Two Essays on Capital Structure Decisions of the Firm: An Empirical Analysis of the Impact of Managerial Entrenchment and Ethical Corporate Citizenship

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ABSTRACT

This dissertation consists of two essays on the impact of managerial entrenchment and ethical corporate citizenship on capital structure decisions of the firm. The first essay examines the impact of managerial entrenchment on financial flexibility and capital structure decisions of firms. Agency conflicts and asymmetric information between managers and shareholders of firms exacerbate managerial entrenchment, which is operationalized using the entrenchment index. The excess cash ratio of a firm over the median cash ratio of firms within the same 3 digits SIC code is the proxy for financial flexibility. Capital structure decisions include the extent and maturity of debt as proxied by debt-to-equity ratio, and average debt maturity respectively. Results indicate that compared to managers who are not entrenched, entrenched managers obtain less rather than more debt, and they use long-term rather than short-term debt maturity. Also, entrenched managers keep more excess cash than managers who are not entrenched. This is especially the case for firms in small and large market value groups compared to medium sized firms. Results do not change before, during, and after the 2008 global economic crisis.

The second essay examines the impact of ethical corporate citizenship and CEO power on cost of capital, and firm value in the context of stakeholder theory. Firms listed as World's Most Ethical Companies (WMECs) exemplify ethical corporate citizenship, which is operationalized as a binary variable of 1 for WMECs, and zero for non-WMECs. This paper matches WMECs and non-WMECs control firms in the same 3 digits SIC code, and within 10 percent of total assets. CEO power is primarily measured using CEO pay slice calculated as CEO total compensation as a percentage of top 5 executives of the firm. Powerful CEOs have pay slice above the 50th percentile, and weak CEOs pay slice is below the 50th percentile. Tobin's q is the proxy for firm value, and cost of capital is measured as the market value weighted cost of debt, and cost of equity. Results indicate that WMECs have neither lower cost of capital nor higher Tobin's q than matched control sample of non-WMECs. Firms led by powerful CEOs have significantly lower cost of debt capital, and lower industry-adjusted Tobin's q than firms led by weak CEOs. The negative impact of CEO power on firm value is consistent with agency theory that self-interested CEOs extract firm value for personal advantage, subject to managerial controls. Results have implications for research and practice in capital structure, corporate governance, CEO compensation, and corporate social responsibility.

Two Essays on Capital Structure Decisions of the Firm: An Empirical Analysis of the Impact of Managerial Entrenchment and Ethical Corporate Citizenship

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GENERAL AUDIENCE ABSTRACT

This study consists of two essays. Essay 1 examines the impact of managerial entrenchment on financial flexibility, and leverage decisions of the firm. Managerial entrenchment is measured using the entrenchment index. The excess cash ratio of a firm over the median cash ratio of firms measures financial flexibility. Capital structure decisions include the extent and maturity of debt as measured by debt-to-equity ratio, and average debt maturity respectively. I find that entrenched managers use less debt than managers who are not entrenched. Also, entrenched managers prefer using long-term rather than short-term debt, and they keep more excess cash than managers who are not entrenched. This is especially the case for small and large firms compared to medium sized firms.

Essay 2 investigates the impact of ethical corporate citizenship and CEO power on cost of capital, and firm value. Ethical corporate citizenship (ECC) refers to firms' commitment to a culture of ethics, effective governance, leadership, and innovation. ECC is measured as a binary variable of one if a firm is listed on World's Most Ethical Companies (WMEC), and zero otherwise. CEO power is primarily measured using CEO pay slice that is calculated as CEO total compensation as a percentage of top 5 executives of the firm. Powerful CEOs have pay slice above the 50th percentile, and weak CEOs pay slice is below the 50th percentile. WMECs and non-WMECs in the same 3 digits standard industry classification, which have similar total assets as the WMECs are compared. I find that WMECs have neither lower cost of capital nor higher Tobin's q than non-WMECs. Powerful CEOs often utilize their influence to reduce cost of debt capital, but also reduce firm value compared to weak CEOs. Self-interested CEOs who extract firm value for personal advantage partly explains the negative effect of CEO power on firm value.

DEDICATION

This dissertation is dedicated to my beloved mother Ms. Comfort Brenya Boakye. Mom, if you are reading from heaven, I love you, and thank you for being the best mom to our family. I plan to continue your legacy of helping the least fortunate amongst us. I am also grateful to my beautiful wife, Mrs. Lily Ampofo (aka Ahofedua), and my wonderful family for tirelessly supporting my academic and professional pursuits. To my lovely wife Lily, and our awesome children Michael, Jessica, Ben, David, Nikki, Laura, and Zoe, I thank you. God bless you for your understanding, love, prayers, and outstanding support. I appreciate all of your sacrifice towards this important accomplishment. I can never repay you for all you have done. I am also grateful to Ms. Agnes Karikari, Dr. Laura Tindall, Mrs. Harriette Otchere, Mr. D.J.K Adom, Bishop Samuel Sarpong, Mrs. Joyce Sarpong, Mr. Eric Osei, Mrs. Araba Andrews, Mr. and Mrs. Joseph and Cynthia Boakye Yiadom, Mrs. and Mrs. Michael Boakye, Mr. and Mrs. Joseph and Ophelia Nketia, Mr. and Mrs. Douglas Okyere, Mr. and Mrs. Erasmus Amoateng, Drs. Michael and Yolanda Ogbolu, Rev. Thomas and Ama Brew, and Rev. Fr. Paul Baffour Awuah for your support.

Indeed, it takes a global village to raise a child. On that note, I also dedicate this dissertation to siblings and their families including Mr. Osei Yaw Amankwah, Mr. Moses Asante, Ms. Afua Duku, Mr. Eric Osei, Mr. Stephen Annor, Mrs. Faustina Duku, and Ms. Precious Boadiwaa Quainoo. I certainly thank my friends, colleagues, cohort members, and professors at Virginia Tech's PhD program at the Pamplin School of Business. I thank you for supporting me to unleash my God given potential to research, write and make a difference in the world. You have gone above and beyond the call of duty to motivate, and positively impact my doctoral studies and academic aspirations. I thank you for your mentorship, friendship, and coaching in my academic and professional accomplishments. God bless you all.

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TABLE OF CONTENTS

CHAPTER 1

INTRODUCTION

The effectiveness of corporate social responsibility, chief executive officers' power, and economic performance of firms in the midst of Corporate American scandals and corporate governance reforms raise important questions for research in capital structure. CEO of Goldman Sachs admitted to the firm's violation of U.S. corruption laws, and Goldman Sachs agreed to pay nearly $3 billion to regulators, and to claw back $174 million from top executives (Hoffman and Michaels 2020). Yet, CEOs of World's Most Ethical Companies including, Accenture, BMW, PepsiCo are committed to a culture of ethics and compliance, effective governance, leadership, innovation and reputation exemplified by the World's Most Ethical Companies (WMECs, Ethisphere 2018). Ethical corporate citizenship (ECC) is a subset of corporate social responsibility (CSR) for which prior research find mixed results on its impact on financial performance and firm value, partly because of the lack of unified theory, and inconsistent construct measurement (Orlitzky, Schmidt, and Rynes 2003). Prior research also identifies financial flexibility[1] as the missing link in capital structure research (Bates et al 2016, Marchica and Mura 2010). In the context of stakeholder theory (Ullmann 1985), this dissertation examines impact of managerial entrenchment, ethical corporate citizenship, and economic performance on capital structure decisions of the firm. Specifically, this study asks what is the impact of managerial entrenchment, ethical corporate citizenship, and economic performance on financial leverage, financial flexibility, cost of capital and firm value?

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[1] Financial flexibility is primarily operationalized using excess cash consistent with prior research by Daniels et al. 2010. Excess cash financial flexibility reflects residual cash rather than free cash flows needed for business.

RESEARCH PROBLEM

This dissertation addresses gaps in prior research in corporate social responsibility and capital structure for which there are missed opportunities and mixed results on the association of ethical corporate citizenship, managerial entrenchment, and capital structure decision of the firm. Specifically, ethical corporate citizenship is a subset of corporate social responsibility (Carroll 1999) for which there is mixed results on its relationship with financial performance, and firm value (Larcker et al. 2007, Wang and Smith 2008). Prior research also finds that the association between corporate ethics and financial performance or firm value is inconsistent, primarily positive (Li et al. 2016, Elliott et al. 2014, Smith and Wang 2010, Orlitzky, Schmidt, and Rynes 2003), but sometimes negative (Ullmann 1985). Orlitzky, Schmidt, and Rynes (2003) argue that the limited use of theory and inconsistent construct measurement contribute to the mixed results in prior research. For example, reputational scales (Cochran and Woods 1984), performance pollution index (Chen and Metcalf 1980), and America's Most Admired Companies listing (Wang and Smith 2008) have been used to operationalize CSR/ECC. Prior research also asserts that there is inadequate empirical evidence to justify the perceived benefits of ethical citizenship (Orlitzky, Schmidt, and Rynes 2003). Therefore, this dissertation examines the impact of managerial entrenchment, ethical corporate citizenship, and economic performance on firm value and cost of capital in the context of stakeholder theory (see essay 2).

Chief Financial Officers in the United States and Europe rank financial flexibility as a primary determinant of firms' financing policy (Skiadopoulos 2019), because firms need access to cash or liquidity to take advantage of investment opportunities and minimize financial distress. Prior research identifies financial flexibility as the "missing link" in capital structure research (Bates et al 2016, Marchica and Mura 2010). This dissertation differentiates between financial

performance (that is, profitability) and financial flexibility (that is, excess cash) and the relationship to financial leverage (Faleye 2004, Daniels et al. 2010, Hess and Immenkötter 2014). There are mixed results on whether firms led by entrenched managers are positively or negatively associated with financial leverage, debt maturity (short, medium or long-term debt), and financial flexibility across different economic cycles (Ang and Smedema 2011). For example, Berger et al (1997) document entrenched managers tendency to **borrow less**, and use longer term debt, while Ji et al (2019) find that entrenched managers of diversified firms **borrow more**, while those in focused undiversified firms **borrow less.** As a result, this dissertation also examines the impact of managerial entrenchment on financial leverage, financial flexibility and cost of capital of small, medium, and large size firms over different economic cycles (see essay 1). Essays 1 and 2 respectively examine the following key research questions:

RQ1: What is the impact of managerial entrenchment on financial flexibility, the amount and maturity of leverage?

RQ2: What is the impact of ethical corporate citizenship, managerial power, and economic performance on firm value and cost of capital?

Stakeholder theory posits that firm outcomes are determined by stakeholder power, firm strategic posture, and economic performance (Ullmann 1985). Stakeholder power is evaluated as managerial entrenchment that is primarily measured using CEO pay slice (Bebchuk et al. 2011). The entrenchment index (E-index) is an alternative measure of managerial entrenchment from the perspective of the entire senior management team rather than the individual CEO (Bebchuk et al. 2009). This dissertation also develops two additional proxies for stakeholder power called the direct measures of entrenchment (DME) using 4 or 6 antitakeover provisions in the post Sarbanes-Oxley (2002) corporate governance reform environment. Firm's strategic posture is evaluated using ethical corporate citizenship (Ethisphere 2018), which is operationalized as a binary variable

of 1 for firms that are on Ethisphere's World's Most Ethical Companies list, and zero otherwise. An alternative proxy for strategic posture is the net CSR score (Davidson et al. 2018). The proxies for economic performance are net income, average alpha, and economic value added (Ghanbari and More 2007, Li et al. 2019). Firm outcomes include firm value (that is, Tobin's q), cost of capital (that is, weighted average of cost of debt and cost of equity), financial leverage (that is, debt to equity ratio), and financial flexibility (that is, excess cash or free cash flows). Essays 1 and 2 further examine and identify primary and alternative proxies for these constructs consistent with prior research.

In the context of stakeholder theory, the model for this dissertation including essays 1 and 2 is shown in figure 1 below. The labels for the hypotheses in Essay 1 (e.g., H1a, H1b) is not the same as labels in Essay 2 (e.g., H1a, H1b) that are summarized on pages 5 and 6 below

Figure 0: Application of Stakeholder Theory to Firms' Outcomes
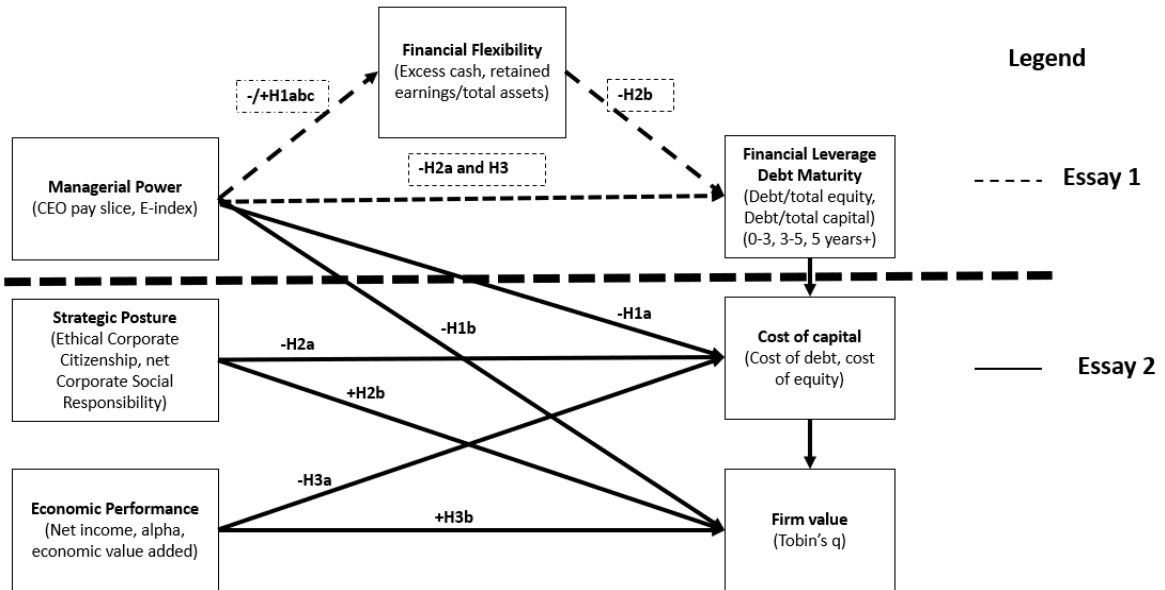
Essays 1 and 2 examine tensions in pertinent prior research to develop hypotheses on the association between the independent variables of managerial entrenchment (Bebchuck et al. 2009,

2011, Ji et al. 2019), ethical corporate citizenship and corporate social responsibility (Davidson et al. 2018, Ethisphere 2018, Carroll 1999), and economic performance (Kumar and Sopariwala 1992, Ghanbari and More 2007), and the dependent variables of financial flexibility (Faleye 2004, Daniels et al. 2010, Hess and Immenkötter 2014), financial leverage (Ji et al. 2019, Berger et al. 1996), cost of capital (El Ghoul et al. 2011), and firm value (Bebchuk et al. 2011, Chintrakarn et al. 2018). Stakeholder theory (Ullmann 1985) and the related agency theory (Jensen and Meckling 1976), and positivist agency theory (Blair 1996) provide the theoretical backbone for this study. In summary, the hypotheses analyzed in this dissertation are as follows:

Essays 1 and 2 develop the following hypotheses consistent with agency theory that managers are self-interested, and risk-averse individuals who make decisions to achieve personal gains rather than to satisfy the interests of shareholders (Jensen and Meckling 1976). However, corporate governance mechanisms, including outcomes-based contracts, managerial performance incentives, and activists' shareholders tactics could mitigate the extent of managerial self-interest (Blair 1996). A summary of the hypotheses in essays 1 and 2 is as follows:

HYPOTHESES IN ESSAY 1

H1a: There is a positive relationship between managerial entrenchment and financial flexibility.

H1b: There is a negative relationship between managerial entrenchment and financial flexibility.

H1c: The relationship between managerial entrenchment and financial flexibility varies among firms in small, medium or large market value groups.

H2a: Managerial entrenchment significantly affects financial leverage.

H2b: The relationship between financial flexibility and financial leverage varies among firms in small, medium, and large market value groups.

H3: Firms that use long-term debt are likely to have less excess cash than firms that use short-term debt. There is a negative association between debt maturity and excess cash.

HYPOTHESES IN ESSAY 2

H1a: The relationship between CEO power and cost of capital is negative.

H1b: The relationship between CEO power and firm value is positive.

H1c: The relationship between CEO power and firm value is negative.

H2a: Firms that are on the list of World's Most Ethical Companies (WMECs) have lower cost of capital than firms that are not WMECs.

H2b: Firms that are on the list of World's Most Ethical Companies have higher firm value than firms that are non-WMECs.

H3a: The relationship between economic performance and cost of capital is negative.

H3b: The relationship between economic performance and firm value is positive.

CONTRIBUTIONS OF THE STUDY

This dissertation contributes to prior research in corporate governance, corporate social responsibility, financial accounting, and capital structure. Essay 1 provides evidence that entrenched managers keep high excess cash, while managers who are less entrenched keep low excess cash. Second, entrenched managers borrow less and use long-term rather than short-term. The effect of debt maturity on excess cash is not- monotonic. Third, it adds to the nomological validity of E-index by developing two direct measures of entrenchment based on four, and six anti-takeover factors in the post-SOX 2002 business environment. Finally, results show that excess cash, average debt maturity, and E-index significantly explain variations in leverage of firms in small or large market value groups. Results in essay 1 provide evidence to rating agencies, analysts, regulators, and researchers on the effects of managerial entrenchment on excess cash, and leverage decisions for different firm sizes across economic cycles.

Essay 2 provides evidence that CEO power, and economic performance of the firm rather than ethical corporate citizenship significantly reduces cost of capital of the firm. CEO power decreases industry-adjusted Tobin's q, while economic performance increases it. Also, essay 2 provides evidence that S&P 500 firms that join and stay on the WMEC list through 2017 show

better stock price return than firms that did not stay on the WMEC listing. This external evidence based on stock price returns suggests that a firm's commitment to ethical corporate citizenship, rather than infrequent practice of corporate social responsibility matters. Essay 2 also empirically establishes a strong positive correlation between corporate social responsibility and ethical corporate citizenship, and it establishes the WMECs list as a nomologically valid measure of the corporate social responsibility. Essay 2 provides anecdotal evidence on CEO personal characteristic index (CPCI) as an alternative proxy for CEO pay slice. Finally, essay 2 provides consistent evidence of a non-monotonic relationship between CEO power and firm value (Bebchuk et al 2011, Chintrakarn et al. 2018), which is approximately V-shaped.

In summary, this dissertation contributes new evidence to capital structure and corporate governance research and practice. Entrenched managers borrow less using long-term rather than short-term debt maturity, and keep high excess cash than managers who are less entrenched. The study provides evidence that ECC is not associated with lower cost of equity or lower cost of capital, although firms that join and stay on WMECs have higher share price. This dissertation adds to the literature on corporate social responsibility the WMECs list, and DMEs 4 and 6 as alternative proxies for CSR, and E-index respectively. Finally, this dissertation provides anecdotal evidence that CEO personal characteristic index (CPCI) is an alternative proxy for CEO pay slice.

The rest of this study is organized as follows. Chapter 2 provides an empirical analysis of the relationship between managerial entrenchment, financial flexibility, and capital structure decisions (Essay 1). Chapter 3 examines the impact of CEO power, and ethical corporate citizenship on firm value and cost of capital (Essay 2). Chapter 4 summarizes the results, contributions, limitations, and implications of the dissertation. Finally, the conclusions and recommendations for further research are discussed in Chapter 5.

CHAPTER 2

THE IMPACT OF MANAGERIAL ENTRENCHMENT ON FINANCIAL FLEXIBILITY AND
CAPITAL STRUCTURE DECISIONS OF THE FIRM (ESSAY 1)

The Impact of Managerial Entrenchment on Financial Flexibility, and Capital Structure Decisions of the Firm

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ABSTRACT

This paper examines the impact of managerial entrenchment on financial flexibility and capital structure decisions of firms. Agency conflicts and asymmetric information between managers and shareholders of firms exacerbate managerial entrenchment, which is operationalized using the entrenchment index. The excess cash ratio of a firm over the median cash ratio of firms within the same 3 digits SIC code is the proxy for financial flexibility. Capital structure decisions include the extent and maturity of debt as proxied by debt-to-equity ratio, and average debt maturity respectively. Results indicate that entrenched managers borrow less rather than more debt, and they use long-term rather than short-term debt. Also, entrenched managers keep more excess cash than less entrenched managers. This is especially the case for firms in small and large market value groups compared to medium sized firms. Results do not change before, during, and after the 2008 global economic crisis.

JEL Classification: G31 G32 G39

Keywords: Managerial entrenchment, Financial flexibility, Capital structure, Leverage, Debt maturity, Excess cash, Global Economic Crisis.

Data Availability: Data is available from public sources cited in this paper.

I. INTRODUCTION

The United States Financial Accounting Standards Board, International Accounting Standards Board, and the Securities and Exchange Commission have emphasized the importance of the statement of cash flows and related liquidity disclosures in providing decision-useful information to financial statement users (Hsu et al. 2017, Emery and Cogger 1982). Prior research on earnings quality provides evidence of the value relevance of accounting cash flows measures (Charitou and Ketz 1991, Ramalingegowda et al. 2013) and yet the impact of managerial entrenchment on financial flexibility and capital structure decisions of the firm is a gap in prior research. The extent of financial flexibility (that is, excess cash ratio over industry median cash ratio) and leverage (that is, debt ratio) are key determinants of a firm's ability to remain a going concern, especially during economic recessions (Ang and Smedema 2011). Chief financial officers in the U.S. and Europe rank *financial flexibility* as a primary determinant of firms' financing policy (Skiadopoulos 2019) as firms need access to cash or liquidity to take advantage of investment opportunities and meet other cash flow requirements (Hsu et al. 2017). Prior research identifies financial flexibility as a missing link in capital structure research (Bates et al 2016, Byoun 2011 Marchica and Mura 2010). Also, there are mixed results in prior research on the relationship between managerial entrenchment and the extent of leverage in capital structure of the firm (Berger et al. 1997, Ji et al. 2019). For example, while Berger et al (1997) document entrenched managers tendency to borrow less using long-term debt, Ji et al (2019) find that entrenched managers of diversified firms borrow more. This paper examines the impact of managerial entrenchment on financial flexibility and capital structure decisions of the firm.

Managerial entrenchment refers to the extent to which firms' management exploits agency conflicts, and the resulting information asymmetry to extract private benefits, build empire and take measures to deepen, and protect management's rather than other stakeholders' interests over

time (Murphy and Zabojnik 2004, Zwiebel 1996, Edlin and Stiglitz 1995). Managerial entrenchment occurs when managers gain so much power that they are able to use the firm to further their own interests rather than the interest of shareholders (Weisbach 1988). Shleifer and Vishny (1989) find that managers entrench themselves by making manager-specific investments that make it costly for shareholders to replace them, extract higher wages and larger perquisites from shareholders, and obtain more latitude in determining corporate strategy.

Bebchuk, Cohen, and Ferrell (2009) measure managerial entrenchment using the E-index that consists of the following six antitakeover provisions: (1) staggered boards, (2) limits to bylaw amendments, (3) poison pills, (4) golden parachutes, and (5) super-majority vote requirements for mergers, and (6) limits to charter amendments. The E-index is a 0 (less entrenchment) to 6 (more entrenchment) summative scale that assigns a value of 0 (provision is not used by firm's management) or 1 (provision is used by firm's management). Bebchuk et al. (2011) also document that firms are frequently using the following four antitakeover practices in the post-Sarbanes Oxley Act (2002) business environment: (1) blank check preferred stocks, (2) cumulative voting, (3) confidential or secret ballot, and (4) fair price amendments in addition to the six entrenchment provisions of the E-index. This paper adds to the nomological validity of the E-index by developing two direct measures of entrenchment (that is, DME4 and DME6) in the post Sarbanes Oxley (2002) corporate governance environment following the E-index methodology (Bebchuk et al 2009). The direct measures of entrenchment include the above four factors and two of the E-index factors namely: (5) golden parachutes, and (6) super majority votes for mergers. The direct measures of entrenchment and E-indexes are significantly correlated. This paper uses E-index and DME4 and DME6 as proxies for managerial entrenchment.

Financial flexibility is an evolving concept described as a firm's operating cash flows (Byoun 2011, Charitou and Ketz 1991), free cash flow (Jensen 1986, Easterbrook 1984), excess or residual cash (Faleye 2004, Daniels et al. 2010), and debt capacity (Hess and Immenkötter 2014). This paper refers to financial flexibility as the extent of excess cash flows, or unused debt capacity of the firm (Denis and McKeon 2012) to satisfy cash requirements of the firm (Bates et al., 2016, Lo 2015, Gamba and Triantis 2008). Financial flexibility is distinguished from financial performance or profitability of the firm (Hsu et al. 2017, Charitou and Ketz 1991). First, financial flexibility is excess or residual cash flows that primarily arise from net debt proceeds after satisfying operating and investing cash requirements of the firm (Daniels et al. 2010, Faleye 2004). Second, this residual or excess cash perspective of financial flexibility also differs from free cash flow to the firm, which is operating cash flows adjusted to include interest tax shield [that is, plus interest expense (1-tax rate)], plus receipts from net debt proceeds, and less payments for long-term investments (Jensen 1986, Easterbrook 1984). Finally, net proceeds from debt cash flows is a common factor of excess cash and free cash flows, although the two differ because free cash flows consider operating cashflows while excess cash does not (Easterbrook 1984). Therefore, one channel of this financial flexibility is to borrow cheaper long-term debt (relative to equity) that a firm typically pays interest costs, and rollover principal payments for a long period of time. Consistent with prior research, financial flexibility is operationalized as median excess cash (Daniels et al. 2010), residual excess cash (Faleye 2004, Opler et al. 1999), and free cash flow (Easterbrook 1984).

Managers and shareholders may prefer financial flexibility to the extent that the opportunity costs of holding excess cash is low. However, when the opportunity cost of holding excess cash is high, managers and shareholders would retain less financial flexibility by investing

additional funds for better returns on investments. Therefore, the extent of excess cash creates an inherent conflict of interest between managers and shareholders beyond the point of optimal investment income, which should be resolved with a policy that minimizes the sum of capital, agency and taxation costs (Easterbrook 1984). For example, managers may want to retain excess cash to facilitate attainment of parochial interest of extracting rents under agency theory, while shareholders may want to invest some of the excess cash for higher returns to maximize the wealth of shareholders (Faleye 2004). On balance, firms are expected to follow excess cash policy to minimize the after-tax opportunity cost of holding excess cash to satisfice the interests of management and shareholders (Easterbrook 1984).

Agency conflicts and asymmetric information between managers and shareholders of firms exacerbate managerial entrenchment. Self-interested, and risk-averse managers under agency theory (Jensen and Meckling 1976) are expected to exploit firms' financial flexibility to their personal advantage by retaining sufficient excess cash to avert potential liquidity crisis (that is, preference for liquidity) even at the cost of higher expected returns. This suggests a positive relationship between managerial entrenchment and financial flexibility (H1a) as entrenched managers hold more excess cash. On the other hand, positivist agency theory (Eisenhardt 1989, and Blair 1996) suggests managers act in the best interest of shareholders, and will invest financial flexibility to optimize expected returns for shareholders, ceteris paribus. This predicts a negative relationship between entrenchment and flexibility (H1b). This paper argues that excess cash would be high and positively related to managerial entrenchment when the opportunity cost of excess cash is low. However, when the opportunity cost of excess cash is high, excess cash should be low and negatively related to managerial entrenchment since cash resources are likely to be invested for higher investment returns. Consistent with prior research that small firms are financially

constrained (Farre-Mensa and Ljungqvist 2016), this paper posits that the relationship between managerial entrenchment and financial flexibility varies across firms in small, medium or large market value groups (H1c).

Capital structure decisions refer to the portion of leverage in the capital structure, and the maturity of debt. Capital structure decisions deal with the optimal levels of debt and equity, asset-liability duration management, and the related costs of capital (Jensen and Meckling 1976, and Myers 1977). Prior research studied the costs and benefits of capital structure decisions, including financial distress (Andrade & Kaplan 1998), the use of leverage as tool for discipline (Jensen 1986), and the interest expense tax shield advantage, and dividend policy (DeAngelo and Masulis 1980, Myers 1984, and Myers and Majluf 1984). Consistent with prior research, leverage is primarily operationalized as debt to total assets (Faleye 2004, Ji, Mauer, and Zhang 2019). In the context of agency theory, this paper predicts that managerial entrenchment significantly affects financial leverage (H2a). The relationship between financial flexibility and capital structure is likely to vary among firms in small, medium, and larger market value groups (H2b).

Berger, Ofek, and Yermack (1997) find evidence that firms that have entrenched managers often borrow less, and use long rather than short-term debt. Generally, long-term debt is cheaper than equity and managers prefer to use the long-term debt. Also, a normal upward sloping yield curve suggests medium-term to long-term rates are more expensive than short-term rates. However, managers may decide to use *more* of long or medium-term rather than costly equity capital to take advantage of lower interest payments that should increase excess cash. This suggests a *negative* association between debt maturity and excess cash in that as the term of the loan increases, managers borrow less to save on borrowing costs. However, market place evidence suggests that companies are frequently issuing medium-term notes in domestic and foreign

markets to finance business activities. Certain debt investors prefer medium to long-term debt to take advantage of better economic returns (Jensen 1986, DeAngelo and Masulis 1980). This paper predicts a negative association between debt maturity and excess cash (H3).

Results indicate that compared to managers who are less entrenched, more entrenched managers borrow less and use long-term rather than short-term debt maturities. Entrenched managers also keep more excess cash than managers who are less entrenched. Also, firms that have more excess cash tend to borrow less, while firms with less excess cash borrow more to fund operating, investing, and financing activities (Byoun 2011). Managerial entrenchment provides significant explanation for the variance in excess cash, financial leverage, and average debt maturity especially for small and large compared to medium-size firms. Results do not change before, during, and after the 2008 global economic crisis.

This paper provides new evidence that more entrenched managers keep high excess cash than managers who are less entrenched. Also, entrenched managers tend to borrow less using longer term debt maturities, which is especially the case for firms in small and large rather than medium market value groups. Debt maturity is negatively associated with excess cash. This paper develops two direct measures of entrenchment based on four, and six anti-takeover factors (DME4, and DME6) that are frequently used by firms in the business environment after the Sarbanes-Oxley Act (2002). Results have implications for practice and research on the effects of managerial entrenchment on financing policy for different firm sizes across economic cycles.

The rest of this paper is organized as follows. Section I discusses the theoretical background. Section II describes the data and summary statistics. Section III examines the methodology. Section IV discusses results. Finally, the paper concludes and analyze implications in section V.

II. PRIOR RESEARCH AND HYPOTHESES DEVELOPMENT

Agency theory

Eisenhardt (1989) provides an assessment of traditional agency theory from its origins in risk-sharing, and agency problem perspectives (Jensen and Meckling 1976) in which principal and agent have different attitudes towards risks, and different goals. Agency theory stems from the principal-agent conflict that arises from the separation of ownership and control of firms (McGuire, Wang, and Wilson2014, Fama and Jensen 1983, Jensen and Meckling 1976). The agency problem arises from conflicting goals between the agent (i.e., managers) and principal (i.e., shareholders, debtholders), partly because it is difficult or expensive for the principal to verify the agent's activities (Eisenhardt 1989). Agency theory assumes that managers are self-interested, risk averse individuals whose decisions follow bounded rationality in contractual relationships (Jensen and Meckling 1976). For example, the extent of managerial power and unavailable information about firm risks may lead to a bounded rational decision to borrow more than the firm can repay with its current or future resources (Jensen and Meckling 1976). Managers use private information for their personal benefit rather than that of the capital providers (Fama and Jensen 1983). For example, the managers may extract firms' cash flows, and make it difficult to replace them by investing in projects for which success is tied to the managers (Shleifer and Vishny 1989).

Prior research suggest that the agency conflict is typically resolved by satisficing the interests of both management and other stakeholders (Eisenhardt 1989) rather than optimizing one party's interest at the expense of the interest of the other party. Blair (1996) identifies a positivist or contrarian agency theory that corporate governance mechanism, such as, goals alignment using outcomes-based contracts, or efficient information systems, limit agent's self-serving behavior so that managers act in the interest of the capital providers. Managers who work for capital providers

are expected to act in the best interest of the stakeholders to maximize the value of the firm (Blair 1996). Prior research argues that agency theory and strategic management perspectives, such as, the positivists agency theory, yield opposing predictions (Denis, Denis, and Sarin 1999, p. 1073). Shankman (1999) also indicates that agency and stakeholder theories offer competing explanations for firm outcomes. For example, using agency theory and related creditor alignment, and managerial entrenchment hypotheses Ji, Mauer, and Zhang (2019) find a (1) positive relation between managerial entrenchment and leverage in diversified firms (creditor alignment hypothesis), and (2) negative relation between managerial entrenchment and leverage in focused firms (managerial entrenchment hypothesis).

A gap in prior research is the lack of consideration of financial flexibility in capital structure studies (Bates et al 2016, Byoun 2011 Marchica and Mura 2010) for firms of different sizes across different economic cycles. Also, the apparent tension between the traditional, and positivist agency theories, with respect to the effects of managerial incentives on firms' outcomes, provides appropriate framework to develop hypothetical relationships among managerial entrenchment, financial flexibility, and capital structure decisions of the firm. Research question is what is the impact of managerial entrenchment on financial flexibility, and the amount and maturity of debt? This paper examines this research question for firms in small, medium or large market value groups, and in periods before, during, and after the 2008 Global Economic Crisis.

Managerial entrenchment

Managerial entrenchment occurs when managers gain so much power that they are able to use the firm to further their own interests rather than the interests of shareholders (Weisbach 1988). Firms' management exploits agency conflicts and information asymmetry to extract private benefits (Zwiebel1996, Edlin and Stiglitz 1995). Managerial entrenchment hypothesis arises from

agency conflicts between managers, shareholders, creditors, and even employees (Murphy and Zabojnik 2004). Shleifer and Vishny (1989) explain that entrenched managers make manager-specific investments that make it costly for shareholders to replace them, extract higher wages and larger perquisites from shareholders, and obtain more latitude in determining corporate strategy. Prior research first measures managerial entrenchment using corporate governance variables, such as, the Gompers, Ishii, and Metrick (GIM, 2003) index, Alternative Takeover Index (ATI) of Cremers and Nair (2005), and Entrenchment (E) index of Bebchuk, Cohen, and Ferrell (2009). Second, Shleifer and Vishny (1989) use blockholders of at least 20% as measure of entrenchment. Third, CEO turnover, anti-takeover provisions, proxy contests, and managerial entrenchment index are also used in prior research (Faleye 2007, Chakraborty et al. 2014, Chakraborty, and Sheikh 2010, Jiang and Lie 2016, and Florackis and Ozka 2009). Fourth, Lee, Matsunaga, and Park (2012) use CEO share ownership, CEO/chairman duality, and CEO tenure as measures of entrenchment. Another measure of entrenchment is CEO pay slice (CPS) as a relative measure of importance of the CEO among the top 5 executives of the firm, and the extent to which the CEO is able to extract rents (Bebchuck et al. 2011, Withisuphakorn and Jiraporn 2017). CPS is calculated as the percent of CEO's total compensation to that of the top 5 executives of the firm (Bebchuk et al. 2011). The gist of the entrenchment measures noted above is that effective corporate governance (e.g., more blockholders, less antitakeover provisions, and more controls over managers) reduce entrenchment, and vice versa. While managerial entrenchment could have positive outcomes for CEOs, it often drains resources from the shareholders of the firm.

Consistent with prior research, this paper operationalizes managerial entrenchment primarily using the E-index (Bebchuk et al. 2011, Ji, Mauer, and Zhang 2019). Following Bebchuk et al. (2009) development of E-index, I also utilize different antitakeover provisions that firms

frequently use in the period after the Sarbanes Oxley Act (2002) to develop two direct measures of managerial entrenchment indexes (DME4, and DME6) namely: (1) blank check preferred stocks, (2) cumulative voting, (3) confidential or secret ballot, (4) fair price amendments, (5) limits to special meetings, and (6) limits to written consent. The direct measures of entrenchment add to the nomological validity of the E-index and provide alternative measures of managerial entrenchment. DME4 and DME6 are utilized as alternative proxies of managerial entrenchment.

Financial flexibility and profitability

Financial Accounting Standards Board (FASB 2019) defines financial flexibility as the ability of a firm to alter the amounts and timing of cash flows to meet unexpected needs and opportunities. Prior research suggests that financial flexibility is the availability of cash, cash flows, or liquidity to meet unexpected needs or opportunities (Bates et al., 2016). It is important to distinguish between financial flexibility and financial performance of the firm as the two constructs are highly correlated (Arslan-Ayaydin et al. 2014, Lie 2005). Financial performance focuses on the profitability of the firm, and typically includes earned revenues less accrued expenses on the income statement (Ferris, Kumar, Sant, Sopariwala 1998). Prior research measures financial performance as return on assets, return on equity, or operating profit divided by total assets (Kumar and Sopariwala 1992, Rajan and Zingales 1995). The proportion of fixed versus variable costs of the firm is an aspect of operating flexibility that is closely related to operating performance of the firm (Kumar and Sopariwala 1992). Also, this paper differentiates between *operating and financing flexibility* of the firm and focuses on the latter rather than the former. Prior research broadly measures financial flexibility as operating cash flows (DeAngelo and DeAngelo 2007, and Arslan-Ayaydin et al 2014, Hoberg, Phillips, and Prabhala 2014, Gombola, and Ketz 1983, Emery and Cogger 1982), retained earnings to total assets (Byoun 2011), excess or residual

cash (Daniels et al. 2010, Faleye 2004), and debt capacity (Hess and Immenkötter 2014). This distinction between operating and financing flexibility is empirically necessary because financial performance of the firm is not independent (that is, not orthogonal) from the broader construct of financial flexibility (Kumar and Sopariwala 1992). This paper operationalizes financial flexibility as excess cash, and free cash flows primarily sourced from debt financing. The residual or excess cash perspective of financial flexibility differs from free cash flow to the firm, which is operating cash flows adjusted include interest tax shield [that is, plus interest expense (1-tax rate)], plus receipts from net debt proceeds, and less payments for long-term investments (Jensen 1986, Easterbrook 1984). The net proceeds from debt cash flows is a common factor of excess cash and free cash flows, although the two differ because free cash flows consider *operating cashflows* while excess cash does not.

Prior research also describes financial flexibility as unused debt capacity that firms can tap into for cash flows (Lo 2015, Gamba and Triantis 2008). Financial flexibility should be beneficial to managers and shareholders of the firm because it provides residual cash flows or debt capacity to meet unforeseen business needs or opportunities. From the perspective of firm shareholders, financial flexibility may be beneficial (i.e., positive) or costly (i.e., negative) depending on the opportunity costs of holding excess cash flows. The opportunity cost of excess cash refers to the forgone expected returns from missed investment opportunities from holding more excess cash. The value of financial flexibility is positive to the firm if the opportunity cost of holding excess cash is low, and vice versa. At an optimal point of financial flexibility, firms should be indifferent between having or investing excess cash because the expected returns from missed investment opportunities is equal to the opportunity cost of flexibility. This suggests that excess or residual

cash is related to free cash flow from the firm, which adjusts operating cash flows for payments for long-term investments, and receipts from debt financing, and interest tax shield (Jensen 1986).

Marchica and Mura (2010) conclude that financial flexibility in the form of untapped reserves of borrowing power is a crucial missing link in capital structure theory. Prior research on managerial entrenchment and financial flexibility provide evidence that: (1) there is strong negative relationship between dividends and management stock options, (2) management stock ownership is associated with higher payouts by firms with potentially the greatest agency problems (Fenn and Liang 2001), and (3) following a period of low leverage, firms make larger capital expenditures and increase abnormal investment financed through new issues of debt (Fenn and Liang 2001). Also, there is evidence that (4) financially flexible firms invest more and better than firms that are not financially flexible (Marchica and Mura 2010), (5) self-interested managers are reluctant to disburse excess cash, and they will allow cash levels to remain high unless the firms are subject to external pressure (Jiang and Lie 2016), and (6) the cost of payout flexibility is correlated with governance and agency concerns (Bonaime et al. 2016, Rashidi 2020). This paper primarily operationalizes financial flexibility as the excess of the cash ratio of the firm over the median cash ratio of the 3-digits SIC industry (Daniels et al 2010), residual cash (Opler et al. 1999), and free cash flow to the firm (Faleye 2004, Jensen 1986, Easterbrook 1984).

Hypotheses Development

Financial flexibility and managerial entrenchment prediction

Agency theory suggests that managers are self-interested, risk-averse individuals (Jensen and Meckling 1976), such as investing excess cash balances in projects for which success is tied to the managers (Shleifer and Vishny 1989). In this view, the entrenched managers, who can get

away with sub-optimal decisions more than other managers who are closely scrutinized, may not be overly concerned with minimizing the opportunity cost of holding excess cash flows, as they prefer more to less financial flexibility. Under agency theory, more entrenched managers prefer to hold more excess cash indicating a positive relationship between managerial entrenchment and financial flexibility (H1a). However, as the opportunity cost of having excess cash increases due to higher forgone expected returns from missed investment opportunities, the entrenched managers and shareholders lose out on the portion of expected returns that is tied up in excess cash flows. As a result, based on positivist agency theory (Blair 1996) that managers act in the best interest of the principal rather than their own best interest (Jensen and Meckling 1976), entrenched managers take advantage of lucrative investment opportunities rather than holding excess cash flows. Thus, entrenched managers hold less excess cash predicting a negative relationship between entrenchment financial flexibility (H1b).

Prior research suggests that firm size (i.e., small, medium or large firm size) matters in the analysis of financial constraints in that small firms have less financial flexibility than medium or large firms (Farre-Mensa and Ljungqvist (FML) 2016). Small firm managers are likely to be less entrenched than medium or large firm mangers due to limited resources or financial constraint in the small firms (FML 2016). The relationship between managerial entrenchment and financial flexibility is expected to vary among firms in small, medium or large market value groups (H1c).

In summary, the hypotheses relating to entrenchment and flexibility are stated as follows:

- H1a: Consistent with agency theory, there is a positive relationship between managerial entrenchment and financial flexibility.
- H1b: Consistent with positivist agency theory, there is a negative relationship between managerial entrenchment and financial flexibility.
- H1c: The relationship between managerial entrenchment and financial flexibility significantly varies among firms in small, medium or large market value groups.

Leverage Predictions

Prior research find that managerial entrenchment is negatively related to leverage, such that more entrenched managers borrow less money (Berger et al 1997). This is consistent with agency theory that self-interested, risk-averse, and bounded rational entrenched managers prefer less to more debt due to the discipline imposed by timely repayment of debt (Jensen 1983). Positivist agency theory (Blair 1996), however, suggests that entrenched managers may utilize more debt if it is cheaper than other sources of financing (e.g., equity or retained earnings) to finance lucrative transitions (e.g., mergers and acquisitions) that add value to their entrenchment objectives. As a result, under these conditions, entrenched managers may borrow more debt indicating a positive relationship between entrenchment and leverage (H2a).

Based on evidence from Farre-Mensa and Ljungqvist (FML, 2016), firm size matters in the analysis of financial constraints. For example, FML (2016) find that small firms are typically financially constrained, but they are able to raise funds through private debt and equity markets with some difficulty. Accordingly, based on the evidence from financial constraint (FML 2016), this paper predicts that the relationship between managerial entrenchment and leverage depends on whether the firm is small, medium or large market value groups. As a result, in H2b below, small firms that are financially constrained (less financial flexibility), should not show a relationship between entrenchment and leverage as such firms have difficulty accessing debt or equity financing. However, medium and large firms borrow less leverage consistent with Berger et al (1997). In summary, this paper hypothesizes as follows:

- • H2a: Managerial entrenchment is positively related to financial leverage.
- • H2b: The relationship between financial flexibility and financial leverage varies among firms in small, medium, and large market value groups.

Financial flexibility and debt maturity

Prior research find that more entrenched managers use long rather than short term debt (Datta et al 2005). Prior research considers debt with maturities of less than 3 years to be short-term, and more than 3 years to be long-term (Datta et al 2005), but it does not differentiate between medium term and long-term debt maturities. Market place evidence suggests that companies are frequently issuing domestic and foreign medium-term notes to finance business activities. Medium term debt (3 to 5 years debt maturity) that is commonly used by firms as it is often as cheap as long-term debt, and certain investors prefer to be able to make debt investment decision in the medium rather than long-term. Under agency theory, self-interested managers in firms that are financially flexible are expected to borrow less in the short-term since they have excess cash flows stored up and have less need for borrowed money, and related borrowing costs. Also, in the long-term (after 5 years), firms reach the decline phase of the flexibility cycle (Byoun 2011), and they have less excess cash. However, in the medium term (3-5 years), firms at the maturity phase of the flexibility cycle need to build up excess cash to support operations. On balance, firms using medium to long-term debt at higher interest rates than short-term debt are expected to have higher interest costs, and decrease excess cash. This suggests a negative relationship between debt maturity and excess cash leading to the following hypothesis:

- H3: Firms that use long-term or medium-term debt are likely to have less excess cash than firms that use short-term debt. That is, there is a negative association between debt maturity and excess cash.

[INCLUDE FIGURE 1 HERE]

III. SAMPLE, DATA AND DESCRIPTIVE STATISTICS

A. Sample Selection and Definition of Variables

Final sample consists of 1,864 firms or 17,338 firm years for the period from 2000 to 2018. Managerial entrenchment is operationalized using E-index. Entrenchment data is obtained from ExecuComp, and Institutional Shareholders Services (ISS/formerly RiskMetrics) or Investors Responsibility Resource Center (IRRC). Financial flexibility is measured using excess cash, retained earnings to total assets, and free cash flows to the firm based on data obtained from Compustat. Capital structure decisions include leverage and cost of capital decisions of the firm. Financial leverage is operationalized as debt to total assets, and cost of capital is the weighted average cost of capital based on market value weights of Fama and French (1983), and Carhart (1997) four-factor cost of equity, and after-tax cost of debt. Capital structure data is obtained from Center for Research in Securities Prices (CRSP) and Compustat sources. Data from different databases are joined into the sample dataset using primary keys, such as, GvKey, fiscal year, and ticker. Consistent with prior research, firm year data for financial and utilities firms are excluded as they are regulated entities with solvency requirements that often leads to different capital structure. Data for dual share class firms, and firms' years with negative net sales, negative book or market value of assets, and missing SIC code are also excluded (Giroud and Mueller 2012). Figure 2 below is reconciliation of sample size. The sample period is chosen to overlap the 2008 Global Economic Crisis to check if our predictions hold in times of global capital economic crisis. Lagged values of independent variables are used to be consistent with empirical specifications in prior research. Appendix 1 defines the proxies for the variables used in this study.

[INCLUDE FIGURE 2 HERE]

Dependent variables

Financial leverage is a dependent variable that is measured debt ratio of interest-bearing debt as a percent of firms' total assets (Ji et al. 2019, Byoun 2011, Denis and McKeon 2012). The average debt ratio of the sample of all firms is about 0.40 (SD = 0.20), which differs significantly for small (debt ratio = 0.30, SD = 0.20) versus large (debt ratio = 0.40, SD = 0.20, t= -14.10, p=.00) firms. Also, the debt ratios for small versus medium (debt ratio =0.30, SD=0.20) groups firms are significantly different (t = -2.80, p =.00). The debt ratios do not differ significantly before, during, and after the 2008 global economic crisis for the sample firms.

Debt maturity structure is operationalized as a multinomial variable of (1) for short-term debt matures in 3 years or less, (2) for medium term debt matures between 3 and 5 years, and (3) for long-term debt matures in 5 years or more (3) consistent with prior research (Datta et al 2005, Johnson 2003). The average debt maturity is about 4.2 years (SD = 1.1), which are significantly different (p<.001) for small (M=3.8 years, SD=1.3) versus medium (M=4.2 years, SD=1.1), and large (M=4.4 years, SD =0.9) firm. The average debt maturities differ significantly (p<.001) before (M=4.3 years, SD=1.1) and during (M=4.2 years, SD=1.1), as well as, during and after (M=4.2 years, SD=1.1) the 2008 global economic crisis.

Independent variables

The primary proxy for managerial entrenchment is the entrenchment is the E-index (Bebchuk et al 2009). Direct measures of entrenchment (DME4 and DME6) developed in this paper are used as alternative proxies of managerial entrenchment. E-index is significantly correlated with CEO pay slice (r=.10, p<.001) (Bebchuk et al 2009, 2011). The E-index is also

highly correlated with (r=.13, p<.001) the DME4 index. The CPS is significantly different for firms in small versus medium, as well as, small versus large (p<.001) market value groups.

The main proxy for financial flexibility is *median excess cash* (Daniels et al. 2010), and residual cash (Opler et al. 1999, Faleye 2004). An alternative proxy for financial flexibility is free cash flows to the firm (Arslan-Ayaydin et al. 2014, Marchica and Mura 2010, Denis and McKeon 2012, Hess and Immenkotter 2014). Median excess cash is highly correlated with (r = .14, p< .001) the excess cash based on the regression residual method in Faleye (2004). The median excess cash of small versus medium groups firm sizes are not significantly different (p=.50), though that for small versus large firm groups are significantly different (p<.001). Also, the median excess cash for the pre-2008 crisis period is significantly different from during the 2008 (p=<.001), and post 2008 (p<.001). Table 1 provides descriptive statistics and correlations in this study.

Descriptive Statistics

Tables 1 and 2 summarize the descriptive statistics of the key variables. About 17,338 firm years for 1,864 firms are included in the sample of which about 25 percent *each* are in the small, or medium, and 50 percent are in large market value firm year groups. Seventy percent firm-year data are in the post-2008 global economic crisis period, while about 24 percent and 6 percent respectively firm years are in the pre, and during 2008 periods. In figure 3, the patterns of the annual leverage ratios including, debt to total capital, and debt to total assets, are relatively similar over the sample period. The leverage ratios rise to a peak around 2001, decline until 2005, rise again to a peak in 2008, decline until 2012, and rise through 2018. Median excess cash and retained earnings are generally below the leverage and show different patterns over the sample period (r = -.08, p<.001). However, median excess cash, and residual excess cash are significantly positively correlated (r = .14, p<.001) as shown in figure 3 below.

Consistent with prior research, firm year data is grouped into small, medium, and large market value groups (Byoun 2011, FML 2016, Giroud and Mueller 2011). I evaluate univariate and multivariate regressions including standard controls of growth opportunities (market to book ratio), firm size (Log of total assets), asset tangibility (PPE to total assets), leverage (debt to equity), and profitability (return on assets) (Rajan and Zingales 1995). Year, and firm, or industry fixed effects are included in regression models to minimize heterogeneity in the analysis.

Hypotheses Testing[2]

Managerial entrenchment and financial flexibility

H1a, H1b, and H1c predict relationship between E-index and excess cash. Correlation analysis in Table 1 panel A shows significant *positive* correlation (r = .02, p<.05) between E-index and median excess cash. I specify equations (1a) and (1b) below to test H1a and H1b:

$$FINFLEX_{it} = \alpha_{it} + \beta1ME_{i(t-1)} + \beta2YFE_{i(t-1)} + \beta3FFE_{i(t-1)} + \beta4CNTRLS_{i(t-1)} + \varepsilon \quad (1a)$$

$$FINFLEX_{it} = \alpha_{it} - \beta1ME_{i(t-1)} + \beta2YFE_{i(t-1)} + \beta3FFE_{i(t-1)} + \beta4CNTRLS_{i(t-1)} + \varepsilon \quad (1b)$$

Table 3 shows that E-index has significant positive beta in explaining the variance in excess cash (t = 1.96). The DME4 (t=3.57), or DME6 (t = 3.62) also have positive and significant beta in predicting excess cash. This suggests that more entrenched managers keep more excess cash than less entrenched managers in accordance with agency theory (Jensen and Meckling 1976). H1a is supported and H1b is not supported in that the relationship between E-index and excess cash is positive and not negative as H1b predicted (see figure 4 below).

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[2] I test hypothesis at the 1%, 5% and 10% p-value levels and report findings as such.

Next, I test H1c that the relationship between E-index and excess cash significantly varies among firms in small, medium or large market value groups. Also, there are significant differences in median excess cash between small and large firms. Next, I estimate equation 1c below to test this hypothesis across firms in small, medium, and large market value groups:

$$FINFLEX_{it} = \alpha_{it} + \beta 1 ME_{i(t-1)} + \beta 2 YFE_{i(t-1)} + \beta 3 FFE_{i(t-1)} + \beta 4 CNTRLS_{i(t-1)} + \varepsilon \quad (1c)$$

Regression model H1c is performed for data subsets in small (1), medium (2), or large (3) market value group (MVG) in Table 3. Results of model H1c show that the E-index does not significantly explain the variance in excess cash across firms in small, and large market value groups, but E-index significantly positively explain the variance excess cash for medium sized firms (t=2.29, p<.05). Also, DME 4, and DME6 significantly positively explains the variance in excess cash for firms in small and large market value groups (p<.05), but not medium sized firms. Antitakeover provisions of DME4, and DME6 rather than the E-index are frequently used after the Sarbanes Oxley Act of 2002 (Bebchuk et al. 2011) within the sample period. H1c is supported.

[INCLUDE FIGURE 4 HERE]

Managerial entrenchment, financial flexibility and financial leverage

H2a and H2b provide predictions on the relationship between E-index, excess cash, and debt ratio. Table 4 reports the results of testing these hypotheses. I estimate the following equations to test H2a and H2b:

$$LEV_{it} = \alpha_{it} + \beta 1 ME_{i(t-1)} + \beta 2 YFE_{i(t-1)} + \beta 3 FFE_{i(t-1)} + \beta 4 CNTRLS_{i(t-1)} + \varepsilon \quad (2a)$$

$$LEV_{it} = \alpha_{it} + \beta 1 FINFLEX_{i(t-1)} + \beta 2 MVG_{i(t-1)} + \beta 3 YFE_{i(t-1)} + \beta 4 FFE_{i(t-1)} + \beta 5 CNTRLS_{i(t-1)} + \varepsilon \quad (2b)$$

Regression results of model H2a indicate that E-index has nonsignificant beta in explaining the variance in leverage in year and firm fixed effects regressions. However, when DME4 (t = -2.70, p<.001), and DME6 (t = -3.05, p<.001) provide significant negative explanation for the variance in debt ratios. Consistent with prior research, managers who are more entrenched borrow less than managers who are less entrenched (Berger et al. 1997). The different results of E-index versus DME4 or DME6 may be attributable to firms frequently using different antitakeover practices than the ones included in the E-index during the sample period. H2a is supported.

Moreover, using regression model H2b, I find that the excess cash significantly negatively explains the variance in leverage of firms in small, but not for firms in medium or large medium market value groups. This implies that small firms that are financially constrained (that is, have lower excess cash) borrow less than medium or larger firms. Results support H2b in that excess cash and financial leverage varies among firms in small, medium, and large market value groups.

Financial Flexibility and debt maturity

H3 states that firms that use long-term or medium-term debt are likely to have less excess cash than firms that use short-term debt. This suggests a negative association between debt maturity and excess cash. Correlation between excess cash and average debt maturity is negative and significant (r = -.058, p<.001), which is also the case for residual excess cash and average debt maturity (r = -.041, p<001). Next, I estimate the following fixed effects regression:

$$FINFLEX_{it} = \alpha_{it} + \beta 1 DMT_{i(t-1)} + \beta 2 YFE_{i(t-1)} + \beta 3 FFE_{i(t-1)} + \beta 4 CNTRLS_{i(t-1)} + \varepsilon \quad (3)$$

Results of fixed effects regression indicate that average debt maturity significantly negatively explains the variance in median excess cash (t (8) = - 1.99, p=.046). This implies that as the average debt maturity increases (decreases) excess cash decreases (increases). Accordingly,

firms that use long-term debt are expected to decrease excess cash compared to firms that use short-term debt. This is consistent with prior research evidence that firms use long-term rather than short-term debt (Berger et al. 1997). H3 is supported (see figures 5 and 6).

[INCLUDE FIGURES 5 AND 6 HERE]

Analysis of Loans and Spread Data

I obtain data on actual loans, debt maturity, and spreads on 44,399 firm years for 9,606 firms from Deal scan from 1989-2011. Given the sample period of 2000 to 2018, and excluding 15,270 firm year missing data, I analyze the available **2,953** firm year data from 2000 to 2011. The average loan amount between 2000 and 2011 is about $467.6 million with spread of 214 basis points over the London Interbank Offered Rate (LIBOR). Spreads range from a mean of 127.35 bps (SD 19.66) in year 2000 to 188.16 bps (SD 7.30) in year 2011. ANOVA shows that the normalized spread is increasing for short to medium term debt, but declining for long-term debt. Excess cash is significantly positively related debt maturities ($p < .05$). As loan spreads increase from 25th through 75th percentile, excess cash increases but declines thereafter (see Figure 8).

[INCLUDE FIGURE 7 HERE]

In robustness testing, debt maturity is significantly negatively related to loan spreads (beta = -15.97, SE = 2.14, t (10) = -7.46, $p < .001$), which suggests the firms in the sample period receive cheaper borrowing costs for using long rather than short debt maturities. The impact of excess cash on loan spreads is also significant (beta = 51.85, SE = 19.90, t (10) = 2.61, p= .009), which suggests that firms that use cheaper long-term debt have high excess cash. In summary, entrenched managers use long-term rather than equity to save on borrowing costs, which increases excess cash for the firms (see Table 7).

V. RESULTS

Table 7 summarizes results of hypotheses testing. In summary, results indicate that managers who are entrenched tend to borrow less, use long-term rather than short-term debt, and keep more excess cash than managers who are not entrenched. Also, the extent of borrowing and the related excess cash varies across small, medium, and large firms. For example, I find that firms in small and large market value groups have less debt than medium sized firms at a given level of excess cash. This suggests that entrenched managers utilize their influence and connections to gain access to long-term debt market at cheaper rates than managers who are not entrenched. Also, entrenched managers keep more excess cash to get better loan spreads and avert liquidity crisis.

Moreover, results show that excess cash is significantly negatively related to debt maturity, especially, if debt maturity is viewed as short versus long-term debt (Berger et al. 1997). However, considering medium term debt reveals a non-linear relationship between excess cash and debt maturity that initially declines through medium term debt, and increases as firms use more long-term debt. This implies that firms that use long-term debt decrease excess cash. Firms borrow less, using long-term debt to minimize the cost of borrowing, and store up debt capacity for when it is absolutely needed for business.

Robustness tests of predictions before, during and after the 2008 Global Economic Crisis reveal that the association between managerial entrenchment, excess cash, and financial leverage did not change from reported results. Also, each of debt maturity, and excess cash is a significant predictor of leverage across all periods. Compared to the pre-crisis period, while average debt maturity or excess cash did not change significantly, the extent of borrowing did change during the 2008 global economic crisis, especially when credit dried up, and firms' credit risk generally increased.

VI. CONCLUSIONS

Chief financial officers in the United States and Europe rank *financial flexibility* as a primary determinant of firms' financing policy (Skiadopoulos 2019) that is a centerpiece of statement of cash flows and related liquidity disclosures. It is important for managers to invest firms' cash resources to maximize investment returns, access capital markets, and retain appropriate cash balances to avert liquidity or going concern crisis. This paper examines the impact of managerial entrenchment on financial flexibility, and capital structure decisions of the firm. This paper provides evidence that entrenched managers borrow less using long-term debt, and keep more excess cash compared to less entrenched managers. Also, firms in small and large market value groups have less debt than medium sized firms at a given level of excess cash. Compared to the 2008 pre-crisis period when firms' average debt maturity or excess cash did not change significantly, the extent of borrowing did change during the 2008 global economic crisis, especially when credit dried up, and firms' credit risk generally increased.

This paper provides the evidence that more entrenched managers borrow less using long-term debt, and they keep more excess cash than less entrenched managers. This is especially the case for small and large firms compared to medium sized firms. Also, the effect of debt maturity on excess cash is primarily negative. This paper adds to the nomological validity of E-index by developing two direct measures of entrenchment based on four, and six anti-takeover factors (DME4, and DME6) in the post-SOX 2002 business environment. Results have implications for rating agencies, analysts, regulators, and researchers on the effects of managerial entrenchment on financing policy of different sizes of firm across different economic cycles.

In closing, this study has implications for research, practice and government policy on the effects of managerial entrenchment on excess cash, and leverage decisions including the amount

and maturity of debt for different firm sizes across economic cycles. Further research should evaluate broader constructs of managerial entrenchment, and financial flexibility using operational variables. For example, there is entrenchment through compensation, anti-takeover, tenure, or voting shares ownership. Similarly, an empirical study on the distinction between operating flexibility (e.g., operating cash flows, free cash flows, fixed versus variable costs) and financing flexibility (e.g., excess cash, debt capacity) is needed to facilitate more rigorous construct measurement. CEOs, CFOs and finance senior leadership often evaluate the operating, financing, and investing cash flows of the firm to inform major decisions on dividend policy, share repurchases, mergers and acquisition, new product development, and employment. Accounting standard-setting should explore disclosures on the residual excess cash, debt capacity, and cash flow ratios in the analysis of liquidity of the firm to provide decision-useful information to financial statement users. Further research should examine the trade-offs of keeping excess cash versus investing funds in the context of attractive returns for capital providers. Instrumental variables on financial flexibility, such as significant tax cuts for businesses, should be investigated. Government regulation on effective corporate governance should continue to embrace broader perspectives on key firms' decisions that affect capital providers, including CEO compensation, anti-takeover policies, and regulation over anti-competitive mergers and acquisitions.

REFERENCES

Ang, J. and Smedema, A., 2011. *Financial flexibility: Do firms prepare for recession?* Journal of corporate finance, 17(3), pp.774-787.

Arslan-Ayaydin, Ö., Florackis, C. and Ozkan, A., 2014. *Financial flexibility, corporate investment and performance: evidence from financial crises*. Review of Quantitative Finance and Accounting, 42(2), pp.211-250.

Bates, T., Kahle, K., and Stulz, R. (2016). *Why to US Firms Hold Much More Cash than They Used To?* The Journal of Finance, 64, 1985-2021.

Bates, T.W., Becher, D.A. and Lemmon, M.L., 2008. *Board classification and managerial entrenchment: Evidence from the market for corporate control*. Journal of Financial Economics, 87(3), pp.656-677.

Bebchuk, L.A., Cremers, K.M. and Peyer, U.C., 2011. *The CEO pay slice*. Journal of financial Economics, 102(1), pp.199-221.

Bebchuk, L., Cohen, A. and Ferrell, A., 2009. *What Matters in Corporate Governance?* 22 Rev. Fin. Stud, 783, p.823.

Black, B.S. (2010). Bloopers: *How (Mostly) Smart People Get Causal Inference Wrong*, Slides for his workshop on causal inference.

Blair, M.M., 1996. *Ownership and control: Rethinking corporate governance for the twenty-first century*. Long Range Planning, 29(3), pp.432-432.

Bugeja, M., Matolcsy, Z. and Spiropoulos, H., 2017. *The CEO pay slice: Managerial power or efficient contracting? Some indirect evidence*. Journal of Contemporary Accounting & Economics, 13(1), pp.69-87.

Berger, P.G., Ofek, E. and Yermack, D.L., 1997. *Managerial entrenchment and capital structure decisions*. The journal of finance, 52(4), pp.1411-1438.

Bonaimé, A.A., Hankins, K.W. and Jordan, B.D., 2016. *The cost of financial flexibility: Evidence from share repurchases*. Journal of Corporate Finance, 38, pp.345-362.

Byoun, S. 2011. *Financial flexibility and capital structure decision*. Available at SSRN 1108850.

Chakraborty, A., Rzakhanov, Z. and Sheikh, S., 2014. *Antitakeover provisions, managerial entrenchment and firm innovation.* Journal of Economics and Business, 72, pp.30-43.

Chakraborty, A. and Sheikh, S., 2010. *Antitakeover amendments and managerial entrenchment: new evidence from investment policy and CEO compensation.* Quarterly Journal of Finance and Accounting, pp.81-104.

Charitou, A. and Ketz, E., 1991. An empirical examination of cash flow measures. *Abacus*, *27*(1), pp.51-64.

Chintrakarn, P., Jiraporn, P. and Singh, M., 2014. *Powerful CEOs and capital structure decisions: evidence from the CEO pay slice (CPS).* Applied Economics Letters, 21(8), pp.564-568.

Chintrakarn, P., Chatjuthamard, P., Tong, S. and Jiraporn, P., 2018. *How do powerful CEOs view dividends and stock repurchase? Evidence from the CEO pay slice (CPS).* International Review of Economics & Finance, 58, pp.49-64

Cremers, K.M. and Nair, V.B., 2005. *Governance mechanisms and equity prices*. The Journal of Finance, 60(6), pp.2859-2894.

Daniel, N.D., Denis, D.J. and Naveen, L., 2010. Sources of financial flexibility: Evidence from cash flow shortfalls. Drexel University.

Datta, S., Iskandar-Datta, M. and Raman, K., 2005. *Managerial stock ownership and the maturity structure of corporate debt*. The Journal of Finance, 60(5), pp.2333-2350.

DeAngelo, H., & DeAngelo, L. 2007. *Capital structure, payout policy, and financial flexibility*. Marshall school of business working paper no. FBE, 02-06.

DeAngelo, H. and Masulis, R. 1980. *Optimal capital structure under corporate and personal taxation.* Journal of Financial Economics 8, 3-29.

Denis, D. J. 2011. *Financial flexibility and corporate liquidity*. Journal of corporate finance, 17(3), 667-674.

Denis, D. J., & McKeon, S. B. 2012. *Debt financing and financial flexibility evidence from proactive leverage increases*. The Review of Financial Studies, 25(6), 1897-1929.

Denis, D.J., Denis, D.K. and Sarin, A., 1999. *Agency theory and the influence of equity ownership structure on corporate diversification strategies*. Strategic Management Journal, 20(11), pp.1071-1076.

Diamond, D.W., 1989. *Reputation acquisition in debt markets*. Journal of political Economy, 97(4), pp.828-862.

Easterbrook, F.H., 1984. Two agency-cost explanations of dividends. The American economic review, 74(4), pp.650-659.

Edlin, A.S. and Stiglitz, J.E., 1995. *Discouraging rivals: Managerial rent-seeking and economic inefficiencies*. The American Economic Review, 85(5), pp.1301-1312.

Emery, G.W. and Cogger, K.O., 1982. *The measurement of liquidity*. Journal of accounting research, pp.290-303.

Eisenhardt, K.M., 1989. *Agency theory: An assessment and review*. Academy of management review, 14(1), pp.57-74.

Fama, E.F. and Jensen, M.C., 1983. *Separation of ownership and control*. The journal of law and Economics, 26(2), pp.301-325.

Faleye, O., 2007. *Classified boards, firm value, and managerial entrenchment.* Journal of Financial Economics, 83(2), pp.501-529.

Faleye, O., 2004. *Cash and corporate control.* The Journal of Finance, 59(5), pp.2041-2060.

Ferris, S.P., Kumar, R., Sant, R. and Sopariwala, P.R., 1998. *An agency analysis of the effect of long-term performance plans on managerial decision making*. The Quarterly Review of Economics and Finance, 38(1), pp.73-91.

Farre-Mensa, J. and Ljungqvist, A., 2016. *Do measures of financial constraints measure financial constraints?* The Review of Financial Studies, 29(2), pp.271-308.

Fenn, G.W. and Liang, N., 2001. *Corporate payout policy and managerial stock incentives*. Journal of financial economics, 60(1), pp.45-72.

Financial Accounting Standards Board. 2019. *Glossary of Accounting Standards Codification (ASC)*. Available online at: www.fasb.org

Florackis, C. and Ozkan, A., 2009. *The impact of managerial entrenchment on agency costs: An empirical investigation using UK panel data*. European Financial Management, 15(3), pp.497-528.

Gamba, A., & Triantis, A. (2008). *The value of financial flexibility*. The journal of finance, 63(5), 2263-2296.

Gombola, M.J. and Ketz, J.E., 1983. *A note on cash flow and classification patterns of financial ratios*. Accounting Review, pp.105-114.

Giroud, X. and Mueller, H.M., 2011. *Corporate governance, product market competition, and equity prices*. The Journal of Finance, 66(2), pp.563-600.

Gompers, P., Ishii, J. and Metrick, A., 2003. *Corporate governance and equity prices*. The quarterly journal of economics, 118(1), pp.107-156.

Hess, D. and Immenkötter, P., 2014. How much is too much? Debt Capacity and Financial Flexibility. Debt Capacity and Financial Flexibility (March 2014).

Hoberg, G., Phillips, G., & Prabhala, N. 2014. *Product market threats, payouts, and financial flexibility*. The Journal of Finance, 69(1), 293-324.

Hsu, C., Novoselov, K.E. and Wang, R., 2017. Does accounting conservatism mitigate the shortcomings of CEO overconfidence? *The Accounting Review*, *92*(6), pp.77-101.

Jensen, Michael C., and William H. Meckling., 1976. *Theory of the firm: Managerial behavior, agency costs and ownership structure*. Journal of Financial Economics 3, 305-360.

Jensen, M.C., 1986. *Agency costs of free cash flow, corporate finance, and takeovers*. The American economic review, 76(2), pp.323-329.

Ji, S., Mauer, D.C. and Zhang, Y., 2019. *Managerial entrenchment and capital structure: The effect of diversification*. Journal of Corporate Finance, p.101505.

Jiraporn, P., Chintrakarn, P. and Kim, Y.S., 2012. *Analyst following, staggered boards, and managerial entrenchment*. Journal of Banking & Finance, 36(11), pp.3091-3100.

Jiang, Z. and Lie, E., 2016. *Cash holding adjustments and managerial entrenchment*. Journal of Corporate Finance, 36, pp.190-205.

Johnson, S.A., 2003. *Debt maturity and the effects of growth opportunities and liquidity risk on leverage*. The Review of Financial Studies, 16(1), pp.209-236.

Kesten, J.B., 2010. *Managerial entrenchment and shareholder wealth revisited: Theory and evidence from a recessionary financial market*. BYU L. Rev., p.1609.

Kumar, R. and Sopariwala, P.R., 1992. *The effect of adoption of long-term performance plans on stock prices and accounting numbers*. Journal of Financial and Quantitative Analysis, 27(4), pp.561-573.

Lee, S., Matsunaga, S.R. and Park, C.W., 2012. *Management forecast accuracy and CEO turnover*. The Accounting Review, 87(6), pp.2095-2122.

Lie, E., 2005. *Financial flexibility, performance, and the corporate payout choice.* The Journal of Business, 78(6), pp.2179-2202.

Lo, A.K., 2015. *Accounting credibility and liquidity constraints: Evidence from reactions of small banks to monetary tightening*. The Accounting Review, 90(3), pp.1079-1113.

Lemmon, Michael L., Michael R. Roberts, and Jaime F. Zender. 2007. *Back to the beginning: Persistence and the cross-section of corporate capital structure.* Journal of Finance 63 (4), 15751608.

Marchica, M.T. and Mura, R., 2010. *Financial flexibility, investment ability, and firm value: evidence from firms with spare debt capacity*. Financial management, 39(4), pp.1339-1365.

McGuire, S.T., Wang, D. and Wilson, R.J., 2014. *Dual class ownership and tax avoidance*. The Accounting Review, 89(4), pp.1487-1516.

Murphy, K.J. and Zabojnik, J., 2004. *CEO pay and appointments: A market-based explanation for recent trends*. American economic review, 94(2), pp.192-196.

Myers, Stewart C., 1977. *Determinants of corporate borrowing*. Journal of Financial Economics 5, 147-175.

Myers, Stewart C., and Nicholas S. Majluf, 1984. *Corporate financing and investment decisions when firms have information that investors do not have*. Journal of Financial Economics 13, 187221.

Opler, T., Pinkowitz, L., Stulz, R. and Williamson, R., 1999. The determinants and implications of corporate cash holdings. Journal of financial economics, 52(1), pp.3-46.

Rajan, R.G. and Zingales, L., 1995. *What do we know about capital structure? Some evidence from international data.* The journal of Finance, 50(5), pp.1421-1460.

Rapp, M. S., Schmid, T., & Urban, D. (2014). The value of financial flexibility and corporate financial policy. Journal of Corporate Finance, 29, 288-302.

Ramalingegowda, S., Wang, C.S. and Yu, Y., 2013. The role of financial reporting quality in mitigating the constraining effect of dividend policy on investment decisions. *The accounting review*, *88*(3), pp.1007-1039.

Rashidi, M., 2020. Dividend Smoothing Based on Financial Flexibility and Capital Structure Adjustment. *Journal of Accounting of Knowledge*, *11*(1), pp.85-112.

Roberts, M. & Whited, T. (2013). *Endogeneity in empirical corporate finance*. Handbook of Economics of Finance 2a, 493-572.

Shankman, N.A., 1999. *Reframing the debate between agency and stakeholder theories of the firm*. Journal of Business Ethics, 19(4), pp.319-334

Shleifer, A. and Vishny, R.W., 1989. *Management entrenchment: The case of manager-specific investments*. Journal of financial economics, 25(1), pp.123-139.

Skiadopoulos, G. 2019. *The Link Between Capital Structure and Financial Flexibility*. Available online at: https://www.cfo.com/credit/2019/10/the-link-between-capital-structure-and-financial-flexibility/

Weisbach, M.S., 1988. *Outside directors and CEO turnover*. Journal of financial Economics, 20, pp.431-460.

Withisuphakorn, P. and Jiraporn, P., 2017. *Co-opted directors and powerful CEOs: evidence from the CEO pay slice (CPS)*. Applied Economics Letters, 24(6), pp.381-386.

Zagonov, M. and Salganik-Shoshan, G., 2018. *CEO Pay Slice as a measure of CEO dominance*. Research in International Business and Finance, 45, pp.571-576.

Zwiebel, J., 1996. *Dynamic capital structure under managerial entrenchment*. The American Economic Review, pp.1197-1215.

APPENDIX 1

Definition of Variables

Variable	Definition of Variable	Expected Beta Sign	Measurement /Data Sources
Managerial entrenchment [ME]	*Independent variable* (more/less) ME. Managerial entrenchment means managers gain so much power that they are able to use the firm to further their own interests rather than the interests of shareholders (Weisbach 1988). The measures of ME are as follows:	+	<u>Main proxy:</u> Entrenchment (E) - index <u>Alternate proxies</u>
	E-index is a measure of entrenchment based on six anti-takeover provisions namely staggered boards, limits to shareholders bylaw amendments, poison pills, golden parachutes, and supermajority requirements for merger and charter amendments (Bebchuk et al. 2009)	+	Direct Measures of Entrenchment (DME) *Data Sources*: ExecuComp, ISS (formerly RiskMetrics or IRRC).
Financial flexibility [FINFLEX]	*Median excess cash* is the median SIC industry cash and cash equivalents/total assets ratio in year t less firm cash and cash equivalents/total assets ratio in year t.	+	<u>Main proxy</u> *Median excess cash*
	Residual excess cash is the error term of OLS regression of Opler et al. (1999) model per Faleye (2004).	+ +	<u>Alternative proxies</u> *Residual excess cash* *Free cash flow to the firm*
	Free cash flow to the firm is operating cash flow plus after-tax interest expense, plus net debt proceeds less long-term investment.		Data sources: Compustat
Capital structure [LEV]	The term leverage (LEV) refers to the level of debt in the capital structure.	n.a.	<u>Main proxy</u> LEV = Interest-bearing debt/Total assets
	It is measured as the proportion of interest-bearing debt divided by total assets of the firm.	n.a.	<u>Alternative proxy</u> DE = Debt /Equity Data source: Compustat
Debt maturity structure [DM]	Debt maturity structure refers to the average terms (in years) of interest-bearing debt of the firm.	n.a.	<u>Main proxy</u> Average debt maturity
	Short-term debt has a term of 3 years or less, while long-term debt matures in more than 3 years. Barclay and Smith (1995), Datta, Iskandar-Datta and Raman (2005), and Johnson (2003) define long-term debt as the proportion of debt with maturities exceeding three years.	n.a.	<u>Alternative proxy</u> Short versus long-term debt. Short versus medium versus long-term debt.
	I operationalize debt maturities as follows: short-term debt (3 years or less), medium term debt (3 to 5 years), long-term debt (greater than 5 years).		
	Weighted average debt maturity is the proportion of short, medium or long-term debt as a measure of debt maturity (Titman and Wessels 1988).		Data sources: Compustat

Variable	Definition of Variable	Expected Beta Sign	Measurement /Data Sources
FIXED EFFECTS [FE]	Year fixed effects (YFE) are dummy variables to control for heterogeneity in year trends over the sample period.	n.a.	YFE, FFE, or IFE are individually and collectively included in the regression models to control for heterogeneity in these fixed effects. I do not include both FFE and IYE in the same regression since firms rarely change industries and two are generally capture similar fixed effects. Data sources: Compustat
	Firm fixed effects (FFE) are dummy variables to control for heterogeneity in firm's characteristics.	n.a.	
	Industry fixed effects (IFE) are dummy variables to control for heterogeneity in industry characteristics	n.a.	
CONTROLS [CNTRLS]	Factors that are for the known to significantly affect capital structure and debt maturity including: Firm size, Market to book, Profitability, Asset tangibility, or Leverage (Rajan and Zingales 1995).	+ + + + +	Firm size = Log of Total assets Market to book = Market value of firm/Book value of equity Profitability = Return on assets (ROA) = Net income/Total Assets Asset tangibility = Property, plant and equipment/Total assets Data sources: Compustat

LIST OF TABLES

TABLE 1

Panel A: Correlation Matrix

This table shows the descriptive statistics and two-tail correlations of the key variables that are significant at .01**, and .05*

#	Description	Mean	SD	N	1	2	3	4	5	6	7	8	9	10	11	12
1	Debt to equity ratio	2.0	40.8	17338	1											
2	Debt to total capital	0.4	0.2	17338	.096**	1										
3	Average debt maturity	4.2	1.1	17338	.021**	.236**	1									
4	Debt maturity category 2	1.8	0.4	17338	0.0	.292**	.824**	1								
5	Debt maturity category 3	2.1	0.6	17338	.017*	.173**	.898**	.749**	1							
6	CEO Pay Slice	0.4	0.1	17338	0.0	.059**	.034**	.040**	.025**	1						
7	E-index	4.0	1.0	10399	0.0	0.0	0.0	0.0	.025*	.100**	1					
8	DME-index	1.2	0.6	10399	0.0	.068**	.050**	.054**	.031**	0.0	.131**	1				
9	DME & E-index	3.0	0.8	10399	0.0	.105**	.093**	.101**	.067**	.024*	.413**	.793**	1			
10	Residual excess cash	0.0	0.3	6363	0.0	.025*	-.030**	-.046**	0.0	0.0	0.0	.038**	.035**	1		
11	Median excess cash	0.0	0.1	17338	0.0	-.135**	-.058**	-.091**	-.031**	0.0	.020*	0.0	-.026**	.139**	1	
12	Retained earnings/total assets	0.1	1.4	17338	0.0	-.056**	.057**	.081**	.044**	.019*	-.024*	0.0	0.0	-.035**	-.082**	1
13	Debt Capacity	329.4	1488.8	17338	0.0	-.026**	-.027**	-.020**	-.025**	0.0	.031**	0.0	0.0	0.0	-.164**	-.114**

Panel B: Descriptive Statistics of Additional Variables

This table shows descriptive statistics including the number of observations, mean, standard deviation, minimum and maximum.

	Variable	N	Mean	Std. Deviation	Maximum	Minimum
1	Debt to total assets (DTA)	17338	0.26	0.17	0.87	0.00
2	Tobin's Q	17338	1.32	1.16	20.09	0.00
3	CEO Tenure	10399	18.5	10.59	56.04	2.42
4	CEO Share Ownership >20 percent	10399	0.74	3.28	68.76	0.00
5	Operating Cashflow (OPCF)	17338	989.97	3,222.38	77,434.00	-16,856.00
6	Free Cashflow to Firm (FCFF)	17338	770.27	9,158.06	1,124,203.10	-250,533.67
7	R&D to Sales (RDSales)	10604	0.25	6.98	496.62	0.00
8	Market to Book (MTB)	17338	4.73	48.43	5603.07	0.03
9	PPE/Total Assets (TANGIBILITY)	17338	0.09	0.33	0.94	-7.61
10	Return on Assets (PROFITABILITY)	17338	0.03	0.10	3.60	-2.56
11	Log of Total Assets (SIZE)	17338	1.05	0.78	13.18	0.00

Panel C: Correlation Matrix Including Additional Variables

This table shows the descriptive statistics and two-tail correlations of the key variables that are significant at .01**, and .05*

#	Description	1	2	3	4	5	6	7	8	9	10
1	Debt to Total Capital	1									
2	Debt to Total Assets	.933**	1								
3	Tobin's Q	-.280**	-.270**	1							
4	CEO Pay Slice	.059**	.052**	-.018*	1						
5	E-index	-0.01	-0.02	0.00	.100**	1					
6	DME4 Index	.068**	0.01	-.037**	0.00	.131**	1				
7	DME6 Index	.105**	.063**	-0.01	.024*	.413**	.793**	1			
8	CEO Tenure	0.02	.019*	-0.01	0.00	-0.01	.021*	0.01	1		
9	CEO Share Ownership >20 percent	-.044**	-.027**	0.01	-.039**	-.067**	-.063**	-.078**	.045**	1	
10	Median Excess Cash (MxCash)	-.135**	-.146**	.116**	0.00	.020*	0.00	-.026**	0.00	0.01	1
11	Residual Excess Cash (RxCash)	.023*	0.00	.141**	0.00	0.01	.035**	.031*	0.01	0.00	.528**

TABLE 2

Descriptive Statistics by Firm Size and Crisis Period

Panel A shows descriptive statistics of small, medium, and large firms using market value groups and test of differences in means.

	N			Mean			SD			T-statistic (Unequal Variance Assumed)			
Description	Small	Medium	Large	Small	Medium	Large	Small	Medium	Large	Small vs. Medium	p-value	Small vs. Large	p-value
Debt to equity ratio	4,334	4,335	8,669	3.0	1.8	1.5	72.6	35.0	9.1	1.0	0.3	1.3	0.2
Debt to total capital	4,334	4,335	8,669	0.3	0.3	0.4	0.2	0.2	0.2	-2.8	0.0	-14.1	0.0
Average debt maturity	4,334	4,335	8,669	3.8	4.2	4.4	1.3	1.1	0.9	-13.4	0.0	-27.1	0.0
Debt maturity category 2	4,334	4,335	8,669	1.7	1.8	4.4	0.5	0.4	0.9	-13.0	0.0	-29.1	0.0
Debt maturity category 3	4,334	4,335	8,669	1.9	2.1	2.2	0.7	1.1	0.9	-11.3	0.0	-20.6	0.0
CEO Pay Slice	4,334	4,335	8,669	0.4	0.4	0.4	0.1	0.1	0.1	-5.0	0.0	-9.0	0.0
E-index	1,716	2,607	6,076	4.0	4.1	4.0	1.1	1.0	0.9	-3.8	0.0	-0.6	0.5
DME-index	1,716	2,607	6,076	1.1	1.1	1.3	0.5	0.5	0.6	-2.4	0.0	-12.6	0.0
DME & E-index	1,716	2,607	6,076	2.7	2.9	3.1	0.8	0.8	0.8	-6.0	0.0	-16.8	0.0
Residual excess cash	2,792	2,706	5,384	0.0	0.0	0.0	0.6	0.5	0.5	-2.6	0.0	-4.9	0.0
Median excess cash	4,334	4,335	8,669	0.0	0.0	0.0	0.1	0.1	0.1	-0.6	0.5	6.0	0.0
Retained earnings/total ass	4,334	4,335	8,669	-0.3	0.1	0.2	1.8	1.0	1.2	-12.6	0.0	-15.6	0.0
Debt Capacity	4,334	4,335	8,669	418.0	288.1	305.8	1767.3	1306.5	1418.8	3.9	0.0	3.6	0.0

Panel B shows descriptive statistics for 2000 to 2007 (pre-crisis), 2008, and post-2008 crisis periods and difference in means test.

	N			Mean			SD			T-statistic (Unequal Variance Assumed)			
Description	Pre-crisis	Crisis	Post crisis	Pre-crisis	Crisis	Post crisis	Pre-crisis	Crisis	Post crisis	Pre vs. Crisis	p-value	Pre vs. Post	p-value
Debt to equity ratio	4,101	1,076	12,161	1.8	1.7	2.0	48.7	12.6	39.5	0.1	0.9	-0.3	0.8
Debt to total capital	4,101	1,076	12,161	0.3	0.4	0.4	0.2	0.2	0.2	-4.6	0.0	-11.1	0.0
Average debt maturity	4,101	1,076	12,161	4.3	4.2	4.2	1.1	1.1	1.1	3.3	0.0	4.1	0.0
Debt maturity category 2	4,101	1,076	12,161	1.8	1.8	4.2	0.4	0.4	1.1	0.8	0.4	0.7	0.5
Debt maturity category 3	4,101	1,076	12,161	2.2	2.1	2.1	0.7	1.1	1.1	3.0	0.0	5.7	0.0
CEO Pay Slice	4,101	1,076	12,161	0.4	0.4	0.4	0.1	0.1	0.1	-0.5	0.6	-8.1	0.0
E-index	617	680	9,102	3.6	3.4	4.1	1.3	1.3	0.9	3.3	0.0	-7.9	0.0
DME-index	617	680	9,102	1.2	1.3	1.2	0.6	0.6	0.6	-0.4	0.7	0.8	0.4
DME & E-index	617	680	9,102	2.5	2.5	3.0	1.0	1.0	0.8	0.1	0.9	-11.8	0.0
Residual excess cash	2,741	696	7,445	-0.1	0.0	0.0	0.5	0.6	0.5	-1.4	0.2	-6.7	0.0
Median excess cash	4,101	1,076	12,161	0.0	0.0	0.0	0.1	0.1	0.1	-2.5	0.0	-6.8	0.0
Retained earnings/total ass	4,101	1,076	12,161	0.1	0.1	0.1	1.0	1.1	1.5	1.5	0.1	3.9	0.0
Debt Capacity	4,101	1,076	12,161	308.1	329.4	336.6	1428.5	1452.3	1511.7	-0.4	0.7	-1.1	0.3

TABLE 3

Impact of Managerial Entrenchment on Excess Cash

This table reports results of testing hypothesis H1a, H1b, and H1c that regress on excess cash managerial entrenchment proxies (CEO pay slice, E-index, DME4 and DME6). Control variables and fixed effects for year, and firm fixed effects are included in regressions. Results are significant at *** .01, **.05, and *.10 p-value. Year, or firm fixed effects is excluded (no) or included (yes) in columns 1 (No, No), 2 (Yes, No), 3 (Yes, Yes) of panels A and B. Column 4 uses DME4 and DME6 as independent variables.

Variables	Panel A — Dep. Var. = Excess Cash				Panel B — Dep. Var. = Excess Cash				Panel C — Dep. Var. = Excess Cash		
	1	2	3	4	1	2	3	4	Small	Medium	Large
Intercept	.087*** (19.78)	.086*** (18.91)	.077*** (16.24)	.101*** (16.76)	.090*** (14.22)	.107*** (15.92)	.098*** (14.03)	.10*** (16.39)	.10*** (3.92)	.20*** (7.48)	.12*** (10.46)
CEO Pay Slice [3]	.007 (1.17)	.007 (1.14)	.008 (1.34)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
E-index	n.a.	n.a.	n.a.	n.a.	.000 (.54)	.002* (1.76)	.002** (1.96)	n.a.	.00 (1.09)	.01** (2.29)	.00 (1.47)
DME4 Index	n.a.	n.a.	n.a.	.005*** (3.57)	n.a.	n.a.	n.a.	n.a.	n.a.	n.s.	n.s.
DME6 Index	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	.004*** (3.62)	n.a.	n.s.[4]	n.a.
Size (Log of Total Assets)	-.023*** (-21.68)	-.023*** (-21.61)	-.023*** (-21.53)	-.025*** (-17.67)	-.024*** (-17.79)	-.023*** (-17.09)	-.023*** (-16.97)	-.025*** (-17.68)	-.03*** (-3.34)	-.05*** (-6.24)	-.02*** (-10.60)
Market to Book (MTB)	3.6E-5* (1.70)	3.56E-5* (1.72)	3.56E-5* (1.71)	.000** (3.03)	.000** (2.74)	.000** (2.96)	.00** (3.02)	.00** (3.04)	.01*** (7.52)	-.00 (-1.28)	.00* (1.86)
Tangibility (PPE/TA)	-.008*** (-3.81)	-.008*** (-3.78)	-.008*** (-3.60)	-.009*** (-3.28)	-.008*** (-2.95)	-.009*** (-3.39)	-.009*** (-3.20)	-.009 (3.33)	-.03*** (-3.38)	-.02 (-1.83)	-.010** (-2.38)
Return on Assets (ROA)	.054*** (7.21)	.054*** (7.10)	.053*** (7.04)	.106*** (9.46)	.100*** (8.88)	.108*** (9.60)	.107*** (9.51)	.107 (9.50)	.10*** (3.26)	.05 (1.38)	.14*** (6.99)
Debt to Equity (Debt/Equity)	-.00** (-2.28)	-.00** (-2.28)	-.00** (-2.28)	-.00** (-2.32)	-.00 (-2.24)	-.00** (-2.26)	-.00** (-2.33)	-.00** (2.33)	-.00*** (-7.20)	-.00 (-.25)	-.00** (-2.3)
Year Fixed Effects	N	Y	Y	Y***	N	Y***	Y***	Y***	Y	Y***	Y***
Firm Fixed Effects	N	N	Y***	Y***	N	N	Y***	Y***	Y	Y**	Y**
Observations	17337	17337	17337	10398	10398	10398	10398	10398	2599	2599	5199
R^2	.028	.028	.030	.044	.036	.041	.046	.044	.099	.046	.059

[3] CPS is significant only in predicting excess cash of firms in the small market value group (t = 2.01, p<.05) but not those in medium or large groups (p>.05).

[4] DME 4 or DME 6 each is significant predictor of excess cash for firms in small or large (p<.05), but not medium market value groups. This is not consistent with E-index as explained in testing H1c.

TABLE 4

Impact of Managerial Entrenchment on Financial Leverage

This table reports results of testing hypothesis 2a and 2b by regressing on financial leverage (debt to total assets) managerial entrenchment (CEO pay slice, E-index). Control variables and fixed effects for year and firm fixed effects are included. Slope betas are significant at *** .01, **.05, and *.10 p-values.

	Panel A Dep. Var. = Debt to Total Assets				Panel B Dep. Var. = Debt to Total Assets				Panel C Dep. Var. = Debt to Total Assets			
Variables	1	2	3	4	1	2	3	4	Overall	Small	Med	Large
Intercept	.034***	-.003	-.001	-.029**	.038***	-.029***	-.028***	-.027***	. -.001	-.33***	-.524***	.06***
	(4.67)	(-.37)	(-.10)	(-2.80)	(3.51)	(-2.54)	(-2.34)	(-2.56)	(-.10)	(-18.17)	(-22.20)	(4.15)
Independent Variables												
CEO Pay Slice	.071***	.057***	.056***	n.a.	n.a.	n.a.	n.a.	n.a.	.056***	.073***	.006	.07***
	(6.95)	(5.60)	(5.57)						(5.57)	(3.62)	(.34)	(5.38)
E-index	n.a.	n.a.	n.a.	n.a.	.003*	-.001	-.001	n.a.	n.a.	n.a.	n.a.	n.a.[5]
					(1.89)	(-.94)	(-.95)					
DME4 Index	n.a.	n.a.	n.a.	-.007***	n.a.[6]	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
				(-2.70)								
DME6 Index	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-.006**	n.a.	n.a.	n.a.	n.a.
								(-3.05)				
Controls												
Log of Total Assets	.069***	.066***	.066***	.071***	.073***	.069***	.069***	.071***	.066***	.21***	.25***	.04***
	(38.94)	(37.41)	(37.39)	(29.76)	(30.88)	(29.61)	(29.59)	(29.81)	(37.39)	(36.30)	(35.79)	(12.36)
Market to Book	.00***	.00***	.00***	.001***	.001***	.001***	.001***	.001***	.00***	.00***	.002***	.00***
	(8.67)	(8.74)	(8.74)	(10.60)	(11.00)	(10.61)	(10.61)	(10.59)	(8.74)	(4.47)	(10.63)	(11.86)
Asset Tangibility	-1.3E-5	.005	.005	.018***	.013***	.018***	.018***	.018***	.005	-.02***	-.007	.02***
	(-.00)	(1.27)	(1.24)	(3.96)	(2.87)	(3.92)	(3.90)	(4.00)	(1.24)	(-3.58)	(-.93)	(4.59)
Return on Assets	- .197***	-.225***	-.225***	-.392***	-.360	-.393	-.393	-.393***	-.225***	-.14***	-.20***	-.45***
	(-15.81)	(-18.11)	(-18.10)	(-20.50)	(-18.64)	(-20.53)	(-20.51)	(-20.54)	(-18.10)	(8.52)	(-6.42)	(-18.95)
Fixed Effects												
Year Fixed Effects	N	Y***	Y***	Y***	N	Y***	Y***	Y***	Y***	Y**	Y***	Y***
Firm Fixed Effects	N	N	Y	Y	N	N	Y	Y	Y	Y	Y	Y
Diagnostics												
No. of Observations	17336	17336	17336	10397	10397	10397	10397	10397	17336	4333	4334	8667
R^2	.092	.108	.108	.138	.113	.138	.138	.138	.138	.246	.269	.109

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[5] E-index is significant for firms in small (p<.05), but not medium or large market value groups (p>.05).

[6] DME 4 and DME 6 each significantly negatively explain variance in leverage ratio.

TABLE 5

Effect of Debt Maturity on Financial Flexibility

This table reports results of regressing on flexibility (excess cash or free cash flows) the effects of on average debt maturity, and managerial entrenchment (CEO pay slice or E-index). Standard control variables are included. Year and firm fixed effects are included as appropriate. Results are significant at *** .01, **.05, and *.10 p-values.

Variables	Panel A Dep. Var. = Excess Cash				Panel B Dep. Var. = Excess Cash				Panel C Dep. Var. = Free Cash Flow			
	1	2	3	4	1	2	3	4	1	2	3	4
Intercept	.094***	.093***	.084***	.081***	.103***	.102***	.094***	.103***	-***	-***	-***	-***
	(22.25)	(22.25)	(18.15)	(15.89)	(22.78)	(21.58)	(19.05)	(13.51)	(-84.27)	(-80.82)	(-77.95)	(-49.91)
Independent variables												
CEO Pay Slice	.n.a.	.n.a.	n.a.	.009	n.a.	n.a.	n.a.	n.a.	.02***	.03***	.03***	n.a.
				(1.40)					(4.26)	(4.40)	(4.42)	
Average Debt Maturity	-.001**	-.001**	-.001**	-.001***	n.a.	n.a.	n.a.	n.a.	-.06***	-.06***	-.06***	n.a.
	(-2.07)	(-2.06)	(-1.99)	(-2.03)					(-9.76)	(-9.80)	(-9.79)	
E-Index	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	.002**	n.a.	n.a.	n.a.	-.03***
								(2.02)				(-4.19)
Debt Maturity Category	n.a.	n.a.	n.a.	n.a.	-.011***	-.011***	-.011***	-.005*	n.a.	n.a.	n.a.	-.03***
					(-5.25)	(-5.25)	(-5.20)	(-1.73)				(-3.55)
Controls												
Log of Total Assets	-.023***	-.023***	-.023***	-.023***	-.02***	-.02***	-.02***	-.02***	.66***	.66***	.66***	.66***
	(-20.27)	(-20.20)	(-20.15)	(-20.17)	(-18.66)	(-18.62)	(-18.56)	(-15.53)	(112.61)	(112.26)	(112.26)	(85.77)
Market to Book	3.6E-5*	3.6E-5*	3.6E-5*	3.6E-5*	3.6E-5*	3.6E-5*	3.6E-5*	.00**	.03***	.03***	.03***	.04***
	(1.72)	(1.72)	(1.73)	(1.73)	(1.73)	(1.73)	(1.73)	(3.05)	(4.39)	(4.39)	(4.39)	(5.11)
Asset Tangibility	-.008***	-.008***	-.008***	-.008***	-.008***	-.008***	-.007***	-.008***	.08***	.08***	.08***	.09***
	(-3.80)	(-3.76)	(-3.58)	(-3.61)	(-3.58)	(-3.54)	(-3.37)	(-3.13)	(13.61)	(13.45)	(13.47)	(11.77)
Return on Assets	.054***	.054***	.053***	.053***	.05***	.05***	.05***	.11***	.12***	.12***	.12***	.19***
	(7.19)	(7.08)	(7.01)	(6.70)	(7.11)	(7.0)	(6.93)	(9.43)	(21.20)	(21.27)	(21.26)	(26.09)
Debt to Equity (Debt/Equity)	-5.6E-5**	-5.6E-5**	-5.6E-5**	-5.6E-5**	-5.6E-5**	-5.6E-5**	-5.6E-5**	-9.2E-5**	-.03***	-.03***	-.03***	-.03***
	(-2.27)	(-2.27)	(-2.27)	(-2.27)	(-2.25)	(-2.25)	(-2.25)	(-2.33)	(-4.02)	(-4.02)	(-4.02)	(-4.29)
Fixed Effects												
Year Fixed Effects	N	Y	Y	Y	N	Y	Y	Y***	N	Y*	Y*	Y**
Firm Fixed Effects	N	N	Y***	Y***	N	N	Y**	Y***	N	N	Y	Y
Industry Fixed Effects	N	N	N	N	N	N	N	N	N	N	N	N
Diagnostics												
F-statistic	82.67	70.88	67.11	59.87	86.65	74.30	70.04	52.46	2135.14	1868.96	1661.39	1063.64
P-value	.000	.000	.000	.000	.000	000	000	000	.000	.000	.000	.000
No. of Observations	17337	17337	17337	17337	17337	17337	17337	10398	17336	17336	17336	10398
R^2	.028	.028	.030	.030	.029	.029	.030	.043	.463	.463	.463	.480

TABLE 6

Effect of the 2008 Global Economic Crisis on Selected Hypotheses Tests

This table reports results of testing hypotheses H1abc, H2ab and H3 before, during, and after the 2008 Global Economic Crisis. Dependent variables are financial flexibility (median excess cash), financial leverage (debt to total assets). Independent variables are CEO pay slice, excess cash, and average debt maturity as appropriate. Standard control variables, year and firm fixed effects are included as appropriate. Results are significant at *** .01, **.05, and *.10 p-values.

Variables	Models H1a, H1b, H3 Dep. Var. = Excess Cash				Models H2a and H2b Dep. Var. = Debt to Total Assets				H3 Dep. Var. = Free Cash Flow			
	Overall	Before	During	After	Overall	Before	During	After	Overall	Before	During	After
Intercept	.08***	.053***	.116***	.045	-.06***	.012	.04	-.10***	-***	-***	-***	-***
	(15.80)	(5.20)	(5.92)		(-7.79)	(.74)	(1.13)	(-8.08)	(-77.68)	(-38.92)	(-18.71)	(-57.70)
Independent variables												
CEO Pay Slice	.01	.01	-.05*	.01	.05***	.04**	.03	.06***	.03***	.03**	.04*	.02**
	(1.40)	(1.14)	(-1.89)	(1.47)	(5.23)	(2.12)	(.72)	(5.03)	(4.40)	(2.24)	(1.67)	(3.33)
Excess Cash	n.a.	n.a.	n.a.	n.a.	-.21***	-.19***	-.22***	-.22***	.02**	.04***	.05**	.00
					(-17.44)	(-7.71)	(-4.25)	(-14.96)	(3.01)	(3.64)	(2.14)	(.50)
Average Debt Maturity	-.00**	-.001	-.01**	.00	.03***	.04***	.02***	.03***	-.06***	-.08***	-.03	-.05***
	(-2.03)	(-.66)	(-2.04)	(-.43)	(25.77)	(16.31)	(3.22)	(19.94)	(-9.76)	(-6.66)	(-1.17)	(-7.41)
Controls												
Log of Total Assets	-.02***	-.02***	-.02***	-.02***	.05***	.03***	.05***	.06***	.68***	.70***	.61***	.66***
	(-20.17)	(-8.50)	(-4.45)	(-16.96)	(26.92)	(9.01)	(6.47)	(24.30)	(111.36)	(58.67)	(23.32)	(91.97)
Market to Book	3.6E-5*	4.7E-5*	.003***	.00***	.00***	8.8E-5***	.00***	.00***	.01**	.00***	.08***	.03***
	(1.73)	(.65)	(3.93)	(3.29)	(8.39)	(3.52)	(3.41)	(12.25)	(2.21)	(.15)	(3.28)	(5.02)
Asset Tangibility	-.01***	-.02***	-.02**	-.00	.00	.02**	.02	.00	.08***	.04***	.01	.09***
	(-3.61)	(-4.82)	(-2.05)	(-1.23)	(.95)	(1,99)	(1.28)	(-.04)	(13.50)	(3.72)	(.21)	(13.66)
Return on Assets	.05***	n.s.	n.s.	.044***	-.21***	n.s.	n.s.	-.21***	.12***	n.s.	n.s.	.14***
	(7.00)			(5.64)	(-17.23)			(-17.43)	(21.18)			(20.70)
Debt to Equity	-5.6E-5**	-.00	-.00	-7.8E-5**	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	(-2.27)	(-.79)	(-1.38)	(-2.99)								
Fixed Effects												
Year Fixed Effects	Y	Y	N	Y***	Y***	Y**	N	Y***	Y*	Y	N	Y
Firm Fixed Effects	Y***	Y**	Y	Y***	Y	Y	Y	Y	Y	Y	Y	Y
Diagnostics												
F-statistic	59.87	13.78	8.09	58.34	356.47	70.20	16.91	288.09	1659.91	443.11	87.95	1203.49
P-value	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
No. of Observations	17337	4100	1075	12160	17336	4100	1075	15571	17336	4100	1075	1259
R^2	.030	.026	.050	.041	.156	.127	.010	.176	.463	.464	.366	.471

TABLE 7

Summary of Results

H#	Prediction (expected sign)	Univariate	Multivariate and Fixed Effects	Results
1a	Positive relationship between managerial entrenchment and financial flexibility (+)	Significant correlation between E-index and median excess cash.	Significant positive beta for E-index in fixed effects regressions.	H1a is supported. Entrenched managers keep more excess cash.
1b	Negative relationship between managerial entrenchment and financial flexibility (-)	Significant correlation between E-index and median excess cash	Each of E-index, DME4 and DME6 show significant positive beta in explaining the variance in excess cash.	H1b is not supported. Entrenched managers keep more rather than less excess cash.
1c	Managerial entrenchment and financial flexibility vary among firms in small, medium or large market value groups (?)	Significant correlation between E-index and median excess cash.	E-index is not significant predictor of excess cash of firms in all market value groups. DME 4 or 6 each is significant predictor of excess cash for firms in small or large market value groups.	H1c is supported. Entrenched managers keep different levels of excess cash among small, medium, and large firms.
2a	Managerial entrenchment positively affects financial leverage (?)	Nonsignificant negative correlation between E-index and debt to total assets ratio.	E-index is not significant, but DME 4 and DME 6 each significantly negatively explain variance in leverage ratio.	H2a is supported. Entrenched managers borrow less.
2b	Relationship between financial flexibility and financial leverage varies among firms in small, medium, and large market value groups. (?)	Significant negative correlations between excess cash and leverage. Excess cash of firms in small versus large market value groups are significantly different.	Excess cash significantly negatively explains the variance in leverage ratio of firms in small, and large, but not those in medium market value groups.	H2b supported. Small and large firms have less debt at a given level of excess cash than firms in medium market value groups.
3	Firms that use long-term or medium-term debt are likely to have less excess cash than firms that use short-term debt (-).	Significant negative correlation between excess cash and average debt maturity	Excess cash has negative and significant in predicting debt maturity.	H3 supported. Debt maturity is negatively associated with excess cash.

FIGURE 1

Fig. 1: The Impact of Managerial Entrenchment on Financial Flexibility and Capital Structure Decisions
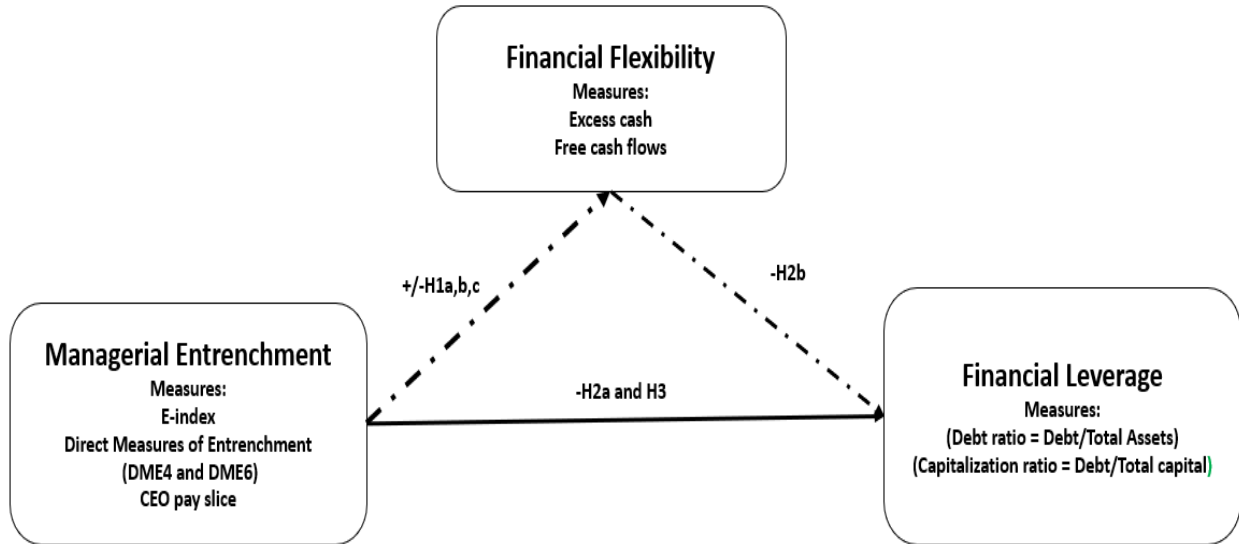
FIGURE 2

Reconciliation of Sample Size

	Firm-year[7] 2000-2018	Firms
Original Compustat observations	213,567	25,110
Adjustments:		
Financial industry (4010-4030)	(26,242)	(2,695)
Utilities (5510-5550)	(6,040)	(472)
Firms with no GIC industry classification	(33,503)	(4,972)
Negative sales and book value of equity	(21,704)	(1,082)
Missing key data	(6,073)	(454)
Subtotal Compustat	120,005	15,435
Firm year data not on ExecuComp	(102,667)	(13,571)
Final Sample Size	**17,338**	**1,864**

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[7]Additional data is lost when E-index joint is performed leaving about 10,399 firm-year observations in sample.

FIGURE 3

Fig. 3: Debt Ratios, Entrenchment and Financial Flexibility
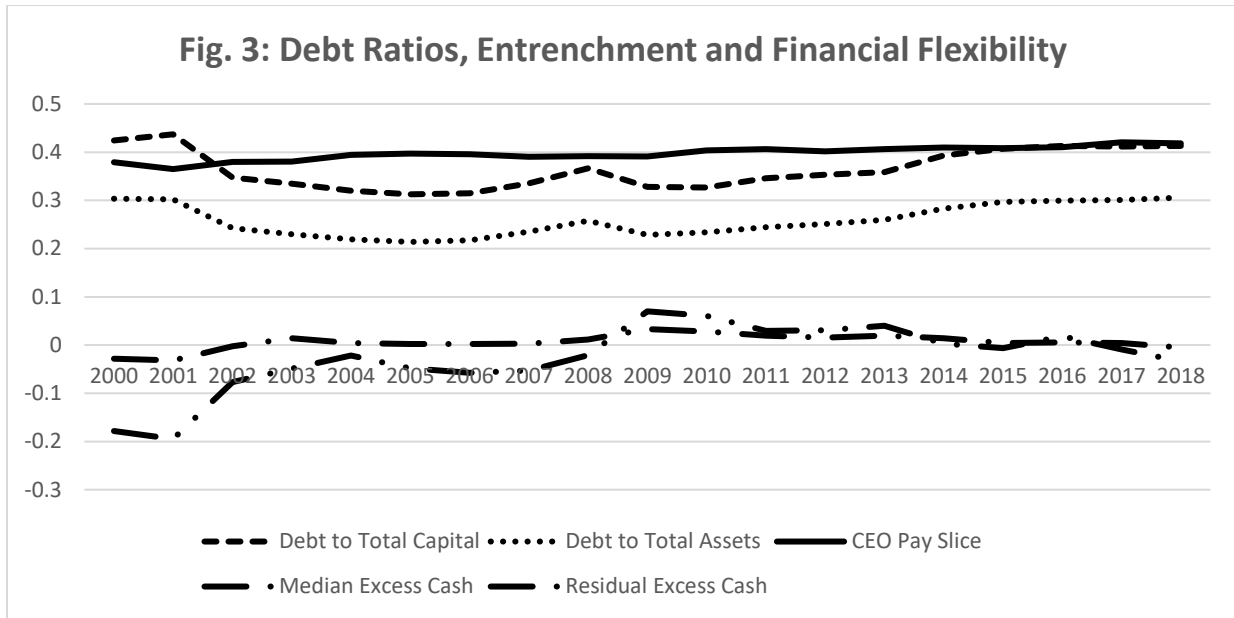
Figures 3 shows time series trends among debt ratios (leverage), CEO pay slice (managerial entrenchment), and median and residual excess cash (financial flexibility).

FIGURE 4

Excess Cash and E-index

Excess Cash vs. E-index

FIGURE 5

Excess Cash and Debt Maturity

Excess Cash and Debt Maturity
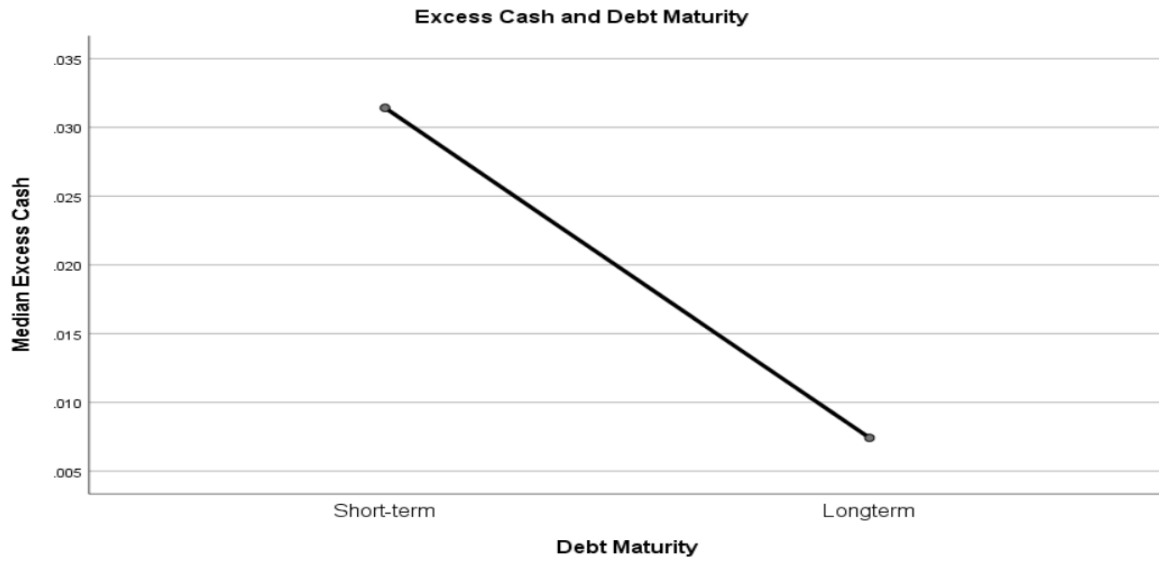
FIGURE 6

Excess Cash and Debt Maturity

Excess Cash and Debt Maturity

FIGURE 7

Excess Cash and Loan Spreads

Excess Cash and Loan Spread Percentile

CHAPTER 3

THE IMPACT OF ETHICAL CORPORATE CITIZENSHIP AND CEO POWER ON FIRM VALUE AND COST OF CAPITAL (ESSAY 2)

The Impact of Ethical Corporate Citizenship and CEO Power on Cost of Capital and Firm Value

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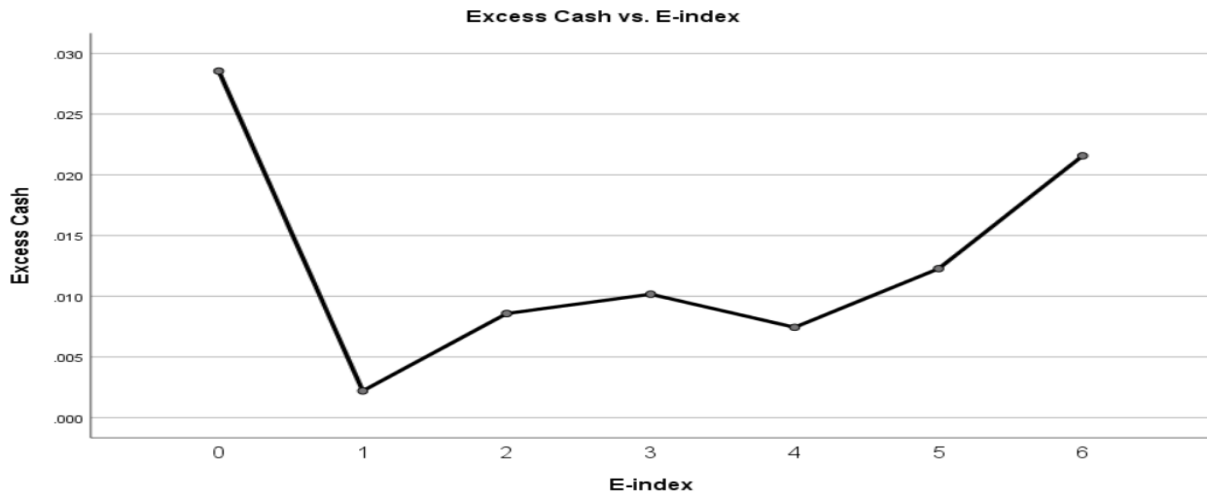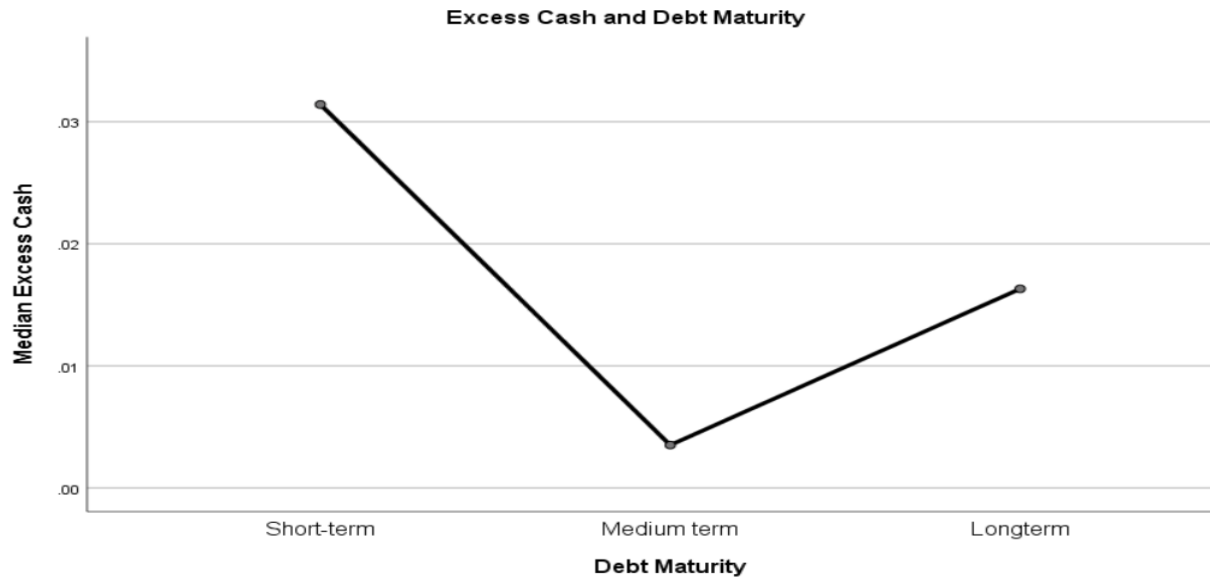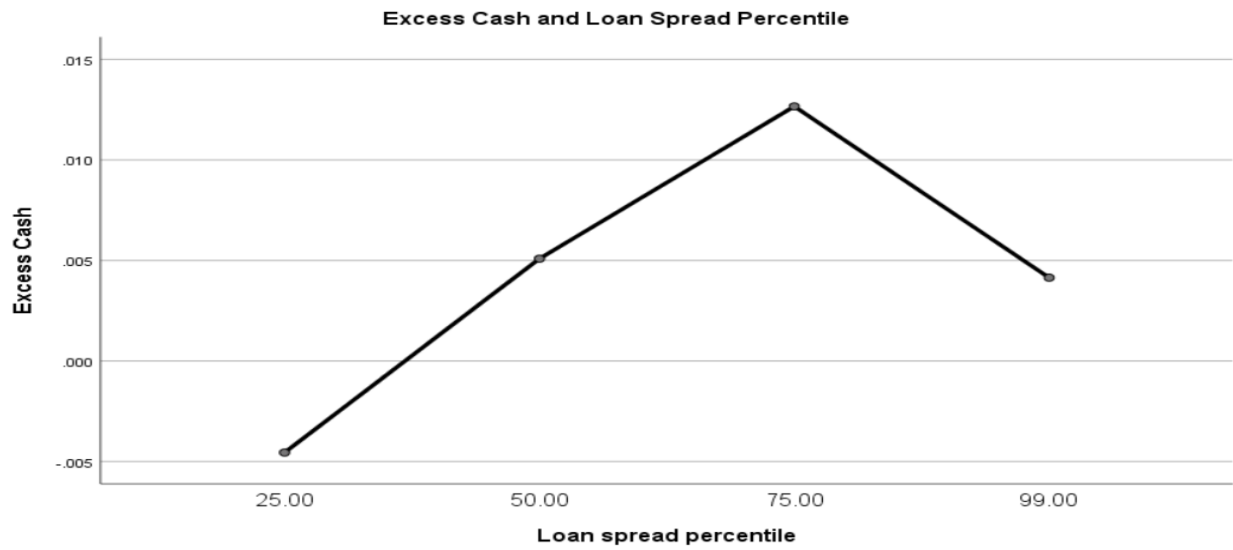**ABSTRACT:** This paper examines the impact of ethical corporate citizenship, and CEO power on cost of capital and firm value. Firms listed as World's Most Ethical Companies (WMECs) exemplify ethical corporate citizenship, which is operationalized as a binary variable of 1 for WMECs, and zero for non-WMECs. This paper matches WMECs and non-WMECs control firms in the same 3 digits SIC code and within 10 percent of total assets. CEOs are powerful (weak) if the CEO's total compensation as a percent of the top 5 executives of the firm is above (below) the 50th percentile of the CEO pay slice. Tobin's q is the proxy for firm value, and cost of capital is measured as the market value weighted cost of debt and cost of equity. Results indicate that WMECs have neither lower cost of capital nor higher Tobin's q than matched control sample of non-WMECs. Firms led by powerful CEOs have significantly lower cost of debt capital than firms lead by weak CEOs. Also, firms led by powerful CEOs are associated with lower industry-adjusted Tobin's q than firms led by weak CEOs. This is consistent with agency theory that self-interested CEOs extract pecuniary benefits for personal advantage, subject to managerial control mechanisms. Results have implications for research and practice in corporate social responsibility, corporate governance, and CEOs compensation.

Goldman Sachs Group Inc. admitted to breaking U.S. corruption laws, agreed to pay nearly $3 billion to global regulators, and punished its top executives by clawing back $174 million in compensation to resolve one of the biggest scandals in Wall Street history (Hoffman and Michaels 2020). Corporate scandals continue to dominate business news despite the practice of discretionary corporate social responsibility (CSR), and corporate governance mechanisms to minimize the abuse of power by top company executives after the Sarbanes Oxley Act (2002). Prior research provides evidence that powerful CEOs are negatively associated with investments in corporate social responsibility (Li et al. 2019), financial performance (Larcker et al. 2007), and Tobin's q (Bebchuk et al. 2011, Chintrakarn et al. 2018, 2015). Companies are increasingly practicing CSR on "steroids" using ethical corporate citizenship, which refers to firms' commitment to a culture of ethics and compliance programs, corporate responsibility and citizenship, culture of ethics, governance, leadership, innovation and reputation. Little research exists, to my knowledge, on whether ethical corporate citizenship, and CEO power affect firm value and cost of capital. Powerful CEOs tend to be very influential, wield considerable power over decision-making, and largely determine firms' commitment to ethical corporate citizenship (Bebchuk et al. 2011, Chintrakarn et al. 2018). Gold, Gronewold, and Salterio (2014) emphasize that the tone at the top is very important for effective internal controls, and ethical climate in organizations (Gerstein et al. 2016). This paper examines the impact of ethical corporate citizenship and CEO power on firm value and cost of capital in the context of stakeholder theory (Ullmann 1985).

Contrary to the corporate scandals, Mastercard, Microsoft, LinkedIn, and Starbucks are examples of World-class companies that continue to join the list of the World's Most Ethical Companies (WMECs) published annually by Ethisphere. The compound annual growth rate of

reputable firms joining the WMECs lists between 2007 (92 companies) to 2018 (135 companies) is about 3.5 percent. Over ten percent of S&P 500 firms as of December 31, 2018 are listed on the WMECs. However, other large and well-known companies including American Airlines, American International Group, and Cigna Corporation are not listed as WMECs. Ethisphere (2018) provides anecdotal evidence on its website that the stock price returns on investments in a basket of WMECs stocks yield at least 6.6 percent higher than non-WMECs over the two-year period from 2015 to 2016. WMECs epitomize ethical corporate citizenship (ECCs) of firms that meet Ethisphere's criteria on commitments to a culture of ethics, effective corporate governance, leadership, innovation and reputation (Ethisphere 2018). ECC is a subset of corporate social responsibility (Carroll 1999) for which there is mixed results on its relationship with financial performance, and firm value (Larcker et al. 2007, Wang and Smith 2008). Prior research shows that the association between corporate ethics and financial performance or firm value is inconsistent, primarily positive (Li et al. 2016, Elliott et al. 2014, Smith and Wang 2010, Orlitzky, Schmidt, and Rynes 2003), but sometimes negative (Ullmann 1985). Orlitzky, Schmidt, and Rynes (2003) argue that the limited use of theory and inconsistent construct measurement contribute to the mixed results in prior research. For example, reputational scales (Cochran and Woods 1984), performance pollution index (Chen and Metcalf 1980), and America's Most Admired Companies listing (Wang and Smith 2008) have been used to operationalize CSR. This paper investigates the impact of ethical corporate citizenship, managerial power and economic performance on cost of capital, and firm value.

Stakeholder theory identifies strategic posture, stakeholder power, and economic performance as the key determinants of firms' outcomes (Ullmann 1985). Strategic posture is evaluated as the extent to which firms are committed to and invest in ethical corporate citizenship,

which is different from the discretionary practice of CSR. Carroll (1999) describes CSR as a broad construct that incorporate corporate ethics, benefits to community, and organizational reputation management. Unlike the infrequent contributions to community initiatives in CSR, ECC reflects organizational *commitment* to a culture of corporate ethics rather than *discretionary* responsibility for ethics, and leadership, innovation and governance, and continuous improvement. CSR is measured using quality and quantity of pollution, E&Y disclosure score, and the CSR score, which includes community, diversity, employee relations, environment and product safety. As a result of the broad CSR measures, prior research findings on CSR and firm outcomes have been inconsistent (Orlitzky, Schmidt, and Rynes 2003). For example, reputational scales (Cochran and Woods 1984), performance pollution index (Chen and Metcalf 1980), and America's Most Admired Companies listing (Wang and Smith 2008) have been used to operationalize corporate ethics. Table 8 summarizes the key differences and similarities between CSR and ECC. ECC is operationalized as a binary variable of 1 for firms that are WMECs, and zero for non-WMECs.

Strategic posture is the ability of firms to embrace and practice a culture of ethics and compliance, leadership, corporate citizenship and governance, innovation and reputation management (Ethisphere 2018). Stakeholders view firms as aggressive, hostile or helpful to the broader community through listing on corporate recognition platforms, including America's Most Admired Companies, 100 Best Corporate Citizens, and World's Most Ethical Companies (Smith and Wang 2008). Firm strategic posture directly and indirectly communicates to stakeholders the ethical citizenship or community engagement standing of the firm (Donaldson and Preston 1995). Prior research operationalizes strategic posture using the average size of public affairs staff, and a binary variable of whether the firm contributes resources to charitable foundations. For firms that are within the same 3 digits SIC code and 10 percent of total assets of the WMECs, this paper

operationalizes strategic posture as ethical corporate citizenship with a binary variable of one if the firm is on the list of WMECs, and zero otherwise (non-WMECs) in a control match design (Kumar and Sopariwala 1992). Also, where the sub-sample from the control match design is not adequate for further analysis, this paper utilizes the entropy balancing to derive total asset weights of non-WMECs control group given WMECs treatment group (Hainmueller 2011, Hainmueller and Xu 2013).

Under stakeholder theory, firms with positive strategic posture as ECCs are likely to attract more customer, investors, and business transactions to increase firm value and vice versa. Capital providers are likely to view ECCs that have a reputation of supporting community development initiatives as having lower reputational risk and offer them better financing rates than companies that do not engage in ethical citizenship. Agency theory suggests that investments in ECC may not beneficial to shareholders as managers extract rents (Jensen and Meckling 1976, Shleifer and Vishny 1989). However, positivists agency theory suggests that the net benefits of ethical citizenship through operational efficiencies, reputation management, dividend reinvestment in firms' stocks, and lower cost of capital are worth the investment in firms on the list of the World's Most Ethical Companies (Blair 1996, Donaldson and Preston 1995). As a result, this paper posits that WMECs have lower cost of capital than firms that are not WMECs. Also, WMECs have higher firm value than firms that are non-WMECs.

Stakeholder power in this paper focuses on the extent of CEO power over firm's decisions, although other stakeholders' interests are also important. The tone at the top of organizations, including that of the CEOs and senior executives, often influence the ethical climate, and firms' outcomes (Gerstein et al. 2016, Gold, Gronewold, and Salterio 2014). Powerful CEOs tend to be very influential, wield considerable power over operating, investing, and financing decisions

(Bebchuk et al. 2011, Chintrakarn et al. 2018). Prior research operationalizes CEO power using CEO pay slice (CPS), proportion of CEO's share ownership, CEO tenure, dual role of CEO and chair (Bebchuk et al. 2011, Lee, Matsunaga, and Park (2012). CEO pay slice is CEO's total compensation as a percent of the total compensation of the top 5 executives of the firm (Bebchuk et al. 2011). Using the CEO pay slice as proxy for CEO power, CEOs are powerful (weak) if the CEO's total compensation as a percent of the top 5 executives of the firm is above (below) the 50th percentile. E-index is an alternative measure of CEO power in this study. Agency theory suggests that self-interested and risk averse managers extract rents from the firm (Jensen and Meckling 1976). However, consistent with positivist stakeholder theory managers are agents of shareholders who utilize their powers to benefit the firm's shareholders and the manager. In this manner, managers may utilize their power or influence to impact a firm's attractiveness to stock and debt investors and the related cost of capital (Harrison and Wicks 2013). Under positivists agency theory, managers as agents of shareholders are expected to utilize their good influence to minimize cost of capital of the firm. Accordingly, I posit that the relationship between CEO power and cost of capital is negative. However, self-interested, risk-averse managers who make bounded rational decisions may not engage in financing activities that benefit shareholders, and firm value. As a result, CEO power may be related positively or negatively to firm value.

Furthermore, economic performance refers to a firm's ability to effectively and efficiently transform inputs into outputs that are sold at a profit (Barth et al. 2013, Freedman and Jaggi 1988). Capital providers seek return on their equity and debt investments in the form of dividends, capital appreciation, and interest income (Chen and Metcalf 1980, Barth et al. 2013). In general, rating agencies assign better debt ratings to firms that demonstrate sustainable better economic performance than peers, which should lower financing costs. As capital providers evaluate the

risk-return trade-offs of investing in the debt or equity securities of firms, the relative economic performance of the firm is a major factor (Sharma and Kumar 2010). Consistent with prior research, this paper measures economic performance using net income, average alpha on the firm's stock, and economic value added (EVA) (Ghanbari and More 2007, Sharma and Kumar 2010). Net income is an after-tax measure of revenues and other income less expenses of the firm, and it is a premier accounting measure of economic performance. Alpha refers to the market-based, risk-adjusted excess return on an investment in the firm relative to the return on a comparable benchmark (Ji et al. 2019). Ghanbari and More (2007) argue that EVA is the best measure of firm performance. Economic value added is the difference between net operating profit after tax and the cost of capital employed (Sharmar and Kumar 2010). Prior research finds positive relationship between economic performance and firm value (Roberts 1992). Under traditional agency theory, managers extract some of the economic performance for their personal gain (Shleifer and Vishny 1989). However, stakeholder theory suggests that some of the economic performance is distributed to shareholders in the form of dividends to increase firm value, which reflects favorably on the firms' ability to obtain competitive cost of capital (Blair 1996). As a result, I posit that the relationship between firms' economic performance and: (a) cost of capital is negative, and (b) firm value is positive. In other words, firms obtain cheaper cost of debt financing and overall cost of capital through better economic performance. Also, firms with favorable (unfavorable) economic performance increase (decrease) firm.

Consistent with Bebchuk et al (2011, p. 208), this paper operationalizes firm value using industry-adjusted Tobin's q. Giroud and Muller (2012) defined Tobin's q as market value of the firm assets divided by replacement cost of total assets. Industry-adjusted Tobin's q subtracts from the Tobin's q the median 3 digits SIC Tobin's q. Cost of capital is calculated as the market value

weighted average cost of debt plus cost of equity. Cost of debt is calculated as interest expense divided by total interest-bearing short-term and long-term debt. Cost of equity is calculated using Fama and French (1993, 1997) and Carhart's (1997) four factor model which adds to the risk-free rate risk premia for market, style, size, and momentum factors (Barth et al. 2013). Firms that obtain cheaper cost of capital in the form of lower interest costs, or cost of equity, pay dividends, and earn excess economic returns should increase market value and Tobin's q (Bebchuk et al. 2011, Barth et al. 2013).

Results indicate that WMECs do not have a statistically significant advantage over comparable non-WMECs on cost of equity, cost of debt, or weighted average cost of capital. Also, WMECs matched with non-WMECs control firms in the same 3 digits SIC code and 10 percent of total assets do not have significantly higher industry-adjusted Tobin's q. However, results indicate that CEO pay slice is associated with lower cost of debt capital, and lower industry-adjusted Tobin's q. This implies unlike weak CEOs whose pay slice is below the 50th percentile, powerful CEOs whose pay slice is above the 50th percentile utilize their influence to get lower cost of capital for the firm, but extract benefits to decrease industry-adjusted Tobin's q. Moreover, firms that have higher net income have higher cost of debt, and higher industry-adjusted Tobin's q. In summary, CEO pay slice, and net income rather than ethical corporate citizenship is significantly negatively associated with cost of capital. Further, net income, and ethical corporate citizenship rather than CEO pay slice are positively associated with industry-adjusted Tobin's q. Results have implications for further research on whether ethical corporate citizenship interacts with CEO power to affect cost of capital, and firm value, especially using a resource-based view of the CEO's administrative decision to join WMECs list (Hansen et al 2004).

This paper contributes to prior research as follows. First, it provides evidence that CEO power, and economic performance of the firm rather than ethical corporate citizenship significantly reduces cost of capital of the firm. Second, CEO power decreases, while ethical corporate citizenship, and economic performance increase industry-adjusted Tobin's q. Third, this paper empirically establishes a strong positive correlation between net corporate social responsibility score and ethical corporate citizenship. For example, WMECs and firms that have high net CSR scores have similar firm value and financial leverage, though WMECs have higher dividend payouts than firms with high net CSR scores. Also, this paper provides external evidence that S&P 500 firms that join and stay on the WMEC list through 2017 show better stock price return than firms that did not stay on the list. An analysis of firms that exited WMECs list suggests that Ethisphere closely monitors WMECs to ensure continuous compliance with ethical business practices (see Appendix 3). This suggests that WMECs list is a nomologically valid measure of the corporate social responsibility that is freely available online to researchers. Further, this paper provides consistent evidence of a non-monotonic relationship between CEO power and firm value (Bebchuk et al 2011, Chintrakarn et al. 2018), and it clarifies the approximately V-shaped nature of that relationship. Finally, this paper provides anecdotal evidence on CEO personal characteristic index (CPCI) as an alternative proxy for CEO pay slice. CPCI provides comprehensive personality traits that underlie CEO power beyond CEO compensation.

The rest of this paper is organized as follows. Section II reviews prior research and develops hypotheses. Section III reports sample data and descriptive statistics. The methodology and results of hypotheses testing are reported in Section IV, and V respectively. Finally, this paper concludes, and identifies limitations and recommendation for further research in section VI.

II.   BACKGROUND AND HYPOTHESIS DEVELOPMENT

Application of Stakeholder Theory

Ullmann (1985) posits stakeholder theory that firm outcomes are determined by stakeholder power, firm strategic posture, and economic performance. Stakeholder theory describes the conflict of interests among the interested parties in the firm including management, board of directors, and employees, shareholders, and creditors (Donaldson and Preston 1995; Mitchell, Agle and Wood 1997, Freeman et al. 2004). Under agency theory, managers are self-interested, risk-averse individuals who make bounded rational decisions in their own best interest rather than that of shareholders. For example, some CEOs make a bounded rational decision to not invest in ethical corporate citizenship or corporate social responsibility so as to minimize near-term expenses only to pay huge sums for ethical violations of the firm.   Prior research acknowledges the descriptive accuracy of agency theory, and suggests a need for Ullmann's (1985) contingency framework of stakeholder theory that has been applied by Roberts (1992) in social responsibility disclosures context (Freeman 1999). This paper applies Ullmann's (1985) stakeholder theory to study the impact of managerial power, firm's strategic posture (that is, ethical corporate citizenship), and economic performance on firm value, and cost of capital. The primary research question is how do ethical citizenship, managerial power, and economic performance affect cost of capital, and firm value in the context of stakeholder theory?

Figure 1 below is the model for this study:

[INCLUDE FIGURE 1 HERE]

Stakeholder power refers to the responsiveness of the firm to the intensity of stakeholder demands, degree of stakeholders' control, or the criticality of stakeholders to firm's viability. In

this context, stakeholder power refers to the degree of managerial/CEO power to extract profits, or economic rents from the firm for their personal advantage (Shleifer and Vishny 1989). Prior research operationalizes CEO power using corporate governance metrics including, the Gompers, Ishii, and Metrick (GIM, 2003), Alternative Takeover Index (ATI) of Cremers and Nair (2005), and E-index of Bebchuk, Cohen, and Ferrell (2009). Recent research measures CEO power using CEO pay slice (Bebchuk, Cremers, and Peyer 2011, Chintrakarn et al. 2018, Bugeja et al. 2017, Zagonov and Salganik-Shoshan 2018, Withisuphakorn and Jiraporn 2017), and CEO tenure (Lee, Matsunaga, and Park 2012). This paper operationalizes CEO power using CEO pay slice (CPS) defined as the CEO's total compensation as a percent of the total compensation of the top 5 executives of the firm (Bebchuk et al. 2011). Powerful (weak) CEOs have CPS above (below) the 50th percentile (Chintrakarn et al. 2014). Using a small sample of 21 weak and 10 powerful CEOs, this paper also develops a CEO personal characteristic index (CPCI) consisting of the sum of 0 (no, less powerful) or 1(yes, more powerful) for each of the following 4 items on whether the CEO: (1) is younger than age 60, (2) only has bachelor's degree, (3) has less than 7 years of post-CEO tenure, and (4) consistently makes career changes within 5 years. This paper provides anecdotal evidence that the CPCI is highly correlated with CPS ($r = .423$, $p=.02$), and recommends further research on the CPCI using resource-based theory (Hansen et al. 2004, Bowman and Toms 2010, Cecchini et al 2013). This paper uses the entrenchment index as an alternative measure of CEO power (Bebchuk et al 2009).

Strategic posture refers to the firms' mode of response to social responsibility demands (Carroll 1999). Firms may be classified as active or passive, discretionary or committed to social responsibility demands (Donaldson and Preston 1995). Prior research operationalizes strategic posture using CSR scores (Davidson, Dey and Smith 2018), reputational scales (Cochran and

Wood 1984), pollution index (Chen and Metcalf 1980), or inclusion on America's Most Admired Companies list (Smith and Wang 2010). Strategic posture in this context is the ethical citizenship status of the firm that is operationalized using a binary variable of one for firms on the list of the World's Most Ethical Companies, and zero otherwise. I also investigate the association between ethical citizenship and corporate social responsibility and analyze whether the WMEC status of a firm is a valid measure for CSR. Prior research on the differences between ethical citizenship and CSR is summarized in Figure 3. Appendix 2 is a summary of the frequently asked questions on World's Most Ethical Companies as published on Ethisphere's (2018) website. Appendix 3 summarizes anecdotal evidence on reasons firms left the WMECs list during 2007 through 2017.

Economic performance refers to the changes in stockholders' wealth as the firm transforms input resources into outputs or products in the process of production, sales and marketing, and investing to achieve the objectives of the firm. Traditional accounting and finance measures of firms' performance focus on profitability (net income), earnings per share, return on equity, operating earnings, return on assets, and cash flows, while market-based measures focus on stock returns, alpha, beta, and economic value added (EVA) (Ghanbari and More 2007, Sharma and Kumar 2010, Kumar and Sopariwala 1992, Ferris, Kumar, Sant, Sopariwala 1998). Net income is a primary accounting measure of performance, and it is calculated as revenues less expenses and taxes (Ghanbari and More 2007). Alpha is a market-based measure of excess returns on an investment in the company's stock above that of a benchmark (Sharma and Kumar 2010). EVA is defined as net operating profitability less the cost of capital employed (Sharma and Kumar 2010). Consistent with prior research, this paper measures economic performance using net income, average alpha, and economic value added.

Differentiating Ethical Corporate Citizenship and Corporate Social Responsibility

Figure 2 below illustrates the increasing trend in the number of public and nonpublic companies on the WMECs list from 2007 to 2018 from www.ethisphere.com.

[INCLUDE FIGURE 2 HERE]

The number of companies on the WMEC list increased from about 92 to 124 companies between 2007 and 2017 at a compound average annual growth rate (CAGR) of 3 percent. Ethisphere also reported about 135 companies on the 2018 WMECs listings (CAGR 3.5 percent) including world renowned brand name companies such as General Electric, Hilton, Intel, Kellogg's, LinkedIn, Marriott International, Microsoft, Mastercard, and PepsiCo. Appendix 1 summarizes the process that Ethisphere uses to determine which company joins the WMECs list, and appendix 3 provides anecdotal evidences on the reasons why firms left the WMECs list during 2007 through 2017.

This paper differentiates between corporate social responsibility (CSR) and ethical corporate citizenship (ECC) as follows. Corporate social responsibility refers to a business approach that contributes to sustainable development by delivering economic, social, and environmental benefits for all stakeholders (Dahlsrud 2008). Carroll (1999) describes corporate social responsibility as the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time. CSR has various labels including corporate ethics, business ethics or ethical citizenship (Carroll 1999). On the other hand, ethical corporate citizenship refers to organizational commitment to rigorous ethics and compliance programs, corporate responsibility and citizenship, culture of ethics, governance, leadership and innovation, which are the hallmarks of the World's Most Ethical Companies (Ethisphere 2018). ECC is

therefore an aspect of CSR that emphasizes commitment to corporate ethics, citizenship, governance, innovation and leadership.

In summary, CSR and ECC are similar in the sense that both constructs incorporate ethics, benefits to community, and organizational reputation. However, ECC and CSR are different in that ECC reflects: (1) commitment to culture rather than discretionary responsibility for corporate ethics, (2) leadership, innovation and governance, and (3) continuous rather than point in time. Also, unlike ECC, CSR is measured using quality and quantity of pollution, disclosure score of E&Y, and the CSR includes scores that includes community, diversity, employee relations, environment and product safety (Dyck et al. 2019, Davidson et al. 2018). Therefore, the distinction between the impact of CSR or ECC on firm outcomes is important because unlike the well-intentioned yet infrequent firms' CSR practices, ECC is an integrated commitment to the practice of sound ethics and compliance, great innovation and leadership, and effective governance that shapes firms' operating, investing and financing activities. Accordingly, firms may not necessarily have the same outcomes from ECC versus CSR practices.

[INCLUDE FIGURE 3 HERE]

Prior research indicates that the social responsibility of business is to increase profits by engaging in competitive and ethical activities (Carroll 1999; Donaldson and Preston 1995). Studies find positive, negative or no relationship between corporate social performance, corporate financial performance, and competitive advantage (Porter and Kramer 2006; Ingram and Frazier 1980). Barnett (2007) argues that mixed findings of the relationship between CSR and financial performance is attributable to failure of prior research to account for the path-dependent nature of firm-stakeholder relations and develop the construct of stakeholder influence capacity to fill this void. In a meta-analytic study, Orlitzky, Schmidt, and Rynes (2003) find that CSR is likely to pay

off, however, the many different ways that the various measures are operationalized results in mixed findings. For example, the variety of *CSR measures* including reputational scales (Cochran and Wood 1984), performance pollution index (Chen and Metcalf 1980), and inclusion on America's Most Admired Companies list (Smith and Wang 2010).

Ethical Corporate Citizenship, Firm Value and Cost of Capital

Prior research provides mixed findings on the relationship between ethical corporate citizenship, firm value and cost of capital. Evidence from prior research on ECC indicate that high-reputation firms show an average market value premium of $1.3 billion, and experience superior financial performance and lower cost of capital (Smith and Wang 2010). Also, organizational commitment is positively influenced by organizational trust and four dimensions of perceived corporate citizenship, including economic, legal, ethical and discretionary citizenship (Wang, Tsai, and Lin 2013). Desai et al. (2006) find a significant relationship between ethical corporate behavior and financial performance. Blazovich and Murphy (2011) find, controlling for prior year market value of equity, a marginally significant association between being recognized as ethical in that year and market value of equity, but no association between being recognized as ethical at least one time and market value of equity. The mixed result in prior research is attributed to a lack of unified underlying theory, and inconsistent construct measurement (Orlitzky, Schmidt, and Rynes 2003). The application of stakeholder theory, robust research designs, and valid construct measures in this paper contribute to prior research in ethical corporate citizenship. This paper applies control match design (Kumar and Sopariwala 1992) based on firms within the same 3 digits SIC code and 10 percent of total assets of the WMECs to match non-WMECs.

Development of Hypotheses

Stakeholder Power and Firm Outcomes

External shareholders have may have significant influence or control over operating, investing and financing decisions of the firm. Shareholders often exercise power via ownership of voting common stock, board independence, or service on critical corporate governance functions such as audit, compensation, management selection and promotions committees. The extent to which external shareholders can influence capital structure decisions of the firm is complex, and it can depend on the degree of managerial entrenchment, board independence, and the firm's overall financial flexibility in generating operating cash flows to meet investment and financing obligations (Feltham Ohlson 1995, Berger, Ofek, and Yermack 1997, Weisbach 1988, Byoun 2011). Firms that have weak stakeholder power cede more control to management, who extract private benefits under agency theory (Shleifer and Vishny 1989). This can lead to deteriorating firm performance, decrease in firm value, increase in the cost of equity, and borrowing costs due to concerns over potential default. On the other hand, strong stakeholders utilize control mechanisms to influence management to undertake transactions that maximize shareholders' wealth by improving financial performance and the value of firms (GIM 2003).

Management of the firm may also exercise power over key decisions of the firm. For example, powerful CEOs whose pay slice is above the 50th percentile take more risk than weak CEOs (Chintrakarn et al. 2014), and the risk-taking creates more opportunities for the firm. Also, powerful CEOs may lead a firm to pay higher dividends to shareholders, which require firms to disgorge cash flows to create demand for its shares and stimulate share prices increases. Under positivists agency theory, managers share with shareholders the benefits from risk-taking activities (Blair 1996), although agency theory says self-interested managers are risk-averse individuals who

make bounded rational decisions (Jensen and Meckling 1976). From the perspective of resource-based theory, powerful (weak) CEOs may be a source of competitive advantage (disadvantage) that affect firms' outcomes (Hansen et al. 2004, Bowman and Toms 2010, Wernerfelt 1984, Barney 2001, Cecchini et al 2013). On balance, unlike weak CEOs (that is, CEOs whose pay slice is between 25th and 50th percentile), powerful CEOs lead firms to make key strategic decisions in product markets or business acquisition likely associated with higher financial performance and dividend payouts to attract lower cost of capital, and higher firm value. Thus, powerful managers utilize their influence and stellar firm performance to obtain cheaper long-term debt financing and lower cost of equity for the firm. Weak CEOs who lead firms to abysmal performance through the lack of effective execution of strategy for results are likely to be fired and replaced with more competent CEOs who can deliver profitable performance, and negotiate cheaper terms with capital providers to maximize firm value. Therefore, I posit that:

H1a: The relationship between CEO power and cost of capital is negative. This implies that powerful (weak) managers are more likely to be associated with lower (higher) cost of capital.

H1b: The relationship between CEO power and firm value is positive. This implies that powerful (weak) CEOs are more likely to be associated with higher (lower) firm value.

However, the entrenchment hypothesis of agency theory (Jensen and Meckling 1976) suggests that managers extract profits and cash flows for their private benefit (Ji, Mauer, and Zhang 2019, Shleifer and Vishny 1986). This is likely to increase cost of capital and decrease firm value contrary to above prediction in H1b. Managers who do not utilize their influence, power, and position to help firms demonstrate consistently good performance, but rather extract profits for their selfish gains, are likely to decrease firm value. Accordingly, I also posit that:

75

H1c: The relationship between CEO power and firm value is negative. This implies powerful (weak) managers are more likely to be associated with lower (higher) firm value.

Strategic Posture and Firm Outcomes

Stakeholders may view firms as aggressive, hostile or helpful to the broader business community when such firms are listed on America's Most Admired Companies, and World's Most Ethical Companies (Smith and Wang 2010, Diamond 1989). Firm strategic posture is part of a firm's favorable reputation formation strategy that communicates to stakeholders the ethical citizenship or community engagement standing of the firm (Donaldson and Preston 1995, Diamond 1989). Capital providers are likely to view companies that have a reputation of supporting community development initiatives as having lower reputational risk and offer them better financing rates than companies that do not engage in ethical citizenship (Smith and Wang 2010). Some argue that the costs of ethical corporate citizenship (ECC) are not a necessary business expense, at least in the short-term, and it is not necessarily associated with lower cost of capital. However, in the long-term ethical corporate citizenship improves innovation, ethical leadership, and the relative efficiency of the internal fabric of the organization. For example, ethical compliance can reduce significant regulatory fines, and opportunity costs of unethical behavior. Hansen et al. (2004) suggest that the CEO's administrative decision to lead a firm to ECC can add value to the firm in a resource-based view. As a result, firms that are ethical corporate citizens are expected to have lower operating costs, and more profitable performance to attract lower cost of capital than firms that are not ECCs. This suggests that firms with more positive strategic posture as ECCs are likely to increase firm value, and have lower cost of capital than firms that are not ECCs (El Ghoul et al. 2011). Davidson, Dey and Smith (2018) find that materialistic CEOs negatively affect firms' CSR scores, accounting, and stock price performance.

However, the relative costs and benefits of investment in ethical corporate citizenship can help or hurt firm's cost of capital or long-term value. Using World's Most Ethical Company (WMECs) as proxy for ethical corporate citizenship, I argue that firms that are ECCs enhance the reputation of firms with lenders such that:

H2a: Firms that are on the list of World's Most Ethical Companies (WMECs) have lower cost of capital than firms that are not WMECs.

H2b: Firms that are on the list of World's Most Ethical Companies have higher firm value than firms that are non-WMECs.

Economic Performance and Firm Outcomes

Economic performance refers to a firm's ability to effectively and efficiently transform inputs into outputs that are sold at a profit (Roberts 1992). Capital providers seek return on their equity and debt investments in the form of interests or dividends and capital appreciation (Sharma and Kumar 2010). Firms' economic performance can be enhanced through improvements in operating margins, net investment income, and cheaper financing costs (Chen and Metcalf 1980). As capital providers evaluate the risk-return trade-offs of investing in the debt or equity securities of firms, the relative economic performance of the firm is a major factor (Ullmann 1985, Roberts 1992). Economic performance is measured in prior research using average annual change in return on equity, net income, earnings per share, stock return, alpha, and beta (Roberts 1992, Chen and Metcalf 1980). This paper uses net income, alpha, and economic value added as main and alternative proxies of economic performance.

Resource-based view summarized in Appendix 5 suggests that the firm is a collection of valuable resources that are processed into profitable products (Wernerfelt 1984, Barney 2001,

Cecchini et al. 2013). This implies that administrative and productive resources of the firm (Hansen et al. 2004, Cecchini et al 2013.) can be harnessed to create value for the firm. The inputs, process, and outputs of the firm as sources of competitive advantage (Barney 2001, Carter and Toms 2010) underpin superior financial performance. Firms that show sustainably poor performance over time must pay higher returns to capital providers to warrant the investment risk-taking (Chen and Metcalf 1980). Also, firms with better than average relative performance may be able to offer competitive market rates due to lower investment risk (Roberts 1992). Other risk factors such as company or management reputation, pending or actual litigation, competitive offerings, and ethical and social responsibility investing preferences can adversely affect firms' economic performance and decisions on returns to capital providers (Donaldson and Preston 1995). Agency theory suggests that managers extract rents from firms for personal advantage (Jensen and Meckling 1976). This agency problem contributes to managerial risk premium that is likely to increase cost of capital and decrease firm value. However, using checks and balances or control mechanism over managerial actions, positivists agency theory suggests managers create and share with shareholders economic profits in the form of higher dividend payouts to stimulate share price and reduce the cost of equity, and debt capital (Blair 1996). On balance, I expect that:

H3a: The relationship between economic performance and cost of capital is negative. This implies that firms with superior (poor) economic performance are likely to be associated with lower (higher) cost of capital.

H3b: The relationship between economic performance and firm value is positive.

III. SAMPLE, DATA AND DESCRIPTIVE STATISTICS

A. Sample Selection and Definition of Variables

Appendix 1 operationalizes the key variables and identifies the sources of data in this study. Financial statement data used to estimate adjusted-Tobin's q, and cost of capital are obtained from Compustat, and Center for Research in Securities Prices (CRSP). CEO pay slice, and E-index data is obtained from ExecuComp database. Data on Worlds' Most Ethical Companies (WMECs) is obtained from www.ethisphere.com. Corporate social responsibility scores are obtained from Kinder, Lydenberg, Domini Research and Analytics, Inc (KLD). Data from different databases are joined into the sample using GvKey, fiscal year, and ticker symbol as primary keys. Initial sample consists of about 5,500 firm years for 500 firms in the S&P 500 index for the period from 2007 to 2017. Ethisphere does not provide WMECs data prior to 2007 starting point of the sample. Table 1 is the reconciliation of original to final sample for firm year observations within S&P 500 for the sample period. Consistent with prior research, firms in the financial and utilities industries are excluded from the sample since those firms have different leverage, and long-term assets requirements that affect their capital structure. Dual share class firms, and firms with negative net sales, negative book or market value of assets, and missing SIC code are also excluded consistent with Giroud and Mueller (2012). Final S&P 500 sample consists of 3,420 firm years for 378 total firms of which 283 firm years (51 firms) are WMECs and 3,137 firm years (327 firms) are non-WMECs[8].

[INCLUDE TABLE 1 HERE]

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[8] Expanding the sample outside the S&P 500 firms to include all firms in our Compustat data over the sample period would increase sample size by 9,745 firm years (1,464 firms) to final total sample of 13,165 firm years (1,842 firms). This paper focuses on the S&P 500 sample though the non-S&P sample in Compustat provides opportunity to perform out of sample tests to enhance external validity of results.

Ethical Corporate Citizenship: Control Match Versus Entropy Balancing Designs

Ethical corporate citizenship (ECC) is measured as a binary variable of 1 for WMECs, and 0 for non-WMECs. WMECs data are downloaded from www.ethisphere.com for each year during the sample period (2000 to 2017), and compared to firms on the S&P 500 index to determine firms that are non-WMECs for each year. Appendix 2 provides anecdotal evidence that firms join Ethisphere's list of WMECs to enhance ethical recognition in the marketplace, manage ethical brand reputation, demonstrate senior leadership support for ethical practices, and obtain ethical quotient score compared to peer companies. Also, appendix 3 shows companies leave WMECs lists partly because of violations of product safety and environmental regulations, workplace discrimination and harassment, allegations of accounting fraud, well publicized litigation, massive layoffs, and significant reductions in sales revenues and net income through intense competition. This provides prima facie evidence that Ethisphere takes diligent steps to screen, and effectively police companies that join, stay or leave the list of WMECs in accordance with their guidelines.

WMECs is the treatment group, and non-WMECs on S&P 500 index are the control group. Hainmueller (2011) notes that data preprocessing procedures including, control match or entropy balance, involve reweighting or simply discarding firm year data to reduce the imbalance in the covariate distributions to decrease the error and model dependency for the subsequent estimation of the treatment effects. As the WMECs and non-WMECs come in different sizes across multiple industries, the firm year data is matched for fair comparison. This study primarily applies control match (Kumar and Sopariwala 1992) to ECC data to derive adequate sample of comparable firm year data. Secondly, where control match does not provide adequate sample size for analysis, this paper applies entropy balancing to WMECs data (Hainmueller 2011). I compare and contrast the control match and entropy balance methods below.

Control match design

The control match method groups firm year data into same 3 digits SIC codes and matches each non-WMEC with comparable WMEC firm year within plus or minus 10 percent of total assets tolerance level (Kumar and Sopariwala 1992). Firm year data of WMECs that have no industry and total asset tolerance match with non-WMECs or vice versa are discarded from the final sample size. As a result, control match design reduces our sample size from 3,420 firm years (283 WMECs, and 3,137 non-WMECs) to 206 firm years (103 WMECs and 103 non-WMECs).

Entropy balance design

Entropy balance design creates a balanced sample for the subsequent estimation of WMECs treatment effects (Hainmueller 2011). This method involves a reweighting scheme that assigns a scalar weight to each firm year data such that the reweighted groups satisfy a set of balance constraints that are imposed on the sample moments of the covariate distributions (Hainmueller 2011). The total assets constraint ensure that the reweighted groups match exactly on the specified firm year moments. The total assets weights that result from entropy balancing is passed to regression model estimate the treatment effect in the reweighted data, though it is necessary to also use industry or firm fixed effects in regressions.

Following Hainmueller (2011), non-WMECs are assigned entropy balanced weights (instead of a value of zero) based on total assets, given WMECs (coded as 1). Entropy balancing reweights the treatment and control groups to satisfy pre-balance conditions (e.g., WMECs total assets firm size) and sample moments (e.g., 10 for each firm year) using Monte Carlo simulations process. Entropy balancing reduces model dependence, improve covariate moments, avoids manual searching for matched control and treatment groups without losing data, and improves

subsequent estimates of treatment effects (Hainmueller 2011). The entropy balance weight (EW) based on total assets is highly significantly correlated (r = .968) with the binary variable of original ECC variable (WMECS = 1, and non-WMECs = 0). Using the entropy balanced weights in regressions, we also include standard controls, firm and year fixed effects in hypotheses testing to minimize heterogeneity and enhance matched sample comparisons. Reported results are based on control match design, except where there is not enough data for analysis in which case entropy balance design data is utilized.

Dependent variables

Firm value is a primary dependent variable in this study. Consistent with prior research, the main proxy for firm value is industry-adjusted Tobin's q of the firm. Weighted average cost of capital (WACC) is the second dependent variable that is measured using the market value weights of the cost of equity plus the cost of debt. Cost of equity is calculated using Fama-French (1993, 1997) and Carhart (1997) four factor model of market risk premia (ExR), style (HML), size (SMB), and momentum (UMD) factor (Barth et al. 2013). After-tax cost of debt is calculated as interest expenses divided by interest-bearing short and long-term debt less the applicable effective tax rate. Prior research measures cost of equity, cost of capital, and weighted average cost of capital as operationalized in this study (Chen and Metcalf 1980). All dependent variables are transformed to meet normal distribution using the independent density function (Templeton 2011).

Independent variables

The primary and alternative measures of CEO power, strategic posture, and economic performance are specified in Appendix 1 below. CEOs power is primarily measured using CEO Pay Slice (CPS), which is the percent of CEOs total compensation of the top 5 executives of the

firm (Bebchuk et al. 2011). Generally, higher CEO pay slice above the 50th percentile indicates higher CEO power and vice versa. An alternative measure of CEO power is E-index of the sum of six antitakeover provisions using a scale of 0 to 6 for when a firm does not use (zero) or uses (1) to indicate the extent of managerial entrenchment (Bebchuk et al 2009). E-index is at the total firm's governance level and not at the individual CEO level. Generally, higher CPS indicates more CEO power and vice versa.

This paper measures strategic posture using a binary variable for ethical corporate citizenship status indicated as one WMECs, and zero otherwise (non-WMECs). WMECs that are selected by Ethisphere based on Ethics Quotient (EQ) score for companies that apply, provide appropriate documentation, and undergo rigorous verification of data using company specific and public data sources. According to Ethisphere (2018), the proprietary EQ score is weighted average measure of the company's commitment to ethics and compliance programs (35%), corporate citizenship and responsibility (20%), culture of ethics (20%), governance (15%), and leadership, innovation and reputation (10%). An alternative measure of strategic posture is the net corporate social responsibility (CSR) score, which is operationalized as the net CSR score computed based on the sum of zero (no) or one (yes) for firms that have community, diversity, employee relations, environment, and product safety (Davidson, Dey and Smith 2018). Net CSR score is the sum of firm's strengths (positive) and weaknesses (negative) in the above-mentioned CSR factors (Davidson, Dey and Smith 2018).

The primary proxy for economic performance is net income. This paper also measures economic performance using alpha, which is a market-based, risk-adjusted excess return of an investment in the firm's stock over comparable benchmark return (Ji et al. 2019). Economic value

added (EVA) is another proxy defined as the excess of net operating profit after taxes over the cost of capital employed (Sharma and Kumar 2010, Ghanbari and More 2007).

Control variables

Rajan and Zingales (1995) identify leverage, profitability, growth opportunities, and asset tangibility as standard controls that affect firm outcomes. Leverage refers to the extent of interest bearing short or long-term debt of the firm in its capital structure. Leverage is calculated as interest-bearing debt scaled by total assets (debt/total assets) or debt scaled by equity (debt/equity ratio). Firm size refers to the relative size in terms of the log of total assets (log of Assets). Larger firm size is often associated with higher market value and vice versa. This relationship is expected to persist over time. Profitability refers to return on assets (ROA) calculated as net income scaled by total assets. Other things being equal, profitability has a positive relationship to market value. Growth opportunities refers to current and future investment opportunities for the firm to invest its resources at competitive rates for reasonable returns. Growth opportunities is often measured as market to book ratio (MTB). Firms with higher growth opportunities are expected to have higher MTB ratios and vice versa. Asset tangibility refers to the proportion of long-term tangible assets such as property, plant and equipment in the asset structure of the firm, and it is calculated as property, plant, and equipment (PPE) divided by total assets. Intangible assets such as R&D or software assets are excluded from asset tangibility ratio. Firms that have higher tangible assets have negative relationship to firm value, other things being equal.

Consistent with prior research, this paper incorporates dummy variables for year, firm or industry fixed effects to minimize heterogeneity in comparisons (Davidson, Dey and Smith 2018). The paper also uses matched sample design based on 3 digits SIC code and firm size proxied by

total assets (Shipman et al. 2017, Wang and Smith 2008, Kumar and Sopariwala 1992) to ensure fair comparison of treatment (WMECs) and control groups (non-WMECs).

Summary Statistics

Table 2 provides descriptive statistics of the variables in this study. The average after-tax cost of debt for WMECs is 5.19% (SD 5.21) and non-WMECs is 4.40% (SD 4.40). The cost of equity based on Fama and French (1993, 1997), and Carhart (1997) four factor model for WMECs is 1.06% (SD 1.4) and non-WMECs is 1.17% (SD 1.16). The weighted average cost of capital for all firms is 2.32% (SD 1.24) of which that of WMECs is 2.36% (SD 1.21) and non-WMECs is 2.31% (SD 1.25). Tobin's q of all firms is 1.64 (SD 1.36) and that of WMECs is 1.78 (SD 1.25) and non-WMECs is 1.62 (SD 1.37). The correlation matrix in Table 3 summarizes the correlation matrix of the key variables in the study.

IV.   METHODOLOGY

WMECs is the treatment group, and non-WMECs on S&P 500 is the control group. This paper matches WMECs with non-WMECs control group firm-year data by using control match design based on 3-digit standard industry classification (SIC), and firm size as measured by total assets. Consistent with prior research, this paper controls for firm size, profitability, tangibility, growth opportunities (i.e., market to book), and leverage in the regression analysis (Rajan and Zingales 1995), as well as, dummy variables for year and firm fixed effects to minimize the effect of heterogeneity in those factors on results. Reported results are based on control match data, except where there is not sufficient data when entropy balance data is utilized for analysis.

Effect of Ethical Corporate Citizenship on Corporate Social Responsibility Net Score

The differences and similarities between ethical corporate citizenship and corporate social responsibility have been discussed prior research (Carroll 1999). This paper argues that ECC is a subset of CSR reflecting firms' commitment to practice of ethical culture, organizational citizenship, leadership, effective governance, leadership and innovation. Accordingly, this study predicts and finds strong positive correlation between ECC and net CSR scores (rho = .23, p<.001). Specifically, WMECs exhibit CSR scores that are higher in strengths (rho = .24, p<.001), lower in weaknesses (rho = .05, p>.05) compared to non-WMECs on S&P 500. Results of paired t-test indicate that WMECs have higher mean net CSR scores than non-WMECs on S&P 500 list [t (1,169) = 6.62, p<.001). Moreover, regression model with net CSR score as the dependent variable, WMEC status as an independent variable, including standard controls, and fixed effects for years, and firm characteristics indicate that the model jointly significantly explain the variance in net CSR scores (p-values <.001). The slope coefficients of WMECs status is positive (beta = 2.52, SE = .06) and significant in the regression models (t = 4.12, p<.001). This means that WMECs status of firms in the S&P 500 provide significant positive explanation for variance in net CSR scores. As a result, this paper provides evidence that firms classified as WMECs are likely to have strengths that outweigh weaknesses in CSR activities than a balanced sample of non-WMECs. In other words, there is a highly significant positive correlations between ethical corporate citizenship and corporate social responsibility. Next, the paper examines differences for firm outcomes of firms classified as WMECs compared to firms that have high net CSR scores to assess alternative explanations for the association.

World's Most Ethical Companies and Companies with High Net CSR Scores

Ten (10) percent subset of S&P 500 firms (3,420 firm years) is randomly taken representing about 342 firm year data of which 106 is available for analysis. For the subset of 106 firm year

86

data, this paper estimates net CSR scores for the 25th (-1), 50th (0), 75th (2), and 99th (10.86) percentiles. High net CSR score (HCSR) include firms with net score greater than zero, representing 45 firm year data of which 5 are WMECs and 40 are non-WMECs. Results of ANOVA of the HCSR subset firms show no significant differences in financial leverage [$F (1, 44) = .04$, p=. 84)], operating cash flows [$F (1, 44) = .36$, p=. 58)], and Tobin's q [$F (1, 44) = 1.80$, p=.19)]. This suggests that the financial leverage, operating cash flows, and Tobin's q do not differ among WMECs and non-WMECs firms that are part of HCSR subset. Accordingly, firms that have high net CSR score have similar leverage, operating cash flows, and market value characteristics as firms that are WMECs. While the evidence suggest WMEC status and CSR are highly related concepts, it does not indicate whether WMECs add more value to the firm than non-WMECs. The next section explores the effect of WMEC status on share price.

Effect on Share Price of Firms Joining or Leaving List of World's Most Ethical Companies

There are 30 WMECs that joined or left the WMECs list compared to about 326 non-WMECs on the S&P 500 index during 2007 to 2017. Firms joined the WMEC list as early as 2007 with most of the firms joining in 2010, and some firms leaving the list in 2019. The average annual share price return of the S&P 500 WMEC firms for the period from 2007 to 2017 is about 7 percent (SD 18.4) compared to a higher price return of non-WMECs of 8.99 percent (SD 17.1), which are not statistically significantly different (p>.05). WMEC firms that joined and stayed on the list from 2007 through 2017 show annual average share price return of about 8.11 percent (SD 22.6) compared to about 6.15 percent (SD 13.5) of those WMEC firms that joined but left the WMEC listing. This analysis suggests S&P 500 firms that join and stay on the WMEC list through 2017 show slightly better stock price return than compared firms that did not stay on the WMEC listing (see Figure 4).

[INCLUDE FIGURE 4 HERE]

This paper performs a fixed effects regression using stock price as the dependent variable, WMECs status, CEO pay slice, and net income as independent variables, along with standard controls, year and firm fixed effects (R-square = .1382, F (10, 2448) = 39.25, p<.001). Results indicate that WMEC status has significant negative coefficient (beta = -13.2, SE = 5.36, t= -2.46, p = .01), which indicates that non-WMECs control firms have significantly lower stock price than comparable WMECs over the sample period. Next, this paper examines differences in industry-adjusted Tobin's q between WMECs and non-WMECs for additional insights.

[INCLUDE FIGURE 5 HERE]

Effect of Firms Joining World's Most Ethical Companies on Firms' Outcomes

This test examines the differences in financial leverage, operating cash flows, dividends, loan spreads, and Tobin's q before and after the WMEC treatment effect. A subset of 813 firm year data consisting of WMECs firms (and excluding non-WMECs) for periods before (coded as 2) and after (coded as 1) joining the WMEC list between 2000 to 2017. ANOVA is performed to examine the difference in financial leverage, loan spreads, operating cash flows, dividend payouts, and industry-adjusted Tobin's q before and after the WMEC treatment. Results show significant differences in means of operating cash flows [F(1, 812) = 367.73, p<.001], and Tobin's q [F(1, 812) = 18.10, p<.001] before and after joining the WMECs. However, there are non-significant WMEC treatment effect on financial leverage [F(1, 812) = 2.06, p = .15], and loans spreads [F(1, 184) = 3.12, p = .08] at the 5 percent p-value level. Also, using the 813 WMEC firm year data subset, regressions are performed using each of financial leverage, loans spreads, dividend payout, and industry-adjusted Tobin's q as dependent variable. The independent variable of interest is the WMEC status coded as a binary variable of 1 (joined WMEC list), or 2 (prior to joining WMEC

list), CEO pay slice, standard controls, year and firm fixed effects. Results show that WMEC status significantly explains the variance in industry-adjusted Tobin's q (t = -3.24, p=.001), operating cash flows (t= -2.76, p = .006). This means the industry-adjusted Tobin's q, and operating cash flows of WMECs before joining the list was significantly lower than after joining the WMEC list, ceteris paribus. Also, WMEC status significantly positively explains the variance in financial leverage (t = 5.21, p<.001) after joining the list, but not for loans spreads (t = -.05, p = .96), or dividend payouts at the 5 percent p-value. This analysis suggests that firms gain value after (compared to before) joining and staying on the list of WMECs.

Why May a Firm Join the List of WMECs? Logistic Regression Analysis

In Appendix 2, Ethisphere (2018) explains that firms join the WMECs list to manage reputation, publicly express senior management support for ethical leadership, obtain feedback on a company's analytical score on the Ethics Quotient, and to obtain related marketplace benefits such as higher stock price returns. Companies that are deficient in ethical reputation, leadership, and innovation, or that have significant legal issues are not likely to be honored as a WMEC (Ethisphere 2018). See Table 9 for results of a logistic regression analysis.

WMEC status is the dependent variable (non-WMECs = 0, WMEC = 1). Independent variables include market to book (growth opportunities), free cash flow, dividend dummy (pay = 1, don't pay = 0), return on assets, capital expenditure/total assets, and research and development/sales, CEO power percentile (i.e., 25th, 50th and 75th percentile of CPS), debt to equity ratio, average debt maturity, and stock market innovation risk, and average alpha. The independent variables are carefully selected to test some of asserted reasons by Ethisphere (2018) including leadership, innovation, and market benefits.

Results of the logistic regression indicate that the overall model is significant (χ^2 = 26.01, df = 12, p = .011), explaining 34.6 percent of the likelihood that a firm is on the WMECs list (e.g., Nagelkerke pseudo-R^2 = .346, for sub-sample of N = 87 firm years consisting of 38 WMECs and 49 non-WMECs). The predicted model is not significantly different from the observed model (Hosmer and Lemeshow model fit index = -2LL = 93.21, χ^2 = 9.30, p = .32). The model correctly predicted WMECs 22 out of 38 WMECs (i.e., 57.9%) and non-WMECs 41 out of 49 (i.e., 83.7%) with an overall correct prediction rate of 72.4% (63 out of 87). Significant predictors of WMECs status include market to book ratio (p=.053), dividend dummy (p=.033), and average alpha (p =.009). Results suggests that unlike non-WMECs, WMECs are likely to have lower market to book ratios (beta = -.15, se = .08, exp (B) = .857), less likely to pay dividends (beta = -4.97, se= 2.32), and likely to have lower alpha (beta = -21.43, se = 8.24). Results also suggests that companies that have higher return on assets (beta = 11.92, se = 6.57, p = .07, exp(B) = 150,615.95) are virtually certain (i.e., 99.9 percent probability) to join the WMECs list. Also, companies that have high average debt maturity (beta = .358, se = .623, p = .57, exp(B) = 1.431) are 58.9 percent likely to join the list of WMECs. Moreover, weak CEOs with CPS of 25th (beta = .557, se = .739, p = .45, exp(B) = 1.746, probability = 63.6%) and 50th percentile (beta = .43, se = .648, p = .51, exp(B) = 1.538, probability = 60.6%) are more likely than not to join the WMECs list.

In summary, results suggest that compared to non-WMECs, firms that join the WMECS are more likely to be led by weak CEOs (CPS below 50th percentile), have higher returns on asset, and lower excess stock price returns. WMECs likely seek to exploit market growth opportunities, and are less likely to pay dividends compared to non-WMECs. This suggests that firms join the WMECs list to manage reputation in the marketplace to improve stock price returns that could increase CEOs pay slice above the 50th percentile.

V. RESULTS

Hypothesis Testing

Stakeholder Power, Firm Value and Cost of Capital

H1a posits that the relationship between CEO power and cost of capital is negative. CEO pay slice (CPS) is the primary proxy for managerial power, and E-index is the alternative proxy. Correlation matrix shows significant negative relationship (r= -.041, p = .037) between CPS and after-tax cost of debt. Similarly, E-index is significantly negatively correlated with after tax cost of debt (r = -.046, p<.05), but positively correlated with cost of equity (r = .046, p<.05). As a result of the opposite effects of CPS on cost of debt and cost of equity, the correlation between CPS and cost of capital is weak and not significant. Next, I specify fixed effects regression with cost of capital as the dependent variable, and CPS, standard control variables, year and firm fixed effects as independent variables.

As reported in Table 4, CPS significantly negatively affects the cost of debt (beta = -4.23, SE = 1.94, t = -2.18, p=.03). CPS has nonsignificant effect on cost of equity (beta = -.38, SE = .25, t = -1.50, p = .13). However, the effect of CPS on weighted average cost of capital is negative and significant in fixed effects regression (beta = -.39, SE = 0.16, t = -2.39, p = .017). This suggests that CEOs utilize their influence to obtain significantly more long-term debt at cheaper spreads to minimize the cost of capital (see Figure 8). As a result, the significant negative effects of CPS on after-tax cost of debt, and cost of capital reflect the favorable influence of CEOs who borrow more cheaper debt rather than expensive equity for the firms consistent with the theory of reputation acquisition in debt markets (Diamond 1989).

In Table 5, if E-index is used as proxy for CEO power instead of CPS, results of fixed effects regression are not significant for cost of debt, cost of capital, but marginally significant for

cost of equity (beta = -6.16, SE = 0.32, t = -1.92, p = 0.0545). The difference in the results for using CPS versus E-index is because CPS is an individual CEO level measure of managerial power, while E-index is a broader firm level measure of anti-takeover practices of the entire management team. As a result, H1a is supported in that CPS significantly negatively explains the variance in cost of capital.

Moreover, H1b states that the relationship between CEO power and firm value is positive. Industry-adjusted Tobin's q is the primary proxy for firm value. The correlation between CPS and Tobin's q is not significant (r = .01), although there is a significant negative correlation between CPS and market value of the firm (r = -.19). This is consistent with the significant negative correlation of E-index with market value (r = -.26). Next, I specify fixed effects regression using Tobin's q (panels A and B in Table 7), and industry-adjusted Tobin's q (panel C in Table 7) as the dependent variables, and CPS, standard controls, and year and firm fixed effects as independent variables. Results indicate that CEO pay slice (beta = -.58, SE = .15, t = -3.99, p<.001) significantly negatively explains the variance in Tobin's q, and industry-adjusted Tobin's q. Alternative variable test using E-index (beta = -.09, SE = .02, t=-4.90, p<.001) as proxy for CEO power in the context of stakeholder theory shows a significant negative relationship with Tobin's q. Results are consistent with the prediction of a negative relationship between CEO power and industry-adjusted Tobin's q in support of H1c, but not in support of H1b that predicted a positive association between CEO power and Tobin's q. Results do not significantly differ between using Tobin's q or industry adjusted Tobin's q as the dependent variable as in prior research by Bebchuk et al. (2011).

A closer look at the results reveal non-linear, approximately V-shaped relationship between CPS and Tobin's q. Figure 6 shows that Tobin's q decreases between CPS of 25th to 50th percentile, and rises sharply thereafter through the 75th percentile of CPS. A possible explanation for the V-

shaped relationship between CEO power and firm value is that of the two-agency theories (Jensen and Meckling 1976, and Blair 1996). First, traditional agency theory predicts self-interested managers with high CPS extract rents and firm values for personal advantage decreasing Tobin's q as CPS increases from 25th to 50th percentile. Second, positivist agency theory predicts managers act as agents of principals and share the wealth with the shareholders. In that view, as CPS increases from 50th to 75th percentile, powerful CEOs pay more dividends to stimulate the share price and Tobin's q of the firm. This suggests that the relationship between CEO power and firm value is not linear. One explanation is that compared to weak CEOs whose pay slice is below the 50th percentile, powerful CEOs whose pay slice is greater than 50th percentile utilize their influence to negotiate cheaper loans spreads, and pay higher dividends that may be reinvested in the firm to further increase its share price. For example, powerful managers are able to use their network connections to save on cost of debt.

The above results that CEO power significantly reduces both cost of capital (that is, cost of debt) and industry-adjusted Tobin's q is counterintuitive and requires further analysis and explanation. This is because savings from cost of debt capital from the favorable influence of a CEO is expected to increase, not decrease, firm value. However, if the extent of the total CEO's compensations exceeds the savings from the cost of debt capital, there is a net decrease in net income and retained earnings that decrease firm value. This is consistent with managerial entrenchment hypothesis under agency theory (Jensen and Meckling 1976) that CEO pay slice reflect efficient contracting on compensation rather than managerial power (Bugeja, Matolcsy, and Spiropoulos 2017).

[INCLUDE FIGURE 6 HERE]

93

Strategic Posture, Firm Value and Cost of Capital

A firm's strategic posture is primarily operationalized using a binary variable of one if the firm appears on the list of World's Most Ethical Companies (WMECs), and zero otherwise (non-WMECs). An alternative proxy for strategic posture is the net score on corporate social responsibility (net CSR score). Firm year data of WMECs treatment firms is matched with non-WMECs using control match design explained below.

Matched Control Sample Analysis

WMECs are matched with a control sample of non-WMECs based on 3-digit SIC code and firm size as measured by total assets of S&P 500 firm year data. For each firm year of WMEC in a 3-digit SIC code, this paper finds matches of non-WMECs control firm year in the same 3-digit SIC code. The difference between the total assets of each firm of WMEC and that of the non-WMECs are concurrently calculated and expressed in absolute values. Non-WMECs firm year data that is within 10 percent absolute value of the total assets of the WMEC are matched for further analysis. This process is concurrently repeated to match each non-WMEC control firm years with a similar WMEC treatment firm. WMECs that do not have matched control non-WMECs firm year data or vice versa are excluded from this analysis. A similar process is conducted for WMECs and non-WMECs within 2-digit SIC code.

Firm year data in 3-digit SIC total 1,555 consisting of 261 WMECs and 1,294 non-WMECs. One hundred and three firm years of WMECs are matched with control sample of 103 non-WMECs for which total assets are within 10 percent absolute. The remaining WMECs and non-WMECs firm year data in the 3 digits SIC code are outside the 10 percent absolute value of total assets. As expected, the difference in the mean total assets of the WMECs and non-WMECs matched control sample are not significantly different (p=.34).

Results of ANOVA for WMECs matched with non-WMECs control sample do not show significant differences in cost of equity (p=.51), cost of debt (p=.33) or weighted average cost of capital (p=.69). Also, loan spreads do not differ significantly between WMECs and matched control sample of non-WMECs (p=.11). Table 4 column 2 is the result of fixed effects regression analysis using the matched control data. Regression results indicating that WMECs do not significantly explain the variance in cost of debt, cost of equity, or weighted average cost of capital. Results do not support H2a.

Test of H2b finds that Tobin's q for WMECs (Mean 1.71) matched with non-WMEC control sample (Mean 1.76) are not significantly different (p=.73). Similarly, the market values of WMECs and matched control sample of non-WMECs are not significantly different (p=.30). Table 6 column 3 reports the fixed effects regression results of WMECs with matched control sample of non-WMECs, which shows nonsignificant difference in the Tobin's q of the two groups. However, for the unmatched sample of WMECs and non-WMECS above the 10 percent of total assets tolerance level, there are significant differences in Tobin's q (p = .04) and market value (p<.001). This suggests that the significant results in fixed effects regression is largely driven by firm year data that do not satisfy the control match criteria. Results do not change if firms in 2 rather than 3-digits SIC code are used for comparisons. Accordingly, H2b is not supported using firm year data from control match design.

Entropy Matching Analysis

Hainmueller (2011) provides an alternative method for assigning weights to the control group (i.e., non-WMECs) using entropy balancing to the treatment group (i.e., WMECs). The purpose of entropy reweighting of control variables is to create a balanced sample by assigning weights to the control group based on pre-specified moments and criterion (Hainmueller and Xu

2013). This paper specifies 10 moments, and uses total assets criterion as proxy for firm size in entropy balancing. The result of implementing the entropy balancing procedure matched each firm year data of the non-WMECs control group with WMECs on the basis of entropy re-weightings, starting with WMECs (283 firm years) coded as 1, and non-WMECs coded as 0 (3,137 firm years).

An examination of the entropy weights reveals firm year data of non-WMECs (N=3,137 firm years) control groups have weights ranging from 0.08 to 1.60 (Mean = 0.10, SD =0.07). WMECs (N=283 firm years) are continue to be coded as 1, and sample size for WMECS and non-WMECs do not change. The correlation between the entropy weights (EW) based on total assets and the WMECs status indicator variable (that is ECC or WMECs = 1, non-WMECs = 0) is 0.97.

To test stakeholder theory (Ullmann 1985), this paper performs separate fixed effects regression using each of industry-adjusted Tobin's q or cost of capital (that is, cost of debt, cost of equity, or weighted average cost of capital) as dependent variable, and entropy weights (instead of WMEC status indicator variable), CEO pay slice, and net income as independent variables. Also, this paper includes standard controls (return on assets, log of Total Assets, market to book, asset tangibility, and leverage), as well as, dummy variables for year, and firm fixed effects.

Column 1 in Tables 4, 5, and 6 report the results of fixed effects regression using EW. Results indicate that EW does not significantly explain the variance in cost of debt, loan spreads, cost of equity, or weighted average cost of capital. This is consistent with results from the control match design method. As a result, this paper does not support H2a that WMECs have lower cost of capital than non-WMECs.

Unlike results from control match design, EW significantly explains the variance in industry-adjusted Tobin's q (t=5.46, p<.001). Regarding Tobin's q, the mixed results from using

control match design, and fixed effects regression based on balanced entropy weights can be explained. Whereas the control match design finds Tobin's q does not significantly differ between WMECs treatment and non-WMEC control groups, results of fixed effects regressions entropy balance total asset weights for non-WMECs indicate the opposite (see Table 6). The difference in the results is largely driven by the differences in the sample size used in the analysis. For the final sample of 3,420 firm year data (WMECs = 283, and non-WMECs = 3,137), the control match design using +/- 10 percent of total assets firm size criterion utilizes sub-sample 206 firm year data (WMECS = 103, non-WMECs = 103) for further analysis. On the other hand, the entropy balanced weighted control sample use the full final sample in the analysis. The sample size for each of the methods assuming a large effect size (ES = .08) at an alpha of 5 percent have sufficient statistical power of over 80 percent to make statistical inferences. Accordingly, it comes down to a qualitative judgment on whether non-WMECs outside a 3-digit SIC code with a balanced total asset weight using entropy technique is comparable with WMECs in a particular SIC code. The intuitive appeal of the control match design is to compare firms within the same 3 digits SIC code of similar size of total assets. As a result, reported results are primarily based on control match data unless there is not adequate data in which case, we utilize entropy balance data.

[INCLUDE FIGURES 8 HERE]

Economic Performance, Cost of Capital, and Firm Value

H3a states that the relationship between economic performance and cost of capital is negative. Correlation coefficient between net income and cost of debt is positive and significant, as is the case for net income and weighted average cost of capital. Similarly, alpha has positive and significant correlation with cost of debt. However, the correlation between alpha and cost of

equity is significant and negative, while that of net income with cost of equity is negative and nonsignificant.

The fixed effects regression specifies cost of debt, cost of equity, or cost of capital as different dependent variables, net income or alpha, standard controls, and year and firm fixed effects as independent variables. Tables 4, and 5 respectively indicate that net income (beta = .00, SE = .00, t = 2.81, p=.005), and alpha (beta = 2.05, SE = 2.87, t = 7.15, p = .005) each significantly positively explain the variance in cost of debt, but not the cost of equity or weighted average cost of capital. However, alpha (beta = 1.19, SE = 3.40, t = 3.49, p<.001), but not net income, significantly positively predict variance in cost of equity. H3a is not supported.

H3b states that the relationship between economic performance and firm value is positive. Correlation between net income and Tobin's q is positive and significant (r= .052, p<.001). Alpha has significant positive correlation with Tobin's q (r = .342, p<.001). In fixed effects regression using industry-adjusted Tobin's q as dependent variable, and net income along with standard controls, year and firm fixed effects as independent variable, results show that net income (t = 8.80, p<.001) significantly explain the variance in Tobin's q. Results do not change if alpha (t=18.58, p<.001) is used in the fixed effects regression instead of net income. As a result, H3b is supported in that net income positively affects industry-adjusted Tobin's q (see Tables 4 and 5).

Analysis of Loan Spread Data

In additional test of predictions about cost of debt, I obtain data on actual loans, debt maturity, and spreads on 44,399 firm years for 9,606 firms from Deal scan database from 1989-2011. Given the sample period of 2007 to 2017, firm year data of 26,176 is outside the sample period, and 15,270 firm year data is missing spread information and are excluded from the sample.

This paper analyzes the available 2,953 firm year data from 2000 to 2011. The average loan amount between 2000 and 2011 is about $467.6 million with spread of 214 basis points over the London Interbank Offered Rate (LIBOR). Figure 9 below shows that the normalized spread is increasing for short to medium term debt, but declining for long-term debt. As shown in figure 9, CEO pay slice quartiles is negatively related to loans spreads as weak CEOs (below or at 25th percentile of CPS) have significantly higher spreads of173.45 bps compared to powerful CEOs (above 75th percentile of CPS) 153.36 bps.

[INCLUDE FIGURES 9 HERE]

Loan spreads of the World's Most Ethical Companies in the S&P 500 index (Mean = 126.39 bps, SD = 78.17, N = 37, F (1, 440) = 5.10, p = .024) are significantly lower than uncontrolled sample of non-WMEC (Mean = 167.07 bps, SD = 106.97, N = 404). Additional analysis suggests loan spreads differ for WMECs and non-WMECs outside of the 10 percent of total assets level, but not for firms within the controlled sub-sample.

Results of regression using loan spread as the dependent variable, and entropy balanced sample total assets weights of World's Most Ethical Companies, CEO pay slice, and net income, as well as, standard controls, and year and firm fixed effects indicate that the model is significant [F(10, 232) = 9.34, p<.001), and it explains about 28.7 percent of the variance in the loan spreads. CEO pay slice negatively affects loan spreads (t = -.52, p = .60). World's Most Ethical Companies do not significantly (t = -1.62, p = .11) explain difference in loan spreads. Net income (t = -2.26, p = .02) significantly explains the variance in loan spreads. Also, WMECs do not have significantly lower loan spreads than non-WMECs in control match design analysis (t = -.49, p=.65). This suggests that net income rather than WMECs status is a significant factor that influences loan spreads. Table 8 summarizes results of this study.

VI. CONCLUSION

This paper examines the impact of ethical corporate citizenship, and CEO power on firm value and cost of capital in the context of stakeholder theory (Ullmann 1985). Results show that CEO power is significantly negatively associated with cost of capital, and industry-adjusted Tobin's q. This is consistent with prior research that powerful CEOs utilize their influence to negotiate better terms of cost of capital for firms, but they extract economic rents for their personal advantage (Bebchuk et al. 2011, El Ghoul et al. 2011, Shleifer and Vishny 1989). However, ethical corporate citizenship (that is, World's Most Ethical Companies) have neither lower cost of capital nor higher firm value than comparable control firms of non-WMECs. This is not consistent with prior research that corporate social responsibility that decreases cost of equity (Dhaliwal et al. 2011, El Ghoul et al. 2011). The differences in results on cost of capital between prior research and this paper can be explained by differences in construct measurement, and research design. Dhaliwal et al. (2011) use firms' disclosure of information on corporate social responsibility, while this paper uses ethical corporate citizenship of World's Most Ethical Companies, as well as, net score of corporate social responsibility. This paper also primarily uses the control match design (Kumar and Sopariwala 1992) to ensure fair comparison of WMECs and non-WMECs.

In the context of stakeholder theory, results also show that economic performance is positively associated with Tobin's q or industry adjusted Tobin's q. If an entropy balance rather than control match design is utilized in this study, WMECs have significantly higher Tobin's q than a balanced sample of non-WMECs (F (10, 2448) = 178.8, t =5.10, p<.001, adjusted R^2 = .4197). Result on firm value is consistent with prior research that investments in ethical corporate citizenship enhances firm value (Borghesi et al. 2019, Li et al. 2016, Matsumura et al. 2014), but inconsistent with the findings that corporate ethics expenses are detrimental to firm value (Carroll 1999, Moser and Martin 2012). However, this significant effect does not exist if WMECs are

matched with control sample of non-WMECs within the same 3-digit SIC code assuming a10 percent of total assets tolerance level (F (10, 164) = 55.19, t =.32, p=.75, adjusted R^2 = .7569). Mixed results are largely driven by WMECs and non-WMECs that are outside the 10 percent of total assets tolerance level excluded from the control match design analysis. In fact, the differences in Tobin's q is significant for the control match method if greater than 10 percent of total assets is analyzed. The balanced total assets weights assigned to the non-WMECs in the entropy matching to the WMECs optimizes the use of firm year data across multiple industries. However, the control match design using firm year data in 3-digit SIC and 10 percent of total assets band excludes firm year data that do not match these criteria.

Although results show that CEO power decreases Tobin's q or industry-adjusted Tobin's q, additional analysis reveals a non-monotonic relationship between CEO power and firm value consistent with prior research by Bebchuck et al. 2011, Chintrakarn et al. 2014. Specifically, as CEOs pay slice increase from the 25th to 50th percentile firm value declines, and it increases thereafter as CEOs pay slice rises to the 75th percentile (see Figure 6). The decreasing firm value, in spite of the cost savings from using cheaper cost of debt capital rather than equity, is consistent with agency theory that self-interested, and risk averse managers extract more value in total compensation from the firm to satisfy their pecuniary interests (Shleifer and Vishny 1989). However, the rising firm value is consistent with positivist agency theory (Blair 1996) that powerful managers share firms' wealth with shareholders by paying higher dividends to stockholders.

In the context of stakeholder theory, this paper provides evidence that CEO power, and economic performance of the firm rather than ethical corporate citizenship significantly reduces cost of capital of the firm. CEO power decreases, and economic performance increase industry-

adjusted Tobin's q. This paper empirically establishes a strong positive correlation between net corporate social responsibility score and ethical corporate citizenship. For example, WMECs and firms that have high net CSR scores have similar firm value and financial leverage, though WMECs have higher dividend payouts than firms with high net CSR scores. Also, this paper provides external evidence that S&P 500 firms that join and stay on the WMEC list through 2017 show better stock price return than firms that did not stay on the list. This suggests that WMECs list, which is freely available online to researchers, is a nomologically valid measure of the corporate social responsibility. Finally, this paper provides anecdotal evidence on CEO personal characteristic index (CPCI) as an alternative proxy for CEO pay slice (see Appendix 3).

Results have implications for research and practice in corporate social responsibility, corporate governance and capital structure. The tone at the top matters for the effectiveness of internal control environment, and ethical climate of organizations. The interaction of ethical corporate citizenship and CEO power on firms' outcome would be quite interesting to study. Although this paper did not find that WMECs have significant advantages in cost of capital, or Tobin's q over non-WMECs in a control match design, WMECs matter in a larger sample given commitment to ethical culture, effective governance, innovation, and leadership. Firms should continue the broader practice of corporate social responsibility to bolster additional benefits in firm value found in the entropy balanced sample design. Simply, it pays to be good ethical corporate citizen in the long-term. Companies that incorporate business ethics in operating, investing and financing decisions on a sustainable basis add greater value to the firm. It makes economic sense to practice the principles of ethical corporate citizenship by committing to practicing a culture of ethics, corporate citizenship and responsibility, effective governance, leadership, innovation, and reputation management. Therefore, CEOs who commit to the continuous practice of ethical

102

corporate citizenship initiatives make an investment into the future potential value of the firms. Practicing business ethics can mitigate operational, financial and reputation risks that could plague businesses that are not committed to ethics.

In conclusion, stakeholder theory provides an explanation for variations in cost of capital, and firm value through the effects of CEO power, ethical corporate citizenship, and economic performance. Specifically, economic performance and ethical corporate citizenship can increase firm value, while CEO power reduces it. Also, CEOs utilize their influence to reduce cost of capital, especially, for firms with superior economic performance that should command lower cost of debt. Further research should investigate the interaction effects of ethical citizenship and CEO power on firm outcomes using resource-based theory and Bayesian framework (Hansen et al. 2004, Cecchini et al. 2013). CEO pay slice and compensation disclosures signal information to stakeholders about the firms' efficient contracting with the CEO relative to peers, and other senior executives. Given that CEO pay slice can be affected by flat or hierarchical organizational structures and pay rates, further research should look into disclosures on CEO pay relative to median employee. Further research should evaluate the personal characteristics, excluding CEO compensation, that contribute to CEOs power to provide additional insights to researchers and practitioners. Further research should also investigate whether funds from borrowings are used to pay additional compensation of powerful CEOs. Although Ethisphere does not currently publish the rejection rate, anecdotal evidence reveal that Ethisphere continuously monitors its list of World's Most Ethical Companies. Research shows that firms that leave Ethisphere's list typically experience reduced revenues, litigation, and violations of state and federal environmental, product safety, or employee discrimination laws. Using such publicly available information, it would be interesting to develop a free ethics score for firms considering their strengths and opportunities.

REFERENCES

Areal, N. 2010. The World's Most Ethical Companies: does the fame translate into gain? *Management*, 8700, 2007-2008.

Areal, N., Carvalho, A. 2012. The financial performance of the World's Most Ethical Companies: advantage in times of crisis. Available at *SSRN* 2186088.

Barnett, M.L., 2007. Stakeholder influence capacity and the variability of financial returns to corporate social responsibility. *Academy of Management Review*, 32(3), pp.794-816.

Barth, M.E., Konchitchki, Y. and Landsman, W.R., 2013. Cost of capital and earnings transparency. *Journal of Accounting and Economics*, 55(2-3), pp.206-224.

Bebchuk, L.A., Cremers, K.M. and Peyer, U.C., 2011. The CEO pay slice. *Journal of financial Economics*, 102(1), pp.199-221.

Bebchuk, L., Cohen, A. and Ferrell, A., 2009. What Matters in Corporate Governance?, *Rev. Fin. Stud*, 783, p.823.

Berger, P.G., Ofek, E. and Yermack, D.L., 1997. Managerial entrenchment and capital structure decisions. *The Journal of Finance*, 52(4), pp.1411-1438.

Blazovich, J.L., Cook, K.A. and Smith, M., 2014. Do ethical firms bridge the gender gap in CEO compensation?. *Journal of Accounting, Ethics and Public Policy*, 15(2).

Blazovich, J. L., & Murphy Smith, L. 2011. Ethical corporate citizenship: Does it pay?. In Research on professional responsibility and ethics in accounting (pp. 127-163). *Emerald Group Publishing Limited*.

Blair, M.M., 1996. Ownership and control: Rethinking corporate governance for the twenty-first century. *Long Range Planning*, 29(3), pp.432-432.

Borghesi, R., Chang, K. and Li, Y., 2019. Firm value in commonly uncertain times: the divergent effects of corporate governance and CSR. *Applied Economics*, 51(43), pp.4726-4741.

Bowman, C. and Toms, S., 2010. Accounting for competitive advantage: The resource-based view of the firm and the labor theory of value. *Critical Perspectives on Accounting*, 21(3), pp.183-194.

Byoun, S. 2011. Financial flexibility and capital structure decision. Available at *SSRN* 1108850.

Bugeja, M., Matolcsy, Z. and Spiropoulos, H., 2017. The CEO pay slice: Managerial power or efficient contracting? Some indirect evidence. *Journal of Contemporary Accounting & Economics*, 13(1), pp.69-87.

Carhart, M.M., 1997. On persistence in mutual fund performance. *The Journal of finance*, 52(1), pp.57-82.

Carroll, A. B. 2016. Carroll's pyramid of CSR: taking another look. *International Journal of Corporate Social Responsibility*, 1(1), 3.

Carroll, A.B., 1999. Corporate social responsibility: Evolution of a definitional construct. *Business & society*, 38(3), pp.268-295.

Carroll, A.B., 1979. A three-dimensional conceptual model of corporate performance. *Academy of management review*, 4(4), pp.497-505.

Carter, C. and Toms, S., 2010. Value, profit and risk: accounting and the resource-based view of the firm. *Accounting, Auditing & Accountability Journal*.

Cecchini, M., Leitch, R. and Strobel, C., 2013. Multinational transfer pricing: A transaction cost and resource-based view. *Journal of Accounting Literature*, 31(1), pp.31-48.

Chatterjee, A. and Hambrick, D.C., 2007. It's all about me: Narcissistic chief executive officers and their effects on company strategy and performance. *Administrative, science quarterly*, 52(3), pp.351-386.

Chintrakarn, P., Chatjuthamard, P., Tong, S. and Jiraporn, P., 2018. How do powerful CEOs view dividends and stock repurchases? Evidence from the CEO pay slice (CPS). *International Review of Economics & Finance*, 58, pp.49-64.

Chintrakarn, P., Jiraporn, P. and Tong, S., 2015. How do powerful CEOs view corporate risk-taking? Evidence from the CEO pay slice (CPS). *Applied Economics Letters*, 22(2), pp.104-109.

Chintrakarn, P., Jiraporn, P. and Singh, M., 2014. Powerful CEOs and capital structure decisions: evidence from the CEO pay slice (CPS). *Applied Economics Letters*, 21(8), pp.564-568.

Chen, M. L., & Lin, C. P. 2014. Modelling perceived corporate citizenship and psychological contracts: A mediating mechanism of perceived job efficacy. European Journal of Work and Organizational Psychology, 23(2), 231-247.

Chen, K.H. and Metcalf, R.W., 1980. The relationship between pollution control record and financial indicators revisited. *The Accounting Review*, 55(1), pp.168-177.

Cho, S.J., Chung, C.Y. and Young, J., 2019. Study on the Relationship between CSR and Financial Performance. *Sustainability*, 11(2), p.343.

Cochran, P.L. and Wood, R.A., 1984. Corporate social responsibility and financial performance. *Academy of Management Journal*, 27(1), pp.42-56.

Cremers, K.M. and Nair, V.B., 2005. Governance mechanisms and equity prices. *The Journal of Finance*, 60(6), pp.2859-2894.

Davidson, R. H., Dey, A., & Smith, A. J. 2018. CEO materialism and corporate social responsibility. *The Accounting Review.*

Dahlsrud, A. 2008. How corporate social responsibility is defined: an analysis of 37 definitions. *Corporate social responsibility and environmental management,* 15(1), 1-13.

Desai, H., Hogan, C.E. and Wilkins, M.S., 2006. The reputational penalty for aggressive accounting: Earnings restatements and management turnover. *The Accounting Review*, 81(1), pp.83-112.

Diamond, D.W., 1989. Reputation acquisition in debt markets. *Journal of political Economy*, 97(4), pp.828-862.

Donaldson, T., & Preston, L. E. (1995). The stakeholder theory of the corporation: Concepts, evidence, and implications. *Academy of management Review*, 20(1), 65-91.

Dhaliwal, D. S., Li, O. Z., Tsang, A., & Yang, Y. G. 2011. Voluntary nonfinancial disclosure and the cost of equity capital: The initiation of corporate social responsibility reporting. *The Accounting Review*, 86(1), 59-100.

Eisenhardt, K.M., 1989. Agency theory: An assessment and review. *Academy of management review*, 14(1), pp.57-74.

Elliott, W.B., Jackson, K.E., Peecher, M.E. and White, B.J., 2014. The unintended effect of corporate social responsibility performance on investors' estimates of fundamental value. *The Accounting Review*, 89(1), pp.275-302.

Ethisphere 2018. The World's Most Ethical Companies. Available *online at: https://ethisphere.com/*

Fafatas, S. and Hoover, S., 2012. Ethical Reputations and Earnings Quality: Recent Evidence from the'100 Best' Corporate Citizens. *Journal of Accounting, Ethics & Public Policy*, 13(1).

Fama, E. F., & French, K. R. 1997. Industry costs of equity. *Journal of Financial Economics*, 43(2), 153-193.

Fama, E. F., & French, K. R. 1993. Common risk factors in the returns on stocks and bonds. *Journal of Financial Economics*, 33(1), 3-56.

Fama, E.F. and Jensen, M.C., 1983. Separation of ownership and control. *The journal of law and Economics*, 26(2), pp.301-325.

Fan, J.P. and Wong, T.J., 2005. Do external auditors perform a corporate governance role in emerging markets? Evidence from East Asia. *Journal of accounting research*, 43(1), pp.35-72.

Feltham, G. A., & Ohlson, J. A. 1995. Valuation and clean surplus accounting for operating and financial activities. *Contemporary Accounting Research*, 11(2), 689-731.

Freedman, M., & Jaggi, B. 1988. An analysis of the association between pollution disclosure and economic performance. *Accounting, Auditing & Accountability Journal*, 1(2), 43-58.

Freeman, R. E., Wicks, A. C., & Parmar, B. 2004. Stakeholder theory and "the corporate objective revisited". *Organization science*, 15(3), 364-369.

Freeman, R. E. 1999. Divergent stakeholder theory. *Academy of Management Review*, 24(2), 233-236.

El Ghoul, S., Guedhami, O., Kwok, C. C., & Mishra, D. R. 2011. Does corporate social responsibility affect the cost of capital?. *Journal of Banking & Finance*, 35(9), 2388-2406.

Gerstein, M., Hertz, S. and Friedman, H.H., 2016. What Kind of Leaders are Needed for Today's Accounting Firms?. *Journal of Accounting and Finance*, *16*(5).

Ghanbari, A.M. and More, V.S., 2007. The relationship between economic value added and market value added: An empirical analysis in Indian automobile industry. The IUP *Journal of Accounting Research and Audit Practices*, 6(3), pp.7-22.

Giroud, X. and Mueller, H.M., 2011. Corporate governance, product market competition, and equity prices. *The Journal of Finance*, 66(2), pp.563-600.

Gold, A., Gronewold, U., & Salterio, S. 2014. Error Management in Audit Firms: Error Climate, Type, and Originator. The Accounting Review, 89(1), 303-330.

Gompers, P., Ishii, J. and Metrick, A., 2003. Corporate governance and equity prices. *The Quarterly Journal of Economics*, 118(1), pp.107-156.

Goss, A., & Roberts, G. S. 2011. The impact of corporate social responsibility on the cost of bank loans. *Journal of Banking & Finance*, 35(7), 1794-1810.

Hainmueller, J. and Xu, Y., 2013. Ebalance: A Stata package for entropy balancing. *Journal of Statistical Software*, 54(7).

Hainmueller, J. (2011). Entropy Balancing for Causal Effects: A Multivariate Reweighting Method to Produce Balanced Samples in Observational Studies. *Political Analysis*, 20, 25- 46.

Harrison, J. S., & Wicks, A. C. 2013. Stakeholder theory, value, and firm performance. *Business Ethics Quarterly*, 23(1), 97-124.

Hansen, M.H., Perry, L.T. and Reese, C.S., 2004. A Bayesian operationalization of the resource-based view. *Strategic Management Journal*, *25*(13), pp.1279-1295.

Hoffman, L. and Michaels, D. 2020. Goldman Pays Billions—And Takes Millions From Top Execs—To End 1MDB Scandal. *The Wall Street Journal.*

Ingram, R.W. and Frazier, K.B., 1980. Environmental performance and corporate disclosure. *Journal of Accounting Research*, pp.614-622.

Jensen, M. C. 2001. Value maximization, stakeholder theory, and the corporate objective function. *Journal of Applied Corporate Finance*, 14(3), 8-21.

Jensen, M.C. and Meckling, W., 1976. Theory of the firm: managerial behavior, agency costs and ownership structure: Journal of Finance Economics, 3.

Kim, Y., Park, M.S. and Wier, B., 2012. Is earnings quality associated with corporate social responsibility?. *The accounting review*, 87(3), pp.761-796.

Kumar, R. and Sopariwala, P.R., 1992. The effect of adoption of long-term performance plans on stock prices and accounting numbers. *Journal of Financial and Quantitative Analysis*, 27(4), pp.561-573.

Larcker, D.F., Richardson, S.A. and Tuna, I.R., 2007. Corporate governance, accounting outcomes, and organizational performance. *The accounting review*, 82(4), pp.963-1008.

Lee, S., Matsunaga, S.R. and Park, C.W., 2012. Management forecast accuracy and CEO turnover. *The Accounting Review*, 87(6), pp.2095-2122.

Lougee, B. and Wallace, J., 2008. The corporate social responsibility (CSR) trend. *Journal of Applied Corporate Finance*, 20(1), pp.96-108.

Li, F., Li, T. and Minor, D., 2016. CEO power, corporate social responsibility, and firm value: A test of agency theory. International Journal of Managerial Finance.

Li, Z., Minor, D.B., Wang, J. and Yu, C., 2019. A learning curve of the market: Chasing alpha of socially responsible firms. *Journal of Economic Dynamics and Control*, 109, p.103772.

Liu, M. and Wysocki, P., 2017. Cross-sectional determinants of information quality proxies and cost of capital measures. *Quarterly Journal of Finance*, 7(02), p.1650016.

Orlitzky, M., Schmidt, F.L. and Rynes, S.L., 2003. Corporate social and financial performance: A meta-analysis. *Organization studies*, 24(3), pp.403-441.

Matsumura, E.M., Prakash, R. and Vera-Muñoz, S.C., 2014. Firm-value effects of carbon emissions and carbon disclosures. *The Accounting Review*, 89(2), pp.695-724.

McGuire, S.T., Wang, D. and Wilson, R.J., 2014. Dual class ownership and tax avoidance. *The Accounting Review*, 89(4), pp.1487-1516.

Mitchell, R.K., Agle, B.R. and Wood, D.J., 1997. Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts. *Academy of Management Review*, 22(4), pp.853-886.

Moser, D.V. and Martin, P.R., 2012. A broader perspective on corporate social responsibility research in accounting. *The accounting review*, 87(3), pp.797-806.

Myers, S.C. and Majluf, N.S., 1984. Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13(2), pp.187-221.

Myers, S.C., 1977. Determinants of corporate borrowing. *Journal of financial economics*, 5(2), pp.147-175.

Porter, M.E. and Kramer, M.R., 2006. The link between competitive advantage and corporate social responsibility. *Harvard business review*, 84(12), pp.78-92.

Preston, L. E., & O'bannon, D. P. 1997. The corporate social-financial performance relationship: A typology and analysis. *Business & Society*, 36(4), 419-429.

Rajan, R.G. and Zingales, L., 1995. What do we know about capital structure? Some evidence from international data. *The Journal of Finance*, 50(5), pp.1421-1460.

Roberts, R.W., 1998. A stakeholder approach to the corporate single audit. *Critical Perspectives on Accounting*, 9(2), pp.227-232.

Roberts, R. W. 1992. Determinants of corporate social responsibility disclosure: An application of stakeholder theory. *Accounting, Organizations and Society*, 17(6), 595-612

Ullmann, A.A., 1985. Data in search of a theory: A critical examination of the relationships among social performance, social disclosure, and economic performance of US firms. *Academy of Management Review*, 10(3), pp.540-557.

Sharma, A.K. and Kumar, S., 2010. Economic value added (EVA)-literature review and relevant issues. *International journal of economics and finance*, 2(2), pp.200-220.

Shipman, J.E., Swanquist, Q.T. and Whited, R.L., 2017. Propensity score matching in accounting research. *The Accounting Review*, 92(1), pp.213-244.

Shleifer, A. and Vishny, R.W., 1989. Management entrenchment: The case of manager-specific investments. *Journal of Financial Economics*, 25(1), pp.123-139.

Smith, K.T., Smith, M. and Wang, K., 2010. Does brand management of corporate reputation translate into higher market value?. *Journal of Strategic Marketing*, 18(3), pp.201-221.

Trotman, K.T. and Bradley, G.W., 1981. Associations between social responsibility disclosure and characteristics of companies. *Accounting, organizations and society*, 6(4), pp.355-362.

Templeton, G.F., 2011. A two-step approach for transforming continuous variables to normal: implications and recommendations for IS research. *Communications of the Association for Information Systems*, 28(1), p.4.

Wang, Y.J., Tsai, Y.H. and Lin, C.P., 2013. Modeling the relationship between perceived corporate citizenship and organizational commitment considering organizational trust as a moderator. *Business Ethics: A European Review*, 22(2), pp.218-233.

Weisbach, M.S., 1988. Outside directors and CEO turnover. *Journal of financial Economics*, 20, pp.431-460.

Wernerfelt, B., 1984. A resource-based view of the firm. *Strategic management journal*, 5(2), pp.171-180.

Winter, S. G. 2000. The satisficing principle in capability learning. *Strategic Management Journal*, 981-996.

APPENDIX 1

Definition of Variables

Variable (beta sign)	Definition	Source
Tobin's q (n.a)	Tobin's q is the proxy for firm value, a dependent variable in stakeholder theory. Tobin's q = Market value of firm/Assets replacement costs (Bebchuk et al. 2011). Industry-adjusted (IA) Tobin's q deducts the median 3 digits SIC Tobin's q from a firm's Tobin's q.	Compustat
CSTEQTY [Ke] (n.a)	Cost of equity (Ke). Cost of equity = risk-free rate + Beta (market return-risk-free rate) + +STYLE+SIZE+MOMENTUM Fama-French (1993, 1995), Carhart (1997) Ke is used to calculate WACC.	Compustat
CSTDEBT (n.a)	After-tax cost of debt (Kd). Cost of debt = interest expense *(1-tax rate) Tax rate = effective tax rate for the year After tax Kd is used to calculate WACC.	Compustat
Weighted average cost of capital [WACC] (n.a)	Weighted average cost of capital (WACC) is a dependent variable. WACC = market value weighted cost of equity (ke) and after-tax cost of debt (Kd). WACC = w1.Ke + w2. Kd after tax. w1 = market value of common equity/total market value of debt and equity w2 = market value of total debt/total market values of debt and equity.	Compustat
CEO Power (CEOPWR)		
CEO Pay Slice (-)	CEO pay slice is proxy for CEO Power (CEOPWR). CEO pay slice is the CEO total compensation as a percent of the top 5 highly compensated executives of the firm (Bebchuk et al. 2011). CEO pay slice above (below) 50th percentile is powerful (weak) CEO power.	ExecuComp
E-index (-)	E-index is the sum of 0 (no) or 1 (yes) if a firm's management uses any of the six provisions of staggered boards, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for mergers and charter amendments (Bebchuk et al. 2009). E-index ranges from 0 (low managerial power) to 6 (high managerial power).	Compustat
Strategic Posture (STRATPOST)		
ECC or WMEC status (+)	World's Most Ethical Company listing is proxy for ethical corporate citizenship (ECC). WMEC = one for S&P 500 firms listed on World's Most Ethical Companies, and zero otherwise. Non-WMECs control firms in the same 3 digits SIC code and within 10% of total assets are matched with WMECs.	Ethisphere.com
Net CSR Score (+)	Net score (strengths less weaknesses) is the sum of -1 (weakness or no) or 1 (strength or yes) for a firm that practices corporate social responsibility activities in the context of Community, Diversity, Employee, Environment, and Product CSR groups.	KLD database
Economic Performance (ECONPERF)		
Net Income (+/-)	Net income revenues less expenses and taxes as reported in Compustat.	Compustat

Variable (beta sign)	Definition	Source
Alpha (+/-)	Alpha is the average annual excess return of the company's stock in excess of a benchmark.	Compustat Beta Files
EVA (+/-)	Economic value added is net operating profit after taxes less cost of capital employed. EVA is calculated as: EVA = NOPAT – (TCE x WACC)	Compustat
CONTROLS	CONTROLS are based on factors identified in Rajan and Zingales (1995): Size = Log of Total Assets Growth opportunities = Market to book ratio Profitability = Return on assets (ROA) Asset tangibility = PPE at cost/Total assets Leverage = Debt to equity ratio	Compustat
FIXEDEFFECTS	Fixed effects included in regression models to minimize random variations effects. Fixed effects are dummy variables equal to number of observations less 1. Year fixed effects (YFE) to minimize heterogeneity in data over time. Firm fixed effects (FFE) to minimize heterogeneity in firms. Industry fixed effects (IFE) to minimize heterogeneity in firms within SIC industries.	Compustat
ERROR TERM	This is the residual or error term of a regression model	N/A

LIST OF TABLES

TABLE 1

Reconciliation of Sample Size

This table reconciles S&P 500 firms/firm years to sample used in this study.

#	Description	Firms	Firm years (2007-2017)
	S&P 500 firms	500	5,500
Less:	Financial firms	68	748
	Utilities firms	28	308
	Missing SIC code or relevant data	26	1,024
	S&P 500 sample	**378**	**3,420**
	WMEC	51	283
	Non-WMEC	327	3,137
	Final S&P 500 sample size	**378**	**3,420**

TABLE 1B

Yearly Data of WMEC and Non-WMEC S&P 500 Firms

Years	WMEC	Non-WMEC
2007	11	275
2008	15	279
2009	16	278
2010	30	302
2011	32	280
2012	33	279
2013	33	281
2014	30	289
2015	28	283
2016	27	292
2017	28	299
Firm Years	**283**	**3,137**

TABLE 2

Descriptive Statistics

Descriptive Statistics of S&P 500 Firms for 2007 to 2017

This table provides number of firm year observations, mean, standard deviation and t-test of the differences in the means of the main variables for S&P 500 firms that are listed on the World's Most Ethical Companies and firms that are not listed for the period 2007 to 2017. T-tests assume equal variances, and results are generally unchanged if unequal variance is assumed. CEO pay slice is the CEO's total compensation as a percent of the total compensation of the top 5 executives of the firm. Leverage ratio is the ratio of interest-bearing short and long-term debt to total assets. Debt to equity is ratio of interest-bearing debt to total shareholders' equity. Dividend per share is the ratio of total dividends to number of common shares outstanding. Net CSR score is the sum of a firm's strengths (0 to +1) or weaknesses (0 to -1) in six corporate social responsibility (CSR) initiatives namely community, diversity, employee relations, environment and product safety. Market value is the total market value of the firm's assets and liabilities. Tobin's q is the market value of firm's assets divided by replacement cost or book value of assets. Control and other variables are defined in Appendix 1.

	Non-WMECs			WMECs			T-Test (Equal Variance)		
Variables	N	Mean	SD	N	Mean	SD	Mean Diff.	T-stat	P-value
CEO Pay Slice	3127	0.41	0.11	283	0.41	0.10	-.00	-.40	0.69
Leverage Ratio	3127	0.32	0.14	283	0.31	0.16	.00	0.19	0.85
Debt to Equity Ratio	3127	1.95	3.52	283	2.33	4.04	-.38	-1.73	0.08
Dividends per Share	2275	1.07	1.24	249	1.37	1.88	-.30	-3.44	0.00
Net CSR Score	1102	0.49	3.11	68	3.44	2.84	-2.9	-7.6	0.00
Sales/Total Assets	3127	0.89	0.71	283	1.00	0.63	-.11	-2.63	0.01
Market to Book	3127	5.99	30.32	283	5.36	5.18	.35	.20	0.84
PPE/Total Assets	3127	0.06	0.31	283	0.07	0.28	-.01	-.74	0.46
Return on Assets	3127	0.05	0.07	283	0.07	0.06	-.02	-4.65	0.00
R&D/Sales	2082	0.07	0.17	231	0.05	0.06	.01	1.27	0.21
Market Value	2275	33,640	55,597	249	56,732	70,771	-22,093	-5.78	0.00
Tobin's q	3126	1.63	1.04	283	1.83	1.07	-.20	-3.15	0.00

TABLE 3

Correlations Matrix

This table shows the correlation matrix of key variables in the study. Significant correlations are flagged as ** or * at p-values of .001, and .05 respectively.

#	Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Cost of Debt	1															
2	Cost of Equity	0.042	1														
3	Cost of Capital	.571**	.552**	1													
4	Tobin's q	.141**	-0.025	.156**	1												
5	Market Value	.209**	-0.022	.131**	.104**	1											
6	Dividends per Share	.103**	.079**	.047*	-.071**	.201**	1										
7	CEO Pay Slice	-.041*	-0.033	-0.052*	-0.027	-.186**	0.018	1									
8	E-index	-.046*	.046*	0.007	0.003	-.264**	-.129**	.098**	1								
9	Net CSR Score	0.091	-0.060	0.062	.143**	-0.012	-0.046	-0.006	0.018	1							
10	Net Income	.134**	-0.020	.107**	.052**	.769**	.194**	-.036**	-.111**	.086*	1						
11	Return on Equity	-0.025	0.014	-.090**	-0.009	0.003	.077**	0.010	-.044*	0.057	-0.007	1					
12	Alpha	.128**	-.084**	.118**	.342**	0.013	-.194**	-.046**	-.069**	.106*	.024*	-0.011	1				
13	Economic Value Added	.104**	-0.038	.214**	0.027	0.027	-0.005	0.018	0.020	-0.014	0.026	-.530**	-0.002	1			
14	Asset Turnover	0.027	.044*	.127**	.022*	-.049*	0.003	-.018*	-.029*	-.036*	-.040**	.141**	-0.011	0.017	1		
15	Market to Book	-0.003	0.008	-.084**	.143**	0.031	.076**	0.003	0.002	0.021	0.016	.803**	0.016	-.684**	0.012	1	
16	Asset Tangibility	.122**	-0.005	.070**	.033**	-.078**	0.029	.019*	-0.011	0.024	-.018*	0.023	-0.018	0.011	.154*	0.015	1
17	Return on Assets	.134**	-.050*	.207**	.209**	.117**	.066**	.030**	-.023*	.062*	.224**	-0.01	.171**	.040*	.072**	.027**	.099**

TABLE 4

Results of Testing of Stakeholder Theory and Cost of Capital

This table presents results of regression tests of the relationship between each of cost debt, cost of equity or cost of capital as dependent variables in panels A, B and C. Independent variables are CEO pay slice, Ethical citizenship (WMECs), and net income of the firm. Appendix 1 defines all variables. Standard controls for firm size, leverage, profitability, market to book and asset tangibility are included, as well as, year and firm fixed effects. Beta coefficients marked as ***, **, or * show p-values are significant at .001, .05, and .10.

Variables	Panel A Dep. Var. = Cost of Debt			Panel B Dep. Var. = Cost of Equity			Panel C Dep. Var. = Cost of Capital		
	1	2	3	1	2	3	1	2	3
Intercept	22.49***	22.7***	20.48	1.03**	1.00**	3.57*	1.09***	1.08***	2.16**
	(8.18)	(8.28)	(1.59)	(2.97)	(2.89)	(1.91)	(4.82)	(4.77)	(2.06)
Independent variables									
CEO Pay Slice	-4.21**	-4.23**	-4.74	-.38	-.38	-.06	-.39**	-.39**	-.69
	(-2.17)	(-2.18)	(-.62).	(-1.50)	(-1.50)	(-.54)	(-2.40)	(-2.39)	(-1.16)
WMECs[9]	.94	.94	1.50	.11	.07	.00	.05	.02	.05
	(1.30)	(1.30)	(1.03)	(1.25)	(.74)	(.01)	(.93)	(.40)	(.50)
Net Income	.00**	.00**	-.00	-.00	-.00	.00*	.00	.00	.00
	(2.77)	(2.81)	(-.93)	(-.08)	(-.11)	(1.91)	(.44)	(.41)	(1.84)
Controls									
Log Total Assets	.84	.80	-2.20	-.02	.14	-.05	-.06	-.06	-.24*
	(1.44)	(1.38)	(-.85)	(-.25)	(.45)	(-1.46)	(-1.43)	(-1.34)	(-1.17)
Market to Book	.00	.00	-.18	-.00	.00	-.01	-.00	-.00	-.00
	(.33)	(.33)	(-1.23)	(-.79)	(.15)	(-.71)	(-.47)	(-.47)	(-.11)
Tangibility (PPE/TA)	4.12***	4.12***	-7.75**	-.05	-.05	.05	-.13**	-.13**	-.00
	(5.82)	(5.84)	(-3.03)	(-.57)	(-.55)	(.15)	(-2.40)	(-2.38)	(-.01)
Return on Assets	13.0***	12.9***	50.05**	1.07**	1.09**	-2.22	1.28***	1.30***	-1.04
	(3.53)	(3.49)	(2.49)	(2.35)	(2.40)	(-.80)	(4.31)	(4.36)	(-.67)
Debt to Equity	-.00	-.00	-.01*	.00	.00	-.00	-.00*	-.00*	-.00***
	(-1.51)	(-1.49)	(-1.75)	(.59)	(.58)	(.44)	(-1.86)	(-1.86)	(-3.51)
Fixed Effects									
Year Fixed Effects	Y***	Y***	Y**	Y**	Y**	Y	Y	Y	Y
Firm Fixed Effects	N	Y	Y	N	Y	Y	N	Y	Y
Diagnostics									
N	2458	2458	173	2147	2147	163	2147	2147	163
Adjusted R²	.127	.127	.188	.003	.003	.052	.018	.018	.111

[9] Columns 1 (year fixed effects only) and 2 (year and firm fixed effects) use the firm year data following entropy balancing of WMECs with non-WMECs. Column 3 (year and firm fixed effects) uses data from control match design of WMECs with non-WMECs.

TABLE 5

Robustness Testing of Stakeholder Theory and Cost of Capital

This table presents results regression tests of the relationship between each of cost debt, cost of equity or cost of capital, and alternative proxies for managerial (E-index), strategic posture (entropy weights based on total assets, or net CSR score) and economic performance (alpha) of the firm. Standard control variables of firm size, leverage, profitability and asset tangibility are included, as well as, year and firm fixed effects. Beta coefficients markets as ***, **, or * show p-values are significant at .001, .05, and .10 levels.

Variables	Panel A Dep. Var. = Cost of Debt		Panel B Dep. Var. = Cost of Equity		Panel B Dep. Var. = Cost of Capital	
	1	2	1	2	1	2
Intercept	34.4***	23.21***	.79**	2.34***	.69***	1.42***
	(12.26)	(3.16)	(2.41)	(5.46)	(3.21)	(4.68)
Independent variables						
E-index	.18	-.48	-.06*	.02	-.03	.02
	(.68)	(-.76)	(-1.82)	(.47)	(-1.60)	(.87)
Net CSR Score[10]	-1.10	-.11	.10	.01	.04	.00
	(-1.45)	(-.42)	(1.11).	(.80)	(.66)	(.34)
Alpha	-23.0***	-1.33	1.09**	4.75***	1.10***	3.48***
	(-7.79)	(-.15)	(3.17)	(8.97)	(4.85)	(9.23)
Controls						
Log Total Assets	-3.23***	-3.50**	.02	-.29***	-.01	-.19**
	(-6.77)	(-2.41)	(.37)	(-3.44)	(-.16)	(2.09)
Market to Book	-.02	-.29	.00	-.04**	-.00	-.02*
	(-.98)	(-1.38)	(.26)	(-2.98)	(-1.74)	(-.60)
Tangibility	-4.6***	-6.94**	-.05	-.18	-.13**	-.20*
	(-6.36)	(-2.51)	(-.63)	(-1.13)	(-2.32)	(-1.76)
Return on Assets	-15.3***	-21.86*	.84**	-1.50**	1.03***	.07
	(-4.51)	(1.80)	(2.11)	(-2.06)	(3.93)	(.14)
Debt to Equity	.00		-.00		-.00**	-.00
	(1.41)		(-.55)		(-3.04)	(-1.47)
Fixed Effects						
Year Fixed Effects	Y	Y	Y**	Y	Y	Y
Firm Fixed Effects	Y***	Y	Y	Y	Y	Y
Diagnostics						
N	2161	206	2161	206	2161	206
Adjusted R²	.158	.047	.010	.300	.031	.377

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[10] Column 1 uses entropy balanced weights of non-WMECs versus WMECs. Net CSR score is used in columns 2, 3 and 4 as proxy for ethical citizenship.

TABLE 7

Testing Stakeholder Theory and Firm Value

This table presents results of regression tests of the relationship between Tobin's q (Panels A and B) or 3-digit SIC industry adjusted Tobin's q (Panel C), and each of CEO pay slice, ethical citizenship, and net income. Standard control variables of firm size, market to book, profitability, asset tangibility, and leverage are included, as well as, year and firm fixed effects. The last column of panels A, and B use firm year data in a control match design. Otherwise, entropy balance firm year data is used. Regression coefficients ***, **, or * show p-values are significant at .001, .05, and .10 levels.

Variables	Panel A Dep. Var. = Tobin's q			Panel B Dep. Var = Tobin's q		Panel C Dep. Var. = IA-Tobin's q		
	1	2	3	2	3	1	2	3
Intercept	4.90***	4.95***	1.41**	2.98***	2.99**	3.87***	3.84***	2.76***
	(23.71)	(23.85)	(1.99)	(15.18)	(7.85)	(9.20)	(9.13)	(6.30)
Independent variables								
CEO Pay Slice	-.58***	-.58***	.24	n.a.	n.a.	-.68**	-.65**	-.64**
	(-3.99)	(-3.96)	(.58)			(-2.13)	(-2.08)	(-2.09)
ECC (EW)	.03***	.27***	.03	n.a.	n.a.	.26**	.27**	.29**
	(5.10)	(5.01)	(.32)			(2.11)	(2.14)	(2.42)
Net Income	.00***	.00***	-.00	n.a.	n.a.	.00***	.00***	.00***
	(8.80)	(8.84)	(-.96)			(4.36)	(4.33)	(5.64)
Alternative Variables								
E-index	n.a.	n.a.	n.a.	-.09***	-.04	n.a.	n.a.	n.a.
				(-4.90)	(-1.30)			
Net CSR Score	n.a.	n.a.	n.a.	.25***	.02	n.a.	n.a.	n.a.
				(4.70)	(1.43)			
Alpha	n.a.	n.a.	n.a.	3.80***	2.10***	n.a.	n.a.	n.a.
				(18.38)	(4.45)			
Controls								
Log of Total Assets	-1.13***	-1.14***	-.23	-.68***	-.47	-1.24***	-1.24***	-1.45***
	(-25.81)	(-25.83)	(-1.65)	(-20.28)	(-6.27)	(-12.67)	(-12.66)	(-14.68)
Market to Book	.01***	.01***	.09***	.02***	.11***	n.a,	.01**	.00*
	(8.94)	(8.93)	(11.78)	(15.39)	(10.26)		(2.33)	(1.86)
Asset Tangibility	-.01	-.10	.20	.01	.22	-.29**	-.30**	-.31**
	(-1.28)	(-1.31)	(1.41)	(.26)	(1.50)	(-2.43)	(-2.50)	(-2.68)
Profitability	4.46***	4.45***	6.34***	4.31***	-7.59***	4.38***	4.30***	4.34***
	(16.0)	(15.97)	(5.76)	(18.16)	(-7.91)	(7.29)	(7.15)	(7.42)
Debt to Equity	-.00***	-.00***	-.00***	-.00***	-.00***	.00	.00	.00
	(-7.37)	(-7.37)	(-7.93)	(-14.58)	(-9.56)	(.57)	(.28)	(.40)
Fixed Effects								
Year Fixed Effects	Y***	Y***	Y**	Y***	Y	N	N	Y
Firm Fixed Effects	Y	Y	Y	Y	Y	N	N	Y
No. of observations	2458	2458	174	2161	206	2458	2458	2458
Adjusted R²	.420	.420	.757	.507	.622	.192	.235	.235

117

TABLE 8

Summary of Results

H#	Prediction (expected sign)	Univariate Results	Fixed Effects Regression Results	Conclusion
1a	The relationship between CEO power and cost of capital is negative (-).	Significant negative correlation between each of CEO pay slice, or E-index and cost of debt.	CEO pay slice significantly *negatively* affects cost of capital (p=.017).	**H1a supported** because CEO power significantly negatively explains the variances in cost of capital.
1b	The relationship between CEO power and firm value is positive (+).	CEO pay slice is weakly related to Tobin's q.	CEO pay slice or E-index significantly *negatively* explains the variance in industry-adjusted Tobin's q.	**H1b is not supported.** CEO power *negatively* explains variance in industry-adjusted Tobin's q.
1c	The relationship between CEO power and firm value is negative (-).	CEO pay slice and E-index each is weakly negatively correlated with industry-adjusted Tobin's q.	Significant negative beta for each of CEO pay slice, or E-index.	**H1c is supported.** Powerful CEOs are negatively associated with industry-adjusted Tobin's q. The relation is nonlinear.
2a	Firms that are World's Most Ethical Companies list have lower cost of capital than firms that are not WMECs (-).	WMECs have significantly lower cost debt than non-WMECs. However, the cost of equity of WMECs and non-WMECs is not significantly different.	WMECs do not have significantly lower cost of debt, or cost of equity than non-WMECs in control match design.	**H2a is not supported.** WMECs do not have an advantage in overall cost of capital over non-WMECs.
2b	Firms that are WMECs have higher firm value than firms that are non-WMECs (-).	WMECs are significantly positively correlated with firm market values than non-WMECs. WMECs are weakly correlated with Tobin's q.	WMECs do not have significantly higher Tobin's q than non-WMECS in control match design. Results of entropy balance design is the opposite.	**H2b is not supported.** WMECs do not have significantly higher Tobin's q than non-WMECs in fixed effects regression based on control match design.
3a	The relationship between economic performance and cost of capital is negative (-).	Alpha has significant *negative* correlation with cost of equity. Net income, and alpha is each significantly *positively* related to cost of debt, and cost of capital.	Net income or alpha has significant *negative* association with cost of debt. Net income and alpha significantly positively explain the variance in cost of capital.	**H3a is not supported** in that net income or alpha significantly positively explains the variance in cost of capital.
3b	The relationship between economic performance and firm value is positive (+).	Net income or alpha is significantly positively correlated with Tobin's q.	Net income or alpha has significant positive beta with industry-adjusted Tobin's q.	**H3b is supported.** Net income or alpha significantly positively explain the variance in Tobin's q.

Table 9

Table 9

Logistic Regression on World's Most Ethical Companies

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	26.008	12	.011
	Block	26.008	12	.011
	Model	26.008	12	.011

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	93.205[a]	.258	.346

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	9.304	8	.317

Classification Table[a]

			Predicted					
			Selected Cases[b]			Unselected Cases[c,d]		
			S&P500 WMEC		Percentage Correct	S&P500 WMEC		Percentage Correct
	Observed		non-wmec	wmec		non-wmec	wmec	
Step 1	S&P500 WMEC	non-wmec	41	8	83.7	207	215	49.1
		wmec	16	22	57.9	34	44	56.4
	Overall Percentage				72.4			50.2

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	DIVDUM(1)	-4.965	2.324	4.566	1	.033	.007	.000	.663
	MTB	-.154	.080	3.741	1	.053	.857	.734	1.002
	D/E	.001	.003	.223	1	.636	1.001	.995	1.007
	ROA	11.922	6.574	3.290	1	.070	150615.946	.382	5.933E+10
	FCFF	.000	.000	2.523	1	.112	1.000	1.000	1.000
	CAPEXAST	-10.646	12.146	.768	1	.381	.000	.000	518873.346
	DM_Avg	.358	.623	.331	1	.565	1.431	.422	4.854
	RDtoSales	-1.536	6.849	.050	1	.823	.215	.000	145566.686
	Innovation	-1.429	33.604	.002	1	.966	.240	.000	9.621E+27
	Alpha	-21.429	8.242	6.760	1	.009	.000	.000	.005
	cpsquartile			.660	2	.719			
	cpsquartile(1)	.557	.739	.569	1	.451	1.746	.410	7.434
	cpsquartile(2)	.430	.648	.441	1	.507	1.538	.432	5.474
	Constant	1.753	3.252	.291	1	.590	5.773		

a. Variable(s) entered on step 1: DIVDUM, MTB, D/E, ROA, FCFF, CAPEXAST, DM_Avg, RDtoSales, Innovation, Alpha, cpsquartile.

FIGURE 1

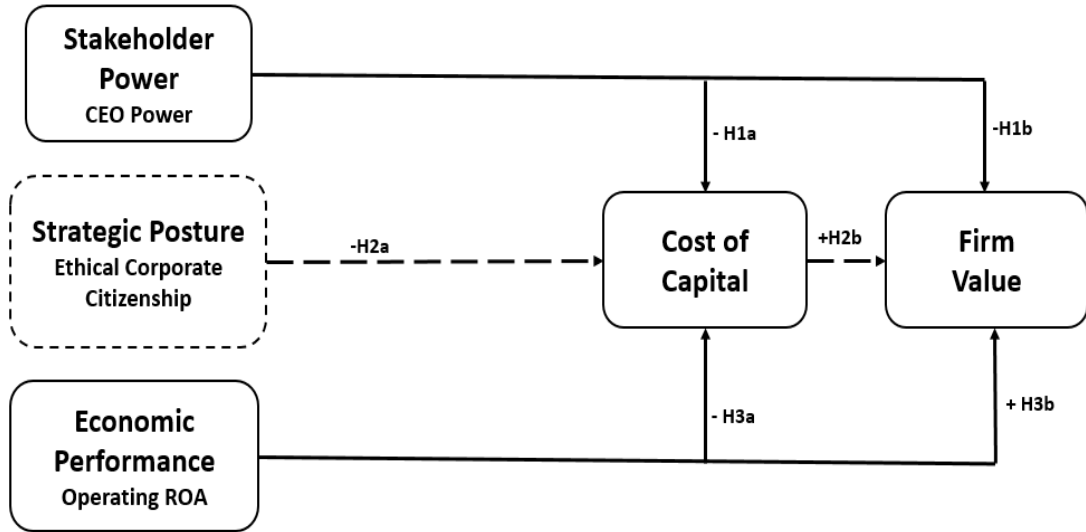Fig. 1: Application of Stakeholder Theory to Cost of Capital and Value of Firms

FIGURE 2

GROWTH IN WORLD'S MOST ETHICAL COMPANIES
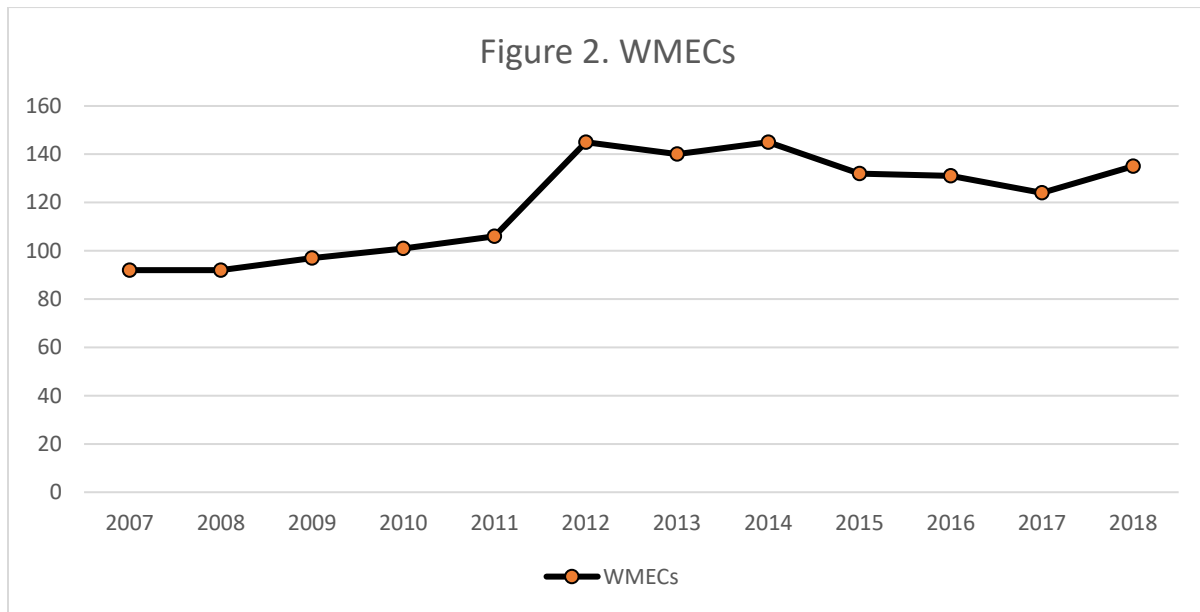

Figure 2. WMECs

FIGURE 3

DISTINCTION BETWEEN ETHICAL CORPORATE CITIZENSHIP AND

CORPORATE SOCIAL RESPONSIBILITY

Description	CSR	ECC	Distinction
Definition	Carroll (1979) describes corporate social responsibility as the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time.	Ethisphere (2018) ethical corporate citizenship refers to organizational commitment to rigorous ethics and compliance programs, corporate responsibility and citizenship, culture of ethics, governance, leadership and innovation	<u>Similarities</u> Both ECC and CSR: + include ethics +benefits community +reputation management <u>Differences</u> Unlike CSR, ECC: + is commitment rather than responsibility or discretionary ethics +does not include legal, economic dimensions + is continuous improvement long-term concept rather than infrequent or point in time +includes governance, leadership and innovation
Measurement	CSR is measured using: +Council on economic priorities pollution performance index, +Reputational scale, +Existence of social responsibility programs, +Ernest & Ernest disclosure score, +Quality and quantity of annual pollution disclosures in annual reports, +KLD CSR score that includes community, diversity, employee relations, environment, and product safety (Davidson et al 2018, Ullmann 1985, Tables 2, 3 and 4, p. 545 -548).	ECC is measured using: +Ethical Quotient (EQ) score. EQ is weighted average measure of the company's commitment to ethics and compliance programs (35%), corporate citizenship and responsibility (20%), culture of ethics (20%), governance (15%), and leadership, innovation and reputation (10%).	<u>Similarities</u> Both ECC and CSR include: + social responsibility +reputation measures <u>Differences</u> Unlike CSR measures, ECC measures: +includes commitment to ethics rather than existence of ethics programs + includes governance, innovation, and leadership +do not include quality and quantity of pollution + do not include E&Y disclosure score +do not include CSR scores that incorporates community, diversity, employee relations, environment and product safety.

FIGURE 4

Figure 4 Average Share Price Returns of WMECs
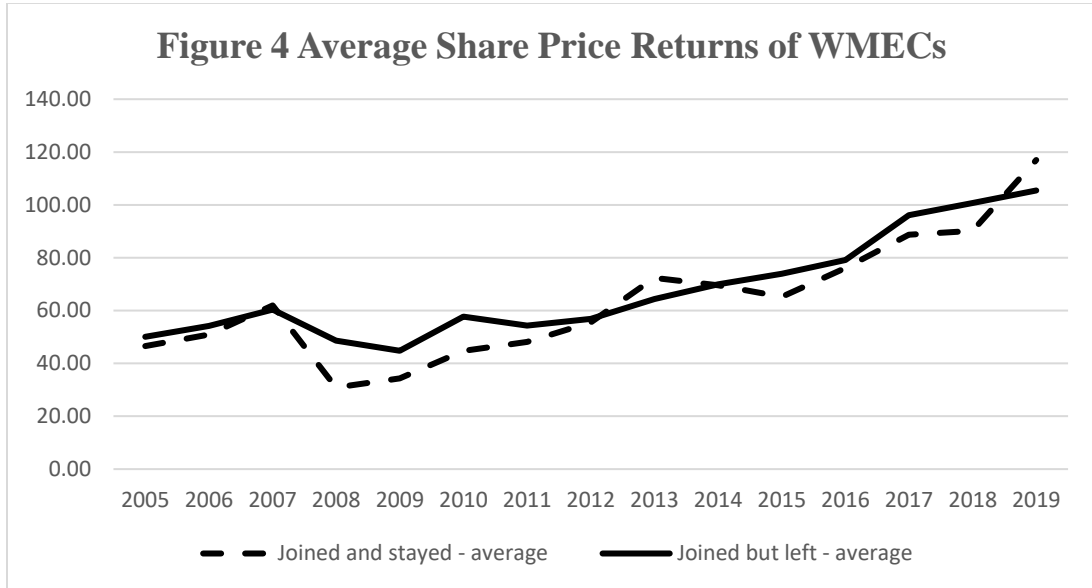
FIGURE 5

Share Price Analysis of WMECS and non-WMECs from 2005 to 2019

S&P 500 WMEC vs. non-WMEC Share Price

FIGURE 6

Tobin's Q and CEO Pay Slice Quartile
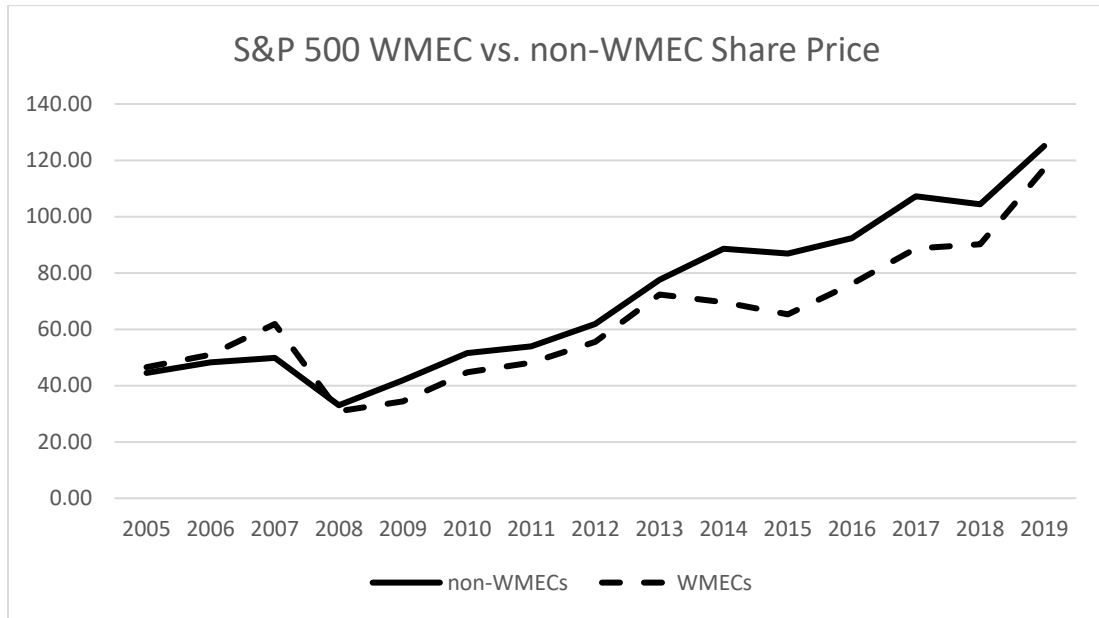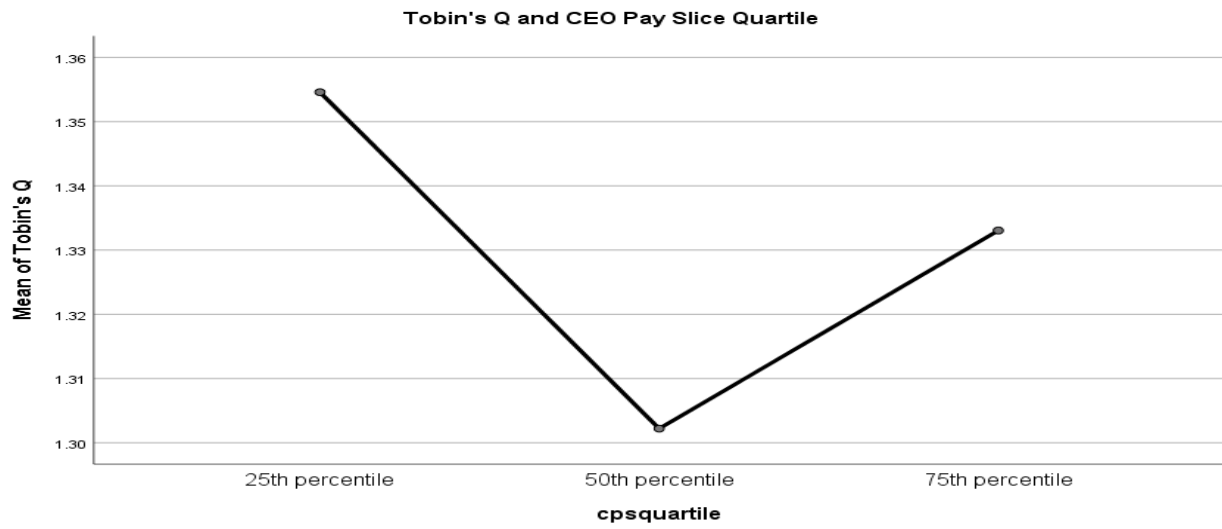
FIGURE 7

Tobin's q of WMECs

Tobin's Q of World's Most Ethical Companies
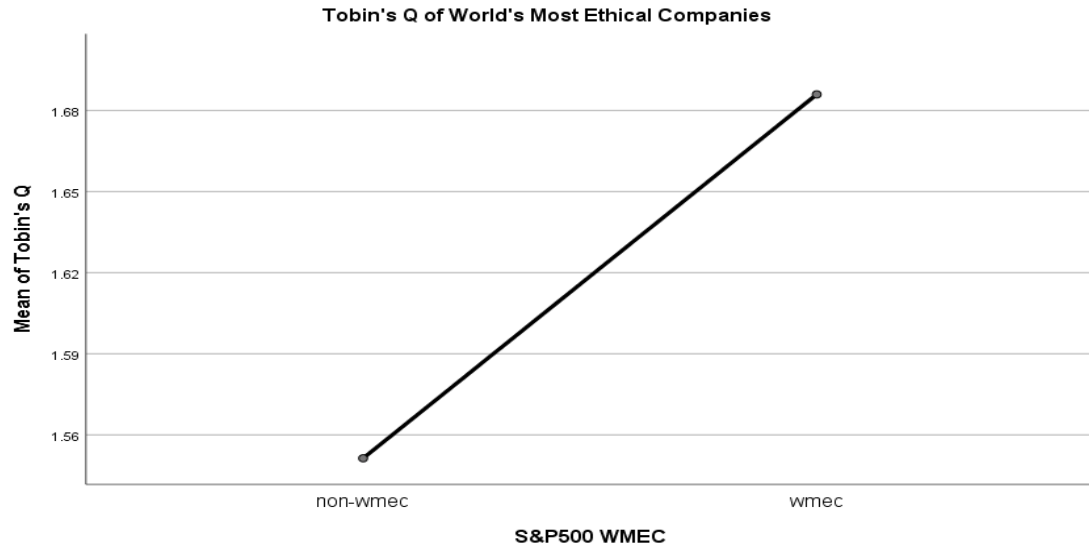
FIGURE 8

Loan Spreads and CEO Pay Slice

Normalized Spreads and CEO Pay Slice
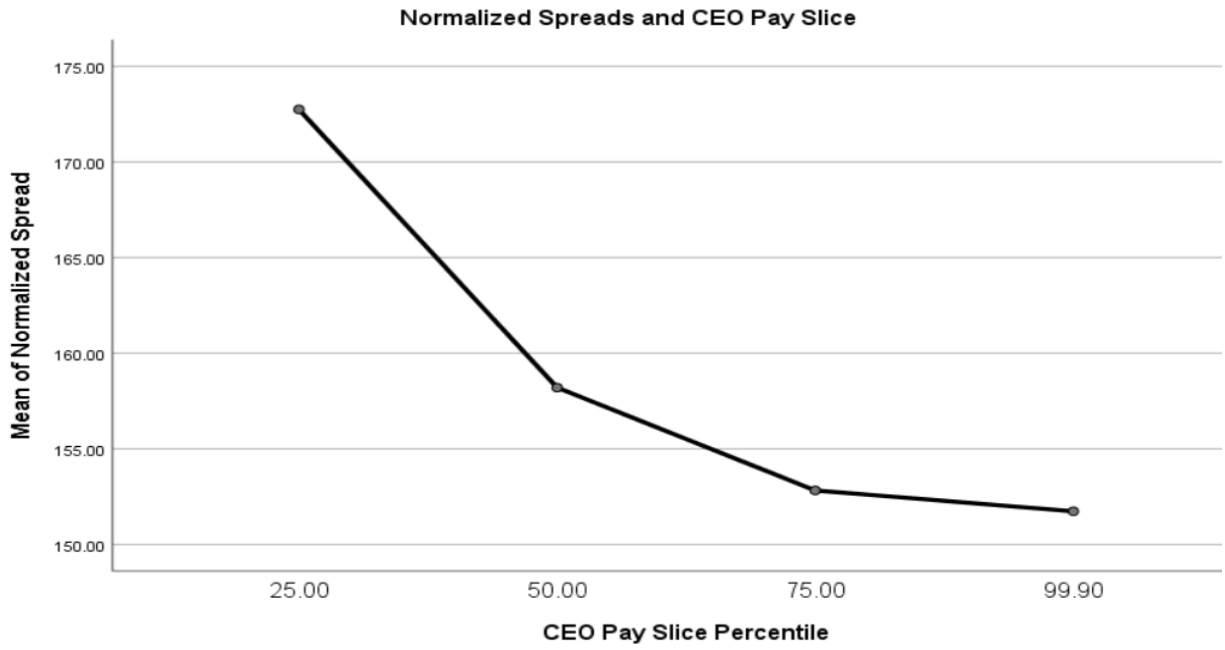
FIGURE 9

Loan Spread Advantage of World's Most Ethical Companies

Loan Spread Advantage of World's Most Ethical Companies 2000 to 2011
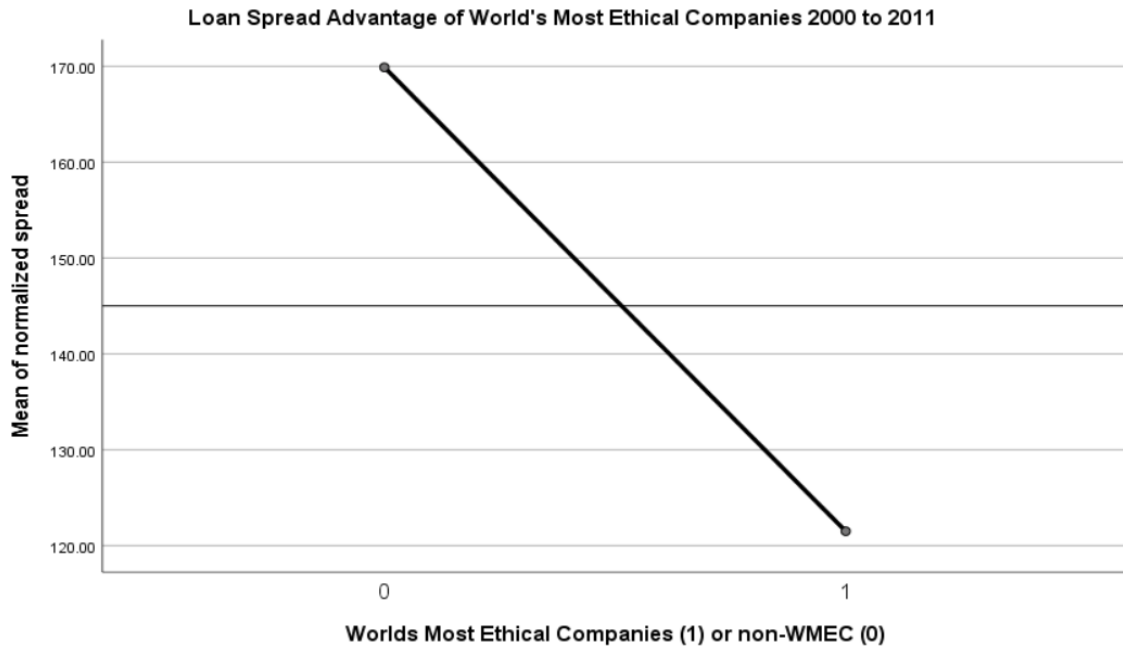
APPENDIX 2

Ethisphere

Ethisphere (www.ethisphere.com) provides comprehensive responses to [Frequently Asked Questions](#) to help answer the following. Q&As are directly quoted from Ethisphere to provide additional insights. Please see below and also review Ethisphere's FAQs for additional insight.

Selection Process

Q. How are companies selected? Is there a minimum score?

A: A company's final Ethics Quotient (EQ) score is evaluated relative to those of its peers within the context of its structure, size and operating environment. Those companies demonstrating the strongest application across our methodology receive the designation of being one of the World's Most Ethical Companies. As applicant companies come from a variety of industries with significant differences in regulatory and operating environments, the overall EQ score is used to understand a company's performance in context of similar companies, not to set a floor. However, reputation and legal issues are carefully evaluated. Receiving a materially deficient score in the category of Leadership and Innovation will prevent a company from being selected as one of the 2020 World's Most Ethical Companies.

Q. Does every company that apply to Ethisphere get accepted?

A. Ethisphere does not currently disclose on its website the rejection rate of companies that apply to join the World's Most Ethical Companies. However, Ethisphere indicates that it has honored companies for 14 years through 2020 and the list keeps growing each year. Also, the value to companies is not only being honored, but also receiving information about analytical score of Ethics Quotient relative to peer companies. For example, applicants get the relative scores on ethical compliance, culture of ethics, effective governance practices, leadership and innovation. Also, Ethisphere says that companies deficient in leadership category do not make the list. Anecdotal evidence suggests that not every company that apply gets to join the list the same year.

Company Contact Persons for Questionnaire (Top or Middle Managers)

Which level of management completes Ethisphere's questionnaire or address subsequent issues?

Response: This question is not directly addressed on Ethisphere's website. However, Ethisphere provides the following information that give additional related insights. Based on my personal experience with such questionnaire, middle level managers initially complete the questionnaire based on available information and supporting evidence for review by a member of senior management who has the final responsibility to verify and sign off on the submission.

How do you verify companies' responses?

Response: We review documentation submitted by companies and may conduct additional research or request additional information and documentation from the company. We conduct reputational and legal reviews to determine any outstanding or historical issues as well. We generally consult external data sources, such as SEC filings and global news outlets, among other

sources. Compliance or ethics issues will be reflected in a company's Leadership and Reputation score. Seriously deficient scores in that category will prevent a company from being selected as one of the 2020 World's Most Ethical Companies. Ethics Quotient scores are often adjusted based on documentation review and independent research. Each candidate then receives a final score that may be higher or lower than the initial "self-reported" score. Note that if we are unable to verify and evaluate certain aspects of performance, the resulting scores may be discounted.

Reasons for Joining or Leaving Ethisphere

Q. Why do companies join or leave Ethisphere list?

A. Ethisphere does not directly answer this question, though evidence from their website suggests companies join or leave Ethisphere for one or more of the following reasons:

1. Recognition as a World's Most Ethical Company has some market place benefits in terms of ethical reputation, employee's morale, and potential higher returns on company stocks for investors. For example, Ethisphere says that a basket of stock consisting of the World's Most Ethical Companies earn about 6.6 percent higher in returns than non-WMECs.

2. Reputation management of a company's brand name in the marketplace.

3. Communicate senior leadership belief in ethical business practices.

4. To obtain information on analytical score card with Ethics Quotient factors with scores on the practices of ethics, culture of ethics, effective governance, leadership, and innovation relative to peer companies.

Companies may leave the list for various reasons including, but not limited, (1) negative press from current or potential legal proceedings in the news media, (2) acquisition or disposition of businesses, (3) going out of business, and (4) changes in key senior leadership with different focus.

Industry Exclusions

Q. Can any company participate?

A. Any company, public or private, for-profit or not-for-profit, U.S. or foreign-based, is eligible to participate in the process and be considered for designation as one of the World's Most Ethical Companies. However, non-profit colleges and universities, governments, governmental agencies, government majority owned companies, and NGOs are not eligible. If you have a question regarding eligibility please contact Ethisphere at wmeapplications@ethisphere.com

We encourage wide participation, regardless of whether a company thinks that it will be honored. All companies that submit a survey will receive an Analytical Scorecard that provides their overall Ethics Quotient and evaluates how their score in each of the five categories compares to those of honorees. The value in participating is not only in learning how one's company compares to the honorees, but also in better understanding what's trending in leading companies and more about their best practices.

Why Firms Leave Ethisphere's World's Most Ethical Companies List

(Sources: Marketscreener.com, Company websites, and Wikipedia)

Company	Year of Leaving	Reasons for Leaving
Beckton Dickinson & Co	2015	Lawsuits over trademark applications in 2014, and legal settlement over $21 million. Product recalls from patient deaths.
Best Buy Co Inc.	2014	Intense competition from Amazon and GameStop decreasing revenues and net income. Fired 2,000 managers in 2014. Paid $27 million in trade secrets case in 2013.
Caterpillar Inc.	2013	Scammed to acquire a Chinese company for over half a billion dollars. Alleged accounting fraud at the acquired company leading to $580 million write down of assets in 2012. E&Y and Deloitte did not do due diligence in acquisition.
Cisco Systems Inc.	2018	About 115% drop in earnings in 2018 due to lack of innovation in cloud computing and intense competition. Massive layoff of employees.
Eaton Corp PLC	2016	Negative press from overpaid CEO.
Honeywell International Inc.	2013	20 serious violation of Occupational Safety and Health Administration (OSHA) in 2015-2016 that cost Honeywell $3.3 million in federal and state penalties. Pervasive violations of worker safety standards of which 20 are "Serious," 1 is "Willful," and 11 are "Other-than-Serious."
International Paper Co.	2015	Environmental violations, ongoing pollution and regulatory failures. Laid off approximately 50% of its workforce. U.S. Environmental Protection Agency cites violation of the Clean Water Act for 11 of the past 12 quarters through 2015. $131,000 in State civil penalties, and an additional penalty of $1,000 per day for each day until compliance.
Nike Inc – CL B	2012	Workers' safety concerns in supply chain, civil rights complaints on boys' club, and women paid less. Sexual and racial discrimination, harassment, a hostile work environment, whistleblower retaliation and violation of family medical leave laws.
Rockwell Collins	2019	Product safety concerns, and massive employees' layoffs.
Target Corporation	2019	Cash register malfunction or meltdown leading to lost sales.
United Parcel Service Inc.	2019	Lost about 15.4% share price in December 2019 due to intense competition from FedEx, and UPS.

APPENDIX 4

Panel A: Personality Characteristics of Weak CEOs

CEO – CEO Pay Slice Company Industry	CEO Start Date	CEO Personal Characteristics **Sources:** Marketscreener.com, Company websites, and Wikipedia	CPCI
Pierre Nanterme - .26 Accenture PLC Management Consulting	10/01/10	Pierre was a French businessman, aged 59, who died in Paris, France to colon cancer in 2019. He was graduate of ESSEC Business School with Masters in Management in 1981, and completed military service in France. He was promoted to CEO after about 26 years of service with Accenture. Pier had a history of service on boards, labor movement, and B20 Green Growth Action Alliance.	1
Shantanu Narayen – 0.31 Adobe Inc. Prepackaged Software	12/01/07	Shantanu is an Indian-American business man, aged 57, who is married to Reni Narayen and have 2 boys. He earned an MBA from UC Berkeley, Haas School of Business, and honorary Doctorate from Bowling Green State University in 2011. He ranked #12 on Fortune Business Person, Global Indian of the year 2018 by Economic Times. He has product development and engineering background and serves on other boards.	1
Jim Umpleby – 0.20 Caterpillar Inc. Constructions, Machinery and Equipment	01/01/17	Jim is an American businessman aged 62, born and raised in Highland Indiana. He is married to Katherine Umpleby with 2 children. He is a graduate of Rose-Hulman Institute of Technology, and he joined Caterpillar in 1980 after graduation and he was promoted to CEO in 2017. He has experience in strategy, technology and operational excellence.	2
Chuck Robbins – 0.27 Cisco Systems Inc. Computer Communications and Equipment	07/01/15	Chuck an American businessman born in 1965 (aged 52), who is married with 4 children. He is a graduate of UNC Chapel Hill with Bachelors in Mathematics. He promotes employee trust through policies and procedures, humanitarian policies, workplace diversity, champion of privacy as fundamental human right, CSR. Under his leadership, CISCO pledged to donate $50m to reduce homelessness. He served on the board of World Economic Forum, US-Japan Council, Ford Foundation and BlackRock, and acted as chair of the of immigration on the Business Roundtable.	3
W. Craig Jelinek – 0.27 Costco Wholesale Corp Miscellaneous General Merchandise Stores	01/01/12	Craig is an American businessman aged 68 who is a native of Los Angeles, CA. He earned a degree in Bachelor of Arts from San Diego State University in 1975. He joined Costco in 1984 as Warehouse Manager, serves on board of Costco's UK. He was promoted to CEO in 2012.	2
Devin Wenig – 0.22 eBay Inc. Computer and data processing	07/01/15	Devin is an American businessman born in Brooklyn, New York. He is 54 years old, and he married to Cindy Horowitz. He is an alum of Union College where he earned BA, and later completed JD Columbia Law School. He was promoted to CEO of eBay in 2015, and he is a member of General Motors board of directors. He received $57 million parachute package for stepping down as CEO of eBay in September 2019 due to pressure from investors to break company apart.	2

CEO – CEO Pay Slice Company Industry	CEO Start Date	CEO Personal Characteristics Sources: Marketscreener.com, Company websites, and Wikipedia	CPCI
Mark Fields – 0.23 Ford Motor Co. Motor vehicles and car bodies	07/01/14	Mark is an American businessman who was born in Brooklyn New York on January 24th, 1961 (59 years old). He is married to Jane Fields and the couple have 2 sons. He earned BA in Economics from Rutgers, and MBA from Harvard Business School. He formerly worked at IBM and joined Ford in 1989. He worked for Ford in Argentina, and Japan. He was a former COO of Ford and was internally promoted to CEO, but retired May 22, 2017. He is currently a Senior Advisor at TPG Capital and serves on several boards.	2
Arthur Peck – 0.21 Gap Inc. Family clothing stores	02/01/15	Arthur is an American businessman born in 1955 (62 years). He is married with 4 children, 2 of whom worked with him GAP Inc. Arthur earned BA from Occidental College in Los Angeles, CA in 1977 and MBA from Harvard Business School in 1977. He formerly worked at BCG from 1982-2005 on strategy and operations. He led GAP to Product Red in 2006.	1
Jack Welch – 0.24 General Electric Co. Various businesses	01/01/81	Jack Welch was born November 19th, 1935 (aged 82) and died on March 1st, 2020. Jack was raised in Peabody, MA. He was married to Suzy Wetlaufer after two prior divorces, and had 4 children. He earned BS in chemical engineering from UMass Amherst, and MS/PhD from University of IL at Urbana. He was internally promoted to CEO, and he served as Chairman of Business Council from 1991-1992.	1
David M. Cote – 0.33 Honeywell International Inc. Various businesses	01/01/02	Born on July 19th, 1952 (aged 65) in Manchester, New Hampshire, David is an American businessman. He married twice, and have 3 children. He attended University of New Hampshire where he earned BSBA. David became CEO in February 2002 through internal promotion, and he stepped down in March 2017. He has operations six sigma background. He was a World's Best CEO between 2013 and 2016, and worked on tax reform and deficit reduction under President Barack Obama.	1
Brian M. Krzanich – 0.26 Intel Corp. Semi-conductors and related devices	01/01/13	Brian is an American businessman born on May 9, 1960 (aged 57). He has been married to Brande Krzanich since 1998, and the couple have two daughters. Mr. Krzanich is from Santa Clara County, California. Krzanich joined Intel as an engineer in 1982 and served as chief operating officer (COO) before being promoted to CEO. He graduated from San Jose State University in 1982 with a bachelor's degree in chemistry. In June 2018, Mr. Krzanich resigned as CEO of Intel after an internal probe found that he had engaged in a consensual relationship with a subordinate, which Intel said violated its anti-fraternization policy.	4
Rami Rahim – 0.22 Juniper Networks Inc. Computer communications equipment	11/10/14	Rami was born in Beirut, Lebanon and raised in Toronto, Canada. He is 46 years old (born 1971). He is married with two children and lives in Menlo Park, CA. Rami earned Bachelor of Science degree in electrical engineering from the University of Toronto. He also earned Master of Science degree in electrical engineering from Stanford University. Joined company in 1997 and internally promoted to CEO from EVO/SVP role. He holds 17 patents to his credit.	2

CEO – CEO Pay Slice Company Industry	CEO Start Date	CEO Personal Characteristics Sources: Marketscreener.com, Company websites, and Wikipedia	CPCI
John A. Bryant – 0.31 Kellogg Co. Office manufacturing grain mill products	01/01/11	John was born on November 6, 1965 (age 52 years) in Brisbane, Queensland, Australia. He lives in Kalamazoo, Michigan, with his wife Alison and their six children. Mr. Bryant attended St Edmund's College, and he received a Bachelor of Commerce from Australian National University in 1987, and MBA from the Wharton School of the University of Pennsylvania. He is Chartered Accountant, internally promoted from COO to the CEO role, and retired in September 2017.	2
Arne M. Sorenson – 0.32 Marriott International Inc. Hospitality, hotel	03/31/12	Arne Morris Sorenson was born on October 13, 1958 (aged 59) is a Japanese-born American hotel executive. Born in Tokyo, Japan, the son of a Lutheran preacher, Sorenson is married, and has four children. A graduate of Luther College and the University of Minnesota Law School. Lawyer by profession, working on M&A deals in DC, served as COO. Arne is internally promoted to CEO.	2
Satya Nadella – 0.12 Microsoft Corp Prepackage software	02/04/14	Satya is an Indian-American businessman born August 19, 1967 (age 50 years) in Hyderabad, India. He is married with 3 children. He earned BS India, MS from University of Wisconsin, and MBA from University of Chicago. He was internally promoted to CEO from President of Sever tools.	2
Indra Nooyi – 0.28 PepsiCo Inc. Beverages	01/01/06	Indra was born October 28, 1955 (aged 62), in Madras, India. She is married with 2 children. She received bachelor's degrees in physics, chemistry and mathematics from Madras Christian College of the University of Madras in 1974, and a Post Graduate Diploma from Indian Institute of Management Calcutta in 1976. She was CFO prior to promotion to CEO.	0
Keith Nosbusch – 0.33 Rockwell Automation Electrical apparatus	01/01/04	Mr. Nosbusch (aged 65) is a Milwaukee, Wisconsin native and is married to his wife Jane with 3 children. Keith graduated from the University of Wisconsin–Madison with a bachelor's degree in electrical and computer engineering in 1974. He earned his master's degree in business administration from the University of Wisconsin–Milwaukee in 1976. He became CEO through internal promotion from SVP role. He serves on boards of civic community organizations.	0
Kevin Johnson – 0.29 STARBUCKS CORP Food	04/03/17	Kevin was born on October 9, 1960 (age 57 years) in Gig Harbor, WA. He graduated from New Mexico State University (1978–1981), and received an honorary Doctor of Letters from NMSU in 2017. Johnson and his wife June have two sons and reside in Washington. He has served as an advisor to Catalyst, an organization dedicated to women's career advancement He was also internally promoted from COO to CEO in 2016.	2
Greg Clark – 0.20 Symantec Corp Prepackage software	10/01/16	Greg is an Australian businessman born August 28th, 1967 (aged 50). He earned BSc from Griffiths University in Brisbane, and was CEO until May 2019. His professional background is in software and came to Symantec through business acquisition.	3
Rich Templeton – 0.23 Texas Instruments Inc. Semi-conductors	05/01/04	Rich is an American businessman born 1958 (59 years). He is married with 3 children lives in Parker, Texas. He graduated from Union College NY graduate with BS electrical engineering. He was internally promoted to CEO position.	2
Doyle Simons – 0.28 Weyerhaeuser Co. Lumber and wood products	01/01/13	Doyle Simons was born in 1964 (53 years), and he is married to Joan Simmons. He earned BA from Baylor, and MS from The University of Texas. He was internally promoted to CEO in 2013, and retired in April 2019. He served on board of Iron Mountain.	2

APPENDIX 4

Panel B: Personality Characteristics of Powerful CEOs

CEO – CEO Pay Slice Company Industry	CEO Start Date	CEO Personal Characteristics Sources: Marketscreener.com, Company websites, a Wikipedia	CPC Index
Inge Thulin - 0.50 3M CO Conglomerate	01/01/12	Mr. Thulin was born on November 11th, 1953 in Sweden. He is married to Helene Thulin with no kids. He earned a bachelor's degree in business and marketing from University of Gothenburg, and graduate degree from IHM Business School. He was COO prior to promotion to CEO in January 2012. He worked for 3M since 1979. Mr. Thulin was appointed by President Trump to American Manufacturing Council, but he resigned in August 2017.	2
Tom Linebarger – 0.49 Cummins Inc Industrial products	01/01/12	Mr. Linebarger was born on January 24th, 1963 in Sumter, California, USA. He is married to Michele and have two kids. He earned a bachelor's degree in Claremont McKenna College, and MS and MBA from Stanford University. He worked for Cummins since 1993 prior to promotion from EVP to CEO. He is on the board of Harley Davidson, and has experiences in investments, manufacturing and engineering. He also earned the award of CEO in STEM.	2
Samuel R. Allen - 0.50 Deere & Co. Heavy equipment	02/01/10	Mr. Allen was born in Los Altos, California, USA in 1953. He is married with 2 children. He earned a bachelor's degree in industrial management from Purdue University. He worked for Deere & Co since 1975 and he was president/COO prior to promotion to CEO. He is on the board of Whirlpool, and is the Chairman of U.S. Council of Competitiveness.	2
Mark J. Costa – 0.51 Eastman Chemical Co. Manufacturing	01/01/14	Born in 1966 in Salinas, California, USA, Mr. Costa is married with 2 children. He earned bachelors of science degree from University of California Berkeley, and MBA from Harvard Business School. He has consulting experience, and a short tenure with Eastman Chemical prior to being promoted from chief marketing officer to CEO. He is first generation America, member of Society for Chemical Industries, Business Roundtable, the Business Council.	4
Craig Arnold – 0.50 Eaton Corp PLC Electrical Products	06/01/16	Craig was 56 years old as of December 31, 2017. He is married with 2 children. He earned bachelor of science from California State University, San Bernardino, and master of science from Pepperdine University. He joined Eaton from GE as VP/Pres in January 1999 and left in December 2000 after a stint with Fluid Power Group. He rejoined Eaton as Vice chair/COO and became CEO in June 2016.	3
Douglas M. Baker, Jr – 0.52 Ecolab Inc. Chemicals industry	07/01/04	Douglas was born on December 5th, 1958 at Carmel by the Sea in CA, USA. He is married to Julie Baker. He earned bachelor of arts in English from Holy Cross University. Mr. Baker began his career with Ecolab in 1989, and has held key roles in marketing, sales and management in the U.S. and Europe. He was internally promoted to CEO.	2
David Thomas Seaton – 0.48	02/01/11	David was 54 years old on December 31, 2017. He is married to Lynnette with 3 children. He graduated with BA from	4

CEO – CEO Pay Slice Company Industry	CEO Start Date	CEO Personal Characteristics **Sources:** Marketscreener.com, Company websites, a Wikipedia	CPC Index
Fluor Corp Engineering and procurement		University of South Carolina. David has been the head of 7 different companies and currently is Chairman & Chief Executive Officer of Fluor.	
Matthew Levatich – 0.52 Harley-Davidson Inc. Motorcycle	05/01/15	Mr. Levatich was born January 7, 1965 (52 years old) in New York, US. He is married to Brenda with 2 children. He graduated with a bachelor of science degree from Rensselaer Polytechnic Institute, and MBA from Northwestern University. Mr. Levatich joined Harley-Davidson in 1994 and served as chief operating officer between 2009 and 2015 prior to being promoted to CEO.	3
Brian Goldner – 0.60 Hasbro Inc Entertainment	05/01/08	Born on April 21, 1963 (age 54 years) in Huntington, New York. He is married to Barbara with 2 children. He is a graduate of Dartmouth College (1985), and Huntington High School. Goldner was working at Hasbro's Tiger Electronics unit in 2000, after the company had lost 5,000 jobs. By 2003, the company recovered on the stock market. Hasbro Inc. promoted Brian from COO to CEO.	3

CEO Personality Characteristics Index (CPCI)

Legend: Yes = 0, and No = 1. Sum total scores for each CEO to obtain CPCI.

CPCI scale: 0 (low CEO power) to 4 (high CEO power).

The four essential items for the CPCI are as follows:

1. The CEO is younger than 60 years at the end of the sample period? (e.g., young CEOS take more risk than older CEOs).

2. The CEO frequently changes jobs? (e.g., CEO frequently changing jobs, trading in stocks and options etc. is risk-taking.)

3. The CEO has worked for the company for less than 7 years after becoming CEO? (e.g., CEOs who have less time as CEOs tend to be more powerful and vice versa).

4. The CEO has a bachelor's degree or less academic qualifications? (e.g., CEOs who have Masters/PhD tend to have less power and vice versa).

APPENDIX 5

Prior Research on Resource-Based View (RBV) of The Firm

Prior Research	Research Question	Sample/Method	Key Findings
Wernerfelt, B., 1984. A resource-based view of the firm. *Strategic management journal*, 5(2), pp.171-180.	What is the usefulness of analyzing a firm from a resource rather than product view?	Uses resource position barrier and product matrices.	New strategic options emerge from resource perspective.
Barney, J.B., 2001. Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of management*, 27(6), pp.643-650.	Can RBV be classified into theories of industry determinants of firm performance, neo-classical microeconomics, and evolutionary economics?	Discussion of implications of resource-based theories.	No grand, unified resource-based theory of competitive advantages. RBV actually consists of a rich body of related, yet distinct, theoretical tools with which to analyze firm level sources of sustained competitive advantage.
Peteraf, M.A., 1993. The cornerstones of competitive advantage: a resource-based view. *Strategic management journal*, 14(3), pp.179-191.	What is the economics of the RBV of competitive advantage for modeling resources and firm performance?	Demand and supply models of competitive advantage.	Four conditions for sustainable competitive advantage are superior resources, ex post, and ex-ante limits to competition, and imperfect resource mobility
Cecchini, M., Leitch, R. and Strobel, C., 2013. Multinational transfer pricing: A transaction cost and resource-based view. *Journal of Accounting Literature*, 31(1), pp.31-48.	Can transaction costs economics and resource-based view explain the antecedents and consequences of transfer price?	Propose a complex framework for transfer pricing.	Transfer pricing is a complex problem with many factors and consequences that may conflict.
Carter, C. and Toms, S., 2010. Value, profit and risk: accounting and the resource-based view of the firm. *Accounting, Auditing & Accountability Journal*.	Are the principal components of the Resource-Based View (RBV) as a theory of sustained competitive advantage sufficient basis for a complete and consistent theory of firm behavior?	Link value theory and Resource Value- Risk perspective as an alternative to the Capital Asset Pricing Model. Contractual arrangements impose fixed costs and variable revenues.	Explains how value originates in risky and difficult to monitor productive processes and is transmitted as rents to organizational and capital market constituents. Two missing elements of RBV are value theory and accountability mechanisms.
Bowman, C. and Toms, S., 2010. Accounting for competitive advantage: The resource-based view of the firm and the labor theory of value. *Critical Perspectives on Accounting*, 21(3), pp.183-194.	Does the RBV of the firm require a labor theory of value creation? Could accounting concepts assist in the search for a theory of value?	Uses the circuit of capital as framework to integrates RBV and Marx's value theory.	Some resource-based advantages, when eventually imitated lead to an overall reduction in industry profitability, and other advantages lead to increases in industry average profitability.
Hansen, M.H., Perry, L.T. and Reese, C.S., 2004. A Bayesian operationalization of the resource-based view. *Strategic Management Journal*, 25(13), pp.1279-1295.	Can the gap between theory and practice of the RBV be narrowed by operationalizing RBV in terms of administrative and productive resources?	Bayesian hierarchical modeling. RBV is a theory about extraordinary performers or outliers—not averages.	Bayesian method allows for meaningful probability statements about specific, individual firms and the effects of the administrative decisions. Regression analysis is not appropriate for RBV modeling.

APPENDIX 6

S&P 500 Firms Joining or Leaving WMECs List

This table shows the year when firms join or leave the list of World's Most Ethical Company (WMEC). Year that a firm first joins the WMECs list shows number 1, which continues to be 1 if the firm stays on the list. The last column indicates the year firm left the WMECs with 2019 modal or 2015 median years. N/A means not applicable or that the firm has not left the WMEC list as of December 2019 Ethisphere's list of WMECs.

World's Most Ethical Companies on S&P 500 Index	2007	2008	2009	2010	Year Left
ACCENTURE PLC		1	1	1	n/a
ADOBE INC				1	n/a
BECTON DICKINSON & CO				1	2015
BEST BUY CO INC				1	2014
CATERPILLAR INC				1	2013
CISCO SYSTEMS INC		1	1	1	2018
CUMMINS INC				1	n/a
DEERE & CO	1	1	1	1	n/a
EATON CORP PLC				1	2016
ECOLAB INC	1	1	1	1	n/a
FLUOR CORP	1	1	1	1	n/a
GENERAL ELECTRIC CO	1		1	1	n/a
GENERAL MILLS INC				1	2013
HONEYWELL INTERNATIONAL INC				1	2015
INTL PAPER CO	1	1	1	1	n/a
JOHNSON CONTROLS INTL PLC				1	n/a
KELLOGG CO	1	1	1	1	n/a
MARRIOTT INTL INC				1	n/a
NIKE INC -CL B				1	2012
PEPSICO INC	1	1	1	1	n/a
ROCKWELL AUTOMATION		1	1	1	n/a
ROCKWELL COLLINS				1	2019
SALESFORCE.COM INC				1	n/a
STARBUCKS CORP	1	1	1	1	n/a
SYMANTEC CORP		1	1	1	n/a
TARGET CORP	1	1	1		2019
UNITED PARCEL SERVICE INC	1	1	1	1	2019
VF CORP	1	1	1		n/a
WEYERHAEUSER CO				1	n/a
WYNDHAM DESTINATIONS INC				1	n/a
Grand Total	**11**	**14**	**15**	**28**	**n/a**

CHAPTER 4

RESULTS, CONTRIBUTIONS AND IMPLICATIONS

SUMMARY OF RESULTS

Essay 1 of this study finds that managerial entrenchment significantly explains variations in excess cash of firms during the sample period. Moreover, entrenched managers keep high excess cash, while managers who are less entrenched keep low excess cash. Consistent with prior research, entrenched managers also borrow less and use long-term over short-term maturities (Berger et al. 1997) to minimize the discipline associated with debt financing (Jensen 1986). Firms that have more excess cash tend to borrow less, while firms with less excess cash borrow more to finance operating, investing, and financing activities (Byoun 2011). Results relating to the effects of entrenchment on excess cash, and leverage strongly hold before, during, and after the 2008 global economic crisis. Finally, managerial entrenchment provides significant explanation for the variance in excess cash, financial leverage, and average debt maturity for small or large firms.

In the context of stakeholder theory, essay 2 provides evidence that World's Most Ethical Companies have neither lower cost of capital nor higher Tobin's q than matched control sample of non-WMECs. Powerful CEOs utilize their influence to obtain significantly lower cost of capital, but also have lower industry-adjusted Tobin's q than firms led by weak CEOs. Economic performance is also significantly positively associated with cost of debt capital, and it also increases cost of equity capital. Also, economic performance is positively associated with firm value, which is consistent with prior research (Borghesi et al. 2019, Li et al. 2016, Matsumura et al. 2014). Consistent with prior research CEO power decreases firm value (industry-adjusted Tobin's q) under agency theory, though additional analysis reveals a non-monotonic relationship

between CEO power and firm value (Bebchuck et al. 2011, Chintrakarn et al. 2014). This study does not provide evidence on the interaction of ethical corporate citizenship and CEO power on firms' outcomes, which provides an interesting opportunity for further research.

IMPLICATIONS

Results have implications for practice, research, and government policy. First, results on the relationship between managerial entrenchment and excess cash has implications for theory and practice. Firms led by entrenched managers keep high excess cash to minimize the threat of running out of cash or liquidity crisis to avail cash for day-to-day operational needs. The entrenched managers systematically draw down on the residual excess cash to fund investment opportunities, which may not be timely or significant enough to take advantage of high return investments. Accordingly, there is high opportunity cost of entrenched managers retaining high excess cash in terms of forgone investment opportunities that have high returns. On the other hand, firms led by managers who are less entrenched utilize available cash on high return investment opportunities earn extra returns for the firm to further increase excess cash (Bibow 2005). It can be argued that entrenched managers prefer more liquidity to less compared to managers who are less entrenched in part because of the managers' ability to address liquidity crisis in the face of high return investment opportunities. Entrenched managers are more likely to utilize their influence and network to obtain cheaper cost financing in time to avert liquidity crisis.

Second, entrenched managers generally borrow less, and use long-term rather than equity to increases excess cash. This suggests that entrenched managers, including CEOs with relatively higher pay slice, utilize long-term debt that may be rolled over a long period of time (perpetually) have long tenure expectations at the firm. On the other hand, the powerful CEOs may utilize the

increased long-term debt financing to provide relatively cheaper funding for long-term business activities that current and successive managers can work with. This is especially the case if current long-term rates are cheaper than expected future long-term rates. Also, prior research suggests debt is cheaper than equity financing (Berger et al 1997), and entrenched managers use of cheaper long-term debt rather than retained earnings or equity financing is consistent with pecking order theory (Myers and Majluf 1984). Therefore, long-term debt provides cheaper source of financing than equity that managers use to enhance firm value.

Moreover, results have implications for practice and research in capital structure and ethical corporate citizenships. Despite results that WMECs do not have a clear advantage over non-WMEC on cost of capital or firm value, it still pays to be good ethical corporate citizen in the long-term for several reasons. For example, commitment to corporate ethics could have saved several firms including, Enron, Global Crossing, and Arthur Andersen that did not survive in periods prior to reforms legalized by the Sarbanes-Oxley Act (2002). In fact, relaxing assumptions of control match design, or utilizing entropy balance design show that WMECs do have higher firm value, and lower loan spreads than non-WMECs. The long-term benefits, in terms of higher market capitalization, to the stakeholders of a firm that continuously practice ethical corporate citizenship cannot be over-emphasized. Companies that incorporate business ethics in operating, investing and financing decisions on a sustainable basis add greater value to the firm. It makes economic sense in the medium to long-term for firms to practice the principles of ethical corporate citizenship by committing to practicing a culture of ethics, corporate citizenship and responsibility, effective governance, leadership, innovation, and reputation management. Therefore, business spending on ethical corporate citizenship initiatives is an investment into the future potential value and cost savings for the firms. Practitioners should incorporate the principles of corporate

citizenship to improve ethical decision-making. Practicing business ethics effectively mitigates operational, financial and reputational risks that could plague businesses that do not embrace ethical corporate citizenship principles.

Overall results imply that firms should continue to implement effective governance mechanisms to satisfice the conflict of interests among managers, shareholders, and creditors in order to minimize the extraction of private benefits by entrenched managers. Entrenched managers often rely on agency conflicts and asymmetric information to extract pecuniary benefits (Shleifer and Vishny 1989), although entrenched CEOs often utilize their influence to reduce firms' cost of debt. As a result, shareholders should continue to be active participants in influencing firms' financial leverage and capital structure decisions.

CONTRIBUTIONS

This dissertation contributes to prior research in capital structure, CEO compensation, corporate governance, and corporate social responsibility in several ways. This study provides new evidence that entrenched managers keep high excess cash, while managers who are less entrenched keep low excess cash. Second, this study provides evidence that entrenched managers borrow less, and use medium to long-term rather than equity to increase excess cash. The effect of debt maturity on excess cash is not monotonic. Third, this study adds to the nomological validity of E-index by developing two direct measures of entrenchment based on four, and six anti-takeover factors (DME4, and DME6) in the post-SOX 2002 business environment. Finally, results show that excess cash, average debt maturity, and managerial entrenchment significantly explain variations in leverage of firms in small or large market value groups. Results provide evidence to rating

agencies, analysts, regulators, and researchers on the effects of managerial entrenchment on excess cash, and leverage decisions for different firm sizes across economic cycles.

Moreover, this dissertation implements two separate research designs based on (1) control match within the same 3 digits SIC code and 10 percent of total assets (firm size), and (2) entropy balance of total assets weights to provide robust evidence that WMECs do not have significantly lower cost of capital than comparable non-WMECs in the context of stakeholder theory. Contrary to evidence from prior research that corporate social responsibility practices reduce *cost of equity* (Dhaliwal et al. 2011, El Ghoul et al. 2011), alternative tests provide evidence that net CSR score does not significantly negatively affect cost of equity in the context of stakeholder theory using control match, or entropy balance designs. Also, S&P 500 firms that join and stay on the WMEC list through 2017 show better stock price return than firms that did not stay on the WMEC listing. This external evidence based on stock price returns suggests that a firm's commitment to ethical corporate citizenship, rather than infrequent practice of corporate social responsibility matters. This dissertation empirically establishes a strong positive correlation between corporate social responsibility and ethical corporate citizenship, and it adds the WMECs list as a nomologically valid measure of the corporate social responsibility. Finally, this study provides anecdotal evidence that the CEO personal characteristic (CPCI) including age, education, CEO tenure, and career changes provide an alternative proxy for CEO pay slice. CPCI provides comprehensive personality traits that underlie CEO power beyond CEO compensation.

Overall, this dissertation provides new evidence on the positive association between managerial entrenchment and excess cash. It contributes to the literature two direct measures of entrenchment (DME4 and DME6) as proxy for E-index, and the CEO personal characteristic index as a proxy for CEO power.

CHAPTER 5

CONCLUSIONS

Corporate America scandals, and excessive use of power by CEOs and senior executives of firms to achieve company and personal objectives are frequent business news headlines that cast doubt on the effectiveness of corporate reforms after Sarbanes Oxley Act (2002). However, World's Most Ethical Companies demonstrate organizational commitment to culture of ethics, corporate citizenship and responsibility, effective governance, leadership and reputation (Ethisphere 2018). Prior research finds that the tone at the top of companies sets the climate for effective internal control (Gold, Gronewold, and Salterio 2014). For instance, the CEO of Goldman Sachs admitted to the firm's violation of U.S. corruption laws, and Goldman Sachs agreed to pay nearly $3 billion to regulators, and to claw back $174 million from top executives (Hoffman and Michaels 2020). It is interesting to note that lapses in ethical judgments of the CEO and senior leadership team are financially and reputationally punitive to firms, and it significantly derails the effectiveness of internal controls, and overall decision-usefulness of accounting information (Gold, Gronewold, and Salterio 2014). Agency conflicts and asymmetric information between managers and shareholders of firms exacerbates managerial entrenchment (Bebchuk et al 2011). This dissertation examines the impact of managerial entrenchment, and ethical corporate citizenship on the financial flexibility, leverage, cost of capital, and firm value in essays 1 and 2.

Prior research documents entrenched managers tendency to borrow less, use longer term debt, and take actions to minimize timing of the discipline imposed by debt financing (Berger et al 1997, Jensen 1986). This study finds that entrenched managers borrow less, use medium or long-term debt, and keep high excess cash compared to managers who are less entrenched.

However, I find a positive association of CEO power and financial leverage as CEOs need to satisfy cash flow requirements for operations, investments (Ji et al. 2019). This is consistent with powerful CEOs taking more risk than weak CEOs (Chintrakarn et al. 2014, 2018). Specifically, as CEO power increases from a low of 25th to 50th percentile, excess cash decreases from high to a minimum, but the excess cash rises as CEO power increases to a high of 75th percentile. This suggests that powerful CEOs keep low excess cash and borrow more cheaper long-term debt to fund investments that earn higher returns for the firm. In this sense, CEOs are utilizing their influence and business acumen to reduce financing costs and increase net investment income in order to maximize shareholders' wealth. The apparent contradictions in the findings between managerial entrenchment (as measured by E-index) and CEO power (as measured by CEO pay slice) is explained by prior research that CEO pay slice is a measure of efficient contracting with the individual CEO compensation and not managerial entrenchment (Bugeja, Matolcsy, and Spiropoulos 2017).

Compared to the pre-crisis period, firms' average debt maturity or excess cash did not change significantly, but the extent of borrowing did change during the 2008 global economic crisis, especially when lines of credit dried up, and firms' credit risk generally increased. The evidence that entrenched managers borrow less, cheaper, long-term debt, and keep high excess cash than managers who are less entrenched hold in periods before, during, and after the 2008 Global Economic Crisis. This study also provides new evidence that CEO power, and economic performance rather than ethical corporate citizenship significantly reduce the cost of debt, and the weighted average cost of capital. This study did not find that ethical corporate citizenship significantly reduces cost of equity capital of World's Most Ethical Companies (WMECs) compared to matched control sample of non-WMECs.

This study provides evidence that economic performance, and ethical corporate citizenship rather than CEO power are positively associated with industry-adjusted Tobin's q. Result on firm value is consistent with prior research that investments in corporate ethics enhances firm value (Borghesi et al. 2019, Li et al. 2016, Matsumura et al. 2014), but inconsistent with the findings that corporate ethics expenses are detrimental to firm value (Carroll 1999, Moser and Martin 2012). Specifically, results indicate that WMECs have significantly higher Tobin's q than a balanced sample of non-WMECs control firms. However, this significant effect does not exist if WMECs are matched with control small sub-sample of non-WMECs within the same 3-digit SIC code assuming a10 percent of total assets tolerance level. Mixed results are largely driven by WMECs and non-WMECs that are outside the 10 percent of total assets tolerance level excluded from the control match design analysis. In fact, the differences in Tobin's q is significant for the control match method if greater than 10 percent of total assets is analyzed. The balanced total assets weights assigned to the non-WMECs in the entropy matching to the WMECs optimizes the use of firm year data across multiple industries. On the contrary, the control match design using firm year data in 3-digit SIC and 10 percent of total assets band excludes firm year data that do not match these criteria for fair comparison of WMECs and matched non-WMEC control firms. Results also show that CEO power decreases firm value under agency theory, though additional analysis reveals a non-monotonic relationship between CEO power and firm value consistent with prior research (Bebchuck et al. 2011, Chintrakarn et al. 2014).

In conclusion, stakeholder theory provides significant explanation for firms' capital structure decisions including, the amount and maturity of debt, cost of debt, excess cash, and firm value. Specifically, compared to managers who are less entrenched, entrenched managers borrow less long-term debt and keep high excess cash to exploit investment opportunities for the firm.

World's Most Ethical Companies, and firms with higher net income performance have higher firm value than non-WMECs. It would be interesting to examine whether ethical corporate citizenship moderate the negative effect of CEO power on firm value (Bebchuck et al. 2011).

LIMITATIONS AND FURTHER RESEARCH

<u>Limitations</u>

The limitations of this dissertation provide good opportunities for further research. First, CEO pay slice and E-index as measures of managerial entrenchment do not always yield consistent results. Prior research find that CEO pay slice is largely consistent with efficient contracting, but not the managerial power explanation of CEO compensation (Bugeja, Matolcsy, and Spiropoulos 2017, Zagonov and Salganik-Shoshan 2018). CEO pay slice focuses on the relative power of the CEO to the top 4 executives of the firm, and it indicates the extent to which CEO extracts compensation benefits from the firm. CEO pay slice narrowly focuses on relative CEO compensation power compared to a firm's broader practices on the six antitrust provisions included in the E-index to minimize the threat of potential acquisition. As a result, consistent with developing the direct measures of entrenchment in this study, further research should utilize those measures to examine the effect of entrenchment on firm outcomes. The effects of the relative CEO compensation power among the top 5 executives is a proxy for managerial power rather than entrenchment.

Ethisphere (2018) provides frequently asked questions on the World's Most Ethical Companies selection process, methodology, and the costs and benefits of staying on the list (see Appendix 2 in Essay 2). Also, anecdotal evidence show that companies leave WMECs lists partly because of violations of product safety and environmental regulations, workplace discrimination

and harassment, allegations of accounting fraud, well publicized litigation, massive layoffs, and significant reductions in sales revenues and net income through intense competition (see appendix 3 of Essay 2). This provides prima facie evidence that Ethisphere takes diligent steps to screen, and effectively police companies that join, stay or leave the list of WMECs in accordance with their guidelines. However, questions remain unanswered on the World's Most Ethical Companies that are privy to Ethisphere. For example, Ethisphere has a policy to not disclose the rates at which companies join, or leave the list and the specific reasons for their decision. Additional insights into Ethisphere's practices including information about companies that are rejected should provide helpful to researchers who are exploring political connections aspects of the list. Further research should consider developing and applying an external measure of free ethics score for a company's commitment to a culture of ethics, effective governance, leadership, and innovation to a broad set of companies including firms on Ethisphere's list. This new measure should provide value and add to the nomological validity of Ethisphere's World's Most Ethical Companies.

Moreover, comparing companies that are on the World's Most Ethical Companies list to those that are not on the list should consider the firm size, and industry. This study applied control match design and entropy balance technique (Hainmueller 2011, 2012). Essay 2 applied control match design to match WMECs and non-WMECs based on 3 digits SIC code and 10 percent of total assets. Essay 2 also applied entropy balance by assuming 10 moments, total assets size, and 200 iterations to derive total asset weights of the non-WMECs compared to WMECS weighted as 1. Entropy balancing uses salient firm characteristics (e.g., total assets) and Monte Carlo simulation to provide better matching of companies for analysis of causal effects. Fixed effects regression utilize year, and firm fixed effects as techniques to minimize heterogeneity in the comparisons of the treatment and control groups. As a result of sample size limitations from the

control match design, regression results using data from entropy balance or control match design did not always provide similar results. Reported results are based on control match design except when there is insufficient data.

Finally, further research should use instrumental variables including, tax cuts, Federal Reserve interest rate actions, and incremental firm's borrowings in causal analysis of the sources for financial flexibility. CEO quality, and measurement of CEOs or employee's capital assets is another opportunity for further research. Further studies should develop new or enhance existing measures of economic performance to test for the external validity of the results in this study. For example, net income, excess return, and economic value added are utilized as measures of economic performance in this study.

Further Research

The limitation of this study provides further research opportunities in the near to medium term period as follows. In the near future, this study should be expanded to address questions relating to CEO power, financial leverage, dividends payout, and firm value. There are questions around whether powerful or weak CEOs borrow more to fund dividend payouts, or pay additional compensation to senior executives, and how the incremental borrowings affect firm value. Related questions around relative CEO power in World's Most Ethical Companies compared to non-WMECs and the impact on dividend policy, leverage, and firm values should be investigated. The present study does not find significant association between CEO power or World's Most Ethical Companies listing and cost of capital. Further research should analyze the cost of equity advantages associated with World's Most Ethical Companies or firms with high positive net scores in corporate social responsibility given large longitudinal dataset. It is also interesting for further research to examine how CEO turnover or other instrumental variables on CEO changes affect

149

cost of capital. The correlation between CEO pay slice and the recent United States Securities and Exchange Commission annual report disclosures on CEO pay to that of median employees should be interesting study from corporate governance perspective. Further research should investigate causal factor that influence powerful CEOs to borrow more or take more risks (Chintrakarn et al. 2014, 2018). CEOs may borrow more to make firms highly levered firms, unattractive to potential acquirers, and make it difficult to remove the CEOs in a business combination (Bebchuk et al 2011). Further research should examine a resource-based view of CEO power and ethical corporate citizenship as sources of competitive advantage using Bayesian analysis (Hansen et al. 2004).

In the medium term, this study should be applied to financial services companies, such as insurance companies that were excluded from the study. Consistent with prior research, utilities, banks, and insurance companies are regulated entities that have different long-term assets, and regulatory capital requirements. For example, risk-based capital requirements of State Commissioners of Insurance provide a framework for insurance companies surplus, and solvency that is crucial to an analysis of systemically important financial institutions (SIFI). Further research should examine the effect of CEO power on firms' outcomes of financial services companies, and compare with the industries included in the sample. This will provide valuable lessons on largely unexplored territories in prior research on financial services companies.

In the long-term, further research should examine issues on the due process of accounting standard-setting, the differential impact on late versus early adopters of recent accounting standards relating to revenue recognition, long-duration insurance accounting, leases, and cumulative expected credit losses. Specifically, Accounting Standards Update 2018-12, *Targeted Improvements to Long-Duration Insurance (Topic 944)* accounting currently effective on January 1, 2023 for public insurance companies, with early adoption permitted, is widely expected to

increase transparency in insurance companies' financial performance and shareholders' equity. Further research should address the differential effects of early versus late adopters of ASU 2018-12, as well as, event studies on its effect on transparency of insurers' financial performance and share price performance. Stakeholders of insurance companies, including management, analysts, standard-setters, and regulators are keenly interested in the accounting improvements widely expected from companies' adoption of ASU 2018-12. Finally, public companies adopted ASU 2016-02, *Leases (Topic 842)*, on January 1, 2020, which added operating lease liabilities to the balance sheets of companies, and improved footnote disclosures on disaggregation and rollforwards of leases. The increase in lease obligations is expected to affect firm's debt covenants, and leverage ratios. Further research should investigate the effects of the new lease standards on firms' excess cash, and outcomes.

BIBLIOGRAPHY

Ang, J. and Smedema, A., 2011. Financial flexibility: Do firms prepare for recession? *Journal of corporate finance*, 17(3), pp.774-787.

Areal, N. 2010. The World's Most Ethical Companies: does the fame translate into gain? *Management*, 8700, 2007-2008.

Areal, N., Carvalho, A. 2012. The financial performance of the World's Most Ethical Companies: advantage in times of crisis. Available at SSRN 2186088

Arslan-Ayaydin, Ö., Florackis, C. and Ozkan, A., 2014. Financial flexibility, corporate investment and performance: evidence from financial crises. *Review of Quantitative Finance and Accounting*, 42(2), pp.211-250.

Barnett, M.L., 2007. Stakeholder influence capacity and the variability of financial returns to corporate social responsibility. *Academy of Management Review*, 32(3), pp.794-816.

Barney, J.B., 2001. Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of management*, *27*(6), pp.643-650.

Barth, M.E., Konchitchki, Y. and Landsman, W.R., 2013. Cost of capital and earnings transparency. *Journal of Accounting and Economics*, 55(2-3), pp.206-224.

Bates, T., Kahle, K., and Stulz, R. 2016. Why to US Firms Hold Much More Cash than They Used To? *The Journal of Finance*, 64, 1985-2021.

Bates, T.W., Becher, D.A. and Lemmon, M.L., 2008. Board classification and managerial entrenchment: Evidence from the market for corporate control. *Journal of Financial Economics*, 87(3), pp.656-677.

Bebchuk, L.A., Cremers, K.M. and Peyer, U.C., 2011. *The CEO pay slice*. *Journal of financial Economics*, 102(1), pp.199-221.

Bebchuk, L., Cohen, A. and Ferrell, A., 2009. What Matters in Corporate Governance? 22 *Rev. Fin. Stud*, 783, p.823.

Berger, P.G., Ofek, E. and Yermack, D.L., 1997. Managerial entrenchment and capital structure decisions. *The Journal of Finance*, 52(4), pp.1411-1438.

Bibow, J., 2005. Liquidity Preference Theory Revisited-To Ditch or to Build on it? The Levy Economics Institute of Bard College Working Paper No. 427

Bowman, C. and Toms, S., 2010. Accounting for competitive advantage: The resource-based view of the firm and the labor theory of value. *Critical Perspectives on Accounting*, *21*(3), pp.183-194.

Black, B.S. (2010). Bloopers: *How (Mostly) Smart People Get Causal Inference Wrong*, Slides for his workshop on causal inference.

Blazovich, J.L., Cook, K.A. and Smith, M., 2014. Do ethical firms bridge the gender gap in CEO compensation? *Journal of Accounting, Ethics and Public Policy*, 15(2).

Blazovich, J. L., & Murphy Smith, L. 2011. Ethical corporate citizenship: Does it pay? In Research on professional responsibility and ethics in accounting (pp. 127-163). *Emerald Group Publishing Limited*.

Blair, M.M., 1996. Ownership and control: Rethinking corporate governance for the twenty-first century. *Long Range Planning*, 29(3), pp.432-432.

Bugeja, M., Matolcsy, Z. and Spiropoulos, H., 2017. The CEO pay slice: Managerial power or efficient contracting? Some indirect evidence. *Journal of Contemporary Accounting & Economics*, 13(1), pp.69-87.

Benmelech, E., 2006. Managerial entrenchment and debt maturity: Theory and evidence. *Harvard University and The National Bureau of Economic Research Working Paper*.

Berger, P.G., Ofek, E. and Yermack, D.L., 1997. Managerial entrenchment and capital structure decisions. *The journal of finance*, 52(4), pp.1411-1438.

Bonaimé, A.A., Hankins, K.W. and Jordan, B.D., 2016. The cost of financial flexibility: Evidence from share repurchases. *Journal of Corporate Finance*, 38, pp.345-362.

Byoun, S. 2011. Financial flexibility and capital structure decision. Available at SSRN 1108850.

Carhart, M.M., 1997. On persistence in mutual fund performance. *The Journal of finance*, 52(1), pp.57-82.

Carroll, A. B. 2016. Carroll's pyramid of CSR: taking another look. *International Journal of Corporate Social Responsibility*, 1(1), 3.

Carroll, A.B., 1999. Corporate social responsibility: Evolution of a definitional construct. *Business & society*, 38(3), pp.268-295.

Carroll, A.B., 1979. A three-dimensional conceptual model of corporate performance. *Academy of management review*, 4(4), pp.497-505.

Carter, C. and Toms, S., 2010. Value, profit and risk: accounting and the resource-based view of the firm. *Accounting, Auditing & Accountability Journal*.

Cecchini, M., Leitch, R. and Strobel, C., 2013. Multinational transfer pricing: A transaction cost and resource-based view. *Journal of Accounting Literature*, *31*(1), pp.31-48.

Chatterjee, A. and Hambrick, D.C., 2007. It's all about me: Narcissistic chief executive officers and their effects on company strategy and performance. *Administrative, science quarterly*, 52(3), pp.351-386.

Chakraborty, A., Rzakhanov, Z. and Sheikh, S., 2014. Antitakeover provisions, managerial entrenchment and firm innovation. *Journal of Economics and Business*, 72, pp.30-43.

Chakraborty, A. and Sheikh, S., 2010. Antitakeover amendments and managerial entrenchment: new evidence from investment policy and CEO compensation. *Quarterly Journal of Finance and Accounting*, pp.81-104.

Charitou, A. and Ketz, E., 1991. An empirical examination of cash flow measures. *Abacus*, *27*(1), pp.51-64.

Chintrakarn, P., Chatjuthamard, P., Tong, S. and Jiraporn, P., 2018. How do powerful CEOs view dividends and stock repurchases? Evidence from the CEO pay slice (CPS). *International Review of Economics & Finance*, 58, pp.49-64.

Chintrakarn, P., Jiraporn, P. and Tong, S., 2015. How do powerful CEOs view corporate risk-taking? Evidence from the CEO pay slice (CPS). *Applied Economics Letters*, 22(2), pp.104-109.

Chintrakarn, P., Jiraporn, P. and Singh, M., 2014. Powerful CEOs and capital structure decisions: evidence from the CEO pay slice (CPS). Applied Economics Letters, 21(8), pp.564-568.

Chen, M. L., & Lin, C. P. 2014. Modelling perceived corporate citizenship and psychological contracts: A mediating mechanism of perceived job efficacy. *European Journal of Work and Organizational Psychology*, 23(2), 231-247.

Chen, K.H. and Metcalf, R.W., 1980. The relationship between pollution control record and financial indicators revisited. *The Accounting Review*, 55(1), pp.168-177.

Cochran, P.L. and Wood, R.A., 1984. Corporate social responsibility and financial performance. *Academy of Management Journal*, 27(1), pp.42-56.

Cremers, K.M. and Nair, V.B., 2005. Governance mechanisms and equity prices. *The Journal of Finance*, 60(6), pp.2859-2894.

Daniel, N.D., Denis, D.J. and Naveen, L., 2010. Sources of financial flexibility: Evidence from cash flow shortfalls. *Drexel University.*

Datta, S., Iskandar-Datta, M. and Raman, K., 2005. Managerial stock ownership and the maturity structure of corporate debt. *The Journal of Finance*, 60(5), pp.2333-2350.

Davidson, R. H., Dey, A., & Smith, A. J. 2018. CEO materialism and corporate social responsibility. *The Accounting Review.*

Dahlsrud, A. 2008. How corporate social responsibility is defined: an analysis of 37 definitions. *Corporate social responsibility and environmental management*, 15(1), 1-13.

Desai, H., Hogan, C.E. and Wilkins, M.S., 2006. The reputational penalty for aggressive accounting: Earnings restatements and management turnover. *The Accounting Review*, 81(1), pp.83-112.

DeAngelo, H., & DeAngelo, L. 2007. Capital structure, payout policy, and financial flexibility. *Marshall school of business working paper no. FBE*, 02-06.

DeAngelo, H. and Masulis, R. 1980. Optimal capital structure under corporate and personal taxation. *Journal of Financial Economics* 8, 3-29.

Denis, D. J. 2011. Financial flexibility and corporate liquidity. *Journal of corporate finance*, 17(3), 667-674.

Denis, D. J., & McKeon, S. B. 2012. Debt financing and financial flexibility evidence from proactive leverage increases. *The Review of Financial Studies*, 25(6), 1897-1929.

Denis, D.J., Denis, D.K. and Sarin, A., 1999. Agency theory and the influence of equity ownership structure on corporate diversification strategies. *Strategic Management Journal*, 20(11), pp.1071-1076.

Diamond, D.W., 1989. Reputation acquisition in debt markets. *Journal of political Economy*, 97(4), pp.828-862.

Donaldson, T., & Preston, L. E. (1995). The stakeholder theory of the corporation: Concepts, evidence, and implications. *Academy of management Review*, 20(1), 65-91.

Dhaliwal, D. S., Li, O. Z., Tsang, A., & Yang, Y. G. 2011. Voluntary nonfinancial disclosure and the cost of equity capital: The initiation of corporate social responsibility reporting. *The Accounting Review*, 86(1), 59-100.

Easterbrook, F.H., 1984. Two agency-cost explanations of dividends. *The American economic review*, 74(4), pp.650-659.

Edlin, A.S. and Stiglitz, J.E., 1995. Discouraging rivals: Managerial rent-seeking and economic inefficiencies. *The American Economic Review*, 85(5), pp.1301-1312.

Emery, G.W. and Cogger, K.O., 1982. The measurement of liquidity. *Journal of accounting research*, pp.290-303.

Eisenhardt, K.M., 1989. Agency theory: An assessment and review. *Academy of management review*, 14(1), pp.57-74.

Elliott, W.B., Jackson, K.E., Peecher, M.E. and White, B.J., 2014. The unintended effect of corporate social responsibility performance on investors' estimates of fundamental value. *The Accounting Review*, 89(1), pp.275-302.

El Ghoul, S., Guedhami, O., Kwok, C. C., & Mishra, D. R. 2011. Does corporate social responsibility affect the cost of capital? *Journal of Banking & Finance*, 35(9), 2388-2406.

Ethisphere 2018. The World's Most Ethical Companies. Available online at: https://ethisphere.com/

Fama, Eugene, and Kenneth R. French, 1998. Taxes, financing decisions and firm value. *Journal of Finance* 53, 819-843.

Fama, Eugene F., and Kenneth R. French, 2002. Testing tradeoff and pecking order predictions about dividends and debt. *Review of Financial Studies* 15, 1-33.

Fama, Eugene F., and Kenneth R. French, 2012. Capital structure choices. *Critical Finance Review* 1, 59-101.

Fama, E. F., & French, K. R. 1997. Industry costs of equity. *Journal of Financial Economics*, 43(2), 153-193.

Fama, E. F., & French, K. R. 1993. Common risk factors in the returns on stocks and bonds. *Journal of Financial Economics*, 33(1), 3-56.

Fama, E.F. and Jensen, M.C., 1983. Separation of ownership and control. *The journal of law and Economics*, 26(2), pp.301-325.

Fan, J.P. and Wong, T.J., 2005. Do external auditors perform a corporate governance role in emerging markets? Evidence from East Asia. *Journal of accounting research*, 43(1), pp.35-72.

Faleye, O., 2007. Classified boards, firm value, and managerial entrenchment. *Journal of Financial Economics*, 83(2), pp.501-529.

Faleye, O., 2004. Cash and corporate control. *The Journal of Finance*, 59(5), pp.2041-2060.

Ferris, S.P., Kumar, R., Sant, R. and Sopariwala, P.R., 1998. An agency analysis of the effect of long-term performance plans on managerial decision making. *The Quarterly Review of Economics and Finance*, 38(1), pp.73-91.

Farre-Mensa, J. and Ljungqvist, A., 2016. Do measures of financial constraints measure financial constraints? *The Review of Financial Studies*, 29(2), pp.271-308.

Fenn, G.W. and Liang, N., 2001. Corporate payout policy and managerial stock incentives. *Journal of financial economics*, 60(1), pp.45-72.

Feltham, G. A., & Ohlson, J. A. 1995. Valuation and clean surplus accounting for operating and financial activities. *Contemporary Accounting Research*, 11(2), 689-731.

Financial Accounting Standards Board. 2019. Glossary of Accounting Standards Codification (ASC). Available online at: www.fasb.org

Freedman, M., & Jaggi, B. 1988. An analysis of the association between pollution disclosure and economic performance. *Accounting, Auditing & Accountability Journal*, 1(2), 43-58.

Freeman, R. E., Wicks, A. C., & Parmar, B. 2004. Stakeholder theory and "the corporate objective revisited". *Organization science*, 15(3), 364-369.

Freeman, R. E. 1999. Divergent stakeholder theory. *Academy of Management Review*, 24(2), 233-236.

Florackis, C. and Ozkan, A., 2009. The impact of managerial entrenchment on agency costs: An empirical investigation using UK panel data. *European Financial Management*, 15(3), pp.497-528.

Gamba, A., & Triantis, A. 2008. The value of financial flexibility. *The journal of finance*, 63(5), 2263-2296.

Ghanbari, A.M. and More, V.S., 2007. The relationship between economic value added and market value added: An empirical analysis in Indian automobile industry. *The IUP Journal of Accounting Research and Audit Practices,* 6(3), pp.7-22.

Giroud, X. and Mueller, H.M., 2011. Corporate governance, product market competition, and equity prices. *The Journal of Finance*, 66(2), pp.563-600.

Gold, A., Gronewold, U., & Salterio, S. 2014. Error Management in Audit Firms: Error Climate, Type, and Originator. *The Accounting Review*, 89(1), 303-330.

Gompers, P., Ishii, J. and Metrick, A., 2003. Corporate governance and equity prices. *The Quarterly Journal of Economics*, 118(1), pp.107-156.

Goss, A., & Roberts, G. S. 2011. The impact of corporate social responsibility on the cost of bank loans. *Journal of Banking & Finance*, 35(7), 1794-1810.

Gombola, M.J. and Ketz, J.E., 1983. A note on cash flow and classification patterns of financial ratios. *Accounting Review*, pp.105-114.

Gompers, P., Ishii, J. and Metrick, A., 2003. Corporate governance and equity prices. *The quarterly journal of economics*, 118(1), pp.107-156.

Hainmueller, J. and Xu, Y., 2013. Ebalance: A Stata package for entropy balancing. *Journal of Statistical Software*, 54(7).

Hainmueller, J. 2011. Entropy Balancing for Causal Effects: A Multivariate Reweighting Method to Produce Balanced Samples in Observational Studies. *Political Analysis*, 20, 25- 46.

Hansen, M.H., Perry, L.T. and Reese, C.S., 2004. A Bayesian operationalization of the resource-based view. *Strategic Management Journal*, 25(13), pp.1279-1295.

Harrison, J. S., & Wicks, A. C. 2013. Stakeholder theory, value, and firm performance. *Business Ethics Quarterly*, 23(1), 97-124.

Hess, D. and Immenkötter, P., 2014. How much is too much? Debt Capacity and Financial Flexibility. Debt Capacity and Financial Flexibility (March 2014).

Hoberg, G., Phillips, G., & Prabhala, N. 2014. Product market threats, payouts, and financial flexibility. *The Journal of Finance*, 69(1), 293-324.

Hoffman, L. and Michaels, D. 2020. Goldman Pays Billions—And Takes Millions From Top Execs—To End 1MDB Scandal. *The Wall Street Journal*.

Hsu, C., Novoselov, K.E. and Wang, R., 2017. Does accounting conservatism mitigate the shortcomings of CEO overconfidence? *The Accounting Review*, *92*(6), pp.77-101.

Ingram, R.W. and Frazier, K.B., 1980. Environmental performance and corporate disclosure. *Journal of Accounting Research*, pp.614-622.

Jensen, Michael C., and William H. Meckling., 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics* 3, 305-360.

Jensen, M. C. 2001. Value maximization, stakeholder theory, and the corporate objective function. *Journal of Applied Corporate Finance*, 14(3), 8-21.

Jensen, M.C., 1986. Agency costs of free cash flow, corporate finance, and takeovers. *The American economic review*, 76(2), pp.323-329.

Ji, S., Mauer, D.C. and Zhang, Y., 2019. Managerial entrenchment and capital structure: The effect of diversification. *Journal of Corporate Finance*, p.101505.

Jiraporn, P., Chintrakarn, P. and Kim, Y.S., 2012. Analyst following, staggered boards, and managerial entrenchment. *Journal of Banking & Finance*, 36(11), pp.3091-3100.

Jiang, Z. and Lie, E., 2016. Cash holding adjustments and managerial entrenchment. *Journal of Corporate Finance*, 36, pp.190-205.

Johnson, S.A., 2003. Debt maturity and the effects of growth opportunities and liquidity risk on leverage. *The Review of Financial Studies*, 16(1), pp.209-236.

Kesten, J.B., 2010. Managerial entrenchment and shareholder wealth revisited: Theory and evidence from a recessionary financial market. *BYU L. Rev.*, p.1609.

Kumar, R. and Sopariwala, P.R., 1992. The effect of adoption of long-term performance plans on stock prices and accounting numbers. *Journal of Financial and Quantitative Analysis*, 27(4), pp.561-573.

Larcker, D.F., Richardson, S.A. and Tuna, I.R., 2007. Corporate governance, accounting outcomes, and organizational performance. *The accounting review*, 82(4), pp.963-1008.
Lee, S., Matsunaga, S.R. and Park, C.W., 2012. Management forecast accuracy and CEO turnover. *The Accounting Review*, 87(6), pp.2095-2122.
Lougee, B. and Wallace, J., 2008. The corporate social responsibility (CSR) trend. *Journal of Applied Corporate Finance*, 20(1), pp.96-108.

Lee, S., Matsunaga, S.R. and Park, C.W., 2012. Management forecast accuracy and CEO turnover. *The Accounting Review*, 87(6), pp.2095-2122.

Lemmon, Michael L., Michael R. Roberts, and Jaime F. Zender. 2007. Back to the beginning: Persistence and the cross-section of corporate capital structure. *Journal of Finance,* 63 (4), 15751608.

Lie, E., 2005. Financial flexibility, performance, and the corporate payout choice. *The Journal of Business*, 78(6), pp.2179-2202.

Lo, A.K., 2014. Accounting credibility and liquidity constraints: Evidence from reactions of small banks to monetary tightening. *The Accounting Review*, 90(3), pp.1079-1113.

Lougee, B. and Wallace, J., 2008. The corporate social responsibility (CSR) trend. *Journal of Applied Corporate Finance*, 20(1), pp.96-108.

Li, Z., Minor, D.B., Wang, J. and Yu, C., 2019. A learning curve of the market: Chasing alpha of socially responsible firms. *Journal of Economic Dynamics and Control,* 109, p.103772.

Liu, M. and Wysocki, P., 2017. Cross-sectional determinants of information quality proxies and cost of capital measures. *Quarterly Journal of Finance*, 7(02), p.1650016.

Marchica, M.T. and Mura, R., 2010. Financial flexibility, investment ability, and firm value: evidence from firms with spare debt capacity. *Financial management*, 39(4), pp.1339-1365.

McGuire, S.T., Wang, D. and Wilson, R.J., 2014. Dual class ownership and tax avoidance. *The Accounting Review*, 89(4), pp.1487-1516.

Mitchell, R.K., Agle, B.R. and Wood, D.J., 1997. Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts. *Academy of Management Review*, 22(4), pp.853-886.

Murphy, K.J. and Zabojnik, J., 2004. CEO pay and appointments: A market-based explanation for recent trends. *American economic review*, 94(2), pp.192-196.

Myers, Stewart C., 1977. Determinants of corporate borrowing. *Journal of Financial Economics* 5, 147-175.

Myers, Stewart C., and Nicholas S. Majluf, 1984. Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics* 13, 187221.

Opler, T., Pinkowitz, L., Stulz, R. and Williamson, R., 1999. The determinants and implications of corporate cash holdings. *Journal of financial economics,* 52(1), pp.3-46.

Orlitzky, M., Schmidt, F.L. and Rynes, S.L., 2003. Corporate social and financial performance: A meta-analysis. *Organization studies*, 24(3), pp.403-441.

Peteraf, M.A., 1993. The cornerstones of competitive advantage: a resource-based view. *Strategic management journal*, 14(3), pp.179-191.

Porter, M.E. and Kramer, M.R., 2006. The link between competitive advantage and corporate social responsibility. *Harvard business review*, 84(12), pp.78-92.

Preston, L. E., & O'bannon, D. P. 1997. The corporate social-financial performance relationship: A typology and analysis. *Business & Society,* 36(4), 419-429.

Rajan, R.G. and Zingales, L., 1995. What do we know about capital structure? Some evidence from international data. *The journal of Finance*, 50(5), pp.1421-1460.

Rapp, M. S., Schmid, T., & Urban, D. 2014. The value of financial flexibility and corporate financial policy. *Journal of Corporate Finance*, 29, 288-302.

Ramalingegowda, S., Wang, C.S. and Yu, Y., 2013. The role of financial reporting quality in mitigating the constraining effect of dividend policy on investment decisions. *The accounting review*, *88*(3), pp.1007-1039.

Rashidi, M., 2020. Dividend Smoothing Based on Financial Flexibility and Capital Structure Adjustment. *Journal of Accounting of Knowledge*, *11*(1), pp.85-112.

Roberts, R.W., 1998. A stakeholder approach to the corporate single audit. *Critical Perspectives on Accounting*, 9(2), pp.227-232.

Roberts, R. W. 1992. Determinants of corporate social responsibility disclosure: An application of stakeholder theory. *Accounting, Organizations and Society*, 17(6), 595-612

Roberts, M. & Whited, T. 2013. *Endogeneity in empirical corporate finance*. Handbook of Economics of Finance 2a, 493-572.

Ullmann, A.A., 1985. Data in search of a theory: A critical examination of the relationships among social performance, social disclosure, and economic performance of US firms. *Academy of Management Review*, 10(3), pp.540-557.

Shankman, N.A., 1999. Reframing the debate between agency and stakeholder theories of the firm. *Journal of Business Ethics*, 19(4), pp.319-334

Sharma, A.K. and Kumar, S., 2010. Economic value added (EVA)-literature review and relevant issues. *International Journal of Economics and Finance,* 2(2), pp.200-220.

Shipman, J.E., Swanquist, Q.T. and Whited, R.L., 2017. Propensity score matching in accounting research. *The Accounting Review*, 92(1), pp.213-244.

Shleifer, A. and Vishny, R.W., 1989. Management entrenchment: The case of manager-specific investments. *Journal of financial economics*, 25(1), pp.123-139.

Skiadopoulos, G. 2019. The Link Between Capital Structure and Financial Flexibility. Available online at: *https://www.cfo.com/credit/2019/10/the-link-between-capital-structure-and-financial-flexibility/*

Smith, K.T., Smith, M. and Wang, K., 2010. Does brand management of corporate reputation translate into higher market value? *Journal of Strategic Marketing*, 18(3), pp.201-221.

Song, W.L. and Wan, K.M., 2019. Does CEO compensation reflect managerial ability or managerial power? Evidence from the compensation of powerful CEOs. *Journal of Corporate Finance*, 56, pp.1-14.

Templeton, G.F., 2011. A two-step approach for transforming continuous variables to normal: implications and recommendations for IS research. *Communications of the Association for Information Systems*, 28(1), p.4.

Wang, Y.J., Tsai, Y.H. and Lin, C.P., 2013. Modeling the relationship between perceived corporate citizenship and organizational commitment considering organizational trust as a moderator. *Business Ethics: A European Review*, 22(2), pp.218-233.

Weisbach, M.S., 1988. Outside directors and CEO turnover. *Journal of financial Economics*, 20, pp.431-460.

Winter, S. G. 2000. The satisficing principle in capability learning. *Strategic Management Journal*, 981-996.

Weisbach, M.S., 1988. Outside directors and CEO turnover. *Journal of financial Economics*, 20, pp.431-460.

Wernerfelt, B., 1984. A resource-based view of the firm. *Strategic management journal*, *5*(2), pp.171-180.

Withisuphakorn, P. and Jiraporn, P., 2017. Co-opted directors and powerful CEOs: evidence from the CEO pay slice (CPS). *Applied Economics Letters*, 24(6), pp.381-386.

Zagonov, M. and Salganik-Shoshan, G., 2018. CEO Pay Slice as a measure of CEO dominance. *Research in International Business and Finance*, 45, pp.571-576.

Zwiebel, J., 1996. Dynamic capital structure under managerial entrenchment. *The American Economic Review*, pp.1197-1215.