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ETHICS AND CUSTOMER SERVICE IN BANKING: SUDAN, BRAZIL, AND SPAIN

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Austin Doerr, Indiana Wesleyan University

ABSTRACT

We examine ethics and customer service in banks from Sudan, Brazil, and Spain. Customer Service is important in all three countries but have varying ways of being shown from country to country and also bigger variations between the cultures within the countries. For instance within Sudan there are differences in what is perceived to be good customer service based upon ones tribal affiliation and also whether one is Muslim, Christian, or animalism. There are also differences observed in terms of ethics.

REFERENCES

Buckley, M.R., Carraher, S.M., Carraher, S.C., Ferris, G.R., & Carraher, C.E. (2008). Human resource issues in global entrepreneurial high technology firms: Do they differ? *Journal of Applied Management & Entrepreneurship*, 13 (1), 4-14.

Buckley, M., Fedor, D., Carraher, S., Frink, D., & Marvin, D. (1997). The ethical obligation to provide recruits realistic job previews. *Journal of Managerial Issues*, 9 (4), 468-484.

Buckley, M., Fedor, D., Veres, J., Wiese, D., & Carraher, S.M. (1998). Investigating newcomer expectations and job-related outcomes. *Journal of Applied Psychology*, 83, 452-461.

Buckley, M., Mobbs, T., Mendoza, J., Novicevic, M., Carraher, S.M., & Beu, D. (2002). Implementing realistic job previews and expectation lowering procedures: A field experiment. *Journal of Vocational Behavior*, 61 (2), 263-278.

Budd, J. & Carraher, S. (1998). Validation of an inventory to measure attributes of strategic management. *Psychological Reports*, 82 (3 Pt 2), 1220-1222.

Carland, J. & Carland, J. (1993). The role of personality in new venture creation. *Entrepreneurship, Innovation and Change*, 2(2), 129-141.

Carland, J & Carland, J. (1995). The case of the reluctant client. *Journal of the International Academy for Case Studies*, 1(2), 76-79.

Carland, J. & Carland, J. (1997). A model of potential entrepreneurship: Profiles and educational implications. *Journal of Small Business Strategy*, 8 (1), 1-13.

Carland, J. & Carland, J. (2003). Pawn takes queen: The strategic gameboard in entrepreneurial firms. *Academy of Strategic Management Journal*, 2, 93-104.

Carland, J. & Carland, J. (2004). Economic development: Changing the policy to support entrepreneurship. *Academy of Entrepreneurship Journal*, 10(2), 104-114.

Carland, J. & Carland, J. (2006). Eminent domain: What happens when the state takes part of your land? *The Entrepreneurial Executive*, 11, 95-113.

Carland, J.A.C., & Carland, J.W. (1991). An empirical investigation into the distinctions between male and female entrepreneurs managers. *International Small Business Journal*, 9 (3), 62-72.

Carland, J.A., Carland, J.W., & Stewart, W.H. (1996). Seeing what's not there: The enigma of entrepreneurship. *Journal of Small Business Strategy* 7 (1), 1-20.

Carland, J., Carland, J.A., & Abhy, C. (1989). An assessment of the psychological determinants of planning in small businesses. *International Small Business Journal*, 23-34.

Carland, J., Carland, J., & Carland, J. (1995). Self-actualization: The zenith of entrepreneurship. *Journal of Small Business Strategy*, 30-39.

Carland, J.W., Carland, J.A., & Hoy, F. (1992). An entrepreneurship index: An empirical validation. Babson Entrepreneurship Conference, Fontainebleau, France.

Carland, J.W. III, Carland, J.W., Carland, J.A., & Pearce, J.W. (1995). Risk taking propensity among entrepreneurs, small business owners and managers. *Journal of Business and Entrepreneurship*, 7 (1), 12-23.

Carland, J.W., Hoy, F., Boulton, W.R., & Carland, J.A.C. (1984). Differentiating entrepreneurs from small business owners: A conceptualization. *Academy of Management Review*, 9 (2), 354-359.

Carraher, S.M. (1991). A validity study of the pay satisfaction questionnaire (PSQ). *Educational and Psychological Measurement*, 51, 491-495.

Carraher, S.M. (1991). On the dimensionality of the pay satisfaction questionnaire. *Psychological Reports*, 69, 887-890.

Carraher, S. (1993). Another look at the dimensionality of a learning style questionnaire. *Educational and Psychological Measurement*, 53 (2), 411-415.

Carraher, S. (1995). On the dimensionality of a learning style questionnaire. *Psychological Reports*, 77 (1), 19-23.

Carraher, S.M. (2003). The father of cross-cultural research: An interview with Geert Hofstede. *Journal of Applied Management & Entrepreneurship*, 8 (2), 97-106.

Carraher, S.M. (2005). An Examination of entrepreneurial orientation: A validation study in 68 countries in Africa, Asia, Europe, and North America. *International Journal of Family Business*, 2 (1), 95-100.

Carraher, S.M. (2006). Attitude towards benefits among SME owners in Eastern Europe: A 30-month study. *Global Business and Finance Review*, 11 (1), 41-48.

Carraher, S.M. (2008). Using E-Bay to teach global and technological entrepreneurship. *International Journal of Family Business*, 5 (1), 63-64.

Carraher, S.M. (2011). Turnover prediction using attitudes towards benefits, pay, and pay satisfaction among employees and entrepreneurs in Estonia, Latvia, & Lithuania. *Baltic Journal of Management*, 6 (1), 25-52.

Carraher, S.M., Buchanan, J.K., & Puia, G. (2010). Entrepreneurial Need for Achievement in China, Latvia, and the USA. *Baltic Journal of Management*, 5 (3), 378-396.

Carraher, S.M. & Buckley, M. R. (1996). Cognitive complexity and the perceived dimensionality of pay satisfaction. *Journal of Applied Psychology*, 81 (1), 102-109.

Carraher, S.M. & Buckley, M.R. (2008). Attitudes towards benefits and behavioral intentions and their relationship to Absenteeism, Performance, and Turnover among nurses. *Academy of Health Care Management Journal*, 4 (2), 89-109.

Carraher, S.M., Buckley, M.R., & Carraher, C. (2002). Cognitive complexity with employees from entrepreneurial financial information service organizations and educational institutions: An extension & replication looking at pay, benefits, and leadership. *Academy of Strategic Management Journal*, 1, 43-56.

Carraher, S.M., Buckley, M.R., & Carraher, C.E. (2008). Research challenges in sustainable strategic management: Change and sustainability. *International Journal of Sustainable Strategic Management*, 1 (1), 2-15.

Carraher, S.M., Buckley, M. & Cote, J. (1999). Multitrait-multimethod information management: Global strategic analysis issues. *Global Business & Finance Review*, 4 (2), 29-36.

Carraher, S.M., Buckley, M., & Cote, J. (2000). Strategic entrepreneurialism in analysis: Global problems in research. *Global Business & Finance Review*, 5 (2), 77-86.

Carraher, S.M. & Carraher, C. (1994). ISO 9000 - theories of management. *Polymer News*, 19, 373-376.

Carraher, S.M. & Carraher, C. (1996). ISO environmental management standards: ISO 14,000. *Polymer News*, 21, 167-169.

Carraher, S.M. & Carraher, C. (1996). ISO 9000. *Polymer News*, 21, 21-24.

Carraher, S. & Carraher, S.C. (2005). Felt fair pay of small to medium, sized enterprise (SME) owners in Finland and Latvia: An examination of Jaques' equity construct. *Journal of Small Business Strategy*, 16 (1), 1-8.

Carraher, S.M. & Carraher, S.C. (2006). Human resource issues among SME's in Eastern Europe: A 30 month study in Belarus, Poland, and Ukraine. *International Journal of Entrepreneurship*. 10, 97-108.

Carraher, S.M., Carraher, S.C., & Mintu-Wimsatt, A. (2005). Customer service management in Western and Central Europe: A concurrent validation strategy in entrepreneurial financial information services organizations. *Journal of Business Strategies*, 22, 41-54.

Carraher, S.M., Carraher, S.C., & Whitely, W. (2003). Global entrepreneurship, income, and work norms: A seven country study. *Academy of Entrepreneurship Journal*, 9, 31-42.

Carraher, S.M., Hart, D., & Carraher, C. (2003). Attitudes towards benefits among entrepreneurial employees. *Personnel Review*, 32 (6), 683-693.

Carraher, S.M., Gibson, J. W., & Buckley, M.R. (2006). Compensation satisfaction in the Baltics and the USA. *Baltic Journal of Management*, 1 (1), 7-23.

Carraher, S.M., Mendoza, J, Buckley, M, Schoenfeldt, L & Carraher, C. (1998). Validation of an instrument to measure service orientation. *Journal of Quality Management*, 3, 211-224.

Carraher, S.M. & Michael, K. (1999). An examination of the dimensionality of the Vengeance Scale in an entrepreneurial multinational organization. *Psychological Reports*, 85 (2), 687-688.

Carraher, S.M. & Parnell, J. (2008). Customer service during peak (in season) and non-peak (off season) times: A multi-country (Austria, Switzerland, United Kingdom and United States) examination of entrepreneurial tourist focused core personnel. *International Journal of Entrepreneurship*, 12, 39-56.

Carraher, S.M., Parnell, J., & Spillan, J. (2009). Customer service-orientation of small retail business owners in Austria, the Czech Republic, Hungary, Latvia, Slovakia, and Slovenia. *Baltic Journal of Management*, 4 (3), 251-268.

Carraher, S.M. & Paridon, T. (2008/2009). Entrepreneurship journal rankings across the discipline. *Journal of Small Business Strategy*, 19 (2), 89-98.

Carraher, S.M., Scott, C., & Carraher, S.C. (2004). A comparison of polychronicity levels among small business owners and non business owners in the U.S., China, Ukraine, Poland, Hungary, Bulgaria, and Mexico. *International Journal of Family Business*, 1 (1), 97-101.

Carraher, S.M. & Sullivan, S. (2003). Employees' contributions to quality: An examination of the Service Orientation Index within entrepreneurial organizations. *Global Business & Finance Review*, 8 (1) 103-110.

Carraher, S.M., Sullivan, S. & Carraher, S.C. (2005). An examination of the stress experience by entrepreneurial expatriate health care professionals working in Benin, Bolivia, Burkina Faso, Ethiopia, Ghana, Niger, Nigeria, Paraguay, South Africa, and Zambia. *International Journal of Entrepreneurship*, 9 , 45-66.

Carraher, S.M., Sullivan, S.E., & Crocitto, M. (2008). Mentoring across global boundaries: An empirical examination of home- and host-country mentors on expatriate career outcomes. *Journal of International Business Studies*, 39 (8), 1310-1326.

Carraher, S.M. & Welsh, D.H.B. (2009). *Global Entrepreneurship*. Dubuque, IA: Kendall Hunt.

Carraher, S.M. & Whitely, W.T. (1998). Motivations for work and their influence on pay across six countries. *Global Business and Finance Review*, 3, 49-56.

Carraher, S.M., Yuyuenyongwatana, R., Sadler, T., & Baird, T. (2009). Polychronicity, leadership, and language influences among European nurses: Social differences in accounting and finances, *International Journal of Family Business*, 6 (1), 35-43.

Chait, H., Carraher, S.M., & Buckley, M. (2000). Measuring service orientation with biodata. *Journal of Managerial Issues*, 12, 109-120.

Crocitto, M., Sullivan, S.E. & Carraher, S.M. (2005). Global mentoring as a means of career development and knowledge creation: A learning based framework and agenda for future research. *Career Development International*, 10 (6/7), 522-535.

Deng, F.J., Huang, L.Y., Carraher, S.M., & Duan, J. (2009). International expansion of family firms: An integrative framework using Taiwanese manufacturers. *Academy of Entrepreneurship Journal*, 15 (1), 25-42.

Hart, D. & Carraher, S. (1995). The development of an instrument to measure attitudes towards benefits. *Educational and Psychological Measurement*, 55 (3), 498-502.

Huang, L.Y. & Carraher, S. (2004). How effective are expatriate management and guanxi networks: Evidence from Chinese Industries. *International Journal of Family Business*, 1 (1), 1-23 .

Lester, D., Parnell, J.A. & Carraher, S.M. (2010). Assessing the desktop manager. *Journal of Management Development*, 29 (3), 246-264.

Lockwood, F., Teasley, R., Carland, J.A.C., & Carland, J.W. (2006). An examination of the power of the dark side of entrepreneurship. *International Journal of Family Business*, 3, 1-20.

Paridon, T. & Carraher, S.M. (2009). Entrepreneurial marketing: Customer shopping value and patronage behavior. *Journal of Applied Management & Entrepreneurship*, 14 (2), 3-28.

Paridon, T., Carraher, S.M., & Carraher, S.C. (2006). The income effect in personal shopping value, consumer selfconfidence, and information sharing (word of mouth communication) research. *Academy of Marketing Studies Journal*, 10 (2), 107-124.

Parnell, J. & Carraher, S. (2001). The role of effective resource utilization in strategy's impact on performance. *International Journal of Commerce and Management*, 11 (3), 1-34.

Parnell, J. & Carraher, S. (2003). The Management Education by Internet Readiness (MEBIR) scale: Developing a scale to assess one's propensity for Internet-mediated management education. *Journal of Management Education*, 27, 431-446.

Scarpello, V. & Carraher, S. M. (2008). Are pay satisfaction and pay fairness the same construct? A cross country examination among the self-employed in Latvia, Germany, the U.K., and the U.S.A. *Baltic Journal of Management*, 3 (1), 23-39.

Sethi, V. & Carraher, S.M. (1993). Developing measures for assessing the organizational impact of information technology: A comment on Mahmood & Soon's paper. *Decision Science*, 24, 867-877.

Sturman, M.C. & Carraher, S.M. (2007). Using a Random-effects model to test differing conceptualizations of multidimensional constructs. *Organizational Research Methods*, 10 (1), 108-135.

Sullivan, S.E., Forret, M., Carraher, S.M., & Mainiero, L. (2009). Using the kaleidoscope career model to examine generational differences in work attitudes. *Career Development International*, 14 (3), 284-302.

VanAuken, H. & Carraher, S.M. (2012). An analysis of funding decisions for niche agricultural producers. *Journal of Developmental Entrepreneurship*, 17 (2), 12500121-125001215.

Welsh, D. & Carraher, S.M. (2011). *Case Studies in Global Entrepreneurship*. Kendall Hunt P.

Williams, M.L., Brower, H.H., Ford, L.R., Williams, L.J., & Carraher, S.M. (2008). A comprehensive model and measure of compensation satisfaction. *Journal of Occupational and Organizational Psychology*, 81 (4), 639-668.

AN EXAMINATION OF THE RELATIONSHIP BETWEEN BOARD CHARACTERISTICS AND CAPITAL ADEQUACY RISK TAKING AT BANK HOLDING COMPANIES

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INTRODUCTION

While there has been a large amount of research done in the area of corporate governance and the impact of certain board characteristics on firm performance, research related to board characteristics and firm risk taking is very limited. With the 2008 crisis in the financial services sector, a question can be raised as to whether boards of banks that took on greater risk had common characteristics. If significant relationships were found, this would result in recommendations as to board composition based on desired risk levels for the bank. The research would lead to an awareness of the risk propensity of a given board of directors based on their characteristics. Board members could be selected with consideration as to their influence on the characteristics that have a relationship to the risk taking of the board. Significant relationships between board characteristics and bank risk taking would also help investors to evaluate the potential risk in a given stock based on characteristics of the board of directors.

BANK RISK

Bank risk and the regulation of financial firms are matters of importance due to the desire to maintain stability in the financial system. The term "too big to fail" is often used in regards to financial institutions. A financial firm should be protected from failure due to the systemic risk of the failure (Bullard, Neely, Wheelock, 2009). "Systemic risk refers to the possibility that a triggering event such as the failure of an individual firm will seriously impair other firms or markets and harm the broader economy" (Bullard et.al., 2009). To protect individuals from the impact of bank failure, the government safety net provided to depositors in the form of deposit insurance is generally accompanied by regulations for all firms, regardless of size, that constrain banking firms' activities and corporate organizational form. Federal deposit insurance and capital requirements placed on banks removes the market oversight and, therefore encourages excessive risk taking (Bullard et.al. 2009). Shrieves and Dahl (1992) and Keeley (1990) also discuss the excessive risk-taking by bankers as a result of deposit insurance. Merton (1977) shows that banks maximize the value of deposit insurance to themselves by maximizing their risk. Merton (1977) derives a formula for the cost of FDIC insurance to the government based

on the loan guarantees acting as European put options. Option pricing theory is used to show that maximizing the value of stockholders' equity would occur with the maximization of the option value of deposit insurance through increasing leverage and portfolio asset risk (Merton, 1977). Deposit insurance can be viewed as a put option on the value of a bank's assets at a strike price equal to the promised maturity value of its debt. Under a fixed-rate insurance system, banks could transfer wealth from the insurer to stockholders and, without regulation, will maximize the value of the put by increasing asset risk and/or minimizing capital relative to assets. Shrieves and Dahl (1992) claim that the need for bank capital regulation is based to a large degree on the presence of incentives for banks to take advantage of the deposit insurance subsidy for stockholders by taking risks that may expose banks to a high chance of failure. The reason for government regulation of financial firms stems from the belief that bank depositors cannot effectively protect themselves (Dewatripont & Tirole, 1994). The first reason for this belief is that depositors cannot effectively see or control bank risks because of information costs and coordination problems (Flannery, 1998). The time it would take for a depositor to acquire the information to evaluate the risk of an individual bank would not be worth the marginal benefit that depositor would gain from that information. A second reason for government regulation of banking stems from the fact that bank loans are customized privately negotiated agreements that, even with increased availability of price information and trading activity, still often lack transparency and liquidity to depositors (Flannery, 1998). Government regulation may be an attempt to correct the markets failure to assess the true value of the loan portfolios due to asymmetric information. Market and government supervision are alternative methods for governing any type of corporation. Most national governments have instituted nonmarket regulatory mechanisms for bank firms based on the fact that the markets fail to adequately discipline banks.

CAPITAL ADEQUACY RISK

Various capital ratios have been used in banking regulation in the United States to measure the risk of an institution and set limits for prompt corrective action (PCA) by the Federal supervisor. The Basel Accord of 1988 requires banks to maintain equity accounts equal to a risk-weighted proportion of their asset base. The idea was not to determine an exact level of capital for the bank, but to allow a more flexible way of determining the minimum required level (Basel Committee on Banking Supervision, 1988). The reason for the adoption of this requirement by regulators was to maintain financial stability, to establish consistent requirements internationally, and to reduce costs of government deposit insurance (Ediz, Michael, & Perraudin, 1998). The Federal Deposit Insurance Corporation Improvement Act (FDICIA) of 1991 requires prompt corrective action (PCA) for bank holding companies which are undercapitalized (Bullard, et.al, 2009). Bank failures declined in the years following the passage of FDICIA (Estrella, Park & Peristiani, 2000). Therefore, capital adequacy is a critical measure

of risk for banks. Capital requirements and other measures can limit the excessive risk-taking encouraged by federal deposit insurance.

Estrella, Park & Peristiani (2000) perform empirical study on capital ratios as predictors of bank failure. The study finds that the risk-weighted ratio does not consistently outperform the leverage or the gross revenue capital ratios over short time horizons of less than two years at predicting bank failure. To be successful, capital ratios should bear a negative relationship to the risk of subsequent bank failure. Ediz et al. (1998) presents empirical evidence of this relationship using the risk-weighted, leverage and gross revenue ratios. The measure of capital used as the numerator of all three ratios is tier 1 capital, which includes common stock, common stock surplus, retained earnings, and some perpetual preferred stock (Estrella et al., 2000). The risk-weighted capital ratio is defined as the ratio of tier 1 capital to risk-weighted assets. The rationale behind risk weighting is that it requires financial institutions to require more capital for riskier assets, discouraging them from holding risky assets. Thus, if risk weights accurately reflect the riskiness of assets, the risk-weighted ratio should better distinguish between risky and safe banks and should be a more effective predictor of bank failure than the simpler leverage and gross revenue ratios. Estrella et al., (2000) did not find this to be true, which is consistent with Ediz et al., (2000) in that the risk weighted ratio is not a better predictor of bank failure than the simpler ratios. The leverage ratio is tier 1 capital divided by total tangible assets. The gross revenue ratio is tier 1 capital divided by total interest and noninterest income before deduction of any expenses (Estrella et al., 2000). Gross revenue includes components associated with off-balance-sheet activities which are not captured in the leverage ratio. The most complex of the three types of capital ratios, risk-weighted ratio is the most effective predictor of failure over long time horizons. However, the study finds that the risk-weighted ratio does not consistently outperform the leverage or the gross revenue capital ratios over short time horizons of less than two years at predicting bank failure. These studies provide strong rationale for using the leverage capital ratio as the measure of risk for this study, since it does as well as the risk-weighted ratio at predicting bank failure and provides a good regulatory instrument for promoting stability in the banking system.

BOARD STRUCTURE

A study by Pathan (2009) examines the relevance of bank board structure on bank risk-taking. The study finds that strong bank boards which reflect more of bank shareholders interest, particularly small and less restrictive boards increase the risk taking of banks. Consistent with Pathan, a study by Cheng (2008) finds that firms with smaller boards have higher variability of corporate performance. These results are consistent with the view that a larger board must make more compromises in order to reach consensus resulting in more conservative decisions which result in less volatile performance (Cheng, 2008). In contrast, according to Pathan (2009), CEO power, which is proxied through CEO duality (where the CEO also serves as chairman of the

board), and internal hiring of the CEO, negatively affects bank risk-taking. A negative relationship is also found between director independence and bank risk. These studies support the theory that bank board structure is an important determinant of bank risk-taking.

METHODOLOGY

The focus of this study is to identify characteristics of the boards of directors of bank holding companies that influenced the amount of capital asset risk taking as measured by the tier 1 capital ratio. The study used data from the 2007 year since that was the most recent year with normal financial data. Data was extracted from the EDGAR SEC database for bank holding companies with SIC codes of 6021 or 6022 for state bank holding companies and national bank holding companies. Bank holding companies were used because they contain the most diverse loan portfolios. Data from the bank's 10-K and DEF 14A statements were used for analysis. A total of 378 banks were collected an initially entered. Banks with missing data were removed, bringing the number of entries down to 372. Regression analysis identified a number of outliers associated with the CEO incentive pay divided by the assets and the total assets of the bank. The CEO incentive pay outliers were removed, bringing the total number of entries to 354.

The data is restricted to U.S. banks to eliminate any unexpected effects from banks in other counties with different regulatory, political and economic environments. Following Estrella et al., (2000), the dependent variable is the tier 1 capital leverage ratio.

The research hypotheses include:

$H1_0$: Board Size has no relationship to risk-taking (BSIZE)
$H2_0$: Percent of outside directors has no relationship to risk-taking (OUTSIDE)
$H3_0$: CEO is board chair has no relationship to risk-taking (DUAL)
$H4_0$: Average total years of service has no relationship to risk-taking (YEARS)
$H5_0$: Average director age has no relationship to risk-taking (AGE)
$H6_0$: Average number of other boards that directors are serving on has no relationship to risk taking. (BUSY)
$H7_0$: Board ownership structure has no relationship to risk taking (BOARDOWN)
$H8_0$: CEO base pay divided by total assets has no relationship to risk taking (CEOBASE)
$H9_0$: CEO incentives divided by total assets has no relationship to risk taking (CEOINCENT)
$H10_0$: Market power (market to book value of assets) has no relationship to risk taking. (MTOB)

The dependent variable, tier 1 leverage, will be lower if more risk is taken by the board. So an increase in a variable causing more risk is indicated by a negative relationship.

RESULTS

The regression results on the complete data set are as follows:

Table I: Full Dataset ANOVA Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.019	11	.002	8.007	.000[a]
Residual	.072	342	.000		
Total	.091	353			

a. Predictors: (Constant), MTOB, ASSETS, OUTSIDE, AGE, DUAL, CEOINCENT, BUSY, BOARDOWN, BSIZE, YEARS, CEOBASE
b. Dependent Variable: Tier 1 Leverage
Adjusted R^2 = .179

While the adjusted R^2 is small for the regression results from the full dataset, it is significant and identifies that a relationship does exist between some of the independent variables and the dependent variable. The equation is able to explain approximately 17.9% of the variation obtainable in the tier 1 leverage percent.

At a 95% confidence interval level, the association between the amount of capital held and the board size, the average age of the board members, a dual role between the CEO and the chairman of the board, the percentage of outside directors, the average number of years of service, the average number of other boards served on, and the market to book value of assets is not significant. At the 95% confidence level, the association between the amount of capital held and the percent of stock held by the board, the CEO base pay over total assets, the CEO incentive pay as a percent of assets, and the total assets are significant. The significant results of the regression are as follows:

Table II: Statistically Significant Correlation Coefficients:

Model	Coefficient b	t	Sig.
(Constant)	.064	3.311	.001
BOARDOWN	.017	2.555	.011
CEOBASE	.026	4.415	.000
CEOINCENT	.014	2.151	.032
ASSETS (1000's)	-1.925E-11	-4.195	.000

The estimated coefficient, b, signifies the expected change in dependent variable associated with a change in the independent variable when all other independent variables remain the same. The coefficients with significance include BOARDOWN, CEOBASE, CEOINCENT, and ASSETS. The following examples illustrate how changes in the variables would impact risk, as predicted by this model:

1. A 10% or .1 increase in the stock owned by the board would lead to a .0017 or .17% increase in the tier 1 leverage, which is a reduction in the risk of the bank.
2. A CEO with the average base salary of $400,000 working for a bank with assets = $1,739,130,000 would have the average CEOBASE value of 400,000/1739130 = .23. A $100,000 raise for this CEO would increase the CEOBASE value to .2875 and the resulting increase in tier 1 leverage would be .0075 or .75% (.026 * .2875 = .0075)
3. A CEO with incentives of $500,000 working for a bank with assets = $2,923,977,000 would have the average CEOINCENT value of 500000/2923977 = .171. A $100,000 increase in incentives for this CEO would increase the CEOINCENT value to .205 and the resulting increase in tier 1 leverage would be .0029 or .29% (.014 * .205 = .00287).
4. A bank with $10 billion dollars in assets ($10,000,000,000) would have an ASSET value = 10,000,000. A 1 billion dollar increase in assets would change this value to 11,000,000 and the tier 1 leverage of the bank would decrease by .00000000001925 * 1,000,000 = .00001925 or .001925%.

The findings of this research support the conclusion that increased stock ownership by the board, increased CEO base pay, and increased CEO incentive pay will all increase the tier 1 capital held by the bank, which means a decrease in capital risk.

REFERENCES

Basel Committee on Banking Supervision. (1988). International convergence of capital measurement and capital standards. Banks for International Settlements, July.

Bullard, J., Neely, C. & Wheelock, D. (2009). Systemic risk and the financial crisis: A primer. *Federal Reserve Bank of St. Louis Review,* 91 (5), 403-418.

Cheng, S. (2008). Board size and the variability of corporate performance. *Journal of Financial Economics*, 87, 157-176.

Dewatripont, M. & Tirole J. (1994). A theory of debt and equity: diversity of securities and manager-shareholder congruence. *Quarterly Journal of Economics,* 109 (4), 1027-1054.

Ediz, T., Michael, I. & Perraudin, W. (1998). The impact of capital requirements on U.K. bank behaviour. *FRBNY Economic Policy Review*, October, 15-22.

Estrella, A., Park, S. & Peristiani, S. (2000). Capital ratios as predictors of bank failure. *FRBNY Economic Policy Review,* 33-52.

Flannery, M. (1998). Using market information in prudential bank supervision: A review of the US empirical evidence. *Journal of Money, Credit and Banking* 30, 273-305.

Keeley, M. (1990). Deposit insurance, risk and market power in banking. *The American Economic Review,* 80, 1183-1200.

Merton R. (1977). An analytic derivation of the cost of deposit insurance and loan guarantees: an application of modern option pricing theory. *Journal of Banking and Finance,* 1 (1) 3-11.

Pathan, S. (2009). Strong boards, CEO power and bank risk-taking. *Journal of Banking and Finance,* 33 (7), 1340-1350.

Shrieves, R. & Dahl, D. (1992). The relationship between risk and capital in bank holding companies. *Journal of Banking and Finance,* 16 (2), 439-457.

THE SUDDEN ONSET OF PRICE COMPETITION IN THE US CREDIT CARD INDUSTRY

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ABSTRACT

The credit card industry of the 1980s was viewed with great interest because as an industry with over 4000 firms selling an almost identical product, it should be expected to behave like a text book example of an industry in "Pure or Perfect Competition". Until 1992, it did not. Product pricing, as measured by the card issuer's Annualized Interest Rate (APR) showed no sign of significant decline when most other bank interest rates declined due to reduced funding costs.

In 1992, everything changed and price competition became the primary competitive tool used and industry interest rates began to decline. Three forced coalesced together to create this shift: 1.) the unique characteristics of the 1992 recession; 2.) the ongoing presidential campaign highlighting health care reform; and, 3.) the existence of some issuers who had a "variable" vs. "fixed" interest rate.

These factors working together caused the typical revolving credit customer to view their credit card interest payments as something that needed to and could be managed, which in turn dramatically changed issuer's card positioning and prices.