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**American Accounting Association – Western Region**  
**May 1-3, 2008, San Francisco, California**  
**Manuscript Abstracts, Panels, and Workshops**

**Nishat Abbasi, Metropolitan State College of Denver**

A Primer on Corporate Governance

Corporate Governance (CG) has become now an area of utmost importance for auditors, managers and other corporate stakeholders. Enacted in July 2002 Sarbanes-Oxley Act (SOX) represents a significant advancement in CG. This article is divided into five parts. The first part explains the nature of a corporation. The second part defines and explains the nature of CG. The third part of this article explains some concepts and principles of corporate governance. The fourth part of the article provides an overview of SOX provisions pertaining to CG. The article's conclusion in part five is that a synergistic alliance is needed between CG and SOX implementation.

**Lawrence J. Abbott, University of Memphis**

**Susan Parker, Santa Clara University**

The Internal Audit Function's Organizational Position and its Impact on the External Auditor's Reliance Decision

Prior research has addressed the extent to which auditors rely on the internal audit function for assistance and whether this reliance results in lower audit fees. Our study focuses on the importance of the organizational position of the internal audit function and its influence on fees. We posit that an enhanced organizational position can be measured by reporting line to the audit committee, and termination rights and budgetary control housed with the audit committee. Each of these elements serves to potentially shelter the internal audit function from managerial pressure, resulting in an increase in perceived objectivity. Our results are consistent with the external auditor recognizing variation in the extent to which the audit committee monitors/influences the IAF and adjusting audit fees and IAF reliance accordingly. We also present post-Sarbanes-Oxley Act evidence on the overall effect on total audit expenditures of IAF reliance.

**Gerhard Barone, Gonzaga University**

**Matthew Magilke, University of Utah**

A Re-Examination of the Effects of Investor Sophistication on the Pricing of Earnings Components

We re-examine the role of sophisticated investors in the pricing of both accruals and cash flows (i.e. the naïve-investor hypothesis). Unlike prior research, however, we analysis three separate components of earnings; 1) accruals that are independent of cash flows, 2) cash flows that are independent of accruals, and 3) the accrual and cash flow components that are correlated. We find evidence consistent with predictions of the naïve-investor hypothesis with respect to cash flows that are independent of accruals. That is, after controlling for accruals, we find that, relative to naïve investors, sophisticated investors are associated with a significant reduction in the mispricing of cash flows. Consistent with Desai et al. (2004), we find no evidence of mispricing related to accruals that are independent of cash flows. This is true for both naïve and sophisticated investors. Finally, with respect to accruals and cash flows that are correlated, we again find evidence consistent with predictions of the naïve-investor hypothesis. That is, naïve investors significantly misprice the correlated component while sophisticated investors are associated with a significant reduction in that mispricing.

**Thomas Black, San Jose State University**

**Howard F. Turetsky, San Jose State University**

Accounting Faculty Utilization of Web-Based Resources to Enhance In-Class Instruction

Our study examines the extent to which accounting faculty use web-based resources to augment classroom instruction. Moreover, we explore the effects of the institutional factors of accounting accreditation and the existence of an accounting Ph.D. program on internet use by accounting academics toward enhancing pedagogy, while controlling for the individual factors of academic rank and gender. We find strong statistical inferences that accounting accreditation signifies an increase in the likelihood that accounting faculty utilize the internet to supplement pedagogy. The presence of an accounting doctoral program, as well as the interactions of accreditation with the ranks of assistant and full professors, in addition to the female gender, are associated with an increase in the odds that faculty integrate the internet in their courses.

**Mike Braswell, San Francisco State University**

Determinants of Increases in Audit Committee Accounting Financial Expertise

Prior research finds benefits from having accounting financial expertise on audit committees, yet Sarbanes-Oxley (SOX) Section 407 stops short of requiring accounting financial expertise and continues to allow a broader definition of financial expertise that includes CEO/Presidents. Therefore, the addition of an accounting financial expert to the audit committee remains voluntary. We examine the composition of audit committees to determine factors associated with the voluntary increase in accounting financial expertise in the period surrounding SOX Section 407 implementation. This time period provides a good context for the study because it is a time when audit committees are under scrutiny prompting firms to re-evaluate the composition of their audit committees. Using a sample of 192 varied size firms, we find a positive association between increases in accounting financial expertise and stock issuance, increases in media coverage, and increases in overall board of director independence, and a negative association with pre-existence of an accounting financial expert in 2001, after controlling for other firm-specific variables. These results suggest that firms use the latitude given in current regulations to compose the audit committee based on their need for external financing and media scrutiny, leading to inconsistent effectiveness of regulations designed to improve audit committee accounting financial expertise.

**Darrell Brown – Portland State University**

**Jane Cote – Washington State University Vancouver**

**Kate Lancaster – California Polytechnic State University, San Luis Obispo and Bainbridge Graduate Institute, Washington**

Panel: Perspectives on Developing Sustainability and Stakeholder Issues into MBA-level Accounting

Panel members will share different perspectives from four schools where they are integrating sustainability and stakeholder engagement issues into accounting curriculum at the MBA level. Topics and techniques presented by the panel can also be adapted into undergraduate accounting curriculum. Sustainability is gaining prominence both publicly and within academia. Several schools are now offering sustainability-focused curriculum, either through electives or as the centerpiece of the curriculum at the graduate level. Schools have defined sustainability in different ways and faculty members have used many different innovative approaches for including sustainability issues into their accounting courses. Nonprofit organizations such as the Aspen Institute ([www.aspeninstitute.org](http://www.aspeninstitute.org)) have, as their mission, to help business schools and faculty create MBA programs that prepare students to be progressive business leaders through the integration of issues concerning social and environmental stewardship in to the curriculum. This panel session will help faculty demystify sustainability and learn ways they can adapt their courses towards a sustainability focus.

**Michael Calegari, Santa Clara University**

The Effect of Negative Sales Growth on Capital Investment and Accruals

This paper investigates the relation between sales growth an investment in fixed assets, inventory, and operating accruals when sales growth is negative. The results in this version of the paper show that the sales elasticity of investment declines when companies experience negative sales growth. I also find that the relation between sales and new investment is weaker when the company experiences a positive sales reversal (that is, the company experiences positive sales growth in a year following negative sales growth) than when the company experiences two consecutive years of positive sales growth. These results contribute to our understanding of the relationship between expected sales growth and investment in fixed assets, inventory, and accruals.

**Dennis Caplan, Oregon State University**

Can Accountants Embrace a Conceptual Framework that Accommodates Corporate Social Responsibility?

The current conceptual framework in accounting and corporate finance relies on an economic theory of the firm that assumes companies exist to maximize profits to owners. The theory is elegant and powerful, and it pervades corporate governance and business education. This paper examines whether this conceptual framework is compatible with the objectives of corporate social responsibility and environmental sustainability. The main finding of the paper is that trends in corporate strategy and performance measurement seem to imply that corporate social responsibility is compatible with maximizing long-run profits to shareholders, but that, in fact, these objectives are unlikely to be consistently aligned. The paper concludes by identifying an opportunity for a paradigm shift in business education—a paradigm shift that would supplement the current theory of the firm with a model that allows firms to be run for multiple objectives. Such a shift might be necessary before managers can be expected to trade corporate profits for more socially responsible and sustainable behaviors.

**Doug Cerf, California Polytechnic State University, San Luis Obispo**

**Kate Lancaster, California Polytechnic State University, San Luis Obispo**  
**Arline Savage, California Polytechnic State University, San Luis Obispo**  
Teaching accounting and financial management to support sustainability

Sustainability provides an important focus for designing business courses that prepare students for the challenges and opportunities of doing business in a resource-constrained world. Accountants and financial managers have a critical role in addressing and reporting on the economic impact of sustainable business solutions. We offer a series of modules to assist course developers in selecting topics that support sustainability in a variety of courses. We also address the challenges of identifying course content by selecting appropriate material from the large body of available content and identify courses that might benefit from these modules. Educators can use this design methodology to develop sustainability courses in various disciplines. The modules may be used together in a dedicated accounting and financial management course or individual modules may be integrated into other courses. These modules encourage students to engage in active/exploratory learning. This course material supports the move towards incorporating sustainability in business curricula, consistent with the mission of the Beyond Grey Pinstripes organization.

**Yan-Leung Cheung, City University of Hong Kong**  
**Ping Jiang, City University of Hong Kong**  
**Piman Limpaphayom, Sasin Graduate Institute of Business Administration of Chulalongkorn University**  
**Lu Tong, Chinese Academy of Social Sciences**  
Corporate Governance in China: A Step Forward

Recently, the presumed benefits of corporate governance have become one of the most contentious issues especially for emerging markets in Asia where institutional settings are quite different from other parts of the world. Using an internationally accepted benchmark (OECD's Principles of Corporate Governance, OECD, 2004), this study evaluates the progress of corporate governance practice of Chinese listed companies. A corporate governance index (CGI) is constructed to measure the quality of corporate governance practices of 100 largest listed firms in China during 2004-2006. The results show that Chinese companies have been making progress in the corporate governance reform. The findings also show a positive relation between market valuation and overall corporate governance practices, as measured by the CGI, among these Chinese listed companies. Additional investigation reveals that rights of shareholders are the main driver in the relationship.

**Anne L. Christensen, Montana State University**  
**Jane Cote, Washington State University**  
**Claire Kamm Latham, Washington State University**  
Unauthorized Electronic Access: Students' Ethics, Attitudes and Actions

This study reports the results of a natural classroom experiment exploring the relationship between moral reasoning, as measured by the Defining Issues Test, moral identity, as captured by the Aquino and Reed (2002) scale, ethical training, and academic integrity violations. Research suggests that the accessibility of electronic resources has accelerated cheating behavior. We measure the extent that students access electronic materials prior to an authorized date and whether they are truthful about accessing those materials. We subsequently conduct a training session on ethical boundaries. Students are given another assignment where electronic resource access is again prohibited. We observe a high rate of cheating and lying in the first experiment and little diminishment in post-training cheating. Quantitative analysis finds cheating and lying are not significantly affected by levels of moral reasoning or moral identity. The prevalence of widespread cheating suggests that we move beyond the analysis of antecedents to the development of effective interventions.

**Josh Cieslewicz, Doctoral Student, Washington State University**  
Towards an Understanding of Bribery in China

Bribery directly impacts accounting, leading to opaque reporting and causing stress and conflict for accountants. International agreements to ban bribery now exist, yet bribery persists. While many nations have problems with bribery, China was chosen for this study due to China's increasing importance to the world. The paper accepts as its premise that bribery cannot be effectively addressed unless the underlying cultural factors which permit bribery to occur are recognized and understood. The paper explores aspects of Chinese culture that contribute to the Chinese relationship paradigm, or "guanxi." It describes familial and supernatural or spiritual contributions to the Chinese perspective on relationships. The paper describes the importance of relationships in business in China. Ultimately, the paper explains how the Chinese view their personal networks and how these networks can sometimes function as vehicles for the payment of bribes. As the qualitative Grounded

Theory Methodology is employed, the study seeks understanding of phenomena through the use of free-from interviews and subsequent categorization and analysis.

**Dr. Gary J. Cook, Florida Southern College**  
**Dr. Lynn H. Clements, Florida Southern College**  
Computerized Tools For Use In Proactive Fraud Examination

Fraud Examination has been a concern for a very long time, but the collapse of Enron created a new era of concern over the detection of fraud. Fraud examiners have been slow to acknowledge the importance of the numerous computerized fraud detection tools, some of which were developed specifically for fraud examination, and many which are multi-purpose tools. We have become concerned about the lack of use of the best tools available to fraud examiners. In this paper, we present an extensive number of computerized tools available to fraud examiners, an analysis of the tools currently used by fraud examiners based upon an e-mail survey, and our recommendations for the best tools to use in each of the three phases of fraud examination based upon our model presented herein.

**Brad E. Crenshaw, Graduate Student, Florida Southern College**  
**Lynn H. Clements, Florida Southern College**  
The History of the IASB

In today's society more and more companies are looking abroad for growth and investment opportunities. . However, attracting funding from outside the domestic country often requires listing on foreign exchanges, conforming to the foreign exchange regulations, and restating financial reports in accordance with the foreign country's accounting principles, which hinders globalization. Harmonization of accounting standards will enable capital markets to operate more freely. It is the goal of the International Accounting Standards Board (IASB) to achieve harmonization, and the goal of this paper to explain the history of the IASB's actions in achieving that goal.

**Asher Curtis, University of Utah**  
**Neil Fargher, Macquarie University**  
Short-selling, price momentum and fundamental analysis

We examine how the positions of short-sellers are associated with prior price momentum, fundamental-to-price ratios and future price momentum. We find evidence consistent with short-sellers using information in fundamental-to-price ratios to identify mispriced stocks when selecting short positions in extreme price momentum quintiles. We document that future price momentum profits are significantly lower for portfolios of stocks with high levels of short-interest than for portfolios of stocks with low levels of short-interest. We also find evidence that the positions taken by short-sellers are associated with more timely momentum reversals for stocks in the extreme momentum portfolios. Collectively our results suggest that short-sellers play a stabilizing role in the market by mitigating the magnitude and persistence of the continuation of extreme prior price momentum.

**Cynthia M. Daily, University of Arkansas at Little Rock**  
**Nancy E. Landrum, University of Arkansas at Little Rock**  
An Overview of Sustainability Reporting

Even without government intervention, companies in the United States are taking on the responsibility of developing sustainable practices for their organizations. However, there are still many issues related to sustainable development and reporting on those efforts to be addressed. Although companies have taken the lead and have begun reporting on this important topic, there is great variation in the type of reporting and the methods for providing assurance for users of the report. Standard setting organizations must accelerate their work on providing guidelines for reporting and assurance services.

**Kenneth Danko, San Francisco State University**  
**John O'Shaughnessy, San Francisco State University**  
**Jiunn Huang, San Francisco State University**  
Basic Aid School Districts and Neglected Contingent Liability Disclosure

Following a series of disclosures in the popular press regarding lay-offs at California public schools, the authors investigated funding sources and financial reporting and discovered that property tax rebates have played a big role in reducing the funding for some school districts. In large part these rebates, and their related law suits,

stem from an environment of declining commercial property values. The authors discovered that some school districts routinely neglect to report contingent liabilities related to pending property tax rebates. This paper reports on the authors' exploratory findings related to the non-disclosure of contingent liabilities by some school districts in California.

**Chan Du, California State University, Fresno**

The Effects of Corporate Governance on Discretionary Investments

This paper provides empirical evidence of the effects of corporate governance mechanisms including managerial compensation, ownership concentration, and CEO's characteristics on firm's discretionary investments. The data sample includes CEOs for all firms obtained from ExecuComp databases ranges from 1992 to 2000. The results show that the two parts of CEO's compensation compositions, cash- and stock options- based compensations, are the most important factors in determining the corporate investments. Specifically, the value of CEO's holding of stock options has significantly positive effect on CEO's investment decisions for all the model specifications. An additional event study shows that new CEOs changes of control do not significantly increase their investment compared to the industrial average, even after controlling for the reasons of the previous manager's leave. This suggests that new CEOs are more concerned about their reputations and careers and thus mimic what others do in the same industry. **Note: Full paper also included in proceedings.**

**Michael Eames, Santa Clara University**

**Yongtae Kim, Santa Clara University.**

Market Expectations and Earnings Management to Avoid Small Losses

Burgstahler and Eames (2003) present evidence that analysts commonly anticipate earnings management to avoid small losses, but often incorrectly predict its occurrence. Here we consider whether the market's behavior mimics that of analysts or the market is more or less susceptible to errors in anticipating earnings management to avoid small losses. Our results suggest that (1) markets excessively discount analysts' zero earnings forecasts (where analysts often predict earnings management that is not realized) and (2) for zero earnings realizations, analyst pessimism, reflecting their inability to correctly predict realized earnings management, is greater at the shorter horizons, while market pessimism is greater at the longer horizons. We also find that analysts' forecasts provide a particularly poor proxy for market earnings expectations when analysts forecast zero earnings.

**Steve Fortin, McGill University**

**Desmond Tsang McGill University**

GAAP vs. Non-GAAP Financial Measures: What Can We Learn from Analyst's Accuracy in Forecasting Real Estate Investment Trusts Performance?

Analysts of the Real Estate Investment Trust (REIT) industry traditionally forecast Funds from Operations (FFO), a non-GAAP measure commonly reported by REIT firms. In recent year, they have also started to forecast earnings per share (EPS). This study utilizes the unique setting in REIT to explore the relative usefulness of GAAP vs. non-GAAP performance measures from an informed user perspective by assessing analyst forecast accuracy of FFO versus EPS. Contrary to the perception that the heavily regulated GAAP measure tends to be more reliable and should be easier to predict, we document that absolute forecast errors are substantially larger for EPS than for FFO. However, forecast errors of EPS have substantially decreased over the sample period while forecast errors of FFO have been relatively constant. We show that lower forecast accuracy for EPS is best explained by the inherent complexity associated with the computation of the EPS measure, and analyst experience has helped to resolve this complexity and has reduced EPS forecast errors. Overall, our study suggests that accounting standards do not automatically result in more easily interpreted financial statements. The inherent complexity of a performance measure appears a key determinant of its understandability. However, analysts can improve their forecasting accuracy through collective learning.

**David P Franz, San Francisco State University**

Using Matrix Algebra Functions in Spreadsheet Modifications

As firms are involved in mergers and acquisitions, it can often have an impact on the employees in the respective accounting departments. This case presents a situation where an employee in an acquired firm needs to adjust their processes to meet the requirements of the new, larger, acquiring firm. The employee must revise an existing spreadsheet to handle the more complex reciprocal accounting requirements of the acquiring firm. Learning objectives include: emphasizing the need to understand how spreadsheets work and why they might need to be altered; exposing students to matrix algebra which is not typically part of an undergraduate

accounting student's studies; using matrix algebra to allocate the support department costs with the reciprocal method; and understand the importance of documenting spreadsheet calculations.

**Martin Freedman, Towson University**

**Bikki Jaggi, Rutgers University-New Brunswick**

Global Warming and Corporate Disclosures: A Comparative Analysis of Companies from the European Union, Japan and Canada

This study focuses on disclosures concerning global warming by firms from the European Union, Japan and Canada. The study is based on disclosures made on websites, annual reports, social, environmental and sustainability reports and from a questionnaire developed by the Carbon Disclosure Project. by 283 of the largest firms from these countries. Content analysis is utilized to assess the disclosures. The results indicate that firms from the EU make significantly less global warming disclosures than firms from either Japan or Canada. In addition firms from the utility, chemical and drug, oil & gas and materials industries make significantly greater disclosures concerning global warming compared to other industry groups. Larger firms also make more extensive disclosures than do smaller firms. Finally, we find no relation between changes in carbon emissions and global warming disclosures indicating that pollution performance and pollution disclosures are not linked.

**Peter J. Frischmann, Idaho State University**

**Frank Plewa, Idaho State University**

**Muku Santhanakrishnan, Idaho State University**

Sources of Nonarticulation in Cash Flow Statements

The running debate on the preference of the direct or indirect method for presenting operating cash flows has somewhat settled down. Academics largely prefer the direct method, as reflected in opinion pieces and text books. Companies reporting under US GAAP overwhelmingly choose the indirect method. We update Bahnsen et al. (1996) and further parse their sample, finding that nonarticulation continues. We also follow Wilkins and Louder's (2000) articulating companies and find that articulation does not persist for these firms. In addition, articulation has decreased substantially over the last 20 years. Furthermore, we test for differential articulation related to company size, international operations, auditor type, mergers, and discontinued operations. We find that increased articulation is related to Big 4 (8) auditors. Decreased articulation is related to larger firm size, international operations, merger activity, and discontinued operations. However, the low explanatory power of the models indicates that the majority of the variation is unexplained by these variables, leaving to further research the identification of additional important factors related to nonarticulation.

**Rosemary R. Fullerton, Utah State University**

**Frances A. Kennedy, Clemson University**

Accounting and Lean Strategy: An Empirical Analysis On the Uses and Effects of Lean Accounting

Lean thinking is rapidly becoming the dominant paradigm in manufacturing. Traditional management accounting fails to provide relevant information to decision makers in a Lean organization. A relatively new management accounting approach better suited to supporting lean initiatives has begun to emerge. Popularly termed Lean accounting (LA), the information generated by this system is simpler to prepare, easier for shop-floor decision makers to understand, and more useful for decision making. The purpose of this exploratory survey study is to identify some of the most critical characteristics of firms that have adopted accounting for Lean. The results suggest that companies implementing Lean accounting tend to use a greater number of Lean tools, have more cross-trained work teams, use more visual presentations of performance on the shop floor, have streamlined their accounting processes, and do less tracking of labor and overhead allocations.

**Andy Garcia, Bowling Green State University**

**James C. Lampe, Missouri State University**

The History of Professionalization in U.S. Accountancy

This paper uses a synthesis of three extant theories from the sociology of the professions literature to develop a summary list of ten features that society uses to confer elite professional status on an occupational group. The history of professionalization efforts by public accountants in the U.S. is described in terms of these features of professionalism per the sociology of the professions literature. Focal points of the paper include: 1) It takes many (typically more than 100) years of concerted effort (professionalization) by an occupational group to achieve professional status, 2) The three oldest and classically recognized professions – clergy, attorneys, and physicians – have been recognized and sustained for hundreds of years, 3) Public accountancy has not been recognized by society as a profession until about the 1970s after struggling to achieve professional status since

the mid-1800s, 4) Very soon after achieving professional status, many public accountants began engaging in activities that have seriously diminished recognition of accountancy as a profession, 5) Many: a) leaders in the public accountancy industry, b) government officials and regulators, and most importantly c) members of the public have ceased to believe that public accountancy now deserves or retains professional status, 6) The current status is that professional recognition by society must first be regained before it can be sustained.

**Richard Gore, Fort Lewis College**

**Richard Samuelson, Retired**

What is an Asset?

In the project to revise the Conceptual Framework, the Financial Accounting Standards Board has proposed a new definition of assets. In this paper, we examine and evaluate the proposed definition. Our examination indicates that although the proposed definition is an improvement to the existing definition of assets, there are still some major shortcomings. The main shortcomings, which are elaborated in this article, concern two characteristics of the proposed definition. First, the proposed definition equates assets with economic resources and gives the existence of proprietary rights a secondary role. We believe this relationship should be reversed. Second, the discussion of an economic resource that accompanies the proposed definition defines resources in terms of future cash flows (or economic value) as opposed to the utility (economic use) of the resource. This approach leads to confusion between the definition of assets and their measurement. As an alternative, we suggest that assets be defined as rights to the services of an economic resource and that the definition of an economic resource focuses on the utility of the resource as opposed to the value of the resource.

**Maureen P. Gowing, University of Windsor**

**Cindy Ives, Athabasca University**

**Hope Seidman, Canada School of Public Service**

Reflecting on Strategies to Develop Critical Thinking Competence

In this article, the instructor (first author) reflects on a multi-year process of redesigning a university course in accounting theory and together the authors comment on how an interdisciplinary research project influenced the course redesign.

**C. Terry Grant, California State University, Fullerton**

**Gerry H. Grant, California State University, Fullerton**

**Ritu Rampuria, California State University, Fullerton**

Can Regulations Curb Excessive Executive Pay?

On the heels of the SEC's executive compensation disclosure requirement that became effective in 2007, regulators are once again considering measures to curb escalating executive pay. The latest effort focuses on the advisory role of shareholders for executive pay decisions. Spurred by shareholder resolutions of companies such as Aflac and Boeing, the House of Representatives passed a Bill in April 2007 that would give shareholders a non-binding vote on executive compensation. A similar Bill is pending in the Senate. We discuss this move toward shareholder's "Say-On-Pay" as well as the four major executive compensation initiatives passed by Congress, the SEC, and the FASB since 1991. We summarize these regulations and highlight key compliance disclosures targeted by the SEC in its initial review of the new 2007 compensation disclosures. We illustrate "vague" performance-based disclosures that prompted SEC comment letters to approximately 300 companies. Notwithstanding regulatory initiatives of the past 16 years, 2006 CEO compensation is almost nine times as high as 1992 levels and consumes a growing percentage of income and cash flows. Careful compliance with the latest SEC disclosure rule, and design of equitable compensation packages, is imperative if companies hope to satisfy governance advocates. Otherwise, Congress could require a mandatory shareholder vote on executive compensation.

**Nader Hafzalla, University of Michigan**

**Russell Lundholm, University of Michigan**

**Matt VanWinkle, University of Michigan**

Repairing the Accruals Anomaly

We document how the effectiveness of an accruals-based trading strategy changes systematically with the financial health of the sample firms or with the benchmark used to identify an extreme accrual. Our refinements significantly improve the strategy's annual hedge return, and do so mostly because they improve the return earned on the long position in low accrual stocks. These results are important because recent evidence has shown that, absent these "repairs," the accrual strategy does not yield a significantly positive return in the long

portion of the hedge portfolio. We also find that our new measure of accruals is not dependent on the presence or absence of special items and it identifies misvalued stocks just as well for loss firms as for gain firms, in contrast to the traditional accruals measure. Finally, we show that our repairs succeed where the traditional measure of accruals fails because they more effectively select firms where the difference between sophisticated and naïve forecasts are the most extreme. As such, our results are consistent with Sloan's earnings fixation hypothesis and are inconsistent with some alternative explanations for the accrual anomaly

**Su-Jane Hsieh, San Francisco State University**  
**Amy (Chun-Chia) Chang, San Francisco State University**  
Pension Accruals and Earnings Management

Managers have considerable discretion in pension assumptions used to calculate pension cost. Therefore, pension accounting provides an alternative to discretionary accruals for managers to manage earnings. Our study focuses on how pension accruals affect the behavior of managers toward the usage of other discretionary accruals in managing earnings. We find that firms reporting pension income have significantly higher (lower) pension accruals (other discretionary accruals) than the pension expense firms. In addition, for the pension income subgroup, the mean of pension accruals is greater than that of other discretionary accruals. These findings suggest that managers of the pension income subgroup rely more on pension accruals than on other discretionary accruals in earnings management and that the considerable discretion managers have in pension assumptions, especially in expected rate of return, contributes to the higher use of pension accruals for earnings management.

**Shu-Wei Hsu, Tunghai University, Taiwan**  
**Nen-Chen Richard Hwang, California State University, San Marcos**  
**Jan-Zan Lee, National Taipei University, Taiwan**  
Credibility of Open-Market Repurchase Announcements

The purpose of this study is to examine whether the buyback record of prior open-market repurchase programs affects market participants' reactions to the subsequent announcements. In this study, we use (1) the actual percentage of shares repurchased in the prior programs, and (2) the time taken to complete the prior programs to proxy the credibility of open market repurchase announcements. Nine hundred and twenty two (922) non-first-time open-market repurchasing announcements made by the U.S. corporations from 1990 to 2005 are included in this study. Measuring market participants' reactions to the announcements by the level of cumulative abnormal return to the subsequent repurchase announcements, the results of this study indicate that the actual percentage of shares repurchased and the time taken to complete the prior programs affect market participants' reactions to the subsequent open-market repurchasing announcements.

**Nen-Chen Richard Hwang, California State University, San Marcos**  
**Chia-Ling Lee, National Chung Cheng University**

The Effect of Alignment between Executive Compensation and Firm Characteristics on Firm Performance: An Examination of High Technology Industries

In this study, we hypothesize that CEO compensation has a positive and significant effect on firm performance when his/her compensation aligns with firm characteristics. Moreover, we hypothesize that a compensation gap between CEO and other members in the management team will enhance a firm's financial performance if compensation gap among executives aligns with firm characteristics. Information and electronics companies, currently listed in Taiwan Stock Exchanges, are selected for this study. The empirical results of this study support both hypotheses. The directions of future studies are also discussed.

**Ching-Lih Jan, California State University, East Bay**  
**Jane Ou (contact author), Santa Clara University**  
Negative Book Value Firms and Their Valuation

We document a phenomenon that, along with the increasing trend of losses, the frequency and magnitude of negative book value of equity have also grown significantly over time. Although negative book value firms are commonly perceived as financially distressed, we find that most of them survive for a long time, many continue to report negative book value for many years, and there is a negative correlation between market value and book value for these firms. In addition, using Tobin's q as value measure, we find that the market prices these firms higher than their counterpart. In search of explanations for these phenomena, we examine R&D expenditures of these firms. Our evidence shows that R&D, especially cumulated R&D, not only contributes to

the increase of negative book value incidences but also plays a key role in the market's valuation of these firms and provides a plausible explanation for our findings.

**Bjorn N. Jorgensen, Columbia University**  
**Naomi Soderstrom, University of Colorado at Boulder**

Environmental Disclosure Within Legal and Accounting Contexts: An International Perspective

We investigate how environmental disclosures vary under commercial and environmental laws across countries. Using results from an international survey of managers, we find evidence that legal institutions affect managers' reports of corporate environmental disclosures. We further document that reported environmental disclosures are related to GDP per capita. Finally, we find evidence that reported environmental disclosures and disclosure regulations are codetermined, that is, across countries, reported environmental disclosures vary with legal institutions, environmental regulation, and disclosure regulation.

**Christine Kloezeman, Glendale Community College**

Creating a Managerial Accounting Project using "How it is Made," "Food Unwrapped" and "Mr. Rodgers"

A manufacturing project will be presented to help students understand the various subjects in Managerial Accounting using information from three video sources: How it Is Made, Food Unwrapped, and Mr. Rodgers. Chocolate will be the Manufacturing process discussed in detail. Also using a History Channel video on the harvesting of the Coco pod to the end product of Chocolate candy. Other manufacturing processes will be shown with the necessary information to order the DVDs from the publishing company. As the 5 minute process is shown, attendees will be asked to share questions that can be presented to help the students understand the managerial accounting concept being discussed. Examples of concepts include: Cost Classification, Flow Charting, Cost Behavior, Overhead Analysis, Job Costing, Cost-Volume-Profit Relationships, and Capital Budgeting

**Kip R. Krumwiede, Boise State University**  
**Augustin Suessmair, University of Lueneburg**  
**Jason MacDonald, Boise State University**

An exploratory study of the factors affecting the implementation success of German cost accounting methods

Grenzplankostenrechnung (known as GPK in the U.S. and literally translated as marginal planned cost accounting) has been touted recently in the U.S. practitioner literature as a superior costing approach. This approach integrates many homogeneous cost centers with flexible budgeting, variance analysis, fixed and variable cost separation, and variable costing all at the cost center level to achieve a high-level of cost control and accuracy. However, there is virtually no empirical research in the German literature about their impact on cost system or firm performance. This exploratory study provides a working definition of GPK for research and tests conceptual path models of antecedent and process factors affecting its adoption and implementation within German-speaking firms. Based primarily SEM analysis of survey data, there is support that both contextual and cultural factors lead to antecedent conditions that make GPK more likely to be adopted. Further analysis of firms who have adopted GPK suggests that GPK accuracy is more a function of top management support, while the number of GPK practices implemented is more a function of the capability of the information system. Also, the perceived value of the overall cost accounting system appears to be related more to the quality of the information system than to GPK implementation.

**James C. Lampe, Missouri State University**  
**Andy Garcia, Bowling Green State University**

The History of Deprofessionalization in Accountancy in the U.S.

The purpose of this paper is to document the rapid decrease in professional status (deprofessionalization) by U.S. public accountancy from the 1980s through 2002. It appears that the public accountancy profession responded to dramatic changes with a strong orientation to self-interest and profit maximization. Between the mid-1970s and 2002, numerous critics of public accountancy have asserted that leaders in the profession lost or forgot what allowed it to be recognized as a profession and instead held ever-increasing profits as their primary goal. This paper discusses the approximate 30 years of deprofessionalization activities by public accountancy that resulted in loss of professional status in or before the year 2002. Discussion of activities from 2002 through the current date are presented after the activities of 1970-2002. The conclusion presented is that public accountancy has lost professional status in or before 2002, making it the shortest lived profession in history.

**Mark Landis, San Francisco State University**

## Commitment and Economic Event Support Patterns and the REA Ontology

Data models based on the REA ontology are commonly used to model accounting information systems, but a substantial amount of information that managers wish to plan, evaluate, and control is not captured by the extant data models. This paper introduces REA support patterns which model additional business events related to commitment events and economic events, and when used in conjunction with the REA ontology, these support patterns yield richer data models than extant REA-based data models. The resulting data models serve as a link between current business practices and the REA ontology and may immediately provide guidance to system designers who wish to build systems capable of capturing the transactional information which is currently not addressed by the existing data models. While the patterns in their current form are not presented as an extension the REA ontology, they are described in a shareable and reusable manner to facilitate discussions of potential future downward extensions of the REA ontology. Uses of the support patterns are demonstrated in two complex modeling situations: the conversion cycle and multi-enterprise systems.

**Doug Laufer, Metropolitan State College of Denver**  
**Sheri Betzer, Partner, Betzer, Critchfield & Call, LLP**

Indirect Income Determination Methods: The Case of the Skimming Partner

The purpose of this paper and the conference presentation will be to share a case study utilized in a fraud examination course. Tangentially the presentation will address content and structure of fraud examination courses and how to develop course materials that support a case approach and foster student development of the skill set outlined in the AICPA Framework.

**Doug Laufer, Metropolitan State College of Denver**  
**Rick Crosser, Metropolitan State College of Denver**

Reflective Thinking: Think Paper Assignments

Accounting education is receiving charges from various constituencies to continue moving away from a reliance on lecture. Approaches utilizing critical thinking and reflective thinking are demanded. This proposal for Teaching Strategies Forum offers another approach that has successfully served the authors. The approach enhances analytical skills and oral and written communication skills while placing students in the realm of reflective learning with open-ended questions. Sample assignments, goals, rubrics, and good, bad, and ugly student papers will be presented.

**Melissa F. Lewis, University of Utah**

Assessing Earning Quality at the IPO: The Role of Reputable Investment Banks

Although prior work suggests that accruals are misleading at the IPO, recent work is inconsistent with this opportunistic interpretation. An alternative view is that accruals are a valuable source of information. Yet some managers may have incentives to inflate earnings, thereby creating uncertainty about the informational value of accruals. This paper explores the extent to which reputable investment banks help resolve this uncertainty. I find that earnings are more persistent and that market participants capitalize earnings at higher multiples when the firm is associated with a reputable investment bank. Investment bankers' ability to utilize the information in accruals appears to be driven by their access to management (private information) and/or superior fundamental analysis skills.

**Melissa F. Lewis, University of Utah**

Opportunism and the Related Consequences in the IPO Setting

This paper investigates the link between seemingly opportunistic behavior and the related consequences in the IPO setting. Examining a sample of 1,668 IPOs, we find that when IPO managers trade or report in a manner that appears opportunistic, the firm suffers consequences in the form of increased litigation risk as well as increased costs to resolve the lawsuit. Taken collectively, the evidence presented contributes to our understanding of IPO managers' financial reporting incentives and, at the same time, highlights the circumstances that signal an increased likelihood of lower earnings quality in the IPO setting.

**Dr. Barbara Lougee, University of San Diego**

**Dr. James Wallace, Claremont Graduate University**

What The Data Reveal About The Corporate Social Responsibility (CSR) Trend

The goal of this paper is to supplement the growing body of research that attempts to improve our economic understanding of Corporate Social Responsibility (CSR). Using an extensive database compiled by KLD to

document trends in CSR over the past fifteen years for both the Standard and Poor's 500 firms and the Domini 400 firms, we provide empirical evidence to help answer three related questions regarding CSR. First, we attempt to answer the general question of whether firms, on average, are increasing their embrace of what is considered socially responsible behavior. We find that while average CSR (measured as CSR strengths less CSR concerns) is higher in the Domini 400 sample, average CSR has declined in both samples during the sample period. We further find that although CSR strengths increased during this period, CSR concerns increased more. We next examine the relationship between corporate investment in social responsibility and the firm's financial performance and shareholder value. We find that the Domini 400 index slightly outperformed the benchmark Standard and Poor's 500 index during the fifteen-year period. We further find that a firm's CSR score is positively associated with its financial performance, as measured by return on assets (ROA), and that an individual firm's number of CSR strengths is positively associated with ROA while its CSR concerns are negatively associated with ROA. Overall, the data provide evidence which indicates that investments in CSR make sense financially. Finally, we attempt to answer the question of why firms choose to invest in CSR. Because motivations are unobservable, we base our inferences on whether the evidence is consistent with firms acting in a socially responsible manner out of simply a shareholder value paradigm rather than a moral conviction toward stakeholder values. Our results indicate that firms spend resources on CSR initiatives for profit maximization rather than a commitment to stakeholders.

**Matt Magilke, University of Utah, Moderator**

**Marlene Plumlee, University of Utah**

**Teri Lombardi Yohn, Indiana University**

**Bjorn Jorgensen, Columbia University**

Panel: "The SEC Fellowship Program: An Opportunity for Academics," sponsored by AAA Regulations Committee

The panel will provide individuals with the opportunity to learn about the SEC Fellowship Program available to academics. Among the topics to be addressed are details about the various areas within the SEC where academic fellows work and details about the practical aspects of participating. The focus will be on presenting the benefits and opportunities available and who should consider applying. The session will be conducted as an interactive seminar. Academics with an interest in gaining a better understanding of the unique program are encouraged to participate.

**Karen Martinis, Central Washington University**

**Carol Sullivan, Central Washington University**

Documentaries as an Effective Way to Learn About Corporate Sustainability

Environmental sustainability is important for business sustainability; therefore, students need to learn about the issues as part of their educational curriculum. The purpose of this teaching proposal is to offer suggestions of sustainability videos for any of the Accounting classes.

**Marc F. Massoud, Claremont McKenna College**

**Cecily Raiborn, Texas State University**

Environmental Accounting: The Extra Step!

Tough environmental problems have challenged mankind since the very beginning, policy scientists have given serious attention to environmental issues only since the 1960's. A series of industrial accidents and media events highlights the environmental consequences of unfettered industrialization. Responding to public concerns, from the 1970's onwards, the United States Congress has enacted a series of laws stipulating environmental standards and technologies for firms. These policies were often backed by zealous monitoring and enforcement. In the 1980's it was clear that the problem goes far beyond setting some regulations. The theoretical question which this paper addresses is: Why do firms adopt beyond-compliance environmental policies? The accounting questions are: (1) How these policies impact the firm's profits in the short and long run? (2) Do firms adopt such policies if there are no quantifiable benefits?

**Robert W. McGee, Florida International University**

**Wendy Gelman, Florida International University**

Cheating on Taxes: A Comparative Study of Opinion in Six Latin American Countries and the USA

This paper reports on the results of an empirical study that examined the opinions of a wide range of individuals in six Latin American countries and the USA. Data was taken from a wider study that gathered information on human beliefs and values in 85 countries. The present study had a sample size of 8,465. The question posed was

whether the respondent would cheat on taxes if it were possible to do so. Responses were on a ten-point Likert scale. Results are reported overall and also by gender, age, education level and religious observance.

**Robert W. McGee, Florida International University**

**Danielle N. Igoe, Federal Tax Services, KPMG**

Corporate Governance and the Timeliness of Financial Reporting: A Comparative Study of Selected EU and Transition Economy Countries

Timeliness of financial reporting is an attribute of good corporate governance. Shareholders and other stakeholders need information while it is still fresh and the more time that passes between year-end and disclosure, the more stale the information becomes and the less value it has. Corporate governance is a relatively new concept for transition economies. Prior to the fall of the Berlin Wall and the collapse of the Soviet Union there were no profit-making corporations, no shareholders and no need to report financial results except to the government. All that has changed. In order to raise capital, corporations need to convince potential investors that an investment in their company will be safe. That requires financial reporting standards that can be trusted and financial information that is reported in a timely manner. But the culture of former communist countries is not to disclose information. That mentality is changing as their formerly closed economies open up to investment from the west. This paper examines the timeliness of financial reporting in several transition economies that are new European Union members and makes comparisons to companies in four older members of the EU. The goal of the paper is to determine whether there is a significant difference in the timeliness of financial reporting between the two groups of companies. The paper also reports on the relative market share of the accounting firms that audit companies in the European transition economies.

**Sara Melendy, Gonzaga University, School of Business Administration**

The Effect of Deregulation on Information Production in the Electric Utility Industry

Deregulation of the electric utility industry provides a unique environment to examine changes in information production. Healy and Palepu (2001) describe six motives that impact manager's disclosure decisions. This paper examines these motives in a unique setting and shows that the relationships still hold. Healy and Palepu (2001) also note that a major limitation of disclosure studies has been difficulty in measuring the extent of voluntary disclosure. This paper examines the consistency of four proxies used by accounting researchers to measure disclosure levels: analyst following, analyst forecast revisions, analyst forecast accuracy, and a self-constructed measure. Surprisingly, contradicting results are found for forecast accuracy when compared to the other measures. This suggests that these measures do not necessarily provide consistent proxies for disclosure and researchers should be cautious when interpreting results of studies based on a single proxy of disclosure

**Sara Melendy, Gonzaga University, School of Business Administration**

**Ronald J. Huefner, University at Buffalo**

Legal Compliance and the Internal Auditor

Awareness of the need to preserve the environment, conserve limited resources, and engage in socially responsible business practices is rapidly growing. Many sustainable practices become institutionalized into laws and regulations. An emerging trend in corporate governance is the expectation that good governance includes oversight of compliance with all legal matters, not merely those relating to financial reporting and related internal controls. A formal mechanism to ensure and oversee compliance with these additional laws and regulations (and such other socially responsible practices as a company may adopt voluntarily) helps an organization engage in sustainable business practices. Growing numbers of companies are establishing separate compliance committees to take on this task, instead of assigning oversight to the Audit Committee. This establishes yet another significant entity with which internal audit should interact, thus creating opportunities for increased service and responsibility for internal auditors. As experts in internal control, auditors can lead the way both in system design and periodic monitoring

**Steven M. Mintz, California Polytechnic State University, San Luis Obispo**

**Sudha Krishnan, California State University, Long Beach**

A Comparison of Corporate Governance in China and India with the U.S.

We examine corporate governance systems in China and India and compare them to recent U.S. initiatives as evidenced by the Sarbanes-Oxley Act of 2002. China and India represent emerging nations that have moved toward a more capitalistic system and have demonstrated a keen ability to grow economically. In China, the systems are not working as they should. The influence of the state as the primary investor in state owned enterprises restricts the openness and transparency needed to attract foreign investment in the long term. India

has been influenced by the UK and has a longer history of developing financial systems that help to control business activity and guide financial reporting. Still, there are serious problems in implementing corporate governance initiatives. The main issue for China now is to convince foreign investors that state-owned enterprises and state interference will not hamper the efforts of multinationals to operate in that country. For India, it is more a matter of creating the mechanisms to enforce good governance practice as already embodied in various committee reports. In this way, both countries will gain the confidence of international investors and continue to develop financially and economically.

**Steven Mintz, Cal Poly – San Luis Obispo**

**Wallace Wood, Cincinnati**

Ethics CPE SESSION: “Designing Assignments for Accounting Ethics Education”

**Workshop Overview:** The workshop leaders are enthusiastic proponents of accounting ethics education, with decades experience of teaching professional accounting ethics. The workshop, like the best ethics education, will be experiential learning. Hand-on activities will include designing, choosing, and grading individual and collaborative assignments. Workshop participants will be sufficiently prepared to confidently manage classroom case discussion and to manage discovery learning collaborative activities. While professional ethics education is being encouraged and required by state boards of accountancy, the best reason for faculty participation in this workshop, is making your teaching more enjoyable and more satisfying for you, the teacher.

**Marilyn B. Misch, Pepperdine University**

**Carolyn A. Galantine, Pepperdine University**

A Financial Statement Analysis Project for Introductory Financial Accounting

This paper describes a financial statement analysis project useful for an introductory course in financial accounting. The project requires students to analyze trends in corporate performance, to evaluate corporate financial decisions, to discuss non-financial statement issues that would be important to potential investors, to compare two companies within an industry, and to make investment recommendations. The project’s requirements are completely detailed on a single-page, yet the project is applicable to companies in any industry and may be used to compare U.S. and non-U.S. companies. In addition, the project would be beneficial in both preparer-based and user-based financial accounting courses and may be used as either an individual or group assignment. The project requires only limited introduction in the classroom and is easily adaptable to reflect instructor preferences. This paper includes the complete project requirement sheet, a grading rubric, a teammate evaluation form, examples of items that students might be expected to address in answering the questions posed, and comments on the results of employing the project. Finally, the paper concludes with additional suggestions for implementation.

**Garth Novack, Utah State University**

**Stacie LaPlante, University of Georgia**

**Sean McGuire, University of Georgia**

Tax Sheltering by Cash Constrained Firms

Prior research into the determinants of tax sheltering has looked at firm attributes that might facilitate sheltering activities (e.g., incorporating in a tax haven). In this paper we extend these inquiries by looking at whether a firm’s liquidity level provides a fundamental motivation for it to engage in tax sheltering. Specifically, we focus on firms that are cash constrained in order to see if tax sheltering can be a source of financing for investment opportunities, which we proxy using return on assets. In regressions of our cash constraint measure and an interaction term using the product of the cash status and ROA on measures of firms’ tax sheltering we predict that the coefficient on our interaction term will be positive – i.e., as a firm’s cash constraints and ROA both increase so will its tax sheltering as it turns to these activities to provide additional liquidity. Our results support our hypothesis and our discussion of how sheltering may serve as a source of available funds for investment. These results are robust when a variety of control variables found to be significant in prior research are included.

**Nathan Oestreich, San Diego State University**

**Carol Venable, San Diego State University**

**James Williamson, San Diego State University**

Social Security Taxes Paid versus Social Security Benefits Received: A Basic Analysis of the Relationship for Unmarried Individuals

Academics frequently pose the question: Is the old age and survivors disability income [OASDI] levy a tax? A definitive answer is problematic because payers earn benefits based on their earnings, but these benefits are not vested. The payers must survive until retirement or disability to collect. Or, the system might change so as to increase or reduce, or even repeal, one's benefits. Under the current system, one's benefits, as a percentage of earnings reported, decline precipitously as the amount of reported earnings increase. Since many payers, especially owners of small businesses, have the ability to affect the amount of their reported earnings, planning, although complex, is possible from a financial investment perspective. Academics, however, may find the policy implications more interesting. This research represents an analysis of the basic relationships related to OASDI. This area is fertile for further research in which additional variables are considered. A similar query can be made about the Medicare Health Insurance [MHI] levy, but it is not considered in this study because the cost-benefit relationship is not the same.

**Carl Olson, California National University**

CPA Auditors Should be Heroes, But They Currently are Listening to a Different Drummer

CPA auditors should be heroes to the public in our multi-trillion dollar economy. Many stakeholders depend on CPA integrity. It's not just direct investors and mutual fund investors, but employees, retirees, customers, lenders, labor unions, financial analysts and managers, and vendors. Unfortunately, CPA auditors have been backsliding over the past 30 years. This is reflected in their skyrocketing malpractice insurance rates, their avoidance of financial responsibility, their endorsement of eliminating GAAP, and their dominance of state boards of accountancy. Improvements are being generated by the Public Company Accounting Oversight Board and other agencies.

**Marlene Plumlee, University of Utah**

The Impact of Voluntary Environmental Disclosure Quality on Firm Value

This study examines the relation between the quality of a firm's voluntary environmental disclosures and firm value by exploring the relation between the components of firm value (cost of capital and expected future cash flows) and disclosure quality. Using an innovative index to capture variation in environmental disclosure quality, we document a negative relation between both components of firm value and the quality of voluntary disclosures, in general. However, we also find that the means by which those disclosures are made (within a stand-alone report or as part of the annual report or 10-K) and the type of firm that provides them (environmentally sensitive or not) significantly affect the relations. Overall, our results suggest a complex inter-relationship between firm value and voluntary disclosure quality.

**Jason C. Porter, University of Idaho**

**Teresa Stephenson, University of Wyoming**

Budgeting for Buns' Bakery: A Case Study for Budgeting with Multiple Products

This case is intended to help graduate or advanced undergraduate accounting students develop a multi-product master budget. The use of multiple products adds a degree of complexity above that found in most undergraduate budgeting problems. This provides students with a greater understanding of both the flexibility of a master budget and of the information that such a budget can provide to decision makers. In addition, the current accounting environment has encouraged a number of cases dealing with the ethics surrounding the creation of the financial statements. Since it is also important to introduce students to other ethical issues, the case also provides an ethical issue regarding the estimates used in creating a master budget.

**Jason Porter, University of Idaho, moderator**

**Marla Kraut, Department Head, University of Idaho**

**Robert Holtfreter, Distinguished Professor of Accounting, Central Washington University**

Imagined (and Real) Partnerships between Academics and Practitioners

The Shared Experiences Committee of the American Accounting Association will conduct this interactive panel discussion building upon the theme of the Annual Meeting in Chicago, "Imagined Worlds of Accounting". This discussion will attempt to bring together academics and practitioners with a focus on current and potential partnerships between both groups. More specifically, we will discuss ways that academics and practitioners can work together to improve the education and training of future practitioners.

Since both groups, then, must teach and train the upcoming generation of accountants, we must spend time to create synergies. These synergies include increased communication between both groups, with academics providing information about the types of training they currently provide students before entering the workforce

and practitioners providing information on other issues they would like to see in new graduates. This would allow practitioners to better tailor their training sessions to cover information not addressed in students' formal education, and it would allow academics to better plan their courses to cover those topics most needed by new graduates. Other examples include the use of better examples and cases, more applicable research topics, and greater funding for research in areas of interest and for program development. The theme of this panel discussion, therefore, should help to foster these synergies by allowing academics and practitioners to better understand the richness, as well as the constraints, of the other's experiences.

The Shared Experiences Committee has implemented panels in recent years with an aim of creating dialogue on other important issues. The panel will consist of a moderator, two faculty members or administrators and two representatives from practice. Panelists will share experiences of successful partnering efforts (including, perhaps, initiatives that will be rolled out in the near future) and will identify other "imagined" areas for such partnering, both for the short term and for lasting relationships in the future. In addition, attendees are encouraged to become active participants in the discussion. This opportunity for dialogue and sharing has made our panels quite popular and well attended in recent years. We hope this panel will build upon this success.

**John D. Rossi, Moravian College**

"Is FASB 123R Better Accounting for Equity-Based Compensation?"

This paper explores how financial statement users will be provided with more relevant and detailed information about share-based payments entities are providing their executives and employees. It also evaluates the existing most popular option pricing models that is used to estimate the fair value measurements required by FASB 123(R). Thus, financial statement users will now be able to examine the effects a stock-based compensation plan is having on all of the components of an entity's income and not just its net income and total earnings per share.

**Allen J. Rubenfield, Mercer University**

**Ganesh M. Pandit, Adelphi University**

Partners and Partnerships: A Tax Analysis

Partnership taxation is one of the most difficult forms of taxation to deal with whether or not one is a tax professional. The main reason that partnership taxation is so difficult to deal with is that partnerships are not taxable entities. Partnerships are pass-through entities that pass all their tax attributes on to the partners. The partners are then taxed on their individual tax returns. While passing these attributes through to the partners they maintain their tax characteristics, which means that charitable contributions by the partnership goes to the partner's Schedule A, capital gains to Schedule D and so on. Further complicating partnership taxation are the passive loss and at-risk rules. In this paper we take a look at many of the issues that deal with partnership taxation and the partners.

**Michael R Ruble, Central WA University**

**Michael A. Ruble, Associate, PriceWaterhouseCoopers**

Conservation Easements: GAAP Treatment and Economic Benefit Maximization

As the use of conservation easements by GAAP reporting entities increases, it is of interest to investigate tax benefits associated with this instrument and the accounting standards that may apply and the practical application of such standards to GAAP financial reporting entities. This research finds SFAS 116 applies to the determination of the value of the donation, while SFAS 144 must be considered if the fair value of the property subject to the easement is impaired as a result of the donation. Two practical examples are included that demonstrate the impact on the income statement and balance sheet as well as the impact on taxable income. In addition, the tax benefit associated with the easement is dependent upon the book value of the asset and the relationship between the before and after appraisals of the property subject to the easement.

**Todd Sayre, University of San Francisco**

The myth of shareholder ownership

The popular belief that shareholders own the corporation serves as the premise underlying corporate goals that favor shareholders. Our findings show that, according to legal theory on private property and company law, the fundamental assumption of shareholder ownership is a myth--shareholders do not own the corporation. If corporations are not privately owned, they cannot rely on free market arguments to justify their existence. Thus, on a case-by-case basis, corporations need to demonstrate their benefits to society.

**Donald A. Schwarz, National University**

Is it Time for CPAs to Start Learning Their I-F-R-S?

In the summer of 2007, the SEC published a Concept Release inviting comment as to whether U. S. issuers should be allowed the option to file financial statements in accordance with IFRS rather than U.S. GAAP. In an "Oh, by the way" sort of question near the end of the 42-page document, the SEC asked respondents if they could foresee a scenario under which it would be appropriate for the Commission to call for all remaining U.S. issuers to move their financial reporting [from U.S. GAAP] to IFRS. A majority of those who responded to this question, including the FASB, indicated that such an SEC mandate - assuming an appropriate period for preparation and transition -- is in fact necessary to achieve the goal of a single set of global accounting standards. Several respondents suggested transition periods of 5 to 7 years with a 2013-2015 deadline for adoption. As to whether U.S. companies should have the option to switch to IFRS in the meantime, there was more divergence of opinion. This paper reviews the responses of major organizations to the Concept Release.

**Winifred D. Scott, Polytechnic campus of Arizona State University**

**William Njanje, Polytechnic campus of Arizona State University**

**Al Kagan, Polytechnic campus of Arizona State University**

**Ram Acharya, Polytechnic campus of Arizona State University**

Using a Principal-Agent Framework to Evaluate the Impact of Sarbanes-Oxley Act on Firms' Intrinsic Value

Has the Sarbanes-Oxley Act of 2002 (SOX) been effective in resolving the agency "moral hazard" problem of unobservable agents' actions? We view SOX as the regulatory solution to the accounting scandals, creating a way of re-aligning the actions and behavior of the agent-manager and agent-auditor with those of the principal-shareholder to maximize the value of the firm or the intrinsic value of the firm. Intrinsic value is a long-term concept of profitability and risk that reflects both improper and proper actions of the agents. This paper presents empirical evidence on the effectiveness of SOX.

**Philip H. Siegel, University of Wisconsin-Eau Claire**

**John O'Shaughnessy, San Francisco State University**

The Impact of Sarbanes-Oxley: A Comparison of Audit Fees for Small and Large Companies."

The purpose of this paper is to investigate if the Sarbanes-Oxley Act (SOX) has had a differential effect on small capitalized companies as opposed to large capitalized companies with respect to audit fees disclosed. Prior research (cf. Pomeroy (2006); D'Aquila (2004); Koehn and Del Vecchio (2004)) has suggested that smaller companies will find it more costly to comply with Sarbanes-Oxley due to relatively higher audit fees. In this paper, we examine the association between audit fees and operating income for both small and large companies to examine whether smaller companies incur higher relative compliance costs with respect to audit fees than larger companies. Our sample includes all companies listed in the NYSE that satisfy certain criteria. Our sample period includes data from the year 2001 through 2006, four years after the enactment of SOX. Our study found that auditing fees for small-cap companies as a percentage of operating income increased faster than for large cap companies.

**Andreas Simon, California Polytechnic State University, San Luis Obispo**

Management Guidance and Analysts' Long Term Growth Forecasts

This study examines managements' decision to issue earnings growth guidance and assesses whether financial analysts' change their long-term earnings growth expectations in response to the guidance. We find that there is pervasive upward bias in managers' earnings growth guidance, and as a result managers are more likely to issue earnings growth forecasts in years of negative short-term earnings surprises and when analysts have low initial earnings growth expectations. The finding that managements' earnings growth forecasts primarily convey good news is in contrast to the generally negative nature of management short-term earnings guidance and suggests that different incentives drive firms' disclosure of different financial information. We also find that analysts respond to managements' earnings growth guidance by increasing their long-term earnings growth expectations. This finding sheds new light on the over-optimism hypothesis in analysts' long-term earnings growth forecasts, suggesting the bias could be management induced. However, with regard to analysts' response, we find that analysts trade off precision in LTG for deliberate upward bias, that is not subject to ex post scrutiny, to maintain, or increase, their target prices although short-term earnings may warrant a lower target price. These results suggest that upward long-term earnings growth forecast bias may be a strategic property for analysts' target prices to hold.

**Sheldon R. Smith, Utah Valley State College**

The Ethics of Grading and Graduation Requirements: A Case for Faculty Discussion

After introducing the desire for ethics in accounting and the need for ethics education for accounting students, this paper discusses the need for ethics education for accounting educators. A case for faculty discussion is presented which includes a possible ethical implication. This case is related to how faculty grade student achievement in light of specific graduation requirements at the institution. The need for ethical training for faculty is implied as they will face many situations with ethical implications. **Note: Full paper also included in proceedings.**

**Bill St. John, Clinical Associate Professor, Lally School of Management and Technology, Rensselaer Polytechnic Institute**

"Getting Started with PodCasting: A Hands-on Workshop"

Description: Learn how and why iPods and podcasting are being used in top business schools across the country to enhance curriculum, capture student's attention, support their learning, and provide unprecedented opportunities to deliver and access educational content. With the assistance of Apple Computer the participants will have the opportunity for hands-on learning and attention from session facilitators.

**Elizabeth Stanny, Sonoma State University**

**Kirsten Ely, Sonoma State University**

Voluntary Climate Change Disclosures to Institutional Investors

We examine factors associated with the US S&P 500 firms' decisions to disclose information about the current and projected effects of climate change to institutional investors. Through the Carbon Disclosure Project, 315 institutional investors representing 41 trillion USD in assets asked the largest public firms to respond to a questionnaire about climate change. We explore whether firms' disclosures directed specifically to institutional investors are related to factors that have been found to explain voluntary disclosures to investors in general. In particular, we consider factors related to the level of scrutiny since extant literature predicts that the cost of not disclosing increases with level of scrutiny. We find that size, previous disclosures and foreign sales are related to whether firms disclose information about climate change requested by institutional investors through the Carbon Disclosure Project.

**Eiichiro Suematsu, Saitama University**

Why A Micro-Profit Center Manager is More Motivated: Prospect Theory Explains"

Some reasons why workers in managerial positions can be motivated when they are imposed profit responsibility rather than cost responsibility will be explored utilizing the perspectives of Prospect Theory. I asked ninety one undergraduate students to simulate themselves as cost center managers and profit center managers, and asked them how much money they would be willing to spend in executing a project. The results supported the hypothesis: the profit center managers will execute their project more aggressively than the cost center managers would. The results also suggested two points: When the probability of success of a project was low, there were no differences in the money amount spent on a project between cost center and profit center. As the probability of success was raised to a middle or high level, the profit center managers were more willing to spend a greater amount of money on the project than the cost center managers. **Note: Abstract also included separately in proceedings.**

**Kim B. Tan, California State University Stanislaus**

**Annhenrie Campbell, California State University Stanislaus**

**David H. Lindsay, California State University Stanislaus**

What is Taught by Management Accounting Educators – An Examination of Their Course Syllabi

The management accounting course has been singled out as a component of the accounting curriculum that may need reform [Albrecht & Sack, 2000]. The growing body of knowledge of the nature of management accounting has most recently been drawn from the examination of management accounting textbooks as well as the workplace. There is very little knowledge obtained from examining what is taught in the classroom. This paper adds to the understanding of management accounting education by surveying the content of upper division management accounting courses in the United States. Consistent with what has been found from examining textbooks and the workplace, we found that mainly traditional and a few new management accounting topics are taught in the classroom. Some new topics are embedded within the traditional topics. We also found that, as part of the management accounting curriculum, a wide range of assessment methods are used by management

accounting educators. Cluster analysis of the assessment methods disclosed in the course syllabi revealed five distinct course designs.

**Kenneth Trimmer, Idaho State University**  
**Lela D. "Kitty" Pumphrey, Zayed University**  
**Mark Bezik, Idaho State University**

IS/IT Current Staffing and Future Staffing Requirements in Public Accounting Firms

This paper presents the results of a survey of public accounting firms regarding the IS/IT current staffing and future staffing requirements. The paper presents a review of the literature related to IS/IT staffing in public accounting firms, an explanation of the survey instrument and survey methods used, and the results of the survey. The paper concludes with limitations of the study and with recommendations for future research and actions by the accounting profession.

**Hwei Cheng Wang, Alabama A&M University**  
**Howard Lawrence, The University of Mississippi**  
**Joseph Balloun, Argosy University Atlanta**

International Diversification, Industrial Diversification and CEO long-term Compensation

This study examines CEO long-term compensation for 2448 CEOs in 1622 firms from 1997 through 2002. Based on agency and expectancy theories, this study tests the hypotheses that corporate diversification is associated with CEO long-term compensation. The results found that the higher degree of international diversification, higher stock return earnings performance, higher accounting earning performance, higher investment opportunities, larger firm size, and higher stock ownership, CEOs receive higher levels of long-term compensation. In contrast, the higher the degree of industrial diversification, CEOs receive less levels of long-term compensation. In addition, the result also found that CEOs who have greater outstanding stock ownership make less use of CEO long-term compensation.

**Zheng Wang, California State University, San Marcos**

Analysts' Superiority in Processing Public Information: Evidence from Recommendation Revisions

This paper documents strong evidence that analysts' recommendation revisions issued subsequent to annual earnings announcements convey valuable information to investors for clarifying long-term implications of recently released earnings. These revisions significantly alter investors' beliefs about the value implications of announced earnings, suggesting that analysts do have superiority over investors in processing public information. Furthermore, the extent of this superiority is positively related to analysts' performance in picking stocks and forecasting earnings. Specifically, recommendation revisions issued by analysts with superior performance can cause investors to revise their assessments of the value implications of previous earnings to a much greater extent than those issued by analysts with moderate performance. In addition, the extent of this superiority also increases with the level of information complexity of earnings signals. Analysts' information is more valuable to investors for reevaluating previous earnings when the earnings information is more difficult to interpret. Finally, the extent of this superiority has declined after Regulation Fair Disclosure, but remains significant nevertheless, suggesting that analysts do not solely rely on inside information from management to interpret public information. In addition, I find that such a decline is likely due to a substantial increase (after Regulation Fair Disclosure) in the number of analysts making recommendation revisions following earnings announcements who lack expertise in processing public information.

**Stephen Wheeler, University of the Pacific**  
**Eric Typpo, University of the Pacific**  
**Jerry Post, University of the Pacific**

Audit Firm Affiliations with Companies Backdating Executive Stock Options

Several reports in 2005 and 2006 indicated that over one hundred publicly traded companies had apparently backdated stock-option grants beginning in the 1990s. An analysis of the external audit firms affiliated with these companies revealed that these firms are dis-proportionally represented as compared to relative audit-market shares of all public companies. After controlling for industry-adjusted audit-market shares, statistically fewer backdating companies than expected used Arthur Andersen as their auditors. Overall, the results argue against the notion of audit firm involvement as a conduit for these transactions

**Professor Clinton (Skip) White, University of Delaware**

CPE SESSION: "Introduction to XBRL for Accounting Educators"

**Workshop Overview:** XBRL is an XML (eXtensible Markup Language) specification for identifying and communicating information in business reports. XBRL now includes taxonomies for financial reporting in US GAAP as well as International Standards, accounting transactions, and related other business reporting activities. It is being developed by a consortium of over 400 companies and agencies worldwide including the AICPA, all major accounting firms, and most professional accounting organizations. Topics covered in this workshop will include at least the basic XML family of technologies, building and working with XBRL documents, understanding XBRL schemas and taxonomies, classroom applications, and XBRL software tools. Workshop participants will work with classroom tested applications. No prior knowledge of XBRL is expected. Participants should bring a memory device such as a "flash" drive.

**Mindy Wolfe, Ph D Student, University of Utah**

Accounting for Intangibles and Managerial Private Information

Kothari, Laguerre, and Leone (2002) document that future benefits arising from intangible assets are more uncertain than those arising from tangible assets. In this study I investigate whether the flexibility available to managers in the accounting for intangible assets overcomes this uncertainty and provides stakeholders with information about future cash flows. Specifically, I examine managers' accounting for software development costs and research and development costs (R&D). My findings suggest that managers convey at least some of their information about intangible assets' future cash flows. I document a positive and significant association between capitalized software development costs and cash flows over the next seven years. The amortization schedule managers provide is also informative, as the association is stronger for firms with longer stated amortization periods than for firms with shorter amortization periods. Further, I find a stronger association between capitalized expenditures and future cash flows than between expensed R&D costs and future cash flows for these firms. However, I find the R&D of firms that expense all software development costs has a higher association with future cash flows than that of capitalizers. In contrast to the results for capitalizing firms, this finding may indicate firms that expense all costs are not providing stakeholders with private information about the future benefits these intangibles generate.

**Kathleen K. Wright, CSU Fullerton**

Dissecting the Tax Return of Same-Sex Couples: Still a Long Way to Go

This paper explores and explains the tax issues facing same-sex couples who live in states which provide same-sex couples the benefits of legally married spouses including filing for tax purposes as married filing joint. The paper outlines the problems which result from dual filing status and provides options for practitioners and their clients to consider where the solution is not clear. The focus is on the developing law in California where the complexity of dual filing status compounds with the application of community property.

# THE EFFECTS OF CORPORATE GOVERNANCE ON DISCRETIONARY INVESTMENTS

Chan Du

California State University, Fresno

## **Abstract**

This paper provides empirical evidence of the effects of corporate governance mechanisms including managerial compensation, ownership concentration, and CEO's characteristics on firm's discretionary investments. The data sample includes CEOs for all firms obtained from ExecuComp databases ranges from 1992 to 2000. The results show that the two parts of CEO's compensation compositions, cash- and stock options- based compensations, are the most important factors in determining the corporate investments. Specifically, the value of CEO's holding of stock options has significantly positive effect on CEO's investment decisions for all the model specifications. An additional event study shows that new CEOs changes of control do not significantly increase their investment compared to the industrial average, even after controlling for the reasons of the previous manager's leave. This suggests that new CEOs are more concerned about their reputations and careers and thus mimic what others do in the same industry.

*Keywords:* managerial entrenchment; investments; herding

## I. Introduction

This paper examines the effects of corporate governance mechanisms on corporate investments. The separation of ownership and control in modern corporations, i.e., managers acting as the agent for the shareholders, gives rise to the need of corporate governance mechanisms to ensure managers to make value increasing decisions, and to assure the suppliers of finance to get a return on their investments (Shleifer and Vishny (1997)). The various mechanisms of corporate governance include managerial incentive compensation, board of directors, concentrated ownership, and operations of the market for corporate control.

As the governance is exercised through a portfolio of governance mechanisms, it is important to understand potential interactions between mechanisms, and their impact on managerial behaviors. If governance mechanisms fail to control the managerial behavior, managers may be entrenched and focus on their own benefit. In terms of investment, entrenched managers may underinvest in long-term intangible projects such as R&D and advertisement to meet short-term goals (earnings management view), or overinvest in capital investment for empire building behavior (Jensen (1986)'s free cash flow theory). In addition, entrenched managers may also conduct herding behavior in investment in consideration of reputation and career concern (Scharfstein and Stein (1990), Holmström (1999) and Stein (2001)).

Previous studies looking at the corporate governance effect on investments mostly focus on one aspect of the governance mechanisms. For example, Larcker (1983), Defusco, Zorn, and Johnson (1991), Kang, Kumar, and Lee (2006), and Coles, Daniel, and Naveen (2006) examine the managerial incentives and investment; Meulbroek et al. (1990), and Gompers, Ishi, and Metrick (2003) look at the provision of the antitakeover effect on investment; Gibbons and Murphy (1992a), and Cheng (2004) examine the CEO horizon effect on investment; while Bushee (1998), and Eng and Shackell (2001) test the institutional investors' effect on investment. In addition, the direct test of the herding behavior of the investment has not been fully studied. Prior studies on herding mainly focus on the mutual fund manager's behavior and analyst forecast. Wermers (1999) finds that there are much higher levels of herding among growth-oriented mutual funds than among income funds, and much higher levels of herding in small stocks, especially on the sell-side. In addition, herding can improve mutual fund performance before or even after expenses: "mutual funds are rewarded for 'joining the herd.'"<sup>1</sup> Chevalier and Ellison (1997) find that young mutual fund manager is more likely to be fired if his portfolio deviates considerably from the mean of the fund's objective group. They also find that younger managers have an incentive to deviate less from the mean risk levels and sector weightings of funds, and hold more conventional portfolios. Most recently, Yeung et al. (2007) examine the comovement in investment decisions and the determinants of the correlated investment choices made by firm managers. They find that comovement in capital expenditure is significantly higher among weakly governed firms, controlling for other factors.

This paper focuses on the various proxies for corporate governance including managerial compensation, ownership concentration, and CEO's characteristics, and examines their influences on CEO's investment decisions. The data sample includes CEOs for all firms obtained from Compustat ExecuComp databases ranges from 1992 to 2000. The results from the robust Ordinary Least Square regression and fixed firm effect regression show that the two parts of CEO's compensation compositions, cash compensation and stock options, are the most important factors in determining the corporate investments. Specifically, the value of CEO's holdings of stock options has significantly positive effect on CEO's investment decisions for all the model specifications. An additional event study shows that new CEOs do not significantly increase their investment compared to the industrial average, even after controlling for the reasons of the previous manager's leave. This suggests that new CEOs are more concerned about their reputations and careers and thus mimic what others do in the same industry.

This paper is organized as follows: Section II raises the research question and provides the theoretical framework and hypothesis. Section III describes empirical design, including the data, measurements and the methodology, and section VI presents the estimation results. An event study is followed by in section V, and the last section provides the conclusion.

## II. Theoretical Framework and Hypotheses

According to the Modigliani and Miller (1958) proposition, firms' investments should depend only on the profitability of their investment opportunity sets. Other conditions, such as the firms' capital structure, cash and liquidity, manager's compensation, and financial market conditions, should not have impacts on their investments. However, the existence of the agency problem and asymmetric information violates the assumptions of the M-M theory and thus the conclusion.

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<sup>1</sup> Wermers (1999), page 584.

The agency problem is an important issue in the theory of the firm. The agency theory states that because of the separation of the ownership and control, there exist conflicts of interests between the agent and the principal, namely, manager who makes the operating decisions and outside investors. The manager of the firm may want to maximize his own benefit instead of those of the shareholders. In the presence of agency problem, the incentive contract between the firm owners and the manager becomes the useful mechanism to provide incentives for the manager to act on the benefits of shareholders.

However, the infeasibility of complete contract (Grossman and Hart (1980, Hart (1995)) and asymmetric information problem faced by the manager and shareholders (Myers and Majluf (1984)) as well as the manager's expertise in managing the firm imply that the allocation of the residual control right is usually left to the manager. This provides the opportunity for the manager to conduct entrenchment behavior. This issue relates to manager's compensation (pay-performance measures and composition of compensations), board of directors, ownership concentration, and external market for changing of control. If there is no good incentive and control, the entrenched manager will conduct behavior for his private benefit instead of those of shareholders.

In addition, manager needs to exert effort to make decisions. If the effort is costly and not contractible, this induces an effort choice problem. The implicit contract provides the opportunity for manager to choose the effort that increases benefit that accruing to him only. Based on Stulz (1990), assuming that the managers' resources available for investment  $w$  equal to zero, the funds that he needs to financing the project from the outside is  $F$ , the private benefit that he can get from the project is  $Zf(F)$ , which incurs a cost  $c(e)$ , the objective function is:

$$\max (1 + Z)f(F)/(1 + r) - F - \theta C(F) - c(e)$$

where  $r$  is the risk-adjusted discount rate,  $f(\cdot)$  is the gross return at time 2 from the project, and is an increasing, concave function,  $C(\cdot)$  is the friction cost associated with external finance, and is an increasing, convex function,  $\theta$  is the measure of the degree of financing friction.

In this setting, the effort is just a metaphor. For example, it can refer to the manager's empire building, sell assets in sweetheart deals or for window dressing, sustain family control, perks or pet projects, myopic investment, herding, earnings management, inertia, and overconfidence, etc. In the current paper, I restrict attention to the managerial entrenchment behavior on investments, namely, the empire building behavior, myopic investment behavior, and herding behavior on investment. The types of investment include R&D investment, advertisement investment, capital expenditure investment, and acquisition and product diversification. I focus on the first three types of investments. Aboody and Lev (2000) argue that R&D is a major contributor to information asymmetry because of the relative difficulty in learning about the productivity and value of the R&D based on other firms products and performance, as well as the absence of organized markets in R&D. For R&D, advertisement and capital investment, the managerial entrenchment behavior may infer overinvestment in capital expenditure according to Jensen (1986)'s free cash flow theory and empire-building investment, underinvestment in R&D and advertisement to enhance their short-term performance according to earnings management prediction as well as Stein (1989)'s theory on manager's concern about stock prices over a near-term horizon, and mimic other managers' investment in the same industry according to Scharfstein and Stein (1990) and Stein (2001)'s herding theory.

Corporate governance is an important issue in the agency and information asymmetry problem. It includes the incentive contract, legal protection of minority rights, debt-equity structure and concentrated ownership. Manager's incentive contract is designed for manager to maximize the firm value. Studies have argued that it is not how much the CEOs are paid but how they are paid<sup>2</sup>, and hence the compositions of the compensation contract may be important. Equity-based compensation is argued to provide better incentive for the manager to maximize the shareholder value than the cash-based compensation, while bonus-based compensation is considered to be easily leading to managerial myopic behavior. The problem related to the equity-based compensation is that the equity market is very volatile and not always related to CEOs performance, which leading to the difficulty in measuring the equity-based performance. In addition, the risk-averse, non-diversified managers may tend to bear less risk and try to manipulate the firm's risk when making investment decisions. Furthermore, since equity-based compensations are tied to firm's stock returns and the importance of the earnings news in stock price, if managers want to manipulate earnings to affect the firm's stock returns through cutting R&D and advertisement investments, then equity-based managers may also reduce firm's investments (Stein (1989), Cohen, Hall, and Viceira (2000)). On the contrary, if market is efficient and stock price fully reflect all the information that are available, then equity-based compensation will lead to increase in R&D investment, especially in the growth and high-tech companies. Prior empirical studies find that managerial compensation is related to firm investments. Larcker (1983) finds that corporate capital investment *increases* subsequent to a long-term performance plan adoption. Defusco, Zorn, and

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<sup>2</sup> Jensen and Murphy (1990a).

Johnson (1991) show that investment in R&D intensity *declined* significantly subsequent to ESO plan adoption while perquisite consumption, measured by SG&A, increased significantly. Kang, Kumar, and Lee (2006) find the weight placed on CEO equity based compensation increases firm's capital investments. Coles, Daniel, and Naveen (2006) examine the causal relation among *CEO PRS* and riskier investment policy, riskier debt policy, and higher volatility of stock returns using CEOs identified from *Execucomp* using "CEOANN" supplemented by CEOs identified using "BECAMECE" for the period 1992-2002. Using simultaneous equations and three-stage-least-squares (3SLS) method, they find that pay performance sensitivity have an ambiguous sign with R&D and capital expenditures. However, higher pay risk sensitivity increases R&D and decreases capital expenditures.

Managerial ownership, institutional investors, and large outside blockholders play important roles in management decisions. Jensen and Meckling (1976) argue that as the manager's ownership claim falls, his incentive to exert significant effort to creative activities such as searching out new profitable ventures falls. An increase in the proportion of managerial ownership aligns the interests between managers and shareholders, and induces managers to act in the interest of shareholders. Ghosh, Moon, and Tandon (2007) find that increasing managerial ownership increases R&D at low ownership levels but not at high ownership levels. They also find that increasing option holdings tend to increase R&D investments, but the relationship is significant only at high levels of option holdings. On the other hand, they find that capital expenditures do not vary with the stock ownership and option holdings.

Grossman and Hart (1980) argue that the market for corporate control is plagued by a free rider problem, which is to say that control is a public good, and dispersed shareholders are considered atomistic. Thus small shareholders prefer others to tender and some efficient takeovers may fail, while large blockholders may facilitate the tender offers. Thus, managerial entrenchment will be less in the presence of outside blockholders or institutional investors. Bushee (1998) finds that transit institutions such as high portfolio turnover, high diversification, and high use of momentum trading strategies based on earning news significantly *increase* the probability that managers cut R&D expenditures for firms with small declines in earnings. On the other hand, Wahal and McConnell (2000) find that there is no evidence that institutional investors affect the R&D and capital expenditures. Eng and Shackell (2001) find that institutional ownership is associated with *higher* R&D, and once controlling for the presence of holdings by institutional investors, firms adopting long term performance plans for their managers do not increase their R&D spending.

For firms that lack of large outside blockholders, takeovers can be critical corporate governance mechanisms that control managerial opportunistic behavior. The takeover market has been an important governance mechanism in the US. Prior studies show that antitakeover proxies impact managerial entrenchment. Using an event-study methodology, Meulbroek et al. (1990) find that antitakeover law increases the managerial entrenchment in that following the implementation of antitakeover provisions there is a decrease in R&D/sales. Using a long-horizon approach, Gompers, Ishi, and Metrick (2003) find a similar result that entrenched managers with higher antitakeover measures, proxied using G-index constructed from 24 corporate governance provisions, have higher capital investments.

Finally, the determinants of the investments are generally related to the firm's performance and investment opportunity sets, such as Tobin's Q, return on assets, return on equity, etc. According to efficient market theories, high investment opportunity is positively related to investments. However, it is argued that high investment opportunity also provides high opportunity for managerial entrenchment. Thus, the investment in capital expenditure will be positively related to the investment opportunity variables in both cases, but the R&D and advertisement investment will be positively related to the opportunity sets in the first case and negatively in the second case. Liquidity is also related to the firm's investment. The pecking order theory provided by Myers and Majluf (1984) argue that due to asymmetric information between managers and outside investors, corporate finance will follow the order of internal finance, debt finance, and equity finance. Investment will depend on the availability of internal finance, access to new debt or equity finance, and the credit markets. Several papers have examined the financial constraint effect on investment, such as Fazzari, Hubbard, and Petersen (1988), Hoshi, Kashyap, and Scharfstein (1991) and Petersen and Rajan (1994), and find that cash flows and liquidity measures are strongly related to investment. At last, industry and market trend investment intensity may affect the manager's investment behavior. Scharfstein and Stein (1990) examine the herd behavior in corporate finance and argue that managerial behavior may be distorted in the direction of herding. Bushee (1998) finds that industry investment has a positive effect on firm's R&D investment.

The null hypothesis is stated as follows:

*Hypothesis: Ceteris paribus, the corporate governance mechanisms (incentive compensation, ownership concentration and market for corporate control) do not affect the manager's investment decision in R&D, advertisement and capital investments after controlling for firm's investment opportunity sets.*

Based on the myopic investment hypothesis, the entrenched CEOs will cut the R&D and advertisement investment to meet the short-term goals; based on the free cash flow and empire-building hypothesis, the entrenched managers will increase the capital investment; and based on herding behavior, managers will invest the same level as other managers' in the same industry.

### III. Empirical Design

#### 1. Sample selection

The sample data are obtained from the Compustat Executive Compensation database and Compustat industrial annual database. The Standard & Poor's ExecuComp includes data on total compensation for the top five executives at each of the firms in the S&P 500, S&P Midcap 400, and S&P Small Cap 600 from 1992 to 2004. Extracted from firms' Security and Exchange Committee (SEC) filing DEF 14A Form (proxy statement), the compensation data includes annual compensation such as salary and bonus and other annual, and long term compensation awards including restricted stock, long term incentive payout, and stock option granted, as well as all other compensation including 401 (K), life insurance policy, etc. I retrieve the compensation data for all firms from the database from 1992 to 2000, and obtain the CEO data based on "becamece" item. This item allows me to examine the compensation impacts on the future investment behavior. I also retrieve R&D, advertisement, and capital expenditure and other financial data for all firms from Compustat. These two sets of data are then merged together.

#### 2. Measurements of variables

This study examines the effect of the corporate governance on firm's investment decisions. The analysis is conducted in two-fold. The first one is to examine the determinants of the level of the R&D/sales, advertisement/sales, and capital expenditure/sales, and secondly the study examines the determinants of the changes in the above three specified investments. The dependent variables are first defined as the R&D/sales, advertisement/sales, and capital expenditure/sales, and then defined as the percentage change in a given year's R&D, advertisement and capital expenditure relative to previous year's R&D, advertisement and capital

expenditures, respectively. In equation, the investment growth percentage change is  $i_t = \left(\frac{I_t}{I_{t-1}} - 1\right) * 100$ , where,  $I$

is annual investment on R&D, advertisement, and capital expenditure.

The measures for the different explanatory variables are chosen as follows:

(1) Level or change of cash-based compensation (TDC). The level is measured as the log value of salary and bonus and change is measured as the log value of salary and bonus-based compensation minus previous year's log value of salary and bonus compensation. Relative to other forms of CEO compensation such as stock options and restricted stock, cash-based compensation relies more on the accounting measures instead of the stock measures. CEOs are more easily to manipulate accounting earnings through cutting R&D and advertisement investment to reach their compensation goals than the stock-based compensation. In addition, CEOs are more likely to be entrenched when their pay-performance is insensitive such as a salary payment. If entrenched CEOs prefer low investments in R&D and advertisement to meeting their earnings goals, the variable is expected to have a negative coefficient in these investments. Furthermore, entrenched CEO may prefer high level of capital expenditure based on empire building hypothesis. Thus the variable is expected to have a positive effect on capital expenditure. In order to test the causal effect of compensation on investments, I use the lagged level of total cash compensation instead of the realized compensation.

(2) Value and change of total stock options held by the CEO (VSO). The value of CEO's holdings of total stock options is measured by the log value of the sum of the unexercised exercisable and unexercisable stock options plus the Black-Scholes value of stock options granted, and the change of total stock options holding is measured as the log current value of holdings of stock options minus previous year's value. I use the lag value for both variables. Hall and Liebman (1998) argue that the holdings of stocks and stock options are better measurement for CEO's incentives than the current grants of the restricted stock and stock options. They combine the amount of CEO's holdings of stocks and stock options together and examine the total effects. However, holding stock options does not provide the same incentives as owning a share of stock (Jensen and Murphy (1990)). For example, stock ownership rewards both price appreciation and dividends, while options reward only appreciation. In the current paper, I separate the effects of the value of stock options and the CEO's share ownership into different categories. The CEO's share ownership is examined as one of the firm's concentration measure.

Stock options have recently been widely used in practice because it is considered one of the best ways to align the managers' interest with those of the shareholders. However, several papers have also found that the options-based compensations also have some disadvantages. First, the managers' risk aversion will lead to the difference in

the value of the stock options to the managers and the cost of the options to the firm, which can be viewed as a deadweight cost. For example, Meulbroek (2001) finds that managers at the average NYSE firm who have their entire wealth invested in the firm value their options at 70% of their market value, while undiversified managers of the Internet-based firms only value their options at 53% of its cost to the firm. Second, since options do not have a downside possibility and increase in value when the risk of the underlying assets increases, managers may want to increase the firm's volatility to increase their private benefit. This will be exacerbated when firms offer options repricing. Cohen, Hall, and Viceira (2000) find that the increases in the managers' options holdings lead to subsequent increases in firm risk after controlling several variables, even though the effect estimated is small. In the current setting, the entrenched CEOs may increase the R&D, advertisement, and capital investments based on either to have better incentives or to increase the firm risk. However, since the CEOs view less the options value, the magnitude of the effect may be small.

(3) Managerial stock ownership (SHROWNPC). The variable is measured by the aggregate number of shares held by the CEOs as a percentage of the company's shares. It is argued that CEOs will make value-maximizing decisions of investment when their stock ownership is high. In addition, if the stock market is efficient and the value of the firm reflects the investment project's present value as soon as the investment is undertaken, high CEO's stock ownership may increase R&D, advertisement, and capital investments. Berger, Ofek, and Yermack (1997) find that CEO's percent of common equity leads to less entrenchment. This variable is expected to have a positive effect on investment.

(4) Interlock relationship (INTLOC). Firms are required to file interlocks and insider participation of the named officers in the DEF 14A proxy statement to the SEC. This generally includes one of the following situations: (1) The officer serves on the board committee that makes his compensation decisions, (2) The officer serves as on the board (and possibly compensation committee) of another company that has an executive officer serving on the compensation committee of the indicated officer's company, (3) The officer serves on the compensation committee of another company that has an executive officer serving on the board (and possibly compensation committee) of the indicated officer's company. If the CEO has the indicated interlock relationship, I will expect that the board monitoring of the CEO will be less effective and the CEO are more entrenched than those with no such relationships. Furthermore, if the entrenched CEO will cut the R&D and advertisement investment to meet the short-term earnings, and increase the capital expenditure to meet their empire-building desire, the expected effect on R&D and advertisement investments will be negative and for capital expenditure will be positive.

(5) CEO's age (AGE). CEO age has been argued to be related to the CEO's reputation and career concerns. Gibbons and Murphy (1992b) argue that contracts in the labor market between managers and firms use both explicit and implicit incentives. They find that holding CEO's tenure constant, the CEO's pay-performance sensitivity increases in CEO age. For young CEOs, to build reputation that leads to higher future return are relatively more important than for older CEOs. In turn, older CEOs may have higher incentives to conduct myopic investment. In addition, young CEOs' career concerns may result in herding in investment behavior (Stein (2001). Dechow and Sloan (1991) find that CEOs who are in their final years in the office spend less on R&D (the horizon problem), and CEO stock and options compensations reduce the cut in R&D in the final years. However, in a managerial entrenchment effect on investment test, Gibbons and Murphy (1992a) find that investment expenditures increase rather than decrease as the CEOs close to retirement, and the investments tend to be largest in the final years of a CEO's time in office. Cheng (2004) predicts and finds that compensation committees establish a *greater* positive association between changes in R&D and changes in CEO option compensation for CEOs with greater than 63 ages (an interaction effect) to prevent opportunistic reductions in R&D expenditure. Based on above consideration, the expected sign for this variable will be ambiguous.

(6) CEO's experience (TENURE). The learning model predicts that CEOs with longer tenure will be more skillful and conduct less manipulation in the investment to fulfill short-term goals. On the contrary, CEOs may be more entrenched with longer tenure since they have established the relationship with the board members who monitor them. Berger, Ofek, and Yermack (1997) find CEO's log years in CEO position are positively related to the managerial entrenchment and negatively related to the leverage ratio. If longer-tenure CEOs are more entrenched, I will expect this variable to be negatively related to R&D and advertisement investment and positively related to capital expenditure. The CEO tenure is measured by subtracting the "became CEO" year from the current fiscal year retrieved from *ExecuComp*.

(7) Change of control (CEOCHG). Jensen and Murphy (1990) argue that the dismissal of previous CEO may influence the new CEO's investment decisions. The new CEO may be less entrenched under the pressure of the fire of previous CEO and invest more in R&D and advertisement investment. On the other hand, the herd behavior theory modeled by Scharfstein and Stein (1990) predict that CEOs who are concerned about their reputations in the

labor market will rationally mimic the investment decisions of other managers, and the new CEOs may invest more or less the same as the industry average level. The expected sign for this variable is ambiguous.

(8) Anti-takeover measure (G - Index). Gompers, Ishi, and Metrick (2003) constructs a corporate governance index (G-index) using 24 corporate governance provisions, including (1) tactics for delaying hostile bids; (2) voting rights; (3) director/officer protection; (4) other takeover defense; and (5) state takeover laws. The G-index measures the power-sharing relationship between managers and shareholders. One point is added for each provision if it reduces shareholder right. Therefore, a higher G-index indicates greater management power and weaker shareholder right. Gompers, Ishi, and Metrick (2003) argue that weak shareholders rights can reduce the takeover activities and prevent the removal of incompetent management. On the other hand, prevention from takeover activities may reduce manager's focus on the short-term performance and earnings management and more on the long-term firm value. Meulbroek et al. (1990) find that antitakeover law increases the managerial entrenchment in that following the implementation of antitakeover provisions there is a decrease in R&D/sales. On the other hand, Gompers, Ishi, and Metrick (2003) find that entrenched managers with higher antitakeover measures have higher capital investments. The expected sign for this variable is positive for capital expenditure and negative for R&D and advertisement investments.

(9) Standard control variables include changes in investment opportunity sets and firm characteristics. *Changes in the investment opportunity sets.* The variables include Tobin's Q, lag value of investments, industry investment intensities, and lag value of corporate profits. Tobin's average Q (TOBINQ) is a good proxy for the firm's growth opportunity and its performance. It is defined as the ratio of market value of the firm's securities to replacement cost of its tangible assets, i.e., the market value of the firm's equity plus the liquidating value of preferred stock plus the book value of total debt, divided by the book value of total assets. Bushee (1998) argued that this measure is similar to the market-to-book ratio in that both are positively related to the future growth options. Firms with higher Tobin's q or market to book ratios are more like to be entrenched and manipulate investment to meet their own goals. This variable is expected to have a negative effect on R&D, advertisement, and positive effect on capital investments. The lag value of investment (LAGRD, LAGAD, and LAGCAP) is the best predictor for the current value of investment according to the random walk theory. Since it is reasonable to consider that the investments for a firm are consistent overtime, this variable is expected to have positive relation to the current investment. The industry R&D, advertisement, capital intensities (INDRD, INDAD, INDCAP) provide a good measure for the firm's growth environment. In addition, different industries have different feasibility of managers' discretion. Hambrick and Abrahamson (1995) find that industry characteristics such as the product differentiability, market growth, and absence of powerful outside force are closely related to managers' discretion. Finkelstein and Hambrick (1990) identify a high-discretion industry (computers), a medium- discretion industry (chemicals), and a low-discretion industry (natural gas distribution). Thus, control for industry intensity is important for examining firm's R&D, advertisement, and capital investments. Firms in industries with increasing investments are expected to be more likely to increase investments. The industry investment intensity is measured by the sum of the industry R&D (or advertisement and capital expenditure) divided by the sum of the sales in the industry. Lagged corporate profits are considered to have positive relation with current investment. They are measured as return on assets, return on equity, or shareholder returns. I expect these measurements to have a positive effect on investments. *Firm characteristics.* The firm's size (SIZE) is related to the effective monitoring of the managers. The agency theory predicts that monitoring CEOs in a large firm is more difficult than in a small firm. Thus the managerial entrenchment may be higher for larger firms. If the entrenched CEOs prefer to invest less in R&D and advertisement to boost earnings, large firm CEOs may have less R&D and advertisement investment and higher capital expenditure. On the other hand, smaller firms may have less cash flow to invest and are more financially constrained and have to reduce their investments. The expected relationship between size and investment will be ambiguous. Firm's liquidity has long been discussed to have influence on firm's investments, i.e., Fazzari, Hubbard, and Petersen (1988, Hoshi, Kashyap, and Scharfstein (1991, Kaplan and Zingales (1997). Information asymmetry in the capital market predicts that more liquid firm should invest more. Firm's liquidity measure, free cash flow (FCF), is defined as cash flow from operations minus capital expenditures, scaled by the current assets. I expect a positive relationship between free cash flow and capital expenditure and an ambiguous relationship between free cash flow and R&D, advertisement investment. Firm's capital structure (LEVERAGE) is also related to its investment. This variable is measured by book value of total debt divided by book value of total assets. Based on the free cash flow theory, debt can perform a control role for the managers. Debt will reduce the resources under manager control by pumping them out of the firm. Thus the managers will only invest in high net present value projects. In this way debt plays a role in decreasing the managerial entrenchments. If entrenched manager conducts myopic investment behavior and reduces R&D and advertising investment, high leverage ratio increases R&D investment. The firm's asset in place (ASINPLC) can be used as the collateral to finance new projects. With more

assets in place, managers may be easier to obtain funds and extract private benefits. On the other hand, asset in place is related to the firm's liquidation value. This variable is measured as the gross property, plant and equipment plus the inventory divided by the total assets to measure this variable. The expected sign of the variable is ambiguous. In addition, changes in sales are included in the variables that determine the percentage change of firm's R&D, advertisement, and capital expenditure investment. This is because the firm's investments are closely related to firm's sales. Since the examination of the determinants of the level of investments has been scaled by sales, the sales variable is not needed in the first sets of regressions. I expect that higher change in sales leads to higher level of various investments.

Finally, the managerial entrenchment in R&D, advertisement and capital investment is closely related to the earnings management. Basically, the managers tradeoff the long-term firm value to the short-term profits by cutting the investment. If the cost of cutting R&D is too high since the manager will not achieve the earnings goals anyway, the manager will have less incentive to cut the investments. In order to measure the distance of expected earnings from the earnings target, similar to Bushee (1998), I use the change in pre-tax, pre-R&D earnings divided by prior year's R&D, advertisement and capital expenditure investment. This variable measures the percentage of the investment that would need to be cut to obtain a positive earnings change. It is expected to have negative relationship with the investment.

The data definitions and the sources are attached in Table 1.

### 3. Methodology

Since CEOs may consider the joint effects of compensations, ownership and control, as well as the characteristics of the firms to determine the investment decisions, I use the cross-sectional time-series regressions to examine the effect of the corporate governance on investment, trying to look at the interaction of different variables by holding other variables fixed. The following equation is used to examine the relationship between corporate governance and corporate investments.

$$INV_{it} = \alpha_i + \beta_i X_{it} + \varepsilon_{it} \quad (1)$$

$$DINV_{it} = \alpha_i + \beta_i DX_{it} + \varepsilon_{it} \quad (2)$$

and vector  $X_{it}$  can be expressed as:

$$\begin{aligned} X_{i,t} = & TDC_{i,t-1} + VSO_{i,t-1} + SHROWNPC_{it} + CEOAGE_{it} + TENURE_{it} \\ & + INTLOC_{i,t} + CEOCHG_{i,t-1} + LAGINV_{i,t-1} + TOBINQ_{i,t-1} \\ & + LAGROA_{i,t-1} + LAGROE_{i,t-1} + LAGRET_{i,t-1} + INDINV_{i,t} \\ & + FIRMSIZE_{i,t} + LEVEAGE_{i,t-1} + FCF_{it} + ASINPLC_{i,t} + DISTRD_{i,t} + \varepsilon_i \end{aligned} \quad (3)$$

where the definitions for the variables are attached in Table 1. The compensation variables (TDC, VSO) and CEO's share ownership (SHROWNPC), age (AGE), tenure (TENURE), interlock relationships (INTLOC), and the change of CEO (CEOCHG) are related to corporate governance, and other variables are considered as the control variables. The relationships between the corporate governance variables and investment are measured by the regression coefficient  $\beta_s$  in equation (1) and (2). These equations are estimated using OLS method. In addition, from the descriptive statistics in Table 4 it is noticeable that all the variables have dramatic volatility and big outliers. The statistics software Stata rreg function may be used to correct this problem. Furthermore, since the samples are cross-sectional time-series data, the panel data estimation method may be more appropriate. The Stata cross-sectional serial correlation method xtreg may be used to estimate the panel data. Finally, there may exist endogenous relationship between the managerial entrenchment and investment. As discussed by previous studies, a better solution for this problem is to find the instrumental variables that only affect the dependent variable through the independent variables. However, due to the difficulties in finding an appropriate instrumental variable, I control this problem by examining the lag effect of the explanatory variables and holding industry- and firm- effect fixed. The estimation results presented in Table 6 and Table 7 show the results estimated from Ordinary Least Square (OLS), robust regression estimates (rreg), and fixed-effects estimation models (xtreg, fe).

### IV. Estimation Results

Table 2 presents the descriptive statistics for the variables. The median (mean) total cash compensation (cash plus bonus) for CEOs is about 54% (55%) of the total compensation, and the median (mean) stock options-based compensation (Black-Scholes value of current stock options granted) is about 27% (31%) of their total compensation during the sample period from 1992-2000. The median (mean) value of CEOs' total holdings of the

unexercised stock options is about 2.89 (18,217) times of total cash compensation. The median (mean) stock ownerships of CEOs are about 2.2% (6.3%). The CEO's age and tenure range from 35 to 87, and 0 to 54, respectively. The median of age and tenure are about 58 and 5 years.

Table 3 presents the correlations between various variables. From the table, we can find that the correlations between the R&D intensity, advertisement intensity, and capital expenditure intensity are very high and significant at 1 percent level. The correlation between R&D/sales and advertisement/sales is 0.8941, and between R&D/sales and capital expenditure/sales is 0.6663. The correlation table also suggests some other relationships, for example, the CEOs' holdings of stock option value and their share ownership are significantly negative related, which is consistent with previous researches on the risk averse of CEOs. In addition, CEO turnover is negatively related to CEO's holding of stock options, CEO's age, tenure, interlock relationship, and CEO's share ownership.

Table 4 presents the estimation results for the determinants of the firms' R&D, advertisement and capital expenditure intensity, and Table 5 presents the determinants of the change in the firms R&D, advertisement, and capital expenditure investment relative to previous year.

The results show that the lag values of investment to sales ratios and industry investment to sales ratios are significantly positively related to current year's investment to sales ratios, which is consistent with the prediction. In the determinants of the changes of firm's R&D, advertisement and capital expenditure model, the industry changes are positive but less significant. The lag changes in investment effects on the current change in investment are all significantly negative, which is consistent with the fact that the coefficients of the lag investments in the level model are all less than one.

In the determinants of investment/sales estimations, Tobin's Q are found to be significantly negatively related to the R&D/sales and advertisement/sales and positively related to the capital expenditure/sales. In the changes of investment regressions, this variable is found to have a positively effect on both changes in R&D and capital investments. The high profitability of investment opportunities lead to increases in firm's investment compared to its previous years.

The size and asset in place variables are significantly negative for R&D and advertisement, and positive for capital expenditure. A firm with relatively larger size and more collateral may make the monitoring of the firm less efficient and increase the manager's entrenchment, which lead to managers' focuses on short-term goals and empire buildings. The free cash flow variable is positively related to the level and change in the capital expenditure and confirms Jensen (1986)'s free cash flow theory that managers tend to use up the free cash flow and make an empire building. The free cash flow variable on R&D/sales and advertisement/sales are insignificant. The lag returns on assets are positively related to firm's investment. The earnings management measure, the distance from the earnings target before R&D, is found to be significantly negatively related to the level and change of R&D investment. Firms that need to severely cut investment to meet earnings goals may find not worth to do it. On the other hand, if the earnings goals are very close to reach, it is more attractive to conduct the myopic behavior.

The manager's compensation measures are found to be significantly related to the firm's investment. The log value of previous holdings of stock options are significantly positively related to the R&D, advertisement and capital investments, which confirms the assumption that the options-based compensation provides better incentives for the managers to maximize the firm value. The total cash compensation is found to have a positively effects on the advertisement investment and insignificant in R&D and capital investments. CEO's age and tenure have opposite effects on firm's advertisement and capital investment. Older CEOs tend to invest less in advertisement and more in capital expenditure, while longer-tenure CEOs have high investment in advertisement and less in capital expenditure. These results are suspicious and may need additional model specification. The CEO's interlock relationship and CEO's changes are found to be insignificant in all the model specifications, while the CEO's share ownership is only slightly positively related to capital expenditure.

In sum, the results suggest that among the various corporate governance mechanisms, only the CEO's holding of the stock options are important for CEOs' investment decisions. Since the above model specifications are too simple, future researches can be extended in examining additional model specifications and simultaneous models to obtain improved results. In the next section, an event study is carried out to examine whether CEO's change of control will affect the new CEOs investment decisions.

## V. Event Study

The focus of the current paper is to examine the corporate governance mechanisms impact on manager's investment behavior. The event study methodology can be applied to check whether the investment behavior of the firms has changed after a certain event. Several papers have examined the influence of the external shocks to CEOs on their variants of behaviors, for example, Meulbroek et al. (1990) find that firms decrease their R&D intensity after the passage of antitakeover provisions and Bertrand and Mullainathan (1999) find that there are increases in

managers' compensation following the implementation of antitakeover provisions. In addition, in a capital structure research paper, Berger, Ofek, and Yermack (1997) find that after the events such as the attempts to acquire the firm, the involuntary departure of the prior CEO, and the arrival of a major stockholder-director, firms' subsequent capital structures exhibit significantly greater leverage. In the current paper, the event study is conducted by examining the changes of control-new CEO of the firms-effects on firms' R&D, advertisement and capital investments. Jensen and Murphy (1990) argue that the threat of being fired for poor performance provides monetary as well as nonmonetary incentives for CEOs to maximize firm value. It is reasonable to imply the dismissal effect on the managerial behavior by looking at the changes of CEO's effect on the investments. In addition, in order to examine the managerial incentive closely, I also look at the new CEO's compensation and age effect on investments by forming two portfolios with above and below median compensation or age and examine whether the dismissal effects are different. The basic structure of the event study follows that of Meulbroek et al. (1990).

I obtain the samples from the Compustat Executive Compensation database by selecting the "becamece" item not equal to zero from 1990 to 2000. The R&D, advertisement and capital expenditure investments and other financial data of the firms are obtained from Compustat Industrial annual. Table 6 presents the descriptive statistics of CEO changes and R&D, advertisement and capital expenditure investments across two-digit SIC industries in 1995, ranking by the industry average investments. From the table, one can find that the investment intensity for the industries varies very much. Interesting to note, firms in high R&D intensity industries have relatively high turnover of CEOs, such as the chemicals and allied products, instruments and related products, electronic and equipment, and industrial machinery and equipment industries. However, the advertisement intensity and capital expenditure intensity appears unrelated to the changes of CEO.

For each of firms that change CEO during 1990-2000, I examine the change in R&D/sales, advertisement/sales, and capital expenditure/sales over varies windows surrounding the event year, the year that firms change CEO. This is to say, if the CEO changes is in 1990, the (-1, 1) window measures the percentage changes in the firm's R&D/sales between 1989 and 1991. Some firms changes CEO twice within two or three years, I checked those firms to make sure that no overlay in between. I also drop the firms in the industry that has less than 5 firms. In sum, the total CEO changes for the sample firms are 1,891 from 1990-2000. Table 7 presents the simple percentage change, market-adjusted percentage change, and industry-adjusted percentage change in different investments to sales ratio after firms change CEO. I calculate the market-adjusted percentage change during the examination period because market R&D/sales, advertisement/sales, capital expenditure/sales also changes substantially during the period. In addition, since the investments varies very much across industries, the industry-adjusted percentage change in R&D/sales, advertisement/sales, and capital investment/sales may provide more precise measures for changes in investments effect of the new CEOs. The market-adjusted percentage change is calculated by subtracting the marketwide percentage change in R&D, advertisement, and capital investment intensity from the simple percentage change, where the marketwide R&D/sales, advertisement/sales, and capital investment/sales in a given year is calculated by dividing the sum of the R&D for all Compustat firms by the sum of the sales for all Compustat firms. Similarly, the industry-adjusted percentage change is calculated by subtracting the industrywide percentage changes in R&D/sales, advertisement/sales, and capital investment/sales from the simple percentage change in R&D/sales, advertisement/sales, and capital investment/sales, respectively. The industry R&D/sales, advertisement/sales, and capital investment/sales is defined as the sum of the R&D, advertisement, and capital expenditure for all firms in a given three-digit SIC code divided by the sum of the sales of those firms.

The dismissal effect predicts that investments will increase after the dismissal of the old CEOs. The results from R&D and advertisement investments fail to support this prediction, but the capital expenditure investment is consistent with the hypothesis. The new CEO's different treatments between the R&D and advertisement investment and capital expenditure investment may come from the different treatment of those items in accounting practice. Unlike investments in tangible assets such as capital expenditure, the cost of intangible investments including R&D and advertisement investments is deducted immediately rather than capitalized and amortized over a depreciation lifetime. In addition, as mentioned in the previous section, the entrenched CEOs' behavior may be different on the above three types of investments due to different incentives. They are more likely to cut the R&D and advertisement investment to meet the short-term goals; and more likely to increase the capital expenditure to meet their empire-building desire. The significant increases in capital expenditure in all three windows and for all percentage changes, simple percentage change, market-adjusted percentage change and industry-adjusted percentage change, are consistent with the empire building behavior of managerial entrenchment. Compared to other firms in the same industry, the new CEO increases capital expenditure/sales by 0.51 percent ( $t=2.30$ ) in the (-1, 1) window, 0.54 percent ( $t=2.03$ ) in the (-1, 2) window, and 1.0 percent ( $t=1.95$ ) in the (-1, 3) window.

For all three windows of the simple percentage change and market-adjusted percentage change, the R&D/sales changes significantly on average following the new CEO taking into control. In (-1, 1) window, it increases 0.18

percent ( $t=2.77$ ) for simple percentage change and 0.14 percent ( $t=2.22$ ) for market-adjusted percentage change. In (-1, 2) window, it increases 0.19 percent ( $t=2.97$ ) for simple percentage change and 0.13 percent ( $t=2.02$ ) for market-adjusted percentage change. In (-1, 3) window, it increases 0.21 percent ( $t=3.70$ ) for simple percentage change and 0.14 percent ( $t=2.41$ ) for market-adjusted percentage change. However, the more precise measure, the industry-adjusted percentage change, are insignificantly on average for all three windows after the changes of CEO. It increases 0.10 percent ( $t=1.41$ ) in the (-1, 1) window and decreases 0.28 percent ( $t=-1.18$ ) in the (-1, 2) window and decreases 0.09 percent ( $t=-0.49$ ) in the (-1, 3) window. The advertisement investment exhibits similar pattern as R&D investment except that it is insignificant in the (-1, 1) window for all three-percentage changes. The industry-adjusted percentage change increases 0.23 percent ( $t=1.10$ ) in the (-1, 1) window and 0.23 percent ( $t=1.08$ ) in the (-1, 2) window, and 0.05 percent ( $t=0.28$ ) in the (-1, 3) window.

Even though the results from R&D investment and advertisement investment fail to support the dismissal effect of managerial behavior, the insignificant difference between the percentage change in the firms' investment and their industry average do support the herd behavior theory in investment as discussed in Scharfstein and Stein (1990). The authors model the "sharing the blame effect" between the two types of managers: smart ones and dumb ones. They argue that an unprofitable decision is not so bad for reputation when others make the same mistake. Thus managers who are concerned about their reputations in the labor market will rationally mimic the investment decisions of other managers. The new CEOs make significant increases in the R&D/sales and advertisement/sales compared to the old CEOs in (-1, 1), (-1, 2) and (-1, 3) windows, but at the same time the industry average also increases similar percentage. The results are consistent with the reputation and herd behavior model: firms increase R&D and advertisement intensity at the same level as those of the industry R&D and investment intensity.

Additional results of other managerial incentives effects on new CEO R&D, advertisement, and capital investment are presented in Table 8. I examine the effects of total value of stock options to cash compensation ratio (VSOPC), total direct compensation as a percentage of total compensation (TDCPC), and CEOs' age (AGE) on the new CEO investments by dividing the total sample into two groups based on above or below the median value of each variable. VSOPC is calculated based on previous year CEO's value of unexercised exercisable options and unexercised unexercisable options and value of stock options grants as a percent of the sum of salary and bonus. This is to say, for the event window (-1, 1) the CEO's VSOPC is calculated for year zero, but for the event window (-1, 2) and (-1, 3) the VSOPC is calculated for year 1 and year 2, respectively. The TDCPC is calculated using the same method for different windows and measured as dividing the sum of salary and bonus by the total compensation (tdc2) and expressed as a percentage.

The agency theory predicts that high VSOPC of managers better aligns the manager's incentives with those of the shareholders. Those CEOs with high VSOPC will have less managerial entrenchment and will invest more in R&D, advertisement and capital investments. The results from R&D and capital investment support this prediction. The CEOs with high VSOPC have relatively higher investment than those with low VSOPC. The significant difference between the two groups ranges from 0.01 to 0.84 percent. In the case of advertisement, the differences between the high and low VSOPC groups are insignificant for all the windows and percentage changes.

Most of the results for the differences between the high and low TDC are insignificant. The only significant value is for the R&D investment in industry-adjusted percentage change in (-1, 2) window. It suggests that low previous year of CEO's total direct compensation percentage will invest 1 percent more in R&D/sales. In addition, the wide spread insignificance in the difference between the high and low TDCPC effect on R&D, advertisement, and capital expenditure investment suggest that salary and bonus does not provide significant difference in incentives to the CEOs.

Furthermore, I conduct an additional test. One explanation for the above herd behavior is that different reasons that make previous CEOs left office will induce different pressures to the new CEOs and thus the new CEOs will behavior differently. It maybe the case that only forced leave of previous CEOs leads to the increase in the new CEO investment. In this case, using the entire sample may not be appropriate. In order to verify that whether the reasons for previous CEO's leaving office leads to different investment behavior of new CEOs, I examine the reasons for CEOs' leaving office that are listed in the ExecuComp database. There are four reasons listed: retired, resigned, deceased, and unknown. I separate the firms into two groups based on resigned and unknown (group 1) and retired (group 2). The dismissal hypothesis predicts that firms with which previous CEOs resigned instead of retired would have high investment than firms that have previous CEOs retired. Table 9 presents the results for the different groups. The results for the industry-adjusted percentage change do not support the specified dismissal effect. The differences between these two groups are all insignificant compared to the industry average. The simple percentage change and the market-adjusted percentage seems support the dismissal effect that resigned or unknown reason left of previous CEOs lead to higher new CEOs' investments.

In sum, the R&D/sales, advertisement/sales, capital expenditure/sales investments of the new CEO follows the herding behavior even after controlling for the reasons that previous CEO left the office.

## VI. Conclusion

This paper examines the relationship between the corporate governance mechanisms and investment behavior. The estimation results in general reject the null hypothesis. The CEO's holdings of stock options are found to be one of the most important factors that affect the managers' investment decisions. Higher value of holdings of stock options leads to higher investment in R&D, advertisement and capital investment. Other measures for the corporate governance such as CEO's age, tenure, interlock relationship, share ownership and CEO's change of control are mostly insignificant. The effects of the control variables are generally consistent with the prediction. For example, the size, Tobin's q, asset in place variables are significantly negative in determining R&D and advertisement investment, but significantly positive in determining capital investment, which is consistent with the prediction that entrenched CEO's may cut the R&D and advertisement investment and expand the capital investment. In addition, the distance from the earnings targets before R&D and advertisement measure is found to be significantly negative. The closer the possibility to reach earnings goals by cutting R&D and advertisement, the higher the possibility to cut those investments.

Furthermore, I directly investigate the CEO changes effect on firms' investment using the event study method. Contrary to the dismissal prediction, I find that even though the new CEOs significantly increase their investments, they do not significantly increase or decrease the R&D and advertisement investment relative to their industry level. This behavior is more consistent with the herd behavior theory. On the other hand, the capital expenditure increases significantly after the new CEOs take into control even after adjusting for the industry level. The differences between R&D, advertisement investment and capital investment can be seen as the difference in empire-building entrenchment and myopic investment entrenchment. Additional evidence suggests that the CEOs with high values of stock options to total direct compensation ratio have relatively higher investment than those with low stock options percentage. Younger CEOs have relatively higher advertisement and capital investment, but older CEOs have higher R&D investment. The total direct compensation as a percentage of total compensation usually does not play important role in the CEO investment decisions. In sum, the current empirical research concludes that corporate governance mechanisms do provide important impacts on CEO's investment decisions.

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Table 1. Data Description, Source, and Expected Sign on Investment

Variable	Data Generalization Methods	Data Source	Expected Sign
R&D investment (RDINT), Advertisement investment (ADINT), and Capital expenditure (CAPINT)	RDINT = R&D investment/Sales*100 ADINT = Advertisement/Sales*100 CAPINT = Capital expenditure/sales*100	Compustat data items: R&D investment: #46 Advertisement investment: #45 Capital expenditure: #128	Dependent variable
Change in R&D investment (DRD), advertisement investment (DAD), and capital expenditure (DK)	DRD = (R&D investment <sub>t</sub> - R&D investment <sub>t-1</sub> ) / R&D investment <sub>t-1</sub> *100, DAD = (Ad invest <sub>t</sub> -Ad invest <sub>t-1</sub> )/Ad invest <sub>t-1</sub> *100, and DK = (Capital invest <sub>t</sub> -capital invest <sub>t-1</sub> ) / capital invest <sub>t-1</sub> *100	Same	Dependent variable
Lag R&D, Ad, and capital investments (LAGRDINT, LAGADINT, LAGKINT)	LAGRDINT = RDINT <sub>t-1</sub> LAGADINT = ADINT <sub>t-1</sub> LAGKINT = CAPINT <sub>t-1</sub>	Same	(+)
Industry R&D investment intensity (INDRD), Advertisement investment intensity (INDAD) and Capital expenditure intensity (INDK)	INDRD = (sum of industry R&D/sum of industry sales)*100 INDAD = (sum of industry advertisement/sum of industry sales) *100 INDK = (sum of industry capital expenditure/sum of industry sales)*100	Same, industry used are 3-digit SIC code.	(+)
SIZE1: Market value (LNMKTVAL)	LNMKTVAL=ln(The close price for the fiscal year*the company's common shares outstanding), alternative measure for size	Compustat items: Fiscal year close price: #199 Common shares outstanding: #25	(+/-)
SIZE2: Total assets (LNASSET)	LNASSET=ln(total asset), alternative measure for size	Compustat items: Total assets: #6	(+/-)
Tobin's average Q (TOBINQ)	TOBINQ=(market value of equity + liquidating value of preferred stock + total long term debt + debt in current liabilities)/total assets Using beginning of year (TOBINQ <sub>t-1</sub> )	Compustat items: Liquidating value of preferred stock: #10; Total long term debt: #9; Debt in current liabilities: #34; Total assets: #6	(+)
Market to book ratio (MTB)	MTB = fiscal year end price divided by (total common equity/common shares outstanding), alternative to TOBINQ	Compustat items: Common equity: #60	(+)
Leverage (LEVERAGE)	LEVERAGE=(total long term debt + debt in current liabilities)/ total assets	Compustat items: Total long term debt: #9 Debt in current liabilities: #34 Total assets: #6	(+/-)
Asset in place (ASINPLC)	ASINPLC=(Property, plant & equip +inventories)/total assets	Compustat items: Property, plant & equip: #7 Inventories: #3 Total assets: #6	(-)
Free cash flow (FCF)	FCF=(net operating cash flow – capital expenditure)/total current assets	Compustat items: Net operating cash flow: #308 Capital expenditure: #128 Total current assets: #6	R&D & AD: (+/-) Capital: (+)
Distance from earnings target before R&D (DISTRD)	DISTRD= ((pretax income – R&D)-last year's (pretax income - R&D)) / last year's R&D	Compustat items: Pretax income: #170 R&D: #46	R&D:(-)
Distance from earnings target before advertisement (DISTAD)	DISTAD= ((pretax income – advertisement)-last year's (pretax income - advertisement)) / last year's advertisement	Compustat items: Pretax income: #170 Advertisement: #45	AD:(-)
Changes in sales (SALECHG)	SALECHG = (Sales – last year's sales) / last year's sales	Compustat items: Sales: #12	(+)

Table 1. Data Description, Source, and Expected Sign on Investment (Continued)

Variable	Data Generalization Methods	Data Source	Expected Sign
Return on assets (ROA)	ROA = net income before extraordinary items and discontinued operations/total assets * 100 Using lag value (ROA <sub>t-1</sub> )	Data are retrieved from Compustat ExecuComp: ExecuComp item: ROA	(+)
Return on equity (ROE)	ROE = net income before extraordinary items and discontinued operations/total common equity * 100 Using lag value (ROE <sub>t-1</sub> )	ExecuComp item: ROEPER	(+)
Return to shareholder (RET)	RET = 1 year total return to shareholders, including the monthly reinvestment of dividends Using lag value (RET <sub>t-1</sub> )	ExecuComp item: TRS1YR	(+)
Level and change of total direct compensation (TDC, DTDC)	Level: $\ln(TDC) = \ln(\text{salary} + \text{bonus})$ , using lag value (TDC <sub>t-1</sub> ); Change: $DTDC = \ln(\text{salary} + \text{bonus})_t - \ln(\text{salary} + \text{bonus})_{t-1}$	Data are retrieved from Compustat ExecuComp: Salary: SALARY Bonus: BONUS	R&D/AD: (-) Capital: (+)
Holdings and change of total value of stock options (VSO, DVSO)	Holdings: $\ln(VSO) = \ln(\text{value of unexercised exercisable options} + \text{unexercised unexercisable options})$ using lag value (VSO <sub>t-1</sub> ); Change: $DVSO = \ln(VSO)_t - \ln(VSO)_{t-1}$	ExecuComp items: Value of unexercised exercisable options: INMONEX Value of unexercised unexercisable options: INMONUN Black-scholes value of options granted: BLK_VALU	R&D/AD: (+) Capital: (+) (magnitude be small)
Managerial stock ownership (SHROWNPC)	CEO's percentage of stock ownership	ExecuComp item: shrown/( shrsout*10)	R&D/AD: (+) Capital: (+)
Interlock relationship (INTLOC)	INTLOC is a dummy variable that equals to 1 if false and 2 if true.	ExecuComp item: PINTRLOC	R&D/AD: (-) Capital: (+)
CEO's age (AGE)	Obtained from ExecuComp	ExecuComp item: P_AGE_2	R&D/AD: (+/-) Capital: (+/-)
CEO's tenure (TENURE)	TENURE= current fiscal year minus the year that CEO became CEO	ExecuComp items: Became CEO: BECAMECE	R&D/AD: (-) Capital: (+)
Changes of CEO (CEOCHG)	Obtained from ExecuComp	ExecuComp items: CEO left office: LEFTOFC	(+/-)

Table 2 Descriptive Statistics for Sample Data from 1992-2000

	Mean	Median	Standard deviation	Minimum	Maximum
Salary	564.47	508.06	307.37	0	4000
Bonus <sup>3</sup>	596.50	300	1708.61	0	102015.2
Other annual <sup>4</sup>	41.69		236.74		
Restricted stock granted	304.59	0	5886.323	0	650812.1
Stock options granted (black-scholes values)	2011.73	420.31	9463.641	0	600347.4
Long-term incentive plan payouts (LTIP)	153.83	0	852.99	-2360.93	31325
All other (all other total + all other paid) <sup>5</sup>	220.24	20.48	2346.9	0	190302.6
Total cash compensation (salary + bonus)	1160.91	823.52	1804.86	0	102448.8
Total compensation (TDC+ other annual +restricted stock grants + LTIP + all other + value realized from options exercised + value of stock options granted)	3828.17	1688.63	12309.7	0	690347.4
Total cash compensation as a percentage of total compensation	55.57	54.20	28.25	0	100
Ln (total cash compensation)	6.72	6.72	0.91	-6.91	11.54
Change of cash compensation					
Value of stock options held (Value of unexercised exercisable options + unexercised unexercisable options + Black-Scholes value of options granted)	14057.69	2544.01	66646.91	0	3609858
Black-Scholes value of current stock options granted as a percentage of total compensation	31.41	27.34	28.54	0	100
Value of stock options held to cash compensation ratio (Value of stock options held / (salary + bonus))	18217.85	2.89	783187.5	0	49900000
CEO's stock ownership	6.27	2.2	9.17	0.002	63.2
Interlock relationship	1.11	1	0.31	1	2
CEO's age	57.46	58	7.94	35	87
CEO's tenure	7.18	5	7.22	0	54
CEO change of control	0.013	0	0.11	0	1
G index	9.39	9.33	2.75	2	16

<sup>3</sup> Includes cash profit sharing.

<sup>4</sup> Include perquisites and personal benefits such as a non-cash performance appreciation award and financial planning services, personal use of Company aircraft.

<sup>5</sup> Includes earnings on deferred compensation, deferred cost of living salary adjustment, 401(k) Plan, the Executive Savings Plan (the ESP), term life insurance, premiums paid for individual insurance policies, group life insurance, sign-on bonus, reimbursement for relocation expenses.

Table 2. Descriptive Statistics for Sample Data from 1992-2000 (continued)

	Mean	Median	Standard deviation	Minimum	Maximum
R&D as a percentage of sales	6.09	2.25	20.06	0	419.38
Advertisement as a percentage of sales	3.97	2.56	4.30	0	35.19
Capital investment as a percentage of sales	8.12	4.91	12.19	0	228.62
R&D percentage change	7.43	-0.22	65.85	-100	1958.29
Advertisement percentage change	4.29	-2.51	71.52	-100	1644.36
Capital investment percentage change	15.45	-1.15	126.78	-98.08	6939.61
Industry R&D as a percentage of sales	3.75	1.75	4.18	0	26.45
Industry advertisement as a percentage of sales	3.03	2.33	2.23	0	15.39
Industry capital investment as a percentage of sales	6.83	4.85	7.73	0.23	68.65
Industry R&D percentage change	6.24	5.19	42.27	-100	456.19
Industry Advertisement percentage change	10.84	-2.49	77.12	-97.33	809.02
Industry Capital investment percentage change	-1.25	-2.31	18.93	-52.27	119.97
Tobin's Q	1.75	1.27	1.65	0.04	32.07
Market to book ratio	3.56	2.38	14.82	-277.85	678.13
Firm size: log of market value	7.31	7.18	1.58	-5.02	13.13
Firm size: log of total assets	7.28	7.13	1.42	2.81	12.98
Leverage	0.23	0.22	0.17	0	1.62
Free cash flow	0.03	0.03	0.08	-0.92	0.75
Asset in place	0.78	0.76	0.36	0.01	3.46
Distance from earnings target before R&D	0.46	0.28	10.02	-149.40	291.15
Return on assets	5.19	5.55	8.87	-135.03	57.47
Return to shareholders	17.48	10.67	52.44	-98.90	1772.63
Changes in sales	11.77	8.10	25.83	-81.79	711.01

Note: Compensation data are obtained from Compustat ExecuComp and financial data are from Compustat Industrial Annual. The descriptions and sources of data are presented in Table 1. The negative value of R&D/sales, advertisement/sales or capital expenditure/sales comes from either negative value of R&D, advertisement or capital expenditure investment, or negative value of sales.

Table 3. Correlations Among Variables

Panel A: Pairwise correlations of R&D/sales, advertisement/sales, and capital expenditure/sales with explanatory variables (\* denote the significance at the 5% level).

	rdint	advint	capint	lagIntdc	lagInvso	age	tenure	intloc	shrownpc	ceochg	lagtobin
rdint	1.0000										
advint	0.8941*	1.0000									
capint	0.6663*	0.6203*	1.0000								
lagIntdc	-0.076*	-0.0426	-0.071*	1.0000							
lagInvso	-0.0081	0.0508*	0.0296*	0.3661*	1.0000						
age	-0.036*	-0.0175	-0.0191	0.1194*	-0.038*	1.0000					
tenure	-0.0200	-0.0142	-0.0106	0.0587*	0.0601*	0.4048*	1.0000				
intloc	0.0237	-0.0086	0.0260*	-0.079*	-0.0205	0.1095*	0.1279*	1.0000			
shrownpc	-0.0196	-0.0106	-0.0097	-0.100*	-0.132*	0.1686*	0.3099*	0.1529*	1.0000		
ceochg	-0.0049	-0.0029	-0.0023	-0.0036	-0.0217	-0.0342*	-0.133*	-0.0386*	-0.0251*	1.0000	
lagtobin	0.0203*	0.0403*	0.0040	-0.069*	0.1463*	-0.1047*	0.0152	0.0093	0.0220	-0.0044	1.0000
mtb	0.0025	0.0077	0.0005	-0.0130	0.0860*	-0.0433*	-0.0095	-0.0092	-0.0043	-0.0007	0.0049
lnmrkval	-0.0071	-0.0031	-0.0059	0.4715*	0.5527*	0.0697*	-0.0069	-0.0438*	-0.0099	0.1345*	-0.023*
lnasset	-0.031*	-0.022*	-0.0036	0.5047*	0.3704*	0.1457*	-0.054*	-0.0548*	-0.0685*	0.1175*	-0.085*
leverage	0.0005	0.0006	0.0002	0.0674*	-0.029*	0.0278*	-0.078*	-0.0437*	-0.0913*	-0.0007	0.3321*
asinplc	-0.017*	-0.026*	-0.0001	-0.029*	-0.292*	0.1151*	-0.042*	-0.0480*	-0.0059	0.0010	0.0042
lagfcf	-0.013*	-0.0108	-0.0076	0.1307*	0.0611*	0.0585*	-0.0032	-0.0378*	0.0145	0.0072	-0.131*
lagroa	-0.276*	-0.098*	-0.113*	0.1136*	0.1164*	0.0816*	0.0933*	0.0198*	0.0876*	-0.042*	-0.0080
lagroe	0.0011	-0.0028	-0.0045	0.0096	0.0158	0.0272*	-0.0059	-0.0038	-0.0069	-0.0003	0.0007
lagret	-0.0018	0.0035	0.0064	0.0070	0.0308*	-0.0145	-0.0024	-0.0039	-0.0086	-0.0068	0.0443*
distrd	-0.0009	-0.0044	-0.0013	0.0256	-0.0005	0.0629*	0.0137	0.0252	0.0320	0.0015	-0.0073
distad	-0.049*	-0.066*	-0.022*	0.0084	-0.0190	0.0474	0.0060	-0.0007	0.0165	0.0018	-0.136*

	mtb	lnmrkval	lnasset	leverage	asinplc	lagfcf	lagroa	lagroe	lagret	distrd	distad
mtb	1.0000										
lnmrkval	0.0040	1.0000									
lnasset	-0.013*	0.8404*	1.0000								
leverage	-0.0005	-0.0332*	-0.023*	1.0000							
asinplc	-0.0005	-0.0202*	-0.024*	0.0304*	1.0000						
lagfcf	-0.0004	0.0384*	0.0655*	-0.043*	0.0050	1.0000					
lagroa	0.0331*	0.2223*	0.0901*	-0.162*	-0.0178	0.2604*	1.0000				
lagroe	-0.032*	0.0068	0.0025	0.0014	-0.0029	0.0158	0.1124*	1.0000			
lagret	0.0053	-0.0040	-0.0031	0.0146	-0.021*	-0.0095	0.0319*	0.0054	1.0000		
distrd	-0.0007	0.0149*	0.0103	0.0017	0.0177*	0.0038	-0.033*	-0.015	-0.017	1.0000	
distad	-0.0016	-0.0055	0.0180*	0.0017	0.0193*	0.0459*	-0.079*	-0.008	-0.015	0.1233*	1.0000

Note: Compensation data are obtained from Compustat ExecuComp and financial data are from Compustat Industrial Annual. The descriptions and sources of data are presented in Table 1.

Table 4. Determinants on firm's R&D/sales, Advertisement/sales, and Capital Expenditure/sales

	R&D/sales			Advertisement/sales			Capital Expenditure/sales		
	OLS	Robust	Fixed effect	OLS	Robust	Fixed effect	OLS	Robust	Fixed effect
Lag R&D/sales	0.843*** (131.99)	0.8382*** (151.764)	0.841*** (73.957)						
Lag advertisement / sales				0.666*** (34.064)	0.629*** (28.937)	0.646*** (22.946)			
Lag capital expenditure/sales							0.620*** (120.63)	0.399*** (207.07)	0.6376*** (84.310)
Industry R&D/sales	0.0043* (2.004)	0.0007 (0.891)	0.150*** (13.044)						
Industry advertisement / sales				.0394 (0.935)	.0253** (2.196)	.1089* (1.672)			
Industry capital expenditure/sales							0.0013* (2.443)	0.0010** (2.847)	0.0080*** (5.585)
Previous cash compensation	0.0087 (0.959)	0.0027 (0.770)	0.0065 (0.502)	0.0113 (1.862)	0.0128* (2.277)	0.0100 (1.379)	0.014** (2.999)	0.0055 (1.643)	0.0229*** (3.836)
Previous holdings of stock options	0.038*** (6.223)	0.010*** (4.246)	0.103*** (10.013)	0.022*** (5.606)	0.019*** (5.392)	0.03*** (4.979)	0.034*** (12.051)	0.021*** (10.468)	0.0641*** (14.659)
CEO's age	0.0017 (1.511)	0.0006 (1.395)	0.0029 (1.184)	-0.002* (-2.383)	-0.002* (-2.381)	0.0001 (0.035)	-0.0001 (-0.112)	-0.0002 (-0.478)	0.0013 (1.170)
CEO's tenure	-0.0002 (-0.198)	-0.0002 (-0.601)	-0.0009 (-0.414)	-0.0001 (-0.101)	-0.0003 (-0.457)	-0.0019 (-1.187)	-0.0006 (-1.176)	-0.0004 (-1.001)	-0.005*** (-4.633)
Interlock relationship	-0.0005 (-0.019)	0.0032 (0.297)	-0.0229 (-0.433)	-0.0006 (-0.034)	0.0059 (0.350)	0.0115 (0.362)	-0.0084 (-0.615)	-0.0076 (-0.800)	0.0001 (0.003)
CEO's share ownership	0.0013 (0.667)	0.0005 (0.641)	-0.0026 (-0.361)	0.0014 (1.161)	0.0009 (0.825)	-0.0050 (-1.391)	0.003*** (3.355)	0.0009 (1.770)	0.0015 (0.760)
G index	0.0030 (1.140)	0.0001 (0.126)	0.0226 (1.534)	-0.0024 (-1.348)	-0.0019 (-1.179)	-0.0001 (-0.014)	.1245* (1.902)	.0799** (12.953)	-.0506 (-0.094)
Tobin's Q	-0.015** (-2.612)	-0.0047* (-2.098)	-0.05*** (-4.008)	-0.0048 (-1.156)	-0.0028 (-0.727)	-0.0141 (-1.869)	-0.021*** (-5.991)	-0.009*** (-3.821)	0.3073*** (21.787)
Size (log of assets)	-0.0162* (-2.486)	-0.0044 (-1.752)	0.0662 (1.945)	-0.014*** (-3.335)	-0.014*** (-3.628)	0.149*** (6.534)	0.121*** (5.013)	0.089*** (5.334)	0.1232** (2.663)
Leverage	0.1224* (2.397)	-0.0104 (-0.528)	0.401*** (3.785)	0.0226 (0.795)	0.0215 (0.817)	0.1076 (1.891)	-0.0209 (-1.763)	-0.0134 (-1.633)	0.2232*** (5.922)
Asset in place	0.0441 (1.715)	-0.0014 (-0.139)	0.1402 (1.639)	0.0307 (1.912)	0.0241 (1.621)	0.1525* (2.559)	0.0609 (1.253)	0.0422 (1.257)	0.1523* (2.476)
Lag free cash flow	0.0698 (0.774)	-0.0676 (-1.950)	0.1585 (1.171)	0.0691 (1.098)	0.0402 (0.690)	0.1495 (1.753)	-0.0002* (-2.289)	-0.0001 (-1.280)	-0.0003*** (-3.477)
Lag return on assets	-0.0001 (-1.004)	-0.0002*** (-3.513)	-0.0004* (-2.526)	-0.0000 (-0.068)	-0.0000 (-0.422)	-0.0000 (-0.308)	-0.0002* (-2.289)	-0.0001 (-1.280)	-0.0003*** (-3.477)
Distance from earnings target before R&D	-0.0010 (-1.634)	-0.0001 (-0.406)	-0.0013 (-1.607)						
Distance from earnings target before adv				-0.0004 (-1.060)	-0.0004 (-1.059)	-0.0001 (-0.179)			
Adjusted R <sup>2</sup>	0.889		0.6932	0.5346		0.2910	0.7720		0.1491
F-test	15.93	695.11	885.07	77.75	56.76	47.27	62.70	15.15	13.01
Numbers of observations	768	767	768	399	397	399	1680	1678	1680

Note: The descriptions and sources of data are presented in Table 1. t-statistics are in parenthesis, \* and \*\* denote the significance at the 10% and 5% level, respectively.

Table 5. Determinants on Changes of R&D, Advertisement, and Capital Expenditure

	Change in R&D			Change in advertisement			Change in Capital Expenditure		
	OLS	Robust	Fixed effect	Robust	Fixed effect	Additional specification	OLS	Robust	Fixed effect
Lag change in R&D investments	-.0105 (-0.299)	-.0337** (-2.809)	-.2451** (-6.322)						
Lag change in advertisement investment				-0.014* (-1.98)	-0.0241 (-1.428)	-0.039** (-4.582)			
Lag change in capital investment							-.072** (-2.527)	0.0017 (0.672)	-0.29** (-7.288)
Industry change in R&D investments	.0009 (0.129)	.0009 (0.374)	0.0022 (0.244)						
Industry change in advertisement investment				0.0752 (1.278)	0.0002 (0.003)	0.068* (1.658)			
Industry change in capital investment							1.054* (1.766)	.501** (9.108)	1.116 (1.401)
Change in cash compensation	2.3481 (0.803)	.0675 (0.068)	0.3864 (0.115)	-2.6247 (-1.43)	18.511** (1.207)	1.044 (0.547)	-2.018 (-0.173)	-.142 (-0.132)	0.9961 (0.072)
Change in holding of stock options	6.973** (2.795)	1.0488 (1.230)	2.3378 (0.818)	-1.353 (-0.57)	3.2143 (0.643)	3.485* (1.771)	-6.108 (-0.536)	2.103** (2.004)	-15.87 (-1.012)
CEO's age	-.3272 (-0.826)	-.3049** (-2.265)	-0.3591 (-0.079)	0.1613 (0.449)	dropped		-1.134 (-0.653)	-0.016 (-0.102)	-36.907 (-1.6)
CEO's tenure	-.1789 (-0.440)	-.1157 (-0.837)	-3.6659 (-1.614)	-0.271 (-0.653)	-5.596 (-1.168)	-1.179 (-1.569)	.6483 (0.326)	-.320* (-1.749)	37.82** (3.204)
Interlock relationship	1.4732 (0.177)	5.4387* (1.924)	5.8391 (0.345)	7.5235 (0.957)	69.31912 (1.478)		-14.127 (-0.350)	-1.244 (-0.335)	9.5915 (0.093)
CEO's share ownership	.5823 (1.437)	.1380 (1.001)	-0.4131 (-0.344)	0.0077 (0.016)	7.6299 (0.773)	0.249 (0.261)	.3362 (0.173)	-0.170 (-0.954)	-5.581 (-0.841)
CEO changes	-10.826 (-0.541)	-8.162 (-1.201)	6.8585 (0.298)	-15.865 (-0.82)	3.2052 (0.061)		-2.738 (0.876)	2.465 (0.273)	-67.047 (-0.456)
Tobin's Q	4.1650** (4.910)	1.9919** (6.844)	1.1370 (0.495)	0.7555 (0.936)	4.329 (1.190)		4.3575 (0.876)	2.061** (4.496)	11.018 (0.684)
Size (log of assets)	3.4756 (1.341)	-1.7061* (-1.932)	-15.973 (-1.28)	2.1338 (1.027)	28.046 (0.798)	2.443 (0.311)	-32.5** (-2.941)	.6618 (0.647)	-278** (-4.592)
Leverage	-9.9784 (-0.059)	13.483** (2.399)	65.2365* (1.852)	-3.210 (-0.2)	-2.955 (-0.034)	0.371 (0.016)	15.545 (0.209)	-1.542 (-1.225)	315.56* (1.661)
Asset in place	-23.85** (-2.606)	-10.57** (-3.396)	-81.35** (-2.539)	1.2409 (0.116)	-28.141 (-0.215)	-2.935 (-0.122)	-22.775 (-0.623)	8.646** (2.569)	-19.374 (-0.122)
Lag free cash flow	-8.8233 (-0.675)	-7.6884 (-1.716)	46.498** (2.773)	-17.98 (-0.97)	36.090 (0.757)	6.119 (0.731)	51.234 (1.47)	22.732** (7.080)	89.766 (1.517)
Lag return on assets	.3940 (1.643)	.6671** (8.140)	-0.1503 (-0.436)	0.2639 (0.646)	-1.235 (-0.852)	-0.153 (-0.544)	-5.32** (-4.312)	.4782** (4.18)	-6.53** (-2.543)
Distance from earnings target before R&D	-6.476** (-20.901)	-1.1066 (-0.801)	-4.274** (-8.006)						
Distance from earnings target before advertisement				1.1518 (1.607)	-1.228 (-0.552)	0.118 (1.647)			
Change in sales	.0217** (2.049)	.1757** (22.121)	0.0124 (1.228)	0.5244 (4.209)	.5151 (1.233)	1.174 (13.578)	-.004** (3.044)	.685** (102.6)	-0.038 (-0.44)
Adjusted R <sup>2</sup>	0.4595		0.2442			0.4020	0.015		0.08
F-test	37.26	46.14	8.65	6.16		16.29	2.54	704.26	5.85
Numbers of obs.	726	726	726	123	123	567	1611	1610	1611

Note: The descriptions and sources of data are presented in Table 1. t-statistics are in parenthesis, \* and \*\* denote the significance at the 10% and 5% level, respectively. Due to the small number of the observations in the advertisement change model, I drop some insignificant variables, namely, the change of CEO, interlock, and age variables. The numbers of observations of the additional specification model expands from 123 to 576.

Table 6. Descriptive Statistics of CEO Changes (R&D/sales, Capital Expenditure/sales, and Advertisement/sales)  
 Panel A: Descriptive Statistics of CEO Changes and R&D and Advertisement Intensities

SIC Code	Industry	R&D/Sales (%)	Number of firms in industry	Number of firms that change CEO	SIC Code	Industry	Advertisement/Sales (%)	Number of firms in industry	Number of firms that change CEO
28	Chemicals and allied products	6.74	618	15	81	Legal services	9.71	2	0
38	Instruments and related products	6.25	563	7	39	Miscellaneous manufacturing industries	6.78	109	3
36	Electronic and other equipment	5.92	650	14	20	Food and kindred products	3.91	203	4
73	Business Services	5.16	1032	15	21	Tobacco manufactures	2.86	13	0
35	Industrial machinery and equipment	5.09	579	12	57	Furniture, home furnishings and equipment stores	2.81	47	1
99		4.29	112	2	58	Eating and drinking places	2.77	161	6
37	Transportation equipment	3.72	190	6	34	Fabricated metal products	2.67	137	5
39	Miscellaneous manufacturing industries	2.42	109	3	23	Apparel and other textile products	2.59	85	2
1	Agricultural production: crops	2.06	20	1	78	Motion pictures	2.49	80	0
48	Communications	1.55	366	4	30	Rubber and miscellaneous plastics products	2.42	112	2
30	Rubber and miscellaneous plastic products	1.31	112	2	27	Printing and publishing	2.27	126	7
25	Furniture and fixtures	1.22	51	1	59	Miscellaneous retail	2.24	169	2
34	Fabricated metal products	0.95	137	5	28	Chemicals and allied products	1.93	618	15
82	Educational services	0.94	25	1	31	Leather and leather products	1.85	24	0
87	Engineering and management services	0.93	169	1	53	General merchandise stores	1.56	61	5
33	Primary metal industries	0.88	135	2	38	Instruments and related products	1.41	563	7
13	Oil and gas extraction	0.78	335	6	44	Water transportation	1.38	30	1
32	Stone, clay, and glass products	0.77	59	1	75	Automotive repair, services, and parking	1.38	21	0
10	Metal mining	0.68	133	1	76	Miscellaneous repair services	1.12	13	0
29	Petroleum and coal products	0.59	55	2	67	Holding and other investment offices	1.03	372	1
20	Food and kindred products	0.59	203	4	56	Apparel and accessory stores	1.03	68	5
14	Nonmetallic minerals, except fuels	0.45	27	0	45	Transportation by air	0.94	66	3
26	Paper and allied products	0.45	97	5	72	Personal services	0.94	25	1
21	Tobacco products	0.42	13	0	79	Amusement and recreational services	0.89	117	3
22	Textile mill products	0.30	55	3	52	Building materials	0.87	26	0
78	Motion pictures	0.26	80	0	36	Electrical and electronic equipment	0.80	650	14
24	Lumber and wood products	0.25	49	1	48	Communications	0.70	366	4
67	Holding and other investment offices	0.23	372	1	37	Transportation equipment	0.67	190	6
16	Heavy construction, except building	0.18	31	0	7	Agricultural services	0.66	5	0

76	Miscellaneous repair services	0.18	13	0	35	Industrial machinery and equipment	0.64	579	12
27	Printing and publishing	0.15	126	7	73	Business services	0.57	1032	15
23	Apparel and other textile products	0.13	85	2	25	Furniture and fixtures	0.48	51	1
64	Insurance agents, brokers, and services	0.10	49	2	22	Textile mill products	0.48	55	3
80	Health services	0.09	197	5	55	Automotive dealers and gasoline service stations	0.42	33	1
70	Hotels	0.07	52	2	82	Educational services	0.36	25	1
31	Leather and leather products	0.07	24	0	54	Food stores	0.35	66	2
42	Wholesale Trade	0.05	65	1	70	Hotels	0.34	52	2
79	Amusement and recreation services	0.04	117	3	62	Security, commodity brokers, and services	0.24	102	0
52	Building materials and garden supplies	0.04	26	0	99		0.19	112	2
62	Security and commodity brokers	0.03	102	0	65	Real estate	0.18	118	0
51	Wholesale trade: nondurable goods	0.03	151	1	26	Paper and allied products	0.18	97	5
50	Wholesale trade: durable goods	0.03	252	4	17	Special trade contractors	0.18	28	1
58	Eating and drinking places	0.03	161	6	32	Stone, clay, glass, and concrete products	0.17	59	1
83	Social services	0.02	29	1	87	Engineering and management services	0.14	169	1
72	Personal services	0.01	25	1	83	Social services	0.11	29	1
17	Special trade contractors	0.01	28	1	15	General building contractors	0.11	60	2
49	Electric, gas, and sanitary services	0.01	317	18	1	Agricultural production- crops	0.08	20	1
59	Miscellaneous retail	0.00	169	2	33	Primary metal industries	0.08	135	2
63	Insurance carriers	0.00	284	6	61	Nondepository credit institutions	0.05	157	2
65	Real estate	0.00	118	0	50	Wholesale trade--durable goods	0.04	252	4
47	Transportation services	0.00	29	0	51	Wholesale trade--nondurable goods	0.03	151	1
54	Food stores	0.00	66	2	63	Insurance carriers	0.03	284	6
61	Nondepository credit institutions	0.00	157	2	80	Health services	0.03	197	5
75	Automotive repair, services, and parking	0.00	21	0	64	Insurance agents, brokers, and service	0.02	49	2
15	General building contractors	0.00	60	2	29	Petroleum and coal products	0.02	55	2
45	Transportation by air	0.00	66	3	14	Nonmetallic minerals, except fuels	0.01	27	0
60	Depository institutions	0.00	866	13	60	Depository institutions	0.01	866	13
	14 industries with zero R&D	0.00	306	16		14 industries with zero advertisement exp	0.00	1019	30
	Total	1.96	10038	215		Total	0.80	10338	215

Table 7. Effect of Changing CEO on Investment: Percentage Change in Investment After the Changes in CEO

Panel A: R&D investment:

	Window Length		
	(-1, 1)	(-1, 2)	(-1, 3)
Number of firms	627	480	385
Simple percentage change	.1755** (2.7690)	.1906** (2.9662)	.2119** (3.7022)
Market-adjusted	.1410** (2.2261)	.1304** (2.0241)	.1375** (2.4107)
Industry-adjusted	.0954 (1.4123)	-.2826 (-1.1781)	-.0855 (-0.4939)

Note: t-statistics in parenthesis, \* and \*\* denote the significance at the 10% and 5% level, respectively.

Panel B: Advertisement Investment:

	Window Length		
	(-1, 1)	(-1, 2)	(-1, 3)
Number of firms	297	215	161
Simple percentage change	.3103 (1.4539)	.3875* (1.9342)	.2552* (1.7841)
Market-adjusted	.3397 (1.5887)	.4389** (2.1874)	.3623** (2.5117)
Industry-adjusted	.2374 (1.1005)	.2306 (1.0758)	.05038 (0.2811)

Note: t-statistics in parenthesis, \* and \*\* denote the significance at the 10% and 5% level, respectively.

Panel C: Capital expenditure:

	Window Length		
	(-1, 1)	(-1, 2)	(-1, 3)
Number of firms	1398	1091	859
Simple percentage change	.5482** (2.4601)	.6099** (2.3056)	1.0738** (2.1121)
Market-adjusted	.5383** (2.4160)	.5855** (2.2129)	1.0339** (2.0333)
Industry-adjusted	.5145** (2.3034)	.5435** (2.0394)	.9958* (1.9523)

Note: t-statistics in parenthesis, \* and \*\* denote the significance at the 10% and 5% level, respectively.

Table 8. Other Managerial Incentives Effects on New CEO Investment Behavior

Panel A. VSOPC, TDCPC, and CEO ages' effects on new CEO R&D investment behavior

Event window	Percentage change	VSOPC			TDCPC			AGE		
		Low previous year VSOPC	High previous year VSOPC	Difference	Low previous year TDCPC	High previous year TDCPC	Difference	Low current year age	High current year age	Difference
(-1, 1)	Simple percentage change	.0357** (2.05) (168)	.2474** (2.32) (281)	-.2116* (-1.87)	.2157** (2.07) (281)	.0759 (1.40) (206)	.1398 (1.19)	.1021 (1.14) (117)	.1086* (1.74) (136)	-.0065 (-0.05)
	Market-adjusted change	.0098 (0.26) (168)	.2235** (2.10) (281)	-.2137* (-1.89)	.1901* (1.83) (281)	.0512 (0.94) (206)	.1390 (1.18)	.0753* (0.84) (117)	.0870 (1.39) (138)	-.0115 (-0.10)
	Industry-adjusted change	-.0022 (-0.04) (168)	.1536 (1.34) (281)	-.1558 (-1.22)	.1705* (1.66) (281)	-.0495 (-0.55) (206)	.2200 (1.61)	-.0198 (-0.17) (117)	.0731 (1.19) (138)	-.0928 (-0.72)
(-1, 2)	Simple percentage change	.1680 ** (2.69) (178)	.2691 ** (2.06) (218)	-.1010 (-0.69)	.2685* (1.93) (204)	.1562** (2.72) (204)	.1122 (0.74)	.4903 (1.53) (83)	.1636** (2.06) (127)	.3267 (0.99)
	Market-adjusted change	.1158* (1.85) (178)	.2149 (1.64) (218)	-.0990 (-0.68)	.2188 (1.57) (204)	.0999* (1.73) (204)	.1189 (0.79)	.4489 (1.40) (83)	.0975 (1.23) (127)	.3513 (1.06)
	Industry-adjusted change	-.5122 (-1.13) (178)	-.1733 (-0.45) (218)	-.3388 (-0.57)	.1720 (1.24) (204)	-.8183 (-1.50) (204)	.9904 * (1.76)	.2177 (0.59) (83)	-.0542 (-0.40) (127)	.2719 (0.69)
(-1, 3)	Simple percentage change	.2590** (2.60) (160)	.1896** (2.45) (191)	.0694 (0.55)	.1503 ** (1.99) (197)	.2959** (3.16) (170)	-.1455 (-1.21)	.0204 (0.22) (59)	.2648 ** (2.26) (116)	-.2443 (-1.63)
	Market-adjusted change	.1951* (1.96) (160)	.1112 (1.44) (191)	.0838 (0.66)	.0719 (0.96) (197)	.2249** (2.40) (170)	-.1529 (-1.28)	-.0369 (-0.40) (59)	.1960* (1.68) (116)	-.2329 (-1.57)
	Industry-adjusted change	-.2139 (-0.54) (160)	.0062 (0.05) (191)	-.2201 (-0.53)	.0392 (0.52) (197)	-.2488 (-0.65) (170)	-.1529 (-1.27)	-1.1292 (-1.08) (59)	.0395 (0.23) (116)	-1.1687 (-1.11)

Note: TDCPC is calculated as the percentage of total salary and bonus to the total compensation. VSOPC is calculated based on CEO's unexercised exercisable options (inmonex), unexercised unexercisable options (inmonun), and value of stock options grants (blk\_valu) as a percentage of total salary and bonus. Differences are based on unpaired unequal variance t-test, t-statistics and numbers of firms are in parenthesis, \* and \*\* denote the significance at the 10% and 5% level, respectively.

Panel B. VSO, TDC, and CEO ages' effects on new CEO advertisement investment behavior

Event window	Percentage change	VSOPC			TDCPC			AGE		
		Low previous year VSOPC	High previous year VSOPC	Difference	Low previous year TDCPC	High previous year TDCPC	Difference	Low current year age	High current year age	Difference
(-1, 1)	Simple percentage change	1.0496 (1.27) (76)	.0524 (0.97) (110)	.9971 (1.20)	.2094 (1.47) (123)	.7584 (0.97) (78)	-.5490 (-0.69)	.0989* (1.72) (75)	-.0144 (-0.41) (52)	.1134* (1.68)
	Market-adjusted change	1.1003 (1.33) (76)	.0841 (1.45) (110)	1.0162 (1.23)	.2513* (1.74) (123)	.7956 (1.02) (78)	-.5443 (-0.68)	.1150* (1.91) (75)	.0272 (0.64) (52)	.0878 (1.19)
	Industry-adjusted change	.9198 (1.10) (76)	-.0436 (-0.58) (110)	.9634 (1.15)	.0384 (0.25) (123)	.7673 (0.97) (78)	-.7288 (-0.91)	-.1117 (-1.05) (75)	-.0034 (-0.05) (52)	-.1083 (-0.85)
(-1, 2)	Simple percentage change	.7310 (1.41) (77)	.2584 (1.30) (81)	.4725 (0.85)	.1831 (0.99) (87)	.7616 (1.53) (80)	-.5784 (-1.09)	.3194* (1.95) (47)	.0423 (0.85) (53)	.2771 (1.62)
	Market-adjusted change	.8055 (1.56) (77)	.3250 (1.62) (81)	.4805 (0.87)	.2647 (1.41) (87)	.8156 (1.64) (80)	-.5509 (-1.04)	.3487** (2.09) (47)	.1127** (2.24) (53)	.2359 (1.35)
	Industry-adjusted change	.6915 (1.32) (77)	-.0787 (-0.29) (81)	.7703 (1.31)	-.0015 (-0.006) (87)	.5727 (1.12) (80)	-.5742 (-1.01)	-.1812 (-0.53) (47)	.0213 (0.33) (53)	-.2027 (-0.58)
(-1, 3)	Simple percentage change	.3150 (1.10) (77)	.1338* (1.78) (68)	.1811 (0.61)	.0675 (1.37) (75)	.4434 (1.58) (81)	-.3758 (-1.32)	.2118** (2.74) (32)	.1265 (1.36) (41)	.0852 (0.70)
	Market-adjusted change	.4127 (1.43) (77)	.2383** (3.08) (68)	.1743 (0.58)	.1891** (3.53) (75)	.5296* (1.88) (81)	-.3405 (-1.18)	.2631** (3.47) (32)	.2365** (2.49) (41)	.0265 (0.21)
	Industry-adjusted change	.0560 (0.16) (77)	-.0492 (-0.28) (68)	.1052 (-0.27)	-.0090 (-0.10) (75)	.1211 (0.34) (81)	-.1301 (-0.36)	-.3404 (-0.98) (32)	.0591 (0.60) (41)	-.3995 (-1.11)

Note: TDCPC is calculated as the percentage of total salary and bonus to the total compensation. VSOPC is calculated based on CEO's unexercised exercisable options (inmonex), unexercised unexercisable options (inmonun), and value of stock options grants (blk\_valu) as a percentage of total salary and bonus. Differences are based on unpaired unequal variance t-test, t-statistics and numbers of firms are in parenthesis, \* and \*\* denote the significance at the 10% and 5% level, respectively.

Panel C. VSO, TDC, and CEO ages' effects on new CEO capital expenditure investment behavior

Event window	Percentage change	VSOPC			TDCPC			AGE		
		Low previous year VSOPC	High previous year VSOPC	Difference	Low previous year TDCPC	High previous year TDCPC	Difference	Low current year age	High current year age	Difference
(-1, 1)	Simple percentage change	.1737** (2.00) (486)	.1929** (4.37) (520)	-.0191 (-0.19)	.1647** (3.35) (576)	.1912** (2.44) (503)	-.0264 (-0.28)	.2170** (2.79) (299)	.5876 (1.20) (290)	-.3705 (-0.74)
	Market-adjusted change	.1636* (1.88) (486)	.1780** (4.02) (520)	-.0143 (-0.14)	.1499** (3.04) (576)	.1815** (2.32) (503)	-.0315 (-0.34)	.2233** (2.88) (299)	.5779 (1.18) (290)	-.3546 (-0.71)
	Industry-adjusted change	.1794** (2.06) (485)	.1048* (1.61) (520)	.0746 (0.69)	.0872 (1.33) (576)	.1993** (2.55) (502)	-.1120 (-1.10)	.2233** (2.89) (299)	.5586 (1.14) (290)	-.3352 (-0.67)
(-1, 2)	Simple percentage change	.1541** (3.53) (473)	.3699** (4.05) (408)	-.2158** (-2.13)	.3423** (3.88) (419)	.3251** (3.80) (506)	.0172 (0.14)	.6081** (3.18) (212)	.4363** (2.66) (274)	.1718 (0.68)
	Market-adjusted change	.1244** (2.84) (473)	.3423** (3.76) (408)	-.2178** (-2.15)	.3127** (3.55) (419)	.2958** (3.47) (506)	.0169 (0.14)	.5982** (3.14) (212)	.4103** (2.50) (274)	.1879 (0.74)
	Industry-adjusted change	.1362** (3.22) (472)	.2271* (1.90) (407)	-.0908 (-0.71)	.2832** (3.22) (418)	.2340** (2.22) (505)	.0491 (0.35)	.5610** (2.97) (212)	.4161** (2.54) (274)	.1449 (0.58)
(-1, 3)	Simple percentage change	.2177** (3.04) (419)	1.0391** (3.03) (362)	-.8213** (-2.34)	.3945** (5.62) (408)	.7722** (2.56) (415)	-.3777 (-1.22)	.5659** (2.56) (148)	1.010** (2.03) (238)	-.4441 (-0.82)
	Market-adjusted change	.1768** (2.47) (419)	.9991** (2.91) (362)	-.8222** (-2.35)	.3536** (5.04) (408)	.7339** (2.44) (415)	-.3803 (-1.23)	.5240** (2.38) (148)	.9692* (1.95) (238)	-.4452 (-0.82)
	Industry-adjusted change	.1297 (1.46) (418)	.9703** (2.83) (361)	-.8406 (-2.37)	.3149** (4.59) (406)	.6876** (2.24) (415)	-.3726 (-1.18)	.4823** (2.24) (148)	.9878** (1.98) (237)	-.5054 (-0.93)

Note: TDCPC is calculated as the percentage of total salary and bonus to the total compensation. VSOPC is calculated based on CEO's unexercised exercisable options (inmonex), unexercised unexercisable options (inmonun), and value of stock options grants (blk\_valu) as a percentage of total salary and bonus. Differences are based on unpaired unequal variance t-test, t-statistics and numbers of firms are in parenthesis, \* and \*\* denote the significance at the 10% and 5% level, respectively.

# **CHEATING ON TAXES: A COMPARATIVE STUDY OF OPINION IN SIX LATIN AMERICAN COUNTRIES AND THE USA**

**Robert W. McGee**  
**Florida International University**

**Wendy Gelman**  
**Florida International University**

## **ABSTRACT**

This paper reports on the results of an empirical study that examined the opinions of a wide range of individuals in six Latin American countries and the USA. Data was taken from a wider study that gathered information on human beliefs and values in 85 countries. The present study had a sample size of 8,465. The question posed was whether the respondent would cheat on taxes if it were possible to do so. Responses were on a ten-point Likert scale. Results are reported overall and also by gender, age, education level and religious observance.

## **INTRODUCTION**

Tax evasion has been in existence ever since governments started imposing taxes. There is a large body of literature in the economics and public finance literature that discusses and analyzes various aspects of tax evasion. Economists render opinions on the reasons for tax evasion and the methods and policies that governments can adopt to reduce it. There is even a theory of optimal tax evasion (Davidson, Martin & Wilson, 2005; Levaggi & Menoncin, 2007). Yet very few of these studies apply ethical theory in an attempt to determine when, and under what circumstances tax evasion might be ethical or unethical.

The present study does not take either of these approaches. It does not analyze tax evasion from the perspective of economics or public finance and it does not apply ethical theory to determine under what circumstances tax evasion might be considered ethical, although ethics is discussed. This study focuses on the attitudes toward tax evasion of a wide range of individuals in six Latin American countries as well as the United States. The main goals of the present study are to determine general attitudes toward the ethics of tax evasion and to determine whether certain demographic variables, including gender, age, level of education or religious observance have a significant effect on attitude toward the ethics of tax evasion.

## **REVIEW OF THE LITERATURE**

Although much has been written about tax evasion from the perspective of public finance, not many studies have focused on the ethical aspects of tax evasion. One of the most comprehensive early studies on the ethics of tax evasion was done by Martin Crowe (1944), a Catholic priest who surveyed the philosophical and religious (mostly Catholic)

literature that had been written over the previous five centuries. Crowe found that three basic positions had emerged over the centuries. Tax evasion was considered to be: never ethical, always ethical or ethical under certain facts and circumstances. McGee (2006b) expanded on this literature review.

More recent studies were done by Torgler (2003) and McGee (1994; 1998a). The Torgler study was mostly empirical but did not examine the philosophical and ethical literature in depth. The McGee studies examined the philosophical and ethical literature but did not conduct empirical investigations.

Although very few philosophical studies on the ethics of tax evasion have been made, the ones that have been done span all three viewpoints. Block (1989; 1993) surveyed the public finance literature but failed to find any adequate explanations or arguments to justify taxation. McGee (1994) applied Lysander Spooner's (1870) philosophy to the issue of tax evasion, which challenged the social contract theories of Hobbes (1651), Locke (1689) and Rousseau (1762).

At the other end of the spectrum, a few philosophical studies concluded that tax evasion is never justified. The literature of the Baha'i religion strictly prohibits tax evasion, the main argument being that individuals have a duty to obey the laws of the country in which they live (DeMerville 1998). A study of the Mormon religious literature reached the same conclusion and for the same reason (Smith & Kimball 1998).

Two philosophical studies of the ethics of tax evasion from a Jewish perspective (Cohn 1998; Tamari 1998) both concluded that tax evasion is never, or almost never ethical according to the Jewish literature. A third Jewish study, which was both philosophical and empirical in nature (McGee & Cohn 2008), found that, although the Jewish literature was firmly against tax evasion on ethical grounds, the Jews who were surveyed were more flexible on the issue. An empirical study of Mormon views (McGee & Smith 2006) found that many Mormons were also more flexible on the issue than their religious literature would suggest.

Several philosophical studies concluded that tax evasion could be ethical in certain situations. Pennock (1998) concluded that tax evasion was ethical in cases where the country collecting the taxes was engaged in an unjust war. Morales (1998) regarded a man's duty to feed his family was more important than feeding the state's coffers. Gronbacher (1998) and Schansberg (1998) concluded that the Catholic religious literature permits tax evasion in certain situations, a view that concurs with the Crowe (1944) study. Gronbacher's study (1998) of the Christian literature reached the same conclusion. Two Islamic scholars (Murtuza & Ghazanfer 1998) examined their religious literature and reported that Muslims have a duty to God to contribute to the poor. They did not address the issue of the relationship of the individual to the state and the corresponding duty to pay taxes. A survey of the Islamic business ethics literature by a non-Muslim scholar (McGee 1997, 1998b) found that tax evasion can be justified in cases where the effect of the tax is to increase prices or where the tax is on income.

A few empirical studies on the ethics of tax evasion have been conducted. Studies of Argentina (McGee & Rossi 2006), Armenia (McGee & Maranjyan 2006), Bosnia & Herzegovina (McGee, Basic & Tyler 2008), China (McGee & Guo 2006; McGee & Noronha 2008; McGee & An 2006), Germany (McGee, Nickerson & Fees 2005), Guatemala (McGee & Lingle 2005), Hong Kong (McGee & Butt, 2008; McGee & Ho 2006), Macau (McGee, Noronha & Tyler 2006), Poland (McGee & Bernal 2006),

Romania (McGee 2005a), Slovakia (McGee & Tusan 2006), Thailand (McGee 2006a), Ukraine (Nasadyuk & McGee 2006), philosophy teachers (McGee 2008a) and international business academics (McGee 2005b) asked respondents to give their opinion on the ethics of tax evasion in various specific situations, using a 7-point Likert Scale. All these studies concluded that tax evasion may be ethically justified in certain situations, although some arguments were stronger than others. The Torgler (2003) study reached the same conclusion, using a different methodology.

The various McGee et al. studies found that tax evasion is more likely to be viewed as justifiable if the tax system is perceived as being unfair, if the government abuses human rights, if tax funds wind up in the pockets of corrupt politicians, their friends or family or if tax rates are too high. Another reason found in these studies is that tax evasion can be justified if there is inability to pay. This finding corresponds closely with the Catholic theological literature on the topic (Crowe, 1944) and with a study of Mexican migrant workers (Morales, 1998). These studies also found that support for tax evasion is weak where individuals get something in return for their money.

A few studies have used the Inglehart et al. (2004) database to examine attitudes toward tax evasion for various subgroups. Torgler (2003) did it in his doctoral dissertation. McGee and Bose (2007) used it to compare attitudes of sample populations in Australia, New Zealand and the United States. The database was also used for studies of Vietnam (McGee, 2008b), several Asian countries (McGee, 2007) and a longitudinal study of ten transition economies (McGee, 2008c). All of these studies found that there is some support for tax evasion but that support is weak.

## **METHODOLOGY**

This study used the data that was compiled in a much larger and comprehensive study by Inglehart et al. (2004). The Inglehart study asked hundreds of questions to more than 200,000 people in 85 countries. One of those questions (F116) was on the ethics of tax evasion. The question asked whether the respondent would cheat on taxes if there were an opportunity to do so. Responses were tallied using a ten-point Likert scale where 1 represented never justifiable and 10 represented always justifiable.

Argentina, Chile, Mexico, Peru, Puerto Rico and Venezuela were the Latin American countries chosen for examination because they were the only Latin American countries for which Inglehart et al. gathered data. The USA was also chosen for comparison purposes.

One criticism that could be made of the methodology is that the data was gathered in face-to-face interviews. Data gathered in this manner may not be highly representative of the real views of the people being interviewed, since there may be a tendency to give the interviewer the response that is expected, deemed to be moral, or least embarrassing. A better approach would have been to collect the data anonymously. However, the Inglehart et al. study is widely respected and face-to-face interviewing is an accepted research methodology. Furthermore, several studies of tax evasion using the Inglehart et al. data have been published, making it possible to compare results. The present study fills a gap in the literature by examining data from Latin American countries.

## **FINDINGS**

If one were to summarize the findings of the present study in a single sentence, it would be that there is some support for tax evasion but that support is weak and varies by

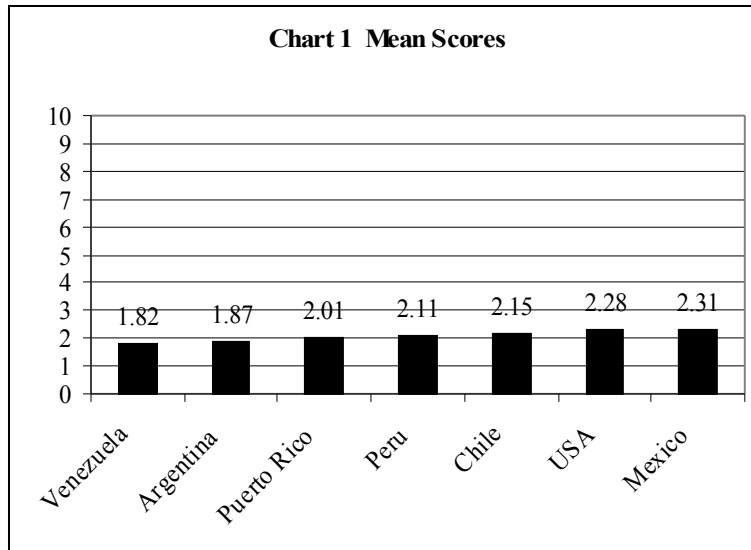
country, gender and age, but not by level of education and only occasionally by religious observance.

Table 1 lists the sample sizes and overall mean scores for each country. All of the mean scores were well below 2.5 which, on a scale of 1 to 10, indicates that there is not much support for evading taxes even when there is a possibility of doing so. This could be for a variety of reasons, including the threat of possible punishment, the perceived notion that there is some moral duty, either to God, to the state or to some segment of the taxpaying community. The Inglehart et al. (2004) study did not ask for reasons for the various responses, so one can only speculate about the reasons for the responses, although several studies have addressed this issue (McGee, 2006b; McGee & Cohn, 2008) and found that all of these reasons have been given from time to time as reasons for not evading taxes.

**Table 1**  
**Sample Size and Overall Mean Scores**  
**(1 = never justifiable; 10 = always justifiable)**

	Sample Size	Mean Score
Argentina	1270	1.87
Chile	1177	2.15
Mexico	1447	2.31
Peru	1473	2.11
Puerto Rico	706	2.01
USA	1198	2.28
Venezuela	1194	1.82
Total	8465	

Chart 1 compares the mean scores graphically and assembles them from lowest (never justifiable) to highest (always justifiable). The chart clearly shows that, although the mean scores are different, they are all rather low compared to the highest possible score of 10. The Venezuela sample was most likely to hold that tax evasion is never justifiable. Mexicans were most likely to view tax evasion as justifiable, although a mean score of only 2.31 indicates that there is not much support for this proposition even in Mexico.



## **GENDER**

Numerous studies have compared male and female attitudes and opinions on a variety of ethical issues. Some studies have concluded that females are more ethical than males (Boyd 1981; Dawson 1997; Ruegger & King 1992) while other studies have concluded just the opposite (Barnett & Karson 1987; Weeks, Moore, McKinney & Longenecker 1999). A third group of studies found no statistical difference between male and female attitudes (Loo 2003; Posner & Schmidt 1984; Stanga & Turpen 1991).

A few studies have explored male and female attitudes toward the ethics of tax evasion. Women were found to be more strongly opposed than men to tax evasion in studies of Guatemala (McGee & Lingle 2005), Hong Kong (McGee & Butt 2006, Hubei, China (McGee & Guo 2006), international business professors (McGee 2005b), Orthodox Jews (McGee & Cohn 2008), Spain (Alm & Torgler 2004), Thailand (McGee 2006) and U.S. business students in Utah (McGee & Smith 2006). Men were found to be more opposed to tax evasion in studies of Romania (McGee 2005a) and Slovakia (McGee & Tusan 2006).

The views of men and women toward the ethics of tax evasion were found to be the same in studies of Argentina (McGee & Rossi 2006), Beijing, China (McGee & An 2006), Guangzhou, China (McGee & Noronha 2008), Hong Kong (McGee & Ho 2006), Macau (McGee, Noronha & Tyler 2006), Poland (McGee & Bernal 2006) and Ukraine (Nasadyuk & McGee 2006).

Table 2 shows the results of the present study, based on gender. Male scores were higher for all six countries, indicating that men are less opposed to evading taxes than are women. However, Wilcoxon tests found the differences to be significant only in three cases – Argentina, Peru and the USA.

It would be premature to conclude from these findings that women are more ethical than men, however. In order to reach that conclusion one must begin with the premise that tax evasion is unethical, which might not be the case. The various studies cited above have shown that a significant portion of various populations believe that tax evasion is morally justified in certain cases. Some of the religious literature also supports this view (Crowe, 1944; Gronbacher, 1998; McGee, 1994, 1997, 1998a&b; Pennock,

1998; Schansberg, 1998), although the religious literature of Judaism (Cohn, 1998; Tamari, 1998), the Church of Jesus Christ of Latter-Day Saints (Smith & Kimball, 1998) and the Baha'i religion (DeMoville, 1998) do not. All that one may conclude from the present findings is that women tend to be more opposed to evading taxes than are men in Argentina, Peru and the USA.

**Table 2**  
**Gender Mean Scores**  
**(1 = never justifiable; 10 = always justifiable)**

	Combined	Male	Female	Score Larger by		p value	
				Male	Female		
Argentina	1.87	2.10	1.67	0.43		0.009961	*
Chile	2.15	2.16	2.15	0.01		0.9168	
Mexico	2.31	2.40	2.22	0.18		0.2021	
Peru	2.11	2.23	2.00	0.23		0.02508	**
Puerto Rico	2.01	2.14	1.94	0.20		0.6006	
USA	2.28	2.54	2.01	0.53		5.599e-06	*
Venezuela	1.82	1.86	1.77	0.09		0.9465	
Averages	2.09	2.22	1.97				

\* Significant at 1% level

\*\* Significant at 5% level

Chart 2 shows the overall mean scores graphically. The graph clearly shows that, although men are more likely to evade taxes if they have an opportunity to do so, neither group is very likely to evade taxes.

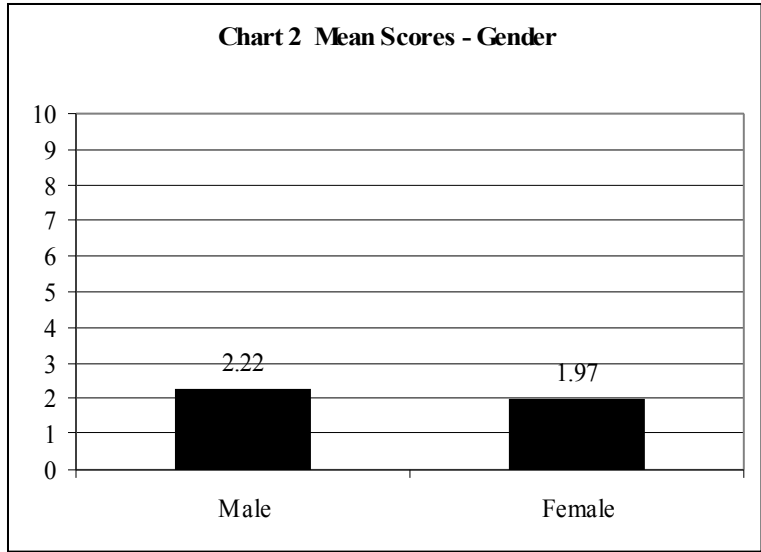
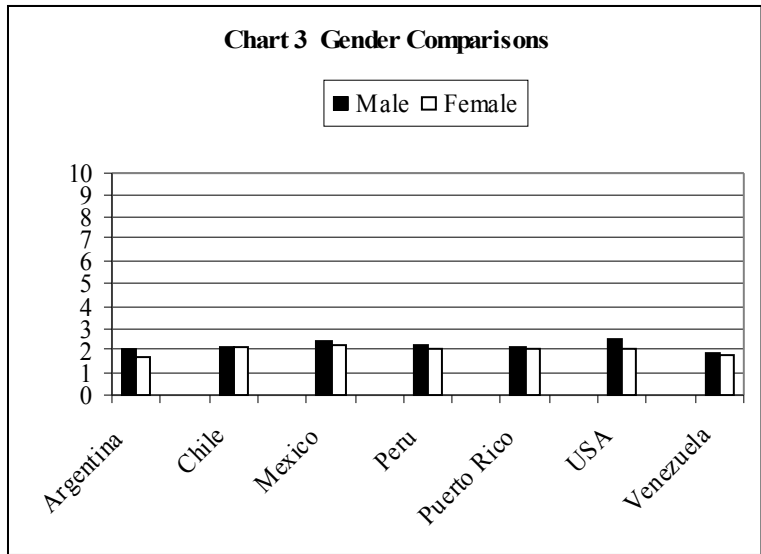


Chart 2 shows the gender comparisons for each country. Again, there is not much difference in the larger scheme of things, although the difference in the USA is the most pronounced.



**AGE**

A study by Ruegger and King (1992) found that people become more ethical as they get older. Their study divided respondents into the following four groups: 21 or less, 22-30, 31-40 and 40 plus. But Sims et al. (1996) found that older students had fewer qualms about pirating software than did younger students.

Babakus et al. (2004) also found that age made a difference, but what difference age makes sometimes depends on culture. Younger people from the UK, USA and France tend to be less ethical consumers than do older people from these countries, whereas younger Austrians tend to be more ethical consumers than their elders. Age generally did

not matter for Hong Kong consumers, except in the case of stealing towels from hotels and blankets from aircraft. Younger people tended to be less tolerant of these kinds of activities than did their elder Hong Kong consumers. Brunei consumers showed mixed results. In some cases younger people were more ethical whereas in other cases older people were more ethical.

Table 3 summarizes the mean scores by age for the present study. The Inglehart et al. (2004) data separated the groups into three age categories.

**Table 3**  
**Age Mean Scores**  
**(1 = never justifiable; 10 = always justifiable)**

	15-29	30-49	50+
Argentina	2.15	1.84	1.65
Chile	2.23	2.15	2.08
Mexico	2.51	2.39	1.88
Peru	2.12	2.19	1.92
Puerto Rico	2.58	2.18	1.63
USA	2.73	2.26	1.90
Venezuela	1.86	1.76	1.85
Averages	2.25	2.13	1.84

Chart 4 shows the overall mean scores for each age group graphically. As can be seen, the mean score declines as people get older, indicating that people are less likely to evade taxes as they become older.

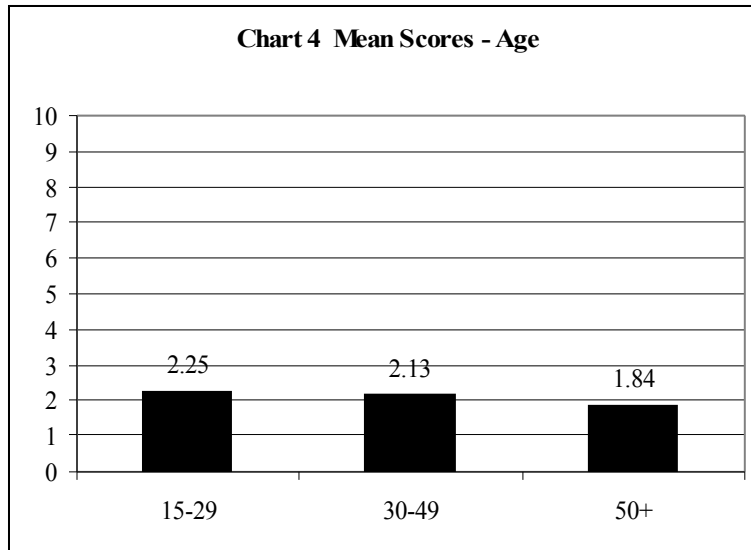


Table 4 shows the p values for each age group and each country. The decline in mean scores is significant in 10 of 21 cases. The most significant declines are in the cases of Mexico, Puerto Rico and the United States, where the differences are significant for all three comparisons. There was not a significant correlation between age and mean scores for Chile, Peru and Venezuela. The difference in mean scores was significant for Argentina only when one compared the youngest and oldest age group.

**Table 4**  
**P Values - Age**

	15-29 vs. 30-49	15-29 vs. 50+	30-49 vs. 50+
Argentina	0.1447	0.003738*	0.1215
Chile	0.4679	0.434	0.9201
Mexico	0.04093**	8.226e-05*	0.03695**
Peru	0.8909	0.1637	0.2125
Puerto Rico	0.08486***	0.0007522*	0.08219**
USA	0.009714*	6.327e-06*	0.0136**
Venezuela	0.7893	0.9197	0.7494

\* Significant at 1% level

\*\* Significant at 5% level

\*\*\* Significant at 10% level

## EDUCATION

The Inglehart et al. (2004) study also grouped responses by level of education. The categories for education were compiled as follows:

### Lower

Inadequately completed elementary education, or  
Completed (compulsory) elementary education, or  
(Compulsory) elementary education and basic vocational qualification

### Middle

Secondary, intermediate vocational qualification, or  
Secondary, intermediate qualification, or  
Full secondary, maturity level certificate

### Upper

Higher education – lower-level tertiary certificate, or  
Higher education – upper-level tertiary certificate

At least three other studies have examined the relationship between the level of education and attitudes toward tax evasion using the Inglehart et al. data. A study of 33 countries (McGee & Tyler, 2007) found the differences between the middle and upper groups were insignificant. However, the lower group was significantly more opposed to tax evasion than were the middle and upper level group. A study of Vietnamese opinion (McGee, 2008b) found that the most educated group was significantly less opposed to tax evasion.

A comparative study of Australia, New Zealand and the United States (McGee & Bose, 2007) found no relationship between education level and mean scores for the United States sample but a significant difference for the Australia and New Zealand samples. What is most interesting about this study was that there was less opposition to tax evasion for the Australian and New Zealand samples as the level of education increased.

Table 5 shows the mean scores for education for the present study.

**Table 5**  
**Education Mean Scores**  
**(1 = never justifiable; 10 = always justifiable)**

	Lower	Middle	Upper
Argentina	1.87	1.90	1.78
Chile	2.27	2.04	2.19
Mexico	2.19	2.53	2.14

Peru	2.10	2.14	2.08
Puerto Rico	1.45	1.91	2.16
USA	2.43	2.34	2.17
Venezuela	1.93	1.84	1.63
Averages	2.08	2.11	2.07

Chart 5 shows the overall mean scores for each education level graphically. As can be seen, the score rises slightly when one moves from the lower to the middle education level, then declines slightly when one moves from the middle to the upper education level, indicating that people in the middle education category tend to be somewhat more likely to evade taxes if they have an opportunity than for the other two groups.

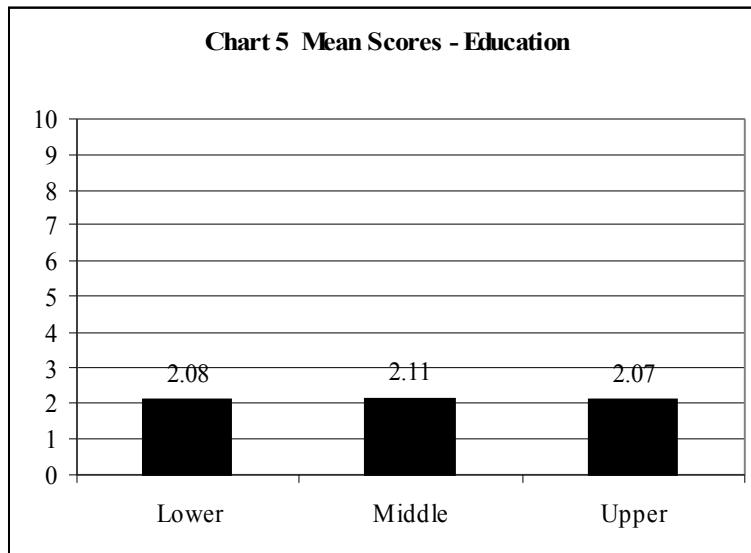


Chart 6 shows the differences in mean score by country. As can be seen, the patterns are different. Whereas the overall trend is downward, indicating a lower likelihood of cheating on taxes as the level of education increases, those in the middle education group are sometimes more likely to cheat than people in the lower and upper groups and sometimes less likely. The exception to the general pattern is Puerto Rico. People in that country tend to become more likely to evade taxes as they become better educated.

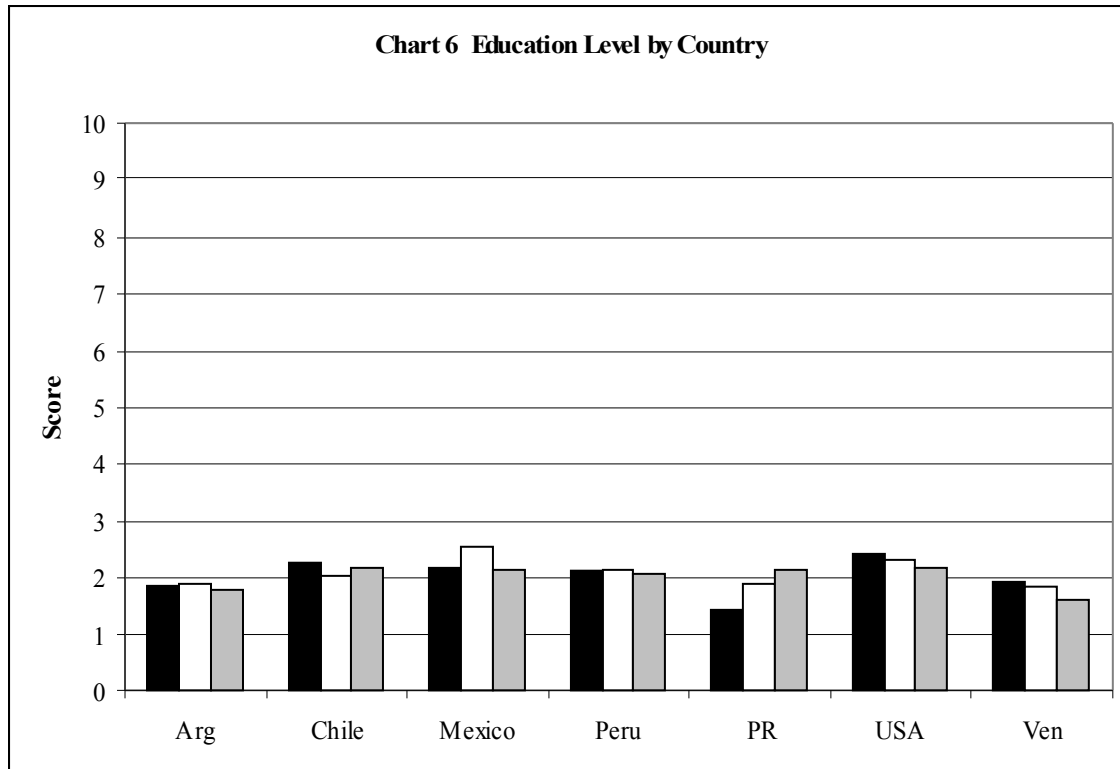


Table 6 shows the p values for each country. The only case where education plays a significant factor is when one compares the lower to middle educational level groups for Mexico. In all other cases the differences in mean scores are not significant.

**Table 6**  
**P Values - Education**

	Lower vs. Middle	Lower vs. Upper	Middle vs. Upper
Argentina	0.4043	0.964	0.588
Chile	0.135	0.8269	0.337
Mexico	0.02068**	0.3359	0.5395
Peru	0.7954	0.5851	0.7239
Puerto Rico	0.4009	0.2047	0.5645
USA	0.9917	0.8209	0.7971
Venezuela	0.7424	0.3061	0.3808

- \* Significant at 1% level
- \*\* Significant at 5% level

## RELIGIOUS OBSERVANCE

The Inglehart et al. (2004) data also gave separate breakdowns by religious affiliation and religious observance. The present study makes comparisons based on religious observance. Table 7 shows the mean scores for each category of religious observance, which is based on the frequency of attendance at religious services. The categories are as follows:

- MOW – more than once a week
- OW – once a week
- OM – once a month
- OSH – only on special holydays
- OY – once a year
- LO – less often
- NPN – never or practically never

**Table 7**  
**Religious Mean Scores**  
**(1 = never justifiable; 10 = always justifiable)**

	MOW	OW	OM	OSH	OY	LO	NPN
Argentina	1.58	1.66	1.64	1.76	1.88	1.87	2.26
Chile	2.20	2.15	2.20	1.88	2.42	1.95	2.07
Mexico	2.17	2.22	2.25	2.61	2.22	2.68	2.75
Peru	1.85	2.02	2.12	2.28	2.50	2.38	2.29
Puerto Rico	1.58	1.96	1.95	2.53	2.76	2.40	2.50
USA	1.76	1.94	2.49	2.54	2.97	2.34	2.74
Venezuela	1.82	1.77	1.75	1.82	1.84	1.76	2.02
Averages	1.85	2.01	2.06	2.20	2.31	2.06	2.31

Chart 7 shows the mean scores for each category graphically. There seems to be a direct correlation between the frequency of attendance and the attitude toward cheating on taxes where there is an opportunity to do so. People who attend services less frequently are more likely to cheat on taxes if they have a chance.

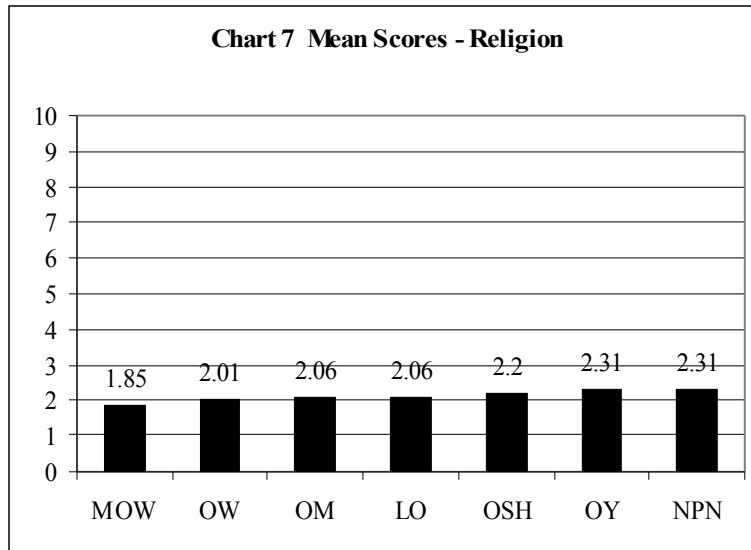


Table 8 shows the p values for certain intergroup comparisons. The mean differences were significant in only 5 of 21 cases (23.8%). Argentineans are significantly more likely to evade taxes if they attend religious services less than once a month. In the USA, those who attend services once a month or practically never are significantly more likely to evade taxes than people who attend services more than once a week. Venezuelans who never or practically never attend religious services are significantly more likely to evade taxes than are people who attend services more than once a week. For all other groups in the seven countries in the present study the differences in mean scores are not significantly different.

**Table 8**  
**P Values – Religious Practice**

	MOW vs. OM	MOW vs. NPN	OM vs. NPN
Argentina	0.3505	0.02597**	0.0763***
Chile	0.8928	0.481	0.3487
Mexico	0.7876	0.4723	0.556
Peru	0.1032	0.2066	0.7703
Puerto Rico	0.5348	0.1019	0.402
USA	0.003449*	0.0006036*	0.5678
Venezuela	0.249	0.06779***	0.3722

- \* Significant at 1% level
- \*\* Significant at 5% level
- \*\*\* Significant at 10% level

## **CONCLUDING COMMENTS**

There are many explanations for why the attitudes toward cheating on taxes may differ (or not) by country. Some possible partial explanations are the influence certain demographics such as gender, age, education level and religious practice play in shaping one's opinions. The political system of the country where one lives is another. Income level, which is not examined in the present study, also probably plays a role. It is reasonable to expect that people who earn more money tend to feel exploited if they are forced to pay a higher percentage of their marginal income in taxes than are people at lower income levels. The wealthier classes might resent being forced to pay relatively high tax rates, and this resentment may cause them to view cheating on taxes more favorably than individuals who receive benefits in exchange for their tax contributions.

People at the lower end of the economic spectrum might also resent paying taxes, but for entirely different reasons. Rather than feeling exploited compared to other income groups, they may feel that they have little or no moral obligation to pay because of inability. This reason was one of the dominant arguments to justify tax evasion in the Catholic literature (Crowe, 1944) and this view was supported by a study of Mexican migrant workers (Morales, 1998).

Culture also plays a role. Hofstede (1980, 1991, 1994a&b) examined power distance, collectivism versus individualism, uncertainty avoidance, masculinity versus femininity and long-term orientation as factors that affect a wide range of attitudes and behaviors. Hall (1959, 1966, 1976) looked at culture from the perspectives of high and low context and compared monochronic cultures to polychronic cultures. All of these factors play a role, although it is not always clear what that role is, and a number of factors interact, making it difficult, if not impossible, to determine which factors play a dominant role.

The findings of the present study indicate that some people will cheat on taxes if they have an opportunity, but that many will not. Results vary by country, gender, age and somewhat by religious observance. Level of education does not play a role for the Latin American countries included in the present study or for the USA, although a study of attitudes in Australia and New Zealand found that as people become more educated, they tend to be less averse to tax evasion. Since there is a positive correlation between level of education and income level, we may tentatively conclude that as Australians and New Zealanders become wealthier they have a stronger tendency to evade taxes, but one cannot reach the same conclusion for the wealthier classes in Latin American countries, since education level had no significant effect on tax evasion attitude.

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# **CORPORATE GOVERNANCE AND THE TIMELINESS OF FINANCIAL REPORTING: A COMPARATIVE STUDY OF SELECTED EU AND TRANSITION ECONOMY COUNTRIES**

**Robert W. McGee**  
**Florida International University**

**Danielle N. Igoe**  
**KPMG**

## **ABSTRACT**

Timeliness of financial reporting is an attribute of good corporate governance. Shareholders and other stakeholders need information while it is still fresh and the more time that passes between year-end and disclosure, the more stale the information becomes and the less value it has.

Corporate governance is a relatively new concept for transition economies. Prior to the fall of the Berlin Wall and the collapse of the Soviet Union there were no profit-making corporations, no shareholders and no need to report financial results except to the government. All that has changed. In order to raise capital, corporations need to convince potential investors that an investment in their company will be safe. That requires financial reporting standards that can be trusted and financial information that is reported in a timely manner. But the culture of former communist countries is not to disclose information. That mentality is changing as their formerly closed economies open up to investment from the west.

This paper examines the timeliness of financial reporting in several transition economies that are new European Union members and makes comparisons to companies in four older members of the EU. The goal of the paper is to determine whether there is a significant difference in the timeliness of financial reporting between the two groups of companies. The paper also reports on the relative market share of the accounting firms that audit companies in the European transition economies.

## **INTRODUCTION**

Transparency is one of those terms that has many facets. It is used in different ways. It can refer to the openness of governmental functions. It can refer to a country's economy. Or it can refer to various aspects of corporate governance and financial reporting. The OECD (1998) lists transparency as one element of good corporate governance. Kulzick (2004) and others (Blanchet, 2002; Prickett, 2002) view transparency from a user perspective. According to their view, transparency includes the following eight concepts: accuracy, consistency, appropriateness, completeness, clarity,

timeliness, convenience, and governance and enforcement. This paper focuses on just one aspect of transparency - timeliness.

The International Accounting Standards Board considers timeliness to be an essential aspect of financial reporting. In APB Statement No. 4, the Accounting Principles Board (1970) in the USA listed timeliness as one of the qualitative objectives of financial reporting disclosure. APB Statement No. 4 was later superseded but the Financial Accounting Standards Board continued to recognize the importance of timeliness in its Concepts Statement No. 2 (1980). The U.S. Securities and Exchange Commission also recognizes the importance of timeliness and requires that listed companies file their annual 10-K reports by a certain deadline.

The issue of timeliness has several facets. There is an inverse relationship between the quality of financial information and the timeliness with which it is reported (Kenley & Staubus, 1974). Accounting information becomes less relevant with the passage of time (Atiase, Bamber & Tse, 1989; Hendriksen & van Breeda, 1992; Lawrence & Glover, 1998).

## **REVIEW OF THE LITERATURE**

Studies show mixed conclusions regarding the relationship of quickness of reporting and the nature of the information being reported. Some studies show that good news is reported before bad news whereas other studies show that bad news is reported before good news.

There is some evidence to suggest that it takes more time to report bad news than good news (Bates, 1968; Beaver, 1968), both because companies hesitate to report bad news and because companies take more time to massage the numbers or resort to creative accounting techniques when they have to report bad news (Givoli & Palmon, 1982; Chai & Tung, 2002; Trueman, 1990). Stated differently, there seems to be a tendency to rush good news to press, such as better than expected earnings, and delay the reporting of bad news or less than expected earnings (Chambers & Penman, 1984; Kross & Schroeder, 1984). Dwyer & Wilson (1989) found this relationship to hold true for municipalities. Haw, Qi and Wu (2000) found it to be the case with Chinese companies. Leventis and Weetman (2004) found it to be the case for Greek firms.

However, Annaert, DeCeuster, Polfliet & Campenhout (2002) found that this was not the case for Belgian companies and Han & Wang (1998) found that this was not the case for petroleum refining companies, which delayed reporting extraordinarily high profits during the Gulf crisis of the 1990s, perhaps because political repercussions outweighed what would otherwise have been a good market reaction. Rees & Giner (2001) found that companies in France, Germany and the UK tended to report bad news sooner than good news.

A study by Basu (1997) found that companies tend to report bad news quicker than good news, presumably because of conservatism. Gigler & Hemmer (2001) discuss this point in their study, which finds that firms with more conservative accounting systems are less likely to make timely voluntary disclosures than are firms with less conservative accounting systems.

Building upon the Basu study (1997), Pope and Walker (1997) found that there were cross-jurisdictional effects when extraordinary items were either included or excluded, using US and UK firms for comparison. Han & Wild (1997) examined the

potential relationship between earnings timeliness and the share price reactions of competing firms. But Jindrichovska and Mcleay (2005) found that there was no evidence of conservatism in the Czech accounting system when it came to reporting bad news earlier than good news, presumably because the Czech tax system offers little incentive to do so. Ball, Kathari and Robin (2000) found that companies in jurisdictions that have a strong shareholder orientation tend to disclose earnings information sooner than companies in countries operating under a legal code system.

There is also a relationship between the speed with which financial results are announced and the effect the announcement has on stock prices. If information is released sooner, the effect on stock prices is more pronounced. The longer the time lapse between year-end and the release of the financial information, the less effect there is on stock price, all other things being equal (Ball & Brown, 1968; Brown & Kennelly, 1972). This phenomenon can be explained by the fact that financial information seems to seep into the stock price over time, so the more time that elapses between year-end and the release of the financial reports, the more such information is already included in the stock price.

Some countries report financial results faster than other countries. DeCeuster & Trappers (1993) found that Belgian companies take longer to report their financial results than do Anglo-Saxon countries. Annaert, DeCeuster, Polfliet & Campenhout (2002) found this to be the case for interim information as well. Companies can report financial results faster on the internet and the information can be more widely disbursed but posting two-year-old annual reports does nothing to improve timeliness (Ashbaugh, Johnstone & Warfield, 1999).

Atiase, Bamber & Tse (1989) found that large companies report earnings faster than small companies and that the reporting of earnings has a more significant market reaction for small firms than for large firms. In a study of Australian firms, Davies & Whittred (1980) found that small firms and large firms made significantly more timely reports than medium-size firms and that profitability was not a significant variable.

Whittred (1980) found that the release of financial information for Australian companies is delayed the first time an audit firm issues a qualified report and that the extent of the delay is longer in cases where the qualification is more serious. Keller (1986) replicated that study for US companies and found the same thing to be true. Whittred and Zimmer (1984) found that it took Australian firms in financial distress a significantly longer time to publish their financial information. A study of more than 5,000 annual reports of French companies found that it took longer to release audit reports where there had been a qualified opinion, and that the more serious the qualification, the greater the delay in releasing the report (Soltani, 2002).

Krishnan (2005) found that the audit firm's degree of expertise has an effect on the timeliness of the publication of bad earnings news. Audit firms that specialize in the industry in which the company operates are timelier in reporting bad financial news than are audit firms that have less industry expertise.

A few studies have been published that compare the timeliness of financial reporting in transition economies and the more developed market economies. McGee (2006, 2007b) found that companies in the Russian energy sector take a significantly longer amount of time to report financial results than do non-Russian companies in the energy sector. Another study found the same thing to be true of the Russian telecom industry (McGee, 2007a).

## **TIMELINESS**

One measure of transparency and quality of financial reporting is timeliness. The lapse of time between a company's year-end and the date when financial information is released to the public is related to the quality of the information reported. Issuing excellent, accurate and comprehensive financial information two or three years after year-end is not as desirable as issuing less comprehensive and complete financial information a few months after year-end. Financial information becomes stale after a few months, and certainly after two or three years. The more stale it is, the less relevant it is to potential investors and creditors.

There are a number of reasons for the time lag between year-end and the issuance of the audit report and the publication of financial information. Ashton, Graul and Newton (1989) identified auditor size, industry classification, the presence or absence of extraordinary items and the sign of net income as some factors that influence timeliness. To that one might add the culture, political and economic system of the country in which the particular firm is located. One purpose of the present study is to determine whether Russian energy companies are any less timely in the speed of financial reporting than companies in Western Europe and the United States.

In the not too distant past, some Russian enterprises were criticized for waiting too long to issue their financial reports. Some Russian companies did not issue their annual reports until a year or more after the end of the year. In some cases, Russian firms did not even have annual audits.

## **THE PRESENT STUDY**

Timeliness of financial reporting was measured by computing the number of days that elapse between the company's year-end and the date of the auditor's report. This methodology was used in studies of the Russian energy sector (McGee, 2006, 2007b) and the Russian telecom sector (McGee, 2007a). It was thought that using the same methodology in the present study would make it easier to compare results with those prior studies.

### **Methodology**

Companies in the transition countries that are now EU members were selected based on Hoover's Most Viewed Company Directory by Country. It was thought that the financial reporting practices for these companies were probably the best the country had to offer, since they were drawing the most investor attention. Older EU member countries were chosen based on relative GDP. Selected companies in Germany, the United Kingdom, France and Italy were chosen to represent the older EU states.

This methodology has several weaknesses. For one, the distribution is not random. It is highly skewed, since it only includes the EU transition companies whose financial data are most viewed. The sample excludes companies whose financial data are not viewed as frequently. Data for the present study also exclude data from non-English language annual reports, since the authors have difficulty reading several European languages.

However, this weakness is not fatal. In fact, using highly skewed data might actually be an advantage if the goal is to compare the *best* financial reporting practices that transition economies have to offer with the average of the more established EU

countries. Companies that want to raise foreign capital need to publish financial statements in a language that international investors can read. Quite often that language is English. Thus, the companies that do not publish their financial statements in English generally are not as intent on raising capital in foreign markets as are companies that do publish their financial statements in English.

Selected companies in Germany, the United Kingdom, France and Italy were chosen for comparison purposes. These countries were chosen because they are the countries that have the highest GDP. However, it is unlikely that this selection is unrepresentative of other older EU members that have lower GDP. The European Union adopted International Financial Reporting Standards (IFRS) as of January 1, 2005 and many companies in the EU had been following at least some of those standards several years before official adoption by the EU. IFRS require companies to report their financial results in a timely fashion, so selecting another group of companies from the older EU member states would likely render the same result as the present study.

While browsing through hundreds of annual reports to find the dates of audit reports the authors also gathered information on the accounting firms that signed the audit opinions for the companies in transition countries.

Prior studies have found that companies in transition economies tend to choose either IFRS or US GAAP for their English language financial statements, partly based on where they intend to raise foreign capital. Companies that want to target New York or some other US market tend to use US GAAP, while companies intent on raising capital elsewhere tend to use IFRS (McGee & Preobragenskaya, 2005, 2006). That probably is not the case here, however, since the EU has adopted IFRS.

Another finding of other studies is that the Big-4 accounting firms tend to have an oligopoly on large clients in Russia. It was thought that compiling data on which audit firm signs the audit opinion would reveal whether this oligopoly position also holds true for companies in transition countries other than Russia (McGee & Preobragenskaya, 2005, 2006).

## **FINDINGS**

Table 1 shows the number of companies from each country included in the dataset and also the number of years for which data is available. Some companies posted just one annual report while others posted 5 or more. Some annual reports did not give an audit opinion date, making it impossible to determine the number of days that elapsed between year-end and the date of the audit report. However, some of the reports that did not disclose the date of the audit opinion did reveal which set of accounting standards they used and the name of the accounting firm that audited their financial statements. The average number of years reported by the transition group was 6.0. The average for the older EU member group was 6.4.

**Table 1**  
**Data Collected by Country**

<b>Country</b>	<b># of Companies</b>	<b># of Years Included</b>
<b><u>New EU Members</u></b>		
Czech Republic	7	40
Estonia	3	16
Hungary	6	45
Lithuania	1	8
Poland	9	51
Romania	2	7
Slovenia	1	8
New Member Totals	29	175
<b><u>Old EU Members</u></b>		
Germany	5	37
United Kingdom	8	46
France	5	26
Italy	3	25
Old Member Totals	21	134
Combined Totals	50	309

Table 2 shows the range and the average number of days it took for both groups to release their financial data. Companies in the new EU member countries took between 37 and 342 days to get an audit opinion, compared to 23 to 354 days for companies in old EU member countries. The average number of days between year-end and the date of the audit report was 84.7 for new members and 85.6 for old members.

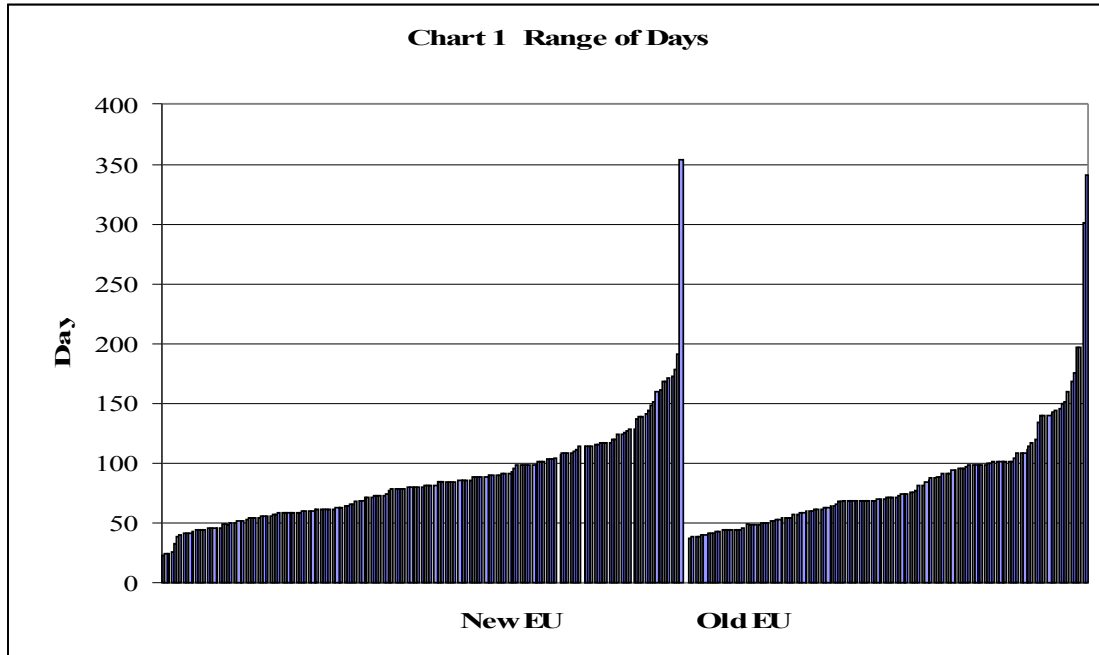
**Table 2**  
**Range and Average Days**

	<b>Range Of Days</b>	<b>Average # of Days</b>
New EU members (transition countries)	37 – 342	84.7
Old EU members	23 – 354	85.6

A Wilcoxon test was performed to determine whether the difference in average days was significant. The difference was found not to be significant ( $p \leq 0.3188$ ). It was thought that this lack of significant difference could be caused by a few outliers, since the two top scores in the range for new EU members were 342 and 302 days and the top two scores in the range for old EU members were 354 and 192. These top scores were removed and another Wilcoxon test was performed to determine whether removing the top two scores from each sample made any difference. It did not ( $p \leq 0.2832$ ). The next two top scores were removed and a third Wilcoxon test was performed. The difference between the two groups was not significant in that case either ( $p \leq 0.2486$ ).

Thus, it can be concluded that the timeliness of financial reporting for companies in both new and old EU member states is equivalent. This finding differs markedly from the findings in the Russian studies (McGee, 2006, 2007a&b). All of those studies found that financial reporting in Russia was far less timely than financial reporting in developed market economies. The difference in findings could be explained by the different samples. The present study sampled companies in new EU member states whereas the other studies examined data for Russia, a country that is not experiencing much pressure to adopt IFRS or to report results in a timely fashion.

Chart 1 shows the range of days for both samples.



It was thought that breaking down the data by year for the new EU members would provide some useful information, since doing so would reveal whether there was any trend toward timelier financial reporting. Any conclusions must be tentative, however, given the small sample size for each individual year.

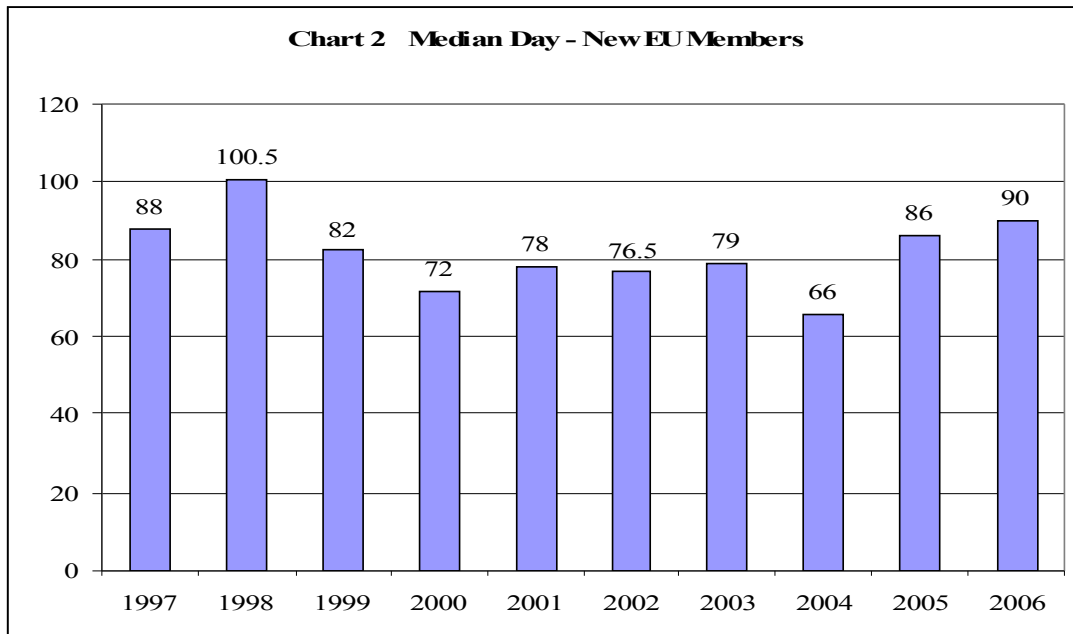
Table 3 shows the breakdown by year. Due to the small sample size for any given year it was thought that both the mean and median should be given, since a few outliers would skew the mean score. As can be seen, that assumption proved to be correct, since the mean scores are almost always larger than the median scores for the same year.

**Table 3**  
**Data Arranged by Year**  
**New EU Members**

<b>Year</b>	<b>Sample Size</b>	<b>Mean # Days</b>	<b>Median # Days</b>
1997	4	100.3	88.0
1998	4	106.3	100.5
1999	9	90.7	82.0
2000	16	78.9	72.0
2001	19	82.6	78.0
2002	22	74.5	76.5

2003	25	83.3	79.0
2004	26	74.7	66.0
2005	27	98.4	86.0
2006	23	95.2	90.0

Chart 2 shows the median number of days it took new EU members to obtain an audit opinion. There does not appear to be any apparent trend. The reader must also be cautioned that the sample size was especially low for the first few years, which means the median scores for those years are not as reliable as would be the case if the sample size were larger.

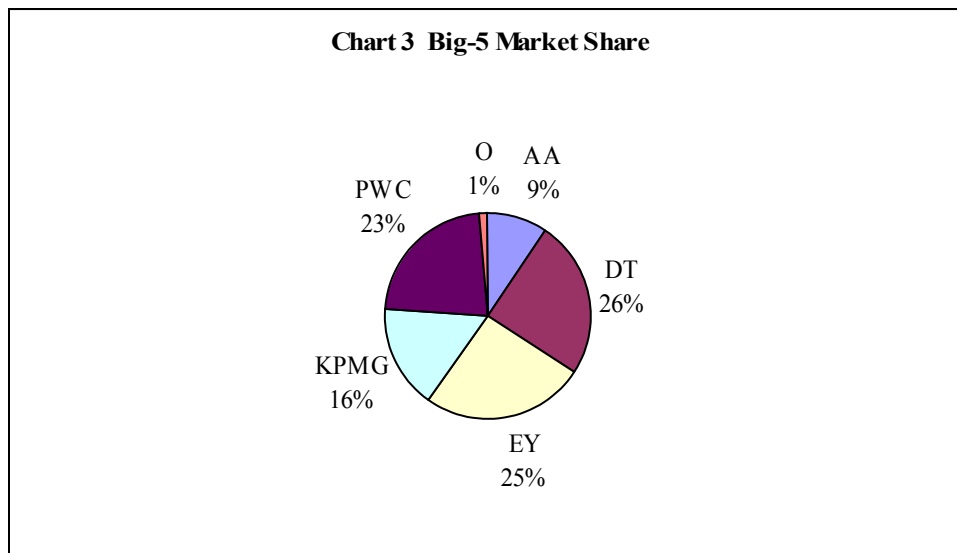


The data was available to check to see whether the Big-4 accounting firms had an oligopoly position for the auditing of companies in the new EU member states. Table 4 shows the number of audit opinions that were signed by what used to be the Big-5 – Arthur Andersen, Deloitte & Touche, Ernst & Young, KPMG and PricewaterhouseCoopers as well as other audit firms that were fortunate enough to get a client here and there.

**Table 4**  
**Audit Firms for New EU Member State Companies**  
**(1997 – 2006)**

<b>Audit Firm</b>	<b># of Audits</b>	<b>% of Total</b>
Arthur Andersen	17	9.4
Deloitte & Touche	45	24.9
Ernst & Young	46	25.4
KPMG	29	16.0
PricewaterhouseCoopers	42	23.2
Other	2	1.1
Totals	181	100.0

As can be seen, the Big-5 accounting firms had nearly 90 percent of the market for the top companies in the new EU member states. There was no clear leader. Three of the Big-5 each had between 23.2 and 25.4 percent of the market. Arthur Andersen no longer exists but presumably its clients went to one of the other Big-4 firms after AA's demise. Chart 3 shows the relative percentages graphically.

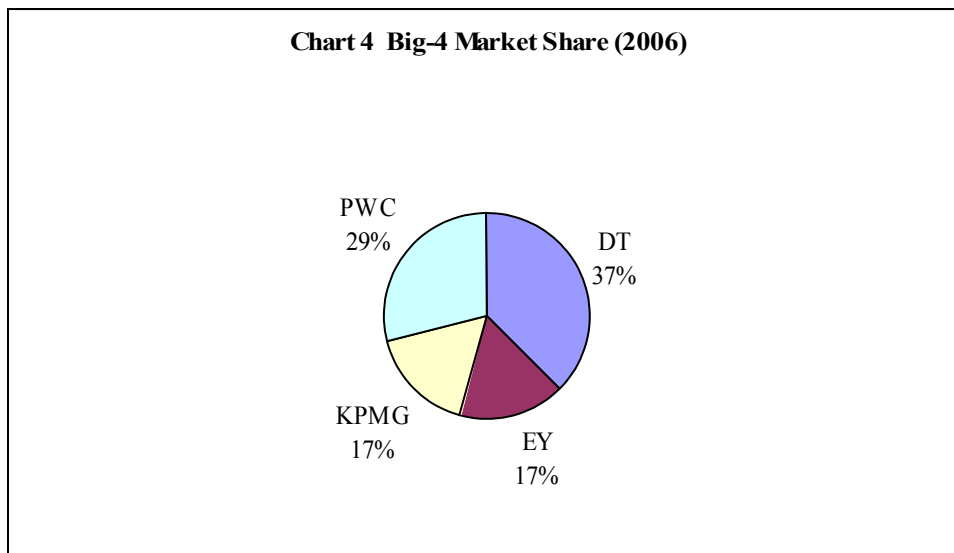


Although the data reveal what has been happening since 1997, they do not show the current state of the market share for each of the remaining Big-4 firms. Table 5 shows market share for the most recent year (2006).

**Table 5**  
**Market Share of Big-4 Firms**  
**2006**

<b>Audit Firm</b>	<b># of Audits</b>	<b>% of Total</b>
Deloitte & Touche	9	37.5
Ernst & Young	4	16.7
KPMG	4	16.7
PricewaterhouseCoopers	7	29.2
Other	0	0
Totals	24	100.1

Chart 4 shows the relative 2006 market shares graphically.



As can be seen, Deloitte & Touche has the largest market share at 37 percent, which is more than twice the market share of KPMG and Ernst & Young combined.

### **CONCLUDING COMMENTS**

This study found that companies in the new EU member states issue their financial information in a fashion that is just as timely as that of companies in the old EU. The results of this study differ from studies of Russia that used the same methodology,

which indicates that Russia, and perhaps other former Soviet republics that are not EU members, are not doing as well in the areas of transparency and corporate governance. One reason for the better performance of the new EU companies is probably because the EU now requires the use of IFRS in financial statements. Russia and the other former Soviet republics that are not EU members do not face similar pressure to adopt IFRS and thus feel less pressure to report their financial information in a timely manner.

The method of financing might also play a role. Companies that get their capital from banks do not have the same pressure to use IFRS as do companies that want to raise capital in the equity markets. Where there is no pressure, there is less incentive for change.

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# **WHY A MICRO-PROFIT CENTER MANAGER IS MORE MOTIVATED: PROSPECT THEORY EXPLAINS**

Eiichiro Suematsu  
Saitama University

## **Abstract**

Some reasons why workers in managerial positions can be motivated when they are imposed profit responsibility rather than cost responsibility will be explored utilizing the perspectives of Prospect Theory.

I asked ninety one undergraduate students to simulate themselves as cost center managers and profit center managers, and asked them how much money they would be willing to spend in executing a project. The results supported the hypothesis: the profit center managers will execute their project more aggressively than the cost center managers would. The results also suggested two points: When the probability of success of a project was low, there were no differences in the money amount spent on a project between cost center and profit center. As the probability of success was raised to a middle or high level, the profit center managers were more willing to spend a greater amount of money on the project than the cost center managers.