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**The Impact of CEO Home Bias on CSR,  
Earnings Management, and M&As**



**A thesis submitted to the Durham University Business School, in  
partial fulfilment of the degree of Doctor of Philosophy**

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**November 2022**



# Abstract

This thesis investigates the effects of CEO home bias on corporate actions through three individual but interweaved essays. Specifically, the first essay studies whether social trust sourced from CEOs' birthplaces affects corporate social responsibility decisions. Using a sample of US public firms, this essay finds that CEOs who manage firms headquartered in their birth states engage in more corporate social responsibility (CSR) activities. The results suggest that the idiosyncratic styles of managers impact corporate policies in the form of CSR decisions.

The second essay examines the effect of CEO home bias on accrual-based earnings management activities. Consistent with the view that home CEOs care more about their reputational capital, this essay finds that home CEOs are associated with significantly less accrual-based earnings management in their firms than non-home CEOs. Overall, the evidence suggests that CEO reputational capital affects earnings management activities within firms.

The third essay examines whether CEO home bias affects acquisition deterrence. This essay finds that firms with home CEOs are less likely to receive a takeover bid but more prone to adopt antitakeover provisions. This finding is consistent with the birthplace attachment explanation, which indicates CEOs' reluctance to lose hometown jobs. This essay also shows that target firms with home CEOs are more likely to withdraw deals during the M&A process but are more willing to complete deals if the acquirer comes from the same state. The findings suggest that having a home CEO on board in the target firm acts as a "shield" against corporate takeovers.

# Declaration

The work in this thesis is based on research carried out at the Business School, Durham University, England. No part of this thesis has been submitted elsewhere for any other degree or qualification and it is all my own work unless referenced to the contrary in the text.

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“The copyright of this thesis rests with the author. No quotation from it should be published without the author’s prior written consent and information derived from it should be acknowledged.”

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*“East, west, home’s best.”*

*--English Saying*

*“Σπίτι μου , σπιτάκι μου, σπιτοκαλυβάκι μου.” (Home, sweet home.)*

*--Greek Saying*

*“В гостях хорошо, а дома лучше”, “Дома и стены помогают”, “Где родился, там и пригодился”. (It’s good to be away, but it’s better to be at home; at home, the walls will help; where you were born, where you are handy.)*

*--Russian Sayings*

*“物离乡贵，人离乡贱。” (Goods leaving their home become valuable, and people leaving their home become inferior.)*

*--Chinese Saying*

## **Chapter 1 Introduction**

Prior home bias literature focuses mostly on investor behaviour and finds that: (1) individual investors prefer to include local securities in their portfolios (Kang and Stulz, 1997; Grinblatt and Keloharju, 2001; Ivkovic and Weisbenner, 2005; Seasholes and Zhu, 2010); (2) institutional investors, especially public pension funds, exhibit substantial home-state bias when allocating their investments in private equity (Hochberg and Rauh, 2013); and (3) professional managers tilt their portfolios toward domestic stocks (Coval and Moskowitz, 1999; Pool, Stoffman,

and Yonker, 2012). More recently, the literature has extended to a different type of home bias which relates corporate and banking decisions to the location of CEOs' hometowns. In particular, prior studies provide evidence that home bias affects CEO compensation package (Yonker, 2017a), firms' employment policies (Yonker, 2017b), mergers and acquisitions outcomes (Chung, Green, and Schmidt, 2018; Jiang, Qian, and Yonker, 2019) and bank credit allocation (Lim and Nguyen, 2021).

Sociology and psychology literatures have explained home bias with "place identity" and "place attachment" theories (Fisher, Gerson, and Stueve 1977; Low and Altman 1992; Hidalgo and Hernandez 2001). Place identity is "a component of personal identity, a process by which, through interaction with places, people describe themselves as belonging to a specific place" (Hernández et al. 2007, p. 311) while place attachment "is an affective bond that people establish with specific areas where they prefer to remain and where they feel comfortable and safe" (Fischer et al. 1977).

This thesis extends the empirical studies on CEO home bias by investigating the effects of CEO home bias on corporate actions through three individual but interweaved essays. The first essay examines whether social trust sourced from CEOs' birthplaces affects corporate social responsibility decisions. Firms' corporate social responsibility (CSR) activities generate social capital and trust (Lins, Servaes, and Tamayo, 2017) with trust being "the expectation that another *person* (or institution) will perform actions that are beneficial, or at least not detrimental, to us regardless of the capacity to monitor those actions...so that we will consider cooperating with him [the institution]" (Sapienza and Zingales, 2012).

In this context, the first essay argues that home CEOs who manage firms located in their home states, as defined by Yonker (2017a) and (2017b), are associated with higher levels of innate social capital and trust due to their origin and their established connections with the local community. Therefore, the objective is to understand whether home bias affects CSR activities of home CEOs.

Second, the first essay aims to examine whether CSR activities of home CEOs are driven by agency reasons. By engaging in CSR activities, home CEOs can signal their commitment to the interests of the stakeholders, which may sacrifice the interests of shareholders. Additionally, home CEOs may also use CSR activities to pursue their private benefits. In this case, good corporate governance is supposed to play a role to mitigate agency problems and supervise these CSR activities.

In particular, the first essay finds the CSR score of a firm is about 2.64% higher, compared to a median firm when a firm is managed by a home CEO. In addition, consistent with the place attachment argument, the first essay shows that CEOs with deeper connections to their home state are the ones with higher CSR scores. Such favouritism does not appear to be driven by agency reasons as (1) the results are not affected by the level of firm corporate governance; (2) home CEOs who engage in CSR receive lower (total and equity) compensation. This chapter adds to the recent stream of literature which examines possible unconventional factors affecting CSR (e.g., Adhikari, 2016; Cronqvist and Yu, 2017; Chen, Dong, and Lin, 2020) by arguing that the idiosyncratic styles of managers impact corporate policies in the form of corporate social responsibility decisions.

The first essay offers several contributions to the literature on the home bias, the unconventional factors that affect CSR decisions, and the idiosyncratic style of CEOs. First, the study contributes to a fast-growing literature in finance and economics on home bias by showing that CEO home bias has a real effect, by examining its impact in a context where place attachment would naturally be expected to play a great role: social giving through CSR engagement. Second, this essay also extends the scope of CSR literature by documenting an important additional determinant that systematically affects firms' CSR activities: CEO geographic origin. Third, this chapter thus complements existing studies on the impact of CEO heterogeneity on corporate policies.

The second essay examines the effect of CEO home bias on accrual-based earnings management activities. In a reputation context, an "efficient contracting" perspective predicts that home CEOs who value their reputation more are less likely to take actions that result in poor discretionary quality. In particular, home CEOs have more to lose, in terms of their own human capital reputation in the area where they are identified with, if they make accounting and disclosure choices that result in poor discretionary quality. Hence, the efficient contracting hypothesis predicts that firms managed by home CEOs should be associated with less accrual-based earnings management.

In contrast, the alternative "rent extraction" hypothesis leads to the opposite prediction. In particular, it predicts that home CEOs, who have a greater motivation to continue heading a firm in a specific area (i.e., their hometowns), should put more effort in meeting or beating earnings benchmarks and, in doing so, take

actions which may worsen discretionary earnings quality. For instance, managers may reduce the quality of accruals to meet earnings targets as failing to do so might prove costly to them. Matsunaga and Park (2001) provide evidence that missing targets are linked to lower cash compensation, and Farrell and Whidbee (2003) show higher rates of job dismissal for managers who fail to meet analysts' earnings targets. Finally, Graham, Harvey and Rajgopal (2005) find that surveyed executives think that meeting or beating earnings benchmarks enhances the external reputation of their management team. Thus, the rent extraction hypothesis predicts that firms managed by home CEOs should be associated with more accrual-based earnings management due to their willingness to stay close to their hometowns.

This essay finds that home CEOs are associated with significantly less accrual-based earnings management in their firms than non-home CEOs. This is in line with the economic theory which suggests that managers with a significant reputation at stake will not engage in opportunistic rent-seeking behaviour (e.g., Fama, 1980; Kreps, Milgrom, Roberts and Wilson, 1982; Kreps, 1990). Additionally, home CEOs do not appear to extract private benefits and there is no firm value destruction, indicating that the results are not driven by agency motivations. This chapter contributes to the earnings management literature which examines determinants of earnings management activities (e.g., Bowen, Ducharme, and Shores, 1995; Bartov, Givoly, and Hayn, 2002; Ali and Zhang, 2015; Kim, Kim, and Zhou, 2017). The second essay extends the scope of this emerging literature by showing that an important determinant, CEO home bias, systematically affects firms' earnings management activities.

The second essay makes several contributions to the literature. First, the study brings the fast-growing CSR literature to the accounting discipline by documenting that CEOs' birthplace identity has a real effect on discretionary earnings management activities. Second, this chapter adds to the earnings management literature which examines determinants of earnings management activities. This chapter extends the scope of this emerging literature by showing an important determinant that systematically affects firms' earnings management activities: CEO geographic origin. Finally, the study contributes to the recent debate about the impact of CEOs' birthplace identity on firm performance by documenting that earnings management activities undertaken by home CEOs do not deteriorate firm value and performance.

The third essay examines the effect of CEO home bias on takeover defences. Plenty of studies have investigated the consequences of firms' takeover defences using antitakeover provisions (e.g., Gompers, Ishii, and Metrick (2003) G-index and Bebchuk, Cohen, and Ferrell (2009) E-index). However, Karpoff, Schonlau, and Wehrly (2017) argue that the fundamental notion that antitakeover provisions (ATPs) measure takeover defences has surprisingly little empirical support. In other words, it is unclear whether firms adopt antitakeover provisions to enhance takeover defences. Karpoff, Schonlau, and Wehrly (2022) also find that only four ATPs from the G-index are negatively related to acquisition likelihood throughout the 1995–2020 period. The lack of an empirical correlation between the ATPs and acquisition likelihood could indicate either that the defences in these provisions are ineffective to deter takeovers, or that they are effective but endogenous (Karpoff et al. 2017). The key to answering the question of whether firms adopt antitakeover

provisions to enhance takeover defences is to find conditions when firms do not want to be taken over and then observe whether they adopt more ATPs or specific ATPs.

Using the home bias of CEOs in the target firms as a proxy for takeover deterrent, the third essay finds that firms with home CEOs (defined as CEOs whose home state matches the state of their firms' headquarters state) are less likely to receive a takeover bid but more prone to adopt antitakeover provisions. The third essay also shows that target firms with home CEOs are more likely to withdraw deals during the M&A process but are more willing to complete deals if the acquirer comes from the same state. These deals, on average, receive lower takeover premiums and target announcement returns. Overall, the findings address the puzzle in takeover defences literature about whether firms use antitakeover provisions to deter takeover (Karpoff et al. 2017, 2022; Dey and White 2021) by identifying a condition when firms do not want to be taken over, namely when firms have home CEOs.

This essay makes three main contributions to the literature. First, this essay addresses the puzzle in takeover defences literature about whether firms use antitakeover provisions to deter takeover (Karpoff et al. 2017, 2022; Dey and White 2021) by identifying a condition when firms do not want to be taken over, namely when firms have home CEOs. Second, this study also adds to the literature on the determinants of acquisition likelihood and takeover premiums by showing that home CEOs are less likely to receive a takeover bid and receive lower takeover premiums, which reduces target firm shareholders' wealth. Third, this study contributes to the literature on home bias by examining home CEO bias in M&As

from the *target* side and providing evidence that home CEOs act as deterrents against takeover bids.

The remainder of the thesis is organized as follows. Chapter 2 reviews the literature on the home bias. Chapter 3 presents the full details of the first essay, titled “CEO Home Bias and Corporate Social Responsibility”. Chapter 4 demonstrates the full content of my second essay, titled “CEO Home Bias and Earnings Management”. Chapter 5 details my third essay, titled “Does CEO Home Bias Deter Takeover?”. Chapter 6 concludes the thesis and provides implications for future research.

# Chapter 2 Literature Review:

## Home Bias Studies

This chapter will use “equity home bias” (following Strong and Xu, 2003; Sercu and Vanpee, 2007; Coeurdacier and Rey, 2013; and Ardalan, 2018) to refer to the home bias phenomenon in investors’ portfolios (which means investors tend to overweigh equities in/related to their “home”)<sup>1</sup>, and use “executives’ home bias” to refer to home bias behaviour of corporate executives, such as CEOs.

The remainder of this chapter is organized as the following. Section 2.1 provides a summary of studies on equity home bias. Section 2.2 reviews academic papers on executives’ home bias. And Section 2.3 reviews other studies on the home bias which are not included in the previous sections. Next, Section 2.4 discusses the scope and the measurement of home bias. Section 2.5 reviews the explanation for equity home bias and executives’ home bias. Finally, Section 2.6 reviews the economic consequences of home bias documented in the literature.

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<sup>1</sup> To the knowledge of the author, investors’ home bias does not necessarily exist only in equity investments. For example, Lin and Viswanathan (2016) document the home bias in P2P lending. But for simplicity, this chapter will still use the expression “equity home bias”. And the scope of home, i.e., what “home” means in home bias literature is discussed in the Section 2.4 of this chapter.

## 2.1 Equity Home Bias

The discussion of the “home bias puzzle” in finance and accounting literature first arose in the context of portfolio management. The theoretical models of portfolio selection suggest that the diversification of assets cancels risks as long as security returns are not perfectly correlated (e.g., Markowitz, 1952, “*Portfolio Selection*”). Therefore, investors are supposed to also diversify their assets internationally to achieve an optimal return-risk position (Grubel, 1968; Levy and Sarnat, 1970; Solnik, 1974). However, empirical studies surprisingly find that “investors hold a substantially larger proportion of their wealth portfolios in domestic assets than standard portfolio theory would suggest” (Lewis, 1999, see also Stulz, 2005).

### 2.2.1 Country-level evidence

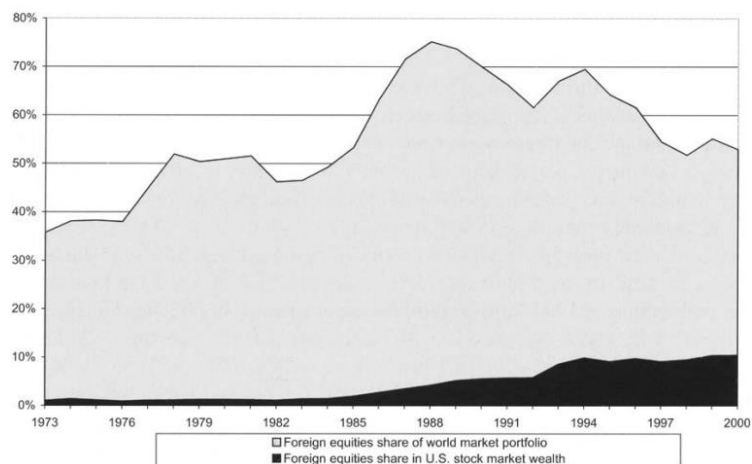
Home bias is widely prevalent among different categories of investors. Firstly, considering the investors as a whole, the early paper by French and Poterba (1991) documented a surprising statistic that the degree of diversification in equity markets was very low. In particular, they find that the domestic ownership shares of the US, Japan, the UK, Germany, and France were 92.2%, 98.1%, 95.7%, 79%, and 89.4%, respectively, in 1989. Portfolios in these developed markets seem to bias heavily toward domestic equities.

Similarly, Tesar and Werner (1995) investigate the international portfolio in five OECD countries. They also find strong evidence of equity home bias by focusing on cross-board transactions. They show though the turnover rate is high, investors still exhibit performance toward domestic equities. Kang and Stulz (1997) studies

specifically stock ownership in Japanese firms by non-Japanese investors from 1975 to 1991. They document that foreign investors always hold disproportionately less of the Japanese market portfolio.

Studies also find more supportive evidence for the existence of equity home bias by comparing the proportion of foreign shares in the world market portfolio and the proportion of foreign shares in domestic portfolios. For instance, Karolyi and Stulz (2003) document that from 1945 to 1973, the proportion of foreign equities in US stock market wealth never exceed 1%. Although this proportion increased remarkably since 1973, the number was only 9.91% in 1994 and 10.53% at the end of 2000 (also shown in Figure 2.1). Similarly, Ahearne, Grier, and Warnock (2004) show that foreign stocks only represented 10.1% of the stock portfolios of US investors while at the end of 1997, US stocks comprised 48.3% of the world market portfolio. The representation of foreign stocks in US investors' portfolios was five times lower than the predicted values by the world CAPM and the Solnik-Sercu model.

**Figure 1 Foreign equities shares of the world market portfolio and in the US stock market (Karolyi and Stulz, 2003)**



### **2.2.2 Individual Investors**

Second, researchers have found that individual investors exhibit home bias in their investments. For instance, Karlsson and Norden (2007) show that Swedish individual investors bias toward domestic equities in their pension funds. Moreover, using the Finnish Central Securities Depository (FCSD) database which includes detailed information on investors (including family or institutional), Grinblatt and Keloharju (2001) find that Finnish investors prefer to hold and trade stocks headquartered in nearby locations.

Using individual investors' data from Euroclear Sweden, Lindblom, Mavruk, and Sjögren (2018) document the two folds of equity home bias. Specifically, individual investors living in their childhood hometown invest 3 times more in local firms than other locals (who were not born locally). And this childhood hometown bias also exists for several months after individuals move to another place.

Lin and Viswanaathan (2016) show the existence of home bias among individuals by utilizing data from Prosper.com, a prominent US-based crowdfunding website that operates on a debt-based model. They observe that, despite the absence of physical boundaries in the online platform, borrower-lender transactions still exhibit home bias.

Baltzer, Stolper, and Walter (2013) find that the equity home bias of individual investors does not exist only in the domestic areas but also in foreign areas. Specifically, they find that individuals living close to the border exhibit lower home bias and invest especially more in near-by foreign companies.

Individual equity home bias is also reflected in other ways other than holding “home” assets. For instance, Huang, Qiu, and Wu (2016) explored China’s internet message boards and found that investors pay more attention to stocks of local companies.

### **2.2.3 Institutional Investors**

Third, studies find that even professional investors (e.g., fund managers), who are supposed to be more rational, also have home bias. For instance, Coval and Moskowitz (1999) investigate the location and holding data of US money managers from Nelson’s 1996 Directory of Invest Managers. They find that, apart from widely documented domestic bias (i.e., overweight domestic equities), investment managers also exhibit a strong preference for locally headquartered firms.

Using fund-level data, Hau and Rey (2008) find heterogeneity in the degree of home bias across counties and within countries across funds. They also find a positive relationship between fund size and the degree of home bias.

Hochberg and Rauh (2013) study the home-state bias of endowments, foundations, public, and corporate pension funds in their private equity portfolios. It is particularly notable that the home bias of public pension funds is substantial, which overweight amounts to 9.8% of average private-equity investments and 16.5% for the average limited partner. Moreover, public pension funds’ in-state investments achieve lower returns comparing either their out-of-state investments or other funds’ investment in their states. The results implied that the home bias of public pension funds reduces investors’ welfare.

Similar to the research of Hochberg and Rauh (2013), Brown, Pollet, and Weisbenner (2009) also document that 20 state pension plans that actively manage their equity portfolios exhibit a home bias. Despite holding a diversified portfolio that is similar to the US market, these pension funds significantly increase their holdings in stocks of companies headquartered in their home states.

Cumming and Dai (2010) find that venture capitalists also exhibit home bias. They also show that more reputable venture capitalists (with a longer history, larger scale, greater experience, and better IPO track record) and those with more extensive networks exhibit less home bias.

Pool, Stoffman, and Yonker (2012) study the holding of US mutual fund managers. They find even after controlling for the location of mutual funds, fund managers hold 12% more stocks of companies in their hometown state.

Garcia-Herrero and Vazquez (2013) examine international diversification in banking using a dataset of 38 global banks and their overseas subsidiaries from 1995-2004. They identify a significant home bias in the allocation of bank assets compared to a mean-variance portfolio optimization model.

Schumacher (2018) introduces a new concept of home bias among funds known as "foreign industry bias". This bias occurs when international mutual funds overweight industries that are relatively larger in their domestic stock market. The total excess foreign industry allocations are substantial, with the largest domestic industries being overweighted by over 100%, on average.

Sialm, Sun, and Zheng (2020) investigate the geographical preferences of hedge fund investors and their impact on hedge fund performance. They observe that funds of hedge funds (FOF) tend to overweigh their investments in hedge funds located in the same geographical regions, and those with a stronger local bias tend to perform better.

## 2.2 Executives' Home Bias

Executives' home bias refers to a phenomenon where corporate executives tend to favour and allocate more resources to their home country or region when making business decisions, even if it may not be in the best interest of the company or its stakeholders. This bias can manifest in various ways, such as executives investing more in their home country or region, preferring to do business with local partners or suppliers, or hiring more employees from their home country or region.

Yonker (2017a) studies the geographic factors in hiring CEOs. He finds that firms hire locally five times more often than expected. Moreover, home CEOs (which means CEOs working in a company in their home state) have lower compensation and lower unforced turnover compared with non-home CEOs. And the compensation of home CEOs depends on local labour market factors, unlike that of non-home CEOs.

Yonker (2017b) uses establishment-level data and documents the home bias of CEOs. Specifically, he finds during financial stress periods, CEOs are less likely to lay off employees in establishments near their hometowns.

Lai, Li, and Yang (2020) argue that home CEOs (CEOs working near their hometown) are less myopia. They show that home CEOs are less likely to cut R&D expenditures for beating analyst forecasts or avoiding earnings decreases. Similarly, Ren et al. (2021) find that home CEOs in China are associated with higher R&D investment and more patents.

Jiang, Qian, and Yonker (2019) regard acquisitions as real investments which are comparable with financial investments. They find that similar to investors, CEOs are also more likely to acquire target firms in the states of CEOs' hometowns.

Lim and Nguyen (2021) find that bank CEOs open more branches and make more lending near their hometowns. Presbitero, Udell, and Zazzaro (2014) also discover that the impact of the credit crunch varied across different regions in Italy during the 2008 financial crisis. By analyzing data on loan applications and decisions for a sample of manufacturing firms, they found that provinces with a significant percentage of branches owned by distantly managed banks experienced a harsher credit crunch. Additionally, they observed that firms operating in functionally distant credit markets were more affected than those in markets with less distant banks.

## 2.3 Home Bias of Other Economy Participants

Besides the home bias of investors and executives, some studies also document the home bias of other economy participants, such as politicians, analysts, football referees, academic journal editors, etc. For instance, Carozzi and Repetto (2016) find that birth towns of Italian legislators (MPs) receive extra transfers.

Lai and Teo (2008) explore the analyst recommendations data from the Institutional Brokers Estimate System (IBES) for six Asian countries and find that local analyst recommendations are systematically more optimistic than foreign analyst recommendations. Analysts' home bias exists across time periods and stock groups.

Using data on 143 sovereigns provided by nine agencies based in six countries, Fuchs and Gehring (2017) find that agencies give better ratings to their home countries, and these better ratings do not correspond with the actual risks.

Cornaggia, Cornaggia, and Israelsen (2020) show that information producers, i.e., credit analysts, also exhibit home bias. They find that credit analysts are more generous when rating companies from their home states, which has significant economic implications.

Bommer, Dreher, and Perez-Alvarez (2022) explore the influence of home bias on humanitarian aid distribution. By analysing a comprehensive dataset from the Office of US Foreign Disaster Assistance (OFDA), they show that significantly more aid is disbursed when natural disasters strike the birth region of a recipient country's political leader. The research does not find any indication that US commercial or political interests impact the magnitude of this home bias. However,

the bias is more pronounced in countries with weaker bureaucracy and governance, implying a lack of effective safeguards in the allocation of aid.

Sutter and Kocher (2004) conducted a study on professional soccer referees in Germany and discovered evidence of home bias. They found that referees were more likely to award penalties to the home team than the visiting team, and they added more extra time when the home team was losing by one goal compared to when the game was tied or the home team was winning by one goal. Similarly, Garicano, Palacios-Huerta, and Prendergast (2005) found that football referees also showed a preference for home teams by shortening games where the home team was ahead and lengthening games where the home team was behind. Endrich and Gesche (2020) suggest that the home bias of soccer referees is due to social pressure from the audience, as they found that during the Covid-19 pandemic when matches were played without spectators, the home bias of referees was weaker compared to pre-pandemic periods.

Karolyi (2016) document an interesting home bias of Finance journals in choosing research topics. Specifically, only 16% (23%) of all empirical studies published in the top four (fourteen) Finance journals (ranked by impact factor in 2011) examine non-US markets, a fraction that is well below measures reflecting their economic importance. Similarly, Bethmann et al., (2023) documented the home bias of Economics journals. They find that two of the top economics journals have institutional ties to a specific university, the Quarterly Journal of Economics (QJE) to Harvard University and the Journal of Political Economy (JPE) to the University of Chicago. Specifically, they find that researchers from Harvard, but also nearby

Massachusetts Institute of Technology (MIT), and from Chicago (co-)author a disproportionate share of articles in their respective home journals.

## 2.4 Where Is the “Home”? The Scope and Measurement of Home Bias

In literature, the scope of “home” has two types of dimensions, spatial and emotional. The spatial dimension refers to different geographic scopes of home bias, such as domestic and in-state. The emotional dimension refers to different understandings of home, which could be the childhood hometown, current residence, or a familiar place. The combination of the two dimensions generates a differential definition of “home” in home bias literature. Table 2.1 summarizes common definitions of “home” in literature.

**Table 2. 1 Definition of “home” in the literature**

Definition of Home	Studies
Domestic country	French and Poterba (1991), Lewis (1999)
Individuals’ current location	Huberman (2001)
CEOs’ childhood hometown	Yonker (2017a, 2017b), Lim and Nguyen (2021)
CEOs’ undergraduate university	Bick and Flugum (2022)
Banks’ headquarters location	Presbitero et al. (2014)
Home football teams	Sutter and Kocher (2004)
Nearby places (based on distance)	Coval and Moskowitz (1999), Cooper, Sercu, and Vanpée (2018)

It is substantial for home bias literature to define “home”. In the early literature on domestic bias (i.e., home bias puzzle in portfolios), the scope of home bias is mostly studied at the country level (e.g., French and Poterba, 1991, Lewis, 1999). Adler and Dumas (1983) present the solution to the well-known international mean-variance model, including a decomposition of the solution for optimal portfolio weights. Therefore, researchers measure investors’ home bias by the degree of deviation between their actual portfolio holdings and the theoretical portfolio weights.

Coeurdacier and Rey (2013) suggest that in a world where financial markets have no frictions, the basic International Capital Asset Pricing Model (CAPM) with investors that are similar across the world would indicate that the representative investor from any given country should hold the world market portfolio. This means that rational investors should hold positions that are equal to the world market portfolio. As a result, earlier literature measures equity home bias as the difference from the world market portfolio.

*Equity Home Bias<sub>i</sub>*

$$= \frac{\text{Share of Foreign Equities in Country } i \text{ Equity Holdings}}{\text{Share of Foreign Equities in the World Market Portfolio}}$$

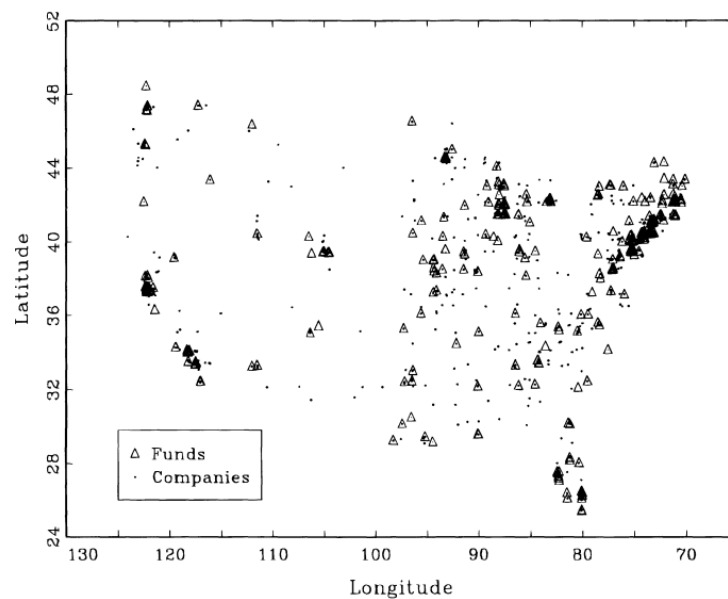
The different scopes of home bias may also have connections. Parwada (2008) examines the background and geographic origins of 358 entrepreneurial fund managers and investigates the factors influencing their choice of firm location and stock selection. The study reveals that start-ups are often established near the birthplace of their founders and in regions with a higher concentration of investment management firms, banking institutions, and large institutional money managers.

Home bias in literature is also measured with distance, which is aligned with the familiarity explanation of home bias. To the best knowledge of the author, Coval and Moskowitz (1999) firstly use distance to measure home bias. They matched the latitude and longitude coordinates of the funds' locations and portfolio companies' headquarters (Figure 2.2) to study the local preference of investment managers.

Studies on executives' home bias usually focus on their childhood hometown, which highlights the effects of childhood experience on personality (e.g., see

Nelson 1993 for the discussion on formative years; also see Bernile, Bhagwat, and Rau, 2017 for the impact of childhood experience). Therefore, the priority of empirical studies on executives' home bias is to obtain information on executives' childhood hometowns.

**Figure 2 The location of US funds and their portfolio companies (Coval and Moskowitz, 1999)**



Yonker (2017a) creates a technique for detecting the birthplace of US executives. He utilizes the LexisNexis database to collect the initial five numbers of the Social Security Number (SSN) of executives. The SSN number is a unique nine-digit identification number issued by the US Social Security Administration (SSA) to US citizens, permanent residents, and some non-immigrants who are authorized to work in the US. The SSN is used for various purposes such as tracking an individual's earnings for Social Security benefits, tax reporting, and other identification purposes. The first three numbers signify the state where the card was given, while the fourth and fifth digits indicate the order of issuance. Thus, by

examining the first five digits of their SSN, he can identify the state where executives were living when the card was provided.

Executives' hometown data is also manually collected in some studies. For instance, Bernile et al. (2017) first collect the names of CEOs from Compustat's Execucomp database. Then, they retrieve CEO hometown data from Marquis Who's Who, Standard and Poor's Register of Directors and Executives, and U.S. Executive Compensation database via Lexis-Nexis, NNDB.com, or Google searches by searching for the names.

## **2.5 The Explanation of Home Bias**

Since the early stage of home bias studies, theoretical and empirical researchers have been trying to explain the equity home bias from standard portfolio theory (e.g., Lewis, 1999). The question is, as the portfolio theory suggests an efficient holding to optimally hedge risks, why do investors (both institutional and individual investors) substantially hold more domestic assets? In the seminal paper by French and Poterba (1991), the authors proposed two explanations for equity home bias, (1) institutional factors, such as tax, cross-border investment limits, and transaction costs; and (2) investors' behaviour, such as the belief on returns and risk. In a more recent paper, Ardalan (2019) surveyed papers on equity home bias and categories the explanations of equity home bias into four groups. Following the classification of Ardalan (2019), this chapter also divides the literature on the explanation of home bias into four groups: (1) barriers and frictions; (2) hedging; (3) information; and (4) behavioural factors.

### **2.5.1 Barriers and frictions**

Following the spirit of French and Poterba (1991), an early strand of literature attempted but failed to attribute equity home bias totally to barriers and frictions on international investments.

Though restrictions on international capital flows could not be a problem today, they “may have been a viable explanation for the home bias 30 years ago” (Nieuwerburgh and Veldkamp, 2009). Scholars did attempt to test the effect of formal and informal trading barriers, but they often find these factors cannot (or at

least cannot fully) explain equity home bias. Wolf (2000) proposes an indirect argument that if trading restrictions were the sole culprit, home bias should not exist on the subnational level, i.e., state-level for the US. He investigates the 1993 Commodity Flow Survey in the US and finds that home bias exists on the state level<sup>2</sup>.

Yi (2010) argues that multistage production and trade costs explain the home bias. His model indicates that the nature of production can change in response to trade costs, thereafter, impacting trade flows across borders. Hillberry and Hummels (2003) also show that much intranational home bias can be explained by wholesaling activity. Shipments by wholesalers are much more localized within states than shipments from manufacturing establishments.

Li, Sarkar, and Wang (2003) study the effect of short-selling constraints and the international diversification benefits. They find that the international diversification benefits remain substantial for US equity investors when they are prohibited from short sellings in emerging markets.

Dahlquist et al. (2003) show the effect of corporate governance in home-biased asset holding. They stress that in countries with weak shareholder protection, companies are controlled by large shareholders, which limits the number of shares freely traded on the market. To support the argument, they construct a proxy named “the world float portfolio” to measure the shares available to non-controlling

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<sup>2</sup> According to Wolf (2000), the robust constitutional safeguard of interstate commerce indicates the lack of explicit trade barriers. Moreover, the highly stable exchange rate between states, significant cultural and institutional similarity, and substantial interstate migration further suggest that the informal trade barriers, often cited in the literature, have a negligible impact on impeding trade among states.

shareholders. They find that “the world portfolio” rather than the world market portfolio helps to explain the home bias of US investors. Similarly, Kho, Stulz, and Warnock (2009) explain the home bias of US foreign direct investment (FDI) using insider ownership of foreign companies. They find that the change in the fraction of FDI in total foreign equity investment is positively related to the change in the insider ownership.

### **2.5.2 Hedging**

Equity home bias could also be rational behaviour. For instance, some papers posit that hedging proposes to explain the equity home bias. Cooper and Kaplanis (1994) posit that home bias in equity portfolios is caused by investors trying to hedge inflation risk. However, empirical evidence does not support this argument unless investors have a very high level of risk tolerance. They also develop a model to estimate the levels of costs (i.e., deadweight costs) required to generate the observed home bias. Similarly, the model estimates show that home bias cannot be explained by either inflation hedging or direct observable costs of international investment. Pesenti and Wincoop (2002) find that hedging against nontradables shocks (originating from consumption and leisure) can account for only a small portfolio bias toward domestic assets.

Sørensen et al. (2007) investigate the relationship between equity home bias and international risk sharing for OECD countries from 1993 to 2003. They find that international risk sharing is negatively related to equity home bias.

A strand of literature explains equity home bias by investors' hedging the relative prices of tradable and nontradable goods. For instance, Obstfeld and Rogoff (2001) argue that trade costs in goods markets help to solve several empirical puzzles in international economics, including the equity home bias puzzle. Uppal (1993) also develops a two-country model and shows that investors' equity home bias only arises when the coefficient of relative risk aversion is smaller than one.

### **2.5.3 Information**

The perspectives that explain home bias from an informational standpoint mainly include the views on information costs/learning costs and information asymmetry. It is difficult to distinguish between information advantage (a type of information asymmetry) and familiarity (a behaviour factor which may also lead to home bias, which will be discussed in the next Section 2.5.4). Therefore, this chapter will not discuss the tiny differences in the meanings of the two terms.

Ahearne et al. (2004) refuted the impact of investment barriers on the home bias. But they argue that the poor quality and low credibility of financial information in many countries, leading to information asymmetry, is an important reason for the existence of home bias in the US market. In their empirical findings, they discovered that the reduction of information asymmetry between a country and the US (i.e., the proportion of that country's companies publicly listed in the US) is the main determinant of the country's weight in the portfolios of US investors.

In the study of Brown, Pollet, and Weisbenner (2009), they find that overweighting home-state stocks provides state pension funds with excess returns, particularly

among smaller stocks in the primary industry in the state. This evidence indicates that state pension funds have an information advantage in home states' primary industry and small in-state companies.

Nieuwergurgh and Veldkamp (2009) propose an interesting feature of the information advantage explanation of home bias that only advanced information matters. Their model shows that even when home investors can learn what foreigners know, they choose not to because they profit more from knowing information others do not know. Their model helps to explain why home bias still exists when domestic investors are free to learn about foreign firms.

Dziuda and Mondria (2012) develop a model to provide an explanation for the persistent presence of home bias among professional fund managers. The model emphasizes the importance of domestic investors who invest in these funds. According to the model, fund managers make a choice between specializing in domestic or foreign assets. Individual investors, who are uncertain about the managers' abilities, possess greater knowledge of domestic markets. This results in less risk associated with domestic investments and ultimately generates home bias.

Brennan and Cao (1997) model the information differences between domestic investors and foreign investors. The model indicates that, if the information is asymmetric, international investment flows are a positive function of the market return. They also empirically find that US purchases of equities in developed foreign markets tend to be positively associated with the foreign market return, but foreign purchases of U.S. equities show no such relation to the US market return. They attribute this finding to the information asymmetry that US investors know

less on developed foreign markets, but foreign investors know as much as US investors on the US market. The relationship between US purchases and the foreign market return is ever stronger in the case of emerging markets, which furtherly supports the view that US investors have an information disadvantage compared with domestic investors.

In the context of firms' acquisitions, Jiang, Qian, and Yonker (2019) provide relatively divergent evidence that home-biased CEOs acquire more home-state targets but only big and public home targets increase firm value rather than small and private targets.

Lim and Nguyen (2021) document that home bias affects bank CEOs' credit allocation. While they also find that home-biased loans contain more soft information and have lower ex post-default rates. And home-biased loans do not affect aggregate bank outcomes. This evidence supports the information advantage explanation of home bias.

#### **2.5.4 Behavioral factors**

The last strand of literature explains home bias as investors' irrational behaviour. The first irrational behaviour is optimism. For instance, the study of Shiller, Kon-Ya, and Tsutsui (1996) reports that investors are more optimistic about the domestic market than foreign markets. "Differences across the two countries in average one-year-ahead forecasts for the Japanese stock market as great as twenty percentage points" (ibid.). Strong and Xu (2003) investigate the reasons for the bias towards domestic equities in investment portfolios using the Merrill Lynch Monthly Fund

Manager Survey. Their findings indicate that fund managers from the US, the UK, continental Europe, and Japan exhibit a significant relative optimism towards their home equity market. Similarly, the survey of Kilka and Weber (2000) shows that both German business students and US business students are more optimistic about stocks in their home countries.

Using survey data to measure institutional investors' optimism, Solnik and Zuo (2017) find that relative optimism can explain the home bias in portfolio holdings, not only for equity but also for bonds.<sup>3</sup>

The second factor is familiarity-fed behaviour<sup>4</sup>. The survey by Driscoll et al. (1995, via. Huberman 2001) reports that more than 30% of defined contribution pension money is invested in the employer's stock. Employees view their own employer's stock as safer than a diversified stock fund. Using data from seven Regional Bell Operating Companies (RBOC), Huberman (2001) find that customers are more likely to hold the shares of the RBOC that serves their home.

Bradshaw, Bushee, and Miller (2004) focus on a particular type of familiarity, i.e., accounting standards. They find that firms exhibiting higher levels (changes) of U.S. GAAP conformity have greater levels (changes) of U.S. institutional ownership. Covrig, Defond, and Hung (2007) examine the impact of the voluntary adoption of International Accounting Standards (IAS) on reducing home bias among foreign investors. Their findings suggest that among the 25,000 mutual funds surveyed

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<sup>3</sup> The IPE Survey data used by Solnik and Zuo (2017) surveyed institutional investors' predictions on equity, bonds, and currencies.

<sup>4</sup> This chapter carefully distinguishes between familiarity and information advantage as explanations of home bias. Information advantage is similar to familiarity. But the former implies better returns, while the latter does not imply advanced benefit.

worldwide, those that have adopted IAS tend to have higher levels of foreign mutual fund ownership on average.

Tse (1999) studied the futures trading in Japan and the UK and found that even during daylight saving time when the UK market opening time coincides with the Japanese market closing time, traders in London still prefer to trade in the UK exchange.

The third factor is the “competence effect”, which means investors are more willing to bet on their own judgements when they feel skilful or knowledgeable (Graham, Harvey, and Huang, 2009). Using survey data to measure competence<sup>5</sup>, Graham et al. (2009) find that investors who feel more competence are more likely to diversify their portfolio, which means less home bias. The individual-level study of Karlsson and Norden (2007) on contribution pension plan in Sweden also provide supportive evidence. They find that previous experience with risky investments, a higher level of education and a large amount of money invested in the pension scheme all indicate a lower likelihood of home bias. Moreover, Kimball and Shumway (2010) explore the April 2005 Survey of Consumer Attitudes data and show that investors with higher sophistication are more likely to diversify their portfolios.

Forth, Anderson et al. (2011) posit the cultural influences on the home bias. By investigating the funds’ portfolio holdings in 60 countries, they find that survey-based country-specific variables help to explain the equity home bias. More

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<sup>5</sup> Graham et al. (2009) make use of UBS/Gallup investor survey data. They survey has a question on investors’ competence, which is “How comfortable do you feel about your ability to understand investment products, alternatives, and opportunities? The responses range from 1 (very uncomfortable) to 5 (very comfortable).”

specifically, countries with higher levels of uncertainty avoidance behavior tend to have investment funds with greater home bias and less diversity in their foreign holdings. On the other hand, countries with higher levels of masculinity and long-term orientation tend to have lower levels of home bias and more diversified portfolios in foreign holdings. In addition, portfolios from culturally distant countries tend to invest less abroad and underweight culturally distant target markets.

Beugelsdijk and Frijns (2010) find that social culture and the cultural distance between two markets play a significant role in explaining foreign bias. Specifically, a country with a lower degree of uncertainty avoidance and a higher degree of individualism results in a more aggressive allocation of assets overseas.

Moreover, Wei and Zhang (2020) find that institutional investors located in high-trust regions of the US exhibit lower home bias. Wei and Zhang (2020) find that institutional investors located in high-trust regions of the US exhibit lower home bias. Lauterbach and Reisman (2004) provide a model to show that if individuals care about their consumption relative to local people, they will hold more domestic equities.

A recent strand of literature highlights emotional factors such as “identity” and “attachment”. Sociology and psychology literature has explained home bias with “place identity” and “place attachment” theories (Fisher, Gerson, and Stueve 1977; Low and Altman 1992; Hidalgo and Hernandez 2001). These theories emphasize that individuals have a psychological attachment and preference for their hometown, rather than being motivated solely by private interests.

### **2.5.5 Politics**

Politics could also be a determinant of equity home bias. De Marco and Macchiavelli (2016) reveal that politics impact the banks-sovereign nexus in the Eurozone crisis. During the period of 2010-2013, the researchers observe that government-owned banks or banks with politicians on their boards of directors exhibit a more significant home bias in sovereign debt than privately-owned banks. Furthermore, only government-owned banks increased their home bias during the sovereign crisis. Brown, Pollet, and Weisbenner (2009) document the home bias of state pension funds. They also find that state pension plans of corrupt states are more likely to hold home-state stocks, which indicates potential political consideration.

## 2.6 Economic Consequences of Home Bias

Researchers also care about the economic implications of home bias, as the economic outcomes determine whether investors have achieved the optimal risk-return position or whether the company has maximized its value.

The common view on equity home bias believes that it worsens the position of investments because of underdiversification (e.g., French and Poterba, 1991). However, Antoniou, Olusi, and Paudyal (2010) argue that home bias may not simply be the suboptimal choice asserted by the literature. They show that UK investors could use homemade portfolios to mimic interactional equities.

The study conducted by Chan, Covrig, and Ng (2009) provides compelling evidence that home bias has a significant impact on firm valuation at both the country and firm levels. According to their findings, domestic investors increasing their weights in countries that they have already over-weighted results in a negative impact on market valuation. Conversely, foreign investors increasing their weights in countries that they have underweighted leads to an improvement in market valuation.

At the firm level, the study highlights that the value of the firm increases when domestic and foreign investors allocate weights to local firms based on the firms' global market capitalization weights. However, the firm's value decreases when investor weights deviate from the global weights. Similar to the effect of home bias on CEO compensation documented by Yonker (2017a), Bick and Flugum (2022) find that US executives also have a geographic preference for the location of their

undergraduate university. Specifically, executives educated near a firm's headquarters received 4.40% to 11.01% less than their peers. Jiang et al. (2019) find that when acquiring large and public targets in CEOs' childhood hometowns tends to add firm value but acquiring small and private hometown targets tends to decline firm value. This evidence is consistent with both behavioural explanation and information advantage. Lim and Nguyen (2021) document the home bias of bankers in credit allocations. Bankers tend to allocate more credit (by opening branches and making loans) to their hometowns. However, this home-biased lending does not destroy firm value but rather increases firm value. This is consistent with the information advantage explanation.

Lau, Ng, and Zhang (2010) study the impact of home bias on asset prices. Using data of 38 countries, they find that countries with stronger home-bias effects exhibit a higher cost of capital.

# Chapter 3 CEO Home Bias and Corporate Social Responsibility

## 3.1 Introduction

Firms' corporate social responsibility (CSR) activities generate social capital and trust (Lins, Servaes, and Tamayo, 2017) with trust being "the expectation that another *person* (or institution) will perform actions that are beneficial, or at least not detrimental, to us regardless of the capacity to monitor those actions...so that we will consider cooperating with him [the institution]" (Sapienza and Zingales, 2012, p. 124), based on Gambetta, 1988). In this context, this chapter argues that home CEOs who manage firms located in their home states, as defined by Yonker (2017a) and (2017b), are associated with higher levels of innate social capital and trust due to their origin and their established connections with the local community. Therefore, the objective of this chapter is to understand whether home bias affects CSR activities of home CEOs. Second, this chapter aims to examine whether CSR activities of home CEOs are driven by agency reasons.

This chapter initially sets the first question: Do home CEOs invest more or less in CSR? There are two possibilities. First, home CEOs rely on social capital and trust they have already developed with the local community by virtue of pre-existing relationships with customers, suppliers, employees, and the general environment where the firm operates; in that case, home CEOs would do less CSR. Accordingly,

to the extent that investments in CSR help establish trust with key stakeholders, non-home CEOs have the incentive to do more CSR. Second, home CEOs, who are subject to home bias, wish to maintain their social capital and trust by investing time and money in the welfare of residents in their home states; in that case, they have incentives to: (1) give back to the society where they were born by doing CSR, and (2) avoid jeopardizing pre-existing social capital by not doing CSR; in that case, home CEOs would invest more in CSR.

The second important question that follows up is whether CSR policies implemented by home CEOs are driven by agency reasons. If they do not, then the level of corporate governance should not play any particular role and CEOs should not be associated with private rents. If they stem from agency reasons, then this chapter should expect the opposite: any uncovered relation to be driven by firms with weak corporate governance and CEOs should exploit CSR activities by extracting private rents.

To shed light on the above concepts, home bias is grounded in familiarity and the psychology terms of place attachment (Fischer et al., 1977; Altman and Low, 1992) and place identity (Proshansky, 1978).<sup>6</sup> In this respect, familiarity can create favouritism (see, e.g., Yonker, 2017a), implying that corporate managers will be more likely to implement policies that favour their hometown communities over others. It is important though to emphasize that systematic favouritism stemming

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<sup>6</sup> Place attachment “is an affective bond that people establish with specific areas where they prefer to remain and where they feel comfortable and safe”, while place identity is “a component of personal identity, a process by which, through interaction with places, people describe themselves as belonging to a specific place” (Hernández et al. 2007, 311). These concepts are also related to community attachment, sense of community, rootedness, and place dependence. For a review of this literature, see Gieryn (2000) and Manzo (2003).

from familiarity is not necessarily harmful. It can be beneficial if it is driven by informational advantages from local skills (Yonker, 2017b);<sup>7</sup> it can be harmful, however, if it is driven by agency reasons (e.g., Jiang, Qian, and Yonker, 2019). A natural domain to study a manifestation of CEO favouritism stemming from home bias is through corporate social responsibility policies, i.e., the ways firms make decisions with regard to society at large and stakeholders.

To address the research questions, this essay focuses on the universe of non-financial, non-utility S&P 1500 firms covered by the ExecuComp database with data on CEO origin for the years 1992–2009. The data on CEO birthplace are collected from the Lexis Nexis Online Public Records Database following the methodology proposed by Yonker (2017b), who uses the first five digits of Social Security Numbers to identify the states where CEOs were born. Additionally, this chapter uses the Social Ratings Data compiled by KLD as a standard measure of firm-level corporate social responsibility. The KLD database has been used in an increasing number of research studies in economics and finance.<sup>8</sup>

To summarize the results, this chapter finds evidence of an economically sizable and statistically significant positive effect of home CEOs on CSR activities, controlling for industry, year, and state, as well as CEO and firm characteristics. Particularly, the CSR score of a firm is about 2.64% higher, compared to a median

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<sup>7</sup> This information advantage argument is supported by the home bias general equilibrium model by Van Nieuwerburgh and Veldkamp (2009), whereby agents specialize in local investments in which they have an initial information advantage. In a similar context, Cohen, Frazzini, and Malloy (2008) and Cai and Sevilir (2012), suggest that CEOs' educational or professional network connections may cluster geographically, which could lead to worthwhile investment opportunities that are close to home.

<sup>8</sup> See, for instance, Hong and Kostovetsky (2012), Deng, Kang, and Low (2013), Di Giuli and Kostovetsky (2014), Lins, Servaes, and Tamayo (2017), and Cronqvist and Yu (2017).

firm, when a firm is managed by a home CEO. Another way to quantify the effect is that for a one-standard-deviation increase in CSR score, the median firm with a home CEO spends an extra 23.37% of the firm's net income on CSR programs. An alternative way to quantify the effect is to compare the magnitude of the home CEO effects with other CEO effects on CSR activities found by prior studies. This essay finds that the magnitude of the home CEO effect on CSR is 128% higher than the CEO-daughter effect in Cronqvist and Yu (2007) and 123% higher than the CEO political preference effect in Di Giuli and Kostovetsky (2014) based on the impact relative to the median firm's net income.

In addition, the CSR measure aggregates seven categories related to different aspects of corporate decision-making with respect to social responsibility. A decomposition reveals that the largest contributors to the overall effect of home CEOs on CSR are employee relations, product, and corporate governance. In addition, to further validate the home bias explanation stemming from place attachment (Altman and Low, 1992), this chapter tests whether CEOs with deeper connections to their home state are the ones who engage more in CSR. Indeed. This essay finds that CEOs who spend more time in their home state or had their first degree in their home state conduct more CSR activities. Such CEOs have stronger ties to their home state and have a higher incentive to give back to the society where they were born by investing more in CSR activities.

This study then performs an exercise examining within-firm changes of CEOs from home CEOs to non-home CEOs and *vice versa*, as well as changes of CEOs from home to home and from non-home to non-home. This chapter finds that only when

there is a change from non-home to home CEOs could this chapter uncovers a significantly positive relation between CEO changes and CSR variation, which reinforces the home bias explanation. In later analysis, this chapter finds similar results when using a firm fixed effects model; this test cleanly disentangles idiosyncratic styles of managers from firm effects without relying on CEO turnover for identification, reducing the concern of the Fee, Hadlock, and Pierce (2013) selection critique.

Next, to address concerns that the results are affected by endogeneity bias, this chapter implements two main tests. First, to control for observable characteristics that induce home CEOs to invest in CSR, this study performs propensity score matching (PSM) analysis by matching firms that hire home CEOs with those exhibiting analogous characteristics but do not have a home CEO. this chapter consistently finds a significantly positive relation between home CEOs and CSR activities, implying that the results are not affected by sample selection bias. Additionally, this study runs a two-stage instrumental variable analysis with the “long home tenure” variable being an instrument for firms’ decision to select a home CEO. Firms are more likely to select home CEOs with longer home tenure as this would provide them with an information comparative advantage given the local knowledge they would have accumulated over the years. There is no reason, however, to expect that an average CEO with longer home tenure will do more CSR. this chapter finds that the instrument satisfies both the relevance and the exclusion restrictions; when this study regresses the instrumented home CEO on CSR, this study still obtains a strong positive relation between home CEOs and CSR activities, which eliminates concerns of an omitted variable bias.

Furthermore, to check whether the findings are a pure corporate governance effect, this study takes two actions. In addition to controlling for corporate governance, this chapter removes the corporate governance category from the CSR score. As a result, the analysis is clean from corporate governance effects on both sides of the regression equation. The results remain unaffected implying that it is not agency reasons what induce home CEOs to engage in CSR activities. this chapter also performs a battery of robustness tests: (1) this chapter uses a different industry classification to define industry fixed effects; (2) this chapter removes founder CEOs from the sample as prior literature has found that they are associated with more CSR (see, e.g., Wu et al., 2015); (3) this study remove firms with CEOs who hold an MBA or other Master's degree; (4) this chapter remove the Top 3 CEO home states which account for almost one-third of home CEOs to ensure that the results are not driven by these three states which dominate the observations of the "home CEO" variable; (5) this chapter control for CEO political preferences (Republican/Democratic) which have been found to affect CSR score (see, Di Giuli and Kostovetsky, 2014); (6) This study also control for financial constraints (Hong, Kubik, and Scheinkman, 2011). The results remain unaltered to all these sensitivity tests.

Finally, this chapter shed further light on whether agency reasons drive home CEOs' activities on CSR this study performs another test. Hoi, Wu, and Zhang (2019) show that firms associated with more social capital, are negatively associated with levels of CEO compensation. this chapter finds that firms with home CEOs, who engage in CSR activities are negatively associated with total and equity compensation.

These findings indicate that social capital mitigates agency problems by restraining managerial rent extraction in CEO compensation.

The study offers several contributions to the literature on home bias, the unconventional factors that affect CSR decisions, and the idiosyncratic style of CEOs. First, the study contributes to a fast-growing literature in finance and economics on home bias. Prior research focuses mostly on investor behaviour and finds that: (1) individual investors prefer to include local securities in their portfolios (Kang and Stulz, 1997; Grinblatt and Keloharju, 2001; Ivkovic and Weisbenner, 2005; Seasholes and Zhu, 2010); (2) institutional investors - especially public pension funds - exhibit substantial home-state bias when allocating their investments in private equity (Hochberg and Rauh, 2013); and (3) professional managers tilt their portfolios toward domestic stocks (Coval and Moskowitz, 1999; Pool, Stoffman, and Yonker, 2012). More recently, the literature has extended to a different type of home bias that is closer to the study, relating corporate and banking decisions to the location where CEOs were born. In particular, prior studies provide evidence that home bias affects CEO compensation package (Yonker, 2017a), firms' employment policies (Yonker, 2017b), mergers and acquisitions outcomes (Chung, Green, and Schmidt, 2018; Jiang, Qian, and Yonker, 2019) and bank credit allocation (Lim and Nguyen, 2021). this chapter adds to this literature and shows that CEO home bias has a real effect, by examining its impact in a context where place attachment would naturally be expected to play a great role: social giving through CSR engagement.

Second, this chapter also adds to the recent stream of literature which examines possible unconventional factors affecting CSR.<sup>9</sup> this chapter extends the scope of this literature by documenting an important additional determinant that systematically affects firms' CSR activities: CEO geographic origin. Examining the home attachment incentive of CEOs offers further insights to the emerging CSR literature, especially on why firms engage in costly CSR activities.

Third, different corporate executives may have different styles (e.g., Bertrand and Schoar, 2003; Kaplan, Klebanov and Sørensen, 2012; Fee, Hadlock and Pierce, 2013); this chapter thus complements existing studies on the impact of CEO heterogeneity on corporate policies.<sup>10</sup> Contrary to most prior studies on CEO attributes, a key advantage of the study is that, unlike marital status, educational background, career moves, the hobby of managers, which could be endogenously selected, birthplace is arguably exogenously assigned and not a choice made by CEOs; thus the findings provide evidence of an additional manager-specific effect, i.e., idiosyncratic style of a CEO, on within-firm business policies. Finally, by comparing with the effects from non-home CEOs, this chapter can control for the

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<sup>9</sup> These studies find that CSR performance is related to the cost of debt (Goss and Roberts, 2011), the cost of equity (Dhaliwal, Li, Tsang, and Yang, 2011), mergers and acquisitions (Deng, Kang, and Low, 2013), political affiliation of the firm (Di Giuli and Kostovetsky, 2014), firms' cash holdings (Cheung, 2016), analyst coverage (Adhikari, 2016), CEOs parenting daughters (Cronqvist and Yu, 2017), seasoned equity offerings (Dutordoir, Strong, and Sun, 2018), marital status of CEO (Hegde and Mishra, 2019), systematic risk (Albuquerque, Koskinen, and Zhang 2019), the interactions with other product-market peers (Cao, Liang, and Zhan, 2019), and institutional investors (Chen, Dong, and Lin, 2020).

<sup>10</sup> Prior studies provide evidence that a CEO's life experience (Bernile, Bhagwat, and, Rau, 2017; Cronqvist and Yu, 2017; Hegde and Mishra, 2019), career experience (Custodio and Metzger, 2014; Dittmar and Duchin, 2016), personal style (Islam and Zein, 2020), overconfidence (Malmendier and Tate, 2005, 2008), gender (Ahenn and Dittmar, 2012), age (Yim, 2013), cognitive and noncognitive ability (Adams, Keloharju and Knüpfner, 2018), political ideology (Hutton, Jiang, and Kumar, 2014), and lifestyle (Cain and McKeon, 2016; Sunder, Sunder, and Zhang, 2017), among others, affect corporate decisions.

potential confounding effects associated with firms' headquarters locations and obtain a clean estimation of CEOs' home-state effects.

The remainder of the chapter is organized as follows. Section 3.2 reviews the studies on CSR. Section 3.3 describes the data and the measures of CSR and home bias. Section 3.4 presents the main empirical analyses. Section 3.5 attempts to distinguish between stakeholder value maximization and shareholder expense channels. And Section 3.6 concludes the study.

## **3.2 Literature Review: CSR Studies**

This section reviews the academic papers which study the CSR practice of companies. This section categorises these studies into two groups: (1) those studying the determinants of CSR, and (2) papers focusing on the economic consequences of CSR practice.

### **3.2.1 Determinants of CSR**

Previous studies have revealed the determinants of CSR at different levels, including country-level factors, firms' financial factors, shareholder characteristics, and executives' characteristics.

Literature shows that country-level factors matter for companies' CSR. For instance, Cai, Pan, and Statman (2016) argue that country-level factors are more important than firm characteristics in explaining CSR. They investigate 2600 companies across 36 countries covered by the MSCI KLD database and find that countries with higher income-per-capita, robust political rights and civil liberties, and cultural values emphasizing harmony and autonomy tend to have higher CSR. Moreover, Liang and Renneboog (2017) find that the legal origin of countries is highly correlated with companies' CSR performance. Specifically, firms from Scandinavian civil law have the highest CSR. And firms from common law countries have lower CSR than companies from civil law countries.

A large literature investigates the effects of firm characteristics on CSR. For instance, Borghesi, Houston, and Naranjo (2014) show that some common firm

characteristics, such as firm size, free cash flows, and advertising expenditure, are significantly associated with CSR. Di Giuli and Kostovetsky (2017) find that firms headquartered in Democratic-leaning states have higher CSR than those in Republican-leaning states. Dai, Liang, and Ng (2021) find that CSR orientation can be transmitted along the supply chain, but only from customers to upstream suppliers.

By investigating the ownership of companies from 41 countries, Dyck et al. (2019) find that institutional ownership is positively associated with CSR performance. Chen, Dong, and Lin (2020) explore the exogenous shock on institutional ownership from Russell Index reconstitutions. They find that an exogenous decrease in institutional shareholders leads to a decline CSR.

Executives' personal characteristics also influence the CSR. For instance, Borghesi, et al. (2014) find that the CEO's age, gender, political affiliation, and media exposure affect CSR. McCarthy, Oliver, and Song (2017) argue that CSR is hedging to firm risks. Therefore, they find supportive evidence that overconfident CEOs are associated with less CSR because they are less likely to hedge firm risks.

### **3.2.2 Economic consequences of CSR**

“Doing well by doing good” or “Doing good by doing well” is a long-time puzzle for CSR studies. Researchers are still debating whether CSR enhances firm value directly. On the one hand, some researchers highlight the positive role played by CSR to firm performance. For instance, Ferrell, Liang, and Renneboog (2016) find

that CSR is positively related to firm value. And Cornett, Erhemjamts, and Tehranian (2016) find that US banks pursuing CSR have higher ROA.

However, some also argue that CSR does not have significant effects on the firm value or may even “backfire” (List and Momeni, 2020). Borghesi, et al. (2014) find that CSR intensity is negatively related to firms’ excess stock returns. Di Giuli and Kostovetsky (2014) examined the relationship between changes in CSR and revenue growth and find no significant effects. They also discovered a significant negative correlation between changes in CSR and changes in ROA or stock returns.

Several studies have confirmed that CSR at least benefits firms during specific times. For instance, Lins, Servaes, and Tamayo (2017) find that CSR matters to firms during stressful times. Specifically, firms that had higher CSR before the 2008 financial crisis experienced less return decreasing during the crisis. Similarly, Bae et al. (2021) and Ding et al. (2021) also find during Covid-19, firms with higher ex ante CSR experienced less recession during the pandemic.

Moreover, Deng, Kang, and Low (2013) find that acquirers with higher CSR obtain higher announcement returns as well as long-term growth, which enhances firm value. Additionally, Huseynov and Klamm (2012) find that CSR reduce firms’ tax avoidance and tax management. Tang and Zhang (2020) and Flammer (2021) find that the market reacts positively to the issuance of green bonds.

### **3.2.3 Hypothesis development**

This chapter posed the question of whether home CEOs invest more or less in CSR. There are two potential explanations for this. Firstly, home CEOs may rely on their

pre-existing social capital and trust within the local community, which could lead to a reduced need for CSR. Therefore, non-home CEOs may be more incentivized to invest in CSR to establish trust with key stakeholders. Secondly, home CEOs may be subject to home bias and have a desire to maintain their social capital and trust within their home state. This could lead to a greater investment in CSR as a means of giving back to their community and avoiding jeopardizing pre-existing social capital. Therefore, this chapter test the following hypothesis.

***H1a.** Home CEOs are associated with higher CSR score.*

***H1b.** Home CEOs are associated with lower CSR score.*

## 3.3 Sample Construction, Measure of CSR, and Measure of Home CEO

### 3.3.1 Sample construction

The initial sample consists of the universe of firms covered by the ExecuComp database over the period between 1992 and 2009.<sup>11</sup> Financial firms (SIC 6000–6999) and regulated utilities (SIC 4900–4999) are excluded because the analysis involves some firm characteristics (e.g., debt ratios) that are subject to regulatory requirements in these industries. Next, this chapter match this sample with MSCI ESG KLD database using CUSIP identifiers, TICKER identifiers, and firm names,<sup>12</sup> which leads to a sample of 13,059 observations. this chapter also require non-missing CEO geographic origin information, which further reduces the sample to 11,923 observations. Finally, after merging with financial and headquarters location data from Compustat database and removing missing values, this chapter end up with a final sample of 2,545 unique CEOs in 1,579 firms, and 11,299 firm-year observations.

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<sup>11</sup> The sample ends in 2009 to avoid any potential contaminated estimates due to the fact that KLD, i.e., the database used to measure corporate social responsibility, was purchased by RiskMetrics in 2009, which changed the methodology used to calculate firm corporate social responsibility (Di Giuli and Kostovetsky, 2014). In fact, up to 28 (38.9%) subcategories discontinued after 2009, as they were removed or replaced (MSCI, 2015). Perhaps, this is the main reason why the majority of studies using KLD end their sample before 2011 (e.g., Hong and Kostovetsky (2012), Deng, Kang, and Low (2013), Di Giuli and Kostovetsky (2014), Krüger (2015), Cao, Liang, and Zhan (2019), Chen, Dong, and Lin (2020)). Nevertheless, this chapter have still run the analysis with a more updated sample (up to 2016) and the main results hold, but this study interprets them with caution due to the issue raised above.

<sup>12</sup> If the observations cannot be matched using CUSIP and TICKER identifiers, this study uses firm names. Because some firms share the same TICKER in KLD, this chapter also carefully check firm names when matching the two datasets using TICKER.

### 3.3.2 Measure of corporate social responsibility (CSR)

This study constructs the measure of corporate social responsibility (henceforth CSR) activities using data collected from MSCI ESG KLD database. KLD rates large publicly traded US companies on environmental, social, and governance (ESG) activities and has been used in numerous studies which investigate the determinants and consequences of firms' CSR (see, e.g., Hong and Kostovetsky, 2012; Deng, Kang, and Low, 2013; Di Giuli and Kostovetsky, 2014; Krüger 2015; Lins, Servaes, and Tamayo, 2017; Cronqvist and Yu, 2017; Chen, Dong, and Lin, 2020). Based on a wide variety of sources, including company filings, government data, non-governmental organization data, and media, KLD evaluates firms' social performance along seven major categories: community, diversity, employee relations, environment, human rights, product, and corporate governance.<sup>13</sup>

For each of the seven categories, KLD classifies firms' activities into "strengths (good deeds)" and "concerns (harmful deeds)". A firm gets one point if it engages in a related activity, and zero otherwise. For instance, a firm gets one point in "Workforce Reduction Concern" if it "has made significant reductions in its workforce in recent years (MSCI, 2015)" and zero otherwise. A raw measure of CSR activities is the sum of strength scores minus the sum of concern scores (e.g.,

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<sup>13</sup> To employ a comprehensive measurement of CSR activities, most studies on CSR (see, e.g., Dhaliwal et al., 2011; Deng, Kang, and Low, 2013; Becchetti, Ciciretti, and Hasan, 2015; Bereskin et al., 2018; Sun and Gunia (2018) use all seven categories. Some studies remove the corporate governance category when using KLD to measure CSR activities (e.g., Di Giuli and Kostovetsky, 2014; Lins, Servaes, and Tamayo, 2017; Albuquerque, Koskinen, and Zhang, 2019). However, it is important to include the governance category in the setting as the governance category in aggregate, or some of the individual governance category components, may be correlated with the trustworthiness of a firm (Lins, Servaes, and Tamayo, 2017). Nevertheless, for robustness, this chapter have also checked the baseline results after removing the corporate governance category from the CSR measure and the results remain (see Table 3.9).

Hong and Kostovetsky, 2012; Di Giuli and Kostovetsky, 2014; Chen, Dong, and Lin, 2020). A higher raw score means that the firm engages more in CSR activities. However, it is rather problematic to use the raw score because: (1) ESG gives equal weight to individual indicators when comparing CSR activities across years and categories; and (2) the number of strength and concern indicators varies for each category every year (Mănescu, 2011; Lins, Servaes, and Tamayo 2017) (e.g., the maximum number of strengths for community is seven in 2005, but only four in 2010). Thus, this might lead to biased results if this chapter compare raw CSR scores across categories and years (Deng, Kang, and Low, 2013). To overcome this drawback, this study follow Deng, Kang, and Low (2013) and Servaes and Tamayo (2013) and construct an adjusted measure by dividing the strength and concern scores for each category by the respective number of strengths and concerns.<sup>14</sup> Then the adjusted CSR score is the difference between the total adjusted CSR strength score and the total adjusted CSR concern score.<sup>15</sup> this chapter use this adjusted CSR score as the main measure of a firm's engagement in CSR activities (note that the baseline results also hold if this chapter uses raw CSR scores). To facilitate the interpretation of the economic size of the estimated home CEO effect, this study

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<sup>14</sup> For instance, the respective numbers of subcategories in corporate governance category are seven in 2000, including three strength indicators and four concern indicators. Assuming that a firm gets one point in every subcategory, then the adjusted corporate governance score from KLD is:  $1/3+1/3+1/3-1/4-1/4-1/4-1/4 = 0$ . The raw corporate governance score in this case is:  $1+1+1-1-1-1-1 = -1$ .

<sup>15</sup> Suppose that for a particular firm, the sum of the KLD strength indicators across the seven categories in 2004 are 0, 1, 1, 2, 1, 0, and 1 and the respective numbers of strength subcategories across the seven categories in KLD are 4, 3, 3, 5, 7, 4, and 4. According to the definition, the adjusted total strength score for the firm is equal to:  $0/4+1/3+1/3+2/5+1/7+0/4+1/4 = 1.45$ . If this study assume that the adjusted total concern score is 1.25, which is calculated in the same way as the adjusted total strength score, then the CSR score of the firm in 2004 is  $1.45-1.25= 0.2$ .

follow Cronqvist and Yu (2017) and normalize the CSR score so that the minimum value is zero.

### **3.3.3 Measure of home CEOs**

To create the measure of home CEOs, this chapter rely, to the majority of cases, on the birthplace information of CEOs collected from Yonker (2017a).<sup>16</sup> Yonker manually gathers the Social Security Number (SSN) from the LexisNexis online public records database for CEOs covered by ExecuComp database from 1997 to 2007.<sup>17</sup> The 5-digit SSN is issued by the state when a resident applies for the first job or driver's license. Specifically, the first 3 digits indicate the state of issuance, while the fourth and fifth digits are linked to the sequence of issuance. Therefore, the Social Security number identifies the year and state in which a CEO acquired her Social Security number. Yonker (2017a) shows that more than 80% of CEOs in his sample receive the SSN before the age of 17 years old. Thus, SSN identifies efficiently the birthplace of CEOs. The SSN has been widely used in literature as the main measurement of CEO origin (see, e.g., Pool, Stoffman, and Yonker, 2012; Bernile, Bhagwat, and Rau, 2017; Jiang, Qian, and Yonker, 2019). Additionally, for those CEOs which are not covered by Yonker (2017b), this chapter manually collect the "birthplace" or "grow-up place" from NNDB.com, Marquis Who's Who, Wikipedia, and Google.<sup>18</sup> The combined data set appears to be rather

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<sup>16</sup> This thesis thanks Scott Yonker for sharing his "home CEO" data.

<sup>17</sup> Using the CO\_PER\_ROL identifier in ExecuComp, this chapter are able to match home CEOs data from Yonker's data set with firm and CEO variables for the period between 1992 and 1996, and 2008-2009. For example, many firms have the same CEO over the period 1992-1996 and then in 1997 when Yonker's data begin, so this chapter are able to match them.

<sup>18</sup> NNDB.com, Marquis Who's Who, and Wikipedia record the birthplace for a number of CEOs. This thesis searches in these three databases using the full name of CEOs. This thesis double-checks the firm names and the age of CEOs between data sources and ExecuComp to ensure the accuracy.

comprehensive as it includes hometown information for 85.9% of CEOs in the universe of firms covered by the ExecuComp database over the period between 1992 and 2009.

### 3.3.4 Sample descriptive statistics

Panel A of Table 3.1 shows the Top 10 CEO home states, accounting for approximately 61% of CEOs in the sample. The order of states with the larger proportion of home CEOs is as in Yonker (2017). Specifically, New York is the state with the highest proportion (14.15%), which is also consistent with Bernile, Bhagwat, and Rau (2017).<sup>19</sup> California is the second largest home state for CEOs in the sample (8.76%) followed by Illinois which ranks third with 6.95%.

Panels B and C report summary statistics of the CEO and firm variables used in the regression analysis. This chapter winsorize all the non-binary variables at the 1<sup>st</sup> and 99<sup>th</sup> percentiles. The main independent variable of interest is *Home CEO*, a binary variable that is equal to one if the home state of a CEO is the same as the state of the firm's headquarters, and zero otherwise. The mean value of *Home CEO* is 0.315, indicating that firms with home CEOs represent 31.5% of observations in the sample, consistent with the figure documented by Yonker (2017a). Regarding control variables, this chapter refrain, for brevity, from discussing descriptive

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If chapter cannot find the hometown of CEOs, this chapter then search on Google using keywords of "CEO full name + native of" and/or "CEO full name +born/birth/grew up".

<sup>19</sup> The Top 10 home states in Bernile, Bhagwat, and Rau (2017) are in the following order: New York, Illinois, Pennsylvania, Ohio, California, Massachusetts, New Jersey, Texas, Missouri, and Iowa. 16.64% of CEOs in their sample were born in New York.

statistics but verify that they are in line with prior studies (e.g., Deng, Kang, and Low, 2013; Di Giuli and Kostovetsky, 2014; Cronqvist and Yu, 2017).

**Table 3. 1 Sample Descriptive Statistics**

This table presents summary statistics for a sample of US firms with data in MSCI KLD database for the period between 1992 and 2009. Panel A reports the Top 10 birth states of CEOs in percentages. Panel B reports the number of observations, mean, median, 25th percentile, 75th percentile, and standard deviation statistics for CEO characteristics (including home CEOs). Panels C and D report similar statistics for firm characteristics and corporate social responsibility (CSR) measures, respectively. All variables are defined in the Appendix A Table A1.

<b>Panel A: Top 10 CEO Home States</b>						
<b>State</b>	<b>% of CEOs</b>					
1. New York	14.153%					
2. California	8.764%					
3. Illinois	6.953%					
4. Pennsylvania	5.894%					
5. Ohio	5.466%					
6. Massachusetts	4.910%					
7. New Jersey	4.602%					
8. Texas	4.402%					
9. Missouri	3.699%					
10. Florida	2.636%					

<b>Panel B: CEO Characteristics</b>						
	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>P25</b>	<b>Median</b>	<b>P75</b>
Home CEO	11,299	0.315	0.464	0	0	1
Female CEO	11,299	0.019	0.138	0	0	0
CEO Tenure	11,299	8.031	7.106	3	6	10
CEO Age	11,299	55.658	7.082	51	56	60
CEO Ownership	11,299	1.841%	5.502%	0	0.016%	0.931%

<b>Panel C: Firm Characteristics</b>						
	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>P25</b>	<b>Median</b>	<b>P75</b>
Size (in \$ millions)	11,299	10,677	25,448	1,054	2,778	7,903
ROA	11,299	0.046	0.118	0.022	0.057	0.094
Leverage	11,299	0.215	0.172	0.067	0.205	0.320
Market-to-Book	11,299	3.370	16.018	1.638	2.478	3.853

<b>Panel D: Corporate Social Responsibility (CSR) Measures</b>						
	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Min</b>	<b>Median</b>	<b>Max</b>
CSR Score	11,299	2.056	0.383	0	2.047	3.904
Community	11,299	0.630	0.095	0	0.625	1.125
Diversity	11,299	0.417	0.166	0	0.400	1.178
Employee Relations	11,299	0.775	0.193	0	0.800	1.633
Environment	11,299	0.426	0.064	0	0.441	0.676
Human Rights	11,299	0.292	0.036	0	0.300	0.550
Product	11,299	0.628	0.109	0	0.667	0.917
Corporate Governance	11,299	0.907	0.175	0	1.000	1.500

Panel D presents the summary statistics of CSR scores for the main category and for each of the seven CSR subcategories. The main dependent variable, *CSR score*, is the sum of adjusted CSR scores calculated from seven CSR categories (community, diversity, employee relations, environment, human rights, product, and corporate governance). A higher number of CSR score denotes that the firm has a higher engagement in CSR activities. To facilitate the interpretation of the economic size of the estimated home CEO effect, this chapter follow Cronqvist and Yu (2017) and normalize the CSR score so that the minimum value is zero. After normalization of the CSR score so that the minimum value is zero, the mean value of the adjusted *CSR score* is 2.056. To validate the accuracy of the statistics, this study compares the CSR score with Deng et al. (2013), who have also used the adjusted CSR score. Deng et al. (2013), however, have not normalized their variable. When this chapter calculate the non-normalized adjusted CSR score, the mean value is  $-0.158$ , which is very similar to the value documented by Deng et al. (2013).<sup>20</sup> Overall, the descriptive statistics verify that the variables used in the empirical analysis are similar to those found in prior studies.

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<sup>20</sup> The mean value of CSR score in Deng et al. (2013) is  $-0.112$  for a relatively similar sample period to this chapter (i.e., the sample period in Deng et al. (2013) is 1992–2007). Cronqvist and Yu (2017) normalize their CSR scores as well. However, they use the raw CSR score rather than the adjusted CSR score as this study does. Thus, comparison of statistics between their paper and this chapter is meaningless.

## 3.4 Empirical Evidence

### 3.4.1 CEO home bias and corporate social responsibility

In order to examine the impact of CEO home bias on corporate social responsibility (CSR) activities in the panel of firms, this chapter run pooled OLS regressions by controlling for a number of CEO– and firm–level determinants that extant literature has shown to affect CSR. In line with Cronqvist and Yu (2017), this chapter uses contemporaneous variables employing the following model:

$$CSR\ Score_{i,t} = \alpha + \beta Home\ CEO_{j,t} + \lambda C_{j,t} + \mu F_{i,t} + \gamma_k + \delta_t + \varphi_m + \varepsilon_{i,j,m,k,t} \quad (1)$$

where the dependent variable, CSR score, is the sum of adjusted CSR scores calculated from seven CSR categories (community, diversity, employee relations, environment, human rights, product, and corporate governance). The main variable of interest, home CEO, is a dummy variable that is equal to one if a CEO’s home state is the same as the state of the firm’s headquarters, and zero otherwise. Additionally,  $i$  indexes firms,  $j$  indexes CEOs,  $k$  indexes industries,  $m$  indexes states, and  $t$  indexes time.  $C$  is a vector of CEO control variables which have been found to affect firms’ CSR activities. The CEO control variables this chapter include in the model are: female CEO, CEO age, CEO age<sup>2</sup>, CEO tenure, CEO tenure<sup>2</sup>, and CEO ownership.  $F$  is a vector of firm control variables which have been found to determine firm CSR engagement. The following firm control variables are used in the model: size, return on assets (ROA), leverage, and market–to–book ratio.<sup>21</sup> To

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<sup>21</sup> In the model of this chapter, this study employs the same CEO and firm control variables used in the baseline model in Cronqvist and Yu (2017) plus the female CEO dummy.

control for the time-invariant industry-related variables that might affect CSR, this chapter use the two-digit Standard Industrial Classification (SIC) codes to define industry and include industry fixed effects denoted with  $\gamma$ .<sup>22</sup> This study also include year fixed effects denoted with  $\delta$  to control for the time variation in CSR activities common to all firms in the sample.<sup>23</sup> Meanwhile, this chapter add state fixed effects denoted with  $\varphi$  to control for state-level time invariant variables that might affect CSR.<sup>24</sup> Finally,  $\varepsilon$  is the error term. Hence, the model compares firms with home CEOs versus those with non-home CEOs within the same industry, year, and state, and with similar CEO and firm characteristics.<sup>25</sup> In the regressions, this chapter use heteroscedasticity-robust standard errors double-clustered by firm and year (Bertrand, Duflo, and Mullainathan, 2004).

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<sup>22</sup> In Section 3.3.7.2, this study shows that the results hold when this study uses an alternative industry definition.

<sup>23</sup> The year fixed effects in the regression model capture a trend over time of firms becoming more concerned about CSR. This thesis has checked that there is no corresponding trend in the proportion of home CEOs.

<sup>24</sup> It is important to incorporate state fixed effects because they capture religious, political, or other “cultural” variation across regions in CSR policies. For example, Di Giuli and Kostovetsky (2014) show that firms have higher CSR scores when they are headquartered in Democratic-oriented rather than Republican-oriented states. In addition, Bae, Sun, and Zheng (2015) report that regional religiosity has a significant impact on the investment behavior with respect to social responsibility of fund managers in the US.

<sup>25</sup> It is worth noting that estimating CEO fixed effects in the regression model is challenging for the same reason explained by Cronqvist and Yu (2017). In particular, once an individual becomes the CEO of a company, she is likely to retire after her tenure at that firm. As a result, only 57 out of the 2,545 CEOs in the sample manage two different firms during the period this chapter studies, thus estimating CEO fixed effects is empirically challenging.

**Table 3. 1 The Effect of Home CEOs on CSR**

This table presents the results of OLS regressions for the effect of home CEOs on CSR activities for a sample of US firms with data available in MSCI KLD database for the period between 1992 and 2009. The dependent variable is the CSR score, which is the sum of adjusted CSR scores calculated from seven CSR categories (community, diversity, employee relations, environment, human rights, product, and corporate governance). Home CEO is a dummy variable that is equal to one if a CEO's home state is the same as the state of the firm's headquarters, and zero otherwise. The definitions of all other variables are provided in the Appendix A Table A1. Column (1) includes only firm-level control variables. Column (2) includes only CEO-level control variables. Column (3) includes both CEO-level and firm-level control variables. All models include year, industry, and state fixed effects, whose coefficients are suppressed, and are based on calendar year, 2-digit SIC industry classification, and state dummies, respectively. T-statistics, which are based on heteroscedasticity-robust standard errors clustered by both firm and year, are reported in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

	CSR Score		
	(1)	(2)	(3)
Home CEO	0.058*** (3.925)	0.058*** (3.956)	0.054*** (3.669)
Female CEO	0.164*** (3.091)		0.164*** (3.118)
CEO Age	-0.009 (-1.048)		-0.007 (-0.817)
CEO Age <sup>2</sup>	0.000 (0.815)		0.000 (0.611)
CEO Tenure	0.002 (0.651)		0.001 (0.378)
CEO Tenure <sup>2</sup>	-0.000 (-0.445)		-0.000 (-0.363)
CEO Ownership	0.002* (1.760)		0.001 (1.110)
Size		-0.019 (-1.542)	-0.018 (-1.454)
ROA		0.289*** (3.863)	0.293*** (3.916)
Leverage		-0.110*** (-2.401)	-0.104** (-2.291)
Market-to-Book		0.000 (1.387)	0.000 (1.379)
Constant	2.785*** (10.021)	2.631*** (15.996)	2.856*** (8.801)
Year Fixed Effects	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes
Observations	11,299	11,299	11,299
Adjusted R <sup>2</sup>	0.148	0.157	0.161

Table 3.2 presents the results for the baseline models. Specification (1) includes only CEO control variables; specification (2) includes only firm control variables; finally, specification (3) presents the estimates for the full model which includes both CEO and firm level controls. All three specifications show an economically

sizeable and consistently strong positive association between home CEOs and CSR, which is significant at the 1% level. In economic terms, firms with a home CEO on board are associated with higher CSR ratings which range between 2.64% ( $=0.054/2.047$ , specification (3)) and 2.83% ( $0.058/2.047$ , specifications (1) and (2)), relative to a median firm in the sample. This corresponds to approximately 14.1% ( $= 0.054/0.383$ ) of one standard deviation of the CSR score distribution. With regards to the control variables in specification (3) only female CEOs, ROA and leverage carry a statistically significant coefficient with the expected sign according to the prior literature (see, e.g., Adams and Funk, 2012; Di Giuli and Kostovetsky, 2014).

### **3.4.2 Economic size of the home CEO effect**

#### *3.4.2.1 Effect on cash flows*

To estimate the economic size of the impact of a home CEO on CSR, this chapter follow Di Giuli and Kostovetsky (2014) and Cronqvist and Yu (2017) and consider the effects on a firm's cash flows. In particular, this study assess the predicted cash flow effect of a firm which improves its CSR score. Taking into account that most CSR activities involve extra expenses (e.g., work-life benefits such as childcare, pollution prevention, or employee health and safety programs), then such activities would, at least partially, be expected to affect the firm's Selling, General, and Administrative (SG&A) expenses, and, in turn, the firm's cash flows.<sup>26</sup> In

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<sup>26</sup> Part of any expenses related to CSR may end up as Cost of Goods Sold (COGS) or Capital Expenditures (CAPEX). For example, some investments in environmentally friendly equipment

specification (1), this chapter regress the *log (SG&A expenses)* on CSR score, controlling for year, industry, and state fixed effects, as well as the same set of CEO and firm characteristics used in Table 3.2.

Table 3.3 presents the results. In specification (1), this chapter find a strong positive relation between CSR and SG&A expenses, in line with prior evidence (e.g., Di Giuli and Kostovetsky 2014; Cronqvist and Yu, 2017).<sup>27</sup> Particularly, the coefficient of CSR score is 0.144 and statistically significant at the 1% level, which suggests that more engagement in CSR activities leads to higher SG&A expenses. In economic terms, a one-standard-deviation increase in CSR score translates into to an extra 5.52% ( $=0.383 \times 0.144$ ) SG&A expenses for a firm. This means that the median firm spends an extra \$19.72 million ( $=5.52\% \times \$357.29$ ) per year on corporate social responsibility, corresponding to approximately 23.37% of the median firm's net income.<sup>28</sup>

In specification (2), this chapter augment model (1) by interacting home CEOs with CSR; this helps us to evaluate the incremental effect of home CEOs on the positive relation between CSR and SG&A expenses. The interaction term carries a coefficient with economic magnitude of 0.158, statistically significant at the 5% level. To gain a better understanding of such economic magnitude, a one-standard-deviation increase in CSR score for firms with a home CEO leads to an extra 6.05% ( $=0.158 \times 0.383$ ) SG&A expenses relative to firms with a non-home CEO. In dollar

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affect the firm's CAPEX. Consequently, the estimates might actually understate the full costs of CSR.

<sup>27</sup> This result does not mean that CSR is value-destroying for the firm or its shareholders due to the increase in expenses.

<sup>28</sup> The median value of SG&A expenses and net income in the sample is \$357.29 and \$84.39 million, respectively.

terms, a one-standard-deviation increase in CSR score for firms with a home CEO translates into an extra \$21.62 million ( $=6.05\% \times \$357.29$ ) per year on CSR compared to firms with a non-home CEO; this corresponds to approximately 25.62% of the median firm's net income. An alternative way to quantify the effect is to compare the magnitude of the home CEO effects on CSR activities with others found in the relevant literature. This study estimates that the magnitude of the home CEO effect on CSR relative to the median firm's net income is 128% higher than the CEO-daughter effect in Cronqvist and Yu (2007) and 123% higher than the CEO political preference effect in Di Giuli and Kostovetsky (2014). Overall, the findings suggest that the home CEO effect this chapter document is economically sizeable.

Nevertheless, as suggested by Di Giuli and Kostovetsky (2014), one concern with the first two specifications of Table 3.3 is that CSR is a form of marketing and might be correlated with advertising spending (which also falls under SG&A). Hence, in specifications (3) and (4), this chapter remove advertising spending from SG&A spending. The results are similar to specifications (1) and (2) in both economic and statistical magnitude. Specifically, CSR has a positive relation with (SG&A expenses minus advertising expenses) at the 1% level (specification (3)), and this positive relation is amplified for firms with home CEOs (specification (4)).

**Table 3. 2 Economic Size of Home CEO Effect**

This table presents the results for the economic size of home CEO effect on CSR investments. The dependent variable in specifications (1) and (2) is the log of selling, general, and administrative expenses in millions (log (SG&A Expenses)). The dependent variable in specifications (3) and (4) is the log of selling, general, and administrative expenses minus advertising expenses in millions (log (SG&A Expenses-Advertising)). Home CEO is a dummy variable that is equal to one if a CEO's home state is the same as the state of the firm's headquarters, and zero otherwise. The definitions of all other variables are provided in the Appendix A Table A1. All models include year, industry, and state fixed effects, whose coefficients are suppressed, and are based on calendar year, 2-digit SIC industry classification, and state dummies, respectively. T-statistics, which are based on heteroscedasticity-robust standard errors clustered by both firm and year, are reported in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

	Log (SG&A Expenses)		Log (SG&A Expenses - Advertising)	
	(1)	(2)	(3)	(4)
Home CEO		-0.023 (-0.825)		-0.026 (-0.936)
CSR Score	0.144*** (3.765)	0.104*** (2.580)	0.128*** (3.367)	0.085** (2.094)
Home CEO × CSR Score		0.158** (2.259)		0.171*** (2.475)
Female CEO	0.036 (0.398)	0.032 (0.352)	0.030 (0.340)	0.026 (0.290)
CEO Age	0.028 (1.403)	0.024 (1.267)	0.024 (1.294)	0.024 (1.267)
CEO Age <sup>2</sup>	-0.000 (-1.548)	-0.000 (-1.409)	-0.000 (-1.405)	-0.000 (-1.409)
CEO Tenure	0.001 (0.185)	0.002 (0.414)	0.001 (0.284)	0.002 (0.414)
CEO Tenure <sup>2</sup>	-0.000 (-0.779)	-0.000 (-0.875)	-0.000 (-0.871)	-0.000 (-0.875)
CEO Ownership	0.007*** (2.538)	0.007*** (2.544)	0.005* (1.956)	0.005* (1.955)
Ln (Total Assets)	0.867*** (67.846)	0.866*** (67.966)	0.860*** (68.627)	0.859*** (68.665)
ROA	-0.106 (-0.899)	-0.107 (-0.902)	-0.140 (-1.243)	-0.141 (-1.246)
Leverage	-0.283*** (-3.098)	-0.284*** (-3.110)	-0.336*** (-3.658)	-0.337*** (-3.666)
Market-to-Book	0.001*** (3.072)	0.001*** (3.034)	0.001*** (2.846)	0.001*** (2.807)
Constant	-1.561*** (-2.670)	-1.432*** (-2.481)	-1.442*** (-2.590)	-1.298*** (-2.356)
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes
Observations	10,599	10,599	10,599	10,599
Adjusted R <sup>2</sup>	0.842	0.843	0.838	0.839

### *3.4.2.2 Where does the effect come from? Evidence from decomposition of CSR ratings*

As discussed in Section 3.3, the CSR score consists of seven different categories: community, diversity, employee relations, environment, human rights, product and corporate governance. To get a better insight on the origins of the relation between a home CEO and the particular corporate social responsibility activities she engages in, this chapter investigate each of these categories separately. In particular, this study decomposes the CSR measure to analyze which categories have the strongest home CEO effects.

Panel A of Table 3.4 presents the results for each of the seven CSR categories. First, it is worth noting that, on average, a home CEO is consistently related to more socially responsible corporate decision-making, as all the point estimates (except one - diversity) are positive. Focusing on the statistical significance, this chapter find that home CEOs engage in three out of the seven CSR activities. This shows that the aggregate effect is not driven by only one specific category dwarfing all the others. The strongest contributors to the overall effect on CSR of home CEOs are, in order of the economic size of the point estimates, the employee relations and corporate governance (significant at the 1% level). Economically, a firm with a home CEO is associated with enhanced employee relations and corporate governance by about 2.75% ( $=0.022/0.800$ ) and 1.8% ( $=0.018/1$ ), respectively, relative to a median firm. The relation between home CEO and product is also significantly positive (at the 10% level). This study do not have a strong prior about which category may be associated with the strongest home CEO effect, but the

evidence that employee relations are significantly improved once a home CEO is on board is consistent with the effect documented by Yonker (2017a).

In Panel B of Table 3.4, this chapter dig deeper by looking into the strength and concern subcategories of the three CSR categories this study has identified to have a significant home CEO effect. Specifically, this chapter run 33 regressions for each of the strength and concern subcategories of the employee relations, product and corporate governance categories by employing the same set of control variables and fixed effects used in prior tables. For brevity, this study only report the estimates for home CEO coefficients. Several interesting findings emerge from this exercise. First, this chapter find that home CEOs treat their employees in a fairer manner; for instance, they exhibit fewer concerns on labour-management relations and retirement benefits and higher strength on no-layoff policy and employee involvement. This is in line with Yonker (2017a), who finds that home CEOs are significantly less likely to lay off employees than their non-local peers. Second, regarding corporate governance, home CEOs appear to have fewer concerns on high compensation. Finally, with regards to product, they exhibit fewer concerns to spend on marketing and advertising products.

**Table 3. 3 Evidence from Decomposition of CSR Scores**

This table presents the results of OLS regressions for the effect of home CEOs on CSR activities by (1) decomposing CSR scores into its seven categories; and (2) by further decomposing the categories in which there is a significant effect of Home CEO on CSR into their subcategories of concerns and strengths. Particularly, in Panel A, the dependent variables are CSR scores from seven different categories (community, diversity, employee relations, environment, human rights, product, and corporate governance). In Panel B, the dependent variables are CSR scores for subcategories (concern scores and strength scores) in employee relations, product, and corporate governance, respectively. In Panel B, only coefficient estimates of the main variable of interest (home CEO) are reported. Home CEO is a dummy variable that is equal to one if a CEO’s home state is the same as the state of the firm’s headquarters, and zero otherwise. The definitions of all other variables are provided in the Appendix A Table A1. All models include the CEO and firm control variables used in Table 3.2; they also include year, industry, and state fixed effects, whose coefficients are suppressed, and are based on calendar year, 2-digit SIC industry classification, and state dummies, respectively. T-statistics, which are based on heteroscedasticity–robust standard errors clustered by both firm and year, are reported in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

<b>Panel A: CSR Score by Category</b>							
	<b>Community</b>	<b>Diversity</b>	<b>Employee Relations</b>	<b>Environment</b>	<b>Human Rights</b>	<b>Product</b>	<b>Corporate Governance</b>
	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>	<b>(6)</b>	<b>(7)</b>
Home CEO	0.005 (1.460)	-0.003 (-0.470)	0.022*** (2.822)	0.003 (1.036)	0.001 (0.697)	0.008* (1.896)	0.018*** (3.194)
Constant	0.630*** (9.866)	-0.046 (-0.419)	0.863*** (6.635)	0.589*** (10.780)	0.399*** (16.132)	0.891*** (12.189)	1.549*** (10.096)
CEO & Firm Control Variables	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
State Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,299	11,299	11,299	11,299	11,299	11,299	11,299
Adjusted R <sup>2</sup>	0.154	0.292	0.160	0.279	0.135	0.270	0.207

**Continued Next Page**

**Panel B: Home CEO Estimates for Concerns and Strengths Subcategories of Employee Relations, Product, and Corporate Governance Categories**

<b>Employee Relations</b>		<b>Product</b>		<b>Corporate Governance</b>	
<b>Concerns</b>		<b>Concerns</b>		<b>Concerns</b>	
Union Relations	-0.009 (-1.202)	Product Quality & Safety	-0.004 (-0.323)	High Compensation	-0.051*** (-2.669)
Employee health & Safety	-0.007 (-0.735)	Marketing & Advertising	-0.024** (-2.171)	Ownership Concern	0.000 (0.058)
Workforce Reduction	-0.007 (-0.864)	Anticompetitive Practices	-0.009 (-0.853)	Accounting Concerns	-0.009 (-0.869)
Retirement Benefits Concern	-0.029* (-1.740)	Other Concerns	0.002 (0.323)	Reporting Quality	-0.000 (-0.165)
Labor-Management Relations	-0.020*** (-2.476)			Political Accountability	-0.001 (-0.299)
<b>Strengths</b>		<b>Strengths</b>		<b>Strengths</b>	
Union Relations	-0.000 (-0.016)	Quality	0.002 (0.180)	Public Policy Concern	-0.006 (-1.454)
No-Layoff Policy	0.036*** (2.734)	R&D, Innovation	0.013 (1.408)	Other Concerns	-0.004 (-0.473)
Cash Profit Sharing	-0.004 (-0.340)	Social Opportunities	-0.000 (-0.031)		
Employee involvement	0.027* (1.682)	Other Strengths	-0.002 (-0.609)	Limited Compensations	0.007 (0.725)
Retirement Benefits Strength	0.005 (0.567)			Ownership Strength	0.001 (0.800)
Employee health & Safety	-0.007 (-0.582)			Reporting Quality	0.005 (0.549)
Other Strength	0.021** (2.063)			Political Accountability	0.002 (0.420)
				Public Policy Strength	-0.005 (-1.286)
				Other Strengths	0.001 (0.270)

### **3.4.3 The role of CEO home connections**

Previous literature shows that the impact of home CEOs strengthens with a higher connection between CEOs and their hometown (see, e.g., Yonker, 2017a; Jiang, Qian, and Yonker, 2019). Thus, to further validate that home bias is the underlying mechanism for the positive relation between home CEOs and CSR activities, this chapter perform another test which is based on CEO home connections. If home bias is indeed the driving force behind such positive relations, then this chapter would expect the effect to be more pronounced for home CEOs with stronger home ties. Such CEOs would have a higher incentive to invest more in CSR, as these CEOs are the ones who are more likely to be personally connected with the society where their socially responsible corporate decision-making would be directed to.

This study uses two variables to capture home connections as in Pool, Stoffman, and Yonker (2012) and Jiang, Qian, and Yonker (2019). The first one is the variable “attended home college or university”, which is a dummy that is equal to one if the CEO was educated in a home state college or university, and zero otherwise. The second variable to capture home ties is “long home tenure”, which is a dummy that is equal to one if the number of years that the CEO lived in her home state is greater than the sample median, and zero otherwise.

**Table 3. 4 The Role of CEO Home Connections**

This table presents the results of OLS regressions for the effect of home CEOs on CSR activities for CEOs who have relatively stronger ties to their home states. The dependent variable is the CSR score, which is the sum of adjusted CSR scores calculated from seven CSR categories (community, diversity, employee relations, environment, human rights, product, and corporate governance). Home CEO is a dummy variable that is equal to one if a CEO’s home state is the same as the state of the firm’s headquarters, and zero otherwise. The two variables used to proxy for home connection are: (1) attended home college or university, which is a dummy that is equal to one if the CEO was educated in a home state college or university, and zero otherwise; and (2) long home tenure, which is a dummy that is equal to one if the number of years that the CEO lived in her home state is greater than the sample median, and zero otherwise. The definitions of all other variables are provided in Appendix A Table A1. All models include the CEO and firm control variables used in Table 3.2; they also include year, industry, and state fixed effects, whose coefficients are suppressed, and are based on calendar year, 2-digit SIC industry classification, and state dummies, respectively. T-statistics, which are based on heteroscedasticity–robust standard errors clustered by both firm and year, are reported in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

	CSR Score	
	(1)	(2)
Home CEO	0.012 (0.444)	0.008 (0.194)
Attended Home College or University	-0.066*** (-3.356)	
Long Home Tenure		-0.038 (-1.337)
Home CEO × Attended Home College or University	0.080** (2.264)	
Home CEO × Long Home Tenure		0.090* (1.878)
Constant	2.500*** (8.191)	2.354*** (8.219)
CEO & Firm Control Variables	Yes	Yes
Year Fixed Effects	Yes	Yes
Industry Fixed Effects	Yes	Yes
State Fixed Effects	Yes	Yes
Observations	9,236	9,168
Adjusted R <sup>2</sup>	0.175	0.177

Table 3.5 reports the results for the analysis on CEO home connections. This study augments the baseline model (3) in Table 3.2, by interacting home CEOs with the two CEO home connection variables. In Specification (1), this study interacts home CEOs with “attended home college or university”. this chapter find that the interaction variable carries a positive and statistically significant (at the 5% level) coefficient, which suggests that home CEOs with stronger home connection ties engage in more CSR activities. Additionally, the variable “attended home college

or university” has a negative relation with CSR; that is interpreted as non-home CEOs who attended college or university in their home state, invest less in CSR. This is the mirror image of the main interaction variable of interest, as non-home CEOs who have stronger ties to their home states, perform less CSR activities for firms which are located outside their home state. In specification (2), this chapter interact home CEOs with “long home tenure”. Again, this chapter find that the interaction variable carries a significantly positive coefficient at conventional levels, reinforcing the argument that home bias leads home CEOs to enhanced CSR activity.

#### **3.4.4 Within-firm effect of CEO home bias: Evidence from CEO changes**

In this section, this study examines the within-firm effect of CEO home bias on CSR activities by looking into CEO changes. this chapter identify 749 CEO changes in the sample and classify them into 4 types: from non-home CEO to home CEO, from home CEO to non-home CEO, from home CEO to home CEO, and from non-home to non-home CEO. If home bias drives the result, then this chapter would expect the effect to show up particularly in the group of firms which has replaced a non-home CEO with a home CEO.

To this end, in Panel A of Table 3.6, this chapter implement a difference-in-difference approach, in which the *treated* firm is a firm that changes *from a non-home CEO to a home CEO* in year  $t$ . The aim is to assess, by relying on a double differencing, whether the change in CEO between the control period ( $t-1$ ) and post-

treatment period ( $t+1$ ) is different between treated firms (i.e., firms with a home CEO) and control firms (i.e., firms with a non-home CEO). To avoid noise in the analysis, this study removes firms which have different CEOs in the treatment year  $t$  and post-treatment year ( $t+1$ ). this chapter also control for year dummies, industry fixed effects, and state fixed effects, as well as for changes in CEO and firm characteristics (the same ones used in the baseline models).

In specification (1), the treatment group includes firms which have replaced a non-home CEO with a home CEO and the control group is *all* other observations in the sample; these are firms with no change of CEOs, and firms which have all other three types of CEO changes (i.e., a change from a home CEO to a non-home CEO, a change from a non-home CEO to a non-home CEO, and a change from a home CEO to a home CEO). this chapter find that firms that replaced a non-home CEO with a home CEO experience an increase in CSR score than those in the control group and the coefficient is statistically significant at the 1% level. Similar results are obtained in the next specifications with different control groups. Particularly, in specification (2), the control group is firms which have the same type of CEOs (home or non-home) at year  $t-1$  (including firms with change and no change of CEOs in year  $t$ ). In specification (3), the control group is firms which have the same type of CEOs (home or non-home) at year  $t-1$  (excluding firms with change of CEOs in year  $t$ ). In specification (4), the control group is firms which have all other three types of CEO changes (excluding firms with no change of CEOs in year  $t$ ). Finally, in specification (5), the control group is firms which have the same type of CEO in year  $t-1$  (excluding firms with no change of CEOs in year  $t$ ). The last two specification (i.e., specifications (4) and (5)) are the most demanding ones as they

are based on a smaller number of observations, implying lower noise in the analysis. In all regressions, this essay finds that firms which replace a non-home CEO with a home CEO experience a significant increase in CSR activities than those in the control group. Particularly in specifications (4) and (4), the economic magnitude of the home CEO coefficient is very similar (i.e., 0.060 and 0.059, respectively) to the ones obtained in the baseline panel regressions, providing robust evidence from a setting of within-firm change of CEOs.

**Table 3. 5 Evidence from CEO Changes**

This table presents the results of OLS regressions for the effect of changes of CEOs on CSR activities. The dependent variable is  $\Delta\text{CSR}$  which represents the change in CSR score between the year  $t-1$  and year  $t+1$ , with year  $t$  being the year of the change of CEO. The CSR score is the sum of adjusted CSR score calculated from seven CSR categories (community score, diversity score, environment score, human rights score, employee relations score, products score, and corporate governance score). In Panel A, the main independent variable of interest is the change from a non-home CEO to a home CEO. In Panel B, the main independent variable of interest is the change from a home CEO to a non-home CEO. In Panel C, the main independent variable of interest is the change from a home CEO to another home CEO. In Panel D, the main independent variable of interest is the change from a non-home CEO to another non-home CEO. In specification (1) of each panel, the control group is all other observations in the sample (i.e., firms with no change of CEOs, and firms which have all other three types of CEO changes). In specification (2) of each panel, the control group is firms which have the same type of CEOs (home or non-home) at year  $t-1$  (including firms with change and no change of CEOs in year  $t$ ). In specification (3) of each panel, the control group is firms which have the same type of CEOs (home or non-home) at year  $t-1$  (excluding firms with change of CEOs in year  $t$ ). In specification (4), the control group is firms which have all other three types of CEO changes (excluding those with no change of CEOs in year  $t$ ). In specification (5), the control group is firms which have the same type of CEO in year  $t-1$  (excluding firms with no change of CEOs in year  $t$ ). All models include the differences of CEO and firm control variables between year  $t-1$  and year  $t+1$  used in Table 3.2; they also include year, industry, and state fixed effects, whose coefficients are suppressed, and are based on calendar year, 2-digit SIC industry classification, and state dummies, respectively. T-statistics, which are based on heteroscedasticity-robust standard errors clustered by both firm and year, are reported in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

**Panel A: From Non-Home CEO to Home CEO**

	$\Delta\text{CSR} (t-1, t+1)$				
	(1)	(2)	(3)	(4)	(5)
From Non-Home to Home	0.070*** (2.353)	0.075*** (2.760)	0.093*** (2.400)	0.060* (1.873)	0.059* (1.658)
Constant	-0.413*** (-9.260)	-0.177*** (-4.786)	0.014 (0.226)	-0.007 (-0.072)	-0.033 (-0.555)
$\Delta$ (CEO & Firm Control Variables)	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes	Yes
Observations	7,062	4,760	4,345	749	530
Adjusted R <sup>2</sup>	0.037	0.041	0.039	0.023	0.017

Continued Next Page

**Panel B: From Home CEO to Non-Home CEO**

	$\Delta\text{CSR } (t-1, t+1)$				
	(1)	(2)	(3)	(4)	(5)
From Home to Non-Home	-0.007 (-0.250)	-0.003 (-0.077)	-0.011 (-0.194)	-0.013 (-0.302)	-0.064 (-0.826)
Constant	-0.410*** (-9.102)	-0.062 (-1.104)	-0.178 (-0.849)	0.067 (0.936)	-0.248 (-0.386)
$\Delta$ (CEO & Firm Control Variables)	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes	Yes
Observations	7,062	2,302	2,223	749	219
Adjusted R <sup>2</sup>	0.037	0.027	0.025	0.018	-0.096

**Panel C: From Home CEO to Home CEO**

	$\Delta\text{CSR } (t-1, t+1)$				
	(1)	(2)	(3)	(4)	(5)
From Home to Home	0.004 (0.102)	0.004 (0.082)	0.04 (0.637)	0.026 (0.562)	0.064 (0.826)
Constant	-0.411*** (-8.958)	-0.062 (-1.310)	0.621 (.)	0.095 (0.953)	-0.312 (-0.472)
$\Delta$ (CEO & Firm Control Variables)	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes	Yes
Observations	7,062	2,302	2,162	749	219
Adjusted R <sup>2</sup>	0.037	0.027	0.026	0.019	-0.096

**Panel D: From Non-Home CEO to Non-Home CEO**

	$\Delta\text{CSR } (t-1, t+1)$				
	(1)	(2)	(3)	(4)	(5)
From Non-Home to Non-Home	-0.01 (-0.694)	-0.017 (-0.860)	0.021 (0.953)	-0.039 (-1.487)	-0.059* (-1.658)
Constant	-0.410*** (-9.127)	-0.169*** (-4.189)	-0.11 (.)	0.104 (1.566)	0.026 (0.441)
$\Delta$ (CEO & Firm Control Variables)	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes	Yes
Observations	7,062	4,760	4,645	749	530
Adjusted R <sup>2</sup>	0.037	0.039	0.041	0.022	0.017

In Panels B to D, this chapter examine all other combinations of changes of CEOs in a firm. In particular, the main independent variable of interest is: (1) in Panel B, the *change from a home CEO to a non-home CEO*; (2) in Panel C, the *change from a home CEO to another home CEO*; and (3) in Panel D, the *change from a non-*

*home CEO to another non-home CEO*. this chapter are not able to uncover any significant relation between a within-firm change of a CEO and CSR change apart from a *decrease* in CSR activity when a non-home CEO is replaced by another non-home CEO in specification (5) of Panel D. Overall, the results from the within-firm analysis support the notion that home CEOs engage in more CSR activities.

### **3.4.5 Dealing with endogeneity**

A major concern with the causal interpretation of the relation between home CEOs and CSR activities is the endogeneity problem, which arises from two basic sources. The first is reverse causality. In the context of the study, it is possible that boards appoint CEOs with specific characteristics (e.g., CEOs with home bias) that best fit their desired CSR strategy, which creates a matching issue. The second is *omitted variables bias*, which refers to unobservable characteristics that are related with firm selection of home CEOs but are also correlated with CSR activities. this chapter deal with both issues below.

#### *3.4.5.1 Propensity score matching (PSM)*

To solve the matching issue and ensure that the results are not driven by observable characteristics which induce home CEOs to invest in CSR, this chapter implement a propensity score matching (PSM) analysis as in Drucker and Puri (2005). This study match firms that hire home CEOs (treated) with firms exhibiting analogous characteristics but do not have a home CEO (control). The treatment effect from the PSM estimation is the difference between the treated sample and the matched control sample, as measured by the home CEO coefficient. In order to match firms,

this study calculate a one-dimensional propensity score, which is a function of observable characteristics used in the baseline model (3) of Table 3.2 plus two more location-level variables. These are: (1) the state GDP per capita, which is defined as state-level GDP divided by the state population; and (2) the state unemployment rate. The rationale for including these two location-level variables is that one could argue that firms being located in richer states or states with lower unemployment rate are placed in states with better economic conditions, which might offer them greater flexibility to spend more in CSR. This study implements a one-to-one (i.e., nearest neighbour) matching estimator with replacement.<sup>29</sup> To ensure the adequacy of the matching estimation method, this chapter require that the absolute difference in propensity scores between pairs does not exceed 0.01.

Table 3.7 reports the PSM results. Panel A reports the difference-in-means of the independent variables for firms with home CEOs versus firms with non-home CEOs for both the unmatched and matched samples, respectively. This diagnostic test aims to ensure that the PSM implementation removes sample selection biases (related to observable firm characteristics). The *t*-statistics of the corresponding difference-in-means indicate that many variables differ significantly for the unmatched sample. As expected, however, all the considered independent variables are comparable for the matched sample which indicates that the PSM process removes obvious sample selection biases. Using the matched sample in Panel B, this study re-run the regression with the same control variables and fixed effects as

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<sup>29</sup> For robustness, this chapter also use 30-nearest-neighbors, 50-nearest-neighbors, and Gaussian and Epanechnikov kernel-based matching estimators. This thesis finds similar results with these different estimators.

the baseline model (3) of Table 3.2. The results remain robust reaffirming that selection on observable characteristics does not bias the positive impact of home CEO on CSR score.

**Table 3. 6 Propensity Score Matching**

This table presents the results on propensity score matching (PSM) analysis. Panel A presents the results for the difference-in-means between the home CEOs and non-home CEOs subsamples together with the corresponding t-statistics before and after the matching. Panel B re-estimates the baseline model (Table 3.2, column 3) using the PSM matched sample. The propensity score is estimated as a probit function of female CEO, CEO age, CEO age<sup>2</sup>, CEO tenure, CEO tenure<sup>2</sup>, CEO ownership, size, ROA, leverage, market-to-book ratio, GDP per capita at state-level, and unemployment rate at state-level. The definitions of all variables are provided in Appendix A Table A1. this chapter match each observation with a home CEO with an observation with a non-home CEO using the nearest neighbor (i.e., one-to-one matching) with replacement subject to caliper (i.e., maximum difference in propensity score) of 0.01 using psmatch2, a STATA function written by Leuven and Sianesi (2003). this chapter also did exact matching by industry and year. T-statistics, which are based on heteroscedasticity-robust standard errors clustered by both firm and year, are reported in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

	Pre-match				Post-match			
	Home CEO	Non-Home CEO	Difference	T-Stats	Home CEO	Non-Home CEO	Difference	T-Stats
Female CEO	0.022	0.018	0.003	1.184	0.021	0.024	-0.003	-0.678
CEO Age	55.218	55.861	-0.642***	-4.480	55.451	55.612	-0.162	-0.777
CEO Age <sup>2</sup>	3,106	3,167	-61.723***	-3.843	3129.926	3148.454	-18.528	-0.793
CEO Tenure	9.526	7.345	2.181***	15.306	8.558	8.684	-0.126	-0.604
CEO Tenure <sup>2</sup>	158.077	95.206	62.871***	14.807	128.104	132.024	-3.920	-0.623
CEO Ownership	2.574	1.505	1.069***	9.646	2.139	2.258	-0.119	-0.718
Size	7.876	8.108	-0.232***	7.823	7.955	7.911	0.044	1.068
ROA	0.049	0.044	0.005*	1.891	0.048	0.045	0.003	0.786
Leverage	0.211	0.216	-0.005	-1.522	0.214	0.213	0.001	0.152
Market-to-Book	3.162	3.466	-0.304	-0.936	3.286	3.385	-0.099	-0.207
State GDP per Capita	4.655	4.737	-0.082***	-5.070	4.682	4.694	-0.012	-0.586
State Unemployment Rate	5.708	5.663	0.046	1.359	5.721	5.722	-0.001	-0.030
Observations	3,357	7,742			2,492	2,634		

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**Panel B. Regression with PSM Matched Sample**

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	<u>CSR Score</u>
Home CEO	0.060*** (3.634)
Constant	1.629*** (4.184)
CEO & Firm Control Variables	Yes
Year Fixed Effects	Yes
Industry Fixed Effects	Yes
State Fixed Effects	Yes
Observations	5,126
Adjusted R <sup>2</sup>	0.166

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#### *3.4.5.2 Two-stage instrumental variable (IV) analysis*

To address the possibility that an omitted variable bias drives the results, this chapter perform a two-stage instrumental variable (IV) analysis (2SLS). Such an approach requires an instrumental variable that is correlated with the choice of home CEOs to manage the firm but is uncorrelated with CSR activities. To this end, this chapter uses the “long home tenure” variable as an instrument for firm’s decision to select a home CEO. As discussed above, long home tenure is a dummy that is equal to one if the number of years that the CEO lived in her home state is greater than the sample median, and zero otherwise. It can be plausibly argued that firms are more likely to select home CEOs with longer home tenure as this would provide them with a comparative advantage when managing the firm, relative to CEOs who have left their home state for many years and have possibly lost track of the regional needs, rules and requirements. In particular, home CEOs with longer experience gained from the years lived in their home state are more likely to have a better knowledge and understanding of the customers, suppliers, employees, laws, tax regulations, and generally, the environment where the firm operates in their home state. Hence, they are more likely to be appointed as CEOs by local firms, satisfying the relevance requirement of instrumental variables. At the same time, how many years a CEO lived in her home state is less likely to be correlated with corporate social responsibility decisions, satisfying the exclusion condition of instrumental variables. In support of the intuition regarding the latter prediction, this chapter find an insignificant relation between “long home tenure” and “CSR score” in specification (2) of Table 3.5.

To perform the IV analysis, in the first stage (specification (1) of Table 3.8), this chapter regress the variable “home CEO” on “long home tenure” as well as on all other CEO- and firm-level control variables used in the previous analysis. This essay finds a strong positive relation between “long home tenure” and “home CEO”; specifically, the “long home tenure” coefficient is significant at the 1% level providing an initial indication that the instrument is appropriate. Importantly, this chapter find that the Kleibergen–Paap rk Wald F statistic for the weak identification test is comfortably higher (1,746.13) than the critical value prescribed by Stock and Yogo (2002) (i.e., LIML Size of Nominal 10% Wald, that is 16.38 in the case) and satisfies the relevance condition, allowing us to reject the null of weak identification. In the second stage (specification (2)), this chapter run the same regression as in the baseline model (3) of Table 3.2 where the “instrumented home CEO” is the main variable of interest. This essay finds that the significantly positive relation between the instrumented “home CEO” and “CSR score” remains with a coefficient that is almost identical to the baseline model (3) of Table 3.2. This result, combined with the extensive set of controls, helps alleviate endogeneity concerns and confirms the robustness of the finding that home CEOs engage in more CSR activities.

**Table 3. 7 Two-Stage Instrumental Variable (IV) Analysis**

This table presents the results of a two-stage instrumental variable (IV) regression analysis. In the first stage the dependent variable takes the value of one for a home CEO, and zero otherwise. Home CEO is a dummy variable that is equal to one if a CEO's home state is the same as the state of the firm's headquarters, and zero otherwise. The instrument used in the first stage regression is the Long Home Tenure, which is a dummy variable that is equal to one if the number of years that the CEO lived in her home state is greater than the sample median, and zero otherwise. The instrumented home CEO is then used in the second-stage regression, where the dependent variable is the CSR score, which is the sum of adjusted CSR scores calculated from seven CSR categories (community, diversity, employee relations, environment, human rights, product, and corporate governance). The definitions of all variables are provided in the Appendix A Table A1. All models include the CEO and firm control variables used in Table 3.2; they also include year, industry, and state fixed effects, whose coefficients are suppressed, and are based on calendar year, 2-digit SIC industry classification, and state dummies, respectively. T-statistics, which are based on heteroscedasticity-robust standard errors clustered by both firm and year, are reported in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

	First Stage	Second Stage
	Home CEO	CSR
	(1)	(2)
Long Home Tenure	0.718*** (41.787)	
Instrumented Home CEO		0.052*** (2.601)
Female CEO	-0.055 (-0.916)	0.142*** (2.333)
CEO Age	-0.045*** (-5.207)	-0.010 (-0.949)
CEO Age <sup>2</sup>	0.000*** (4.347)	0.000 (0.863)
CEO Tenure	0.008*** (4.015)	-0.000 (-0.160)
CEO Tenure <sup>2</sup>	-0.000 (-1.377)	0.000 (0.005)
CEO Ownership	0.003* (1.912)	0.002* (1.682)
Size	-0.021*** (-4.252)	-0.014 (-1.127)
ROA	0.0759* (1.916)	0.382*** (4.708)
Leverage	0.029 (0.760)	-0.090* (-1.793)
Market-to Book	-0.000 (-0.076)	0.000 (1.312)
Year Fixed Effects	Yes	Yes
Industry Fixed Effects	Yes	Yes
State Fixed Effects	Yes	Yes
Kleibergen-Paap rk Wald F-test	1,746.13	
LIML size of nominal 10% Wald	16.38	
Observations	9,168	9,168
Adjusted R <sup>2</sup>	0.679	0.190

### **3.4.6 Excluding the corporate governance category and controlling for weak corporate governance**

Prior literature shows that home CEOs exhibit home bias when corporate governance is weak.<sup>30</sup> According to the agency theory, the CEO is hired to act as an agent for shareholders to maximize the firm value. However, if the CEO has a strong home bias, they may be more likely to prioritize the interests of their hometown over those of the company and its shareholders. For example, the CEO may allocate resources or investments to their hometown or personal network, even if it is not the most profitable or efficient use of those resources (e.g., Yonker, 2017a). In this case, corporate governance should be a mechanism to discipline the CSR activities induced by CEOs' home bias.

To address the issue that the findings are a pure corporate governance effect, this study take two actions. In addition to controlling for corporate governance as in Deng, Kang, and Low (2013), this chapter remove the corporate governance category from the CSR score. As a result, the analysis is clean from corporate governance effects on both sides of the regression equation. Such exercise, along with the finding from CSR score decomposition that employee relations and product are also two significant categories on social decision-making of home CEOs, should eliminate concerns that corporate governance is the main mechanism behind the results.

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<sup>30</sup> For example, Yonker (2017a) shows that home CEOs favor their hometown labor when corporate governance is weak.

To elaborate on the argument above, this chapter uses the CSR score excluding the corporate governance component as the dependent variable in this analysis. This chapter also includes the same controls used in previous analysis plus the following three proxies to control for weak corporate governance: (1) Entrenchment index (E-index) as in Bebchuk, Cohen, and Ferrell (2009). The entrenchment index is the sum of binary variables concerning the following provisions: (i) classified boards; (ii) limitations to shareholders' ability to amend the bylaws; (iii) supermajority voting for business combinations; (iv) supermajority requirements for charter amendments; (v) poison pills; and (vi) golden parachutes. A high E-index value represents strong managerial power indicating weak corporate governance. This essay defines *High E-index* as a dummy variable that is equal to one if a firm has an E-index higher than the sample median, and zero otherwise; (2) *Low Board Independence* as in Dahya, McConnell, and Travlos (2002). This is a dummy variable that takes the value of one if the proportion of independent directors in the board of a firm is lower than the sample median, and zero otherwise; and (3) the variable *CEO is Chairman*. This is a dummy variable that is equal to one if the CEO also acts as the Chairman in the board, and zero otherwise (Dahya, McConnell, and Travlos, 2002).

**Table 3. 8 Excluding Corporate Governance Category from CSR Score and Controlling for Weak Corporate Governance**

This table presents the results of OLS regressions for the effect of home CEOs on CSR activities controlling for corporate governance. The dependent variable is the CSR score, which is the sum of adjusted CSR scores calculated from five CSR categories (community, diversity, employee relations, environment, human rights, and product), i.e., it does not include the corporate governance category. Home CEO is a dummy variable that is equal to one if a CEO's home state is the same as the state of the firm's headquarters, and zero otherwise. The three variables used to proxy for poor corporate governance are: (1) high entrenchment index (E-index); (2) low board independence; and (3) CEO is Chairman. High E-Index is a dummy variable that is equal to one if a firm has an E-Index higher than the sample median, and zero otherwise. Low board independence is a dummy variable that takes the value of one if the proportion of independent directors in the board of a firm is lower than the sample median, and zero otherwise. CEO is Chairman is a dummy variable that is equal to one if the CEO acts also as the Chairman in the board, and zero otherwise. The definitions of all other variables are provided in Appendix A Table A1. All models include the CEO and firm control variables used in Table 3.2; they also include year, industry, and state fixed effects, whose coefficients are suppressed, and are based on calendar year, 2-digit SIC industry classification, and state dummies, respectively. T-statistics, which are based on heteroscedasticity-robust standard errors clustered by both firm and year, are reported in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

	CSR Score (Corporate Governance Excluded)		
	(1)	(2)	(3)
Home CEO	0.047*** (2.706)	0.048** (2.001)	0.043*** (2.383)
High E-Index	0.019 (0.859)		
Low Board Independence		0.012 (0.749)	
CEO is Chairman			-0.003 (-0.170)
Home CEO × High E-Index	-0.047 (-1.460)		
Home CEO × Low Board Independence		-0.029 (-1.151)	
Home CEO × CEO is Chairman			-0.008 (-0.419)
Constant	1.413*** (3.745)	1.232*** (4.410)	1.709*** (6.787)
CEO & Firm Control Variables	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes
Observations	5,040	8,704	11,299
Adjusted R <sup>2</sup>	0.193	0.202	0.187

Table 3.9 reports the results. Specification (1) includes the *High E-index* and the interaction variable of *High E-index* with home CEO. Accordingly, specifications (2) and (3) include the *Low Board Independence* and *CEO is Chairman* variables, respectively, as well as the interaction variables of *Low Board Independence* and

*CEO is Chairman*, respectively, with home CEO. Removing corporate governance from the left-hand side variable and controlling for weak corporate governance on the right-hand side of the regression equation, this chapter find that firms with home CEOs are associated with higher CSR score at better than 5% significance level in all three specifications. Additionally, none of the interaction variables carries a significant coefficient; this suggests that regardless of the strength of governance in the firm, CSR activities of home CEOs are similar, i.e., it is not poor corporate governance what induces home CEOs to engage in CSR activities. Additionally, such finding indicates that agency reasons are less likely to be the underlying mechanism behind CSR activities of home CEOs.

### **3.4.7 Robustness checks**

In Table 3.10 this chapter perform several sensitivity tests to check the robustness of the findings.

#### *3.4.7.1 Controlling for firm fixed effects*

Fee, Hadlock, and Pierce (2013) argue that manager effects can only be identified around turnover events, which do not occur randomly and even if they do, the selection of incoming managers is endogenous and will likely reflect firm/board preferences. They provide evidence of managerial style effects only for firms with access to deep executive labour pools following endogenous CEO turnover. They interpret this finding as change-seeking boards selecting managers with characteristics that will deliver the board's desired new policies. While in Section 3.4 this study has performed an analysis based on CEO changes and provided

evidence of home bias, this chapter are uncertain whether CEO turnover was endogenous or exogenous. An alternative approach to test whether the idiosyncratic styles of managers affect CSR within firms is to use a firm fixed effects model. Some firms may have more of a pro-CSR culture compared to other firms, for reasons that are challenging to econometrically identify in the empirical analysis other than through firm fixed effects. A firm fixed effects model allows us to control for time-invariant unobservable firm-specific variation that may be related to a specific firm's CSR decision-making, i.e., it captures differences in CSR activities between home and non-home CEOs within the same firm during the same year. This way this chapter are able to cleanly disentangle CEO from firm fix effects without relying on "CEO change" events for identification.

Specification (1) of Table 3.10 presents the estimates for the firm fixed effects model. Controlling for firm fixed effects, this study still finds a significantly positive relation between firms with home CEOs and CSR score at the 10% level.<sup>31</sup> The lower statistical significance in this specification is not particularly surprising given that the effect is identified from a small number of CEO changes (approximately 6.63% of the total sample firm-year observations). Additionally, this model specification provides further support to the results on CEO changes within a firm, without relying on CEO turnover for identification, reducing the concern of the Fee, Hadlock, and Pierce (2013) selection critique.

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<sup>31</sup> This thesis does not include state fixed effects in specification (1) because firm fixed effects perfectly capture the variation of state fixed effects.

#### *3.4.7.2 Using different industry classification*

In specification (2) this chapter use the Fama and French–48 industry classification (Fama and French, 1997) to define industries instead of the two–digit Standard Industrial Classification (SIC) codes. This essay obtains similar results which ensure that the previous findings are not affected by the definition of industry fixed effects used in the analysis.

#### *3.4.7.3 Removing founder CEOs*

Prior literature (see, e.g., Wu et al., 2015) has documented that firms with founder CEOs are associated with greater engagement in corporate social responsibility activities. To address this issue, this chapter remove founder CEOs in specification (3).<sup>32</sup> The results remain unaltered.

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<sup>32</sup> This thesis thanks Rüdiger Fahlenbrach for sharing data on founder CEOs.

**Table 3. 9 Further Robustness Check**

This table presents the results of OLS regressions for the effect of home CEOs on CSR activities. The dependent variable is the CSR score, which is the sum of adjusted CSR scores calculated from seven CSR categories (community, diversity, employee relations, environment, human rights, product, and corporate governance). Home CEO is a dummy variable that is equal to one if a CEO's home state is the same as the state of the firm's headquarters, and zero otherwise. Specification (1) presents the estimates of a model with firm fixed effects. Specification (2) uses Fama-French 48 industry classification for industry fixed effects rather than 2-digit SIC industry classification. Specification (3) removes observations in which the CEO is also the founder of the firm. Specification (4) removes observations in which the CEO has an MBA or a master's degree. Specification (5) removes observations in which the CEO was born in one of the Top 3 birth states, New York, California, and Illinois. Specification (6) includes an additional control variable, Republican CEO, which is a dummy variable that is equal to 1 if the political preference of the CEO is Republican. Specification (7) includes an additional control variable, the Size-Age Index (SA Index), which measures firms' financial constraints as in Hadlock and Pierce (2010). The definitions of all other variables are provided Appendix A Table A1. All models include the CEO and firm control variables used in Table 3.2; they also include year, industry, and state fixed effects, whose coefficients are suppressed, and are based on calendar year, 2-digit SIC industry classification (apart from specification (2) where this chapter use the Fama-French 48 industry classification), and state dummies, respectively. T-statistics, which are based on heteroscedasticity-robust standard errors clustered by both firm and year, are reported in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

	<b>Firm Fixed Effects</b>	<b>Fama-French 48</b>	<b>Remove Founder CEOs</b>	<b>Remove CEOs with MBA or Master's Degree</b>	<b>Remove Top 3 Birth States</b>	<b>Republican CEO Control</b>	<b>Financial Constraint Control</b>
	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>	<b>(6)</b>	<b>(7)</b>
Home CEO	0.039* (1.717)	0.053*** (3.555)	0.054*** (2.836)	0.058*** (3.998)	0.047*** (2.583)	0.052*** (3.454)	0.052*** (3.493)
Republican CEO						-0.009 (-0.493)	
SA Index							-0.022 (-0.236)
CEO & Firm Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	No	No	No	No	No	No
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	No	Yes	Yes	Yes	Yes	Yes	Yes
State Fixed Effects	No	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,226	11,299	6,732	8,872	7,898	10,110	11,299
Adjusted R <sup>2</sup>	0.601	0.16	0.177	0.187	0.195	0.170	0.166

#### *3.4.7.4 Removing CEOs with MBA or master's degree*

To address concerns that higher education might affect CSR engagement of CEOs, this chapter remove observations of firms with CEOs possessing an MBA or other master's degree in specification (4). The results are qualitatively similar.

#### *3.4.7.5 Removing CEOs from top 3 birth states*

Approximately 30% of the CEOs in the sample were born in only three states (i.e., New York, California, Illinois). To eliminate concerns that the results are driven by these specific states which dominate the observations of the “home CEO” variable, this study remove observations with CEOs born in these states. Specification (5) shows that the results remain unchanged.

#### *3.4.7.6 Controlling for CEO political preferences*

Di Giuli and Kostovetsky (2014) find that the CSR score of firms differs significantly based on the political preferences of their CEOs. Particularly, they find that CSR score is higher when firms have Democratic rather than Republican CEOs. To control for the political preferences of CEOs, this study rely on personal political contributions data from Hutton, Jiang, and Kumar (2014). This study create the variable “Republican CEO”, which is a dummy variable that is equal to one if a CEO is identified as a Republican CEO, and zero otherwise. In specification (6), this chapter show that controlling for the political preferences of CEOs does not affect the positive relation between home CEOs and CSR score.

#### *3.4.7.7 Controlling for firm financial constraints*

Hong, Kubik, and Scheinkman (2011) find that financial constraints are negatively correlated with CSR, which suggests that CSR investments are less likely to be undertaken by firms which are in a tight financial condition. To ensure that financial constraints do not capture the effect of the home CEO variable on CSR score, this chapter use the SA index of Hadlock and Pierce (2010) to measure financial constraints in specification (7).<sup>33</sup> This study obtain similar results to the baseline models after controlling for the level of financial constraints in the firm.

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<sup>33</sup> For robustness, this essay also uses the Kaplan and Zingales (1997) KZ index as a measure of financial constraints and obtain similar results.

### **3.5 Do Home CEOs Engage in CSR Activities to Gain from Private Rents? Social Capital and CEO Compensations**

Lins, Servaes, and Tamayo (2017) suggest that firms' corporate social responsibility (CSR) activities generate social capital and trust. In this chapter, this study provide evidence that home CEOs are associated with higher social trust and engage in more CSR activities. Recently, Hoi, Wu, and Zhang (2019) show that social capital is related with lower total and equity compensation; they interpret this result as evidence that social capital mitigates agency costs.<sup>34</sup> If having home CEOs on board represents higher social capital, then this chapter would expect that firms with home CEOs that engage in CSR activities should be associated with lower total and equity compensation. Table 3.11 present the results. Specification (1) presents the results for total compensation and specification (2) for equity compensation. As expected, this essay finds that home CEOs who perform CSR activities receive both lower total and equity compensation. this chapter want to emphasize two conclusions drawn from this result. First, these results suggest that social capital reduces agency costs. Second, it provides evidence that home CEOs do not engage in CSR activities for private rents but to improve stakeholder value.

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<sup>34</sup> As Hoi, Wu, and Zhang (2019) argue, they focus on total and equity compensation because they reflect broad consequences of managerial rent extraction in CEO compensation (e.g., Bertrand and Mullainathan, 2001; Morse et al., 2011).

**Table 3. 10 Home CEO, CSR, and CEO Compensation**

This table presents the results of OLS regressions for the effect of home CEOs on the relation between CSR and CEO compensation. The dependent variable in specification (1) is total compensation (logarithm of one plus total compensation for a CEO during a given year, including salary, bonus, stock options, restricted stocks, and long-term incentive plan value); the dependent variable in specification (2) is equity compensation which is the difference between total compensation and cash compensation (i.e., the sum of bonus and salary). Home CEO is a dummy variable that is equal to one if a CEO's home state is the same as the state of the firm's headquarters, and zero otherwise. The definitions of all other variables are provided in the Appendix A Table A1. All models include year, industry, and state fixed effects, whose coefficients are suppressed, and are based on calendar year, 2-digit SIC industry classification, and state dummies, respectively. T-statistics, which are based on heteroscedasticity-robust standard errors clustered by both firm and year, are reported in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

	<b>Total Pay (1)</b>	<b>Equity Pay (2)</b>
Home CEO	-0.108*** (-3.303)	-0.151* (-1.936)
CSR	-0.106*** (-2.720)	-0.118 (-1.497)
Home CEO × CSR	-0.153** (-2.306)	-0.233* (-1.663)
Cash	0.222* (1.862)	0.218 (0.823)
Capex	-0.367 (-0.949)	0.937 (0.831)
Return	3.330*** (7.441)	4.349*** (6.294)
Return Volatility	-0.090 (-0.243)	-0.751 (-1.061)
CEO & Firm Control Variables	Yes	Yes
Year, Industry, and State FEs	Yes	Yes
Observations	8,027	8,027
Adjusted R <sup>2</sup>	0.513	0.324

## 3.6 Conclusions

This chapter examines whether social trust sourced from CEOs' birthplace affects corporate social responsibility decisions. In particular, this essay finds that CEOs who manage firms headquartered in the states where they were born are subject to home bias which induces them to engage in more CSR. In addition, consistent with the place attachment argument, this chapter shows that CEOs with deeper connections to their home state are the ones with higher CSR score. Such favouritism does not appear to be driven by agency reasons as: (1) the results are not affected by the level of firm corporate governance; and (2) home CEOs who engage in CSR receive lower (total and equity) compensation. Finally, by decomposing CSR score, this chapter finds that employee relations, product and corporate governance are the three main drivers of home corporate executives' CSR agenda. Overall, the results suggest that the idiosyncratic styles of managers impact corporate policies in the form of corporate social responsibility decisions.

The findings support the view that home CEOs would like to maintain their social capital and trust in their hometown. To achieve this, they are motivated to engage more in CSR activities. Additionally, since these CEOs wish to preserve their pre-existing social capital, they are also incentivized to avoid any actions that could jeopardize their standing in their home state. CSR activities done by home CEOs are not driven by agency issues and does not bring CEOs higher compensation.

The relation between CEO home bias and CSR is important because the determinants of CSR policies are still not fully understood. The results imply that

if a firm's social capital helps build stakeholder trust and cooperation, then it pays off for firms to hire home CEOs. Such finding is particularly important to be taken into account by firm boards during the screening process to identify the most suitable CEOs based on a number of different idiosyncratic characteristics.

# Chapter 4 CEO Home Bias and Earnings Management

## 4.1 Introduction

Are there specific CEOs who value their reputational capital more than others? This chapter addresses this question by examining how CEOs' idiosyncratic identity characteristics affect corporate actions which have arguably substantial negative consequences on their reputation if they "are caught" performing them: accrual-based earnings management. Particularly, discretionary accruals have no direct cash flow consequences but are more likely to be scrutinized and detected by auditors and regulators (see Healy, 1985; Guidry, Leone, and Rock, 1999; DeFond and Jiambalvo, 1994; Kasznik, 1999).<sup>35</sup> Taking into account the severe scrutiny on accrual-based earnings management, the objective of this chapter is to examine whether CEOs' reputational capital is associated with (less) earnings management activities.<sup>36</sup> To capture the level of CEOs' reputational capital, this chapter focuses on the emotional ties between the CEOs and their childhood hometowns.

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<sup>35</sup> Cohen, Dey, and Lys (2008) document that, after the passage of SOX, the level of accrual-based earnings management declines, while the level of real activities manipulation increases, consistent with firms switching from the former to the latter as a result of the post-SOX heightened scrutiny of accounting practice.

<sup>36</sup> More recently, some studies focus on real earnings management, which affects cash flows and potentially changes the timing and structure of operational activities (Roychowdhury 2006; Cohen and Zarowin, 2010; Gunny 2010; Irani and Oesch, 2016). However, given the focus of the study on CEOs' reputational capital, real earnings management would be less meaningful. Although the consequences of real earnings manipulation can be economically significant to the firm, it has lower

The birthplace identity effect is grounded in the psychology literature (Proshansky, 1978).<sup>37</sup> Place identity is “a component of personal identity, a process by which, through interaction with places, people describe themselves as belonging to a specific place” (Hernández et al., 2007, p. 311).<sup>38</sup> If an individual becomes the CEO of a firm headquartered in her hometown, her relocation mobility is constrained because she identifies with the hometown where she was born. This is in line with Yonker (2017b) who finds that home CEOs are 20% less likely to experience turnover than non-home CEOs. Given that home CEOs are less attracted by the external executive labour market, they have a stronger motivation to avoid actions which would put their reputation in their home area at stake.

This study conjectures that home CEOs (who are defined as the ones that manage firms headquartered within 100 miles from their birthplace) value their reputational capital more and are less likely to get involved in accrual-based earnings management. This is in line with the economic theory which suggests that managers with significant reputations at stake will not engage in opportunistic rent-seeking behaviour (e.g., Fama, 1980; Kreps, Milgrom, Roberts and Wilson, 1982; Kreps, 1990). In a reputation context, this “efficient contracting” perspective predicts that home CEOs who value their reputation more are less likely to take actions that result in poor discretionary quality. In particular, home CEOs have more to lose, in terms of their own human capital reputation in the area where they are identified

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expected private costs for executives because it has lower likelihood of detection than accrual-based methods (Dechow, Sloan, and Sweeney, 1996).

<sup>37</sup> Please see Gieryn (2000) and Manzo (2003) for a review of this literature.

<sup>38</sup> Place identity forms a key element of an individual’s personal identity (Proshansky, 1978) and is less likely to be an endogenous choice of the CEO because the birthplace is usually chosen by the CEO’s parents.

with, if they make accounting and disclosure choices that result in poor discretionary quality. Hence, the efficient contracting hypothesis predicts that firms managed by home CEOs should be associated with less accrual-based earnings management.

In contrast, the alternative “rent extraction” hypothesis leads to the opposite prediction. In particular, it predicts that home CEOs, who have a greater motivation to continue heading a firm in a specific area (i.e., their hometown), should put more effort in meeting or beating earnings benchmarks and, in doing so, take actions which may worsen discretionary earnings quality. For instance, managers may reduce the quality of accruals to meet earnings targets as failing to do so might prove costly to them. Matsunaga and Park (2001) provide evidence that missing targets are linked to lower cash compensation, and Farrell and Whidbee (2003) show higher rates of job dismissal for managers who fail to meet analysts’ earnings targets. Finally, Graham, Harvey and Rajgopal (2005) find that surveyed executives think that meeting or beating earnings benchmarks enhances the external reputation of their management team. Thus, the rent extraction hypothesis predicts that firms managed by home CEOs should be associated with more accrual-based earnings management due to their willingness to stay close to their hometown.

This study focuses on the universe of non-financial, non-utility firms covered by the Standard & Poor’s Executive Compensation (ExecuComp) database and obtain data on the birthplace origins of their CEOs for the years 1992–2016. This essay finds that home CEOs undertake significantly less accrual-based earnings management in their firms relative to non-home CEOs, controlling for industry,

year, and county, as well as for firm and CEO characteristics. The magnitude of the home CEO effect is economically sizable: firms with a home CEO on board are associated with lower abnormal accruals, which corresponds to 10.4% of one standard deviation. This is consistent with home CEOs caring about their reputation in their childhood hometowns and conducting less accrual-based earnings manipulation.

The results hold when this study examines within-firm changes in CEOs, headquarters relocations, and changes in corporate culture. In particular, the impact of CEO changes on earnings management activities occurs only when there is a change from non-home to home CEOs (less discretionary accruals) or from home to non-home CEOs (more discretionary accruals), not when a home CEO is replaced by another home CEO, or a non-home CEO is replaced by a non-home CEO. Further, the results are robust when this chapter uses a difference-in-differences method to compare changes in earnings management activities surrounding corporate headquarters relocation events that change the level of CEOs' birthplace identity. Finally, this study obtains similar results when this study controls for changes in corporate culture, which indicates that the home CEO effect documented by this study is not simply a proxy of an "entire firm culture effect".

The results are robust to endogeneity issues. This essay finds similar results when this study conducts a propensity score matching (PSM) analysis and matches firms that hire home CEOs with those exhibiting analogous characteristics but are managed by non-home CEOs. The results are also unaltered when this study runs a two-stage instrumental variable (IV) analysis using an instrumental variable, which

captures an individual's hometown board position *prior* to becoming CEO. It is plausible that firms are more likely to select a home CEO who previously acted as a board member of another firm in her home state to exploit potential connections. Hence, this instrument is likely to satisfy the relevance condition. Simultaneously, a CEO who had served as a board member in another firm in her home state is relatively unlikely to be correlated with the *firm's* choice of earnings management practices, satisfying the exclusion condition for instrumental variables. When this study regresses the instrumented home CEO on the measure of earnings management, the results are unchanged, which reduces concerns of an omitted variable bias.

The results are unlikely to be driven by agency motivations because it is not weak corporate governance that induces home CEOs to conduct earnings management activities. Furthermore, there is no evidence of private rents extracted by home CEOs because more earnings management activities are not associated with higher total and equity executive compensation. Finally, firms with home CEOs do not experience any negative impact on their operating performance and firm value when they undertake earnings management activities relative to firms with a non-home CEO. Overall, the CEO birthplace identity effect is not detrimental to firm performance.

The results remain unchanged following a battery of robustness tests. Specifically, they hold after using different measures of home CEOs and earnings management, after including firm fixed effects, after removing the top 3 CEO home counties, after removing highly educated CEOs with MBA or master's degrees, after

removing founder CEOs, and after controlling for CEO political preferences, firm financial constraints, and county-level religiosity.

The study makes several contributions to the literature. First, the study contributes to the home bias literature, which mainly focused on the fields of economics and finance. Prior research in this area finds that CEOs' birthplace bias affects firms' employment policies (Yonker, 2017a), CEO compensation and turnover (Yonker, 2017b), merger and acquisition outcomes (Jiang, Qian, and Yonker, 2019), bank credit allocation (Lim and Nguyen, 2021), CSR activities (Lei et al., 2020), and R&D expenses (Lai, Li, and Yang, 2020). Cornaggia, Cornaggia, and Israelsen (2020) also find that the home bias effect exists when credit analysts rate issuers from their home states. This study brings this fast-growing literature to the accounting discipline by documenting that CEOs' birthplace identity has a real effect on discretionary earnings management activities.

Second, this chapter adds to the earnings management literature which examines determinants of earnings management activities.<sup>39</sup> This chapter extends the scope of this emerging literature by showing an important determinant that systematically affects firms' earnings management activities: CEO geographic origin. The results suggest that a significant portion of earnings management activities is driven by non-monetary emotional reasons, related to CEOs' reputational capital and birthplace identity. The study is most closely related to Francis, Huang, Rajgopal,

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<sup>39</sup> For example, earnings management activities are related to stock price motivation (Bartov, Givoly, and Hayn, 2002; Skinner and Sloan, 2002), reputation improvement with stakeholders (Bowen, Ducharme, and Shores, 1995; Burgstahler and Dichev, 1997), managers' bonus compensation (Healy, 1985; Matsunaga and Park, 2001), bond covenants (Watts and Zimmerman, 1990), and taxes and regulation motivations (Shevlin and Shackelford, 2001).

and Zang (2008) who also examine the effect of CEO reputational capital on discretionary accruals. The difference of Francis et al.'s (2008) paper with this chapter is that they use press-coverage-based proxies to define CEO reputation. Although such proxies rely on how CEOs are perceived by outsiders, press-coverage-based measures are “necessarily noisy and less precise measures” (Malmendier and Tate, 2008, p.38); particularly, media comments may lack objectivity because of media bias or perceptual biases associated with the author of the article portraying the executive (Hill, Kern, and White, 2014). Additionally, limited information might create selection bias. Finally, they are likely to suffer from an endogeneity problem: the reputation of a CEO might simply capture the good performance of the firm or other omitted variables related with how the business press portrays CEOs. On the contrary, the way this study consider reputational capital, and the motivation of CEOs not to damage it, sources from emotional ties between the CEOs and their home communities. Such motivation could be even larger than reputed CEOs; reputed CEOs could still get involved into accrual-based earnings management because they are not geographically constrained in the firm and could relocate even after being identified to get involved into earnings management. Hence, the effect on their reputational capital is “technically” lower.

Finally, the study contributes to the recent debate about the impact of CEOs' birthplace identity on firm performance. For instance, Jiang, Qian and Yonker (2019) show that small and private home-state acquisition deals underperform other small and private deals, and the effect is stronger when corporate governance is weak in the acquiring firm. Distinct from the vast majority of prior studies, this

study documents that earnings management activities undertaken by home CEOs do not deteriorate firm value and performance. This implies that home CEOs are reluctant to manage earnings due to their career concerns and the impact that they might have on reputational capital stemming from their strong desire to stay close to their childhood hometowns.

The remainder of the chapter is organized as follows. Section 4.2 reviews the papers on earnings management studies. Section 4.3 describes the data, the measures of home CEOs and earnings management. Section 4.4 presents the main empirical analyses. Section 4.5 discusses agency explanations. Section 4.6 examines the relation between earnings management activities by home CEOs and long-term firm value and performance. Section 4.7 provides further robustness tests. Section 4.8 concludes the chapter.

## 4.2 Literature Review: Earnings Management

This section reviews the academic papers which study earnings management. This section categorises these studies into three groups: (1) the measurement of earnings management, (2) the motivations of earnings management, and (3) the economic consequences of earnings management.

### 4.2.1 Measure earnings management

The measurement of earnings management includes accruals-based earnings management and real earnings management. Accruals-based measurement involves analysing a company's financial statements to identify accruals that are atypical or inconsistent with the economic fundamentals, i.e., normal accruals. Discretionary accruals can be estimated using various statistical models, such as the Jones model (Jones, 1991), the Modified Jones model (Dechow, Sloan, and Sweeney, 1995), and the Dechow-Dichev model (Dechow and Dichev, 2002). The common feature of these models is that they all use residuals to estimate earnings management. They use a model to predict a company's unmanipulated earnings, and then use the difference between the actual earnings and the predicted unmanipulated earnings as the manipulated earnings.<sup>40</sup>

Roychowdhury (2006) argues that managers can also manipulate real activities rather than only financial reporting to change reported earnings. This can be achieved through various means, such as delaying or accelerating production or

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<sup>40</sup> Chen, Hribar, and Melessa (2018) note that such a residual-based method may lead to biased coefficient and standard errors.

sales, changing R&D strategies, altering SG&A expenses, and selling assets. Real earnings management is typically considered to be more difficult to detect than accrual-based earnings management because it involves manipulating the underlying operating activities of a company (see Cohen, Dey, and Lys, 2008).

#### **4.2.2 Motivations of earnings management**

Engaging in earnings management is risky. Before analysing the motivations of earnings management, the first question to consider is who benefits from the process. First, earnings management could be a way for insiders to deliver manipulated information to outsiders, e.g., analysts, customers, and minority shareholders. Leuz, Nanda, and Wysocki (2003) find that earnings management is lower in countries with higher investor protection, which indicates that insiders use earnings management to protect their benefits. Burgstahler and Dichev (1997) document that firms manipulate earnings to avoid negative earnings. Bartov, Givoly, and Hayn (2002) find that firms that can meet or beat analysts' earnings expectations have a higher return than those cannot meet. Therefore, companies have the incentive to manipulate earnings to meet the analysts' expectations, which is supported by empirical studies (e.g., Payne and Robb, 2000, Dutta and Gigler, 2002).

Second, earnings management could be driven by agency problems between shareholders and managers. CEOs' compensation declines if the company cannot meet the analysts' expectations (Matsunaga and Park, 2001). Bergstresser and Philippon (2006) find that earnings management is more observed in companies that tie CEO compensation and stock and option prices. This finding indicates that

CEOs have incentives to manipulate earnings to protect their compensation. Moreover, Ali and Zhang (2015) find that CEOs have more earnings management during their early tenures, which aims at delivering signals about their ability to the market. Perry and Williams (1994) explore 175 management buyouts during 1981-1988 and find that the management manipulates earnings before their bid for control of the company.

### **4.2.3 Economic consequences of earnings management**

Earnings management first distorts the information delivered to the other market participants by financial reporting. Therefore, earnings management could reduce the stock price informativeness and market efficiency. For instance, Li (2019) document the negative effect of real earnings management on the informativeness of earnings. However, Tucker and Zarowin (2006) find that the stock prices firms with more earnings smoothing contain more information about future earnings. This finding indicates that firms may use earnings management may increase earnings informativeness (see also the model by Sankar and Subramanyam, 2002).

Earnings management also has implications for the company. Rangan (1998) finds that earnings management during the year around IPOs is negatively associated with stock returns. Louis (2004) finds that ex ante earnings management (overstate) reduces the announcement returns of acquisitions, which partly explains the post-acquisition reversal of stock prices. McNichols and Stubben (2008) find that companies do not overinvest after the misreporting period, which suggests that earnings management also influences internal decisions. Chi and Gupta (2009) find the overvaluation of shares leads to ex post earnings management. This

overvaluation-induced earnings management is negatively associated with ex post abnormal stock returns and financial performance.

#### **4.2.4 Hypothesis development**

If an individual becomes the CEO of a firm located in their hometown, their mobility for relocation is limited due to their attachment to their birthplace. Home CEOs are generally less attracted to external executive labour markets and are motivated to avoid actions that could damage their reputation in their home area. Consequently, the efficient contracting hypothesis suggests that firms managed by home CEOs are expected to engage in less accrual-based earnings management.

Conversely, the alternative “rent extraction” hypothesis generates a different prediction. Specifically, it suggests that home CEOs, who are more motivated to remain at the helm of a firm in their hometown, should exert greater effort to meet or exceed earnings benchmarks, even if it involves taking actions that may compromise discretionary earnings quality. Therefore, the rent extraction hypothesis predicts that firms managed by home CEOs are more likely to engage in accrual-based earnings management due to their desire to remain close to their hometown. Therefore, this chapter tests the following hypothesis.

***H2a. Home CEOs are associated with fewer earnings management.***

***H2b. Home CEOs are associated with more earnings management.***

## 4.3 Empirical Methodology and Data

### 4.3.1 Sample construction and measures of home CEOs

The initial sample consists of the universe of firms covered by the ExecuComp database over the period 1992–2016. This chapter excludes regulated utilities (SIC 4900–4999) and financial firms (SIC 6000–6999) because their corporate decisions are influenced by regulations. To create the measure of home CEOs, this study manually collects birthplace data of CEOs from Marquis Who’s Who, Standard and Poor’s Register of Directors and Executives, Lexis-Nexis, NNDB.com, or Google searches. This study obtain birthplace information for 1,960 out of the 6,355 US-born CEOs in 1,334 non-financial, non-utility firms with 11,630 firm-year observations covered by ExecuComp from 1992 to 2016. This chapter classifies a CEO as a home CEO if the distance between her place of birth and the firm’s headquarters is less than 100 miles.<sup>41</sup>

Next, this study matches this sample to the measure of earnings management using the GVKEY identifier, leading to a sample of 1,925 unique CEOs in 1,320 firms and 11,239 firm-year observations. This essay follows the procedure in Vincenty (1975) and compute the distance between the CEO’s hometown and the firm’s headquarters.<sup>42</sup> Because of missing latitudes and longitudes of the firm’s

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<sup>41</sup> In robustness tests, this study uses several alternative methods to identify home CEOs. Specifically, this study restrict the distance between the CEO’s hometown and firm’s headquarters to lie within 50 or 200 miles or use a continuous measure of distance ( $\ln(\text{distance}+1)$ ). Results are qualitatively similar in these alternative models.

<sup>42</sup> This thesis requires that the geographic coordinates (longitude and latitude) can be obtained from the US Census (2014) Gazetteer in order to calculate the distance between the coordinates of the CEO’s hometown and the firm’s headquarters.

headquarters or the CEO's birth county, this study removes 2,252 firm-year observations, leading to a sample of 1,529 unique CEOs in 1,068 unique firms and 8,987 firm-year observations. After merging with financial data from Compustat and removing missing values of firm and CEO characteristics, the sample includes 1,342 unique CEOs in 953 firms and 7,568 firm-year observations. Finally, this study matches with I/B/E/S database using the TICKER identifier and obtains the number of unique analysts covering the firm in a given year. The final sample consists of 844 unique CEOs in 602 firms and 5,125 firm-year observations.

### 4.3.2 Measure of accrual-based earnings management

Accruals are vulnerable to managerial manipulation because they require manager's estimation and judgement (Yu, 2008). This chapter calculates discretionary accruals as the main proxy for accrual-based earnings management (Shivakumar, 2000). For each calendar year, this study estimates a cross-sectional model for every industry classified by 48 Fama–French (1997) industries with a minimum of 15 observations. This chapter estimates discretionary accruals based on the following cross-sectional OLS regression:

$$\frac{TA_{it}}{Assets_{i,t-1}} = \frac{EBXI_{it} - CFO_{it}}{Assets_{i,t-1}} = \alpha_1 \frac{1}{Assets_{i,t-1}} + \alpha_2 \frac{\Delta SALES_{it}}{Assets_{i,t-1}} + \alpha_3 \frac{PPE_{it}}{Assets_{i,t-1}} + \varepsilon_{it} \quad (1)$$

$TA_{it}$  represents the total accruals of firm  $i$  at time  $t$ .  $EBXI_{it}$  is the earnings before extraordinary items and discontinued operations (annual Compustat data item 123) of firm  $i$  at time  $t$  and  $CFO_{it}$  is the operating cash flows taken from the statement of cash flows (annual Compustat data item 308 – annual Compustat data item 124) of

firm  $i$  at time  $t$ .  $Assets_{i,t-1}$  represents total assets (annual Compustat data item 6) of firm  $i$  at time  $t-1$ ,  $\Delta SALES_{it}$  is the change in revenues (annual Compustat data item 12) from the previous year, and  $PPE_{it}$  is the gross value of property, plant and equipment (annual Compustat data item 7) of firm  $i$  at time  $t$ .

The coefficient estimates from Eq.(1) are then used to estimate the firm-level normal accruals ( $NA_{it}$ ):

$$NA_{it} = \hat{\alpha}_1 \frac{1}{Assets_{i,t-1}} + \hat{\alpha}_2 \frac{\Delta SALES_{it}}{Assets_{i,t-1}} + \hat{\alpha}_3 \frac{PPE_{it}}{Assets_{i,t-1}} \quad (2)$$

The measure of discretionary accruals is the difference between total accruals and the fitted normal accruals, defined as  $DA_{it} = \frac{TA_{it}}{Assets_{i,t-1}} - NA_{it}$ .

Because all variables are scaled by total assets at the beginning of the period, the magnitude of a firm's discretionary accruals is calculated as a percentage of the total assets of the firm. Positive discretionary accruals indicate income-increasing manipulations while negative discretionary accruals suggest income-decreasing manipulations. Since managers have incentives to manipulate earnings not only upward but also downward, this study follows the earnings management literature (e.g., Bergstresser and Philippon, 2006; Cohen, Dey, and Lys, 2008; Yu, 2008) and use the absolute value of discretionary accruals as the measure of earnings manipulation. Higher values of discretionary accruals imply that the firm is more likely to have accrual-based earnings manipulation.

In the robustness test, this study also repeats the baseline analysis with two alternative measures of accrual-based earnings management. First, this chapter uses the modified version of the Jones model (Jones, 1991; Dechow, Sloan, and Sweeney, 1995). To determine discretionary accruals, this study first run the following cross-sectional OLS regression by the 48 Fama–French (1997) industries for each calendar year with a minimum of 15 observations:

$$\frac{TA_{it}}{Assets_{i,t-1}} = \frac{NI_{it} - OANCF_{it}}{Assets_{i,t-1}} = \alpha_1 \frac{1}{Assets_{i,t-1}} + \alpha_2 \frac{\Delta SALES_{it}}{Assets_{i,t-1}} + \alpha_3 \frac{PPE_{it}}{Assets_{i,t-1}} + \varepsilon_{it} \quad (3)$$

where  $NI_{it}$  is the net income (annual Compustat data item 172) of firm  $i$  at time  $t$  and  $OANCF_{it}$  is the cash flow from operations (annual Compustat data item 308) of firm  $i$  at time  $t$ . Next, this chapter uses the estimated coefficients from Eq.(3) to calculate the normal accruals:

$$NA_{it} = \hat{\alpha}_1 \frac{1}{Assets_{i,t-1}} + \hat{\alpha}_2 \left( \frac{\Delta SALES_{it}}{Assets_{i,t-1}} - \frac{\Delta AR_{it}}{Assets_{i,t-1}} \right) + \hat{\alpha}_3 \frac{PPE_{it}}{Assets_{i,t-1}} \quad (4)$$

Where  $\Delta AR_{it}$  is the change in receivables (annual Compustat data item 2) from the preceding year. Discretionary accruals are the difference between total accruals and

the fitted normal accruals, defined as  $DA_{it} = \frac{TA_{it}}{Assets_{i,t-1}} - NA_{it}$ .

Second, this chapter uses data from firms' reported income statements to compute another measure of total accruals (Bergstresser and Philippon, 2006). Specifically, this study calculate total accruals as the difference between earnings and cash flows from operations:

$$TA_{it} = \frac{\Delta CA_{it} - \Delta CL_{it} - \Delta Cash_{it} + \Delta STD_{it} - DEP_{it}}{Assets_{i,t-1}} \quad (5)$$

$TA_{it}$  represents the total accruals of firm  $i$  at time  $t$ ;  $\Delta CA_{it}$  is the change in the current assets (annual Compustat data item 4) from the preceding year;  $\Delta CL_{it}$  is the change in current liabilities (annual Compustat data item 5) from the preceding year;  $\Delta Cash_{it}$  represents the change in cash holdings (annual Compustat data item 1) from the previous year; and  $\Delta STD_{it}$  is the change in short-term debt in current liabilities (annual Compustat data item 34) from the previous year.  $DEP_{it}$  is the depreciation and amortization expense (annual Compustat data item 14) of firm  $i$  at time  $t$ .

Next, this study obtains the coefficient estimates from the following OLS regression which is estimated for each of the 48 Fama-French (1997) industry groups in each calendar year  $t$  with a minimum of 15 observations:

$$TA_{i,t} = \alpha_1 \frac{1}{Assets_{i,t-1}} + \alpha_2 \frac{\Delta SALES_{it}}{Assets_{i,t-1}} + \alpha_3 \frac{PPE_{it}}{Assets_{i,t-1}} + \varepsilon_{it} \quad (6)$$

The fitted normal accruals are calculated using Eq. (4) and discretionary accruals are the difference between total accruals and the fitted normal accruals.

### 4.3.3 Empirical strategy

This study implements the following pooled OLS regression model in the main analysis:

$$EM_{i,t+1} = \alpha + \beta Home\ CEO_{jt} + \mu F_{it} + \lambda C_{jt} + \gamma_k + \delta_t + \varphi_m + \varepsilon_{ijkmt} \quad (7)$$

where  $i$  indexes firms,  $j$  indexes CEOs,  $k$  indexes industries,  $m$  indexes counties, and  $t$  indexes time. All independent variables are lagged by one year.  $\gamma$ ,  $\delta$ , and  $\varphi$  denote industry, year, and county fixed effects.  $\varepsilon$  is the error term.

The dependent variable, EM, is the proxy of accrual-based earnings management in year  $t+1$ . The main independent variable, home CEO, is a dummy variable that equals one if the distance between the CEO's birth county and the county of firm's headquarters is less than 100 miles, and zero otherwise.  $F$  and  $C$  are vectors of firm and CEO variables that have been found to affect the accrual-based earnings management activities in the prior literature (e.g., Anantharaman and Zhang, 2012; Armstrong, Balakrishnan, and Cohen, 2012; Irani and Oesch, 2016). Specifically, firm-level controls consist of size (proxied by the natural logarithm of a firm's total assets), profitability (proxied by a company's return on assets), growth opportunities (proxied by a firm's Tobin's Q) and a proxy for a company's sales growth. This study also includes the number of analysts covering a specific firm in a given year from I/B/E/S. CEO control variables include a female CEO indicator, CEO age, CEO tenure, and CEO ownership.

To control for time-invariant industry-related variables that might affect earnings management activities, this chapter uses the Fama–French (1997) industry classifications to define industry.<sup>43</sup> This study also includes year fixed effects to control for a possible time trend of firms becoming less likely to use accrual-based earnings management after the passage of SOX (Cohen, Dey, and Lys, 2008).

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<sup>43</sup> The results hold when this essay use the two-digit Standard Industrial Classification (SIC) codes to define industry.

Finally, this study adds county fixed effects to control for county-level time-invariant variables (e.g., cultural, political, or religious variation across different regions) that might affect earnings management activities. Across all models, this chapter uses heteroscedasticity–robust standard errors double–clustered at the firm and year level to correct for potential cross-sectional and serial correlation in the error term (Petersen, 2009). Overall, the model compares firms with home CEOs versus those with non-home CEOs within the same industry, year, and county, and with similar firm and CEO characteristics.

### **4.3.3 Descriptive statistics**

Panels A and B of Table 4.1 report summary statistics of firm and CEO variables for the overall sample as well as for home and non-home CEOs, respectively. This study winsorizes all the non-binary variables at the 1<sup>st</sup> and 99<sup>th</sup> percentiles to remove the effect of outliers. Firms with home CEOs represent 28% of the firm-year observations in the sample, consistent with the figure documented by Yonker (2017b) and Lei et al. (2020).<sup>44</sup> The sample firms are roughly similar to the samples in prior studies of large U.S. public firms along with firm and CEO characteristics (e.g., Irani and Oesch, 2016; Cronqvist and Yu, 2017). Specifically, firms with home CEOs are followed by a smaller number of analysts, have lower growth opportunities and sales growth, but are more profitable than firms with non-home CEOs. Home CEOs also have higher equity ownership and longer tenure than non-

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<sup>44</sup> Yonker (2017b) documents that the CEO's state of origin matches the firm's headquarters location for 30% of the firm-year observations in his sample. Lei et al. (2020) show that the distance between the CEO's birth county and the firm headquarters county is less than 100 miles for 27% of the firm-year observations in their samples.

home CEOs, consistent with the notion of birthplace identity for home CEOs. Panel C presents summary statistics for the proxy of earnings management. Home CEOs are associated with lower absolute values of abnormal accruals than non-home CEOs in the univariate analysis.

**Table 4. 1 Summary Statistics**

This table reports summary statistics for the sample firms for the period between 1992 and 2016. Panels A and B report the mean value and standard deviation for firm and CEO characteristics, respectively, for the overall sample as well as for home CEOs and non-home CEOs. Panel C reports similar statistics for the earnings management measure. Home CEO is a dummy variable that equals one if the distance between the CEO's birth county and the firm's headquarters county is less than 100 miles, and zero otherwise. Detailed definitions of all variables can be found in Appendix B Table B1. Statistical tests for differences in means for each characteristic for home CEOs versus non-home CEOs are also presented. \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels, respectively.

**Panel A: Firm Characteristics**

Variables	All Sample (1) N= 5,125		Home CEOs (2) N= 1,432		Non-Home CEOs (3) N= 3,693		Difference in Mean (2)-(3)	
	Mean	Std. Dev	Mean	Std. Dev	Mean	Std. Dev	Difference	t-statistics
Ln(total assets)	7.490	1.670	7.548	1.633	7.468	1.683	0.080	1.547
Tobin's Q	2.205	2.415	2.069	1.577	2.257	2.668	-0.188***	2.495
ROA	0.143	0.117	0.152	0.094	0.140	0.125	0.012***	3.198
Sales Growth	0.131	0.423	0.104	0.242	0.141	0.475	-0.037***	2.849
Number of Analysts	13.730	8.788	13.168	8.995	13.948	8.697	-0.780***	2.855

**Panel B: CEO Characteristics**

Home CEO	0.279	0.449	-	-	-	-	-	-
Female CEO	0.033	0.179	0.031	0.173	0.034	0.182	-0.003	0.608
CEO Age	57.591	7.553	57.349	8.043	57.685	7.352	-0.336	1.429
CEO Tenure	9.109	8.116	11.218	9.461	8.291	7.371	2.927***	11.737
CEO Ownership	0.026	6.902	3.830	7.643	2.092	6.529	1.738***	8.138

**Panel C: Earnings Management Measure**

Abnormal Accruals	0.612	1.820	0.489	1.534	0.659	1.918	-0.170***	3.003
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## 4.4 Results

### 4.4.1 Home CEOs and earnings management

In this section, this study begins the empirical analysis by examining the impact of CEOs' birthplace identity on the earnings management behaviour of firms after controlling for firm and CEO characteristics. Table 4.2 presents the results for the baseline models. Column (1) includes only the home CEO variable, column (2) includes additional firm control variables, and column (3) includes both firm- and CEO-level controls. This study performs OLS regression, and the dependent variable is the abnormal accruals. In column (1), this essay finds that there is an economically sizeable and consistently strong negative association between home CEOs and accrual manipulation, which is significant at the 1% level. In economic terms, firms with a home CEO on board are associated with lower abnormal accruals, which corresponds to approximately 10.4% ( $= 0.190/1.820$ ) of one standard deviation of the abnormal accruals distribution.

In columns (2) and (3), regardless of the controls, there is an economically sizeable and consistently strong negative association between home CEOs and accrual-based earnings management. In economic terms, firms with a home CEO on board are associated with lower accrual-based earnings manipulations which range between 10.1% ( $=0.183/1.820$  in column 3) and 10.2% ( $=0.185/1.820$  in column 2) of one standard deviation of the abnormal accruals distribution.

**Table 4. 2 The Effect of Home CEOs on Earnings Management**

This table reports coefficients from OLS regressions for the effect of home CEOs on earnings management activities for the sample firms between 1992 and 2016. *Abnormal Accruals* is the dependent variable and denotes the measure of accrual-based earnings management. *Home CEO* is a dummy variable that equals one if the distance between the CEO's birth county and the firm's headquarters county is less than 100 miles, and zero otherwise. Detailed definitions of all variables can be found in Appendix B Table B1. All models include year, industry, and county fixed effects and standard errors are clustered at the firm and year levels. All continuous variables are winsorized at the 1<sup>st</sup> and 99<sup>th</sup> percentiles. \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels, respectively.

	Abnormal Accruals (1)	Abnormal Accruals (2)	Abnormal Accruals (3)
Home CEO	-0.190*** (-2.642)	-0.185** (-2.424)	-0.183** (-2.344)
Ln (Total Assets)		-0.052 (-1.317)	-0.052 (-1.301)
Tobin's Q		0.016 (1.216)	0.017 (1.326)
ROA		-0.250 (-0.473)	-0.280 (-0.520)
Sales Growth		-0.062 (-0.569)	-0.058 (-0.536)
Number of Analysts		-0.002 (-0.249)	-0.002 (-0.241)
Female CEO			-0.168*** (-4.075)
CEO Age			0.008* (1.780)
CEO Tenure			-0.005 (-1.298)
CEO Ownership			0.004 (1.047)
Year Fixed Effects	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes
County Fixed Effects	Yes	Yes	Yes
Observations	5,125	5,125	5,125
Adjusted R <sup>2</sup>	0.199	0.200	0.201

These key findings indicate that home CEOs decrease accrual-based earnings manipulations as accrual-based earnings management is more likely to be scrutinized by auditors and regulators and have a greater probability of being detected (Graham, Harvey, and Rajgopal, 2005). Home CEOs care about their reputational capital and have a stronger preference to manage earnings to a much lesser extent than non-home CEOs.

## **4.4.2 Within-firm effects of CEO birthplace identity**

### *4.4.2.1 Does earnings management activity change when the CEO changes?*

First, this chapter uses CEO turnover to examine the within-firm effects of CEO birthplace identity on earnings management activities. This study is able to identify 314 CEO changes in the sample and classify them into 4 types: from a non-home CEO to a home CEO, from a home CEO to a non-home CEO, from a home CEO to a home CEO, and from a non-home CEO to a non-home CEO.

If birthplace identity drives the result, then this study would expect significant changes in earnings management activities only in the group of firms which replace a non-home CEO with a home CEO, and in firms which replace a home CEO with a non-home CEO. Specifically, for each observation in the treatment group, this study conducts a one-to-one matching process based on calendar year, 2-digit SIC industry classification, firm size and market-to-book ratio. The control group contains matched observations of firms with no CEO change in year  $t$ . The change in the earnings management activities is calculated from the year when CEO change occurs until two years after the CEO change ( $t, t+2$ ). This chapter test for differences in means in changes of the earnings management activities between the treatment group and the control group.

In Panel A of Table 4.3, this study reports results for accrual-based earnings manipulation. The first treatment group contains observations where a non-home CEO is replaced by a home CEO. There are 41 CEO changes in this category. The average change of the abnormal accruals in the treatment group is -0.144 when

compared to 0.896 in the control group. The mean difference is negative and statistically significant at the 5% level, suggesting that the accrual-based earnings manipulation significantly decreases when a non-home CEO is replaced by a home CEO. The second treatment group in Panel A contains 44 observations where a home CEO is replaced by a non-home CEO. Using a similar matching approach with the control group containing matched firms with home CEOs in year  $t-1$  and no CEO change in year  $t$ , this essay finds that the average change of abnormal accruals in the treatment group is 0.368 relative to -0.627 in the control group. The mean difference is positive and statistically significant at the 5% level, which indicates that the accrual-based earnings manipulation significantly increases when a home CEO is replaced by a non-home CEO.

The third and fourth treatment groups contain treated samples of firms where a non-home CEO is replaced by another non-home CEO, and a home CEO is replaced by another home CEO. In neither case is the difference in changes of the abnormal accruals between the treatment and control group statistically significant at conventional levels. Firms' accrual-based earnings management does not significantly change when a non-home CEO is replaced by another non-home CEO or when a home CEO is replaced by another home CEO.

#### *4.4.2.2 Does earnings management activity change when the firm's headquarters changes?*

Next, this chapter analyses the effects of variations in birthplace identity by focusing on firms that relocate corporate headquarters to another county, thus changing the level of birthplace identity. Using a difference-in-differences method,

this study explores how changes in birthplace identity affect changes in earnings management activities over time across firms that relocated geographically either closer to home or farther away from home. In particular, this study is able to identify 71 firms that either relocated closer to or farther away from the CEO's birthplace at least once in the period 1994–2016. Out of the 71 firms, there are 52 firms relocated farther away from the CEO's birthplace and 19 firms relocated closer to the CEO's birthplace. Among these 71 firms, 14 firms are managed by home CEOs and 57 firms are managed by non-home CEOs.

Panel B of Table 4.3 reports the results. this study re-estimate the baseline models with the main variable of interest, *Home CEO*  $\times$  *Closer-to-Home Relocation*. *Closer-to-Home Relocation* is a dummy variable that equals one if the new headquarters is geographically closer to the CEO's birthplace at the county-level after the relocation relative to the previous headquarters, and zero otherwise. The coefficient on the interaction term provides an estimate of the difference in changes in earnings management activities between firms that relocated closer to home and firms that relocated farther away from home across the two types of CEOs.

In column (1), the dependent variable is the abnormal accruals. This essay finds that the coefficient on the interaction term is negative and statistically significant at the 5% level. This finding suggests that changes in birthplace identity over time can explain temporal changes in earnings management activities. Firms with home CEOs engage in less accrual-based earnings manipulation than those with non-home CEOs when the firm's new headquarters is geographically closer to the CEO's birthplace. In column (2), this essay finds similar results after controlling

for year, industry, and county fixed effects. Overall, the type of CEO who initiates the relocation (i.e., home CEOs) and the direction of that relocation (closer to her hometown) play significant roles in earnings management activities within firms.<sup>45</sup>

#### 4.4.2.3 *Is the home CEO effect simply driven by the corporate culture at the firm?*

An alternative explanation for the results is that corporate culture at the firm may also change over time, leading to a change in the CEO. Hence the results would be attributable to a change in corporate culture rather than a change in the CEO. To rule out this explanation, this chapter uses the score of five time-varying corporate cultural values of integrity, teamwork, innovation, respect, and quality as in Li et al. (2020).<sup>46</sup> This chapter then creates a dummy variable that takes the value of one if the firm-year integrity score, or teamwork score, or innovation score, or respect score, or quality score is lower or higher than 50% relative to the corresponding score of the previous year, and zero otherwise.<sup>47</sup>

Panel C of Table 4.3 presents the results. The main variable of interest is *Home CEO* and its interaction with the five corporate culture dummies. Across all specifications, the coefficient on the home CEO variable is negative and statistically

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<sup>45</sup> To verify that the documented results are attributable to changes in birthplace bias resulting from the relocation decisions, this chapter tests whether firm attributes in the subsamples that relocated either closer or farther away from home are comparable. A Student's t-test (not tabulated for brevity) shows no significant differences between the two groups of firms across either firm attributes or earnings management activities in the year immediately before relocation.

<sup>46</sup> This thesis would like to thank Kai Li for sharing data on corporate culture. Each firm-year's score is the weighted-frequency count of each of the five cultural values-related words and phrases in the QA section of firm's earnings calls transcripts averaged based on three-year moving averages of annual scores.

<sup>47</sup> This study obtain similar results when this study use a 75% or 100% change in the score of each corporate culture value. Creating the dummies based on the changes in the five corporate culture scores relative to the median value of the score instead of the score of the previous year does not alter the results.

significant for accrual-based earnings management. In contrast, all five interaction variables, as well as the corporate culture variables themselves, are insignificant at conventional levels, suggesting that corporate culture does not drive the relation between home CEOs and earnings management activities.

**Table 4. 3 Evidence from CEO Changes, Headquarters Relocation, and Changes in Corporate Culture**

This table presents evidence from CEO changes, headquarters relocation, and changes in corporate culture on the relation between home CEOs and earnings management activities. In Panel A, this chapter uses the measure of accrual-based earnings manipulation, and the change of earnings management activities is calculated from the year when CEO change occurs until two years after the CEO change ( $t, t+2$ ). The first treatment group contains observations where a non-home CEO is replaced by a home CEO. The control group contains matched observations of firms with non-home CEOs in year  $t-1$  and no CEO change in year  $t$ . The second treatment group contains observations where a home CEO is replaced by a non-home CEO. The control group contains matched observations of firms with home CEOs in year  $t-1$  and no CEO change in year  $t$ . The third treatment group contains observations where a non-home CEO is replaced by another non-home CEO. The control group contains matched observations of firms with non-home CEOs in year  $t-1$  and no CEO change in year  $t$ . The fourth treatment group contains observations where a home CEO is replaced by another home CEO. The control group contains matched observations of firms with home CEOs in year  $t-1$  and no CEO change in year  $t$ . For each observation in the treatment group, this chapter conducts one-to-one matching based on calendar year, 2-digit SIC industry classification, firm size and market-to-book ratio. N denotes the number of observations. This chapter test for differences in means and present the significance of differences in changes of the measure of earnings management between the treatment groups and control groups. Panel B presents the results for the effect of headquarters relocation on the relation between home CEOs and earnings management activities. Panel C presents the results of the impact of changes in corporate culture on the relation between home CEOs and earnings management activities. Detailed definitions of all variables can be found in Appendix B Table B1. In Panels B and C, this chapter also includes year, industry, and county fixed effects and standard errors are clustered at the firm and year levels. \*\*\* and \* represent significance at the 1% and 10% levels, respectively.

**Panel A. The Effect of CEO Changes on Accrual-based Earnings Management**

	N	Treatment Group	Control Group	Difference
From Non-Home CEO to Home CEO	41	-0.144	0.896	-1.040**
From Home CEO to Non-Home CEO	44	0.368	-0.627	0.995**
From Non-Home CEO to Non-Home CEO	205	0.204	0.131	0.073
From Home CEO to Home CEO	24	0.617	0.398	0.219

**Panel B. The Effect of Headquarters Relocation on Earnings Management**

	Abnormal Accruals (1)	Abnormal Accruals (2)
Home CEO	0.302 (1.453)	0.091 (0.378)
Closer-to-Home Relocation	0.147 (0.812)	0.516** (2.297)
Home CEO × Closer-to-Home Relocation	-0.608** (2.061)	-0.985*** (3.503)
Firm Control Variables	Yes	Yes
CEO Control Variables	Yes	Yes
Year Fixed Effects	No	Yes
Industry Fixed Effects	No	Yes
County Fixed Effects	No	Yes
Observations	347	347
Adjusted R <sup>2</sup>	0.083	0.514

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**Panel C. The Effect of Changes in Corporate Culture**

	Abnormal Accruals (1)	Abnormal Accruals (2)	Abnormal Accruals (3)	Abnormal Accruals (4)	Abnormal Accruals (5)
Home CEO	-0.343* (1.841)	-0.350** (2.262)	-0.375** (2.064)	-0.327** (2.021)	-0.351** (2.217)
Cultural Change (Integrity)	-0.026 (0.201)				
Home CEO × Cultural Change (Integrity)	-0.048 (0.315)				
Cultural Change (Teamwork)		0.024 (0.189)			
Home CEO × Cultural Change (Teamwork)		-0.083 (0.417)			
Cultural Change (Innovation)			-0.030 (0.284)		
Home CEO × Cultural Change (Innovation)			0.038 (0.170)		
Cultural Change (Respect)				0.060 (0.583)	
Home CEO × Cultural Change (Respect)				-0.149 (1.384)	
Cultural Change (Quality)					0.080 (0.775)
Home CEO × Cultural Change (Quality)					-0.111 (0.761)
Firm Control Variables	Yes	Yes	Yes	Yes	Yes
CEO Control Variables	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes
County Fixed Effects	Yes	Yes	Yes	Yes	Yes
Observations	2,575	2,605	2,617	2,614	2,615
Adjusted R <sup>2</sup>	0.312	0.314	0.313	0.312	0.313

#### 4.4.3 Dealing with endogeneity

A major concern with the causal interpretation of the relation between home CEOs and earnings management activities is endogeneity. There are two possible sources of endogeneity. The first source is reverse causality, arising from the possibility that boards select firms' preferred earnings management strategies and hire CEOs to implement these strategies. If home CEOs are better able to implement these earnings management strategies, then the relation between home CEOs and earnings management practices may be driven by reverse causality. The second

source is an omitted variables bias, which arises from unobservable characteristics that are related to both earnings management activities and the CEO recruitment process by firms. This chapter deal with both issues below.

#### *4.4.3.1 Propensity score matching (PSM)*

To solve the matching issue and ensure that the results are not driven by observable characteristics which induce home CEOs to conduct earnings management activities, this essay implements a propensity score matching (PSM) analysis. This study matches firms that hire home CEOs (treated group) with firms exhibiting analogous characteristics but do not have home CEOs (control group). The treatment effect from the PSM estimation is the difference between the treated sample and the matched control sample, as measured by the home CEO coefficient. In order to match firms, this study calculates a one-dimensional propensity score, which is a function of observable characteristics used in the baseline analysis in Table 4.2 plus two more state-level variables. These are (1) the state GDP per capita, which is defined as state-level GDP divided by the state population; and (2) the state unemployment rate. These two variables are included because firms located in poorer states or states with higher unemployment rates are likely to be faced with worse economic conditions, potentially offering them different motivations on earnings management activities. This study implements a one-to-one (i.e., nearest neighbour) matching estimator with replacement and requires that the absolute difference in propensity scores between pairs does not exceed 0.01.

**Table 4. 4 Controlling for Endogeneity: Propensity Score Matching**

This table presents the results on propensity score matching (PSM) analysis for treatment (home CEO) and control (non-home CEO) firm-year observations. *Home CEO* is a dummy variable that equals one if the distance between the CEO's birth county and the firm's headquarters county is less than 100 miles, and zero otherwise. Panel A presents the results for the difference-in-means of control variables between the home CEOs and non-home CEOs subsamples with the level of significance before and after the matching. Panel B re-estimates the baseline model (Table 4.2) using the PSM-matched sample. The propensity score is estimated as a probit function of ln (total assets), Tobin's Q, ROA, sales growth, number of analysts, female CEO, CEO age, CEO tenure, CEO ownership, GDP per capita at state-level, and unemployment rate at state-level. Detailed definitions of all variables can be found in Appendix B Table B1. This chapter matches each home CEO observation with a non-home CEO observation using the nearest neighbor (i.e., one-to-one matching) with replacement subject to caliper (i.e., maximum difference in propensity score) of 0.01. In Panel B, this chapter includes the firm and CEO control variables used in Table 4.2. All models include year, industry, and county fixed effects and standard errors are clustered at the firm and year levels. All continuous variables are winsorized at the 1<sup>st</sup> and 99<sup>th</sup> percentiles. \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels, respectively.

**Panel A. Covariate Balance Test of Firm Characteristics Before and After PSM**

	Before PSM			After PSM		
	<i>Home CEO</i>	<i>Non-home CEO</i>	<i>Difference</i>	<i>Home CEO</i>	<i>Non-home CEO</i>	<i>Difference</i>
Ln(total assets)	7.542	7.498	0.044	7.534	7.521	0.013
Tobin's Q	2.049	2.248	-0.199***	2.054	2.036	0.018
ROA	0.151	0.140	0.011***	0.150	0.149	0.001
Sales Growth	0.102	0.139	-0.037***	0.102	0.102	0.000
No. of Analysts	13.023	13.984	-0.961***	13.129	12.754	0.375
Female CEO	0.030	0.036	-0.006	0.031	0.029	0.002
CEO Age	57.442	57.688	-0.246	57.388	57.483	-0.095
CEO Tenure	11.234	8.232	3.002***	10.940	10.866	0.074
CEO Ownership	0.038	0.021	0.017***	0.036	0.035	0.001
GDP per Capita	48,064	46,958	1,106***	47,721	47,942	-221
Unemployment %	5.927	6.057	-0.130**	5.920	5.859	0.061

**Panel B. Matched Sample**

	Abnormal Accruals (1)	Abnormal Accruals (2)	Abnormal Accruals (3)
Home CEO	-0.235** (2.214)	-0.238** (2.245)	-0.237** (2.162)
Firm Control Variables	No	Yes	Yes
CEO Control Variables	No	No	Yes
Year Fixed Effects	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes
County Fixed Effects	Yes	Yes	Yes
Observations	2,429	2,429	2,429
Adjusted R <sup>2</sup>	0.254	0.253	0.253

Table 4.4 reports the PSM results. Panel A reports the difference-in-means of the independent variables for firms with home CEOs versus firms with non-home CEOs for both the unmatched and matched samples, respectively. This diagnostic test aims to ensure that the PSM analysis removes sample selection biases that are related to observable firm characteristics. The *t*-statistics of the corresponding

difference-in-means indicate that many variables differ significantly for the unmatched sample. After the PSM implementation, all independent variables are comparable for the matched sample which indicates that the PSM process removes obvious sample selection biases. Using the matched sample in Panel B, this study re-runs the regression with the same control variables and fixed effects as the baseline models in Table 4.2. The results remain robust, confirming that selection on observable characteristics does not bias the impact of home CEO on earnings management activities. Home CEOs are less likely to conduct accrual-based earnings manipulation than non-home CEOs.

#### *4.4.3.2 Two-stage instrumental variable (IV) analysis*

To address the possibility that an omitted variable bias drives the results, this study performs a two-stage instrumental variable (IV) analysis (2SLS) and presents the results in Table 4.5. This approach requires an instrumental variable that is correlated with the choice of home CEOs to manage the firm but is uncorrelated with earnings management activities. This study uses the “hometown board position” variable as an instrument for the firm’s decision to select a home CEO. This instrument is an indicator variable that equals one if the CEO was a board member of another firm in her hometown state *before* she became CEO, and zero otherwise. This essay ensures that home CEOs held a board position *prior* to becoming CEOs to avoid the criticism that the CEO position “causes” the board position and local firms recruit local CEOs at other firms to join their boards (Fahlenbrach, Low, and Stulz 2010). Intuitively, home CEOs with board experience gained in a home state firm are more likely to have better connections and a better

knowledge and understanding of the customers, suppliers, employees, laws, tax regulations, and generally, the environment where the firm operates. It can be therefore plausibly argued that firms are more likely to select a home CEO who had also acted as a board member of another firm in her home state. Hence, this instrument is likely to satisfy the relevance requirement of instrumental variables. Simultaneously, a CEO serving as a board member in another firm in her home state is unlikely to be correlated with her own firm's earnings management activities, satisfying the exclusion condition of instrumental variables. Supporting this conjecture, this essay finds an insignificant relation between the instrumental variable and the measures of earnings management activities in untabulated results.

To perform the IV analysis, in the first stage, this study regresses the variable *Home CEO* on "hometown board position" as well as on all other firm and CEO level control variables used in the previous analysis. This essay finds a strong positive relationship between the "hometown board position" and *Home CEO*. The coefficient on the instrumental variable is significant at the 1% level, indicating that individuals with board experience gained in their home state firm are more likely to be appointed as CEOs of another firm in their hometowns. Importantly, this essay finds that the Cragg-Donald Wald F statistic for the weak identification test is significantly higher (107.86) than the critical value and satisfies the relevance condition, allowing us to reject the null of weak identification. In column (2), this study run the same regressions as in the baseline analysis in Table 4.2 where the "instrumented home CEO" is the main variable of interest. The significantly negative relation between the instrumented "home CEO" and abnormal accruals remains, indicating that home CEOs are less likely to manipulate earnings than non-

home CEOs. This result, combined with the extensive set of controls, helps alleviate endogeneity concerns and confirms the robustness of the finding that home CEOs engage in lower levels of accrual-based earnings management.

**Table 4. 5 Controlling for Endogeneity: Two-Stage Instrumental Variable (IV) Analysis**

This table presents the results of a two-stage instrumental variable (IV) regression analysis. In the first stage, the dependent variable takes the value of one for a home CEO, and zero otherwise. *Home CEO* is a dummy variable that equals one if the distance between the CEO's birth county and the firm's headquarters county is less than 100 miles, and zero otherwise. The instrument used in the first stage regression is *Hometown Board Position*, a dummy variable that equals one if the CEO was a board member of another firm in her hometown state *before* she became CEO, and zero otherwise. The instrumented home CEO is then used in the second-stage regression, where the dependent variable is the measure of earnings management. Detailed definitions of all variables can be found in Appendix B Table B1. All models include year, industry, and county fixed effects and standard errors are clustered at the firm and year levels. All continuous variables are winsorized at the 1<sup>st</sup> and 99<sup>th</sup> percentiles. \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels, respectively.

	First Stage Home CEO (1)	Second Stage Abnormal Accruals (2)
Hometown Board Position	0.285*** (3.762)	
Instrumented Home CEO		-0.224** (2.047)
Ln (Total Assets)	0.024* (1.652)	-0.009 (0.464)
Tobin's Q	0.002 (0.633)	0.010 (1.504)
ROA	0.014 (0.156)	-0.487 (1.507)
Sales Growth	-0.024*** (2.679)	-0.023 (0.733)
Number of Analysts	-0.001 (0.136)	0.003 (0.940)
Female CEO	-0.046 (0.396)	0.016 (0.326)
CEO Age	-0.009*** (2.988)	0.000 (0.197)
CEO Tenure	0.010*** (3.239)	0.001 (0.507)
CEO Ownership	0.008*** (2.923)	0.003** (2.073)
Year Fixed Effects	Yes	Yes
Industry Fixed Effects	Yes	Yes
County Fixed Effects	Yes	Yes
Cragg-Donald Wald F statistic	107.86	
LIML size of nominal 10% Wald	16.38	
Observations	5,125	5,125
Adjusted R <sup>2</sup>	0.600	0.162

## 4.5 Are The Results Driven by Agency Issues?

Previous literature shows that earnings management could be driven by agency problems between shareholders and managers. CEOs have motivations to manipulate earnings to pursue their private benefits such as compensation (Matsunaga and Park, 2001, Bergstresser and Philippon, 2006), reputation (Ali and Zhang, 2015), and control rights (Williams, 1994). Therefore, previous results that home CEOs are associated with lower earnings management could be driven by agency motivations. In this case, home CEOs, who have an emotional attachment to the local community, may act overwhelmingly in the best interests of their community and stakeholders. However, these could be at the cost of shareholders' interests, especially considering that some studies have highlighted the positive effect of earnings management, such as delivering private information (Tucker and Zarowin, 2006).

Yonker (2017a) shows that home CEOs treat hometown labour better when corporate governance is weak while Jiang, Qian, and Yonker (2019) find that small, private home-state deals underperform other small, private deals and the bias is stronger when corporate governance is weak in the acquiring firm. In this section, this study first investigates whether weak corporate governance induces home CEOs to reduce accrual-based earnings management.

In particular, this chapter uses five proxies to measure corporate governance. These proxies are (1) the board size as in Yermack (1996); (2) low board independence as in Dahya, McConnell, and Travlos (2002); (3) high G-index as in Gompers, Ishii,

and Metrick (2003); (4) low institutional ownership as in Chung and Zhang (2011); and (5) high total compensation as in Jensen and Murphy (1990). Board size is the number of board members on the firm's board for firm  $i$  at the end of year  $t$ , with a smaller board size typically being associated with weaker corporate governance. Low board independence indicates weak corporate governance and is a dummy variable that takes the value of one if the percentage of independent directors in the board of a firm is lower than the sample median, and zero otherwise. G-index is an equally weighted index based on 24 governance provisions provided by the Investor Responsibility Research Center (IRRC). High G-Index indicates weak corporate governance and is a dummy variable that equals one if a firm has a G-Index higher than the sample median, and zero otherwise. Low institutional ownership indicates weak corporate governance and is a dummy variable that takes the value of one if the proportion of outstanding shares held by institutions is lower than the sample median, and zero otherwise. High CEO compensation indicates weak corporate governance and is a binary variable that takes the value of one if the total compensation of the CEO is higher than the sample median, and zero otherwise.

Table 4.6 reports the results. This study includes each corporate governance indicator variable and its interaction term with *Home CEO* in separate regression models. Even after controlling for the level of corporate governance in the firm, firms with home CEOs are associated with significantly less accrual-based earnings management in all models. Importantly, all interaction variables are statistically insignificant at conventional levels, which indicates that regardless of the strength of corporate governance in the firm, the earnings management activities of home

CEOs are similar and comparable. In other words, it is not weak corporate governance that induces home CEOs to conduct earnings management activities.

**Table 4. 6 The Effect of Home CEOs on Earnings Management: The Role of Corporate Governance**

This table reports coefficients from OLS regressions for the impact of corporate governance on the relation between home CEOs and earnings management activities. The dependent variable is the measure of accrual-based earnings manipulation. *Home CEO* is a dummy variable that equals one if the distance between the CEO's birth county and the firm's headquarters county is less than 100 miles, and zero otherwise. The variables used to proxy for corporate governance are: (1) the board size; (2) low board independence; (3) high G-index; (4) low institutional ownership; and (5) high total compensation. Board size is the number of board members on the firm's board for firm *i* at the end of year *t*, with a smaller board size typically being associated with weaker corporate governance. Low board independence indicates weak corporate governance and is a dummy variable that takes the value of one if the percentage of independent directors in the board of a firm is lower than the sample median, and zero otherwise. High G-Index indicates weak corporate governance and is a dummy variable that equals one if a firm has a G-Index higher than the sample median, and zero otherwise. Low institutional ownership indicates weak corporate governance and is a dummy variable that takes the value of one if the proportion of outstanding shares held by institutions is lower than the sample median, and zero otherwise. High CEO compensation indicates weak corporate governance and is a binary variable that takes the value of one if the total compensation of the CEO is higher than the sample median, and zero otherwise. Detailed definitions of all variables can be found in the Appendix B Table B1. All models include year, industry, and county fixed effects and standard errors are clustered at the firm and year level. All continuous variables are winsorized at the 1<sup>st</sup> and 99<sup>th</sup> percentiles. \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels, respectively.

	<b>Board Size</b>	<b>Low Board Indp.</b>	<b>High G- index</b>	<b>Low Inst. Ownership</b>	<b>High CEO Compensation</b>
	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
Home CEO	-0.481** (2.312)	-0.207* (1.783)	-0.260** (2.132)	-0.292*** (2.586)	-0.162* (1.929)
CG Variable	0.053** (2.043)	-0.193* (1.744)	-0.094 (0.904)	-0.001 (0.017)	-0.012 (0.140)
Home CEO*CG Variable	0.026 (1.243)	0.135 (0.942)	0.192 (1.372)	0.234 (1.541)	-0.041 (0.339)
Firm & CEO Control Variables	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes
County Fixed Effects	Yes	Yes	Yes	Yes	Yes
Observations	3,783	3,511	4,215	4,601	5,115
Adjusted R <sup>2</sup>	0.213	0.221	0.232	0.200	0.201

Next, this study examines whether home CEOs engage in earnings management activities to pursue private benefits unrelated to shareholder value maximization. Specifically, home CEOs manage earnings because they want to obtain direct private rents from higher executive compensation. Table 4.7 present the results for direct private benefits. If home CEOs manage earnings due to agency motivations and extract direct rents for personal benefits, this study would expect compensation

levels received by home CEOs to be positively related to the level of earnings management activities. Column (1) presents the results for total compensation, column (2) for cash compensation and column (3) for equity compensation. The interaction variables between the measure of earnings management and home CEOs are statistically insignificant at the conventional level across all models, suggesting that home CEOs who engage in more earnings management activities do not receive higher compensation. This provides further evidence that home CEOs do not engage in earnings management activities for private rents and agency motivations are unlikely to be the underlying mechanism behind the earnings management activities of home CEOs.

**Table 4. 7 Home CEOs, Earnings Management, and CEO Compensation**

This table presents the results of OLS regressions for the effect of home CEOs on the relation between earnings management and CEO compensation. The dependent variable in column (1) is total compensation (natural logarithm of one plus total compensation for a CEO during a given year, which includes salary, bonus, stock options, restricted stocks, and long-term incentive plan value); the dependent variable in column (2) is cash compensation which is the sum of bonus and salary; the dependent variable in column (3) is equity compensation which is the difference between total compensation and cash compensation (i.e., the sum of bonus and salary). *Home CEO* is a dummy variable that equals one if the distance between the CEO's birth county and the headquarters county is less than 100 miles, and zero otherwise. *EM* is the measure of accrual-based earnings management. Detailed definitions of all variables can be found in Appendix B Table B1. All models include year, industry, and county fixed effects and standard errors are clustered at the firm and year levels. All continuous variables are winsorized at the 1<sup>st</sup> and 99<sup>th</sup> percentiles. \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels, respectively.

	<b>Total Compensation<sub>t+1</sub></b> <b>(1)</b>	<b>Cash Compensation<sub>t+1</sub></b> <b>(2)</b>	<b>Equity Compensation<sub>t+1</sub></b> <b>(3)</b>
Home CEO <sub>t</sub>	0.037 (0.531)	0.026 (0.367)	0.012 (0.114)
EM <sub>t</sub>	0.015* (1.772)	-0.001 (0.164)	0.016 (1.145)
Home CEO <sub>t</sub> × EM <sub>t</sub>	-0.013 (1.223)	0.006 (0.307)	-0.019 (0.685)
Ln (Total Assets)	0.361*** (18.424)	-0.110*** (4.433)	0.471*** (12.944)
Tobin's Q	0.011 (0.70)	0.031** (2.483)	-0.020 (0.821)
ROA	0.976*** (3.345)	-0.581** (2.539)	1.557*** (3.420)
Sales Growth	-0.043 (0.726)	0.080* (1.738)	-0.122 (1.212)
Number of Analysts	0.001 (0.278)	-0.006* (1.772)	0.008 (1.163)
Female CEO	-0.030 (0.254)	0.084 (1.356)	-0.114 (0.707)
CEO Age	-0.004 (0.700)	0.018*** (3.074)	-0.022** (2.356)
CEO Tenure	0.002 (0.368)	-0.004 (0.864)	0.006 (0.775)
CEO Ownership	-0.025*** (4.141)	0.020*** (3.583)	-0.045*** (4.488)
Year Fixed Effects	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes
County Fixed Effects	Yes	Yes	Yes
Observations	5,121	5,121	5,121
Adjusted R <sup>2</sup>	0.581	0.479	0.580

## 4.6 CEO Birthplace Identity, Earnings Management, and Firm Performance

A central debate in the earnings management literature is whether executives manage earnings to maximize firm and shareholder value or to exploit selfish opportunities at the expense of firm and shareholder value. The prior literature finds mixed evidence on the relation between earnings management and firm performance. On the one hand, Dechow, Sloan, and Sweeney (1995) and Kasznik (1999) find that abnormal accruals are positively related to the return of assets. Along this line, Subramanyam (1996) and Bartov, Givoly, and Hayn (2002) document that shareholders benefit from earnings management because it signals managerial competence. On the other hand, Teoh, Welch, and Wong (1998) find that issuers with an unusually high level of earnings management in the IPO year experience poor post-IPO stock performance.

In this section, this study examines whether having a home CEO affects the impact of earnings management on firm value, operating and stock performance. Table 4.8 presents the results. In column (1), the dependent variable is return-on-assets (ROA) as a measure of operating performance in year  $t+1$ . In column (2), the dependent variable is Tobin's Q as a measure of firm value in year  $t+1$ . In column (3), the dependent variable is the one-year buy-and-hold abnormal return (BHAR) capturing stock performance. The main variable of interest is the interaction variable,  $Home\ CEO \times EM$ . All control variables are similar to the ones used in prior analysis and are lagged by one year relative to the dependent variables.

**Table 4. 8 Home CEOs, Earnings Management and Firm Performance**

This table presents the results of OLS regressions for the effect of home CEOs on the relation between earnings management and firm (stock) performance. The dependent variable is ROA in column (1) and Tobin's Q in column (2). The dependent variable in column (3) is the annual buy-and-hold abnormal return (BHAR), which is calculated using the market model with CRSP value-weighted index being the benchmark. *Home CEO* is a dummy variable that equals one if the distance between the CEO's birth county and the firm's headquarters county is less than 100 miles, and zero otherwise. *EM* is the measure of accrual-based earnings management. Detailed definitions of all variables can be found in Appendix B Table B1. All models include year, industry, and county fixed effects and standard errors are clustered at the firm and year levels. All continuous variables are winsorized at the 1<sup>st</sup> and 99<sup>th</sup> percentiles. \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels, respectively.

	ROA <sub><i>t</i>+1</sub> (1)	Tobin's Q <sub><i>t</i>+1</sub> (2)	1-Year BHAR <sub><i>t</i>+1</sub> (3)
Home CEO <sub><i>t</i></sub>	0.011 (1.331)	-0.009 (0.081)	-0.026 (1.199)
EM <sub><i>t</i></sub>	0.000 (0.332)	0.020 (1.623)	-0.001 (0.104)
Home CEO <sub><i>t</i></sub> × EM <sub><i>t</i></sub>	-0.001 (0.343)	-0.027 (1.113)	0.035 (1.435)
Ln (Total Assets)	0.001 (0.20)	-0.292*** (6.639)	0.001 (0.061)
MB	0.001*** (2.641)	0.030*** (3.764)	-0.004** (2.18)
Sales Growth	-0.011 (1.64)	0.224** (2.572)	0.004 (0.06)
Number of Analysts	0.002*** (3.565)	0.052*** (6.353)	-0.000 (0.107)
Female CEO	-0.007 (0.38)	-0.096 (0.325)	0.020 (0.437)
CEO Age	0.001** (2.153)	-0.007 (0.893)	0.000 (0.364)
CEO Tenure	0.000 (0.083)	0.001 (0.193)	-0.003*** (32.697)
CEO Ownership	0.001 (1.459)	0.015* (1.897)	-0.001 (0.722)
Year Fixed Effects	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes
County Fixed Effects	Yes	Yes	Yes
Observations	5,130	5,137	4,494
Adjusted R <sup>2</sup>	0.446	0.521	0.081

Consistent with Yonker (2017b), this essay finds that the individual effect of a home CEO on firm value and performance is insignificantly different from zero in all three regressions. Additionally, firms with a home CEO do not experience any detrimental impact on their value, operating and stock performance when they perform earnings management activities relative to firms with a non-home CEO. Hence the results imply that home CEOs' birthplace bias for earnings management is not detrimental to firm value, operating and stock performance.

## 4.7 Robustness Checks

### 4.7.1 Alternative explanations for the results

Table 4.9 reports the results of a battery of robustness checks. First, Fee, Hadlock, and Pierce (2013) argue that CEO turnover events do not occur randomly. Even if turnover events do occur randomly, the selection of incoming managers is endogenous and will likely reflect firm/board preferences. Alternatively, this study could use a firm fixed effects model to test whether the idiosyncratic styles of CEOs affect earnings management activities within firms. A firm fixed effects model allows us to control for time-invariant unobservable firm-specific variation that may be related to a specific firm's earnings management practice, i.e., it captures differences in earnings management activities between home and non-home CEOs within the same firm. Column (1) of Table 4.9 presents the point estimates for the firm fixed effects model. This essay finds similar and robust results after controlling for firm fixed effects.

A second concern is that approximately 20% of the CEOs in the sample were born in one of the Top 3 birth counties (i.e., New York City, Cook County, and St. Louis City). To eliminate concerns that the results are driven by these three counties which dominate the observations of the "home CEO" variable, this study removes observations with CEOs born in these counties in column (2). Again, the results remain unchanged.

Third, this study removes observations of firms with CEOs obtaining an MBA or other master's degree in column (3) to address the concern that higher education

might affect the earnings management activities of CEOs. The results remain unaltered.

Fourth, this essay removes founder CEOs in column (4) to address the issue that firms with founder CEOs might be associated with engagement in earnings management activities.<sup>48</sup> The results are qualitatively similar.

Fifth, this study relies on personal political contributions data from Hutton, Jiang, and Kumar (2014) to control for the political preferences of CEOs. This study uses an indicator variable “Republican CEO”, which equals one if a CEO is identified as a Republican CEO, and zero otherwise. In column (5), this study obtains similar results which ensures that the previous findings are not affected by the political preferences of CEOs.

Sixth, to ensure that financial constraints do not capture the effect of the home CEO variable on earnings management, this chapter uses the SA index of Hadlock and Pierce (2010) to measure financial constraints in column (6).<sup>49</sup> Results are qualitatively similar after controlling for the level of financial constraints in the firm.

Seventh, Cai, Li, and Tang (2020) find that firms in religious regions use fewer accrual earnings management. To address this issue, this study controls for

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<sup>48</sup> This thesis thanks Rüdi Fahlenbrach for sharing data on founder CEOs.

<sup>49</sup> For robustness, this study also uses the Kaplan and Zingales (1997) KZ index as an alternative measure of financial constraints and obtain similar results.

religiosity using the definition of Hilary and Hui (2009) in column (7).<sup>50</sup>

Controlling for county-level religiosity does not alter the main results.

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<sup>50</sup> Religiosity is defined as the number of religious adherents in the county to the total population in the county.

**Table 4. 9 Robustness Checks**

This table presents the results of OLS regressions for the effect of home CEOs on earnings management activities. The dependent variable is the measure of accrual-based earnings manipulation. *Home CEO* is a dummy variable that equals one if the distance between the CEO's birth county and the firm's headquarters county is less than 100 miles, and zero otherwise. Column (1) presents the estimates of a model with firm fixed effects. Column (2) removes observations in which the CEO was born in one of the Top 3 birth counties in the sample (i.e., New York City, Cook County, and St. Louis City). Column (3) removes observations in which the CEO has an MBA or Master's degree. Column (4) removes observations in which the CEO is also the founder of the company. Column (5) includes an additional control variable, *Republican CEO*, which is a dummy variable that takes the value of one if a CEO's political contributions in a given election cycle all go to Republican-affiliated candidates or party committees, and zero otherwise. Column (6) includes an additional control variable, the Size-Age Index (*SA Index*), which measures firms' financial constraints as in Hadlock and Pierce (2010). Column (7) includes an additional control variable, *County-Level Religiosity*, which is calculated as the number of religious adherents in the county divided by the total population in the county. All models include the firm and CEO control variables used in Table 4.2. This chapter includes year, industry (apart from specification (1)), and county fixed effects and standard errors are clustered at the firm and year levels. \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels, respectively.

	<b>Firm Fixed Effects (1)</b>	<b>Remove Top 3 CEO Birth Counties (2)</b>	<b>Remove CEOs with MBA or master's degree (3)</b>	<b>Remove Founder CEOs (4)</b>	<b>Republican CEO (5)</b>	<b>SA Index (6)</b>	<b>County-Level Religiosity (7)</b>
Home CEO	-0.302** (2.123)	-0.249** (2.244)	-0.361*** (2.965)	-0.182** (2.083)	-0.182*** (2.334)	-0.182** (2.315)	-0.182*** (2.346)
Republican CEO					0.028 (0.397)		
SA Index						-0.012 (0.227)	
County-Level Religiosity							0.647 (0.814)
Firm & CEO Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	No	No	No	No	No	No
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	No	Yes	Yes	Yes	Yes	Yes	Yes
County Fixed Effects	No	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5,065	4,235	2,922	4,369	5,125	5,125	4,966
Adjusted R <sup>2</sup>	0.261	0.201	0.254	0.225	0.204	0.202	0.204

## **4.7.2 Alternative definitions of home CEO and earnings management**

In the main analysis, this chapter uses 100 miles as a distance cutoff and defines a CEO as a home CEO if the distance between her birth county and the headquarters' county is less than 100 miles. In this section, this study examines if the results are robust to different definitions of home CEOs and alternative distances as cutoffs to define home CEOs (e.g., 50 miles, or 200 miles as cutoffs, respectively).

This study reports the results in Panel A of Table 4.10. Column (1) uses a state-level measure of home CEOs based on hometown CEO data collected by Yonker (2017b).<sup>51</sup> Yonker manually gathers the Social Security Number (SSN) from the LexisNexis online public records database for CEOs covered by ExecuComp database.<sup>52</sup> The 5-digit SSN is issued by the state when a resident applies for the first job or driver's license. Specifically, the first 3 digits indicate the state of issuance, while the fourth and fifth digits are linked to the sequence of issuance. Therefore, the Social Security number identifies the year and state in which a CEO acquired her Social Security number. Yonker (2017b) shows that more than 80% of CEOs in his sample receive the SSN before the age of 17 years old. He argues that SSN efficiently identifies CEO home states. Using this state-level measure of home CEO, this study still finds a strong negative association, between home CEOs

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<sup>51</sup> This thesis again thanks Scott Yonker for sharing his home CEO data.

<sup>52</sup> The SSN has been used by several studies in the literature as a measure of CEO origin (see, e.g., Pool et al. 2012; Bernile et al. 2017; Jiang, et al. 2019).

and accrual-based earnings management, which is statistically significant at the 5% level.

In column (2), this chapter uses  $\ln(Distance+1)$  as an alternative main variable of interest to measure the intensity of the home CEO effect.  $\ln(Distance+1)$  is the natural logarithm of the physical distance (in miles) between the CEO's birth county and the county in which the firm's headquarters is located. Using this continuous variable, this essay finds that the coefficient on the home CEO variable is positive and statistically significant for accrual-based earnings management, which suggests that a CEO engages in less accrual-based earnings management when the county of the firm's headquarters is located closer to the CEO's birth county.

In columns (3) and (4), the home CEO variable is constructed using 50 miles and 200 miles as alternative distance cutoffs to define whether a CEO is a home CEO. This study repeats the baseline analysis using these alternative measures and finds that the coefficients on Home CEO retain their significance with a similar economic magnitude.

In Panel B, this chapter uses two additional proxies for accrual-based earnings management. First, this chapter uses the modified version of the Jones model (Dechow, Sloan, and Sweeney, 1995) in column (1); second, this chapter uses data from firms' reported income statements to compute another measure of total accruals (Bergstresser and Philippon, 2006) in column (2). Using these two alternative measures leaves the results unaltered as home CEOs continue to exhibit a significantly negative relation to abnormal accruals.

**Table 4. 10 Alternative Measures of Home CEOs and Earnings Management**

This table reports coefficients from OLS regressions for the effect of home CEOs on earnings management activities by using alternative measures of home CEOs and earnings management. The dependent variable is the measure of accrual-based earnings manipulation. In column (1), *Home CEO* is a dummy variable that is equal to one if the firm's headquarters state is the same as the home state of the CEO. The home state of the CEO is measured with the first five digits of the CEO's Social Security Numbers (Yonker, 2017b). In column (2), this chapter uses a continuous variable to define home CEOs, calculated as the natural logarithm of the distance between the CEO's birth county and the firm's headquarters county plus one. In columns (3) and (4), *Home CEO* is a dummy variable that equals one if the distance between the CEO's birth county and the firm's headquarters county is less than 50 miles or 200 miles, respectively. In Panel B, this chapter uses two alternative proxies for accrual-based earnings management. First, this chapter uses the modified version of the Jones model in column (1). Second, this chapter uses data from firms' reported income statements to compute another measure of total accruals in column (2). Detailed definitions of all variables can be found in the Appendix B Table B1. All models include the firm and CEO control variables used in Table 4.2. This chapter includes year, industry, and county fixed effects and standard errors are clustered at the firm and year level. All continuous variables are winsorized at the 1<sup>st</sup> and 99<sup>th</sup> percentiles. \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels, respectively.

**Panel A. Alternative Measures of Home CEOs**

	<b>Headquarters State = CEO Home State (1)</b>	<b>Ln (Distance +1) (2)</b>	<b>Distance &lt; 50 Miles (3)</b>	<b>Distance &lt; 200 Miles (4)</b>
Home CEO	-0.015** (2.024)	0.044*** (3.203)	-0.232*** (2.932)	-0.162*** (2.685)
Firm & CEO Control Variables	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
County Fixed Effects	No	Yes	Yes	Yes
State Fixed Effects	Yes	No	No	No
Observations	17,524	5,125	5,125	5,125
Adjusted R <sup>2</sup>	0.157	0.204	0.200	0.202

**Panel B. Alternative Measures of Accruals-based Earnings Management**

	<b>Modified Version of the Jones (1991) Model (1)</b>	<b>Dechow, Sloan, and Sweeney (1995) Model (2)</b>
Home CEO	-0.185*** (2.401)	-0.068** (2.139)
Firm & CEO Control Variables	Yes	Yes
Year Fixed Effects	Yes	Yes
Industry Fixed Effects	Yes	Yes
County Fixed Effects	Yes	Yes
Observations	5,101	4,877
Adjusted R <sup>2</sup>	0.201	0.175

## 4.8 Conclusions

In this chapter, this study examines whether CEO birthplace identity affects corporate earnings management activities. This chapter provides robust evidence that CEOs who manage firms headquartered close to where they were born to engage in accrual-based earnings manipulation to a significantly smaller extent than non-home CEOs.

This birthplace identity effect does not appear to be driven by agency reasons, and earnings management activities by home CEOs do not appear to be driven by a desire to obtain private benefits (i.e., higher compensation). Additionally, there is no destruction in firm value and operating performance. The relation between CEO birthplace bias and earnings management practices is important because the determinants of earnings management activities are still not fully understood. The results suggest that a significant portion of earnings management activities is driven by non-monetary emotional reasons (i.e., CEOs' reputational capital), which should be of interest to investors, board members, auditors and regulators.

# Chapter 5 Does CEO Home Bias Deter Takeovers?

## 5.1 Introduction

Takeover defences play an important role in corporate governance. Plenty of studies have investigated the consequences of firms' takeover defences using antitakeover provisions (e.g., Gompers, Ishii, and Metrick (2003) G-index and Bebchuk, Cohen, and Ferrell (2009) E-index).<sup>53</sup> However, Karpoff, Schonlau, and Wehrly (2017) argue that the fundamental notion that antitakeover provisions (ATPs) measure takeover defences has surprisingly little empirical support. In other words, it is unclear whether firms adopt antitakeover provisions to enhance takeover defences. Some evidence indicates that isolated ATPs are associated with lower acquisition likelihood (e.g., Bates, Becher, and Lemmon 2008; Kadyrzhanova and Rhodes-Kropf 2011; Sokolyk 2011), but the evidence for individual provisions is mixed (e.g., Ambrose and Megginson 1992; Comment and Schwert 1995; Sokolyk 2011).

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<sup>53</sup> Researchers have used the G-index and E-index to examine whether takeover defenses are associated with low stock returns (e.g., Gompers et al. 2003; Cremers, Nair, and John 2009; Cremers and Ferrell 2014), firm value (Bebchuk, et al. 2009; Cremers and Ferrell 2014), acquisition returns (Masulis, Wang, and Xie 2007), takeover premiums (Sokolyk 2011; Kadyrzhanova and Rhodes-Kropf 2011), increased risk-taking (John, Litov, and Yeung 2008), internal capital markets (Duchin and Sosyura 2013), credit risk and pricing (Cremers, Nair, and Wei 2007; Klock, Mansi, and Maxwell 2005), operating performance (Core et al. 2006; Giroud and Mueller 2011), the value and use of cash holdings (Dittmar and Mahrt-Smith 2007; Harford, Mansi, and Maxwell 2008), and corporate innovation (Atanassov 2013). Researchers also have used ATPs to examine whether takeover defenses primarily serve to entrench managers at shareholders' expense (Masulis et al. 2007) or to increase firm value through bargaining or contractual bonding (Cen, Dasgupta, and Sen 2016; Johnson, Karpoff, and Yi 2015).

Additionally, there appears to be no meaningful relation between takeover frequencies and the G-index (Core, Guay, and Rusticus 2006; Bates, et al. 2008; Kadyrzhanova and Rhodes-Kropf 2011; Sokolyk 2011; Goktan, Kieschnick, and Moussawi 2018). And Karpoff, Schonlau, and Wehrly (2022) also find that only four ATPs from the G-index are negatively related to acquisition likelihood throughout the 1995–2020 period.

The lack of an empirical correlation between the ATPs and acquisition likelihood could indicate either that the defences in these provisions are ineffective to deter takeovers, or that they are effective but endogenous (Karpoff et al. 2017). The key to answering the question of whether firms adopt antitakeover provisions to enhance takeover defences is to find conditions when firms do not want to be taken over and then observe whether they adopt more ATPs or specific ATPs. Dey and White (2021) show that US firms indeed increase antitakeover provisions to protect their human capital against the state-level adoption of the Inevitable Disclosure Doctrine (IDD).<sup>54</sup> The adoption of the IDD reduces employee mobility and, in turn, increases the probability of competitors acquiring the firm for human capital (Chen, Gao, and Ma 2021). This chapter adds to this discussion by identifying another condition that firms resist being taken over, namely when firms have home-biased CEOs.

Anecdotal news hints at the relationship between CEOs' home bias and takeover defences. In 2008, an Arizona-based microcontroller company, Microchip, made an unsolicited proposal to buy Atmel, a California-based microcontroller

manufacturer for \$2.3 billion in cash.<sup>55</sup> Though the \$5-a-share offer was 52.4% more than Atmel's closing price on October 1, 2008, the bid was rejected by Atmel's board. Interestingly, the CEO of Atmel, Steven Laub, and the former CEO, George Perlegos, are both California natives. By tracking the career of Steven, this study can conclude that he has a strong home bias because most of his positions have been with California-based companies.<sup>56</sup> In 2016, Atmel finally merged with Microchip and Steven also left the company (though he moved to another California-based firm).

Sociology and psychology literatures have explained home bias with “place identity” and “place attachment” theories (Fisher, Gerson, and Stueve 1977; Low and Altman 1992; Hidalgo and Hernandez 2001). Place identity is “a component of personal identity, a process by which, through interaction with places, people describe themselves as belonging to a specific place” (Hernández et al. 2007, p. 311) while place attachment “is an affective bond that people establish with specific areas where they prefer to remain and where they feel comfortable and safe” (Fischer et al. 1977). Both theories imply that individuals have specific preferences for their hometown and would like to live close to their family and friends. Therefore, CEOs who work in their hometown are more willing to exchange even part of their compensation for their preferred living location and have constrained relocation mobilities.<sup>57</sup> Similarly, home-biased CEOs may also have more incentives to avoid

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<sup>55</sup> Financial Times, October 2008. “Microchip in \$2.3bn offer for Atmel”; Reuters, February 2009. “Microchip ends bid to buy Atmel”.

<sup>56</sup> Steven Laub graduated from the UCLA. Before joining Atmel, he worked for Silicon Image, a California-based semiconductor provider. After he left Atmel, he worked for IPV Capital, another California-based semiconductor private equity firm.

<sup>57</sup> Yonker (2017a) shows that home CEOs are 20% less likely to experience turnover than non-home CEOs and home CEOs also receive less compensation.

being taken over, which would most likely lead to their own replacement and decrease the probability of working at hometown.<sup>58</sup> Therefore, it is plausible to posit that home-biased CEOs are more likely to protect their job when they manage firms that are in their hometown by deterring takeovers.<sup>59</sup>

To examine whether home-biased CEOs deter takeovers, this study focuses on the universe of non-financial and non-utility US firms covered by the Compustat and the ExecuComp databases over the period 1992–2018. Specifically, this study defines home CEOs as those whose home state matches the firm’s headquarters state. This essay finds that firms with a home CEO on board are significantly less likely to receive a bid. The magnitude of the home CEO effect is economically important: firms with a home CEO on board are associated with a decrease in the likelihood of receiving a bid by 1.56% (which represents a sizeable 33.32% of the average acquisition likelihood). Additionally, the results also hold to a battery of robustness checks: (1) when this chapter uses firm fixed effects, (2) when this study controls for corporate governance characteristics; and (3) when this chapter uses an alternative definition of home CEOs.

The results are also robust to further endogeneity tests. In particular, this study conducts a propensity score matching (PSM) analysis and match firms that hire home CEOs with those exhibiting analogous characteristics but are managed by

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<sup>58</sup> Target CEOs are often replaced after acquisition. Bates, Parrino, and Wu (2014) show that only 26.4% of target CEOs could obtain an acquirer job, including 14% officer job in the acquirer, 4.2% officer job in an acquirer subsidiary, 12.4% director job in the acquirer. Therefore, after the acquisition, target CEOs can hardly remain in the previous company (which probably become a subsidiary or a business segment of the acquirer).

<sup>59</sup> DeAngelo and Rice (1983) provide some preliminary evidence for the hypothesis that antitakeover provisions are best explained as a device for managerial entrenchment and job protection.

non-home CEOs, obtaining similar results. The results are also unaltered when this study runs a two-stage instrumental variable (IV) analysis using the average percentage of clear days per year as an instrumental variable. It is plausible that individuals prefer to move to and work in more desirable areas with good weather (Yonker 2017a; Lai, Li, and Yang 2020). Thus, firms with higher geographic desirability have a larger pool of potential CEO candidates across the country they can choose from, implying that they are less likely to hire locally. Hence, this instrument is likely to satisfy the relevance condition. Simultaneously, the number of clear days of a state is relatively unlikely to be correlated with the M&A activities, satisfying the exclusion condition for instrumental variables. When this study regresses the instrumented home CEO variable on acquisition likelihood, the result is unchanged, reducing concerns of an omitted variable bias. Additionally, this study also removes CEOs with a tenure of fewer than 3 years to address the adverse causality concern of a non-random CEO-firm matching, i.e., firms hire home CEOs in periods that are more likely to be taken over.

Next, this study examines whether home CEOs adopt more antitakeover provisions. The antitakeover measure is an index based on the six components of the entrenchment index (i.e., E-index, Bebchuk et al. 2009): classified board, supermajority voting, golden parachutes, poison pills, bylaws amend, and charter amend. The adoption of each provision adds one to the ATPs index, except golden parachutes.<sup>60</sup> The results show that firms with a home CEO are associated with

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<sup>60</sup> Many researchers find that golden parachutes are positively related to takeover likelihood (see Sokolyk, 2011; Goktan and Kieschnick 2012; Bebchuk, Cohen, and Wang 2014; and Karpoff et al. 2022). The rationale is golden parachutes align target managers' and shareholders' incentives during a takeover bid (Agrawal and Knoeber 1998; Machlin, Choe, and Miles 1993; Sokolyk 2011; Goktan

0.092 more antitakeover provisions, corresponding to approximately 7.25% (0.092/1.269) of one standard deviation of ATPs distribution. This result is robust (1) when this chapter uses firm fixed effects, (2) when this study controls for corporate governance characteristics; and (3) when this chapter uses an alternative definition of home CEOs. By decomposing the ATPs index, this essay finds home CEOs are more likely to adopt classified board and supermajority voting, and less likely to adopt golden parachute and poison pills. The results are unchanged in further endogeneity tests including PSM, IV regressions, and removing CEOs with a tenure of less than 3 years.

To further validate the effect of CEOs' home bias in deterring takeovers, this study performs three more tests which shed light on the complications which emerge in deals in which such CEOs engage, and their preference for the origin of the acquirer (if the acquisition deal cannot, ultimately, be avoided). First, this study examines the probability of deal completion. As expected, target firms with home CEOs are less likely to complete the deal. Second, this study investigates the probability of withdrawn deals. Given that home CEOs would have an extra incentive to avoid being taken over, this essay finds that deals are more likely to be withdrawn for target firms with home CEOs on board. Third, Bates et al. (2014) document that 26.40% of target firm CEOs obtained a job in the combined firm after the acquisition. Therefore, if a deal cannot be avoided, home CEOs of the target firms prefer their firm to be taken over by an acquirer from the same state, which means

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and Kieschnick 2012; Mansi et al. 2016; Bebchuk et al. 2014; and Goktan et al. 2018). Karpoff et al. (2022) argue that including golden parachutes with the wrong sign merely adds bias or measurement noise to an index that is used to measure a firm's takeover deterrence. Therefore, this study gives golden parachutes negative weight, which means the adoption of "no golden parachutes" add one to the ATPs index. More details are described in Section 3.3.

they have a higher probability to work in their home state. Indeed, this essay finds that target firms with home CEOs are more likely to be acquired by acquirers from the same state.

Finally, this study examines the impact of home CEOs on takeover premiums and target firm returns. Prior literature is inconclusive on whether ATPs are positively or negatively associated with takeover premiums. On the one hand, ATPs allow managers to negotiate a higher price and obtain higher premiums (Stein 1988; Harris 1990); however, they may also reduce the probability of a takeover. On the other hand, more recently, Cunat, Gine, and Guadalupe (2020) provide evidence that in cases where there appears to be no trade-off between price and acquisition probability, firms receive lower takeover premiums. The setting is a characteristic example of the second scenario, as particularly for firms with home CEOs there is no trade-off between acquisition probability and premiums. Indeed, this essay finds that target firms with home CEOs on board are associated with 8.10% lower takeover premiums. The reduction in acquisition premium translates into 3.60% lower target firm stock abnormal returns. In economic terms, this is equal to approximately \$38.25 million value destruction for the sample average public target firm, which supports the existence of agency problems in firms with home CEOs.

This chapter makes three main contributions to the literature. First, this chapter addresses the puzzle in takeover defences literature about whether firms use antitakeover provisions to deter takeover (Karpoff et al. 2017, 2022; Dey and White 2021) by identifying a condition when firms do not want to be taken over, namely when firms have home CEOs. In particular, this study shows that firms with home

CEOs are associated with less acquisition likelihood and adopt more antitakeover provisions.

Second, this study also adds to the literature on the determinants of acquisition likelihood and takeover premiums. Bonaime, Gulen, and Ion (2018) identify a significant negative relation between policy uncertainty and acquisition likelihood. Nguyen, Petmezas, and Karampatsas (2022) document that firms located near terrorism-stricken areas are less likely takeover targets and receive lower takeover premiums. this study shows additionally that home CEOs are less likely to receive a takeover bid and receive lower takeover premiums, which reduces target firm shareholders' wealth.

Third, this study contributes to the literature on home bias. Home bias can lead individual investors and fund managers to hold more domestic or local securities (French and Poterba 1991; Coval and Moskowitz 1999; Huberman 2001; Pool, Stoffman, and Yonker 2012). Additionally, home bias of executives affects firms' employment policies (Yonker, 2017b), credit ratings (Cornaggia, Cornaggia, and Israelsen 2020), R&D expenses (Lai et al. 2020), bank credit allocation (Lim and Nguyen 2021), and financial misconduct (Lei et al. 2022). The closest work to the own is the one by Jiang, Qian, and Yonker (2019) who study the home bias of CEOs in M&As from the *acquirer* side and find that acquirers with home CEOs are more likely to bid for targets near their hometown. This chapter examines home CEO bias in M&As from the *target* side and provide evidence that home CEOs act as deterrents against takeover bids.

The rest of the chapter is organized as follows. Section 5.2 reviews the papers on takeover likelihood and antitakeover provisions. Section 5.3 describes the sample and the measure of home CEO. Section 5.4 reports the empirical evidence. Section 5.5 presents the results of robustness checks and additional tests. And Section 5.6 concludes the chapter.

## **5.2 Literature Review: Antitakeover**

This section reviews the academic papers which study the takeover likelihood and takeover deterrence of target companies in M&As.

### **5.2.1 Acquisition likelihood**

Some firm characteristics are associated with higher acquisition likelihood. In the theory of corporate control, acquisition is a method to discipline bad firm performance (Lel and Miller, 2015). In the paper of Palepu (1986), an empirical model was designed to predict acquisition likelihood using firm-level variables such as firm size, market-to-book ratio, price-to-earnings ratio, etc. Later literature provides more empirical evidence. For instance, Billett (1996) finds that the coinsurance of debt is negatively associated with acquisition likelihood. Ambrose and Megginson (2009) find that acquisition likelihood is positively related to the proportion of tangible assets and is negatively related to firm size. Heeley, King, and Covin (2006) and Wu and Chung (2009) find that firms' investment in R&D is positively related to acquisition likelihood. Younge, Tong, and Fleming (2014) find that firms with more restrictions on employee mobility are associated with higher acquisition likelihood. Akdogu, Paukowits, and Celikyurt (2023) study the effect of creditor rights on takeover likelihood. They show that firms with more restrictive covenants are more likely to become acquisition targets.

Another thread of literature explores the impact of CEOs' personal characteristics and the acquisition likelihood of firms. For instance, as the age of target CEOs closes to 65, the acquisition likelihood increases sharply (Jenter and Lewellen,

2015). Additionally, Weng and Yamakawa (2022) find that confident target VC CEOs are negatively associated with the likelihood of a completed acquisition.

### **5.2.2 Antitakeover provisions**

Apart from the exogenous firm and CEO characteristics, firms can also use antitakeover provisions to deter takeover. These provisions are put in place to deter hostile takeovers, where a company or individual attempts to acquire a controlling stake in the target company without the approval of its management or board of directors. Antitakeover provisions can include various defensive strategies, such as poison pills, golden parachutes, staggered boards, and supermajority requirements for shareholders to approve a takeover bid.

The direct motivation of adopting antitakeover provisions is to deter takeover. Ryngaert (1988) finds that poison pills adopted by companies are associated with high rates of the defeat of unsolicited offers. Guo, Kruse, and Nohel (2008) find that firms cancelling staggered boards are more likely to be taken over in the period preceding SOX act. However, Karpoff et al. (2017, 2020) argue that not all antitakeover provisions, proxied usually by G-index and E-index in literature, are associated with less takeover likelihood. Some even are positively related to takeover likelihood (e.g., golden parachute, Machlin et al. 1993). Schwert (1995) found evidence that antitakeover measures implemented in the 1980s did not effectively prevent takeovers, but rather led to an increase in the amount of money paid to shareholders who sold their shares during a takeover.

Some papers have revealed that executives have incentives to use antitakeover provisions to protect their private interests. Borokhovich et al. (2012) argue that antitakeover provisions are a tool for CEOs to protect their compensation. They find that CEOs in firms with antitakeover provisions receive higher compensation compared with peers in firms without. Field and Karpoff (2002) document that IPO managers adopted more antitakeover provisions when their compensation is high; they hold fewer shares, and the monitoring is weak. Chemmanur et al. (2010) find that CEOs of pre-spin-off firms have a tendency to hold onto a greater number of antitakeover provisions (ATPs) in the parent firms and allocate fewer ATPs to the spun-off units, provided they continue to serve as the CEOs of the parent firms and not of the spun-off units.

### **5.2.3 Hypothesis development**

As outlined in Chapter 2 of the thesis, individuals generally have a strong preference for their hometown and often seek to live close to their family and friends. In line with this, home-biased CEOs may also have a greater motivation to avoid being taken over, as such an occurrence would likely lead to their replacement and decrease the probability of working in their hometown. Therefore, it is reasonable to suggest that home-biased CEOs are more likely to take steps to protect their job when managing firms that are located in their hometown, such as by deterring takeover attempts. Therefore, this chapter tests the following hypothesis.

***H3.** Home CEOs are associated with less takeover likelihood.*

## 5.3 Sample and Data

### 5.3.1 Sample construction and measure of home CEOs

The initial sample includes the universe of firms covered by Compustat and ExecuComp over the period 1992-2018. Following prior literature (Jiang et al. 2019; Nguyen, et al. 2022), this study excludes financial firms (SIC 6000-6999) and regulated utilities (SIC 4900-4999). This leads to 36,160 firm-year observations (2,877 unique firms, or 6,420 unique CEOs) in the initial sample.

This study defines a CEO as a home CEO if the CEO's home state matches the firm's headquarters state. This study identifies the CEOs' home state based on the Social Security Number (SSN) from the LexisNexis online public records database for CEOs covered by ExecuComp database.<sup>61</sup> The 5-digit SSN is issued by the state when a resident applies for the first job or driver's license. Specifically, the first 3 digits indicate the state of issuance, while the fourth and fifth digits are linked to the sequence of issuance. Therefore, the Social Security Number identifies the year and state in which a CEO acquired her Social Security Number. Yonker (2017a) shows that more than 80% of CEOs in his sample receive the SSN before the age of 17 years old. He argues that SSN efficiently identifies CEO home states. Complementing to Yonker's data, this study also manually collects birthplace data of CEOs covered by ExecuComp from Marquis Who's Who, Standard and Poor's Register of Directors and Executives, Lexis-Nexis, NNDB.com, or Google searches. Eventually, this study identifies the birth states for 81.20% of observations in the

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<sup>61</sup> This thesis again thanks Scott Yonker for sharing his home CEO data.

initial sample and the final home CEO sample has 29,346 observations (2,465 unique firms, or 4,853 unique CEOs). As shown in Panel A of Table 5.1, firms with home CEOs represent 29.60% of observations in the sample, which is consistent with the figure (30%) documented by Yonker (2017a).

### **5.3.2 M&A data**

The M&A sample comes from the SDC US Mergers and Acquisitions database and includes transactions announced between 1<sup>st</sup> January 1993 to 31<sup>st</sup> December 2019. Because this study needs to identify the state of origin for CEOs in the target firms, this study restricts target firms to public firms headquartered in the US. This study also excludes the following transaction types: spinoffs, recapitalizations, exchange offers, repurchases, self-tenders, privatizations, acquisitions of remaining interest, and partial interests or assets. To ensure this essay includes economically meaningful transactions, this study removes deals with a value of less than \$1 million and deals whose relative deal value to acquirer market capitalization one month prior to the announcement is less than 1% from the sample. Finally, financial firms (SIC 6000-6999) and regulated utilities (SIC 4900-4999) are also excluded. These data filters yield an initial sample of 1,386 acquisition deals. The final M&A sample used in the analysis consists of a pool of 1,188 deals (total deal value \$6.51 trillion) with available data on acquisition premium, and target and acquiring firms' announcement returns.

### **5.3.3 Measure of antitakeover provisions**

This study measures the adoption of antitakeover provisions based on the entrenchment index (E-index) proposed by Bebchuk et al. (2009). E-index, as well as its components (including classified board, supermajority voting, golden parachutes, poison pills, bylaws amend, and charter amend), are widely used by M&A studies to measure firms' takeover defences (e.g., Masulis et al. 2007; Straska and Waller 2010; Johnson et al. 2015; Karpoff et al. 2017). The data on antitakeover provisions is obtained from Institutional Shareholder Services (ISS) Database. From 1990 to 2006, ISS only published corporate governance data for years 1990, 1993, 1995, 1998, 2000, 2002, 2004, and 2006. Since 2007, ISS published corporate governance every year. Following previous studies (Gompers et al. 2003; Bebchuk, et al. 2009; Karpoff et al. 2017, 2022), this study fills in data from missing years by projecting forward from the most recent ISS data. For example, the ISS data from 1990 are used in 1992 and the 1993 data are used for 1994 and 1995. Finally, this essay is able to match 73.32% (21,517/29,346) of the home CEO sample with ISS data.

It is worth noting that the golden parachutes provision is documented to be positively related to takeover likelihood while the other five provisions are negatively related to the probability of takeover (e.g., see Machlin et al. 1993; Sokolyk 2011; Goktan and Kieschnick 2012; Bebchuk et al. 2014; and Karpoff et al. 2022). This is consistent with golden parachutes aligning target managers' and shareholders' incentives in a takeover bid (Agrawal and Knoeber 1998; Machlin et al. 1993; Sokolyk 2011; Goktan and Kieschnick 2012; Mansi et al. 2016; Bebchuk et al. 2014; and Goktan et al. 2018). Karpoff et al. (2022) argue that including golden parachutes with the wrong sign merely adds bias or measurement noise to

an index that is used to measure a firm's takeover deterrence. Therefore, to construct the antitakeover index, this chapter gives golden parachute a negative weight. Specifically, for the other five provisions apart from golden parachute, the adoption of each provision adds one to the antitakeover index. While the adoption of "no golden parachute" adds one to the antitakeover index.

### **5.3.4 Descriptive statistics**

Table 5.1 presents descriptive statistics of the home CEO sample and the M&A sample. The definitions of variables are provided in Appendix C Table C1. All continuous variables are winsorized at the 1<sup>st</sup> and 99<sup>th</sup> percentiles. Panel A reports the summary statistics for the home CEO sample. The average number of antitakeover provisions adopted by firms is 1.852, indicating that firms, on average, adopt around two provisions to deter takeovers. Firms that received a takeover bid in a given year represent 4.70% of the observations in the sample. Panel B of Table 5.1 presents a univariate test on antitakeover provisions between home CEOs and non-home CEOs. On average, home CEOs adopt 0.112 more antitakeover provisions than non-home CEOs. Panel C illustrates the summary statistics for the M&A sample. Firms with home CEOs represent 23.80% of observations in the M&A sample. Because of unavailable information for private and non-US acquirers, this study reports the summary statistics for 549 US public acquirers (760 observations) in Panel D. Finally, Panel E presents deal characteristics for the M&A sample. The sample firms are roughly similar to the samples in prior studies along deal characteristics (e.g., Nguyen et al. 2022).

**Table 5. 1 Summary statistics**

This table presents summary statistics for a sample of US publicly listed firms with available data on CEO birth state over the period 1992-2018, and for a sample of US domestic acquisitions with public targets announced over the period 1993-2019. Specifically, it reports the mean, median, first quartile, third quartile, standard deviation, and number of observations for the home CEO sample (Panels A and B), and for the M&A sample (Panels C, D, and E). The definitions of all variables are provided in the Appendix C Table C1.

**Panel A. Home CEO sample**

	<b>N</b>	<b>Mean</b>	<b>St.Dev</b>	<b>p25</b>	<b>Median</b>	<b>p75</b>
Home CEO	29,346	0.296	0.457	0	0	1
Receiving A Bid	29,346	0.047	0.212	0	0	0
Ln(Assets)	29,346	7.290	1.604	6.166	7.175	8.340
M/B	29,346	3.335	5.323	1.549	2.498	4.074
Net Leverage	29,346	0.081	0.313	-0.109	0.114	0.282
ROA	29,346	0.030	0.204	0.015	0.053	0.091
Cash	29,346	0.150	0.170	0.026	0.084	0.216
Tobin's Q	29,346	2.102	1.805	1.235	1.628	2.348
High Herfindahl	29,346	0.720	0.449	0	1	1
M&A Liquidity	29,346	0.097	0.159	0.009	0.045	0.100
State Population (in million)	29,346	14.350	10.772	5.956	11.212	19.674
State Unemployment (%)	29,346	5.901	1.889	4.700	5.400	6.700
ATPs	21,517	1.852	1.269	1	2	3
Classified Board	21,517	0.503	0.500	0	1	1
Supermajority Voting	21,517	0.234	0.424	0	0	0
No Golden Parachute	21,517	0.316	0.465	0	0	1
Poison Pills	21,517	0.394	0.489	0	0	1
Bylaws Amend	21,517	0.244	0.430	0	0	0
Charter Amend	21,517	0.160	0.367	0	0	0

**Panel B. Univariate analysis on antitakeover provisions (Home CEO sample)**

	<b>Home CEOs</b>		<b>Non-Home CEOs</b>		<b>Mean Diff. (4)– (2)</b>	<b>t-Value</b>
	<b>N (1)</b>	<b>Mean (2)</b>	<b>N (3)</b>	<b>Mean (4)</b>		
ATPs	6,546	1.930	14,971	1.817	0.112	5.974***
Classified Board	6,546	0.527	14,971	0.492	0.035	4.711***
Supermajority Voting	6,546	0.249	14,971	0.228	0.021	3.349***
No Golden Parachute	6,546	0.382	14,971	0.287	0.095	13.901***
Poison Pills	6,546	0.368	14,971	0.406	-0.037	-5.171***
Bylaws Amend	6,546	0.243	14,971	0.245	-0.002	-0.276
Charter Amend	6,546	0.160	14,971	0.160	0	0.026

**Panel C. M&A sample (Target Firms)**

	<b>N</b>	<b>Mean</b>	<b>St.Dev</b>	<b>p25</b>	<b>Median</b>	<b>p75</b>
Home CEO	1,188	0.238	0.426	0	0	0
Ln(Assets)	1,188	7.008	1.518	5.905	6.912	7.920
M/B	1,188	3.341	5.566	1.500	2.345	3.861
Net Leverage	1,188	0.082	0.309	-0.116	0.120	0.300
ROA	1,188	0.017	0.147	0.004	0.044	0.076
Cash	1,188	0.155	0.173	0.024	0.088	0.235
Tobin's Q	1,188	1.910	1.394	1.202	1.543	2.151
High Herfindahl	1,188	0.653	0.476	0	1	1
M&A Liquidity	1,188	0.116	0.169	0.017	0.065	0.125
CAR(-1,1)	1,188	0.204	0.219	0.070	0.182	0.291

**Panel D. M&A sample (Acquirer Firms)**

	<b>N</b>	<b>Mean</b>	<b>St.Dev</b>	<b>p25</b>	<b>Median</b>	<b>p75</b>
Ln(Assets)	760	8.612	1.637	7.454	8.657	9.949
M/B	760	4.425	5.914	2.034	3.262	5.315
Net Leverage	760	0.108	0.268	-0.028	0.134	0.279
ROA	760	0.149	0.108	0.105	0.148	0.197
Cash	760	0.136	0.155	0.027	0.074	0.196
Tobin's Q	760	2.412	2.722	1.370	1.823	2.570
CAR(-1,1)	760	0.002	0.037	-0.017	0	0.020

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**Panel E. M&A sample (Deal characteristics)**

	<b>N</b>	<b>Mean</b>	<b>St.Dev</b>	<b>p25</b>	<b>Median</b>	<b>p75</b>
Takeover Premium	1,188	0.446	0.424	0.208	0.338	0.541
Tender	1,188	0.218	0.413	0	0	0
Hostile	1,188	0.044	0.205	0	0	0
All Cash	1,188	0.468	0.499	0	0	1
All Stock	1,188	0.194	0.395	0	0	0
Diversifying	1,188	0.631	0.483	0	1	1

## 5.4 Empirical Evidence

### 5.4.1 Home-biased CEOs and acquisition likelihood

This study begins the empirical analysis by investigating the impact of CEOs' home bias on their probability to receive a takeover bid. To implement the analysis, this study estimates the following regression equation using both a probit model and linear probability models (LPM):

$$Receiving\ a\ Bid_{i,t+1} = \alpha + \beta Home\ CEO_{i,j,t} + Controls + Fixed\ Effects + \varepsilon_{i,j,t+1} \quad (1)$$

where  $i$  indexes firms,  $j$  indexes CEOs, and  $t$  indexes times.  $\varepsilon$  is the error term. The dependent variable, *Receiving A Bid*, is a dummy variable that equals one if the firm receives at least one acquisition bid in year  $t+1$ , and zero otherwise. The main independent variable of interest, *Home CEO*, is a dummy variable that is equal to one if the home state of a CEO matches the firm's headquarters state, and zero otherwise. Following Chen et al. (2021), Dey and White (2021) and Nguyen et al. (2022), this study controls for a set of firm characteristics, including firm size, market-to-book ratio, net leverage, ROA, cash holdings, and Tobin's Q ratio. Furthermore, this essay includes state-level variables such as the state

unemployment rate and state-level population to account for specific location characteristics that might drive the adoption of antitakeover provisions. Finally, this study controls for industry concentration (*High Herfindahl*), and for industry liquidity of the M&A market (*M&A liquidity*). To control for fixed differences, this essay includes industry, year, firms' headquarters state fixed effects, and CEO birthplace effects based on Fama-French 48 Industry Codes, fiscal years, firms' headquarters state, and CEOs' home state. Year fixed effects control for time-varying differences across fiscal years, whereas industry fixed effects, firms' headquarters state fixed effects, and CEOs' birthplace effects control for time-invariant variables related to industries, firms' headquarters location and CEOs' home location that might affect firms' decision to adopt antitakeover provisions.

This study reports the results in Table 5.2. Across all specifications, home CEOs carry a negative and strongly significant coefficient at the 1% level, suggesting that firms with a home CEO on board are less likely to receive a takeover bid.<sup>62</sup> In particular, this study performs probit regression in specification (1) and reports marginal effects for coefficients. In economic terms, the marginal effect associated with the home CEO coefficient indicates that firms with a home CEO are associated with a 1.56% decrease in the probability of receiving a bid, which represents a sizeable 33.19% (1.56%/4.70%) of the average acquisition likelihood. Specification (2) presents results for LPM estimation.

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<sup>62</sup> In the Appendix C Table C3, this study finds similar results when this study performs probit regressions.

**Table 5. 2 Home-Biased CEOs and Acquisition Likelihood**

This table presents the results for the effect of M&A target's home CEO on the acquisition likelihood over the period between 1992 and 2018 for a sample of US publicly listed firms. The dependent variable, *Receiving A Bid*, is a dummy variable that is equal to one if the firm receives at least one acquisition bid in year  $t+1$ , and zero otherwise. *Home CEO* is a dummy variable that is equal to one if the home state of a firm's CEO a dummy variable that is equal to one if the home state of a CEO matches the firm's headquarters state, and zero otherwise. Specifications (1) present estimates of probit models and specifications (2) and (3) present estimates of linear probability models (LPM). The definitions of all variables are provided in the Appendix C Table C1. All control variables are lagged by one year. Industry, year, headquarters state, and birth state fixed effects, whose coefficients are suppressed, are based on Fama-French 48 industries classification, calendar year dummies, state dummies, and CEO birth state dummies respectively. The z-statistics and t-statistics reported in parentheses are based on standard errors adjusted for heteroscedasticity and clustered at the state-year level. The symbols \*\*\*, \*\* and \* indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	<i>Dependent Variable: Receiving A Bid</i>		
	<b>Probit</b>	<b>LPM</b>	<b>LPM with Firm FEs</b>
	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>
Home CEO	-0.016*** (-4.959)	-0.014*** (-4.666)	-0.012*** (-2.604)
Ln(Assets)	-0.007*** (-7.714)	-0.007*** (-7.314)	-0.012*** (-4.264)
M/B	0.000 (1.472)	0.000 (0.938)	-0.000 (-0.278)
Net Leverage	0.026*** (4.246)	0.027*** (3.916)	0.022** (2.035)
ROA	0.003 (0.640)	-0.007 (-1.172)	0.004 (0.596)
Cash	0.015 (1.225)	0.015 (1.147)	-0.026 (-1.330)
Tobin's Q	-0.008*** (-6.069)	-0.006*** (-7.962)	-0.004*** (-4.736)
High Herfindahl	-0.002 (-0.630)	-0.005 (-1.207)	0.010* (1.735)
M&A Liquidity	0.001** (2.322)	0.002* (1.725)	0.001 (1.288)
State Population	-0.002 (-1.366)	-0.001 (-0.696)	0.004* (1.649)
State Unemployment	-0.003*** (-3.794)	0.000 (0.164)	-0.001 (-0.526)
Industry FEs	Yes	Yes	No
Firm FEs	No	No	Yes
Year FEs	Yes	Yes	Yes
HQ State FEs	Yes	Yes	No
Birth State FEs	Yes	Yes	Yes
Observations	29,293	29,346	29,235
Pseudo/Adjusted R <sup>2</sup>	0.104	0.021	0.164

The result indicates that a firm with a home CEO is associated with 1.38% decrease in the likelihood to receive an acquisition bid, which represents a sizeable 29.36% (1.38%/4.70%) of the average acquisition likelihood. Finally, in specification (3) this study introduces firm fixed effects. In economic terms, firms with home CEOs

on board are 1.201% less likely to receive a bid, which represents a sizeable 25.53% (1.20%/4.70%) of the average acquisition likelihood. The estimates of the control variables are also in line with prior studies (e.g., Ambrose and Megginson 1992; Chen et al. 2021). Specifically, the likelihood to receive a takeover bid declines for firms with larger firm size and Tobin's Q, and increases for firms with higher net leverage.

#### 5.4.2 Do home CEOs adopt more antitakeover provisions?

Next, this study examines whether home CEOs, who would like to deter takeovers, are associated with more antitakeover provisions. To do so, this chapter estimates the following equation using OLS models:

$$ATPs_{i,t+1} = \alpha + \beta Home\ CEO_{i,j,t} + Controls + Fixed\ Effects + \varepsilon_{i,j,t+1} \quad (2)$$

where  $i$  indexes firms,  $j$  indexes CEOs, and  $t$  indexes time.  $\varepsilon$  is the error term. The main dependent variable  $ATPs$  is the total number of antitakeover provisions adopted by a firm in year  $t+1$ , ranging from 0 to 6. The main independent variable of interest,  $Home\ CEO$ , is a dummy variable that is equal to one if the home state of a firm's CEO matches the state in which the firm is headquartered, and zero otherwise. This study also includes the same control variables in Equation (1). To control for fixed differences, this essay includes industry, year, firm's headquarters state, and CEO birth state fixed effects based on Fama-French 48 Industry Codes, fiscal years, firm's headquarters state, and CEO's birth state.

Table 5.3 presents the estimations from Equation (2). In specification (1), the dependent variable is  $ATPs$ . The coefficient of  $Home\ CEO$  is positive and

significant at the 1% level. This result indicates that firms with a home CEO have 0.092 more antitakeover provisions than firms without a home CEO, corresponding to approximately 7.25% ( $= 0.092/1.269$ ) of one standard deviation of the antitakeover index. In specification (2), this essay finds that results are qualitatively similar after controlling for firm fixed effects. From specifications (3)-(8), this study decomposes the antitakeover index and examines whether CEO home bias is related to the adoption of six individual antitakeover provisions. In particular, the decomposition results in specifications (3), (4) and (5) show that *Home CEO* is positively associated with the adoption of classified board, supermajority voting, and no golden parachute. This implies that the effect of home CEOs on antitakeover provisions is mainly driven by the adoption of staggered board, supermajority voting, and no golden parachute provisions. Furthermore, the coefficient of *Home CEO* is negative and statistically significant at the 1% level in specification (6), indicating that CEO home bias is negatively associated with the adoption of poison pills. Since poison pills are mainly used as a bargaining tool in the M&A process (Comment and Schwert 1995) and prior studies find mixed evidence on whether the poison pills provision deters takeovers (Comment and Schwert 1995; Goktan et al. 2018; Karpoff et al. 2022), this study interprets this result with caution. In specifications (7) and (8), the coefficients of *Home CEO* are not statistically significant when the dependent variables are *Bylaws Amend* and *Charter Amend*.

**Table 5. 3 Home-Biased CEOs and Antitakeover Provisions**

This table presents the linear probability models (LPM) results for the effect of home CEOs on the adoption of antitakeover provisions over the period between 1992 and 2018 for a sample of US publicly listed firms. The main dependent variable, *ATPs*, is the total number of antitakeover provisions (based on E-index components) adopted by a firm in year  $t+1$ , ranging from 0 to 6. *Classified Board*, *Supermajority Voting*, *Poison Pills*, *Bylaws Amend*, and *Charter Amends* are dummy variables that indicate the adoption of individual provisions. *No Golden Parachute* is a dummy variable that is equal to one if a firm did not adopt golden parachutes provision in year  $t+1$ , and zero otherwise. *Home CEO* is a dummy variable that is equal to one if the home state of a CEO matches the firm's headquarters state, and zero otherwise. Panel A present estimates of linear probability models (LPM). The definitions of all variables are provided in Appendix C Table C1. All control variables are lagged by one year. Industry, year, headquarters state, and birth state fixed effects, whose coefficients are suppressed, are based on Fama-French 48 industries classification, calendar year dummies, state dummies, and CEO birth state dummies, respectively. The t-statistics reported in parentheses are based on standard errors adjusted for heteroscedasticity and clustered at the state-year level. The symbols \*\*\*, \*\* and \* indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	<b>ATPs</b>	<b>ATPs</b>	<b>Classified Board</b>	<b>Super. Voting</b>	<b>No Golden Parachute</b>	<b>Poison Pills</b>	<b>Bylaws Amend</b>	<b>Charter Amend</b>
	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>	<b>(6)</b>	<b>(7)</b>	<b>(8)</b>
Home CEO	0.092*** (5.084)	0.050** (2.368)	0.022*** (3.088)	0.021*** (3.874)	0.099*** (13.019)	-0.041*** (-5.777)	-0.003 (-0.548)	0.000 (0.032)
Ln(Assets)	-0.037*** (-4.966)	0.036** (2.112)	-0.024*** (-7.241)	-0.010*** (-5.045)	0.018*** (6.576)	-0.008*** (-3.413)	-0.008*** (-3.828)	-0.005** (-2.445)
M/B	-0.003* (-1.662)	-0.001 (-0.932)	-0.000 (-0.042)	-0.001** (-2.360)	-0.001 (-1.226)	0.000 (0.635)	-0.000 (-0.688)	-0.001* (-1.843)
Net Leverage	-0.175*** (-3.761)	-0.168*** (-3.085)	-0.064*** (-3.623)	-0.022* (-1.734)	-0.201*** (-13.095)	0.099*** (6.176)	0.019 (1.064)	-0.003 (-0.214)
ROA	0.248*** (3.480)	-0.211*** (-2.738)	0.045 (1.588)	0.062* (1.744)	0.073*** (3.003)	-0.021 (-0.808)	0.060** (2.453)	0.030 (1.480)
Cash	-0.274*** (-3.294)	-0.389*** (-4.056)	-0.095*** (-2.748)	-0.088*** (-3.411)	-0.044 (-1.367)	0.008 (0.257)	-0.035 (-1.171)	-0.021 (-0.851)
Tobin's Q	0.003 (0.481)	0.026*** (3.992)	-0.009*** (-2.903)	0.001 (0.527)	0.023*** (9.198)	-0.018*** (-6.774)	0.001 (0.446)	0.005*** (2.667)
High Herfindahl	-0.026 (-1.149)	-0.019 (-0.827)	-0.002 (-0.238)	0.024*** (3.045)	-0.042*** (-4.544)	-0.008 (-0.941)	0.010 (1.284)	-0.010 (-1.636)
M&A Liquidity	0.006 (0.112)	-0.015 (-0.383)	0.011 (0.458)	-0.012 (-0.697)	-0.036* (-1.697)	-0.004 (-0.179)	0.018 (0.887)	0.029* (1.784)
State Population	-0.062*** (-10.602)	-0.094*** (-11.949)	-0.006* (-1.905)	-0.001 (-0.841)	-0.011*** (-3.547)	-0.008*** (-3.344)	-0.017*** (-8.286)	-0.017*** (-6.246)
State Unemployment	-0.036*** (-3.869)	-0.018* (-1.934)	0.002 (0.409)	-0.013*** (-3.341)	-0.002 (-0.596)	0.007** (2.001)	-0.011*** (-2.768)	-0.019*** (-5.371)

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Industry FEs	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FEs	No	Yes	No	No	No	No	No	No	No
Year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
HQ State FEs	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Birth State FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	21,517	21,517	21,517	21,517	21,517	21,517	21,517	21,517	21,517
Adjusted R <sup>2</sup>	0.200	0.672	0.133	0.318	0.188	0.278	0.109	0.217	

### **5.4.3 Dealing with endogeneity**

A potential concern with the causal interpretation of the relation between CEOs' home bias and acquisition likelihood (or antitakeover provisions) is endogeneity. There are two possible sources of endogeneity. The first source is a self-selection bias, arising from the possibility that boards select CEOs to implement strategies that might deter acquisitions. The second source is reverse causality, which means home CEOs are hired by firms specifically to deter upcoming takeover bids. We, thus, perform three analyses to address the endogeneity issue including, (1) a propensity score matching (PSM), (2) an instrumental variable (IV) approach, and (3) excluding non-random CEO-firm matching.

#### *5.4.3.1 Propensity score matching (PSM)*

To alleviate the self-selection bias based on observable characteristics, this study matches firms that hire home CEOs (treated group) with firms exhibiting similar characteristics but are not managed by home CEOs (control group). The treatment effect from the PSM estimation is the difference between the treated sample and the matched control sample, as measured by the home CEO coefficient. To match firms, this study calculates a one-dimensional propensity score, which is a function of observable characteristics used in Equation (1) or (2). This study implements a one-to-one (i.e., nearest neighbour) matching estimator with replacement and requires that the absolute difference in propensity scores between pairs does not exceed 0.05. This study also requires an exact match of Fama-French 48 Industry Code and fiscal year.

After the matching process, all independent variables are comparable for the matched sample which indicates that the PSM process removes obvious sample selection biases.<sup>63</sup> Using the matched sample, this essay re-runs the regression with the same control variables and fixed effects as in Equation (1) or (2). Panel A of Table 5.4 presents the regression results when the dependent variable is *Receiving A Bid* while the dependent variable is *ATPs* in Panel B. This study employs a probit model in specification (1) of Panel A and a linear probability model (LPM) in specification (2) with the matched sample. The results remain robust, supporting that selection bias on observable characteristics does not affect the negative impact of home CEOs on the probability of receiving a bid. In specification (1) of Panel B, the coefficient of *Home CEO* is positive and significant at the 1% level, confirming that selection on observable characteristics does not bias the positive impact of home CEO on antitakeover provisions.

#### *5.4.3.2 Instrumental variable (IV) 2-stage least squares approach*

To address the possibility that omitted variables drive the results, this study performs a two-stage instrumental variable (IV) analysis (2SLS) and presents the results in Table 5.4. This approach requires an instrumental variable that is correlated with the choice of home CEOs to manage the firm but is uncorrelated with acquisition likelihood or antitakeover provisions. Following the previous literature (e.g., Deng and Gao 2013; Yonker 2017a; Lai et al. 2020), this chapter

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<sup>63</sup> Appendix C Table C2 reports difference-in-means of the independent variables for firms with home CEOs versus firms with non-home CEOs for both the unmatched and matched samples, respectively. This diagnostic test aims to ensure that the PSM analysis removes sample selection biases that are related to observable firm characteristics. The *t*-statistics of the corresponding difference-in-means indicate that many variables differ significantly for the unmatched sample.

uses the percentage of clear days in the firm's headquarters state (*Clear Days*) as the instrumental variable. Given that people generally prefer sunny weather, firms in regions with more desirable weather can more easily attract talented CEOs from across the country and are, thus, less likely to hire locally. Therefore, this study expects *Clear Days* to be negatively associated with local hiring (i.e., *Home CEO*). Hence, the instrument is likely to satisfy the relevant requirement of instrumental variables. Simultaneously, good weather in a state is unlikely to be correlated with firms' M&A decisions, satisfying the exclusion condition of instrumental variables.

To perform the IV analysis, this study regresses (the variable *Home CEO* on *Clear Days* as well as on all other control variables (specification (3) in Panel A and specification (2) in Panel B). This essay finds a strong negative relation between *Clear Days* and *Home CEO*. The coefficient on the instrumental variable is statistically significant at the 1% level, indicating that firms in states with better weather are less likely to appoint a home CEO. Importantly, this study finds that the effective *F* statistic for the weak identification test is comfortably higher than the critical value and satisfies the relevance condition, allowing us to reject the null of weak identification.

Then, this study reruns the same regression as in Equation (1) and reports the results of the second stage regression in specification (4) of Panel A where the instrumented home CEO variable is the main variable of interest. The result suggests that firms managed by a home CEO are associated with a lower probability of receiving a takeover bid. This study also repeats the same regression as in Equation (2) and reports the second-stage results in specification (3) of Panel B.

The results continue to show a significantly negative relation between the instrumented home CEO and ATPs, indicating that firms with a home CEO on board are associated with more antitakeover provisions.

**Table 5. 4 Controlling for Endogeneity**

This table presents the results of propensity score matching (PSM) and two-stage least squares (2SLS) analyses with an instrumental variable for the effect of home CEOs on antitakeover provisions and acquisition likelihood. In the PSM analysis, the treatment group includes firms managed by home CEOs during 1992-2018. The control group include firms managed by non-home CEOs. This chapter uses 1-to-1 nearest neighbour propensity score matching, of which the propensity score is calculated based on control variables in Table 5.2. This chapter also exactly matches fiscal year and Fama-French 48 industry code. The dependent variable in Panel A is *Receiving A Bid*, a dummy variable that is equal to one if the firm receives at least one acquisition bid in year  $t+1$ , and zero otherwise. Specifications (1) and (2) present the estimates of a probit model and a linear probability model (LPM) respectively. Specifications (3) and (4) present the 2SLS results. The dependent variable in Panel B is *ATPs*, the total number of antitakeover provisions (based on E-index components) adopted by a firm in year  $t+1$ , ranging from 0 to 6. Specification (1) of Panel B presents the replication result of Table 5.2 with the matched sample. In the 2SLS analysis, specification (2) presents the first-stage regression estimates, where the dependent is *Home CEO* and the instrumental variable is *Clear Days*, which is the average percentage of clear days per year in the state of the firm's headquarters. Specification (3) reports second-stage regression estimates, where the dependent variable is *ATPs* and the independent variable is the instrumented *Home CEO*. *Home CEO* is a dummy variable that is equal to one if the home state of a firm's CEO matches the firm's headquarters state, and zero otherwise. The definitions of all variables are provided in Appendix C Table C1. All control variables are lagged by one year. Industry, year, headquarters state, and birth state fixed effects, whose coefficients are suppressed, are based on Fama-French 48 industries classification, calendar year dummies, state dummies, and CEO birth state dummies respectively. The z-statistics and t-statistics reported in parentheses are based on standard errors adjusted for heteroscedasticity and clustered at the state-year level. The symbols \*\*\*, \*\* and \* indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

**Panel A. Dependent Variable = Receiving A Bid**

	PSM		2SLS	
	Probit (1)	LPM (2)	First Stage (3)	Second Stage (4)
Home CEO	-0.013*** (-3.619)	-0.013*** (-3.635)		-0.034** (-2.067)
Clear Days			-0.003*** (-20.120)	
Ln(Assets)	-0.006*** (-4.854)	-0.006*** (-4.693)	-0.007*** (-7.509)	-0.022*** (-12.226)
M/B	-0.000 (-0.262)	-0.000 (-0.608)	0.000 (0.853)	-0.001** (-2.733)
Net Leverage	0.017** (1.993)	0.018** (2.063)	0.024*** (3.546)	-0.069*** (-4.894)
ROA	-0.031** (-2.403)	-0.048*** (-2.757)	-0.006 (-1.030)	0.092*** (7.195)
Cash	0.011 (0.671)	0.009 (0.586)	0.017 (1.297)	-0.097*** (-3.892)
Tobin's Q	-0.008*** (-4.326)	-0.005*** (-4.535)	-0.006*** (-7.859)	0.005*** (2.925)
High Herfindahl	-0.008* (-1.648)	-0.007 (-1.375)	-0.005 (-1.195)	0.014 (1.873)
M&A Liquidity	0.001 (1.505)	0.002 (1.477)	0.002 (1.707)	0.002 (1.535)
State Population	-0.000 (-0.318)	-0.001 (-0.423)	0.000 (1.087)	0.005*** (8.568)
State Unemployment	0.001 (0.408)	0.001 (0.546)	-0.000 (-0.062)	0.004 (0.928)

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Industry FEs, Year FEs, and Birth State FEs	Yes	Yes	Yes	Yes
HQ State FEs	Yes	Yes	No	No
Efficient F-Statistics				404.822
LIML size of nominal 10%				23.109
Observations	16,796	17,176	29,346	29,346
Pseudo/Adjusted R <sup>2</sup>	0.701	0.027	0.160	0.013

**Panel B. Dependent Variable = ATPs**

	PSM		2SLS	
	(1)	(2)	First Stage (2)	Second Stage (3)
Home CEO	0.074*** (3.366)			0.314*** (2.804)
Clear Days			-0.003*** (-15.897)	
Ln(Assets)	-0.030*** (-3.269)		-0.036*** (-5.060)	-0.023*** (-10.927)
M/B	-0.004 (-1.255)		-0.002 (-0.977)	-0.002*** (-2.581)
Net Leverage	-0.238*** (-3.913)		-0.137** (-3.001)	-0.036 (-1.916)
ROA	-0.039 (-0.312)		0.184*** (3.686)	0.113*** (5.202)
Cash	-0.403*** (-3.541)		-0.266*** (-3.262)	-0.037 (-1.094)
Tobin's Q	0.006 (0.485)		0.006 (0.926)	0.006*** (2.611)
High Herfindahl	-0.050* (-1.736)		-0.042 (-1.854)	0.028*** (3.213)
M&A Liquidity	-0.002 (-0.025)		0.014 (0.266)	0.001 (0.040)
State Population	-0.074*** (-10.122)		-0.006*** (-6.930)	0.005*** (6.738)
State Unemployment	-0.045*** (-3.583)		-0.020 (-1.944)	0.007 (1.427)
Industry FEs, Year FEs, and Birth State FEs	Yes		Yes	Yes
HQ State FEs	Yes		No	No
Efficient F-Statistics				252.702
LIML size of nominal 10%				23.109
Observations	12,684		21,517	21,517
Pseudo/Adjusted R <sup>2</sup>	0.207		0.160	0.178

**Table 5. 5 Non-Random CEO-Firm Matching**

This table replicates the regression results in Tables 5.2 and 5.3 after excluding observations if CEO tenure is less than 3 years. The dependent variable in Panel A is *Receiving A Bid*, a dummy variable that is equal to one if the firm receives at least one acquisition bid in year  $t+1$ , and zero otherwise. Specification (1) and (2) of Panel A reports the results with the home CEO sample. Specifications (3) and (4) present the result with the PSM-matched sample from Table 5.4. This chapter reports estimations from both a probit model in specification (3) and a linear probability model (LPM) in specification (4). In Panel B, the dependent variable is *ATPs*, the total number of antitakeover provisions (based on E-index components) adopted by a firm in year  $t+1$ , ranging from 0 to 6. Specification (1) of Panel A reports the result with the home CEO sample. Specification (2) presents the result with the PSM-matched sample from Table 5.4. *Home CEO* is a dummy variable that is equal to one if the home state of a firm's CEO matches the firm's headquarters state, and zero otherwise. The definitions of all variables are provided in Appendix C Table C1. Fixed effects in Table 5.2 and Table 5.3 are employed respectively, whose coefficients are suppressed, are based on Fama-French 48 industries classification, calendar year dummies, state dummies, and CEO birth state dummies respectively. The z-statistics and t-statistics reported in parentheses are based on standard errors adjusted for heteroscedasticity and clustered at the state-year level. The symbols \*\*\*, \*\* and \* indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

**Panel A. Dependent Variable = Receiving A Bid**

	Home CEO Sample		Matched Sample	
	Probit (1)	LPM (2)	Probit (3)	LPM (4)
Home CEO	-0.016*** (-4.344)	-0.015*** (-4.284)	-0.015*** (-3.447)	-0.015*** (-3.364)
Controls in Table 5.3	Yes	Yes	Yes	Yes
Fixed Effects in Table 5.2 Panel B	Yes	Yes	Yes	Yes
Observations	20,436	20,534	11,883	12,225
Pseudo/Adjusted R <sup>2</sup>	0.031	0.024	0.037	0.032

**Panel B. Dependent Variable = ATPs**

	Home CEO Sample	Matched Sample
	(1)	(2)
Home CEO	0.119*** (5.586)	0.100*** (3.808)
Controls in Table 5.2	Yes	Yes
Fixed Effects in Table 5.2 Panel B	Yes	Yes
Observations	15,323	9,177
Pseudo/Adjusted R <sup>2</sup>	0.212	0.235

#### 5.4.3.3 Non-random CEO-firm matching

Another concern for the previous analysis is that the results could be driven by reverse causality. It is plausible that home CEOs are hired by firms specifically to deter potential takeover bids. To address this concern, this study excludes observations where CEO tenure is less than 3 years and redoes the analysis in Equations (1) and (2). The results are reported in Table 5.5. In Panel A, the dependent variable is *Receiving A Bid* and this study documents that the coefficients of *Home CEO* are negatively and statistically significant at the 1% level for both the full sample and PSM-matched sample. In Panel B, the dependent variable is *ATPs* and this study finds that the coefficients of *Home CEO* are positively and statistically significant at the 1% level for both the full sample and PSM-matched sample. These results indicate that reverse causality is unlikely to drive the results.

These results, combined with the extensive set of controls, help to alleviate endogeneity concerns and confirm the robustness of the previous findings that firm's home CEOs are more likely to deter acquisition bids and adopt more antitakeover provisions.

## 5.5 Further Evidence and Extensions

### 5.5.1 Control for corporate governance

Corporate governance affects takeover process and outcomes (Aktas, Croci, and Simsir 2015). Corporate governance measures are also overlapped with ATPs. Therefore, this chapter would like to control for corporate governance. This study uses four proxies to measure corporate governance. These proxies are: (1) whether the CEO also acts as the chairman of the board (*CEO is Chairman*) (Jensen 1993); (2) the percentage of institutional ownership as in Chung and Zhang (2011); (3) board size in Yermack (1996); and (iv) the percentage of independent directors as in Dahya, McConnell, and Travlos (2002). *CEO is Chairman* is a dummy variable that is equal to one if the CEO is also the chairman in a given year, and zero otherwise. *Institutional ownership* is the proportion of outstanding shares held by institutions. *Board size* is the number of directors in the board.<sup>64</sup> *Percentage of independent directors* is the proportion of independent directors in the board.

Table 5.6 reports the results after controlling for corporate governance. In specifications (1)-(4), the dependent variable is *Receiving A Bid*. The results show that, even after controlling for the level of corporate governance, firms with home CEO are associated with a significantly lower probability of receiving a takeover bid. Specifically, the coefficients of *Home CEO* are statistically significant at the 1% level across all specifications with coefficients similar to the baseline results.

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<sup>64</sup> Jensen (1993) finds that large boards are more likely to experience free-rider problems and are less effective than small boards.

In specifications (5)-(8), the dependent variable is *ATPs*. In all specifications, the *Home CEO* variable carries a positive and strongly significant coefficient at the 10% level. The results indicate that firms with home CEO are associated with significantly more antitakeover provisions after controlling for corporate governance variables.

### **5.5.2 CEOs' home bias and withdrawn/completed deals**

To further investigate the effect of CEOs' home bias on acquisition outcomes, this study looks at the consequence after a firm receives a bid. As home CEOs have a higher preference to work in their hometown, this study should observe firms with home CEOs are more likely to withdraw deals rather than complete deals. To test this, this essay replaces the dependent variable "*Receiving A Bid*" in Equation (2) with "*Withdrawn Deal*" or "*Completed Deal*". *Withdrawn deal* is a dummy variable that is equal to one if the deal that was announced in year  $t+1$  was withdrawn afterwards, and zero otherwise. *Completed Deal* is a dummy variable that is equal to one if the deal that was announced in year  $t+1$  was completed afterwards, and zero otherwise. This study conjectures that in attempt to deter a takeover bid, firms with home CEOs are associated with more withdrawn deals and fewer completed deals.

**Table 5. 6 Control for Corporate Governance**

This table replicates the regression results in Table 5.3 after controlling for corporate governance. Proxies of corporate governance are (1) *CEO is Chairman*, a dummy variable that is equal to one if the CEO is also the chairman in a given year, and zero otherwise; (2) *% of Institutional Ownership*, which is the percentage of shares held by institutions; (3) *Board Size*, which is the number of directors in the board; and (iv) *% of Independent Directors*, which is the percentage of independent directors on board. The dependent variable is *Receiving A Bid* in specifications (1)-(4), a dummy variable that is equal to one if the firm receives at least one acquisition bid in year  $t+1$ , and zero otherwise. The dependent variable is *ATPs* in specification (5)-(6), the total number of antitakeover provisions (based on E-index components) adopted by a firm in year  $t+1$ , ranging from 0 to 6. The definitions of all variables are provided in Appendix C Table C1. Fixed effects in Table 5.2 and Table 5.3 are employed respectively, whose coefficients are suppressed, are based on Fama-French 48 industries classification, calendar year dummies, state dummies, and CEO birth state dummies respectively. The z-statistics and t-statistics reported in parentheses are based on standard errors adjusted for heteroscedasticity and clustered at the state-year level. The symbols \*\*\*, \*\* and \* indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	<i>DV: Receiving A Bid</i>				<i>DV: ATPs</i>			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Home CEO	-0.012*** (-4.180)	-0.014*** (-4.021)	-0.014*** (-3.687)	-0.013*** (-3.401)	0.087*** (4.758)	0.103*** (5.412)	0.096*** (4.814)	0.101*** (5.071)
CEO is Chairman	-0.027*** (-6.389)				0.074*** (2.917)			
% of Institutional Ownership		0.018** (2.352)				0.161*** (3.008)		
Board Size			-0.001 (-0.652)				0.033*** (6.474)	
% of Independent Directors				0.030** (2.426)				0.079 (1.154)
Controls in Table 5.3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects in Table 5.2 Panel B	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	29,346	23,298	18,584	18,584	21,517	19,244	17,590	17,590
Pseudo/Adjusted R <sup>2</sup>	0.056	0.066	0.073	0.073	0.234	0.228	0.245	0.243

Table 5.7 reports the results. In specifications (1) and (2), this essay focuses on withdrawn deals and find that home CEOs carry a positive and strongly significant coefficient at the 1% level. In economic terms, the marginal effect associated with the home CEO coefficient indicates that firms with a home CEO on board are associated with an increase in the probability to withdraw a deal by 8.80%. Given that the average probability of withdrawn deals is 18.90%, an 8.80% increase is economically sizable, representing 46.56% of the unconditional probability. Results are unaltered with similar economic magnitude in specification (2) when this essay performs LPM estimates.

In specifications (3) and (4), this study examines completed deals and finds that the coefficient on the *Home CEO* variable is significant at a better than 5% level, indicating that firms with home CEOs are less prone to complete the M&A deal. In economic terms, the marginal effect associated with the home CEO coefficient indicates that firms with a home CEO are associated with a decrease in the probability to complete an M&A deal by 8.6%. Given that the average likelihood of completed deals is 13.56%, an 8.60% increase is economically sizable, representing 63.42% of the unconditional probability. Results are unchanged with similar economic magnitude in specification (4) when this study performs LPM estimates.

**Table 5. 7 Home-Biased CEOs in Target Firms and Withdrawn/Completed Deals**

This table presents the results for the impact of home-biased CEOs in target firms on the probability to withdraw or complete an M&A deal over the period between 1992 and 2018 for a sample of US publicly listed firms that received a bid. The dependent variable in specifications (1) and (2) is *Withdrawn Deal*, a dummy variable that is equal to one if the deal announced in year  $t+1$  was eventually withdrawn afterwards, and zero otherwise. The dependent variable in specifications (3) and (4) is *Completed Deal*, a dummy variable that is equal to one if the deal announced in year  $t+1$  was completed afterwards, and zero otherwise. *Home CEO* is a dummy variable that is equal to one if the home state of a firm's CEO matches the firm's headquarters state, and zero otherwise. Specifications (1) and (3) present estimates of probit models and specifications (2) and (4) present estimates of linear probability models (LPM). The definitions of all variables are provided in Appendix C Table C1. All control variables are lagged by one year. Industry, year, target state, and birth state fixed effects, whose coefficients are suppressed, are based on Fama-French 48 industries classification, calendar year dummies, state dummies, and CEO birth state dummies, respectively. The z-statistics and t-statistics reported in parentheses are based on standard errors adjusted for heteroscedasticity and clustered at the state-year level. The symbols \*\*\*, \*\* and \* indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	<i>Dependent Variable: Withdrawn Deal</i>		<i>Dependent Variable: Completed Deal</i>	
	<b>Probit (1)</b>	<b>LPM (2)</b>	<b>Probit (3)</b>	<b>LPM (4)</b>
Home CEO	0.088*** (3.147)	0.085*** (2.658)	-0.086*** (-2.854)	-0.076** (-2.255)
Ln(Assets)	0.003 (0.349)	0.001 (0.135)	-0.019** (-2.082)	-0.018* (-1.818)
M/B	0.002 (1.003)	0.002 (0.819)	-0.001 (-0.270)	-0.001 (-0.197)
Net Leverage	0.054 (1.041)	0.053 (0.883)	0.027 (0.434)	0.014 (0.204)
ROA	-0.174** (-2.352)	-0.169** (-1.980)	0.361*** (4.203)	0.351*** (3.461)
Cash	0.014 (0.135)	0.000 (0.000)	0.132 (1.087)	0.107 (0.860)
Tobin's Q	-0.017 (-1.397)	-0.010 (-1.112)	-0.003 (-0.233)	-0.005 (-0.397)
High Herfindahl	-0.004 (-0.150)	-0.004 (-0.138)	0.003 (0.111)	0.005 (0.162)
M&A Liquidity	-0.009* (-1.660)	-0.007* (-1.650)	0.007 (1.162)	0.006 (1.082)
State Population	-0.008 (-0.794)	-0.009 (-0.892)	0.003 (0.258)	0.003 (0.313)
State Unemployment	-0.012 (-0.762)	-0.012 (-0.729)	0.002 (0.090)	0.003 (0.175)
Industry FEs	Yes	Yes	Yes	Yes
Year FEs	Yes	Yes	Yes	Yes
Target HQ State FEs	Yes	Yes	Yes	Yes
Birth State FEs	Yes	Yes	Yes	Yes
Observations	1,165	1,386	1,321	1,386
Pseudo/Adjusted R <sup>2</sup>	0.105	0.131	0.165	0.154

### **5.5.3 Are target firms managed by home CEOs more likely to be acquired by bidders from the same state?**

Bates et al. (2014) document that 26.40% of target firm CEOs received a job from the acquiring firm after acquisitions. Hence, home CEOs of target firms would have a stronger incentive to sell their firm to an acquirer from the same state in order to keep staying close to their relatives and families. Therefore, this essay conjectures that acquisition deals which involve target firms with a home CEO are more likely to get completed when the acquirer is from the same state. To implement the analysis, the dependent variable is the *Complete In-State Deal*, which is a dummy variable that is equal to one if the acquisition deal has been completed and the acquiring firm is headquartered in the same state as the target firm, and zero otherwise.

Table 5.8 reports the results based on the M&A sample. This study performs probit regression in specification (1) and presents estimates based on LPM in specification (2). The results show that target firms with a home CEO are more likely to complete in-state deals. In both specifications, the *Home CEO* variable carries a positive and strongly significant coefficient at the 10% level. In economic terms, the marginal effect associated with the home CEO coefficient in specification (1) indicates that target firms with a home CEO are associated with an increase in the incidence of completing in-state deals by 5.10%. Specification (2) presents LPM estimates. The result indicates that a target firm with a home CEO is associated with a 37.50% increase in the likelihood to complete an in-state deal relative to the sample average unconditional M&A probability (that is 13.60%).

**Table 5. 8 Home-Biased CEOs in Target Firms and In-State Deals**

This table presents the results for the impact of home-biased CEOs in target firms on the likelihood of completing an in-state deal over the period between 1992 and 2018 for a sample of US publicly listed firms that received a bid. The dependent variable, *Completed In-State Deal*, is a dummy variable that is equal to one if an in-state deal announced in year  $t+1$  was completed afterwards, and zero otherwise. An in-state deal means that the acquirer is headquartered in the same state as the target firm. *Home CEO* is a dummy variable that is equal to one if the home state of a firm's CEO matches the firm's headquarters state, and zero otherwise. Specifications (1) present estimates of a probit model and specifications (2) presents estimates of a linear probability model (LPM). The definitions of all variables are provided in the Appendix C Table C1. All control variables are lagged by one year. Industry, year, headquarters state, and birth state fixed effects, whose coefficients are suppressed, are based on Fama-French 48 industries classification, calendar year dummies, state dummies, and CEO birth state dummies respectively. The z-statistics and t-statistics reported in parentheses are based on standard errors adjusted for heteroscedasticity and clustered at the state-year level. The symbols \*\*\*, \*\* and \* indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	<i>Dependent Variable: Completed In-State Deal</i>	
	<b>Probit</b>	<b>LPM</b>
	<b>(1)</b>	<b>(2)</b>
Home CEO	0.051*	0.030*
	(1.845)	(1.843)
Ln(Assets)	-0.005	0.001
	(-0.555)	(0.086)
M/B	0.001	0.000
	(0.571)	(0.210)
Net Leverage	-0.027	-0.011
	(-0.453)	(-0.181)
ROA	0.099	0.112
	(1.379)	(1.446)
Cash	0.031	0.087
	(0.268)	(0.703)
Tobin's Q	0.005	0.006
	(0.701)	(0.595)
High Herfindahl	0.017	0.015
	(0.581)	(0.517)
M&A Liquidity	-0.007	-0.004
	(-1.622)	(-1.218)
State Population	0.001	-0.001
	(0.108)	(-0.088)
State Unemployment	-0.027*	-0.018
	(-1.935)	(-1.470)
Industry FEs	Yes	Yes
Year FEs	Yes	Yes
Target HQ State FEs	Yes	Yes
Birth State FEs	Yes	Yes
Observations	1,108	1,386
Pseudo/Adjusted R <sup>2</sup>	0.184	0.180

#### 5.5.4 Home-biased CEOs in target firms, takeover premium, and target firm CARs

In this section, this study examines the influence of CEO's home bias in target firms on takeover premiums and target firm announcement returns. *Takeover Premium* is calculated as the difference between the offer price and the target firm's stock price four weeks before the acquisition announcement divided by the latter.<sup>65</sup> this study measures target firm announcement returns by estimating target firm's market-adjusted cumulative abnormal returns over the 3-day window around the acquisition announcement date (*Target CAR (-1, 1)*). This essay uses the CRSP value-weighted index return as the market return.<sup>66</sup> In addition to fixed differences and control variables used in Equations (1) and (2), this study also controls for deal characteristics which may affect acquisition outcomes (Bonaime et al. 2018; Nguyen et al. 2022), including tender offer (*Tender*), methods of payment (*All Cash*, *All Stock*), diversifying deals (*Diversifying*), hostile deals (*Hostile*), and in-state deals (*In-State Deal*).

Table 5.9 presents the results. In specifications (1) and (2), the dependent variable is *Takeover Premium*. The coefficient of *Home CEO* in specification (1) is negative and significant at the 5% level. In specification (2), this study excludes observations with non-US and private acquirers from the M&A sample and control for some bidder characteristics. Results are qualitatively similar, which indicate that target

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<sup>65</sup> To avoid extreme outliers, this study follows Officer (2003) and limit the measure to values between 0% and 200%.

<sup>66</sup> The results are similar when this chapter use: (1) an alternative event window (-2, +2); (2) market model; or (3) equally weighted index return as the market return.

firms with a home CEO on board have an 8.10% lower acquisition premium than those without a home CEO, corresponding to approximately 18.16% (= 0.081/0.446) of one standard deviation of the acquisition premium.

In specification (3), this study explores the impact of CEOs' home bias on the shareholder wealth in the target firm. The dependent variable is the three-day CARs for target firms and the coefficient of *Home CEO* is negative and statistically significant at the 1% level. In economic terms, target firms with a home CEO are associated with 3.60% lower target announcement returns. This translates into approximately \$38.23 million value destruction in terms of shareholder wealth (the average market capitalization of target firms is \$1.062 billion in the sample).

**Table 5. 9 Takeover Premium and Target Announcement Returns**

This table reports OLS regressions for the effect of home-biased CEOs in target firms on the acquisition premium and target CARs. In specifications (1) and (2), the dependent variable is the 4-week offer premium reported by SDC, which is calculated as the difference between the offer price and the target firm's stock price four weeks before the acquisition announcement divided by the latter. The dependent variable in specifications (3) is the target firm's market-adjusted cumulative abnormal return (CAR) over a 3-day event window (-1, +1) around the acquisition announcement. The CRSP value-weighted market index return is used to calculate abnormal returns. The definitions of all variables are provided in the Appendix C Table C1. Industry, year, headquarters state, and birth state fixed effects, whose coefficients are suppressed, are based on Fama-French 48 industries classification, calendar year dummies, state dummies, and CEO birth state dummies, respectively. t-statistics reported in parentheses are based on standard errors adjusted for heteroscedasticity and clustered at the state-year level. The symbols \*\*\*, \*\* and \* indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	Takeover Premium (1)	Takeover Premium (2)	Target CAR(-1,1) (3)
Home CEO	-0.053** (-2.134)	-0.081* (-1.843)	-0.036*** (-2.617)
Ln(Assets)	-0.024** (-2.537)	-0.028* (-1.882)	-0.015*** (-3.659)
M/B	-0.004 (-1.467)	-0.005** (-2.507)	-0.002 (-1.425)
Net Leverage	0.244*** (3.518)	0.112 (1.168)	0.003 (0.098)
ROA	-0.646*** (-4.586)	-0.625*** (-5.553)	-0.062 (-0.640)
Cash	0.332*** (2.931)	0.227 (1.582)	0.031 (0.464)
Tobin's Q	0.022 (1.671)	0.010 (0.744)	-0.007 (-1.412)
High Herfindahl	0.029 (1.192)	0.090*** (3.702)	0.039*** (2.051)
M&A Liquidity	0.020 (0.277)	0.086 (1.073)	-0.048 (-1.265)

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<b><i>Bidder Characteristics</i></b>			
Ln(Assets)		0.017 (1.062)	
M/B		-0.002 (-0.802)	
Net Leverage		0.221* (1.684)	
ROA		0.001 (0.009)	
Cash		0.082 (0.421)	
Tobin's Q		0.018*** (2.806)	
<b><i>Deal Characteristics</i></b>			
Tender	0.000 (0.013)	0.014 (0.374)	0.076*** (3.757)
Hostile	0.022 (0.404)	0.024 (0.362)	0.022 (0.758)
All Cash	-0.093** (-2.270)	-0.033 (-0.678)	0.068*** (3.504)
All Stock	-0.143*** (-4.779)	-0.091*** (-3.279)	-0.020 (-0.923)
Diversifying	0.071*** (3.312)	0.021 (0.715)	-0.037** (-2.270)
In-State Deal	-0.009 (-0.381)	0.058* (1.900)	0.012 (0.669)
<b><i>State Characteristics</i></b>			
State Population	0.035** (2.427)	0.028*** (2.802)	0.005 (1.132)
State Unemployment	0.013 (0.724)	0.028 (1.311)	0.008 (0.713)
Industry FEs	Yes	Yes	Yes
Year FEs	Yes	Yes	Yes
Target HQ State FEs	Yes	Yes	Yes
Birth State FEs	Yes	Yes	Yes
Observations	1,188	788	1,188
Adjusted R <sup>2</sup>	0.308	0.382	0.256

### 3.9 Robustness check: an alternative measure of home CEOs

In the last set of tests, this essay verifies whether the results remain robust when using an alternative measure of home CEOs. Specifically, this essay creates a county-level measure of home CEOs and identifies home CEOs based on the distance between the CEO's birth county and the headquarters county. In particular, *Home CEO* is a dummy variable that is equal to one if the distance between CEO's home county and headquarters county is less than 100 miles, and zero otherwise.<sup>67</sup>

<sup>67</sup> This thesis manually collects the data from Standard and Poor's Register of Directors and Executives, LexisNexis, NNDB.com, and Google.

This chapter reports results in Table 5.10. The baseline results remain unchanged to this alternative definition of home CEOs.

**Table 5. 10 Robustness Check: An Alternative Measure of Home CEOs**

This table replicates the main results in Tables 5.2, 5.3, and 5.9 using alternative measures of home CEOs. The dependent variables include (1) *ATPs*, the total number of antitakeover provisions (based on E-index components) adopted by a firm in year  $t+1$ , ranging from 0 to 6; (2) *Receiving A Bid*, a dummy variable that is equal to one if the firm receives at least one acquisition bid in year  $t+1$ , and zero otherwise; (3) takeover premium, which is calculated as the difference between the offer price and the target firm's stock price four weeks before the acquisition announcement divided by the latter; and (4) target firm's market adjusted cumulative abnormal return (CAR) over a 3-day event window (-1, +1) around the acquisition announcement. The alternative measure of home CEOs, *Home CEO (<100 miles)* is a dummy variable that is equal to one if the distance between CEO's home county and headquarters county is less than 100 miles, and zero otherwise. All control variables are lagged by one year. Industry, year, headquarters state, and birth state fixed effects, whose coefficients are suppressed, are based on Fama-French 48 industries classification, calendar year dummies, state dummies, and CEO birth state dummies, respectively. The z-statistics and t-statistics reported in parentheses are based on standard errors adjusted for heteroscedasticity and clustered at the state-year level. The symbols \*\*\*, \*\* and \* indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	<b>ATPs (1)</b>	<b>Receiving A Bid (2)</b>	<b>Takeover Premium (3)</b>	<b>Target CAR(-1, 1) (4)</b>
Home CEO (<100 miles)	0.142*** (4.632)	-0.175*** (-2.943)	-0.030* (-1.795)	-0.023* (-1.821)
Controls in Table 5.2	Yes	No	No	No
Controls in Table 5.3	No	Yes	No	No
Controls in Table 5.9	No	No	Yes	Yes
Fixed Effects in Table 5.2	Yes	Yes	Yes	Yes
Observations	8,160	10,172	409	409
Pseudo/Adjusted R <sup>2</sup>	0.211	0.052	0.239	0.315

## 5.6 Conclusion

In this chapter, this study examines whether the CEOs' home bias act as a deterrent to acquisition bids. This study provides robust evidence that firms with a home CEO are less likely to receive takeover bids and are associated with more antitakeover provisions. This study also shows that target firms managed by a home CEO are less likely to complete the M&A deals and exhibit a higher probability to withdraw the deals. In line with the birthplace identity effect, this study shows that target firms with a home CEO are more likely to accept and complete in-state deals. Finally, target firms with home CEOs are associated with lower takeover premiums and target announcement returns.

There are at least two important implications from the study. First, the results suggest that having a home CEO on board acts as an indirect "antitakeover" mechanism. However, similar to the effects of adopting antitakeover provisions (DeAngelo and Rice 1983; Borokhovich, Brunarski, and Parrino 1997; Dey and White 2021), home CEOs of target firms do not enhance their bargaining power, as target firms do not receive higher premiums – they receive lower. Second, the results imply that emotional reasons, such as CEOs' birthplace identity, significantly affect M&A activities. Regulators and board members should consider the impact of these non-monetary reasons on corporate outcomes.

# Chapter 6 Conclusion

This thesis aims at contributing to the literature on home bias by examining the effects of CEOs' home bias on corporate actions, including CSR activities, earnings manipulation, and takeover deterrence. Chapters 2-4 in this thesis present three individual but interweaved essays.

In Chapter 3, this thesis studies whether social trust sourced from CEOs' birthplaces affects corporate social responsibility decisions. This essay finds that CEOs who manage firms headquartered in the states where they were born are engaged in more CSR. In addition, consistent with the place attachment argument, this study shows that CEOs with deeper connections to their home state are the ones with higher CSR scores. Such favouritism does not appear to be driven by agency reasons as: (1) the results are not affected by the level of firm corporate governance; and (2) home CEOs who engage in CSR receive lower (total and equity) compensation. Overall, the results suggest that the idiosyncratic styles of managers impact corporate policies in the form of corporate social responsibility decisions.

In Chapter 4, this thesis examines the effect of CEOs' reputational capital on accrual-based earnings management activities. Consistent with the view that home CEOs care more about their reputational capital, this study finds that home CEOs are associated with significantly less accrual-based earnings management in their firms than non-home CEOs. Additionally, home CEOs do not appear to extract

private benefits and there is no firm value destruction, indicating that the results are not driven by agency motivations. Overall, the evidence suggests that CEO reputational capital affects earnings management activities within firms.

Chapter 5 examines the effect of CEO home bias on takeover deterrence. This essay finds that firms with home CEOs are less likely to receive a takeover bid but more prone to adopt antitakeover provisions. This chapter also shows that target firms with home CEOs are more likely to withdraw deals during the M&A process but are more willing to complete deals if the acquirer comes from the same state. These deals, on average receive lower takeover premium and target announcement returns. Overall, the findings suggest that having a home CEO on board in the target firm deters corporate takeovers.

The findings of this thesis have the following implications for future studies. First, the studies indicate that emotional factors, e.g., CEO home bias, significantly affects CSR investments, financial reporting, and M&A activities. Professional managers are also subject to behavioural bias as individual investors. Therefore, the studies inspire further investigation on the economic effects of decision-makers' emotional factors.

Second, the intrinsic rationales of emotional factors are still unrevealed. Neuroscience may add value to uncover the rationale of the effect of emotional factors. For instance, “mindful economics/neuroeconomics” introduced by Camerer (2008) makes use of neural data in generating a neutral discipline and mathematical approach in dealing with economics. Empirical corporate finance studies could focus on understanding psychological processes in decision-making.

Third, the studies focus on the US market. Although cultures around the world share common values regarding family and home, there may still be differences which are inspirational to empirical finance studies. For instance, Falk et al. (2018) surveyed time preference, risk preference, positive and negative reciprocity, altruism, and trust from 80,000 people in 76 countries. They documented substantial heterogeneity in preferences across countries. Therefore, the studies also encourage examining the effects of emotional factors in different countries and specific cultural contexts.

# Appendix

## A. Appendices to Chapter 3

**Table A1. Variable definitions**

Variable	Definition	Source
<b>CEO Variables</b>		
Home CEO	A dummy variable that is equal to one if a CEO's home state is the same as the state of the firm's headquarters, and zero otherwise.	LexisNexis, collected by Yonker (2017b)
Female CEO	A dummy variable that is equal to one if a CEO is female, and zero otherwise.	ExecuComp
CEO Tenure	The tenure of the CEO, in years.	ExecuComp
CEO Tenure <sup>2</sup>	The squared term of the "CEO Tenure" variable.	ExecuComp
CEO Age	The age of the CEO, in years.	ExecuComp
CEO Age <sup>2</sup>	The squared term of the "CEO Age" variable.	ExecuComp
CEO Ownership	The percentage of shares owned by the CEO (set to zero if data is not available).	ExecuComp
Attended Home College or University	A dummy variable that is equal to one if a CEO was educated in a home state college or university, and zero otherwise.	BoardEx and manually collected data from the Marquis Who's Who Database, the Notable Names Database, and Google
Long Home Tenure	A dummy variable that is equal to one if the number of years that the CEO lived in her home state is greater than the sample median, and zero otherwise. A particular CEO's home tenure is equal to her age if the CEO's home state matches the state in which the firm is headquartered. If the two states do not match, then, if the CEO attended college in the same state as her home state, the age at which the CEO graduated from her degree program is considered the CEO's home tenure. If the CEO did not attend college in her home state and does not work for a firm headquartered in her state, then the CEO is assumed to have left the state 4 years prior to obtaining a degree at an institution outside her home state (Pool, Stoffman, and Yonker, 2012).	BoardEx and manually collected data from the Marquis Who's Who Database, the Notable Names Database, and Google

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Republican CEO	A dummy variable that takes the value of one if a CEO's political contributions in a given election cycle all go to Republican-affiliated candidates or party committees, and zero otherwise.	Hutton, Jiang, and Kumar (2014).
<b>Firm Variables</b>		
Size	Market value of equity plus total debt (long-term debt + debt in current liabilities) at the end of fiscal year. In the regressions, it is transformed by adding one and taking the natural log; winsorized at the 1st and 99th percentiles.	Compustat
ROA	Return on assets. Net income before extraordinary items and discontinued operations divided by total assets; winsorized at the 1st and 99th percentiles.	Compustat
Leverage	Total long-term debt divided by total assets; winsorized at the 1st and 99th percentiles.	Compustat
Market-to-Book	Market value of equity divided by book value of equity; winsorized at the 1st and 99th percentiles.	Compustat
Total Assets	Total assets, in million dollars; winsorized at the 1st and 99th percentiles.	Compustat
SG&A Expenses	Selling, general, and administrative expenses, in millions of dollars; winsorized at the 1st and 99th percentiles.	Compustat
SA Index	The size-age index of Hadlock and Pierce (2010) computed using the following equation: $-0.737 \text{ Size} + 0.043 \text{ Size}^2 - 0.040 \text{ Age}$ , where Size is the log of inflation adjusted total assets deflated using the 1983 consumer price index, and Age is the number of years the firm has been on Compustat with a non-missing stock price. A firm is classified as financially constrained in year $t$ when the SA index is above the sample median in that year, and financially unconstrained otherwise.	Compustat
<b>State Variables</b>		
State GDP per Capita	State-level GDP divided by the state population.	US BEA
State Unemployment Rate	State-level unemployment rate, in percentage.	US BLS
<b>Corporate Governance Variables</b>		
E-Index	The index is the sum of binary variables concerning the following provisions: 1) classified boards; 2) limitations to shareholders' ability to amend the bylaws; 3) supermajority voting for business combinations; 4) supermajority requirements for charter amendments; 5) poison pills; and 6) golden parachutes. In the regressions Chapter 3 uses the "high E-index", which is a dummy that is equal to one if a firm has an E-Index higher than the sample median, and zero otherwise.	ISS Database
Board Independence	The percentage of independent directors. It is the ratio between the number of independent directors and the board size. In the regressions Chapter 3 uses the "low board independence" which is a dummy that takes the value of one if the proportion of independent directors in the board of a firm is lower than the sample median, and zero otherwise.	ISS Database

CEO is Chairman	A dummy variable that is equal to one if a CEO is also the chairman of the firm, and zero otherwise.	ISS Database
<b>CSR Measures</b>		
CSR Score	The sum of adjusted CSR scores calculated from the seven CSR categories below.	KLD
Community Score	The adjusted CSR score calculated for the community category; Calculated following Deng et al. (2013) by dividing the strength (concern) subcategory scores for the community category by the respective number of strength (concern) subcategories to get adjusted strength (concern) score for this category and then taking the difference between adjusted strength scores and adjusted concern scores.	KLD
Diversity Score	The adjusted CSR score calculated for the diversity category. Calculated following Deng et al. (2013) by dividing the strength (concern) subcategory scores for the diversity category by the respective number of strength (concern) subcategories to get adjusted strength (concern) score for this category and then taking the difference between adjusted strength scores and adjusted concern scores.	KLD
Employee Relations Score	The adjusted CSR score calculated for the employee relations category. Calculated following Deng et al. (2013) by dividing the strength (concern) subcategory scores for the employee relations category by the respective number of strength (concern) subcategories to get adjusted strength (concern) score for this category and then taking the difference between adjusted strength scores and adjusted concern scores.	KLD
Environment Score	The adjusted CSR score calculated for the environment category. Calculated following Deng et al. (2013) by dividing the strength (concern) subcategory scores for the environment category by the respective number of strength (concern) subcategories to get adjusted strength (concern) score for this category and then taking the difference between adjusted strength scores and adjusted concern scores.	KLD
Human Rights Score	The adjusted CSR score calculated for the human rights category. Calculated following Deng et al. (2013) by dividing the strength (concern) subcategory scores for the human rights category by the respective number of strength (concern) subcategories to get adjusted strength (concern) score for this category and then taking the difference between adjusted strength scores and adjusted concern scores.	KLD
Product Score	The adjusted CSR score calculated for the product category. Calculated following Deng et al. (2013) by dividing the strength (concern) subcategory scores for the product category by the respective number of strength (concern) subcategories to get adjusted strength (concern) score for this category and then taking the difference between adjusted strength scores and adjusted concern scores.	KLD
Corporate Governance Score	The adjusted CSR score calculated for the corporate governance category. Calculated following Deng et al. (2013) by dividing the strength (concern) subcategory	KLD

scores for the corporate governance category by the respective number of strength (concern) subcategories to get adjusted strength (concern) score for this category and then taking the difference between adjusted strength scores and adjusted concern scores.

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**CSR Subcategories**

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**Employee Relations Concern**

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Union Relations	This indicator is designed to assess the severity of controversies related to a firm’s union relations practices. Factors affecting this evaluation include, but are not limited to, the firm’s response to union organizing efforts and its bargaining practices with existing unionized workers, resistance to improved practices, and criticism by non-governmental organizations and/or other third-party observers.	KLD
Employee Health & Safety	This indicator is designed to assess the severity of controversies related to the safety of a firm’s employees. Factors affecting this evaluation include, but are not limited to, a history of involvement in workplace safety-related legal cases, widespread or egregious fines for unsafe workplace practices, resistance to improved practices, and criticism by non-governmental organizations and/or other third-party observers.	KLD
Workforce Reduction	The company has made significant reductions in its workforce in recent years.	KLD
Retirement Benefits Concern	The company has either a substantially under-funded defined benefit pension plan, or an inadequate retirement benefits program.	KLD
Labor-Management Relations	This indicator is designed to assess the severity of controversies related to a firm’s labor-management relations. Factors affecting this evaluation include, but are not limited to, a history of involvement in employee-related legal cases, widespread or egregious instances of wrongful termination, reductions in benefits, or mistreatment of either employees and contractors, resistance to improved practices, and criticism by non-governmental organizations and/or other third-party observers.	KLD

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**Employee Relations Strength**

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Union Relations	This indicator identifies companies with high union density.	KLD
No-Layoff Policy	The company has maintained a consistent no-layoff policy.	KLD
Cash Profit Sharing	This indicator identifies companies that have a cash profit-sharing program through which they have recently made distributions to a significant proportion of their workforce.	KLD
Employee Involvement	This indicator identifies companies that encourage worker involvement via generous employee stock ownership plans (ESOPs) or employee stock purchase plans (ESPPs).	KLD
Retirement Benefits Strength	The company has a notably strong retirement benefits program.	KLD

Employee Health & Safety	This indicator identifies companies that have strong employee health and safety programs. Initiatives include comprehensive Health & Safety policies and implementation mechanisms across the supply chain, identification and elimination of sources of H&S risk, training, performance auditing of both the company's and contractor's operations, certification under Occupational Health and Safety Assessment Series (officially BS OHSAS 18001), setting up improvement targets, and assessment of historical performance tracking and reporting.	KLD
Other Strength	This indicator is designed to capture best-in-class management performance in the area of human capital that is not covered by other MSCI ESG Research human capital indicators. Metrics include recognition by reputable third-party sources for excellent workforce management.	KLD

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**Product Concern**

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Product Quality & Safety	This indicator is designed to assess the severity of controversies related to the quality and safety of a firm's products and services. Factors affecting this evaluation include, but are not limited to, a history of involvement in product safety-related legal cases, widespread or egregious instances of recalls or fines due to defective or unsafe products and services, resistance to improved practices, and criticism by non-governmental organizations and/or other third-party observers.	KLD
Marketing & Advertising	This indicator is designed to assess the severity of controversies related to a firm's marketing and advertising practices. Factors affecting this evaluation include, but are not limited to, widespread or egregious instances of false, discriminatory, or improper marketing/advertising, marketing targeted at disadvantaged groups, resistance to improved practices, and criticism by non-governmental organizations and/or other third-party observers.	KLD
Anticompetitive Practices	This indicator is designed to assess the severity of controversies related to a firm's anti-competitive business practices. Factors affecting this evaluation include, but are not limited to, a history of involvement in anti-trust legal cases, widespread or egregious instances of price-fixing, collusion, or bid-rigging, resistance to improved practices, and evidence-based criticism by non-governmental organizations and/or other third-party observers.	KLD
Other Concerns	This indicator is designed to assess the severity of customer-related controversies not covered by any other MSCI ESG Research rating.	KLD

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**Product Strength**

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Quality	This indicator is designed to assess how companies manage their risk of facing major product recalls or losing customer trust through major product quality concerns. Companies that proactively manage product quality by achieving certification to widely acceptable standards, undertaking extensive product testing and	KLD
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R&D, Innovation	building processes to track raw materials or components score higher. The company is a leader in its industry for research and development (R&D), particularly by bringing notably innovative products to market.	KLD
Social Opportunities	This indicator is designed to assess the extent to which companies are taking advantage of opportunities for longer term growth and protecting their license to operate through efforts to improve access to healthcare in developing countries and for under-served populations in developed markets. In developing countries, companies that adapt their business models to reflect the specific needs of individuals in these markets through areas such as R&D, pricing, and licensing strategies score higher. In developed markets, companies that take advantage of opportunities driven by regulatory changes to capture the uninsured market score higher.	KLD
Other Strengths	The company's products have notable social benefits that are highly unusual or unique for its industry.	KLD
<b>Corporate Governance Concern</b>		
High Compensation	The company has recently awarded notably high levels of compensation to its top management or its board members. The limit for a rating is total compensation of more than \$10 million per year for a CEO or \$100,000 per year for outside directors.	KLD
Ownership Concern	The company has recently awarded notably high levels of compensation to its top management or its board members. The limit for a rating is total compensation of more than \$10 million per year for a CEO or \$100,000 per year for outside directors.	KLD
Accounting Concerns	The company is involved in significant accounting-related controversies.	KLD
Reporting Quality	This indicator measures the quality of a firm's reporting on its CSR/sustainability efforts. Factors affecting this evaluation include, but are not limited to, the completeness and specificity of a firm's reporting, its setting of specific goals for its CSR efforts, and quantitative measurement of progress towards these goals.	KLD
Political Accountability	The company has been involved in noteworthy controversies on public policy issues and/or has a very poor record of transparency and accountability concerning its political involvement in state or federal-level U.S. politics, or in non-U.S. politics.	KLD
Public Policy Concern	This indicator measures a firm's lack of support for public policies that have noteworthy benefits for the environment, communities, employees, or consumers. Factors affecting this evaluation include, but are not limited to, support/lack of support for regulations addressing climate change, improved labor rights, enhancement of shareholder rights, and protections for consumers.	KLD

Others Concerns	This indicator measures the severity of controversies related to a firm's governance practices not covered by any other MSCI ESG Research rating.	KLD
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**Corporate Governance Strength**

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Limited Compensations	The company has recently awarded notably low levels of compensation to its top management or its board members. The limit for a rating is total compensation of less than \$500,000 per year for a CEO or \$30,000 per year for outside directors.	KLD
Ownership Strength	The company owns between 20% and 50% of another company KLD has cited as having an area of social strength, or is more than 20% owned by a firm that KLD has rated as having social strengths. When a company owns more than 50% of another firm, it has a controlling interest, and KLD treats the second firm as if it is a division of the first.	KLD
Reporting Quality	This indicator measures the quality of a firm's reporting on its corporate social responsibility (CSR)/sustainability efforts. Factors affecting this evaluation include, but are not limited to, the completeness and specificity of a firm's reporting, its setting of specific goals for its CSR efforts, and quantitative measurement of progress towards these goals.	KLD
Political Accountability	The company has shown markedly responsible leadership on public policy issues and/or has an exceptional record of transparency and accountability concerning its political involvement in state or federal-level U.S. politics, or in non-U.S. politics.	KLD
Public Policy Strength	This indicator measures a firm's support for public policies that have noteworthy benefits for the environment, communities, employees, or consumers. Factors affecting this evaluation include, but are not limited to, support/lack of support for regulations addressing climate change, improved labor rights, enhancement of shareholder rights, and protections for consumers.	KLD
Other Strengths	The company has a unique and positive corporate culture, or has undertaken a noteworthy initiative not covered by KLD's other corporate governance ratings.	KLD

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## B. Appendices to Chapter 4

**Table B1. Variable definitions**

<b>Panel A. CEO variables</b>		
<b>Variable</b>	<b>Definition</b>	<b>Source</b>
Home CEO	A dummy variable that equals one if the distance between the CEO's birth county and the firm's headquarters county is less than 100 miles, and zero otherwise.	Marquis Who's Who, Standard and Poor's Register of Directors and Executives, Lexis-Nexis, NNDB.com, or Google
Female CEO	A dummy variable that equals one if a CEO is female, and zero otherwise.	ExecuComp
CEO Age	The age of the CEO, in years.	ExecuComp
CEO Tenure	The tenure of the CEO, in years.	ExecuComp
CEO Ownership	The percentage of shares owned by the CEO (set to zero if data are not available).	ExecuComp
Hometown Board Position	A dummy variable that equals one if the CEO was a board member of another firm in her hometown state before she became CEO, and zero otherwise.	BoardEx
CEO with MBA or Masters' Degree	A dummy variable that equals one if a CEO has an MBA or Masters' Degree, and zero otherwise.	BoardEx, Marquis Who's Who Database, the Notable Names Database, and Google
Republican CEO	A dummy variable that takes the value of one if a CEO's political contributions in a given election cycle all go to Republican-affiliated candidates or party committees, and zero otherwise.	Hutton, Jiang and Kumar (2014)
<b>Panel B. Measure of earnings management</b>		
<b>Variable</b>	<b>Definition</b>	<b>Source</b>
Abnormal Accruals	The measure of accrual-based earnings management, which is the absolute abnormal accruals computed as the difference between a firm's total accruals and its nondiscretionary accruals.	Compustat
<b>Panel C. State-level and county-level variables</b>		
<b>Variable</b>	<b>Definition</b>	<b>Source</b>
State GDP per Capita	State-level GDP divided by the state population.	US BEA
State Unemployment Rate	State-level unemployment rate, in percentage.	US BLS
County-Level Religiosity	Calculated as the number of religious adherents in the county to the total population in the county. Data on religiosity is available for six years (1952, 1971, 1980, 1990, 2000, and 2010). Chapter 4 follows previous studies (e.g., Hilary and Hui, 2009) and linearly interpolate the data to obtain the values in the missing years.	US Association of Religion Data Archives

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<b>Panel D. Corporate governance variables</b>		
<b>Variable</b>	<b>Definition</b>	<b>Source</b>
Board Size	Board size is defined as the number of board members on the firm's board. Small board size indicates weak corporate governance.	ISS Database
Low Board Independence	Board independence is the percentage of independent directors for firm <i>i</i> at the end of year <i>t</i> . Low board independence indicates weak corporate governance and is a dummy variable that takes the value of one if the proportion of independent directors in the board of a firm is lower than the sample median, and zero otherwise.	IRRC Directors Database
High G-Index	An equally weighted index based on 24 governance provisions provided by the Investor Responsibility Research Center (IRRC) (Gompers, Ishii, and Metrick, 2003). IRRC covers between 1,400 and 1,800 firms depending on the year. All S&P 500 firms are covered in IRRC. High G-Index indicates weak corporate governance and is a dummy variable that take the value of one if a firm has a G-Index higher than the sample median, and zero otherwise.	IRRC & RiskMetrics Database
Low Institutional Ownership	Institutional ownership is the proportion of outstanding shares held by institutions. Low institutional ownership indicates weak corporate governance and is a dummy variable that takes the value of one if the proportion of outstanding shares held by institutions is lower than the sample median, and zero otherwise.	FactSet/LionShares Database
High CEO Compensation	CEO compensation is defined as the total compensation of the CEO for firm <i>i</i> at the end of year <i>t</i> which includes salary, bonus, restricted stock grants, long-term incentive plan, and other annual payments. High CEO compensation indicates weak corporate governance and is a dummy variable that takes the value of one if the total compensation of the CEO is higher than the sample median, and zero otherwise.	ExecuComp

<b>Panel E. Firm characteristics</b>		
<b>Variable</b>	<b>Definition</b>	<b>Source</b>
Total Assets	Natural logarithm of total assets (item 6, AT) measured in 1983 US dollars.	Compustat
ROA	Return on assets. Income before extraordinary items (item18, IB) plus interest expense (item 15, XINT) plus income taxes (item 16, TXT), all divided by total assets (item 6, AT).	Compustat
Sales Growth	The difference between current sales (item 12, SALE) and lagged sales, all divided by lagged sales.	Compustat

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Tobin's Q	The book value of assets (item 6, AT) minus book value of equity (item 144, SEQ) plus the market value of equity (item 25, CSHO × item 24, PRCC), all divided by book value of assets (item 6, AT).	Compustat
BHAR	The 12-month buy-and-hold abnormal return, calculated using the market model estimated over the 60-month period ending one month before 1 <sup>st</sup> January with CRSP value-weighted index being the benchmark.	CRSP
MB	Market value of equity divided by book value of equity.	Compustat
Number of Analysts	Number of analysts in Institutional Brokers' Estimate System covering a specific firm in current year.	I/E/B/S
SA Index	The size-age index of Hadlock and Pierce (2010) computed using the following equation: $-0.737 \text{ Size} + 0.043 \text{ Size}^2 - 0.040 \text{ Age}$ , where Size is the log of inflation adjusted total assets deflated using the 1983 consumer price index, and Age is the number of years the firm has been on Compustat with a non-missing stock price. A firm is classified as financially constrained in year $t$ when the SA index is above the sample median in that year, and financially unconstrained otherwise.	Compustat
Closer-to-Home Relocation	A dummy variable that equals one if the firm has relocated its headquarters, and the new headquarters is geographically closer to the CEO's birthplace at the county-level relative to the previous headquarters, and zero otherwise.	EDGAR
Cultural Change (Integrity, Teamwork, Innovation, Respect, Quality)	A dummy variable that equals one if the firm-year score (integrity, teamwork, innovation, respect, or quality) is lower or higher than 50% relative to the corresponding score of the previous year, and zero otherwise. Each firm-year's score is the weighted-frequency count of the culture-related words and phrases in the QA section of firm's earnings calls transcripts averaged based on three-year moving averages of annual scores.	Thomson Reuters' Street Events Li et al. (2020)

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## C. Appendices to Chapter 5

**Table C1. Variable definitions**

Variable	Definition	Data Source
<b>Panel A. Firm characteristics</b>		
Receiving A Bid	A dummy variable that is equal to one if the firm receives at least one acquisition bid in year $t+1$ , and zero otherwise.	Thomson Financial SDC
Ln (Assets)	The natural log of total assets (AT).	Compustat
M/B	Market-to-book ratio, computed as market value of equity (ME) divided by book value of equity (BE).	Compustat
Net Leverage	Total long-term debt minus cash holdings (DLTT + DLC – CHE) divided by total asset (AT).	Compustat
ROA	Return on assets, computed as operating income before depreciation (EBITDA) over book value of total assets (AT).	Compustat
Cash	Cash holdings, computed as cash and short-term investments (CHE) scaled by total assets (AT).	Compustat
Tobin's Q	Tobin's Q ratio, computed as total assets (AT) minus book value of equity (SEQ) plus market value of equity (CSHO $\times$ PRCC_F), divided by total assets.	Compustat
ATPs	The total number of antitakeover provisions (based on E-index components, i.e., classified board, supermajority voting, golden parachute, poison pills, bylaws amend, and charter amend) adopted by a firm in year $t+1$ , ranging from 0 to 6. Golden parachutes provision is given a negative weight.	Institutional Shareholder Services (ISS) Database
Classified Board	A dummy variable that is equal to one if a firm adopted classified board provision in year $t+1$ , and zero otherwise.	Institutional Shareholder Services (ISS) Database
Supermajority Voting	A dummy variable that is equal to one if a firm adopted supermajority voting provision in year $t+1$ , and zero otherwise.	Institutional Shareholder Services (ISS) Database
No Golden Parachutes	A dummy variable that is equal to one if a firm did not adopt golden parachutes provision in year $t+1$ , and zero otherwise.	Institutional Shareholder Services (ISS) Database
Poison Pills	A dummy variable that is equal to one if a firm adopted poison pills provision in year $t+1$ , and zero otherwise.	Institutional Shareholder Services (ISS) Database

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Bylaws Amend	A dummy variable that is equal to one if a firm adopted bylaws amend provision in year $t+1$ , and zero otherwise.	Institutional Shareholder Services (ISS) Database
Charter Amend	A dummy variable that is equal to one if a firm adopted charter amend provision in year $t+1$ , and zero otherwise.	Institutional Shareholder Services (ISS) Database

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**Panel B. Deal characteristic**

Takeover Premium	The difference between the offer price and the target firm's stock price four weeks before the acquisition announcement divided by the latter. The values are limited between 0% and 200%.	Thomson Financial SDC
Withdrawn Deal	A dummy variable that is equal to one if the deal announced in year $t+1$ was eventually withdrawn afterwards, and zero otherwise.	Thomson Financial SDC
Completed Deal	A dummy variable that is equal to one if the deal announced in year $t+1$ was successfully completed afterwards, and zero otherwise.	Thomson Financial SDC
Completed In-State Deal	A dummy variable that is equal to one if an in-state deal announced in year $t+1$ was successfully completed afterwards, and zero otherwise. An in-state deal means the acquirer headquartered in the same state as the target firm.	Thomson Financial SDC
Tender	A dummy variable that is equal to one for deals defined as tender offers, and zero otherwise.	Thomson Financial SDC
Hostile	A dummy variable that is equal to one for deals classified as hostile or unsolicited, and zero otherwise.	Thomson Financial SDC
All Cash	A dummy variable that is equal to one for deals where the method of payment is 100% cash, and zero otherwise.	Thomson Financial SDC
All Stock	A dummy variable that is equal to one for deals where the method of payment is 100% stocks, and zero otherwise.	Thomson Financial SDC
Diversifying	A dummy variable that is equal to one if the 3-digit SIC industry code of the target firm is different from the 3-digit SIC code of the acquire firm.	Thomson Financial SDC

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**Panel C. Independent variable of interest**

Home CEO	A dummy variable that is equal to one if the home state of a CEO matches the state in which the firm is headquartered, and zero otherwise.	Yonker (2017a); Marquis Who's Who, Standard and Poor's Register of Directors and Executives, Lexis-Nexis, NNDB.com, or Google searches
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Home CEO (<100 miles)	A dummy variable that is equal to one if the distance between CEO's home county and firms' headquarters county is less than 100 miles, and zero otherwise.	Marquis Who's Who, Standard and Poor's Register of Directors and Executives, Lexis-Nexis, NNDB.com, or Google searches
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**Panel D. Industry and state characteristics**

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High Herfindahl	Herfindahl index is the sum of squares of the market shares of all firms with the same three-digit SIC code in a given year, where the market share is defined as sales of the firm divided by the sum of the sales in the industry. Chapter 5 uses the "high Herfindahl", which is a dummy variable that is equal to one if the Herfindahl index of a target firm is above the industry median in a given year, and zero otherwise.	Compustat
M&A Liquidity	The sum of deal values in a given year and three-digit SIC code, divided by the sum of total assets of all firms in Compustat database with the same 3-digit SIC code.	Compustat
State Population	State-level annual population.	US Census Bureau
State Unemployment	State-level annual unemployment rate.	US Bureau of Labor Statistics
Clear Days	The average percentage of clear days per year in the target firms' headquarters state.	US NOAA

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**Panel E. Corporate governance variables**

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CEO is Chairman	A dummy variable that is equal to one if CEO is also the chairman in a given year, and zero otherwise.	ExecuComp
% of Institutional ownership	The proportion of outstanding shares held by institutions.	Thomson Reuters 13f
Board Size	The number of directors in the board.	ISS Database
% of Independent Director	The proportion of independent directors in the board.	ISS Database

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**Table C2. Summary statistics for unmatched sample and matched sample**

This table presents the results for the difference-in-means of control variables between the home CEOs and non-home CEOs subsamples together with the corresponding t-statistics before and after the matching. This chapter matches each home CEO observation with a non-home CEO observation using the nearest neighbor (i.e., one-to-one matching) with replacement subject to caliper (i.e., maximum difference in propensity score) of 0.05. The propensity score is a function of observable characteristics used in Equation (1). The definitions of all variables are provided in the Appendix C Table C1. \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels, respectively.

	Home CEO	Non-Home CEO	Difference	T-statistics
<b>Panel A. Before PSM</b>				
Ln(Assets)	7.161	7.344	-0.183	-8.944***
M/B	3.193	3.394	-0.201	-2.952***
Net Leverage	0.074	0.085	-0.011	-2.643***
ROA	0.043	0.024	0.019	7.235***
Cash	0.145	0.152	-0.007	-3.385***
Tobin's Q	2.080	2.112	-0.031	-1.351
High Herfindahl	0.747	0.708	0.039	6.742***
M&A Liquidity	0.526	0.534	-0.008	-0.374
State Population	14.593	14.247	0.346	2.512**
State Unemployment	5.922	5.892	0.030	1.251
<b>Panel B. After PSM</b>				
Ln(Assets)	7.161	7.166	-0.005	-0.540
M/B	3.193	3.187	0.006	0.438
Net Leverage	0.074	0.077	-0.003	-0.278
ROA	0.043	0.042	0.001	1.358
Cash	0.145	0.144	0.001	0.295
Tobin's Q	2.080	2.065	0.015	0.014
High Herfindahl	0.747	0.753	-0.006	-0.787
M&A Liquidity	0.536	0.544	-0.007	-0.500
State Population	14.593	14.660	-0.067	-0.265
State Unemployment	5.922	5.932	-0.010	-0.337

**Table C3. Home CEOs and antitakeover provisions: probit model**

This table presents the probit model results for the effect of home CEOs on the adoption of antitakeover provisions over the period between 1992 and 2018 for a sample of US publicly listed firms. The main dependent variables include *Classified Board*, *Supermajority Voting*, *Poison Pills*, *Bylaws Amend*, and *Charter Amends*, which are dummy variables that are equal to one if each individual provision is adopted in year  $t+1$ , and zero otherwise. *No Golden Parachute* is dummy variable that is equal to one if a firm did not adopt golden parachutes provision in year  $t+1$ , and zero otherwise. *Home CEO* is a dummy variable that is equal to one if the home state of a CEO matches the firm's headquarters state, and zero otherwise. The definitions of all variables are provided in the Appendix C Table C1. All control variables are lagged by one year. Industry, year, headquarters state, and birth state fixed effects, whose coefficients are suppressed, are based on Fama-French 48 industries classification, calendar year dummies, state dummies, and CEO birth state dummies, respectively. The z-statistics reported in parentheses are based on standard errors adjusted for heteroscedasticity and clustered at the state-year level. The symbols \*\*\*, \*\* and \* indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	<b>Classified Board (1)</b>	<b>Supermajority Voting (2)</b>	<b>No Golden Parachute (3)</b>	<b>Poison Pills (4)</b>	<b>Bylaws Amend (5)</b>	<b>Charter Amend (6)</b>
Home CEO	0.021*** (3.011)	0.023*** (4.377)	0.098*** (13.641)	-0.047*** (-6.597)	-0.003 (-0.475)	-0.002 (-0.320)
Ln(Assets)	-0.024*** (-7.228)	-0.011*** (-5.555)	0.017*** (6.354)	-0.007*** (-2.848)	-0.008*** (-4.035)	-0.007*** (-4.108)
M/B	0.000 (0.016)	-0.001** (-2.184)	-0.001 (-0.870)	0.000 (0.644)	-0.000 (-0.696)	-0.001 (-1.271)
Net Leverage	-0.063*** (-3.461)	-0.029** (-2.042)	-0.203*** (-11.636)	0.099*** (5.894)	0.018 (1.079)	0.004 (0.345)
ROA	0.051 (1.426)	0.062* (1.823)	0.081** (2.529)	-0.032 (-1.106)	0.068** (2.186)	0.051** (2.518)
Cash	-0.094*** (-2.693)	-0.112*** (-3.794)	-0.051 (-1.554)	0.024 (0.698)	-0.051 (-1.641)	-0.027 (-1.143)
Tobin's Q	-0.009*** (-2.815)	0.001 (0.669)	0.020*** (7.147)	-0.017*** (-5.856)	0.000 (0.089)	0.003 (1.609)
High Herfindahl	-0.005 (-0.484)	0.025*** (3.142)	-0.037*** (-4.180)	-0.001 (-0.132)	0.011 (1.345)	-0.014** (-2.009)
M&A Liquidity	0.008 (0.344)	-0.012 (-0.672)	-0.033 (-1.585)	0.001 (0.048)	0.019 (0.922)	0.040** (2.545)
Population	-0.007** (-2.471)	-0.002 (-1.274)	-0.007*** (-2.583)	-0.005* (-1.784)	-0.017*** (-8.644)	-0.005*** (-3.240)
Unemployment	0.001 (0.243)	-0.012*** (-3.493)	-0.002 (-0.523)	0.006 (1.611)	-0.012*** (-3.056)	-0.008*** (-3.535)
Industry FEs	Yes	Yes	Yes	Yes	Yes	Yes
Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
HQ State FEs	Yes	Yes	Yes	Yes	Yes	Yes
Birth State FEs	Yes	Yes	Yes	Yes	Yes	Yes
Observations	21,483	21,484	21,485	21,499	21,441	21,406
Pseudo R <sup>2</sup>	0.135	0.320	0.187	0.279	0.111	0.213

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