicuous positive pay-off.

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Table 1: Descriptive Statistics

This table presents descriptive statistics for firm outcome measures, social diversity indices, and other firm characteristics. The data window comprises 1435 firm-year observations from 205 firms for the period April 2011-March 2018. Appendix A provides definitions and acronyms of the variables.

Variable	Observations	Mean	S.D.	Q25	Median	Q75
Panel A: Corporate Performance Measures						
Tobins' Q	1435	1.48	0.97	0.83	1.15	1.75
Return on Assets (%)	1435	07.0	16.0	2.00	06.0	12.0
Panel B: Financial Distress Measures						
Low interest coverage ratio (dummy variable)	1435	0.28	0.45	0.00	0.00	1.00
Distance to Default (1-DD)	1435	0.13	0.31	0.00	0.00	0.01
Negative Return on Equity (dummy variable)	1435	0.20	0.40	0.00	0.00	0.00
Panel C: Other Output Measures						
CEO Turnover	1435	0.08	0.27	0.00	0.00	0.00
Board Attendance (%)	1435	53.0	41.0	0.00	75.0	89.0
Panel D: Social Diversity Indices						
Herfindahl Index for Social Diversity	1435	0.43	0.40	0.13	0.30	0.61
Blau Index for Linguistic Diversity	1435	0.32	0.21	0.18	0.38	0.49
Blau Index for Ethnic Diversity	1435	0.49	0.18	0.41	0.50	0.61
Blau Index for Gender Diversity	1435	0.12	0.15	0.00	0.00	0.24
Panel E: Alternative Board Inclusiveness Variables						
Minority Language Representation (%)	1435	24.0	25.0	0.00	17.0	40.0
Ethnic Minority Representation (%)	1435	42.0	27.0	22.0	40.0	63.0
Within-Board Ethnic Minority (%)	1435	36.0	17.0	25.0	38.0	50.0
Tamil and Moor Minority Representation (%)	1435	22.0	25.0	0.00	14.0	38.0
Ethnic Board Dominance (dummy variable)	1435	0.48	0.50	0.00	0.00	1.00
Foreign Board (%)	1435	11.0	18.0	0.00	0.00	14.0
Female Board (%)	1435	08.0	11.0	0.00	0.00	14.0
Panel F: Ownership Measures (%)						
Corporate and Institutional Ownership	1435	76.0	24.0	71.0	85.0	93.0
Large Company Ownership	1435	06.0	19.0	0.00	0.00	0.00
Pension Fund Ownership	1435	02.0	04.0	0.00	0.00	01.0
Families and Individuals' Ownership	1435	13.0	21.0	0.00	0.00	14.0
Executive Directors' Ownership	1435	06.0	15.0	0.00	0.00	1.00
Non-executive Directors' Ownership	1435	02.0	06.0	0.00	0.00	1.00
CEO Ownership	1435	03.0	11.0	0.00	0.00	0.00
Panel G: CEO and Board Characteristics						
CEO Duality (dummy variable)	1435	0.27	0.45	0.00	0.00	1.00
CEO Cross-directorships (number)	1435	4.23	5.94	1.00	3.00	6.00
CEO Tenure (years)	1435	7.03	6.53	3.00	5.00	8.00
Ethnic Minority CEO (dummy variable)	1435	0.52	0.50	0.00	1.00	1.00
Board Size (number)	1435	7.77	2.09	6.00	8.00	9.00
Board Meetings (number)	1435	4.56	3.41	3.00	4.00	6.00
Board Independence (ratio)	1435	0.39	0.13	0.30	0.38	0.45
Panel H: Firm-specific Variables						
Firm Size (ln total assets)	1435	21.7	1.49	20.9	21.8	22.6

Table 2: Correlation Matrix

This table presents Pearson correlation coefficients between variables from Panel A-C. Panel A shows correlation coefficients between firm output measures and social diversity indices. Panel B correlates firm performance with other firm characteristics. Panel C shows the correlations for CEO turnover and board attendance with other firm characteristics. The output measures contain Tobin's Q (*Q*), return on assets (*ROA*), low interest coverage (*Low Int. Cov.*), distance to default (*1-DD*), negative return on equity (*Neg. ROE*), CEO turnover (*CEO Turn.*), and board attendance (*Board Attend.*). Board social diversity indices comprise Herfindahl index for social diversity (*Herf. Soc. Div.*), Blau index for language diversity (*Blau Lang. Div.*), Blau index for ethnic diversity (*Blau Ethnic. Div.*), Blau index for gender diversity (*Blau Gend. Div.*). Ownership measures compose of large company ownership (*Corp. Own.*), pension fund ownership (*Pension Own.*), families and individual's ownership (*Fam. Ind. Own.*), executive director ownership (*Exec. Own.*), non-executive director ownership (*Nonex. Own.*), and CEO ownership (*CEO Own.*). CEO and board characteristics include CEO duality dummy (*CEO Duality*), CEO cross-directorships (*CEO Cross.*), CEO tenure (*CEO Tenure*), CEO ethnicity (*CEO Ethnic.*), board size (*Board Size*), board meetings (*Board Meet.*), and board independence (*Board Indep.*). Other firm-related variables contain only firm size by total assets (*Firm Size*). Appendix A provides definitions and measurements for the variables. Correlations between scale and nominal variables are presented as polyserial correlation coefficients. Tetrachoric correlation coefficients determine the correlation among nominal variables. ***, **, and * denote statistical significance based on a t-statistic at the 1%, 5%, and 10% level, respectively.

Panel A: Social Diversity Indices and Output Measures

	Q	*ROA*	*Low Int. Cov.*	*1-DD*	*Neg. ROE*	*CEO Turn.*	*Board Attend.*
Q	1						
ROA	0.359***	1					
Low Int. Cov.	-0.150***	-0.814***	1				
1-DD	-0.148***	-0.121***	0.424***	1			
Neg. ROE	-0.148***	-0.801***	0.971***	0.334***	1		
CEO Turn.	0.014	-0.042	0.128**	-0.025	0.159**	1	
Board Attend.	-0.008	0.119***	-0.199***	-0.049*	-0.177***	-0.049	1
Herf. Soc. Div.	0.254***	0.049*	-0.023	-0.068**	0.013	-0.006	-0.157***
Blau Lang. Div.	0.119***	0.048*	-0.122***	-0.112***	-0.107***	0.001	0.091***
Blau Ethnic Div.	0.133***	0.101***	-0.142***	-0.095***	-0.124***	0.062	0.122***
Blau Gend. Div.	-0.026	-0.014	-0.039	-0.002	-0.059	0.020	-0.058**

Panel B: Ownership, CEO and Board Characteristics, and Corporate Performance

	Corp. Own.	*Pension Own.*	*Fam. Ind. Own.*	*Exec. Own.*	*Nonex. Own.*	*CEO Duality*	*Board Size*	*Board Indep.*	*Firm Size*
Q	0.074***	-0.023	-0.008	-0.047*	-0.016	0.009	-0.055**	-0.055**	0.006
ROA	0.048*	0.014	-0.012	-0.017	0.012	-0.180***	0.012	0.025	0.066**
Low Int. Cov.	-0.211***	-0.085**	0.026	0.014	0.009	0.252***	-0.112***	-0.039	-0.279***
1-DD	-0.068***	-0.022	-0.050*	-0.014	-0.076***	0.117	-0.026	-0.085***	-0.028
Neg. ROE	-0.162***	-0.097**	-0.025	-0.040	-0.080*	0.178***	-0.155***	-0.014	-0.428***

Panel C: CEO, Firm, and Board Characteristics

	CEO Own.	*CEO Duality*	*CEO Cross.*	*CEO Tenure*	*Board Size*	*Board Indep.*	*Firm Size*	*Q*
CEO Turn.	-0.037	-0.031	-0.168***	-0.183***	0.019	0.061	-0.086	0.014
	Board Meet	*CEO Duality*	*CEO Ethnic.*	*CEO Tenure*	*Board Size*	*Board Indep.*	*Firm Size*	*Q*
Board Attend.	0.450***	-0.218***	-0.022	-0.032	0.097***	0.159***	0.209***	-0.008

Table 3: High versus Low Diversity

This table compares mean values of performance measures and other firm characteristics for board with high versus low social diversity (quartile 1 versus quartile 4 of the Herfindahl index for social diversity). Appendix A provides definitions and acronyms for the variables. ***, **, and * denote statistical significance statistic (t-test) at the 1%, 5%, and 10% level, respectively.

Means Comparison on Social Diversity Index-Quartiles

Variable	Mean on Quartile 1 (low diversity) (n=359)	Mean on Quartile 4 (high diversity) (n=352)	Difference
Panel A: Corporate Performance Measures			
Tobins' Q	1.278	2.201	0.923***
Return on Assets	0.057	0.082	0.025*
Panel B: Financial Distress Measures			
Interest coverage ratio < 2 (dummy)	0.320	0.280	-0.040
Distance to Default	0.173	0.103	-0.070***
Negative ROE (dummy)	0.220	0.200	-0.020
Panel C: Other Output Measures			
CEO Turnover	0.080	0.084	0.004
Board Attendance	0.530	0.452	-0.078**
Panel D: Ownership Measures			
Large Company Ownership	0.074	0.037	-0.037***
Pension Fund Ownership	0.021	0.010	-0.011***
Families and Individuals' Ownership	0.104	0.129	0.025*
Executive Director Ownership	0.053	0.060	0.007
Non-executive Director Ownership	0.008	0.028	0.020***
CEO Ownership	0.033	0.031	-0.002
Panel E: CEO and Board Characteristics			
CEO Duality	0.300	0.380	0.080**
CEO Cross-directorships	4.680	3.230	-1.450***
CEO Tenure	7.170	6.630	-0.545*
Ethnic Minority CEO	0.140	0.950	0.818***
Board Size	7.523	7.494	-0.029
Board Meetings	5.240	3.450	-1.785***
Board Independence	0.405	0.359	-0.046***
Panel F: Firm-specific Variables			
Firm Size (ln total assets)	21.527	21.188	-0.339***

Table 4: Board Social Diversity and Corporate Performance

This table shows whether corporate performance (Tobin's Q and ROA) is affected by social diversity, linguistic diversity, ethnic diversity, and gender diversity of boards. The diversity measures are proxied by Herfindahl index for social diversity, and Blau indices for linguistic, ethnic, and gender diversity. The lagged control variables comprise large companies' ownership, pension fund ownership, families and individuals' ownership, executive director ownership, non-executive director ownership, CEO duality, log of board size, board independence, and log of total assets. Appendix A provides definitions and measurements for every variable. We also include year and industry fixed-effects. Standard errors are clustered at the firm level and given in parentheses. ***, **, and * denote statistical significance based on a t-statistic at the 1%, 5%, and 10% level, respectively.

	Dependent Variable			
	Tobin's Q		ROA	
	(1)	(2)	(3)	(4)
Panel A: Board Social Diversity and Corporate Performance				
Herf. Soc. Div.$_{t-1}$	1.042***	-0.053	0.036***	-0.041
	(0.174)	(0.403)	(0.012)	(0.031)
(Herf. Soc. Div.$_{t-1}$)^2	-	0.772**	-	0.055**
	-	(0.327)	-	(0.021)
Intercept	4.065***	3.848***	-0.379***	-0.395***
Controls	yes	yes	yes	yes
Year fixed-effects	yes	yes	yes	yes
Industry fixed-effects	yes	yes	yes	yes
Robust standard errors	yes	yes	yes	yes
R^2	0.1860	0.1954	0.1068	0.1115
Prob>F	0.0000	0.0000	0.0000	0.0000
Groups	205	205	205	205
Observations	1230	1230	1230	1230
Panel B: Board Linguistic Diversity and Corporate Performance				
Blau Ling. Div.$_{t-1}$	1.405***	-1.857***	0.003	0.006
	(0.219)	(0.677)	(0.026)	(0.064)
(Blau Ling. Div.$_{t-1}$)^2	-	5.748***	-	-0.005
	-	(1.216)	-	(0.105)
Intercept	5.761***	5.931***	-0.343***	-0.293
Controls	yes	yes	yes	yes
Year fixed-effects	yes	yes	yes	yes
Industry fixed-effects	yes	yes	yes	yes
Robust standard errors	yes	yes	yes	yes
R^2	0.1576	0.1731	0.0998	0.0998
Prob>F	0.0000	0.0000	0.0000	0.0000
Groups	205	205	205	205
Observations	1230	1230	1230	1230
Panel C: Board Ethnic Diversity and Corporate Performance				
Blau Ethic. Div.$_{t-1}$	1.738***	-2.517***	0.052	-0.022
	(0.273)	(0.639)	(0.034)	(0.062)
(Blau Ethic. Div.$_{t-1}$)^2	-	5.481***	-	0.096
	-	(0.977)	-	(0.090)
Intercept	5.168***	5.670***	-0.342***	-0.333***
Controls	yes	yes	yes	yes
Year fixed-effects	yes	yes	yes	yes
Industry fixed-effects	yes	yes	yes	yes
Robust standard errors	yes	yes	yes	yes
R^2	0.1587	0.1775	0.1026	0.1032
Prob>F	0.0000	0.0000	0.0000	0.0000
Groups	205	205	205	205
Observations	1230	1230	1230	1230
Panel D: Board Gender Diversity and Corporate Performance				
Blau Gend. Div.$_{t-1}$	-0.775**	-1.052	-0.036	-0.096
	(0.310)	(0.707)	(0.034)	(0.092)
(Blau Gend. Div.$_{t-1}$)^2	-	0.782	-	0.170
	-	(1.602)	-	(0.226)
Intercept	5.341***	5.305***	-0.332***	-0.340***
Controls	yes	yes	yes	yes
Year fixed-effects	yes	yes	yes	yes
Industry fixed-effects	yes	yes	yes	yes
Robust standard errors	yes	yes	yes	yes
R^2	0.1325	0.1326	0.1008	0.1012
Prob>F	0.0000	0.0000	0.0000	0.0000
Groups	205	205	205	205
Observations	1230	1230	1230	1230

Table 5: Board Social Diversity and Financial Distress

This table shows whether financial distress measures are affected by social diversity, linguistic diversity, ethnic diversity, and gender diversity of boards. The diversity measures are proxied by a Herfindahl index, and Blau

	Dependent Variable					
	Interest coverage < 2 (dummy)		Distance to Default		Negative ROE (dummy)	
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Board Social Diversity and Financial Distress						
Herf. Soc. Div.$_{t-1}$	-0.708***	-0.036	-0.065***	-0.069	-0.458**	0.074
	(0.183)	(0.503)	(0.019)	(0.055)	(0.196)	(0.526)
(Herf. Soc. Div.$_{t-1}$)^2	-	-0.492	-	0.002	-	-0.384
	-	(0.330)	-	(0.032)	-	(0.341)
Intercept	7.281***	7.516***	0.171	0.171	5.771***	5.946***
Controls	yes	yes	yes	yes	yes	yes
Year fixed-effects	yes	yes	yes	yes	yes	yes
Industry fixed-effects	yes	yes	yes	yes	yes	yes
Robust stand. errors	yes	yes	yes	yes	yes	yes
R^2	-	-	0.1465	0.1465	-	-
Pseudo R^2	0.1060	0.1074	-	-	0.1057	0.1065
Prob>F	-	-	0.0000	0.0000	-	-
Prob>Chi^2	0.0000	0.0000	-	-	0.0000	0.0000
Groups	205	205	205	205	205	205
Observations	1182	1182	1230	1230	1188	1188
Panel B: Board Linguistic Diversity and Financial Distress						
Blau Ling. Div.$_{t-1}$	-0.598*	-1.016	-0.142***	-0.144	-0.357	-0.701
	(0.351)	(1.138)	(0.044)	(0.139)	(0.398)	(1.268)
(Blau Ling. Div.$_{t-1}$)^2	-	0.749	-	0.003	-	0.621
	-	(1.927)	-	(0.211)	-	(2.166)
Intercept	6.276***	6.291***	0.038	0.038	5.143***	5.150***
Controls	yes	yes	yes	yes	yes	yes
Year fixed-effects	yes	yes	yes	yes	yes	yes
Industry fixed-effects	yes	yes	yes	yes	yes	yes
Robust stand. errors	yes	yes	yes	yes	yes	yes
R^2	-	-	0.1486	0.1486	-	-
Pseudo R^2	0.0979	0.0980	-	-	0.1022	0.1023
Prob>F	-	-	0.0000	0.0000	-	-
Prob>Chi^2	0.0000	0.0000	-	-	0.0000	0.0000
Groups	205	205	205	205	205	205
Observations	1182	1182	1230	1230	1188	1188
Panel C: Board Ethnic Diversity and Financial Distress						
Blau Ethic. Div.$_{t-1}$	-0.352	2.340*	-0.098*	0.168	0.065	4.057**
	(0.399)	(1.380)	(0.051)	(0.170)	(0.440)	(1.719)
(Blau Ethic. Div.$_{t-1}$)^2	-	-3.587**	-	-0.342	-	-5.303**
	-	(1.680)	-	(0.207)	-	(2.054)
Intercept	6.485***	6.264***	0.103	0.071	5.295***	4.882***
Controls	yes	yes	yes	yes	yes	yes
Year fixed-effects	yes	yes	yes	yes	yes	yes
Industry fixed-effects	yes	yes	yes	yes	yes	yes
Robust stand. errors	yes	yes	yes	yes	yes	yes
R^2	-	-	0.1429	0.1449	-	-
Pseudo R^2	0.0963	0.0996	-	-	0.1015	0.1078
Prob>F	-	-	0.0000	0.0000	-	-
Prob>Chi^2	0.0000	0.0000	-	-	0.0000	0.0000
Groups	205	205	205	205	205	205
Observations	1182	1182	1230	1230	1188	1188

indices for linguistic, ethnic, and gender diversity. The lagged control variables are the same as in Table 4. Appendix A provides definitions and measurements for the variables. We also include year and industry fixed-effects into the regressions. Standard errors are clustered at the firm level and given in parentheses. ***, **, and * denote statistical significance based on a t-stat at the 1%, 5%, and 10% level, respectively.

Table 5 continued

	Dependent Variable					
	Interest coverage < 2 (dummy)		Distance to Default		Negative ROE (dummy)	
	(1)	(2)	(3)	(4)	(5)	(6)
Panel D: Board Gender Diversity and Financial Distress						
Blau Gend. Div.$_{t-1}$	-0.848*	1.897	0.046	-0.242	-1.044**	5.198***
	(0.473)	(1.438)	(0.064)	(0.171)	(0.510)	(1.679)
(Blau Gend. Div.$_{t-1}$)^2	-	-7.950**	-	0.816*	-	-18.69***
	-	(3.690)	-	(0.484)	-	(4.555)
Intercept	6.917***	7.463***	0.092	0.055	5.845***	7.301***
Controls	yes	yes	yes	yes	yes	yes
Year fixed-effects	yes	yes	yes	yes	yes	yes
Industry fixed-effects	yes	yes	yes	yes	yes	yes
Robust stand. errors	yes	yes	yes	yes	yes	yes
R^2	-	-	0.1407	0.1432	-	-
Pseudo R^2	0.0978	0.1006	-	-	0.1044	0.1169
Prob>F	-	-	0.0000	0.0000	-	-
Prob>Chi^2	0.0000	0.0000	-	-	0.0000	0.0000
Groups	205	205	205	205	205	205
Observations	1182	1182	1230	1230	1188	1188

Table 6: Board Social Diversity, and CEO Turnover and Board Attendance

This table shows whether CEO turnover and board attendance are affected by board social diversity which is proxied by a Herfindahl index for social diversity. The lagged control variables of CEO turnover comprise CEO ownership, CEO duality, CEO cross-directorships, CEO tenure, log of board size, board independence, log of total assets, and Tobin's Q. Control variables of board attendance are CEO duality, CEO tenure, ethnic minority CEO, log of board size, board independence, board meeting, log of total assets, and Tobin's Q. Appendix A provides definitions and measurements for the variables. We also include year and industry fixed-effects into the regressions. Standard errors are clustered at the firm level and given in parentheses. ***, **, and * denote statistical significance based on a t-statistic at the 1%, 5%, and 10% level, respectively.

	Dependent Variable			
	CEO Turnover		Board Attendance	
	(1)	(2)	(3)	(4)
Herf. Soc. Div.$_{.t-1}$	-0.064	-0.043	-0.124***	-0.052
	(0.262)	(0.826)	(0.028)	(0.077)
(Herf. Soc. Div.$_{.t-1}$)^2	-	-0.015	-	-0.046
	-	(0.584)	-	(0.043)
Intercept	-3.024	-3.023	-1.466***	-1.458***
Controls	yes	yes	yes	yes
Year fixed-effects	yes	yes	yes	yes
Industry fixed-effects	yes	yes	yes	yes
Robust standard errors	yes	yes	yes	yes
R^2	-	-	0.3358	0.3363
Pseudo R	0.0432	0.0432	-	-
Prob>F	-	-	0.0000	0.0000
Prob>Chi^2	0.3019	0.3461	-	-
Groups	205	205	205	205
Observations	1379	1379	1435	1435

Table 7: Board Social Diversity, and Corporate Performance, and CEO Turnover and Board Attendance (IV Approach)

This table exhibits two-stage least square (2SLS) regressions for the Herfindahl social diversity index on Tobin's Q (*Q*), return on assets (*ROA*), low interest coverage (*Low Int. Cov.*), distance to default (*1-DD*), negative return on equity (*Neg. ROE*), CEO turnover (*CEO Turn.*), and board attendance (*Board Attend.*). When we regress social diversity index on financial performance and distress measures (Models 1-5), we use *ethnic minority CEO* as the instrument which is whether the CEO belongs to an ethnic minority. In relation to CEO turnover and board attendance, the social diversity index is instrumented by *minority chairmanship,* namely whether the chairman belongs to an ethnic minority. We follow the same control variables and fixed-effects used for respective analysis in Table 4, 5, and 6. Appendix A provides definitions and measurements for the variables. Standard errors are clustered at the firm level and given in parentheses. ***, **, and * denote statistical significance based on a t-statistic at the 1%, 5%, and 10% level, respectively.

Two-stage Least Square (2SLS) Regressions							
	Dependent Variable						
2nd stage regressions	Q	ROA	Low Int. Cov.	1-DD	Neg. ROE	CEO Turn.	Board Attend.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Herf. Soc. Div.$_{t-1}$	1.146***	0.034*	-0.195***	-0.105***	-0.121**	0.028	-0.348***
	(0.193)	(0.020)	(0.056)	(0.038)	(0.050)	(0.037)	(0.083)
Intercept	3.725***	-0.373***	1.942***	0.263	1.443***	0.026	-1.362***
Controls	yes	yes	yes	yes	yes	yes	yes
Year fixed-effects	yes	yes	yes	yes	yes	yes	yes
Indus. fixed-effects	yes	yes	yes	yes	yes	yes	yes
R^2	0.1855	0.1068	0.1361	0.1443	0.1117	0.0223	0.3086
Prob>Chi^2	0.0000	0.0000	0.0000	0.0000	0.0000	0.2707	0.0000
Groups	205	205	205	205	205	205	205
Observations	1230	1230	1230	1230	1230	1435	1435

Appendices

Appendix A: Variable Description and Measurements

Variable	Acronym	Definition and Measure
Panel A: Corporate Performance Measures		
Tobins' Q	Q	Market capitalization plus book value of liabilities divided by book value of total assets.
Return on Assets	ROA	Earnings before interest, and taxes divided by total assets.
Panel B: Financial Distress Measures		
Low interest coverage	Low Int. Cov.	A dummy variable equals to one if a firm is in financial distress, which is captured by the interest coverage ratio (ICR) being less than two. The ICR is earnings before interest and taxes divided by interest expenses.
Distance to Default	1-DD	Merton's model shows how many standard deviations a firm is away from default. $1 - DD = 1 - n(dd)\ and$ $dd = \frac{\left[\ln\left(\frac{a}{l}\right) + (\mu_A - 0.5\sigma_a^2)t\right]}{\sigma_a\sqrt{t}}$ Where, dd = distance to default, n = standard normal cumulative distribution function, a = asset value, l = liabilities (short term plus current portion of long term liabilities), μ_A= asset drift from the CAPM model, σ = stock return volatility, t = maturity period of liabilities.
Negative return on equity	Neg. ROE	A dummy variable equal to one if a firm is in financial distress, defined as a negative ROE (net income divided by book value of equity).
Panel C: Other Output Measures		
CEO Turnover	CEO Turn.	A dummy variable equal to one if the CEO leaves his position in the following year (and zero otherwise).
Board Attendance	Board Attend.	The arithmetic average of each member's attendance of board meeting by year. $bdat = [\frac{1}{b}\sum_{i=1}^{n} a_i]/n$ where, a = attendance of board members, b = number of board meetings, and n = number of board members.
Panel D: Social Diversity Indices		
Herfindahl Index for Social Diversity	Herf. Soc. Div.	The index incorporates language, ethnic, gender, and international diversity of directors $Herf.Soc.Div. = \frac{1}{s^2}[a^2 + b^2 + c^2 + d^2]$ where, a = non-Sinhalese language directorship, b = minority directorship (directors other than Sinhalese-Buddhists), c = foreign directorship, d = woman directorship, and s = board size.
Blau Index for Linguistic Diversity	Blau Ling. Div.	The index is constructed based on mother tongue of directors. $Blau\ Ling.Div. = 1 - \left[\frac{1}{s^2}\sum_{i=1}^{n} l_i^2\right]$ where, l=directors from each language category (i.e. Sinhalese, Tamil, and other, and s = board size).
Blau Index for Ethnic Diversity	Blau Ethic. Div.	The index is constructed based on family ethnic backgrounds of directors.

		$Blau\ Ethic.Div. = 1 - \left[\frac{1}{s^2}\sum_{i=1}^{n} e_i^2\right]$ where, e = directors from each family ethnic background (i.e. Sinhalese-Buddhists, Sinhalese-Catholics, Tamils, Moors, and foreign, and s = board size).
Blau Index for Gender Diversity	Blau Gend. Div.	The index is constructed based on gender of directors. $Blau\ Gend.Div. = 1 - \left[\frac{1}{s^2}\sum_{i=1}^{n} g_i^2\right]$ where, g = directors from each gender, and s = board size).
Panel E: Other Social Diversity Indicators		
Minority Language Representation	Min. Lang. Repr.	Proportion of directors with a non-Sinhala language as native tongue (including foreign directors).
Ethnic Minority Representation	Ethn. Min Repr.	Proportion of ethnic minority directors (directors other than Sinhalese-Buddhists such as Sinhalese-Catholic, Tamils, Moors, and foreigners).
Within-board Ethnic Minority	Within-Board Ethn. Min.	Proportion of directors who do not belong to the dominant family ethnic background of the firm.
Tamil and Moor Minority Representation	Tam-Moor Min. Repr.	Proportion of Tamil and Moor directors on the board.
Ethnic Board Dominance	Ethnic Domin.	A dummy variable equal to one, if two-thirds of board members belong to the same family ethnic background.
Foreign Board	For. Board	Proportion of foreign directors on the board.
Female Board	Fem. Board	Proportion of women directors on the board .
Panel F: Ownership Measures		
Corporate and Institutional Ownership	Corp. Inst. Own.	Percentage of shares held by all firms and institutions (i.e. listed firms, private firms, mutual funds, pension funds, banks and other financial institutions, state-owned firms, foreign firms, etc.) including corporate control.
Large Company Ownership	Corp. Own.	Percentage of shares held by S&P SL20 companies (the most liquid, financially viable, and largest firms).
Pension Fund Ownership	Pension Own.	Percentage of shares held by government pension funds (Employee Provident Fund and Employee Trust Fund), and other private sector pension funds.
Families and Individuals' Ownership	Fam. Ind. Own.	Percentage of shares held by families and individuals.
Executive Directors' Ownership	Exec. Own.	Percentage of shares held by executive directors.
Non-executive Directors' Ownership	Nonex. Own.	Percentage of shares held by non-executive directors.
CEO Ownership	CEO Own.	Percentage of shares held by the CEO.
Panel G: CEO and Board Characteristics		
CEO Duality	CEO Duality	A dummy variable equal to one if the same person exerts the functions of both the *Chairman* and *CEO.*
CEO Cross-directorships	CEO Cross.	Number of board seats in other firms held by the CEO.
CEO Tenure	CEO Tenure	Number of years in the firm as CEO.
Ethnic Minority CEO	Ethn. Min. CEO.	A dummy variable equal to one if the CEO is non-Sinhalese-Buddhist.
Board Size	Board Size	Number of directors on the board.
Board Meetings	Board Meet.	Number of board meetings held during a year.
Board Independence	Board Indep.	Proportion of independent non-executive directors (divided by total board size).
Panel H: Firm-specific Variables		
Firm Size	Firm Size	Natural logarithm of total assets.

Appendix B: Alternative Board Inclusiveness Variables and Firm Outcomes

Table B1: Board Inclusiveness and Corporate Performance

This table reports regression results for the impact of alternative board inclusiveness variables on Tobin's Q and ROA respectively in Panel A and B. *Appendix A* provides definitions and measurements for the variables. We use the same control variables and fixed-effects as in Table 4. Standard errors are clustered at the firm level and given in parentheses. ***, **, and * denote statistical significance based on a t-statistic at the 1%, 5%, and 10% levels, respectively.

	Dependent Variable: Tobin's Q						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Alternative Board Inclusiveness Variables and Tobin's Q							
Minority language representation $_{t-1}$	1.567***						
	(0.278)						
Ethnic Minority representation$_{t-1}$		1.195***					
		(0.201)					
Within-board ethnic minority$_{t-1}$			2.045***				
			(0.272)				
Tamil and moor minority representation$_{t-1}$				0.954***			
				(0.234)			
Ethnic board dominance$_{t-1}$					-0.493***		
					(0.237)		
Foreign board$_{t-1}$						1.018***	
						(0.280)	
Female board$_{t-1}$							-1.228***
							(0.379)
Intercept	4.599***	4.192***	5.003***	4.665***	5.761***	5.563***	5.400***
Controls	yes	yes	yes	yes	yes	yes	yes
Year fixed-effects	yes	yes	yes	yes	yes	yes	yes
Industry fixed-effects	yes	yes	yes	yes	yes	yes	yes
Robust standard errors	yes	yes	yes	yes	yes	yes	yes
R^2	0.1779	0.1630	0.1671	0.1457	0.1482	0.1389	0.1340
Prof>F	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Groups	205	205	205	205	205	205	205
Observations	1230	1230	1230	1230	1230	1230	1230
Panel B: Alternative Board Inclusiveness Variables and ROA							
Minority language representation $_{t-1}$	0.035						
	(0.023)						
Ethnic minority representation$_{t-1}$		0.059***					
		(0.016)					
Within-board ethnic minority$_{t-1}$			0.050				
			(0.038)				
Tamil and moor minority representation$_{t-1}$				0.003			
				(0.021)			
Ethnic board dominance$_{t-1}$					-0.007		
					(0.011)		
Foreign board$_{t-1}$						0.002	
						(0.028)	
Female board$_{t-1}$							-0.035
							(0.043)
Intercept	-0.355***	-0.388***	-0.346***	-0.346**	-0.335***	-0.343**	-0.335***
Controls	yes	yes	yes	yes	yes	yes	yes
Year fixed-effects	yes	yes	yes	yes	yes	yes	yes
Industry fixed-effects	yes	yes	yes	yes	yes	yes	yes
Robust standard errors	yes	yes	yes	yes	yes	yes	yes
R^2	0.1022	0.1085	0.1022	0.0998	0.1002	0.0998	0.1003
Prof>F	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Groups	205	205	205	205	205	205	205
Observations	1230	1230	1230	1230	1230	1230	1230

Table B2: Board Inclusiveness and Financial Distress

This table reports regression results for the impact of alternative board inclusiveness variables on financial distress measures in Panel A, B, and C. *Appendix A* provides definitions and measurements for the variables. We use the same control variables and fixed-effects as used in Table 5. Standard errors are clustered at the firm level and given in parentheses. ***, **, and * denote statistical significance based on a t-statistic at the 1%, 5%, and 10% levels, respectively.

	Dependent Variable: Interest Coverage < 2 (dummy)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Alternative Board Inclusiveness Variables and Financial Distress on Interest Coverage							
Minority language representation $_{t-1}$	-1.095***						
	(0.303)						
Ethnic minority representation$_{t-1}$		-0.972***					
		(0.262)					
Within-board ethnic minority$_{t-1}$			-0.390				
			(0.421)				
Tamil and moor minority representation$_{t-1}$				-0.985***			
				(0.310)			
Ethnic board dominance$_{t-1}$					0.338**		
					(0.144)		
Foreign board$_{t-1}$						0.538	
						(0.404)	
Female board$_{t-1}$							-1.696***
							(0.620)
Intercept	6.898***	7.208***	6.520***	6.986***	6.080***	6.722***	
Controls	yes	yes	yes	yes	yes	yes	yes
Year fixed- effects	yes	yes	yes	yes	yes	yes	yes
Industry fixed-effects	yes	yes	yes	yes	yes	yes	yes
Robust standard errors	yes	yes	yes	yes	yes	yes	yes
Pseudo R^2	0.1052	0.1051	0.0963	0.1033	0.0996	0.0970	0.1000
Prob>Chi^2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Groups	205	205	205	205	205	205	205
Observations	1182	1182	1182	1182	1182	1182	1182

Panel B: Alternative Board Inclusiveness Variables and Financial Distress on Merton's Model							
	Dependent Variable: Financial Distress on Merton Model of Distance to Default						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Minority language representation $_{t-1}$	-0.159***						
	(0.031)						
Ethnic minority representation$_{t-1}$		-0.038					
		(0.032)					
Within-board ethnic minority$_{t-1}$			-0.144***				
			(0.054)				
Tamil and moor minority representation$_{t-1}$				-0.150***			
				(0.032)			
Ethnic board dominance$_{t-1}$					0.063***		
					(0.018)		
Foreign board$_{t-1}$						-0.108	
						(0.045)	
Female board$_{t-1}$							0.032
							(0.090)
Intercept	0.156	0.136	0.113	0.172	0.020	0.056	0.099
Controls	yes	yes	yes	yes	yes	yes	yes
Year fixed- effects	yes	yes	yes	yes	yes	yes	yes
Industry fixed-effects	yes	yes	yes	yes	yes	yes	yes
Robust standard errors	yes	yes	yes	yes	yes	yes	yes
R^2	0.1545	0.1412	0.1455	0.1522	0.1493	0.1436	0.1403
Prob>F	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Groups	205	205	205	205	205	205	205
Observations	1230	1230	1230	1230	1230	1230	1230

Panel C: Alternative Board Inclusiveness Variables and Financial Distress on Negative ROE

	Dependent Variable: Financial Distress on Negative ROE (dummy)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Minority language representation $_{t-1}$	-0.762**						
	(0.333)						
Ethnic minority representation$_{t-1}$		-0.598**					
		(0.281)					
Within-board ethnic minority$_{t-1}$			0.116				
			(0.452)				
Tamil and moor minority representation$_{t-1}$				-0.726**			
				(0.342)			
Ethnic board dominance$_{t-1}$					0.280*		
					(0.162)		
Foreign board$_{t-1}$						0.775*	
						(0.458)	
Female board$_{t-1}$							-2.167***
							(0.680)
Intercept	5.546***	5.692***	5.289***	5.610***	4.918***	5.639***	6.166***
Controls	yes	yes	yes	yes	yes	yes	yes
Year fixed- effects	yes	yes	yes	yes	yes	yes	yes
Industry fixed-effects	yes	yes	yes	yes	yes	yes	yes
Robust standard errors	yes	yes	yes	yes	yes	yes	yes
Pseudo R^2	0.1059	0.1050	0.1015	0.1033	0.1039	0.1041	0.1078
Prob>Chi^2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Groups	205	205	205	205	205	205	205
Observations	1188	1188	1188	1188	1188	1188	1188

Appendix C: Matched-pair Analysis

Table C1. Mean Comparison of Firms on Financial Distress

This table compares means of social diversity indices, other board inclusiveness variables, ownership measures, and CEO and board characteristics on financial distress status of firms. We classify firms as *distressed* and *non-distressed* upon low interest coverage (*Low Int. Cov.*). We execute one-to-one matching procedure to generate a matched-sample of distressed and non-distressed firms. The matching criteria include firm size, industry, and the accounting year. Appendix A provides definitions and measurements for the variables. Standard errors are clustered at the firm level and given in parentheses. ***, **, and * denote statistical significance based on a t-statistic at the 1%, 5%, and 10% levels, respectively.

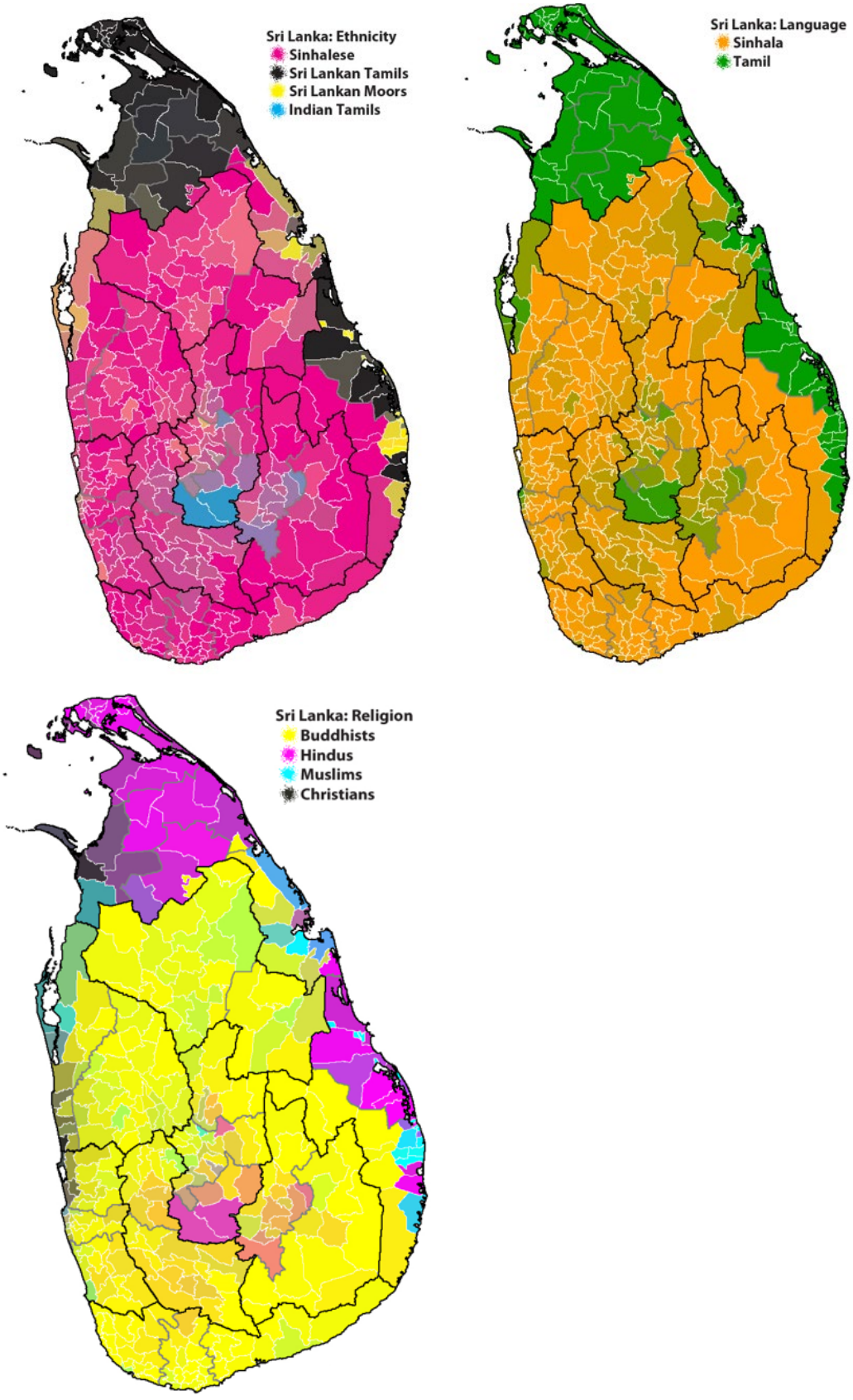
Mean Comparison on Financial Distress: Matched-pair T-test **Variable**	**Distressed (n=187)**	**Non-distressed (n=187)**	**Difference**
Panel A: Social Diversity Indices			
Herfindahl index for social diversity	0.309	0.607	-0.298***
Blau Index for linguistic diversity	0.277	0.349	-0.072***
Blau Index for ethnic diversity	0.459	0.510	-0.051***
Blau Index for gender diversity	0.118	0.168	-0.050***
Panel B: Alternative Board Inclusiveness Variables			
Minority language representation	0.179	0.292	-0.113***
Ethnic minority representation	0.358	0.541	-0.183***
Within-board ethnic minority	0.338	0.387	0.049***
Tamil and Moor minority representation	0.168	0.279	-0.111***
Ethnic board dominance	0.577	0.406	0.171***
Foreign board	0.085	0.108	-0.023
Female board	0.073	0.125	-0.052***
Panel C: Ownership			
Large company ownership	0.029	0.059	-0.030**
Pension fund ownership	0.012	0.014	-0.002
Families and individuals' ownership	0.105	0.112	-0.007
Executive director ownership	0.049	0.054	-0.005
Non-executive director ownership	0.018	0.019	-0.001
Panel D: CEO and Board Characteristics			
CEO duality	0.385	0.203	0.182***
Board size	7.470	7.973	-0.503***
Board independence	0.395	0.366	0.029***

Table C2: Board Social Diversity and Financial Status (Matched-pair Analysis)

This table presents conditional logistic regression results for the impact of board social diversity indices (Panel A) and other alternative board inclusiveness variables (Panel B) on financial status of firms in a matched-pair analysis. We classify firms as distressed and non-distressed upon low interest coverage (Low Int. Cov.). We execute one-to-one matching procedure to generate a matched-sample of distressed and non-distressed firms. The matching criteria include firm size, industry, and the accounting year. Appendix A provides definitions and measurements for the variables. We follow the same control variables used for respective analysis in Table 5. Standard errors are clustered at the firm level and given in parentheses. ***, **, and * denote statistical significance based on a t-statistic at the 1%, 5%, and 10% levels, respectively.

	Conditional (Fixed-effects) Logistic Regressions						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Social Diversity Indices and Financial Status							
Herfindahl index for social diversity	-3.862***						
	(0.656)						
Blau Index for linguistic diversity		-2.026***					
		(0.605)					
Blau Index for ethnic diversity			-2.019***				
			(0.746)				
Blau Index for gender diversity				-2.692***			
				(0.836)			
Controls	yes	yes	yes	yes			
Pseudo R^2	0.3677	0.1559	0.1393	0.1522			
Prob>Chi^2	0.0000	0.0000	0.0000	0.0000			
Observations	374	374	374	374			
Panel B: Alternative Board Inclusiveness Variables and Financial Status							
Minority language representation	-2.596***						
	(0.639)						
Ethnic minority representation		-3.372***					
		(0.581)					
Within-board ethnic minority			-2.044***				
			(0.729)				
Tamil and Moor minority representation				-2.507***			
				(0.630)			
Ethnic board dominance					0.737***		
					(0.255)		
Foreign board						-1.034	
						(0.643)	
Female board							-3.804***
							(1.089)
Controls	yes	yes	yes	yes	yes	yes	yes
Pseudo R^2	0.1889	0.2847	0.1390	0.1855	0.1430	0.1194	0.1660
Prob>Chi^2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Observations	374	374	374	374	374	374	374

Figure 1: Ethnolinguistic and Religious Diversity in Sri Lanka (South East Asia blog)



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