



# Value Creation, Risk Management and US Bank Holding Company Governance

By William C. Handorf

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Holding company boards composed of more independent or female directors achieve better credit ratings consistent with adopting more conservative financial policies. Bank holding companies forming more committees, especially a finance/capital committee, retain a better credit rating and trade with a higher price/book valuation. Committee specialization enhances performance. An executive committee comprising a small subset of the board's leadership may create an atmosphere of "elitism." Yet, holding companies with such committees were priced with higher price/book valuations given the time and commitment of a small group chaired by the CEO to craft and implement a coherent business plan structured to increase return on equity and support future earnings growth.

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VALUECREATIONRISKMANAGEMENTANDUSBANKHOLDINGCOMPANYGOVERNANCE

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## I. INTRODUCTION

As concisely defined by the *Cadbury Report* in 1992, corporate governance is the system by which companies are directed and controlled.<sup>1</sup> Under current best practices, the board of directors establishes the direction of an enterprise by approving appropriate policies and business plans, and recruiting, compensating, and monitoring executive management and operations to ensure shareholders, among other competing stakeholders, are treated fairly and provided appropriate risk-adjusted returns on capital invested. The board of directors of a regulated bank or bank holding company conducts its business by committee. Some committees for US financial institutions, such as audit and enterprise risk, are required by the Securities and Exchange Commission and the institution's relevant primary regulator. Other regulated institutions must comply with the rules. Other committees, such as finance,

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capital, credit, public relations or technology, are unique to each institution and have been created to respond to specific operating, financial, regulatory or reputational risk problems previously encountered by the organization.

As holding companies create new committees in response to growth, operational complexity or financial troubles, time demands on directors increase and encourage the board to add new directors. Regulators, consistent with what is believed to be accepted best corporate governance practices, encourage banks to add additional directors that are not only independent of management but also promote diversity to provide new perspectives to monitor management and operations, control risk, and create value. Diversity may be narrowly defined, such as by gender or race, or more broadly characterized by characteristics that promote a board that retains varied business, academic, military and governmental experience.

Corporate governance and board structure in the banking industry is a topic that attracted limited attention until the *Great Recession* of 2007/09. Rosenstein and Wyatt evaluated the ability of independent directors to add value to banking organizations in an early study dated 1990, which is before the release of the *Cadbury Report*.<sup>2</sup>

*"Management plays a dominant role in selecting outside directors, inviting skepticism about outsiders' ability to make independent judgments on firm performance. Our examination of wealth effects surrounding outside director appointments finds significantly positive share-price reactions. We find no evidence that outside directors of any particular occupation are more or less valuable than others. Outside directors are chosen in the interest of shareholders."*

Corporate governance now commands scholarly interest. Researchers evaluate how and why the leadership and composition of a board impact executive compensation and retention, financial performance, failure and related topics. Investigations of corporate governance and board structure within the banking industry provide mixed results regarding whether the number and mix of the board directors add value. Adams and Mehran assess a long time-series analysis of performance and governance.<sup>3</sup>

*“We do not find that large boards add more value as BHC [bank holding company] complexity grows. We argue that one reason for this may be that some directors are more suited than others to help the BHC’s management deal with complexity.*

*Increases in board size due to additions of directors who also sit on subsidiary [i.e., banks owned by the BHC] boards appear to be important. There is no literature documenting that subsidiary directorships are common in non-financial firms.”*

Erkens et al. studied the performance of almost 300 financial firms during the financial crisis and their research did not support the often-stated corporate governance objective and benefit of adding independent directors to a board.<sup>4</sup>

*“We find that firms with more independent boards and higher institutional ownership experienced worse stock returns during the crisis. Firms with more independent boards raised more equity capital during the crisis, which led to a wealth transfer from existing shareholders to debt holders.”*

Board size and composition dominate recent research. Alonso and Vallelado evaluated a large sample of international commercial banks to test hypotheses related to the dual role of directors (i.e., monitoring and advising).<sup>5</sup>

*We find an inverted U-shaped relation between bank performance and board size, and between the proportion of non - executive directors and performance. Our results show that bank board composition and size are related to directors’ ability to monitor and advise management, and that larger and not excessively independent boards might prove more efficient in monitoring and advising functions.*

Other related governance studies later discussed assess the benefit, if any, of board gender, compensation policy and organizational structure applicable to bank performance and risk management.

This research updates and expands how and why corporate governance affects the ability of a financial company to create value and control risk. Do companies with more directors or more independent directors or more female directors retain better credit ratings and sell at higher price/book ratios? Do companies with more committees or certain types of committees not mandated by law and regulation perform better or operate with an enhanced level of safety and soundness? Our analytical period follows the *Panic of 2008* to allow the large US banking firms sampled an opportunity to rectify managerial and planning errors earlier committed before the crisis. We add three dimensions to the empirical and conceptual record of corporate governance applied to the banking sector: 1) explicit consideration of credit risk rather than

focusing on commonly addressed share value, 2) unequivocal assessment of committee structure by which most boards conduct business, and 3) a post-crisis assessment period to provide ample time for the frequently maligned financial firms to have responded to regulatory demands and shareholder criticism. Any analysis of corporate governance that does not consider committee structure ignores the very framework by which financial companies manage board activities and meet legal and fiduciary responsibilities. Many studies do not evaluate committee structure.

Principles of good corporate governance change over time. Current standards differ from a half-century ago and likely will be at variance to principles espoused in the future. It is, therefore, useful to understand the evolution of governance over time. Consequently, we first briefly review the historical evolution of the duties of the board of directors and distinguish differences in corporate structure between countries that operate with rules v. principles. Corporate governance is not static and any study of company behavior should reflect the evolutionary process by the study of historical antecedents.

## II. HISTORICAL AND CULTURAL PERSPECTIVE

Because all US bank holding companies, similar to those in the UK, Australia and South Africa, operate with a unitary board, we do not address whether unitary or two-tier board structures impact performance. Many companies in continental Europe adopt a two-tier board organization separating one group responsible for operations and the other for supervision of the enterprise and oversight of the operating board. US bank holding companies do possess two sets of directors; one group is responsible for the parent and the other for the subsidiary bank(s). However, this structure differs from the two-tier system of governance whereby the same legal entity is directed by two boards with distinct responsibilities. Similarly, we do not evaluate the separation of duties between the chairperson of the board and the chief executive officer (CEO) because virtually every large US bank holding company is led by one person who is both CEO and board chair. US holding companies have not yet adopted accepted global principles of good governance that separates the responsibilities of the head of the board of directors from the leader of the executive team.

The US is a rules-based country regarding corporate governance. Banks must adhere to laws that require certain standards and detailed legal requirements, such as established by the Sarbanes-Oxley Act or the Dodd-Frank Act.<sup>6</sup> Other countries predominantly adopt a principles-based approach to governance and establish an inclusive set of “best practices” that companies are expected to adhere. Organizations that elect to not adopt certain components of “best practice” are expected to publicly

disclose the fact to shareholders, and provide a rationale. Because this research is limited to US bank holding companies subject to the same laws and regulatory expectations, the analysis does not distinguish between rules-based governmental standards and principles-based values. Corporate governance will continue to evolve in response to periodic episodes of corporate wrong-doing, managerial fraud, and financial and banking panics.

The current financial system can be traced to the creation of the joint stock company, the development of public markets and the *Industrial Revolution* in the 16<sup>th</sup> century.<sup>7</sup> Five hundred years ago large-scale businesses typically were not yet governed by a board as chronicled within an excellent historical perspective of the role of the board of directors by Gevurtz:<sup>8</sup>

*“Large Italian banking companies, such as the Peruzzi and Medici companies, lacked a board. Instead, these were operated under the domination of a family leader or trusted manager. Corporate boards developed as a governance mechanism for merchant societies and merchant cartels, and only later evolved into the governance mechanism for large business ventures with passive investors.*

*The development of corporate boards arose out of problems with direct governance by groups that have large members. The origins of the corporate board also provide some support in the superiority of groups in making decisions involving judgment or adjudicating disputes.*

*The rationale for corporate boards most favored by modern scholars – that boards exist to monitor management on behalf of passive investors – is the rationale that finds the least support in the historical origins of the board. The joint stock companies inherited such boards when it evolved out of regulated companies in which members conducted their own businesses and hardly needed the protection of a board to monitor the managers. The role of the board in these earliest trading companies was regulating the membership and hearing disputes involving the members.*

*Boards provide political legitimacy. The unifying theme behind medieval parliaments, town councils and the boards of the trading companies is that they provided the means to comply with the “corporate law” rule that “what touches all shall be consented to by all” in circumstances when consent by the entire group was impractical.”*

The role and responsibilities of a corporate board of directors have developed. Centuries ago, the board existed to determine who could be a member of a trading company and to resolve disputes between and among those members. Today, the board of directors

approves policies and business plans, monitors operations, and evaluates management. Directors in regulated banking enterprises are subject to additional scrutiny.

Directors of banks in the US are subject to legal action by the Federal Deposit Insurance Corporation (FDIC) if their institution does not adhere to regulatory rules, operate in a safe and sound manner or it fails. The FDIC will not bring civil suits against directors and officers who fulfill their responsibilities, including the duties of loyalty and care, and who make reasonable business judgments on a fully informed basis and after proper deliberation. Lawsuits brought by the FDIC against former directors and officers of failed banks are instituted on the basis of detailed investigations. The FDIC has brought suit (or settled claims) against former directors and officers with respect to 24 percent of the banks that have failed since 1985.<sup>9</sup> Most suits involve evidence showing problems within one or more of the following categories:

- *“Cases where the director or officer engaged in dishonest conduct or approved or condoned abusive transactions with insiders.*
- *Cases where a director or officer was responsible for the failure of an institution to adhere to applicable laws and regulations, its policies or an agreement with a supervisory authority, or where the director or officer otherwise participated in a safety or soundness violation.*
- *Cases where directors failed to establish proper underwriting policies and to monitor adherence thereto, or approved loans that they knew or had reason to know were improperly underwritten, or, in the case of outside directors, where the board failed to heed warnings from regulators or professional advisors, or where officers either failed to adhere to such policies or otherwise engaged in improper extensions of credit. Examples of improper underwriting have included lending to a borrower without obtaining adequate financial information, where the collateral was obviously inadequate, or where the borrower clearly lacked the ability to pay.”*

The FDIC distinguishes actions against inside (i.e., management) and outside (i.e., independent) directors. According to the FDIC, legal actions against outside directors either involve insider abuse or situations where the directors failed to heed warnings from regulators, accountants, attorneys or others that there was a significant problem in the bank requiring correction. If the directors fail to take steps to implement corrective measures and the problem continues, the directors may be held liable for losses incurred after being warned. Each director or prospective director of a

regulated financial institution must determine whether the fees received and prestige accorded being a director are consistent with the legal exposure incurred.

We focus on the structure of the board of directors in bank holding companies within the United States and assess whether firms with more directors, independent directors or female directors are able to achieve superior financial results. In addition, we evaluate whether bank holding companies operating with more committees or certain non-mandated committees are viewed as being more credit-worthy by the nationally-recognized credit rating agencies and create additional value for investors represented.

Table 1: Bank Holding Company Sample Characteristics (2016)

Metric	Average	High	Low
Bank Asset Size (USD Billion)	\$472.7	\$1,983.0	\$68.3
Credit Rating	Aa3	Aa1	A3
Price/book Ratio	1.07	1.45	0.68

Source: Federal Financial Institutions Examination Council, Moody's Investor Service and Yahoo Finance

- The average asset size of the key subsidiary bank of the holding company sample is USD 473 billion and range from USD 68 billion to USD 2.0 trillion. These companies are systemically-important institutions subject to additional regulatory scrutiny regarding capital, liquidity and risk management. About one-third of the sample exceeds assets of USD 250 billion and must adhere to even more stringent oversight than the smaller, but by no means small, financial institutions.
- The average long-term issuer rating of the sample is "Aa3" and ranges from "Aa1" to "A3." Ratings are opinions of the relative credit risk of fixed-income obligations with an original maturity exceeding one year. The ratings address the possibility that a financial obligation will not be honored. Ratings reflect both the likelihood of default and any financial loss suffered in the event of default. All of the holding companies are considered to be investment grade (i.e., rated "Baa3" or better). Approximately one-third of the bank holding companies sampled are rated medium-grade (i.e., "A") while the remaining two-thirds are high-grade (i.e., "Aa"). The credit rating of all surviving banks and bank holding companies improved dramatically after the *Panic of 2008* and the devastatingly long and severe *Great Recession* between 2007 and 2009 endured by the United States and other regions of the world. Almost 500 US banks failed during this tumultuous period and many large banks within our sample received or were forced to accept investment in primary and secondary capital provided by the government. A board of directors is concerned about their organization's credit rating because it affects the cost of uninsured deposits and unsecured

### III. CORPORATE BOARD STRUCTURE

*Holding Company Sample* We appraise the 20 largest, publicly-traded bank holding companies in the United States as of 2016. The sample of financial companies comprises almost 60 percent of the assets controlled by the 6,000 plus banks in the US. Each company retains a long-term issuer credit rating from Moody's Investors Service. Table 1 illustrates financial characteristics of the sample.

- borrowed money. A credit rating, especially if lower medium-grade or low-grade, can also influence the willingness of customers to conduct business with a financial institution considered speculative unless the risk exposure is mitigated. Low-grade credit ratings expose a bank to well known "agency risk" and "bankruptcy risk" depicted within the capital structure literature.
- The average price/book ratio of the publicly-traded holding companies is 1.07, which is a small market price premium to accounting book value. The pricing information is derived from *Yahoo Finance*. Price/book ratios of the sample range from 1.45 for institutions creating substantial value for shareholders to .68 for institutions destroying value. By definition, a company's price/book ratio equals return on equity (ROE) times their price-earnings (PE) ratio. Companies creating progressively more value provide shareholders a strong current return and generate expectations of exceptional potential growth in earnings. About half of the sample create value and trade with a premium to book value while the other half trade at a discount and destroy value. The premium or discount adjusts return on equity derived from financial statements such that return on equity based on share value or  $ROE_{\text{market}}$  aligns more closely with required returns or cost of equity of investors:  $ROE_{\text{market}} = ROE_{\text{book}} / \text{Price/book ratio}$ . A premium reduces  $ROE_{\text{market}}$  while a discount increases  $ROE_{\text{market}}$  relative to  $ROE_{\text{book}}$ . Bank holding companies are under pressure to retain and incentivize qualified executive management able to effectively develop and implement a coherent business plan to enhance return on equity and provide expectations of earnings growth.

The bank holding companies sampled offer a range of asset sizes, credit ratings and price/book ratios by which to assess the importance, if any, of board structure and corporate governance metrics on performance and financial condition. We next review the structure of the sample's board of directors regarding number of directors, independent directors and female directors.

*Board of Directors* There are no prescribed rules or laws in the US that indicate a bank should be governed by a given number of directors. This is a decision retained by each board to determine how they can meet their legal and fiduciary responsibilities. Government regulators direct weak banks or holding companies to add independent directors with more

experience and ability. If the board is too small, the institution may be unable to parcel out areas of specialization and focus to a given committee. As Bainbridge suggests, the argument for boards lies in the superiority of groups making decisions involving judgment.<sup>10</sup> If the board is too large, the group becomes unwieldy and unable to carry out its duties effectively. It is important to remember that council structures initially developed five centuries ago due to problems of "direct governance" when a group retains a very large number of members and supports the "central management" rationale.<sup>9</sup> Table 2 reviews the board structure of the bank holding company sample.

Table 2: Bank Holding Company Board of Director Structure (2016)

Metric	Average	High	Low
# Directors	13.5	18	10
# Independent	11.6	17	8
% Independent	86%	94%	63%
# Female	3	6	1

Source: Morningstar

- The average size of the board is 13.5 directors and ranges between ten and 18. The information is compiled from *Morningstar*. As discussed later, larger banks, whether expressed by asset size or the natural logarithm of asset size, retain a larger board consistent with most academic studies. Larger banks still enjoy the benefit of "too big to fail" and tend to retain a better credit rating than smaller institutions *ceteris paribus*. Larger bank holding companies tend to trade at lower price/book ratios given additional complexity and an inability to achieve sufficient profits to offset incremental regulatory risk management and compliance rules in spite of economies of scale and scope. Bank holding companies, regardless of asset size, operating with larger boards are able to select and nominate, and shareholders elect a larger number of independent directors and female directors supportive of diversity in experience and gender.
- The average number of independent directors (i.e., not members of executive management) is 11.6 and ranges between eight and 17. The "managerial model" of corporate governance dominated in the United States in the first half of the twentieth century by which the board was mostly comprised of executives while independent directors were identified by, beholden to, and supportive of the CEO. Baum succinctly evaluated what precipitated the rise of the "monitoring board" in the 1970s in the US and in the 1990s in the UK.<sup>11</sup>

*"First, the sudden collapse of the major railway company Penn Central in 1970. Second,*

*Eisenberg's influential book "The Structure of the Corporation" published in 1976. According to Eisenberg, the board's essential function was to monitor the company's management by being independent from it. The reliance on independent directors as a panacea for various corporate governance ills has reached its zenith in the US.*

*As in the US, the typical British board of the 1950s was an advisory board dominated by insiders. It was only in the 1990s, with the beginning of the British corporate governance movement subsequent to the publication of the Cadbury Report, that the concept of independent directors was embraced in the UK. Since the early 2000s independent directors have dominated on the boards of listed companies."*

- The percentage of independent directors on a board of the holding company sample is 86 percent and ranges from 94 to 63 percent. Every company's board is represented by at least one member of executive management. The CEO is always a member of the board and invariably the chairperson of the board, which is contrary to evolving practice of good corporate governance that separates the role and duties of the CEO and board chairperson.
- The average number of female directors is three and ranges from six to one. The percentage of directors that are female is about 22 percent, which is comparable to the Standard & Poors 500 average. Boards with at least two female directors allow these directors to discuss and deliberate privately with other women and avoid isolation in a male-dominated culture. Two bank holding companies

sampled have only one female member on the board and about half have only two women. Research shows the US lags Europe regarding board gender diversity.<sup>12</sup>

*“More than a decade ago, countries in Europe began to take measures to increase the gender diversity of their corporate boards. Norway was the first to adopt a quota for female board members and other nations followed suit. The imposition of quotas and goals has resulted not just in greater diversity but to a more professional and formal approach to board selection.*

*The US is one of the few Western developed economies with neither voluntary nor mandatory targets. Interviews with both men and women directors express fears that quotas will lead to less qualified directors. US board selection still relies heavily on social networks and the lack of board diversity is part of a general lack of rigor in succession planning.”*

Pathan and Faff conducted a longitudinal study of large US bank holding companies prior to and after the rules of Sarbanes-Oxley were introduced and focused on the composition of boards.<sup>13</sup>

*“Although gender diversity improves bank performance in the pre-Sarbanes-Oxley Act (SOX) period (1997-2002), the positive effect of gender diminishes in both the post-SOX (2003-2006) and the crisis periods (2007-2011).”*

The results are comparable to those expressed by Adams and Ferreira who studied the benefit of gender diversity on bank boards.<sup>14</sup>

*We find that female directors have better attendance records than male directors and more likely to join monitoring committees. These results suggest that gender-diverse boards allocate more effort to monitoring. However, the average effect of gender diversification on firm performance is negative. The negative effect is driven by companies with fewer takeover defenses.*

Not all studies show efforts to promote gender diversity are misplaced or without merit. Fernandes et al. evaluated the performance of supervisory boards during the recent crisis.<sup>15</sup>

*“Using a sample of 72 publicly listed European banks, we find that banks with more independent and busy boards experienced worse stock returns during the crisis. Conversely, the better-performing banks had more banking experts serving as supervisory directors. Additionally, we find that gender and age diversity improved banks’ performance during the crisis; hence, diversity matters.”*

The later results are consistent with a multi-dimensional analysis of companies in the non-financial

sector by Bernile et al. except during times of financial or economic volatility.<sup>16</sup>

*“We find that greater board diversity leads to lower volatility and better performance. The lower risk levels are largely due to diverse boards adopting more persistent and less risky financial policies. Diverse boards do come with some cost. In particular, the response times of diverse groups tends to be slower than more homogeneous groups. We find the benefits of board diversity are lower during times of high aggregate volatility.”*

We do not discuss other attributes of diversity, such as race, disability or veterans’ status, given lack of reliable and consistent information published in public documents. Regardless, it is obvious that the US is a laggard on evolving and globally-accepted corporate governance practices applicable to both gender diversity and the separation of the CEO and chairperson’s position.

We later determine if the number of directors, independent directors and female directors impacts share performance and credit risk. We first present information applicable to committee structure within the bank holding company sample. The majority of recent governance research ignores board committee composition, which is the most common framework adopted by companies to formulate corporate decisions prior to being presented to the full board for approval.

**Committee Structure** Bank holding companies in the US are subject to rules and regulation regarding the creation and staffing of certain committees. Just as millions of “passive” individual and institutional investors delegate their rights to ten or twenty directors, boards delegate certain areas of monitoring and advising to a subset of directors arrayed by committee. The average number of board committees within the large bank holding companies sampled is 5.6 and range between four and eight. Table 3 illustrates the relative importance of various committees adopted by the bank holding companies sampled.

*Table 3: Bank Holding Company Committee Structure (2016)*

Committee	Percent of Holding Companies
Audit	100%
Risk	100%
Governance	100%
Executive	47%
Public Relations	32%
Finance/Capital	26%
Technology	21%
Credit	11%

Source: Morningstar

- All bank holding companies have an audit committee consistent with law. The Sarbanes-Oxley Act of 2002 prohibits the listing of any security on a

national exchange that is not in compliance with the Act.<sup>17</sup>

*“These requirements relate to: the independence of audit committee members, the audit committee’s responsibility to select and oversee the issuer’s independent accountant, procedures for handling complaints relating to accounting practices, the authority of the committee to engage advisors and funding for the independent auditor and any outside advisors engaged.”*

The law not only requires directors serving on the audit committee to be independent of management but requires at least one member of the committee to be a “financial expert” based on comprehensive knowledge and experience with accounting and financial topics.

- All bank holding companies have an enterprise risk committee consistent with regulation and law. The Dodd-Frank *Wall Street Reform and Consumer Protection Act of 2010* establishes prudential risk management requirements for all bank holding companies with total consolidated assets of US 50 billion or more comparable to those institutions within our sample.<sup>18</sup> The standards include rules applicable to risk-based and leverage capital, liquidity and overall risk management procedures to include financial modeling in periods of stress and the formation of a risk committee. Aebi et al. focused on risk management and corporate governance during the crisis.<sup>19</sup>

*“Our results indicate that banks in which the chief risk officer (CRO) directly reports to the board of directors and not to the CEO or other corporate entities exhibit significantly higher (i.e., less negative) stock returns and return on equity during the crisis. In contrast, standard corporate governance variables are mostly insignificant or even negatively related to the banks’ performance during the crisis.”*

- All of the bank holding companies have a governance/compensation committee. While not mandated, this committee is responsible for compensating executive management to include salary, incentives and perquisites, overseeing the development of a comprehensive succession planning process, developing the firm’s core business plan, and identifying prospective individuals to be nominated for election to the board. Kirkatrick studied corporate governance lessons from the financial crisis and noted significant issues regarding poorly developed compensation strategies adopted by banks.<sup>20</sup>

*“The report analyzes the impact of failures and weaknesses in corporate governance on the financial crisis, including risk management systems and executive salaries. Remuneration systems have in a number of cases not been closely related to the*

*strategy and the risk appetite of the company and its longer term interests. The remuneration of boards and senior management remains a highly controversial issue in many OECD countries.”*

- Almost half of the companies have an executive committee, which comprises the chair and vice chair of the board, the CEO and chairs of each subsidiary committee of the board. Research applicable to the existence and usefulness of an executive committee has identified the potential advantages and inherent problems of what can be considered an “elite” subgroup of the whole.<sup>21</sup>

*“There are two types of executive committees: those that meet regularly and those that meet only as needed. The more often the full board meets the less it needs an executive committee. As the size of the board increases, it becomes more difficult to schedule unplanned meetings that can be more expeditiously handled by a smaller group of directors. Boards with members living far apart tend to meet less often and tend to find executive committees useful for managing routine matters.*

*The biggest misuse of executive committees occurs when they become too powerful and promote a sense of elitism by those not on the committee. Regardless of the existence of an executive committee it is good governance for all board committees to have written charters that describe their responsibilities, membership, meeting frequency and information responsible to review.”*

- About one-third of the holding company sample has developed a public relations or social responsibility committee. Invariably, these companies have experienced a well known problem affecting their reputation risk. For example, Wells Fargo, JPMorgan Chase and Citigroup all suffered embarrassing episodes from illegal consumer sales activities, fraudulent trading or equity ownership by the government. These problems can and do precipitate poor reputations among customers and other stakeholders. Reputation risk invariably originates from the consequence of credit, operational, liquidity or regulatory problems. Reputation risk has begun to be subject to rigorous study that otherwise suffers from a lack of comparable data to measure the financial consequence.<sup>22</sup>

*“One analysis by Perry and Fontnouvelle before the crisis found that losses driven by internal fraud tend to have a bigger reputational hit on a firm – as measured in market value decline – than losses driven by external factors such as a cyber attack on a bank customer database. Reputational problems can amplify when the market is surprised by a negative outcome from an otherwise well-governed firm.*



*Reputational events can have tangential costs. Direct and indirect costs from lost or reduced business opportunities, regulatory penalties and litigation expenses compound the pain of a reputational risk event."*

The Basel Committee on Banking Supervision has long been concerned about banks addressing reputational exposure when determining capital adequacy.<sup>23</sup>

*"Reputational risk can lead to the provision of implicit support arising from operational risk events and therefore should form part of banks' internal capital adequacy assessment requirement and stress testing for liquidity contingency plans."*

Reputation risk is not yet subject to any specific capital charge. The Basel Committee, however, does expect bank management to address all material risks beyond credit, market, liquidity and operational issues when evaluating the adequacy of capital.<sup>24</sup>

- Only one-quarter of the bank holding companies have established a finance and/or capital committee. Subsidiary banks of bank holding companies with a capital committee operate with lower levels of Tier One Leverage Capital; the relationship is significant as measured by a correlation coefficient at the five percent level of confidence. Earlier research cited noted that bank holding companies are more likely to create value when more directors serve on a subsidiary bank board given the importance of the bank to the performance of the holding company. Holding companies owning a subsidiary bank operating with a lower level of equity capital are more likely to establish a finance/capital committee to ensure capital remains adequate and avoid resultant regulatory sanctions when capital ratios become too low. However, by operating with lower levels of equity capital (i.e., Tier One Capital), an organization can increase return on equity and create shareholder value if a higher leverage multiplier (assets/equity) more than offsets a lower return on assets (net income/assets).
- Approximately 20 percent of the sample created a technology committee. Every such bank holding company suffered a cyber attack well publicized in the press and experienced or endured subsequent reputational risk. The technology committee is often established to deal with cyber issues, migration to the Cloud, regulatory concerns with model risk, and ballooning operating expenses applicable to information systems.
- Only ten percent of the sample possesses a credit committee. Credit risk is the most common reason banks generate losses and subsequently fail. Subsidiary banks of holding companies that have

created a credit committee at the board level operate with a greater proportion of non-accrual loans and loans 90+ days slow in payment; the correlation is significant at the one percent level. The finding again supports the benefit or potential advantage of holding company directors serving on the parent board also sitting on the board of a subsidiary bank. Bank holding companies owning a subsidiary bank exposed to more problem loans are more likely to establish a credit committee to ensure that loan losses do not escalate further to levels that could threaten profitability, impair capital, depress share value, and encourage incremental regulatory scrutiny and sanctions.

Other than mandated committees applicable to audit and enterprise risk, it is evident that holding companies respond to reputational, capital, technology and credit risk exposure at subsidiary banks by forming a board level committee to more closely monitor applicable information and guide responsible management to optimize value and control risk exposure.

Several dated academic empirical analyses evaluated the impact of committee structure on firm performance. Hayes et al. examined cross-sectional variations on the committee structure of boards of directors for the Standard & Poors 500 during 1997 and 1998 and found little benefit applicable to the existence of a specific committee.<sup>25</sup>

*"Number of committees is positively related to the number of directors. Number of committees is also positively related to firm size. Firms that pay dividends have more committees. Firms with a higher CEO ownership have fewer committees performed by the board. We do not find that performance is related to the presence of committee or to the fraction of outside directors serving on each committee."*

Klein studied the linkage between firm performance and board composition and his research casts doubt on the positive contribution of independent or outside directors v. inside directors serving on certain committees.<sup>26</sup>

*"I find little association between firm performance and overall board composition. I am able to find significant ties between firm performance and how boards are structured. First, a positive relation is found between the percentage of inside directors on finance and investment committees and accounting and stock market performance measures. These findings are consistent with Fama and Jensen's assertion that inside directors provide valuable information to boards about the firms' long-term investment decisions."*

Overall, board committee structure has been omitted in the preponderance of academic studies of

corporate governance. Yet, boards manage organizations by delegating key areas of oversight to smaller groups of knowledgeable directors tasked with serving on a limited number of committees (e.g., audit, finance, compensation, risk, credit, etc.).

#### IV. IMPLICATIONS OF CORPORATE GOVERNANCE AND BOARD STRUCTURE

##### *Univariate Analysis and Financial Performance*

Large bank holding companies and their subsidiary banks are subject to considerable oversight by governmental, accounting and market participants. Regulatory supervisors establish prudential standards and evaluate institutional compliance with rules applicable to risk, capital adequacy and liquidity. Institutions unable to meet or exceed regulatory thresholds are subject to additional governmental oversight, operating restrictions and higher deposit insurance fees. Accountants opine on the adequacy of controls, compliance with generally accepted accounting principles (GAAP), existence of potential fraud, and assessment of “going concern” status. The market assesses the probability a bank or holding company will be able to honor contractual obligations in a timely manner. Weaker banks are penalized with lower credit ratings or higher credit spreads on debt and wider credit default swap (CDS) spreads. Although we use credit ratings to assess the safety and soundness of a bank holding company, the opinions correlate closely with CDS spreads derived from the market.

Credit ratings provide a backward-looking perspective of risk while CDS spreads provide a forward-looking framework. Although the implied default rates between the two metrics differ, the relative perception of credit risk is comparable. The board of

directors and specific subsidiary committees are charged with the responsibility to monitor information applicable to financial performance, and evaluate the ability of management to operate in a safe and sound manner. As established within the banking literature, the correlation coefficient between letter credit ratings of bank holding companies and CDS spreads is almost 60 percent, which is statistically significant at the one percent level.<sup>27</sup> Firms retaining a lower or worse long-term issuer credit rating assigned by Moody’s are priced by the market with a higher CDS spread.

By custom, relative bank value is measured by price/book (P/B) ratios rather than the customary price/earnings ratios common to other industries. The price/book ratio includes recognition of both return on equity (ROE<sub>book</sub>) derived from financial records and the price/earnings ratio. Return on equity reflects the ability of a holding company to create value currently as measured by net income or earnings per share (EPS) divided by accounting equity or book value per share. The P/E ratio reveals expectations of growth in earnings by the market and equals market price per share divided by EPS. A bank holding company commanding a higher price/book ratio is generating a strong return on equity and pursuing a business plan that projects robust growth in earnings. Empirical analysis from the literature shows that return on equity and price-earnings ratios are able to explain more than 90 percent of holding company price/book ratios.<sup>28</sup> A high price/book ratio can reflect expectations of a merger premium applicable to an acquisition and other random factors. The board of directors represents shareholders. Investors will not remain passive for those companies unable to craft a business plan successfully implemented by knowledgeable and competent management.

$$\text{Price/book Ratio} = \text{Return on Equity} \times \text{Price/Earnings}$$

$$\text{Price/book Ratio} = \text{EPS/Book Value per Share} \times \text{Price per Share/EPS}$$

We initially employ correlation analysis to study the impact of corporate board structure on credit risk measured by letter credit ratings converted to a numerical score (i.e., one is “Aaa”, two is “Aa1”, three is “Aa2” and so forth) and on price/book multiples. Correlation analysis merely provides a measure of the relative, not absolute, relationship between variables and does not suggest causality. The correlation coefficient between the number of directors and the number of independent directors is a positive 77 percent, which is significant at the one percent confidence level given sample size and a one-tail test. Larger companies, based on either asset size or the natural logarithm of asset size, have more independent directors than smaller firms. Both results are consistent with existent studies. The number of independent

directors proves important to controlling credit risk. Table 4 illustrates the correlation coefficients for previously reviewed metrics of corporate structure, credit ratings and price/book multiples. We later expand the introductory analysis with multiple regression models given the ability of the later to better account for residuals that correlation analysis can ignore.

Table 4: Correlation Analysis: Governance Metrics, Credit Risk and Valuation (2016)

Metric	Credit Rating	Price/Book Ratio
# Directors	-.221	-.024
# Independent Directors	-.328***	.078
# Female Directors	-.199	-.116
# Committees	-.368**	.380**
Executive	-.280	.307***
Finance/Capital	-.373**	.549*
Public Relations	-.256	.251
Technology	.060	-.166
Credit	-.100	-.098

\* Significant @ 1%; \*\* Significant @ 5%; \*\*\* Significant @ 10%

- Although companies with more directors have an enhanced credit rating, the relationship is not significant statistically. And, more directors, *per se*, convey no ability to craft a business plan or retain executive management able to create value based on price/book multiples. These results are generally consistent with the banking literature reviewed. What proves important from a governance perspective is the number of independent directors, not total directors.
- Companies with more independent directors are better able to effectively discharge their ability to monitor the affairs of the company and achieve a superior credit rating. The correlation coefficient between the credit rating and the number of independent directors is a negative 33 percent, which is significant at the ten percent level given sample size and a one-tail test. Stronger banks assigned a better credit rating governed by more independent directors command a lower numerical score consistent with the negative correlation coefficient. Other research provides mixed support regarding the benefit of independent directors to monitor and control risk as companies in the US, the UK and other developed countries shifted strategy from the “managerial model” to the “monitoring model.”<sup>11</sup>

*“The empirical support for staffing boards with independent directors, however, remains surprisingly shaky given the ubiquitous reliance on independent directors. The global financial crisis of 2008 has added further doubts.”*

- Firms with more independent directors are better represented by female directors. The correlation between the two metrics is a positive 38 percent, which is significant at the five percent level. Based solely on simplistic correlation analysis, however, having more women on a board does not convey enhanced share value or superior credit ratings.

While the analysis of the number of directors and their mix is informative regarding the ability to manage credit risk, the results are not persuasive regarding the talent of larger boards or boards

comprised of more independent directors or female directors to create value. The analysis of committee structure is more instructive.

- Firms with more committees are able to achieve both better credit ratings (correlation coefficient of negative 37 percent) and higher price/book ratios (correlation coefficient of positive 38 percent). Both relationships are significant at the five percent level of confidence. Holding companies that designate a smaller group of directors to focus on specialized topics achieve enhanced market performance and a solid financial position predicated on more conservative financial policies than those companies being governed by a larger committee of the whole.
- Companies with an executive committee, despite charges of elitism, create value for shareholders. The correlation between the existence of an executive committee, measured as a dummy variable (one for those holding companies that possess the committee and zero otherwise), and the price/book ratio is a positive 31 percent, which is significant at the ten percent level.
- Most importantly, bank holding companies with a committee dedicated to finance and/or capital, again measured by a dummy variable, achieve better credit ratings (correlation of negative 37 percent significant at the five percent level) and higher valuations (correlation of positive 55 percent significant at the one percent level). As noted earlier, such firms tend to operate with lower levels of Tier One Capital at the primary subsidiary bank. Although lower levels of capital can lead to deleterious results for credit ratings, the resultant higher leverage multiplier is critical to enhancing return on equity and, by extension, share value.
- Finally, the existence of public relations, technology and credit committees do not correlate with the effective management of enterprise risk or creation of value.

Bank holding companies operating with more committees provide an opportunity for an executive committee and a finance/capital committee to digest

and monitor bank and market information, and evaluate management more effectively than the entire board. Our findings should not be used to indicate that audit, enterprise risk or governance committees provide no value. The statistical analysis is unable to assess the unique contribution of each committee given the existence of these three committees for each institution sampled. Since all of the companies tested retain an upper medium-grade or high-grade credit rating (at least in a favorable economic environment), there must be some merit to the ubiquitous and mandated audit and enterprise risk committees. Correlation analysis can mask underlying relationships that multiple regressions may better judge.

*Multi-Factor Analysis and Financial Performance*

To determine more definitively whether price/book multiples or credit risk are related to combinations of several corporate structure metrics, it is instructive to analyze the question by either statistical multiple regression or probit/logit analysis. Multiple regressions can characterize the relationship between and among variables by enhanced accounting for residuals within the model than the illustrative but simplistic correlation analysis presented. Panel regression analysis does not provide any incremental insight given the data is cross-sectional. We would like to reject the null hypothesis of no relationship between performance or condition and corporate governance factors in favor of an alternative hypothesis that varies by metric.

$$\text{Credit Rating} = B_0 + B_1(\text{Price/book ratio}) + B_2(\text{Number of Independent Directors})$$

$$R^2 = .635 \text{ and F-statistic @ } 13.90^*$$

$$\text{Credit Rating} = 9.96 - 3.86(\text{Price/book})^* - 0.17(\# \text{ Independent Directors})^{**}$$

\* Significant @ 1% Confidence; \*\* Significant @ 5% Confidence

The empirical results with the number of female directors are comparable to the number of independent directors but both governance metrics cannot be used

simultaneously given correlation issues. No other corporate governance metrics enhanced the statistical ability to explain relative credit ratings.

$$\text{Credit Rating} = B_0 + B_1(\text{Price/book ratio}) + B_2(\text{Number of Female Directors})$$

$$R^2 = .644 \text{ and F-statistic @ } 14.48^*$$

$$\text{Credit Rating} = 9.14 - 4.14(\text{Price/book})^* - 0.28(\# \text{ Female Directors})^{**}$$

\* Significant @ 1% Confidence; \*\* Significant @ 5% Confidence

Correlation analysis is not always fully informative. The earlier simplistic correlation statistical analysis suggested no substantive financial benefit accruing to organizations adding women to the board. Multiple regressions or probit/logit analysis better characterize the true relationship between and among variables by enhanced accounting for residuals within the model; women directors do add value. These results are consistent with Bernile et al. in periods other than economic volatility and by Fernandes. Although characteristics of the board to include the number of

independent directors and female directors is important to control risk, committee structure reveals information given the process boards adopt to make decisions to enhance valuation.

Several governance metrics when combined prove useful to distinguish relative price-book ratios of the sample. First, the holding company's credit rating is constructive. Second, the existence of a finance and/or capital committee, as measured by a dummy variable, is important. Third, the number of independent directors is likewise able to explain price/book valuation metrics.

The last two variables – the existence of a finance/capital committee and the number of independent directors – correlate highly and cannot enter the same regression given problems of multi-co linearity.

Price/book multiples when regressed against both credit ratings and the existence of a finance/capital committee generated a coefficient of determination or R-squared of 64.6 percent, which is significant at the one percent level of confidence based on the F-statistic. Price/book ratios improve with better credit ratings

$$\text{Price/book Ratio} = B_0 + B_1(\text{Credit Rating}) + B_2(\text{Finance/Capital Committee})$$

$$R^2 = .646 \text{ and F-statistic @ } 14.58^*$$

$$\text{P/B Ratio} = 1.49 - 0.12(\text{Credit Rating})^* + 0.18 (\text{Finance or Capital Committee})^{**}$$

\* Significant @ 1% Confidence; \*\* Significant @ 5% Confidence

The importance of a credit rating to price/book ratios or price/book ratios to credit ratings is not surprising given similar financial factors impact both financial attributes. For example, Moody's assigns more weight to solvency (65 percent) than liquidity (35 percent) when assessing risk. The solvency metric is based on asset quality (25 percent), capital adequacy (25 percent) and profitability (15 percent). The liquidity metric is predicated on funding structure (20 percent) and liquid resources (15 percent).<sup>29</sup> The ability of any financial institution to generate a sufficient return on equity critical to improving the price/book ratio is dependent upon posting strong and consistent profitability equally important to credit risk. Net income of a bank is heavily affected by asset quality, the allowance for loan losses and the provision for loan losses and these factors are critical to a credit rating. The capability to grow earnings and generate a favorable P/E ratio is dependent upon retaining sufficient capital and attractive funding sources to support new activities and achieve economies of scale and scope

significant at the one percent level and the existence of a finance/capital committee significant at the five percent level. There was no evidence of multi-co linearity between the final independent variables selected based either on the correlation coefficient matrix or the variance inflation factor, and the absence of a large change in coefficients or significance for any variables when added or deleted. Other corporate metrics showed high multi-co linearity and were not included in the final model.

critical to improving profits and price/book valuations. Credit risk exposure and share values are closely linked and are interdependent as supported by the statistical analysis.

Another regression that recognizes the number of independent directors along with credit ratings also showed statistical significance when explaining relative valuation multiples. The coefficient of determination or R-squared of 61.2 percent is significant at the one percent level of confidence based on the F-statistic. Price/book ratios improve with better credit ratings significant at the one percent level and the number of independent directors significant at the ten percent level. There was no evidence of multi-co linearity between the final independent variables selected based either on the correlation coefficient matrix or the variance inflation factor, and the absence of a large change in coefficients or significance for any variables when added or deleted. Other corporate metrics showed high multi-co linearity and were not included in the final model.

$$\text{Price/book Ratio} = B_0 + B_1(\text{Credit Rating}) + B_2(\text{Number of Independent Directors})$$

$$R^2 = .612 \text{ and F-statistic @ } 12.64^*$$

$$\text{P/B Ratio} = 1.50 - 0.12(\text{Credit Rating})^* + 0.38 (\text{Number of Independent Directors})^{***}$$

\* Significant @ 1%; \*\*\* Significant @ 10% Confidence

## V. SUMMARY

Under currently accepted principles of good governance, the board of directors of an enterprise establishes the direction of a firm by approving appropriate policies and business plans, and recruiting, compensating and monitoring executive management and operations. The board must ensure shareholders, among other stakeholders, are treated fairly and provided appropriate risk-adjusted returns on capital invested. The board of directors of a regulated bank or bank holding company conducts its business by committee. Some committees for US financial

institutions, such as audit and enterprise risk, are required by the Securities and Exchange Commission and the institution's relevant primary regulator. All regulated institutions must comply with the governing laws consistent with a rules-based environment. Other committees, such as finance/capital, credit, public relations or technology, are unique to each institution and often are created to respond to specific operating, financial, regulatory or reputational risk problems previously encountered.

We evaluate the board structure of 20 systemically-important bank holding companies in the US that comprise almost 60 percent of industry assets

and determine if the number of directors, independent directors or female directors has any impact on credit ratings or valuation. While there are large differences, the average board of directors is comprised of 14 directors of whom 12 are independent of management and include three women. Similarly, we assess whether holding companies retaining committees not mandated by law facilitate better performance. On average, the holding companies operate with six committees to always include audit, enterprise risk and governance; the first two are mandated by law and codified by regulation. We find that board structure does influence bank holding company credit ratings and price/book valuations. The US is at the inflection point between the last financial crisis and the next banking debacle that invariably occurs every 20 to 25 years despite managerial and regulatory protestations to the contrary. The real test of the effectiveness of governance and board structure will be determined during the next period of economic contraction and financial market distress.

- Holding company boards comprised of either more independent or female directors achieve better credit ratings. Diversity of experience allows bank holding company boards to make better decisions, formulate superior plans and policies, and improve monitoring of operations and executive management. There is a subtle degree of tension between managerial and independent directors regarding the importance of safety and soundness v. value creation. Independent or outside directors are especially concerned with a bank holding company being judged investment-grade given the potential legal liability that can occur with a speculative credit rating and subsequent failure. Managerial or inside directors are particularly motivated to enhance share value given the value of incentive compensation schemes or bonus plans related to share value and the importance of vested stock options. Holding companies with more independent and female directors on the board err on the side of safety. These results are generally contrary to most prior empirical studies and those differ during periods of economic and market volatility.
- Bank holding companies forming more committees, especially a finance/capital committee, are able to retain a better credit rating and achieve a higher price/book valuation. Committee specialization and focus enhance performance. Smaller groups are able to make better decisions requiring judgment and a finance/capital committee is able to navigate capital structure policy tradeoffs to have sufficient capital to retain a investment-grade credit rating but not too much equity to impair return on equity. Few

recent governance studies evaluate committee structure.

- Finally, while an executive committee comprised of a small subset of the board's leadership creates an atmosphere of "elitism," holding companies with such committees are priced with higher price/book valuations given additional scrutiny by a small number of directors holding leadership positions within the board focused on executive management's ability to implement business plans able to increase return on equity and sustain future growth. Given that almost all US bank holding companies are chaired by the organization's CEO, the relative importance of the CEO/chair's perspective increase in weight within the smaller executive committee.

Our work suggests independent directors, female directors and committee structure all convey useful corporate governance information applicable to both valuation and risk. However, it is important to remember that the principles of accepted governance change over time and current best practices will evolve.

As the literature on bank governance and board structure expands, there are important areas to explore. For example, from a cross-cultural perspective, how does a rules-based governance structure compare to a principles-based arrangement? Does a more diverse board in terms of race, disability or industry/government/military experience convey additional benefits to those applicable to the number or proportion of independent and/or female directors? Limited empirical work cited suggests that independent directors steeped in banking and boards with more female directors or directors representing different age cohorts convey value. Corporate governance and board structure provide a fertile area to expand research and promote scholarship within the banking industry. The topic remains relevant to regulators and investors.

US bank regulators have proposed regulations that challenge the *status quo* within corporate governance and leadership. The Comptroller of the Currency recently indicated the Office of the Comptroller of the Currency (OCC) was considering whether to mandate the separation of the chair of the board from the CEO at national and federal savings banks. The proposal was quickly challenged by work advanced by Larcker and Tayan affiliated with Stanford's *Rock Center for Corporate Governance*.<sup>30</sup>

"Most research finds that the independence status of the chairman is not a material indicator of firm performance or governance quality."

Although there is no empirical evidence in the banking sector within the US that shows financial institutions with a separate CEO and board chair promote long-term profits or ensure the organization

operates more safely, the topic is no longer confined to academic interest and enquiry. In the absence of regulatory guidance, each board must determine for itself how best to create value for millions of “passive” investors represented and to remain a safe and sound institution. Clearly, “M” or management within the regulatory CAMELS (i.e., capital, asset quality, management, earnings, liquidity and sensitivity) banking paradigm is garnering increased attention from regulators.

Investors are no longer “passive” regarding governance. The *Investor Stewardship Group* has endorsed a governance framework to go into effect in 2018.<sup>31</sup> Among other expectations: 1) directors’ performance should be evaluated through a company’s long-term financial performance, 2) companies should disclose sufficient information about their governance and board practices, 3) independent leadership of a board is essential, 4) a majority of directors should be independent, and 5) directors need to make the substantial time commitment required to fulfill their duties to the company and shareholders. Corporate governance and board structure are indisputably of concern to bankers, investors, regulators and scholars.

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