Volume 17, Number 2 ISSN 1948-3147

Allied Academies
International Conference

Las Vegas, Nevada
October 10-13, 2012

Academy of Accounting and Financial Studies

PROCEEDINGS

The Academy of Accounting and Financial Studies Proceedings is owned and published by the DreamCatchers Group, LLC, PO Box 1708, Arden, NC 28704, U.S.A., (828) 507-9770. Those interested in the *Proceedings*, or communicating with the *Proceedings*, should contact the Executive Director of the Allied Academies at info@alliedacademies.org.

Table of Contents

PERFORMANCE, STRATEGY AND GOVERNANCE CASES FROM MEXICO 1
Heriberto Garcia, Texas A&M International University

THE TIMING OF ANNUAL FINANCIAL REPORTS OF LARGE U.S. CITIES............... 3
Richard A. Turpen, Auburn University Montgomery

AUDIT PLAN ADJUSTMENTS FOR SIN FIRM CLIENT ENGAGEMENTS 9
David A. Sauer, Quinnipiac University
Gary P. Schneider, Quinnipiac University
Aamer Sheikh, Quinnipiac University
Kathleen A. Simione, Quinnipiac University

PREDICTION ABILITY OF CASH FLOWS, NET INCOME AND AUDITORS............. 13
Tae G. Ryu, Metropolitan State University of Denver
Barbara Uliss, Metropolitan State University of Denver

SMALL BUSINESS ACCOUNTING: PREPARING FUTURE ACCOUNTANTS THROUGH A NEW GRADUATE ACCOUNTING COURSE... 15
Doug Purdy, Metropolitan State University of Denver
Letitia Meier Pleis, Metropolitan State University of Denver

DEVELOPING AN ASSESSMENT AND DEVELOPMENT PLAN FOR STUDENTS ENTERING INTERMEDIATE ACCOUNTING I: THE PROCESS AND STUDENT REACTIONS TO THE PLAN... 17
Mary E. Phillips, Middle Tennessee State University
Rebecca A. Foote, Middle Tennessee State University
Terry J. Ward, Middle Tennessee State University
Paula B. Thomas, Middle Tennessee State University

A NOTE ON ANNUITIES 19
Malek Lashgari, University of Hartford

MANAGING EARNINGS TO MEET CRITICAL THRESHOLDS AND THE ROLE OF CORPORATE GOVERNANCE IN CHINA.. 21
Liona Lai, York University

THE EFFICACY OF VOLUNTARY DISCLOSURE: A STUDY OF WATER DISCLOSURES BY MINING COMPANIES USING THE GLOBAL REPORTING INITIATIVE FRAMEWORK 23
Marla Kraut, University of Idaho
Philip Dennis, University of Idaho
Heidi Connole, University of Alaska Southeast

OWNERSHIP AND CONTROL RIGHTS TRANSFERS AND INCOMPLETE CONTRACTS: EMPIRICAL ANALYSIS OF DRUG DEVELOPMENT PARTNERSHIPS.. 25
Lilia Hyttinen, Hanken School of Economics, Finland

THE INTEGRATION OF FAIR VALUE ACCOUNTING INTO U.S. GAAP: 1975 TO 1995.. 29
Debra Hunter, Arkansas Tech University
Stephen B. Shanklin, Tennessee State University
Craig R. Ehlen, University of Southern Indiana

FINANCIAL INSTRUMENT CREDIT IMPAIRMENT MODELS - A RIFT IN THE CONVERGENCE OF IASB AND FASB ACCOUNTING STANDARDS........................... 31
Kathy Hsiao Yu Hsu, University of Louisiana at Lafayette
Harlan Etheridge, University of Louisiana at Lafayette

DO THESE STOCK MARKETS MOVE TOGETHER? AN EMPIRICAL STUDY OF INDIA AND ITS MAJOR TRADING PARTNERS 33
Alan Harper, South University
Zhenhu Jin, Valparaiso University
Gregory Gleghorn, Schaefer Systems International

LAW AND FINANCE: SETTLEMENTS OF PHARMACEUTICAL PATENTS LITIGATIONS.. 41
Lilia Hyttinen, Hanken School of Economics, Finland

A COMPARISON OF THE GREEK AND AMERICAN FINANCIAL CRISES: ANOTHER PERSPECTIVE 47
Stephen T. Evans, Southern Utah University

THE META LANGUAGE OF ACCOUNTING AND ACCOUNTING LITERACY: WHAT'S THE LEVEL OF STUDENTS' UNDERSTANDING? 53
Raymond J Elson, Valdosta State University
Susanne O'Callaghan, Pace University
John P. Walker, Queens College - CUNY
Robert Williams, Valdosta State University

ABAXIS (ABAX) AND INSIDER INFORMATION: WHAT DOES THE DATA TELL US? 59
Austin Doerr, Indiana Wesleyan University
Darrian Mikell, Indiana Wesleyan University
Maurice Blackledge, Indiana Wesleyan University

ACCOUNTING EDUCATORS AND PRACTITIONERS' PERSPECTIVES ON FRAUD AND FORENSIC TOPICS IN THE ACCOUNTING CURRICULUM 63
Bobbie Daniels : Jackson State University
Yvonne Ellis : Columbus State University
R. D. Gupta : Jackson State University

THE FEDERAL GOVERNMENT'S WAR ON MARRIAGE AKA THE MARRIAGE PENALTY TAX: UNFAIR TO INDIVIDUALS AND HARMFUL TO SOCIETY 65
Floyd W. Carpenter, Murray State University
Dennis R. Lassila, Texas A&M University
L. Murphy Smith, Murray State University

RECONCILING COST CALCULATIONS AND MANAGEMENT CONTROL TOOLS IN MUNICIPAL SERVICES: AN EMPIRICAL STUDY 67
Donatien Avelé, University of Moncton

FULLY INTEGRATED VS. LIMITED INTEGRATION OF SUSTAINABLE PRACTICES: IS THERE A DIFFERENCE IN FINANCIAL PERFORMANCE?........... 75
Jane M. Weiss, University of Idaho

THE INCIDENCE OF FRAUD POST SARBANES OXLEY ACT: A REALITY CHECK... 79
P.N. Saksena, Indiana University South Bend

PERFORMANCE, STRATEGY AND GOVERNANCE CASES FROM MEXICO

Heriberto Garcia, Texas A&M International University

ABSTRACT

During the last two decades, Mexico Stock Exchange MSE has been reducing the number of companies traded into the Stock Market, also at the same time the country has been change dramatically in how the firms compete, how the public companies disclose financial and business information and how public companies face new wide world regulation and transparency. We explored sixteen companies with all this processes in terms of strategic decisions, financial performance, transparency and ownership structure. Using Case Study methodology, we analyzed public companies from different industries, sectors and business nature. Our findings are related with the potential access to new capital, the relative experience in being public and how an open emerging market can be competitive in the long run.

THE TIMING OF ANNUAL FINANCIAL REPORTS OF LARGE U.S. CITIES

Richard A. Turpen, Auburn University Montgomery

ABSTRACT

In a study by the Governmental Accounting Standards Board (GASB) completed last year, a key outcome was an apparent gap between the period of time that users of governmental financial reports find the information contained in those reports to be most useful and the point in time when governments provide them (GASB, 2011). Nearly a quarter of the government entities studied by the GASB took longer than six months to issue their annual reports, with many evidencing release times of a year or more. In contrast, the users surveyed indicated that report usefulness begins to decline considerably when the time to issuance exceeds 45-60 days. These findings help underscore the motivation for the GASB's study. It begins by noting that the timeliness of financial reporting is perhaps the most frequent and common concern expressed by governmental report users.

As the GASB points out, the bulk of research into report timing has concentrated in the corporate sector. In addition, the limited studies focusing on municipalities cover reporting periods dating back well over a decade. This paper describes a preliminary effort to provide and analyze more recent data using a time period that incorporates and extends that studied by the GASB. In particular, it examines the annual financial reports (AFR) of the five largest cities in each of the four largest states in the U.S. for fiscal years 2006 through 2011. The GASB research covered the first three years of this six-year period, and so an objective of the current study will be to offer comparative insight.

INTRODUCTION

As the authoritative source of generally accepted accounting principles (GAAP) for state and local governments, the GASB recommends but does not require that a governmental entity prepare and publish a "comprehensive annual financial report" (CAFR). As specified by the GASB, the CAFR includes much information beyond the audited financial statements, but the audit is the typical focus of timeliness studies. The complexity of governmental accounting combined with the equal complexity of diverse municipal structures and numerous legal requirements serve to lengthen the time needed to complete the audit, making it a primary subject of research interest.

Accordingly, the usual measure of interest in such studies—including the present preliminary examination—is the number of days between the fiscal year-end and the date of the auditor's report. The GASB study measures the period from year-end to the date of the transmittal letter, a required element of the CAFR in which the entity's chief financial officer formally conveys the completed report. However, as the GASB found in its own research, the transmittal letter and the auditor's report nearly always carry the same date.

RELEVANT LITERATURE

Prior to the GASB's study, perhaps the most comprehensive examination of the timing of government financial statements is found in Payne and Jensen (2002). They analyze various municipal and auditor characteristics of southeastern U.S. cities relevant to these localities' 1992 audited financials. Earlier, McLelland and Giroux (2000) performed similar analyses of large U.S. cities for fiscal 1996. These studies identify several attributes that correlated with the length of time their sample cities took to issue annual reports.

The GASB study did not seek to identify determinants of what it terms time-to-issuance but instead simply measured this period for a large sample of four categories of governmental entities. It then contrasted the results with its findings from surveys of various users of government financial information. Again, the key observation was a greatly diminished usefulness in annual reports not made available until three months after year-end.

CURRENT STUDY

If efforts to improve the timely availability of municipal financial statements are to be successful, a better understanding is needed about the factors that influence that availability. The current study will attempt to add to this understanding using the most recent financial reports issued by a broad sample of the most populous U.S. cities. Specifically, the five largest cities for the four states having the greatest populations were identified using data from the most recent U.S. Census Bureau. Collectively, the metropolitan statistical areas covered by these twenty cities represent nearly a quarter of the U.S. population.

The annual financial report (AFR) for each of these cities was obtained for the six fiscal years 2006 through 2011, with the exception of one city that had not yet issued its fiscal 2011 report. For the majority of the cities, the report took the form of a CAFR; but two of the cities did not prepare a CAFR and so their AFRs were used instead. Thus, the final sample to be analyzed consists of 119 city-years of AFRs.

As indicated earlier, until the GASB study, research in municipal reporting timeliness typically used a single year of data. Because it helps control for differential effects that may occur across time, this approach is advantageous when the sole purpose is to identify factors that influence time-to-issuance. However, in addition to examining timeliness determinants, the present study seeks to identify possible trends and to compare them to the results reported by GASB, and hence, the inclusion here of the three years of data subsequent to the three-year period the GASB examined. Of particular interest in the current study is the possibility of observable changes in the timeliness of reports over the six years. This interest is prompted by certain events and conditions during its six-year time frame.

The first is the issuance of the risk assessment auditing standards released by the American Institute of Certified Public Accountants (AICPA) in 2006. Those standards generated much controversy and their implementation added to the auditor's workload. The AICPA has since issued greatly revised professional auditing standards as part of its "Clarity Project," requirements that will become effective with 2012 calendar year-end audits. If time-to-issuance measures were found to exhibit increases during the implementation years of the risk assessment standards, such a finding would suggest the possibility of similar effects when auditors begin their municipal engagements under the new clarified standards, thereby contributing to future reporting delay. This potential is of particular concern in the municipal environment because certain of the new requirements in those standards will likely pose special audit difficulties when applied to governmental entities.

The second is the continuing economic distress of the past five years. Studies are beginning to appear that document serious declines in the financial health of municipalities (Kinnersley and Shoulders, 2011; Kinnersley, McSwain, and Shoulders, 2011). Financial distress can adversely affect the financial statement preparation process through budget cutbacks and staff reductions, further delaying the report. Moreover, it poses additional challenges to the auditor, including the need for closer scrutiny of possible asset impairments and threats to the going concern assumption. Accordingly, analysis focused on potential correlation between measures of municipal fiscal stress and the time needed to complete the financial reporting process could be worthwhile.

To address these and other questions of interest, the current study will examine the number of days that the auditor's report follows the fiscal year-end, both by year and over time. Variables meant to capture audit complexity and municipal health will be included in the analyses.

Selected descriptive data for the sample are presented below. Table 1 shows the key variables of interest for each of the six years represented—the number of days between the fiscal year-end and the date of the auditor's report and the year-to-year change in that measure. Table 2 presents the same data grouped over the two three-year periods.

Table 1: Descriptive Data
Number of Days to Issuance and Year-to-Year Change in Number of Days to Issuance:
Means by Year

	2006	2007	2008	2009	2010	2011
Number of Days	212.8	216.3	190.4	177.2	183.3	182.1
Year-to-Year	NA	3.55	-26.0	-13.2	6.2	3.4

Table 2: Descriptive Data Number of Days to Issuance and Year-to-Year Change in Number of Days to Issuance: Three-Year Period Comparisons				
	2006 to 2008		2009 to 2011	
	Number of Days	Year-to-Year	Number of Days	Year-to-Year
Minimum	87	-226	111	-92
Maximum	647	112	274	49
Mean	206.5	-11.2	180.8	-1.3

As can be seen in the Tables, the time-to-issuance for the sample cities declined over the six-year period. However, the average still hovers around the six-month point. As the GASB speculates in its study, this commonly used benchmark may reflect the fact that many municipalities submit their CAFRs to financial reporting certificate programs such as that of the Government Finance Officers Association (GFOA), which requires submissions within six months after a government's fiscal year-end. This observation is consistent with the cities included here in that 86% of the reports in this sample are GFOA certificate recipients. The significance of the GFOA award notwithstanding, the observed mean release time of six months still exceeds that which the users surveyed by the GASB found desirable. The maximum times displayed in the Table data serve to emphasize this usefulness gap. In addition to the report represented by the six-year maximum, three others in the sample were released more than a year after the fiscal year-end.

While the overall length of time that the sample cities took to issue their reports did decrease during the study's timeframe, as the Table data indicates, the minimum reporting period did not. For example, using the approximate minimum of four months observed in the second three-year period as a measuring point for comparison, the underlying data indicates that during 2009-2011 the percentage of cities with audits completed within four months of their year-ends (5%) was only half that observed in 2006-2008 (10%).

In terms of the usefulness gap described in the GASB study, perhaps more telling is the overall sample minimum release time, that observed in the first three-year period. Nearly 90% of the users surveyed by the GASB indicated that reports received within 45 days of year-end are very useful, but less than half found that to be the case for reports not issued until three months later. Here the overall minimum is just under three months, meaning none of the reports issued by the sample cities met the ideal identified by the GASB survey.

Thus, although the descriptive data indicates a decrease in the time needed to complete the municipal audits sampled, that period remains far beyond what users in the GASB research claim to be optimal. Further study of report timeliness therefore seems warranted. Accordingly, planned analysis will examine these observations in the context of audit complexity and municipal health. Preliminary though tentative results suggest a longer time to issuance during the years of implementation of the AICPA's risk assessment standards as well as a shorter time to issuance for municipalities that report healthier levels of unreserved general fund balances. Certain relationships observed in prior studies appear to hold for the sample as well.

IMPLICATIONS

The myriad influences that affect the length of time required to complete the annual financial reporting process for municipalities offer both challenges and opportunities for the researcher. With the increased burden of new audit requirements and the continuing financial pressures of the slow-to-recover economy, questions about the efficiency and effectiveness of that process will become more urgent. The potential to provide research-based insights into so fundamental an aspect of fiscal responsibility should thus remain a worthwhile pursuit.

REFERENCES

Kinnersley, R., D. McSwain, & C. Shoulders (2011, Winter). State of the states: A view from the CAFRs. *Journal of Government Financial Management*, 26-33.

Kinnersley, R., & C. Shoulders (2011, Summer). Condition of the cities: A view from the CAFRs. *Journal of Government Financial Management*, 52-57.

McLelland, A. J., & G. Giroux (2000). An empirical analysis of auditor report timing by large municipalities. *Journal of Accounting and Public Policy*, 19, 263-281.

Mead, D. M. (2011, March). *The timeliness of financial reporting by state and local governments compared with the needs of users.* Norwalk, CT: Governmental Accounting Standards Board.

Payne, J. L., & K. L. Jensen (2002). An examination of municipal audit delay. *Journal of Accounting and Public Policy*, 21, 1-29.

AUDIT PLAN ADJUSTMENTS FOR SIN FIRM CLIENT ENGAGEMENTS

David A. Sauer, Quinnipiac University
Gary P. Schneider, Quinnipiac University
Aamer Sheikh, Quinnipiac University
Kathleen A. Simione, Quinnipiac University

ABSTRACT

This paper outlines the audit plan adjustments necessary to create an effective audit for firms that are engaged in legal, but morally undesirable industries such as alcohol, tobacco, and gaming; these are often called sin firms. By annotating the risk models used to plan and conduct independent audits, areas of increased attention are identified and linked to specific risk components in the models.

INTRODUCTION

We have identified a category of firms that present auditors with a characteristically high degree of audit risk. These firms, often called sin firms in the literature, are engaged in businesses that, while entirely legal, have operations and reputation effects that give rise to an overall high level of risk. This paper outlines how the audit of these high risk clients is affected by the specific risks they pose.

SIN FIRMS

Sin firms are publicly traded clients that are engaged in morally reprehensible productive activities (Kim and Venkatachalam 2011). These activities include the production of alcohol and tobacco products and gaming industry operations, although some researchers include firms that manufacture weapons or operate in the adult industry in this category (Ahrens 2004; Hong and Kacperczyk 2009; Kim and Venkatachalam 2011, Waxler 2004). Beneish, Jansen, Lewis, and Stuart (2008), Hong and Kacperczyk (2009) and Kim and Venkatachalam (2011) note that sin firms face higher regulatory scrutiny, incidence of litigation, and separate risks of wealth expropriation by politicians and regulators.

AUDIT RISKS

Overall audit risk is the risk that the auditor will be wrong, that is, the risk that the financial statements are materially misstated after the auditor has issued an unqualified audit opinion (PCAOB, 2010). Audit risk can be decomposed into the risk of material misstatements and detection risk.

Audit Risk = f(Risk of Material Misstatements, Detection Risk)

The risk of material misstatements can be further decomposed into two multiplicative factors, inherent risk and control risk.

Risk of Material Misstatements = f(Inherent Risk, Control Risk)

Inherent risk is the risk that a material misstatement exists in the client's financial statements in the absence of any internal controls, and control risk is the risk that the client's system of internal controls will fail to prevent or detect material misstatements (PCAOB, 2010). These two risks, considered jointly, give rise to the risk of material misstatements. In sin firms, inherent risk is higher than most other firms due to the nature of the firm's business. One would expect sin firms to have a very strong system of internal controls in place to lower their overall risk of material misstatements.

The auditor can only assess the risk of material misstatements (both the inherent risk and control risk components), and can, therefore, only influence the level of audit risk by increasing or decreasing detection risk. That is, by adjusting the amount of audit work performed to collect evidence regarding the potential existence of material misstatements. Detection risk is the risk that the auditor's work will fail to identify all material misstatements. In the case of sin firms, auditors may need to collect more evidence, in terms of both quantity (sufficiency) and quality (appropriateness), to provide an appropriate level of assurance.

AUDITORS' ENGAGEMENT RISK

Although the assessment and management of audit risk is an important part of the auditor's responsibility, it is only one element in the pool of risk that must be managed to operate a successful audit firm. In planning an audit, external auditors must assess engagement risk, a more comprehensive risk that combines audit risk with the risk of losses that arise from lawsuits by its client or third-party users of the client's audited financial statements, a decline in reputation by virtue of its association with the client, or from costs of conducting the audit that exceed the audit fees charged on the engagement (Brown and Johnstone 2009; Johnstone 2000).

Engagement risk can be decomposed into client business risk, auditor business risk, and audit risk (Colbert, Luehlfing, and Alderman 1996; Johnstone and Bedard 2003).

Engagement risk = f(Client business risk, Auditor business risk, Audit risk)

Client business risk is the risk that the client will suffer harm due to its management, entity risk, and industry risk. An understanding of the client's business and industry is essential in assessing the client's business risk. An auditor should take a systems approach to understanding the client's business and industry (see Arens, Elder, and Beasley 2012). Auditors of sin firms experience an increase in the potential level of engagement risk in all three of its components.

In the case of a sin firm client, client business risk is high due to the increased threat of both litigation and regulation. In addition, the auditor cannot control client business risk, but only assess it, and thus can only control the level of engagement risk by focusing her attention on the other two components of engagement risk.

Auditor business risk is the risk that the auditor will suffer harm due to servicing a sin firm client. The auditor's business risk is higher with a sin firm client than with a non-sin firm client due to the higher threat of litigation faced by sin firms. The only way in which the auditor can influence the level of her own business risk is by being very selective when accepting or continuing with a client. Thus, it is difficult to change the level of auditor's business risk once the decision has been made to accept or continue with a sin firm client.

CONCLUSION

Audit firms need to exercise special care when auditing clients in sin industries. As noted above, engagement risk is quite high on a sin firm audit engagement. This is due to both client business risk being high as well as auditor business risk being high. The auditors should pay particular attention to the integrity of the sin firm's management as it is especially important to be dealing with a management team that has a reputation for integrity in industries with such a high degree of inherent risk.

Auditors also need to ensure that the client has a good system of internal controls in place, to help them conduct their audit in the most efficient and effective manner possible. In fact, in the case of a publicly traded sin firm, an audit of internal controls over financial reporting is also required, and auditors can help point out deficiencies in their client's internal control system.

REFERENCES

Ahrens, D. (2004). *Investing in Vice*. St. Martin's Press, New York.

Arens, A., Elder, R., & Beasley, M. (2012). *Auditing and Assurance Services: An Integrated Approach*. 14th edition. Pearson Education, Inc., New Jersey.

Beneish, M. D., Jansen, I. Ph., Lewis, M. F., & Stuart, N. V. (2008). Diversification to Mitigate Expropriation in the Tobacco Industry. *Journal of Financial Economics* 89, 136-157.

Brown, H., & Johnstone, K. (2009). Resolving Disputed Financial Reporting Issues: Effects of Auditor Negotiation Experience and Engagement Risk on Negotiation Process and Outcome. *Auditing: A Journal of Practice & Theory* 28: 65-92.

Colbert, J., Luehlfing, M., & Alderman, C. (1996). Engagement Risk. *The CPA Journal* 66, 54-56.

D'Aquila, J., Capriotti, K. Boylan, R. & O'Keefe, R. (2010). Guidance on auditing high-risk clients. *The CPA Journal*, 80, 32-37.

Hong, H., & Kacperczyk, M. (2009). The Price of Sin: The Effects of Social Norms on Markets. *Journal of Financial Economics* 93, 15-36.

Johnstone, K. (2000). Client Acceptance Decisions: Simultaneous Effects of Client Business Risk, Audit Risk, Auditor Business Risk, and Risk Adaptation. *Auditing: A Journal of Practice & Theory* 19, 1–25.

Johnstone, K., & Bedard, J. (2003). Risk Management in Client Acceptance Decisions. *The Accounting Review* 78, 1003-1025.

Kim, I., & Venkatachalam, M. (2011). Are Sin Stocks Paying the Price for Accounting Sins? *Journal of Accounting, Auditing & Finance* 26, 415-442.

Public Company Accounting Oversight Board (PCAOB). (2010). *Auditing Standard No. 8 Audit Risk*. Washington, DC: PCAOB.

Waxler, C. (2004). *Stocking Up on Sin*. John Wiley & Sons, New Jersey.

PREDICTION ABILITY OF CASH FLOWS, NET INCOME AND AUDITORS

Tae G. Ryu, Metropolitan State University of Denver
Barbara Uliss, Metropolitan State University of Denver

ABSTRACT

The accounting information should help investors and creditors evaluate the amounts, timing and uncertainty of firms' future cash receipts and disbursements. The FASB contends that accrual-based historical earnings are superior to cash flows in predicting future cash flows. But, Bowen et al. (1986) shows that traditional measures of cash flows (net income plus depreciation and working capital from operations) appear to be better predictors of future cash flows than accrual accounting earnings. Since then, many researchers have articulated the importance of accounting data, especially cash flows and net income, in the predictive and forecasting processes.

In this study, we empirically re-examined the ability of cash flows from operating activities and accrual-based net income in predicting firms' bankruptcy. In the past, the results of this type of research were mixed. Differently from previous research, we focus on the timing of predictive ability, i.e., which data, cash flows or net income, is faster in predicting a firm's bankruptcy. We also investigate the timing of auditors' issuance of a going-concern opinion.

SMALL BUSINESS ACCOUNTING: PREPARING FUTURE ACCOUNTANTS THROUGH A NEW GRADUATE ACCOUNTING COURSE

Doug Purdy, Metropolitan State University of Denver
Letitia Meier Pleis, Metropolitan State University of Denver

ABSTRACT

Accounting is one of the major difficulties small businesses face. Often the small business owner lacks accounting skills. He/she is focused on the primary product/service the business provides rather than properly preparing the accounting side of the business. This problem becomes worse when the small business owner does not know where to turn for help and does not know if the help he/she is getting is correct when it is sought out.

The other side of the issue is that today's accounting curriculum does not prepare the future accountant to help these small businesses. Most of the courses the accounting student takes are related to big companies and the student is encouraged to specialize in one area (financial, audit, managerial). A small business needs an accountant that can give tax, cost, and planning advice.

In the spring of 2012, Metropolitan State University of Denver offered a course in its master's program that focused on teaching the accounting student about working with small businesses. The course had two components. The first half of the semester the students learned about issues facing the small business. These issues included tax at all levels, employees, breakeven, budgeting, and company formation. The second half of the semester students worked directly with small businesses on an accounting issue. This paper includes details about the course, the experience of working with the small business, and suggestions for improvements for future offerings of the course.

DEVELOPING AN ASSESSMENT AND DEVELOPMENT PLAN FOR STUDENTS ENTERING INTERMEDIATE ACCOUNTING I: THE PROCESS AND STUDENT REACTIONS TO THE PLAN

Mary E. Phillips, Middle Tennessee State University
Rebecca A. Foote, Middle Tennessee State University
Terry J. Ward, Middle Tennessee State University
Paula B. Thomas, Middle Tennessee State University

ABSTRACT

Motivated by concerns regarding the failure rate and number of withdrawals in the first intermediate accounting course, as well as a concern for the varied levels of preparedness of students entering the course, we formed an Intermediate Readiness Committee to develop and implement a program for improvement. Our program is a combination of an exam followed by a developmental component for those students not passing the exam. This paper describes the process we used in developing our current program and student reactions to the program. Students generally enjoyed the development software and believed that the assessment and development program was rewarding and useful to them in Intermediate I. Our program was deemed a 'best practice' in a recent AACSB visit for maintenance of our Department of Accounting's separate accreditation, and we recommend this initiative to other universities.

Topic Area: Accounting Education

A NOTE ON ANNUITIES

Malek Lashgari, University of Hartford

This research was funded by the Barney Research Grant, 2010-2011

ABSTRACT

Annuities provide various alternatives for funding retirement expenditures. In a "fixed annuity" an insurance company guarantees a constant amount of payment for life whereas in a "variable annuity," the periodic receipts vary and are perhaps hedged against inflation. TIAA traditional annuity, introduced in 1952, provides a 4 percent minimum guaranteed return together with an extra amount at year-end when possible. Annuitants have a choice of a graded method in which these additional incomes are re-invested for a possible higher amount of income at a later time. A survivor benefit may be added for lifetime income as well. In addition, a fixed period can be selected up to 20 years instead of a lifetime income, with various choices for beneficiaries.

TIAA-CREF offers variable annuities as well in which a 4 percent rate of interest is used to calculate the payouts to the annuitant. If the observed return on investment portfolio is greater than 4 percent, the payouts will rise. Conversely, returns lower than 4 percent would result in lesser amount to the annuitant. In a two-life annuity, the choices are: full benefit to spouse; half benefit to spouse; or 75 percent benefit to spouse with no reduction in benefit if the spouse dies first. However, the benefits are reduced to 75 percent. In addition, a fixed period can be selected up to 20 years instead of a lifetime income. If a one-life annuity is selected the spouse's approval is necessary following the Retirement Equity Act of 1984.

TIAA-CREF further provides interest payment retirement option for receiving the interest only, available up to age 69½, which will have to be converted to an annuity at a later time. Furthermore, participants can use the transfer payout annuity to withdraw a part of their accumulations from CREF and over a 10-year time horizon from TIAA. These provisions are provided because as of 1994, tenured faculty are not subject to mandatory retirement, however a 10 percent mandatory minimum distribution applies to those age 70½ in private institutions whether one is retired or gainfully employed. The trend during 1978-1994 has been a two-life annuity choice with full benefit to survivor by male annuitants. In addition, the 15-year guaranteed period shows substantial growth. As for the female primary annuitants, the one-life annuity appears to be the dominant one. (TIAA Research Dialogues, 1996.)

Goodman and Tanenbaum (2008) show that a regular life annuity appears to provide adequate inflation protection at a lower price as compared to the guaranteed minimum withdrawal benefit products that offer a choice for beneficiaries as well. To achieve the same

goal, they recommend purchasing a life annuity with a minimum guaranteed time period which provides payments to designated beneficiaries for the annuitants. Meanwhile, Weil (1973) and Weil and Fisher (1974) observing the past performance of TIAA-CREF portfolios in the 1970's, identify an intra beneficiary wealth transfer which is due to using an assumed return much lower than the expected return on investment when its expected return was around 10 percent. As the later annuity income is based on a higher investment base, it tends to provide more income at a later date, in favor of those with a higher longevity. Weil shows that CREF could have used at least 5.5 percent.

In this empirical work, simulation results from hypothetical variable annuities with a 5 percent withdrawal benefits are performed on investment portfolios consisting of common stock and bonds with various weights. The payoffs for variable annuities are calculated for non-overlapping time intervals during 1926-2011. While the year by year cash flows are susceptible to the observed performance of the underlying portfolio, the money's worth of an annuity is within a reasonably close range in most time intervals with an outstanding balance of wealth for the beneficiaries.

REFERENCES

Goodman, Benny and Seth Tanenbaum. "The 5% Guaranteed Minimum Withdrawal Benefit: Paying Something For Nothing? TIAA-CREF Institute, *Research Dialogue*, Issue No. 89, April 2008.

TIAA Research Dialogues. "Trends in the Selection of TIAA-CREF Life-Annuity Income Options, 1978-1994." Issue No 48, July 1996.

Weil, Roman." Annuitants Can Afford CREF's Projecting Earnings at a Rate Larger than 4 Percent." *Journal of Risk and Insurance*, Vol. 40, No. 3, September 1973, pp 465-472.

Weil, Roman and Lawrence Fisher. "TIAA/CREF: Who Gets What? An Analysis of Wealth Transfers in a Variable Annuity." *The Journal of Business*, vol. 47, no. 1, January 1974, pp. 67-68.

MANAGING EARNINGS TO MEET CRITICAL THRESHOLDS AND THE ROLE OF CORPORATE GOVERNANCE IN CHINA

Liona Lai, York University

ABSTRACT

This study investigates the behaviors of Chinese firms in using non-operating below-the-line items to manage earnings to meet rights issuance threshold and to avoid loss or de-listing, and whether certain corporate governance mechanisms are related to such earnings management behaviors. The results of the empirical analyses based on a sample of 1522 firm-year observations for the period 2000-2001 find that the likelihood of managing earnings to meet rights issuance threshold and to avoid loss or de-listing is negatively related to the adoption of independent directors in the board of directors and to the percentage shareholdings of the largest shareholder and positively related to the percentage share of state ownership. Further investigation shows that there is a non-linear relationship between such earnings management behaviors and the percentage of independent directors in the board. There is no evidence, however, that percentage shareholdings of CEO, the duality of CEO and top management position, or the quality of external auditor is related to such earnings management measure.

THE EFFICACY OF VOLUNTARY DISCLOSURE: A STUDY OF WATER DISCLOSURES BY MINING COMPANIES USING THE GLOBAL REPORTING INITIATIVE FRAMEWORK

Marla Kraut, University of Idaho
Philip Dennis, University of Idaho
Heidi Connole, University of Alaska Southeast

ABSTRACT

Corporate disclosure requirements and corporate reporting are based on the general premise that information about a firm must be made available in order for informed decision-making. The traditional approach to corporate reporting has focused primarily on financial performance, while environmental disclosures have gone under-reported.

Conceived in 1997, the Global Reporting Initiative is a multi-stakeholder network facilitating the development and application of sustainability reporting, including economic viability, environmental and social responsibility activities. With the intention to be a vehicle to advance the standardization of non-financial corporate reporting, the GRI has been working to develop guidelines for sustainability reporting (GRI, 2006).

Corporate issuance of sustainability reports is a wholly voluntary endeavor. Since 2003, the year-over-year growth rate of sustainability reports based on the GRI framework has consistently increased annually by 20%. More than 3,000 companies worldwide issue sustainability reports. Despite the growing interest in participation in GRI reporting, as in all sustainability reporting activities that are voluntary in nature, there are questions of the quality and comprehensiveness of the information that is reported.

The purpose of this study is to establish a baseline from which the substantive content of sustainability report disclosures (specifically water disclosures), using the GRI framework can be discussed. The study focuses on the mining industry in order to examine reporting within a water-intensive industry (one that both utilizes and impacts water resources in a significant way).

Based on a sample of 22 company sustainability reports for 2010, a content analysis of water disclosures was conducted to determine how the sample companies used the GRI G3 reporting framework. The results of the content analysis indicate a lack of completeness in water disclosures and a lack of differentiation of reports across Application Levels.

OWNERSHIP AND CONTROL RIGHTS TRANSFERS AND INCOMPLETE CONTRACTS: EMPIRICAL ANALYSIS OF DRUG DEVELOPMENT PARTNERSHIPS

Lilia Hyttinen, Hanken School of Economics, Finland

ABSTRACT

Asset ownership and control transfers within pharmaceutical drug development collaborations are examined through lenses of incomplete contracting. The subject of contractibility puts some constraints on corporate financing possibilities and then, decision and control rights become an issue. Because technology ownership and revenue rights, generated by a new technology are contracted separately, within the drug development's partnership they are analyzed independently, as well. The findings suggest that the ownership of technology (IP rights) are transferred ex-ante only in 4% of all partnerships, while in the majority of deals have been contracted only the licenses to commercialize a new drug. To minimize a partner's risk exposure, license fees are paid upon validation of a drug target and not upfront when a partnership contract has signed. In the sample, over half of all projects began as licensing option contracts. These contracts are contingent upon the favorable state verification i.e. an outcome of clinical trials.

In previous research, academic scholars have viewed equity stake transfers as an option to acquire a firm in future. I have examined the alternative hypothesis of replacing cash outright payments by an acquisition of a minority equity stake. My results suggest rather the credit rationing and minimizing the risk exposure.

INTRODUCTION

The paper examines drug development partnerships, particularly, the issues of ownership and control rights allocations, contingent contract design and favorable state verification. For example, how firms incorporate contingency provisions to minimize the risk, including equity's stake purchase as part of a partnership contract. The theory of financial contracting (Bolton and Dewatripont, 2005) and incomplete contracting (Hart, 2005) provided the theoretical framework to study the issues throughout the first essay.

I examine pharmaceuticals drug development partnerships through the lenses of incomplete contracts. The issue of contractibility (incomplete contracting) puts some constraints on corporate financing possibilities and then also decision and control rights become an issue.

The idea is that at the outset not all possible future contingencies can be included in the contract, since they are simply too difficult to describe in advance. In particular, if the initial contract does not outlay all the future contingencies, the question becomes how future decisions are taken, and more importantly, how are they reflected in the choices of parties at ex-ante stage?

Given that an incomplete contract is silent about the future events, and whether those events take place, the important decisions have to be made. Therefore, the question becomes: How will it be done? What decision-making process is used? In corporate finance research the view taken to incompleteness: even if it is not specify all contingencies in the contract ex-ante, it is possible to agree ex-ante on the decision-making processes.

The question thus is who should have decision and control rights, since they are the key to decisions and actions when unforeseen contingencies arrive. How should decision rights be allocated in the initial contract/deal between the parties?

Few trends have emerged within the sector in respect to the partnering development of a new drug, such as: a favorable state verification (proof-of-concept) before licensing commercial rights; ex-ante, the acquisition of an option to license commercial rights and not a license outright; or equity stake inclusion in a contract in lieu of cash. Motivation for this paper was to document empirical evidence to support the industry's casual observations.

Research Question: this paper investigates, how and at what stage of a drug development process ownership and control over an asset (the technology) are allocated within a partnership, using data from pharmaceutical and biotechnology industries. Further analysis takes a closer look at partnerships contracts' design, specifically, how firms incorporate contingency provisions to minimize the cash outflow, such as an option, or equity stake provision as a part of a partnership contract.

In pharmaceuticals' drugs development framework, ownership rights on a new technology (a drug's molecule) are determined by who is a patent holder. However, a cash flow generated by an asset is often transferred separately by means of exclusive licensing rights. Empirical framework is described in Ziedonis (2007) who examined the motives to structure contracts as "real options". The contingent control allocation and favorable state verification are inherent in partnership contracts. Critical contracts' provisions has been examined, such as: a licensing of commercialization rights instead of a technology acquisition, exclusive license initiated as an option contract, and equity stake inclusion in contracts provisions in lieu of cash disbursement outright. In the area of Financial Contracting under moral hazard ("hidden action"), the critical issue is, what are the variables that are observable and verifiable and thus, contractible. In this analysis, I test the *phase of development* variable that is observable and verifiable, as the critical determinant of the reallocation of control.

The evidence suggests that in the majority of partnerships, a pharmaceutical firm does not seek to buy a technology; it is only seeks to license out commercialization rights; i.e. only cash flow rights transferred via an exclusive license, and an asset's (a technology) control (ownership) remains with innovator/patent holder.

The second test examines the structure of contracts. Findings suggest that partnerships agreements are commonly initiated as an option to license commercialization rights and not outright licensing, potentially due to contractual incompleteness. Ex-ante, when a contract is signed, a pharmaceutical firm only acquires a licensing option; yet it exercises an option and pays licensing fees late, if the favorable state is verified, i.e. the phase IIb (proof-of-concept), or even phase III, is successfully completed. Lastly, many partnerships (23%in the sample) have equity stake included in contract's provisions. There is evidence that equity stake are included to replace substantial cash outright disbursement at the early stages of collaborations, and if a project's total value is significant, particularly in international partnerships.

Financial Contracting under Moral Hazard ("hidden action") is at the center of the first essay. In addition to an agency problem, i.e. entrepreneur and financier, an issue of contractibility (incomplete contracting) puts some constraints on corporate financing /investing possibilities and, than, also decision and control rights became an issue. I have examined the vertical customer (Pharma)-supplier (biotech firm) relationship through the lenses of principal-agent problem (monitoring) and incomplete contracting.

First, the findings contribute to financial contracts literature. Theory of Grossman and Hart (1986), Aghion and Bolton (1993), and empirical findings of Kaplan and Stromberg (2003) and Robinson and Stewart (2007) suggest that ownership of an asset, and rights to receive revenues generated by this asset, are often separated in collaborations agreements. For example, Robinson and Stuart (2007) have identified the "ownership-based" control vs. "contractual" control. I have documented additional empirical evidence to support the hypothesis.

Theoretical literature has emphasized contingent asset allocation ((Grossman and Hart (1986), (Aghion and Bolton (1992)), and favorable state verification (Dessein (2005) before the allocation of control. I have examined if the allocation of control rights and revenue rights depended on the realization of verifiable states of performance, such as a validation of a drug. I found that control rights transferred upon the verification of favorable state: i.e. successful completion of clinical trials, particularly Phase IIb.

Earlier, Robinson and Stuart (2006) have recognized the reputation of a partner as an important factor in the allocation of control in alliances. I have found the evidence that the validation of a drug, successful progression through clinical trials is a critical determinant in control transfer.

Next, Ziedonis (2007) has analyzed options applications in the technology pre-licensing; during the option period, an in-licensing partner learns and can better evaluate a technology. I have expanded the knowledge of an option contracts' application to partnership contracts between larger pharmaceutical and small biotechnology firms.

Further, Lerner and Merger (1998), Kaplan and Stromberg (2003) have found that VC projects in times of uncertainty and with subsequent additional financing, assign *more control* to the financing firm. My results show support to their findings in the equity stake part, but not in the licensing of a new technology's part, neither an asset ownership allocation part. There is evidence that pharmaceuticals in times of uncertainty only acquire an *option* to control an asset, but not a license (control) outright.

Finally, Folta and Miller (2002) have viewed the equity stake purchase as an option to acquire the firm. In contrast, this paper is arguing that the equity stake acquired in lieu of a cash outright disbursement to alleviate exposure. The partnerships are dependent on the capacity of the larger pharmaceutical firm to absorb the new R&D investments, thus, pharmaceuticals seek to minimize the cash outflow. Furthermore, partnerships are often viewed in academic literature as a risk sharing strategy solution (Palia et al. (2007). The findings suggest that the partners incorporate risk management techniques into contracts provisions, such as: licensing instead of outright acquisition, options, and a cash replacement with equity.

Also, the paper contributes to the, mainly, managerial science literature in area patent's licensing and technology transfers, such as Ginarte and Park (1997); Oxlley (1998); Folta and Miller, (2002);Ziedonis, (2007) to name just a few, by expanding the economics' empirical knowledge on patent licensing and technology transfers.

REFERENCES

Aghion P., Bolton P. 1992, "An Incomplete Contracts Approach to Financial Contracting," *Review of Economic Studies*, 59,473-494

Bolton and Dewatripont, 2005. *Contract Theory*, Cambridge: MIT Press.

Dessein, Wouter, 2005, "Information and Control in Ventures &Alliances" Journal of Finance, 60.

Folta T.B., K.Miller, 2002. "Real Options in Equity Partnerships", *Strategic Management Journal* 23, p.77-88

Ginarte and Park (1997). Determinants of intellectual property rights: A cross national study, *Research Policy*, vol 26, pp. 283-301.

Grossman S.J., O.D. Hart. 1986. "The Costs and Benefits of Ownership: A Theory of Vertical and lateral Integration"; *Journal of Political Economy*, 94, 691-719

Guedj, I., D. Scharfstein. 2004. "Organizational Scope and Investment: Evidence from the Drug Development Strategies and Performance of Biopharmaceutical Firms". *NBER*

Kaplan S., P. Stromberg. 2003. "Financial Contracting Meets the Real Word: An Empirical Analysis of Venture Capital Contracts". *Review of Economic studies*. 70, p.281-315.

Lerner J., P. Merger. 1998. "The Control of Technology Alliances: An Empirical Analysis of the Biotechnology Industry". *The Journal of Industrial Economics*, Vol.p.?

Palia, D., Ravid A., N. Reisel. 2008."Choosing to Cofinance: Analysis of Project –Specific Alliances in the Movie Industry". *The Review of Financial Studies*, V.21

Robinson D., T. Stuart. 2006. "Network Effects in the Governance of Strategic Alliances", *Journal of Law, Economics and Organization*, Vol.23, Issue 1, p.242-273.

Ziedonis, A.A., 2007. "Real Options in Technology Licensing", *Management Science*, Vol. 53, No. 10, p.1618-1633.

THE INTEGRATION OF FAIR VALUE ACCOUNTING INTO U.S. GAAP: 1975 TO 1995

Debra Hunter, Arkansas Tech University
Stephen B. Shanklin, Tennessee State University
Craig R. Ehlen, University of Southern Indiana

ABSTRACT

This article focuses on the evolution of U.S. GAAP from an almost exclusive use of the "historical cost basis" to the gradual incorporation of the "fair value concept" into current accounting standards. Specifically, this ideological shift has occurred over a protracted period of almost forty years and includes financial reporting standards for leases, pension plans, investments in debt and equity securities, derivatives, business combinations, executive stock options, and employee stock ownership plans (ESOP). Because this path began much earlier than most people realize, it is readily apparent that this valuation shift is not solely a result of the recent regulatory efforts to converge U.S. GAAP and IFRS. This article specifically addresses the changes that occurred between 1975 and 1995.

FINANCIAL INSTRUMENT CREDIT IMPAIRMENT MODELS - A RIFT IN THE CONVERGENCE OF IASB AND FASB ACCOUNTING STANDARDS

Kathy Hsiao Yu Hsu, University of Louisiana at Lafayette
Harlan Etheridge, University of Louisiana at Lafayette

ABSTRACT

In 2006 the International Accounting Standards Board (IASB) and the U.S. Financial Accounting Standards Board (FASB) agreed on a series of cooperative projects that would not only improve International Financial Reporting Standards (IFRS) and U.S. Generally Accepted Accounting Principles (GAAP) , but also would bring IFRS and GAAP closer to convergence. Since then the boards have made significant progress toward accounting standard convergence and their commitment to convergence was reaffirmed in an IASB-FASB joint report dated April 5, 2012. One of the remaining convergence projects entails financial instrument impairment, which is of significant importance to the global financial markets. The boards jointly developed a "three-bucket credit impairment model" to address this issue and both invited comments on the model from their stakeholders. Then in August 2012, the FASB decided unilaterally to adopt the current expected credit loss (CECL) model to account for financial instrument impairment. The IASB continues to support the jointly-developed "three-bucket credit impairment model".

The FASB's decision is a significant step in its efforts to improve financial industry accounting, but also represents a step away from the convergence of accounting standards worldwide. This paper provides a closer look at the differences between the IASB "three buckets" model and the FASB's CECL model and explores the implications of this newly developed rift in the efforts to converge accounting standards internationally.

DO THESE STOCK MARKETS MOVE TOGETHER? AN EMPIRICAL STUDY OF INDIA AND ITS MAJOR TRADING PARTNERS

Alan Harper, South University
Zhenhu Jin, Valparaiso University
Gregory Gleghorn, Schaefer Systems International

ABSTRACT

This paper investigates the relationships between the monthly returns of the Indian stock returns, and of some of India's major trading partners. By using a multivariate co-integration mode, we find that the monthly returns of these markets tend to converge in the long run even though they may move in different directions in the short term. The results of our study may provide some insights to investors of Indian stock market who seek to reduce their risk exposure by diversifying in these markets.

Keywords: Indian stock market, Co-integration, Diversification, Error Correction

INTRODUCTION

Investors constantly seek diversification opportunities to maximize the expected rate of return while minimizing the risk. The benefit of international diversification is based on the belief the stock markets in different countries are not highly correlated, due to domestic economic, financial, regulatory, or other factors. In other words, what is considered non-diversifiable risk in one country may be considered diversifiable risk when one holds an international portfolio? That is the basis for international diversification. However, with more and more international trade and cross border investments, the economies of some countries become more integrated with some of their major trading partners. The economies of the countries involved become more interdependent and less insulated from each other. That raises a question: will the more integrated economies make it more difficult for investors to reduce risk by investing in these countries? If the stock markets in these countries are driven by the same factors, it will be much harder to reduce risk by diversifying. At the heart of this phenomenon are the comovements in assets prices and stock market integration, which have been studies extensively in international finance (Bai & Green, 2010; Bekeart & Harvey, 1995; Bekeart, Hodrick, & Zhang, 2009; Errunza, Hogan, & Hung, 1999; Jin, 2005; G. Meric, Ratner, & Meric, 2007; Puthuanthong & Roll, 2009; Harper & Jin, 2012. Comovements are defined "as the movement of assets that is shared by all assets at time t" (Baur, 2003, p.2).

The study of comovements in asset prices provides significant insight into possible diversification strategies that impact the risk-return relationship for investors who hold portfolios consisting of stock in different countries. Asset price theory provides the theoretical framework for analyzing comovements and stock market integration. If comovements among market become stronger, opportunities for and the benefits of diversification will be reduced (Ilano & Breaneau, 2009).

Understanding market comovements are important for other reasons. Economists are interested in comovements because comovements may affect the flow of capital between countries. Capital market theorists are interested in this because if affects equity market segmentation (Lessig & Joy, 1976). According to Onour (2010), "Integration in stock market may provide some advantage in terms of gains in market efficiency but also entails potential pitfalls. Greater integration among stock market implies stronger comovements between markets; thereby reducing the opportunities for diversification" (p. 30). This has implications for assembling efficient portfolios. Although the study of comovements and stock market integration has been well documented in the literature with respect to developed countries, emerging markets such as India has received less attention (Modi, Patel, & Patel; Wong, Agarwal, & Du, 2004).

The purpose of this paper is to study whether the movements of Indian stock market is significantly related with the stock markets of some of its top trading partners, such as Hong Kong (HIS), Malaysia (KLSE), Singapore (ST), Switzerland (SSMI), and the United States (S&P 500). Understanding these relationships may help investors to formulate their investment strategies. The time frame studied in this paper is January 2000 to December 2011. The monthly return data are used.

We use multivariate co-integrated and vector error correction model (VECM) in our study. The results indicate that the Indian stock market returns of India and its top trading partners tend to converge in the long run and are mean reverting. But the stock returns in these markets are not highly correlated and it is still possible for investors to achieve some degree of diversification in the short run by forming portfolios consisting of stocks from these markets.

The rest of the paper is organized as follows. Section II provides an overview of the literature on the linkages among stock markets. Section III provides the data and sources of the data. Sections IV and V discuss the methodology and the empirical results. Finally, we conclude in section VI.

LITERATURE REVIEW

Grubel (1968) was one of the first to examine stock market integration and portfolio diversification. Grubel's research centered on the concepts of a two country two asset class model and investors can diversify based on the comovements between these two assets. This is further investigated by other researchers (Lessard, 1973; Levy & Sarnat, 1970; Ripley, 1973), with similar findings. Other researchers have also evaluated the influence that markets have on one another by examining how markets are integrated. For instance, Menon, Subha, and Sagaran (2009) analyze the degree of integration between Indian, Chinese, American, and Singaporean equity markets. They find that the Indian stock market is integrated with some markets around the world. Wong, Agarwal, and Du (2004) observed this relationship by evaluating the long run and short run relationship and linkages between the Indian Stock Exchange (BSE 200) and the United States (S&P 500), Japan (Nikkei 225), and UK (FTSE 100) from January 1, 1991, to December 31, 2003. They found that the Indian stock market is integrated with developed markets and sensitive to the dynamics in these markets in the long run. In 2008 Jeyanthi and Punithavathy observed similar findings. They examined the relationship of India's stock market with developed and emerging markets and concluded that returns from emerging markets are a good diversification strategy when placed with mature developed markets. Tripathi and Sethi (2010) used daily data from 1998 to October 2008 to evaluate if the Indian stock market is integrated with the U.S., the U.K., China, and Japan. Their results indicated that the Indian stock market is integrated with the U.S., but not Japan, the U.K., and China. Nath and Verma (2003) found similar results. They used daily index data from January 1994 to November 2002 retrieved from India, Singapore and Taiwan. They found no integration between the market indexes.

DATA

The data we used are monthly return indices obtained from Yahoo! Finance. Data is collected from January 2000 to December 2011 and includes the stock markets of India, Hong Kong, Malaysia, Singapore, Switzerland and the U.S. All indices are converted to logarithms.

METHODOLOGY

The issue addressed by this paper, is whether a long-run and short run relationship exists between the Indian stock market (BSE) and the stock markets of Hong Kong (HSI), Malaysia (KSLE), Singapore (STI), Switzerland (SMI), and the United States (S&P 500). This study will employ a multivariate co-integration framework and vector error correction model (VECM) to answer this question. Three steps are taken. The first step involves conducting the augmented Dickey-Fuller (ADF) unit root test for non-stationarity in order to determine if the data series are integrated of order I(1). After determining that the series are integrated of order one I (1), co-integration analysis is conducted to determine whether a long-run relationships exist between the returns of the Sensex and the returns of the selected stock markets. The Johansen (1991) method is used to examine the cointegrating relationships. If a cointegrating relationship is found, then an error correction model will be developed to examine the short-term dynamics of the variables.

EMPIRICAL RESULTS

Table 1 displays a summary of statistics of the six stock markets. The highest mean monthly return of .0033 belongs to the Indian stock market while the lowest mean return of -.0006 belongs to the Swiss stock market. The U.S. mean return is also negative at -0.0003. This suggests that the Indian stock market outperformed the developed stock markets of Switzerland and the United States during our sample period. In comparison with other Asian stock markets, the Indian stock market also outperformed Hong Kong (.0006), Malaysia (.0014), and Singapore (.0006). Also, we find that Singapore and Hong Kong mean stock returns are identical which is probably indicative of geographical proximity and trade integration. The risk reward trade-off is displayed in the standard deviations between the stock markets. The Indian stock market displays the highest standard deviation at 0.0334 and consequently the highest mean stock return. The Swiss market had the lowest standard deviation at 0.0184 while also having the lowest mean stock return. The United States has a standard deviation 0.0207 while also having the second lowest return. Hong Kong, Malaysia, and Singapore indicate standard deviations of 0.0289, 0.0208, and 0.0269 respectively. In terms of fat tail risk as measured by kurtosis, the Indian and United States stock market as similar at 3.9719, and 3.9898. The highest kurtosis belongs to Singapore at 6.5818, while Hong Kong, Malaysia, and Switzerland display 4.0756, 3.8210, and 3.5520 respectively. A normal distribution has a kurtosis of 3. The fact that all stock markets display kurtosis greater than 3 indicates probable tail risk. The Jarque-Bera statistics and p-values reject the normality assumption on these six markets monthly returns.

Table 1: Monthly closing Price Indices in Natural Logs

	LNBSE	LNHK	LNKLSE	LNSP	LNSSMI	LNUS
Mean	0.003322	0.000612	0.001448	0.000550	-0.000588	-0.000345
Median	0.004475	0.004143	0.004210	0.005634	0.002816	0.002205
Maximum	0.108075	0.068459	0.055169	0.083820	0.046058	0.044431
Minimum	-0.118559	-0.110508	-0.071720	-0.118841	-0.060952	-0.080621
Std. Dev.	0.033357	0.028949	0.020778	0.026896	0.018419	0.020706
Skewness	-0.455349	-0.593862	-0.484452	-1.045893	-0.678548	-0.622154
Kurtosis	3.971949	4.075585	3.821036	6.581795	3.552026	3.989836
Jarque-Bera	10.57042	15.29845	9.610053	102.5121	12.78921	15.06314
Probability	0.005066	0.000476	0.008188	0.000000	0.001671	0.000536

Table 2 displays the correlation coefficients between the stated stock markets. The Indian stock is moderately correlated with the other stock markets. For instance, the correlation coefficient associated with each stock market with respect to India is as follows: Hong Kong (.68), Malaysia (.53), Singapore (.69), Switzerland (.49) and the United States (.57).

Table 2: Correlation Matrix of Monthly Closing Price indices in Logs						
	LNBSE	LNHK	LNKLSE	LNSP	LNSSMI	LNUS
LNBSE	1.000000	0.679783	0.528707	0.691099	0.488989	0.566563
LNHK	0.679783	1.000000	0.563895	0.751204	0.572388	0.725465
LNKLSE	0.528707	0.563895	1.000000	0.595480	0.359703	0.462552
LNSP	0.691099	0.751204	0.595480	1.000000	0.567817	0.707064
LNSSMI	0.488989	0.572388	0.359703	0.567817	1.000000	0.759623
LNUS	0.566563	0.725465	0.462552	0.707064	0.759623	1.000000

Table 3 provides the results of augmented Dickey-Fuller (ADF) unit root tests at levels with trend and intercept and at first differences with only trend. The appropriate lag length was selected by using the Akaike Information Criterion (AIC). As indicated all of the variables possess a unit root at levels and fails to reject the null hypothesis of non-stationary. By not accounting for non-stationary the results could be misleading due to spurious regression and model misspecification**.**

Table 3: Unit Root Tests on Level and First Differences with Trend & Intercept and Trend		
Variables	Level(Trend & Intercept)	First Differences (Intercept)
Hang Seng	-2.9192	-7.2910
Sensex	-3.0714	-11.3502
KLSE	-3.9443	-10.3474
Singapore	-2.8595	- 6.7270
SSMI	-1.6005	-9.0499
S&P 500	-2.3673	-5.9355
RESULTS	Has a unit root	Does not have a unit root

Since the market index series (first differences) are integrated of order I (1). Co-integration analysis is performed to uncover whether the index series (first differences) become linear (stationary) when combined. The test used to perform co-integration analysis is the Johansen (1990) procedure. Table 4 indicates the results of this test. Two test statistics are used to determine the number of cointegrating relationships, the trace statistic and the maximum eigenvalue statistic. Interestingly, both the trace and maximum eigenvalue test statistic indicate identical results at both 5% and 1%. The trace statistic and maximum eigenvalue test statistic at the 5% and 1% level of significance indicate 6 co-integrated variables. So, we can conclude that non-stationary (levels) can be combined into stationary (first differences) to form at most 6 integrated series. In essence, these series are co-integrated and move together in the long run with short run deviations corrected toward their long run equilibrium relationship.

Table 5 displays the results from the long run cointegrating equation normalized by the Sensex index. This equation shows the long run relationships between the Sensex Index and the stock indexes of India's major trading partners. Table 6 displays the ECM short run coefficient for the Indian stock market. The ECM represents the speed of adjustment to equilibrium following innovations or disturbances in the model. The coefficient is negative and significant at 1%. This implies that deviations from the long run equilibrium relationship following short run innovations are corrected by .54% after one month.

Table 4. Johansen's Test for Multiple Cointegrating Vectors for the Long-Run Relationship Among the Stock Indexes

Null Hypothesis	Trace Test Statistic	Critical Values 5%	1%
A. Trace Test			
No Cointegrating Vector*	218.43	103.85	113.42
At Most 1 Cointegrating Vector*	157.75	76.97	85.34
At Most 2 Cointegrating Vector *	103.23	54.08	61.27
At Most 3 Cointegrating Vector *	62.65	35.19	41.20
At Most 4 Cointegrating Vector *	32.99	20.26	.. 25.08
At Most 5 Cointegrating Vector *	14.59	9.16	12.76

Null Hypothesis	Maximum Eigenvalue Test Statistic	Critical Values 5%	1%
B. Maximum Eigenvalue Test			
No Cointegrating Vector *	60.67	40.96	46.75
At Most 1 Cointegrating Vector*	54.52	34.81	40.30
At Most 2 Cointegrating Vector *	40.59	28.59	33.73
At Most 3 Cointegrating Vector *	29.65	22.30	27.07
At Most 4 Cointegrating Vector *	18.40	15.89	20.16
At Most 5 Cointegrating Vector *	14.59	9.16	12.76

Notes: *, signifies a significant relationship

Table 5: Long run cointegrating equation (normalized Sensex)

Hong Kong	Malaysia	Singapore	Switzerland	U.S.	Constant
-1.7932 (0.1907) [-9.4054]	-0.2007 (0.1975) [-1.0163]	0.1314 (.02442) [0.5382]	-0.3070 (0.2371) [-1.2951]	1.2604 (0.2923) [4.3120)	-0.0028

Table 6: Error Correction Coefficient	
Regressors	BSE
ECM	-0.546836***
Constant	.000129
R^2	.447355
Adjusted R^2	.390336
F-statistics	7.845715

CONCLUSION

This study investigates the relationship among the Bombay Stock Exchange and 5 selected stock markets. The empirical findings from this study indicate a long term cointegrating relationship and short run dynamics that adjust back to their long run equilibrium. Our findings also indicate at least six cointegrating relationships exist between the stated stock returns. Furthermore, an error correction models was developed that indicates that short run deviations return to their long run properties following disturbances to the model. This study should aid monetary policy officials and investors that seek to invest in the Indian stock market. Future research should apply granger causality to examine a more temporal cause and effect relationship between the Indian stock markets and the selected stock markets.

REFERENCES

Bai, Y., & Green, C. J. (2010). International diversification strategies: Revisited from the risk perspective. *Journal of Banking & Finance, 34*(1), 236–245.

Baur, D. (2003). *What is co-movements?* (EUR Working Paper 20759EN). Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=570585

Bekeart, G., & Harvey, C. R. (1995). Time varying world market integration. *The Journal of Finance, 50*(2), 430–444.

Bekeart, G., Hodrick, R. J., & Zhang, X. (2009). International stock return co-movements. *The Journal of Finance, 64*(6), 2591–2626.

Grubel, H. (1968). Internationally diversified portfolios welfare gains and capital flows. *American Economic Review, 58,* 1200–1314.

Ilano, J. C., & Bruneau, C. (2009). Co-movements of international equity markets: A large-scale factor model approach. Economic Bulletin, 29(2), 1–18.

Harper, A. and Jin, A. (2012). Comovements and stock market integration between India and its top trading partners: A multivariate analysis of international portfolio diversification. *International Journal of Business and Social Science*, 3(3), 50-56.

Jeyanthi, B. J., & Punithavathy, P. (2008). An empirical study of co-integration and correlation among India, emerging, and dynamic markets. *Journal of Applied Finance, 14*(1), 35–47.

Jin, Z. (2005). The integration of capital markets: Correlation analysis of the market indexes in greater China. Academy of Accounting and Financial Studies Journal, 9(1), 43–53.

Johansen, S. (1991). Estimation and hypothesis testing of cointegration vectors in Gaussian vector autoregressive models. *Econometrica, 59(6),* 1551-1580.

Lessard, D. R. (1973). International portfolio diversification. A multivariate analysis for a group of Latin American countries. *Journal of Finance, 28*(3), 619–633.

Levy, H., & Sarnat, M. (1970). International diversification of investment portfolios. *The American Economic Review, 60*(4), 668–675.

Menon, N.R., Subha, M.V., & Sagaran, S. (2009). Cointegration of Indian stock market with other leading stock markets. *Studies in Economics and Finance, 26(2*), 87-94.

Meric, G., Ratner, M., & Meric, I. (2007). Co-movements of the U.S., U.K., and Middle East stock markets. Middle Eastern finance and Economics, 1, 60–73.

Modi, A. G., Patel, B. K., & Patel, N. R. (2010). The study on co-movement of selected stock markets. International Research Journal of Finance and Economics, 47, 170–185

Nathm G.C., & Verma, S. (2003). Study of common stochastic trend and cointegration in the eerging markets: A case study of India, Singapore and Taiwan. *NSE research paper*,*http://www.nseindia.com*.

Panton, D. B., Lessig, P., & Joy, O. M. (1976). Co-movement of international equity markets: A taxonomic approach. Journal of Financial and Quantitative Analysis, 11(3), 415–433

Puthuanthong, K., & Roll, R. (2009). Global market integration: An alternative measure and its applications. Journal of Financial Economics, 9(2), 214–232.

Ripley. D. M. (1973). Systemic elements in the linkage of national stock market indices. *Review of Economic and Statistics, 55*(3), 356–361.

Tripathi, V., & Sethi, S. (2010). Integration of Indian stock market with major global stock markets. *Asian Journal of Business and Accounting, 3(1), 117-134.*.

Wong, W. K., Agarwal, A., & Du, J. (2004). *Financial integration for India stock market: A fractional co-integration approach* (Working Paper 0501). Retrieved from http://www.bri.org/publ/bppdf/bispap42.pdf#page=214.

Yahoo! Finance. (n.d.). *Yahoo! Finance indices* [data file]. Retrieved from http://finance.yahoo.com/intlindices

LAW AND FINANCE: SETTLEMENTS OF PHARMACEUTICAL PATENTS LITIGATIONS

Lilia Hyttinen, Hanken School of Economics, Finland

ABSTRACT

Pharmaceuticals patents infringements disputes between the brand and generic firms provided a framework to study empirically financial contracting (settlements) under information asymmetry.

The determinants of the settlements and, whether the settlements can help to reduce the costs of asymmetry of information tested using the logic of debt contracts renegotiations. The hypothesis tested that a generic is able to successfully negotiate settlement when it can pose a credible threat to invalidate a brand's patent. The pay-off is determined by Nash bargaining, for example, revenues are easier to control when the date of generic launch is negotiated. The issue of law and finance also has been examined, that is, whether the law puts effective constraints on resource allocation (contractual provisions).

This study is the intersection of law and finance, specifically contracting and "hidden information". The issues of a credible threat, brands' patents characteristics and the asset's value examined as the potential determinants of settlements of patents disputes.

This essay analyses contracting under an information asymmetry; i.e. how a generic firm uses credible threat to negotiate settlements of patents infringement disputes. Though the private contracting (settlement) cannot fully compensate for inefficient legal systems, can the settlement help to eliminate uncertainty and reduce the cost of asymmetry of information? I have viewed a potential patent invalidation in court as the cost of informational asymmetry.

While the quality of law and its enforcement are an important determinant of how well investors are protected[1], I studied *out-of court settlements* of pharmaceuticals' patents disputes. At the core is the theory of financial contracting under asymmetric information ("hidden information"). In this essay I examine the determinants of settlements of patents disputes and investigate if the settlements can help alleviate the asymmetry of information costs' problem, i.e. the validity of a patent.

Akerlof (1970) analyzed quality uncertainty and market mechanism; in his view, the source of asymmetric information-- only the seller knows the quality of the good (the market for "lemons"). Though the patent information is public, the patent claim's "quality" for counterparts (and for an econometrician) is difficult to assert. Yet, the outcome (court decision): either validation or invalidation of a patent, at the end, is observable. I view this uncertainty as a source of informational asymmetry ("hidden information"). Earlier, Meurer (1989) suggested that asymmetry of information could arise from potential weaknesses of a brand's patents claims.

Bulow (2003) argued that the source of asymmetry is whether a brand manufacturer has a second-generation drug in a pipeline that reduces the value of a generic drug; conversely, new entrants (generics) have better information on having viable products to sell, and are able to pose a credible threat.

Financial contracting (settlement) under asymmetric information renders the theoretical backdrop for this essay; in other words, some market participants have more information than others. In economics, contracting under asymmetric information is mostly interested in situations where the uninformed party offers a contract (a menu of alternatives) from which the informed party picks up the most preferred one. Of course, the seller designs such a menu of contracts in order to maximize its own payoff (Bolton and Dewatripont, 2005). Yet, in patent disputes, until the court makes a determination, it is uncertain who has better information.

In this paper, economic theory of contracts negotiations: a credible threat and a key asset's value, as well as the effect of an exogenous shock are employed to determine what motivates the decision to settle a patent dispute. The majority of the scholarly works have studied the links between patents characteristics and patents infringements disputes; on the contrary, my focus is on the *settlements* of the disputes. The motivation for this paper is the fact that empirical economic literature on the settlements of patents disputes is scarce, and this paper intends to fill that gap.

Research Question: this paper analyses the settlements of pharmaceuticals' patents litigations and tests the effects of a generics' credible threat, as well as, brands' patents characteristics on the outcome of the settlements' negotiations. I examined the determinants of settlements, and if the settlements can help alleviate the costs of informational asymmetry problem. Lastly, the exogenous shock effect (the enforcement of the law) on the likelihood of settlements of patents disputes has been investigated.

The pharmaceutical firm (further, a brand) faces two types of competition: from the other brand ("between patents"), and from the generic firm ("within patent") (Lichtenberg and Philipson, 2002). In this research, the focus is on the "within patent" competition, and specifically on the patents infringements disputes. The brands are research-based firms that engaged in innovation, development and manufacturing of new drugs, while generic firms develop less-expensive versions of original brand-name drugs or new formulations of existing products[2]. The driving force in the surging of the pharmaceuticals patents disputes is the provisions of Hatch-Waxman Act that, essentially, has created the generics drugs industry. Paragraph IV (certification of non-infringement), an Abbreviated New Drug Application (further, ANDA) filing, as well as, the FTF (First-to-File an ANDA) status that gives a generic firm 180 day of market exclusivity, all are provisions of the Hatch-Waxman Act, and, as hypothesized, are determinants of the settlements[3].

First, I have examined what motivates counterparts to settle the litigation. The asymmetric information and strategic behavior are pervasive in corporate finance problems; therefore, the theory of asymmetry of information and a credible threat hypothesis have been employed to examine the determinants of settlements.

The critical question is: can the cost of asymmetric information be reduced? I view the potential revenue loss that could occur if a patent is found invalid in court, as the cost of information asymmetry, and investigated if settlements can alleviate the problem of information asymmetry. The general framework follows Benmelech and Bergman (2009) who modeled credible threat in debt renegotiation.

Lastly, the exogenous shock effect on the likelihood of the settlements is investigated. Quality of law and its enforcement put effective constraints on resource allocation (contract provisions)[4]. The 11th Circuit Court of Appeals' ruling on February 2005 stated that the Federal Trade Commission position is incorrect, and that the settlement between Schering-Plough and Upsher-Smith was, ultimately, pro-competitive. The Supreme Court decided this year (2012) not to resolve the split and as such there is no a definite ruling. This event has been viewed in law literature as a precedent and a potential pathway for patent infringements settlements (Ponsoldt and Ehrenclou (2006))[5]. Thus, in this study, the precedent (the view that settlements are pro-competitive)has been examined as the exogenous shock , that could ,possibly, affect for the subsequent patents disputes' settlements.

RESULTS

There is evidence that a generic firm's credible threat and a brand's patents characteristics are the factors that contribute to the decision to settle ("hidden information" theory). The evidence also found to support the hypothesis that settlements can help to alleviate the informational asymmetry costs. For example, the settlements benefit both counterparts and saves litigation costs. Indeed, under the settlement solution, the decrease in revenues is easier for a brand drug manufacturer to control; for instance, the parties can negotiate the date of a generic's launch and, possibly, royalties. The findings also suggest that though the private contracting (settlement) cannot fully compensate for an inefficient legal system, i.e. IP rights law cannot prevent the patent infringements; the law enforcement is affecting the likelihood of the settlements. After the precedent, established by court decision on February 2005 (exogenous shock), the likelihood of settlements is on the rise.

This analysis extends the previous research on patents' infringements disputes. Lanjouw and Lerner (1997) argued that the purpose of patent protection is to restrict output in order to generate monopolistic profits, and to reward inventors. They found evidence that if a pharmaceutical firm's profits are much larger (the asset's value theory) than those resulting in "authorized generic" settlement agreements (licenses), and there are many years of patent protection left, the patent holder may opt to litigate in order to maintain output restrictions. Meurer (1989) suggests that the firm's profits will vary depending on the outcome of litigation: either a settlement or a solution imposed by court. This paper is different because the earlier papers' focus was on the determinants of the patents infringements' disputes. In contrast, this research focuses on the determinants of the *settlements* of legal disputes and their *consequences*. To my knowledge, there is no empirical research done on the settlements of patent disputes. This essay documents empirical evidence on determinants of the settlements and if settlements can reduce the cost of asymmetry of information. The uncertainty about the quality (validity) of a patent: either it will hold, or a patent will be found invalid in court, has been viewed as the source of asymmetry.

This essay contributes additional empirical evidence to the theory of financial contracting under informational asymmetry (Bolton and Devatripont, 2005). I have found out that one of the benefits that a settlement can provide is reducing the cost of asymmetry of information and eliminating an uncertainty of validity of a patent.

Because the stakes of the parties are not symmetric, it gives generic's firms additional bargaining power in negotiations (Bulow (2003), Hovencamp, Janis and Lemley (2003)). I have documented empirical evidence to support Riley (2001) theory of signaling, such as a generic firm's ability to introduce a viable product to sell -a credible threat, has impacted the decision to settle.

This work also corroborates the prediction that pay-off determined by Nash bargaining when applied to the settlements of patents disputes. For example, Crampers and Langinier (2002), Bulow (2003) earlier have modeled the settlements using elements of game theory and Nash equilibrium.

Earlier, researchers have measured the event (exogenous shock) impact. For example, Liberti (2004) have measured the firm's organizational structure change on the performance; Rauh (2004) have measured the public policy changes, and Matsa (2005) has measured the labor law changes on the firm's financial decisions. I have tested, if the law enforcement effect of the outcome of the future patents disputes resolutions. This paper provides additional empirical evidence in area of the Law and Finance. The law puts effective constrains on resource allocation (for example, a court can disallow the settlement). The finding suggests that the quality of law and its enforcement are important determinants of settlements.

This essay also provides empirical support to the predominantly theoretical scholarly works in area of patents and antitrust laws, such as, Bulow (2003), Hovencamp at all (2003), Ponsoldt and Ehrenclou (2006). Arguably, the effects of the laws and regulations are sometimes contradictory. IP rights law has been designed to protect the intellectual property rights of a patent holder, but the industry-specific regulations are created to facilitate the generics drugs approval and launch.

ENDNOTES

1 For example, the patent is not a perfect protection against generic entry; it merely grants a right to sue infringers.

2 The generic drugs' manufacturers have built their business model around the pursuit of paragraph iv challenges; these claims are based on the certification that a corresponding brand's patent is not valid, not been infringed. according to greene and steadman (2010) they have succeeded in paragraph iv challenges 76% of the time. generic are motivated by the 180-day market exclusivity that is allowed to the "first-to-file" status holder(further ftf).

3 First-to-file (FTF) status, Abbreviated New Drug Application (ANDA), and Paragraph IV are provisions of the Hatch-Waxman Act of 1984 (Ponsoldt and Ehrenclou,2006). The Act is, essentially, has created the generic industry.

4 For example, the settlements include provisions, such as the "pay-for-delay", or reverse payments to prevent other generics from entry are considered anti-competitive, and thus unlawful.

5 Anti-trust litigations, often initiated by the FTC, have presumed to act as a deterrent for alleged anti-competitive settlements (Ponsoldt and Ehrenclou, 2006).

REFERENCES

Akerlof, G., (1970) "The Market for "Lemons": Quality Uncertainty and the Market Mechanisms", *The Quarterly Journal of Economics*, Vol.84 (3), p.488-500.

Benmelech E., Bergman N., (2009), "Liquidation Values and the Credibility of Financial Contract Renegotiation: Evidence from US Airlines". Working paper. *Harvard University and MIT Sloan*.

Bolton, P. and Dewatripont, M., (2005), "Contracts theory". *MIT Press*.

von Braun, J. Meir P.Pugatch, (2005) "The Changing Face of the Pharmaceutical Industry and IP rights", *The Journal of World Intellectual Property*.

Bulow, J., (2003) "The Gaming of Pharmaceuticals Patents", Research Paper, No. 1804, *Research Paper Series*, Stanford Graduate School of Business

Greene, A, Steadman, D. (2010). "Pharmaceuticals. Analyzing Litigation Success Rates". RBC Capital Markets, January 15, Report

Crampers C. Corinne Langinier. (2002). "Litigation and Settlement in Patent Infringement Cases", Working paper. Tolouse University, Iowa State University.

Hovenkamp,H, Janis M, Lemley M. (2003) 'Anticompetitive Settlement of Intellectual Property Disputes', *Boalt Working Papers in Public Law*. University of California, Berkeley.

Lanjouw, Jean O., Josh Lerner (1997). "The Enforcement of Intellectual Property Rights. A Survey of Empirical Literature", Working paper 6296. *NBER*

Liberti, J.M., (2004) "Initiative, Incentives and Soft Information. How does Delegation Impact the Role Bank Relationship Managers", Working paper.

Lichtenberg, F., and Philipson,T., 2002, "The Dual Effects of Intellectual Property Regulations: Within- and Between-Patent Competition in the US Pharmaceutical Industry", *NBER Working Paper*, 9303.

Matsa, D., (2005) "Capital Structure as a Strategic Variable: Evidence from Collective Bargaining" Journal of Finance, forthcoming.

Meurer, M. (1989), "The settlement of Patent Litigation". *The RAND Journal of Economics.* Vol. 20.

"Pharmaceutical Industry Overview", "Generic Industry Overview and Patent Case overview", March 2008, March 2009, Cowen Investor Publication.

Ponsoldt, J. Ehrenclou W.H. (2006), "The Antitrust Legality of Pharmaceutical Patent Litigation Settlements". Working Paper. *University of Georgia, School of Law*.

Rauh, J.D.(2004) "*Pensions, Corporate Finance and Public Policy"*, PhD dissertation

Riley, J., (2001) "Silver Signals: Twenty-Five Years of Screening and Signaling" *Journal of Economic Literature*. Vol.39.432-478.

A COMPARISON OF THE GREEK AND AMERICAN FINANCIAL CRISES: ANOTHER PERSPECTIVE

Stephen T. Evans, Southern Utah University

INTRODUCTION

In the simplest of terms, the countries of the world have essentially operated under two basic financial/economic philosophies: The first is based on free market economies with localized decision-making and private ownership of property (sometimes called capitalism). The second is based on a socialistic/collective approach with more centralized decision-making and the "spreading" of that which is produced.

Those who advocate the latter approach (socialism/collectivism) argue that it is more fair because everyone can share more equally in the outputs. However, those who advocate the former method (a free market approach) argue that the socialistic approach is less fair because the economic fruits of time, effort, money, and risk-taking are largely "stolen away" by those not participating. Although the purpose of this paper is not to explore the details of the two approaches, it is necessary as a lead-in to the topic to summarize the (1) productivity, (2) economic well-being, and (3) sustainability of the two philosophies.

As to productivity, there are good comparisons from history to show the effectiveness of the two approaches. For example, in the 45 years that Germany was divided between the west under capitalism and the east under communism, West Germany had a per-capita production that was 2½ times that of East Germany. Taiwan (an island nation) under capitalism had per-capita production that was three times greater than the island of Cuba under communism. Likewise, communistic Russia was out-performed by 4½ times by the United States. And currently the capitalistic South Korea is outperforming the communistic North Korea by more than 20 to 1.

As to the economic well-being of the individual, while there are some who acknowledge capitalism's ability to produce more, they assert that poor people are worse off because the wealthy people take most of what is produced. Of course it is part of capitalism that those who "hustle" will generally have more to enjoy, but the evidence is that poor people are also better off. In the USA, for example, we define the poor as those earning less than $10,890 per year, and that amount is greater than the average earnings of people in 65 other countries, and almost 100% of the bottom one fifth of Americans have more spending power than the bottom one fifth of countries like India. Let's also remember that of those under the poverty level in the United States, 43% own a home, 73% own a car, 97% own a color television, 36% own a computer, 91% own a telephone, 99% own a refrigerator, and 80% have air conditioning. Yes, capitalism consistently outperforms other forms of government, even for the poor people.

As to sustainability, the answer is also largely provided by history. As one example, in the 1920s following World War I, the economies of the world were in a weakened condition. While communistic Russia had to temporarily abandon full communism even to survive, the 150-year-old United States relied once again on capitalism. The highest tax rate was lowered from 77% to 25% and the result was an increase in tax revenues from $77 million to $230 million, the national debt was reduced from $23 billion to $17 billion, unemployment dropped from 20% to 3.3%, the GDP of the country increased annually by 7%, and per-capita income grew by over 30%. In contrast, Russia continued to weaken under its 74 years of communism until it finally went bankrupt in about 1991. In East Germany it lasted about 45 years before bankruptcy. But "mostly" under capitalism the United States continues to endure with strength after 236 years—especially in those industries where free markets have been allowed to flourish.

There are always those who try to distinguish between communism and socialism, but the same problems occur under either approach—increased bureaucracy, red tape, and inefficiency at the central levels and declining incentives and motivation at the local levels. In Europe, for example, where the economic systems have been very socialistic, these countries are almost universally headed towards bankruptcy because of their collectivist and redistributive approaches. While the United States has a Debt to GDP Ratio of 1.01, the countries in Europe generally have a Debt to GDP ratio that is more than twice that amount.

Regardless of where they have been applied, the more "collectivist" methods have taken countries toward the brink of collapse at reckless speeds (including Greece and the United States) and if these processes are not reversed (or at least contained), it is 100 percent certain that these countries will go bankrupt. So let's take a look at the drift towards insolvency in Greece and see how it compares with the United States and its movement in the same direction.

THE GREEK AND AMERICAN FINANCIAL CRISES

The recent strife and turmoil in Greece has been well-publicized. After years of establishing burdensome commitments and spending beyond sustainable levels, the Greek government is now faced with the frightening possibilities of collapse. Other European countries are demanding more fiscal responsibility by Greece and that has led to attempts by the Greek government to establish austerity measures that are beyond what many Greek citizens are willing to accept. Consequently, there has been widespread rioting, destruction, and some loss of life. With that in mind, let's review the Greek situation and how it compares with the United States.

The Gross Domestic Product is, of course, a measure of the total amount produced by a country in goods and services, and as shown in Table 1, Greece produced a total of $300 billion in goods and services in the most recent year of 2011 (in American dollars). With a population of 10.77 million people, the GDP per capita was at $27,855. In contrast, the 314.3 million people in the United States had a GDP of about $15.33 trillion in the same year which was a per capita GDP of $48,775 or about 1.75 times the value produced by each Greek citizen.

Table 1: Ratio of Total Debt to Gross Domestic Product		
	America	Greece
Population	314,300,000	10,770,000
Per Capita Gross Domestic Product	$48,775	$27,855
Gross Domestic Product	$15,330,000,000,000	$300,000,000,000
Ratio of National Debt to GDP	1.04	1.40
National Debt (as shown by Federal budgets)	$16,000,000,000,000	$420,000,000,000
State and Local Government Debts	$2,825,000,000,000	$90,000,000,000
Business Debt	22,405,000,000,000	865,000,000,000
Personal Debt	15,770,000,000,000	525,000,000,000
Total State, Local, Business, and Personal Debt	$41,000,000,000,000	$1,480,000,000,000
Total Debt (all "explicit" debts)	$57,000,000,000,000	$1,900,000,000,000
Total Debt per Capita	$181,355	$176,416
Ratio of Total Debt to Gross Domestic Product	3.72	6.33

As to debt, the crisis in both countries, simply stated, is that they are spending beyond their means and paying for it by excessive borrowing. The increased debt levels are already a financial burden, and the possibility of either country significantly reducing the debt levels in the foreseeable future seems remote. In fact, the main emphasis of both countries doesn't seem to be paying down the debt but slowing (or stopping) the increases before there is complete insolvency. As a first measure of this concern we turn to the concept of "National Debt" (Table 1) which is usually defined as a country's "official debt" in the Federal government's annual budgetary process. In the United States this debt figure is about $16 trillion as of about September 4, 2012 (and growing rapidly); in Greece it is about $420 billion (and also growing rapidly). As shown, the National Debt to GDP Ratio in the USA is 1.04 but much more in Greece with a ratio of 1.40.

A major concern with the debt issue seems to relate as much to the pattern or direction of it as much as the amount of it. In Greece the debt increases have been excessive for 16 consecutive years, and in the United States the National Debt has increased by a shocking 60 percent in the last four years from less than $10 trillion to the amount that has now reached $16 trillion. As burdensome as these figures are, it gets worse when one considers the additional debts relating to state and local governments, businesses, and households. When these amounts are added to the "National Debt," we usually refer to the sum as "Total Debt." As shown in Table 1, the "Total Debt" for the United States is at $57 trillion which is 3.72 times the GDP. For Greece, the "Total Debt" is about $1.9 trillion or 6.33 times the GDP.

Also, notice in both countries the amount by which Total Debt exceeds National Debt. For the United States, adding the debts of state and local governments, businesses, and households increases the total by 3.56 times, but for Greece the additions increase the debt by

4.52 times. With the additional debts, the burden on the citizens becomes substantial. As shown in Table 1, For Greece, the Total Debt per Capita is a large $176,416. For Americans the "Total Debt per Capita" is $181,355 which means that families of four have an initial debt responsibility of $725,420 before even considering debts for their own families like buying a home.

But there are other facts that need to be considered before concluding whether it is Greece or America that has more economic challenges. The first of these relates to unfunded liabilities which are largely created by entitlement programs. In the United States the main categories of unfunded liabilities are Social Security, Prescription Drugs, Medicare, and smaller amounts including currency obligations. As shown in Table 2, the total for these four was a whopping $126.438 trillion as of about September 1, 2012. Greece also has many unfunded liabilities, but they don't match up exactly with the American categories, so as shown, there is some combining of numbers to come up with the total of $3.4204 trillion.

Table 2: Debt Relationships with Unfunded Liabilities

	America	Greece
Population	314,300,000	10,770,000
Gross Domestic Product	$15,330,000,000,000	$300,000,000,000
Total "Explicit" Debts (from Table 1)	$57,000,000,000,000	$1,900,000,000,000
Social Security Liability	15,880,000,000,000	}
Prescription Drug Liability	21,008,000,000,000	} $3,420,000,000,000
Medicare Liability	83,550,000,000,000	}
Currency Obligations and Other Debt	6,000,000,000,000	$400,000,000
Total of Unfunded Debts	$126,438,000,000,000	$3,420,400,000,000
Total of Expanded National Debts	$183,438,000,000,000	$5,320,400,000,000
Total Expanded National Debts per Capita	$583,640	$494,002
Ratio of "Expanded" Debts to GDP	11.97	17.73

Table 2 also shows that with Total Unfunded Debts added to the Total "Explicit" Debts from Table 1, the amount is $183.438 trillion for the Americans and $5.3204 trillion for the Greeks. On a per-capita basis the Total Expanded National Debt is $583,640 for the Americans and $494,002 for the Greeks. When Total Expanded National Debts are compared to GDP, the ratio is about 48 percent more for the Greeks at 17.73 than for the Americans at 11.97.

But there is another "jump" needed before any conclusions can be reached about the financial conditions of the two countries, and this category seems more significant. The amounts relate to the fact that America has become the primary insurer (or underwriter) of the world's financial systems by issuing what are known as credit default swaps (also known as derivatives). These are essentially insurance policies that guarantee other financial instruments, and the total was about $500 trillion when the mortgage meltdown occurred in 2008. The entire world's economy was threatened at that time by a systemic "credit freeze" and the world's credit markets were likely within days of a complete worldwide meltdown. It was probably because of America's so-called bailout legislation that a total collapse of the financial markets was averted.

Table 3: Expanded Debt Relationships with Derivative Obligations and Local Debts		
	America	Greece
Population	314,300,000	10,770,000
Gross Domestic Product	$15,330,000,000,000	$300,000,000,000
Total of Expanded National Debts (Table 2)	$183,438,000,000,000	$5,320,400,000,000
Potential Derivative Obligations	740,000,000,000,000	50,000,000,000
Total Debt and Derivative Exposure	$923,438,000,000,000	$5,370,400,000,000
Per-capita Debt and Derivative Exposure	$2,938,078	$498,644
Ratio of Debt and Derivative Exposure to GDP	60.24	17.90

Actually, the fact that the United States Government stepped in to solve the problem in 2008 has led to a greater "moral hazard." Rather than making derivative traders more cautious, many of them have become more bold with the belief that the government will bail them out again. Now nearly four years later, the "fragile" derivatives market has increased from about $500 trillion to $740 trillion as shown in Table 3. Of course, nobody can possibly know how many claims might eventually be made with these derivatives (insurance policies), but the mortgage meltdown and bailout of 2008 shows that it can happen.

With the addition of these derivatives, the Americans have a staggering Total Debt and Derivative Exposure of $923.44 trillion and the Greek total is $5.37 trillion. On a per capita basis, the Debt and Derivative Exposure is $2,930,078 for the Americans and $498,644 for the Greeks. With these totals it can be seen that the Americans actually have a more tenuous financial situation with total potential claims being 60.24 times its ability to produce (GDP) compared to 17.90 for the Greeks. Reflecting on these per capita dollar amounts, it doesn't seem realistic or likely that each family of four in the United States can be responsible for potential claims of nearly $12 million. It is a sobering situation to contemplate.

CONCLUDING COMMENTS

The basic finding of the paper is that the Greek economic crisis is more serious than America's economic challenges when considering "explicit debts" and unfunded liabilities (entitlements). But when adding derivatives (financial "insurance policies") to the equation, the American financial situation is potentially more devastating than the Greek crisis with Americans potentially liable for obligations totaling nearly $3 million for each and every citizen or a staggering $12 million per family of four.

REFERENCES AVAILABLE UPON REQUEST

THE META LANGUAGE OF ACCOUNTING AND ACCOUNTING LITERACY: WHAT'S THE LEVEL OF STUDENTS' UNDERSTANDING?

Raymond J Elson, Valdosta State University
Susanne O'Callaghan, Pace University
John P. Walker, Queens College - CUNY
Robert Williams, Valdosta State University

INTRODUCTION

Every profession, organization, society and group, has its own meta language. Every entity has its own "shop talk" with which the insiders of that entity are familiar. Accountants are no different, and the trade of accounting has a deep and developed meta language, which to some may be a bit confusing, but to the knowledgeable insider it can seem like the only way to convey ideas. It is important for accountants to practice in their meta language, because this allows them to talk professionally and exactly, and not leave anything up to chance or interpretation.

All languages have their quirks, and meta language is no different. Just like somebody who speaks English from birth will know it more fluently than someone who learned it later in life, one who studied or is studying the meta language of accounting will have a better grasp of it. Although meta language is not always easy to understand we believe it is part of accounting literacy. Therefore, learning how and when to use the meta language of accounting is critical for students' success in future years. The understanding of meta language begins in the accounting program since this is students first exposure to the language. The goal of the paper is assess students understanding or memory of basic accounting concepts (i.e., the meta language) covered in earlier accounting courses.

MOTIVATION

The paper resulted from one of the author's frustration with students' grasp of adjusting journal entries in a senior level accounting course, auditing. This knowledge was critical for students to be able to complete the projects demanded in this course. Earlier accounting courses exposed students' to such accounting terminology as 'allowance,' 'adjusting journal entries,' 'accruals,' among others. This is part of accounting literacy or meta language. However, students appeared to have learned the concepts in earlier classes but were not embracing them as part of the language of accounting.

LITERATURE REVIEW

Meta language is not just one concept, instead it is broadly defined as a "language or symbols used when language is being discussed or examined" (wikipedia.com). Such language as always existed in accounting. The use of terms such as "balance sheet", 'assets', "liabilities", 'equity", and "net income" among others, creates specific meaning to accounting and business personnel. This is meta-language and so the need for definitions and explanations becomes less important.

A more recent meta language in accounting is Extensive Business Reporting Language or XBRL. XBRL is a collaboratively developed framework for creating standardized and customizable digital representations of financial statements, tax returns and other detailed and summarized business reports and data extracts (Cohen et al, 2005). Companies are now required to file financial information with the SEC or other government regulators using XBRL. This meta language is so important to the accounting profession that it should be integrated across the accounting curriculum (Debreceny & Farewell, 2010)

Accounting literacy is not a common term used in the literature instead the much broader term 'financial literacy' is widely used. Financial literacy has various meanings. For instance, Giacomino et al (2009) defines financial literacy as the ability to understand the important accounting judgments management makes, why management makes them, and how management can use those judgments to manipulate financial statements. However, Rosacker et al (2009) sees it as the ability to make informed judgments and to take effective actions regarding the current and future use and management of money.

However, accounting literacy is not easily defined but we define it as the ability to understand and use the meta-language of accounting to solve problems. The use of the term 'accounting literacy' does have precedence and its importance cannot be ignored. Carnas & Hedin (1999) sees accounting literacy as important to those who would succeed in business. Furthermore, accounting courses are a basic requirement in most university business programs, both at the undergraduate and graduate levels to help students develop their literacy.

In reviewing an accounting text, Williams (2005) noted that students who master the concepts contained within the text would be well on their way to business and accounting literacy. Since litigation is often triggered by large price declines and earnings restatements, Glover et al (2005) expects (or at least hope) the educational aspect of a facts-forecasts separation would both help juries in cases involving allegations of improper estimates (e.g., cookie jar reserves) and in general improve their accounting literacy, resulting in fairer outcomes and fewer frivolous lawsuits.

THE STUDY

We used adjusting journal entries to understand the level of students' understanding of accounting meta-language. We created a quiz consisting of ten multiple choice questions covering core concepts from financial accounting, primarily intermediate accounting. As noted earlier, students are taught the key financial accounting concepts (i.e., meta-language) in these courses and so they are expected to carry this knowledge forward to future courses such as auditing and into their careers.

The accounts and topics covered on the quiz included accounts receivable - adjusting the allowance account; prepaid asset – determining the correct balance at year end; revenue and inventory – ensuring the timely reporting of a sale; asset sale - recording the loss; and contingencies and accrued liabilities - determining if an adjusting journal entry is necessary. Students are provided with scenarios and asked to determine the appropriate adjusting journal entry(ies). We believed that the quiz adequately reflected the meta language that was taught to students in the financial accounting courses. The quiz is located in Appendix 1.

The quiz was given to students during the first class period over multiple semesters at three universities during the fall 2009 to fall 2011 semesters. The students are undergraduate and graduate students in auditing and government and nonprofit accounting. In all cases, intermediate accounting was the pre-requisite course required of students enrolling in these classes. Two of the universities are located in a large metropolitan area in the northeast; one is a private university (School #1) and the other, a large public university (School #2). The third university is a public regional university in the southeast (School #3).

RESULTS

The quiz was administered separately at the respective universities and graded by one instructor to ensure consistency in grading. The quiz was a review of the meta language that the students learned in their early courses (Intermediate Accounting). Therefore, the expectation was that students would be able to achieve an average grade of 7.0 (or C) from a possible ten points from the quiz. The actual results are shown in Table 1 below:

Table 1: Average Results Achieved from Quiz

	Students' Type	Period Covered	n=	Avg
School #1	Graduate	Spring 2011	46	3.85
School #2	Undergraduates	Spring 2011	80	2.34
School #3	Undergraduates	Spring 09-Fall 11	227	3.19
			353	

It is clear from the above table that the expected results were not achieved. The data was further analyzed to determine if there was any statistically significant difference. The graduate students resulted were compared to the undergraduate results to determine if the scores were statistically significantly different. The t-test showed that the differences in mean between these two student groups was not statistically significant ($p>0.2665$) at the .05 level.

In examining the results from the three schools, the ANOVA showed a significant difference among the three schools ($p>0.0023$) at the.05 level. Furthermore, the ANOVA showed that the results for School #1 and School #3 were significantly higher than the results for School #2. However, although School #1 scored higher than School #3 (3.85 versus 3.19), the differences were not statistically significant. There were not enough observations for School #1 to provide enough power to find a significant difference from School #3. To address this problem, we compared the results for School #1 and School #3 for the same semester but the difference was still not statistically significant.

CONCLUSION AND RECOMMENDATIONS

The study's results suggest that students' level of understanding of the meta language of accounting is fairly low. As a result, there are not able to use the meta language to process accounting information and transactions required in certain upper level and graduate accounting courses. The authors' speculate that this lack of understanding might be attributed to (a) students learn the language in core courses but quickly forget them after each exam, (b) the coverage of the language provided by instructors in the intermediate accounting courses various widely by instructor and university, and (c) a combination of the two or other factors.

To address the problems identified in our paper, we recommend that instructors adopt the following correction actions. First, add comprehensive final examinations to the core accounting courses to encourage the retention of material learned earlier in the semester. Second, use pretest such as the one used in our paper, in upper level accounting courses to reinforce the importance of pre-requisite knowledge. We believe that these steps will improve students' level of understanding of the accounting meta language.

REFERENCES

Carnes, K., & Hedin, S. (2005). Accounting for lean manufacturing: Another missed opportunity? *Management Accounting Quarterly, 7*(1), 28-28.

Cohen, E., Schiavina, T., & Servais, O. (2005). XBRL: The standardised business language for 21st century reporting and governance. *International Journal of Disclosure and Governance, 2*(4), 368-394.

Debreceny, R., & Farewell, S. (2010). XBRL in the accounting curriculum. *Issues in Accounting Education, 25*(3), 379-403.

Giacomino, D., Wall, J. & Akers, M. (2009). Financial (Accounting) Literacy: A Comparison of Audit Committee Members and Business Students. *American Journal of Business Education*, 2(3), 31-38

Glover, J., Ijiri, Y., Levine, C., & Liang, P. (2005). Separating facts from forecasts in financial statements. *Accounting Horizons, 19*(4), 267-282.

Rosacker, K. M., Ragothaman, S., & Gillispie, M. (2009). Financial Literacy of Freshmen Business School Students. *College Student Journal*, *43*(2), 391-399.
Williams, I. (2005). Business report cards: Making sense from the numbers. *International Journal of Commerce & Management, 15*(3), 300-301.

APPENDIX 1: THE ADJUSTING JOURNAL ENTRY PROJECT

Name:____
ACCT 4XXX
Project #1 - Pre-Test
Semester XXXX
10 points

Introduction

We will learn and apply auditing concepts and tools to accounting/financial information in this course. As a result, there is an expectation that you have mastered the accounting knowledge in the prerequisite courses and are ready to apply them in this class.

The objective of this pre-test is to assess your ability to recall information learned in your accounting classes. A minimum grade of 7 out of 10 or 70% is considered acceptable.

Instructions:

Answer all questions: Each correct answer is worth 1 point.

1 a) You are auditing accounts receivable and the client informed you that it uses the allowance method. The client estimates that 2% of all receivable balance is uncollectible. You are provided with the following information:
Accounts receivable balance - $100,000
Allowance for doubtful account - $300

Required: Determine if the allowance account balance is reasonable and if not, propose an adjusting entry to address the deficiency.

b) Using the information from above, the client informed you that an accounts receivable for $700 is deemed uncollectible.

Required: Propose the journal entry necessary to reflect this transaction.

2. Your client located in Atlanta, uses FOB destination as part of the shipping terms for all sales. During your 12/31/10 audit you learned that a shipment to Copenhagen, Denmark made on 12/31/10 (selling price, $5,000; inventory cost, $2,500) was reported as income in 2010.

Required: Was the accounting for this sale appropriate at 12/31/10? If not, propose the adjusting journal entry(ies) to correct the error.

3. Your client paid its annual rent in one lump sum of $24,000 on April 1, 2010. You received a trial balance for the year ended December 31, 2010 and realized that the client reported rental expenses of $24,000 for the year. Is this correct?

Required: If not correct, propose the adjusting journal entry needed to reflect the correct values at December 31, 2010

4. In your review of vendor invoices during the course of the 2010 audit, you noticed that an invoice for $5,000 received on 1/3/11 did not appear on the accounts payable listing. The client informed you that the invoice was for professional services rendered in November 2010 by a local attorney.

Required: Should this item be accrued at year end? If so, propose the adjusting journal entry needed to reflect this transaction.

5. Your client sold equipment during the year but failed to complete the necessary accounting. The following information was provided to you: Equipment book value of $7,500 (Cost of $10,000, accumulated depreciation of $2,500), Cash selling price of $5,000.

Required: Prepare the journal entry required to record this transaction.

6. Your client has a long term liability and provided you with a schedule of interest payments made during the year. In your audit of this schedule, you noticed a difference between the accrued interest provided by the client for 12/31/10 and your calculations. The client's accrued interest balance was $830 and you calculated $960.

Required: Propose the adjusting journal entry if one is necessary

7. Your client faces various litigation during the normal course of business and has advised you that is concerned about the potential impact of two lawsuits on its operations. The client has not recorded any reserves in its financial statement since the lawsuits are still pending. However, you contacted the client's attorney during the normal course of your audit and learned the following:

Lawsuit 1: It is probable that the client will lose the case but the amount of the damage cannot be reasonably estimated.
Lawsuit #2: It is probable that the client will lose the case and the attorney estimates that the client may need to pay an amount ranging from $400,000 - $500,000.

Required: Propose the adjusting journal entry if one is necessary

8. Your client classifies all investments as trading securities. The client purchased the common stock of various companies in January 2010 for approximately $5,000. The client has determined that the market value of its investment portfolio was only $3,000 as of December 31, 2010, however the Investments are still valued at $5,000 on the client prepared trial balance provided to you.

Required: Are the investments properly valued by the client? If not, propose the journal entry required to adjust the account.

ABAXIS (ABAX) AND INSIDER INFORMATION: WHAT DOES THE DATA TELL US?

Austin Doerr, Indiana Wesleyan University
Darrian Mikell, Indiana Wesleyan University
Maurice Blackledge, Indiana Wesleyan University

ABSTRACT

We examine insider information and trading using Abaxis as an example. It known that from 2006 to 2009 insider information was leaked by a member of the finance department to their uncle who admitted this to the SEC. We use this data to form a base for changes to the stock price around the release of quarterly financial information. It appears that there may still be information leaks. Using SEC Form 4 filings we were surprised to find that no insiders has purchased any ABAX stock in the last 4 years. Since 2005 the total value of stock purchases has been $3, 070,476, the value of stock exercised has been $4,903,095 and the total value of stock sales has been $34,159,701. What do the insiders know that the general public does not?

REFERENCES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ACCOUNTING EDUCATORS AND PRACTITIONERS' PERSPECTIVES ON FRAUD AND FORENSIC TOPICS IN THE ACCOUNTING CURRICULUM

Bobbie Daniels : Jackson State University
Yvonne Ellis : Columbus State University
R. D. Gupta : Jackson State University

ABSTRACT

This study surveyed 500 accounting educators and 500 practitioners on their perceptions regarding the relative importance of fraud and forensic topics to include in the accounting curriculum. Twenty-one topics were selected to assist students in preventing, investigating and detecting financial statement fraud. Responses were received from 303 respondents (30.3% response rate). The responses are ranked based on the mean scores using a five-point Likert scale ranging from "1" unimportant to "5" very important. Overall, the results show that a majority of business schools do not offer a separate course or program in fraud or forensic accounting which validates the purpose of this study. In addition, there is a general agreement between both groups on the relative importance of the topics with internal control selected as the number one topic. However, the results of the partitioned sample (educators versus practitioners) identified nine significant differences between the two groups, which could be attributable to job-related experience. The results of this study can assist educators and administrators in the selection process of fraud related topics to include in the accounting curriculum.

Keywords: Accounting curriculum; fraud education; forensic accounting; fraud examination

THE FEDERAL GOVERNMENT'S WAR ON MARRIAGE AKA THE MARRIAGE PENALTY TAX: UNFAIR TO INDIVIDUALS AND HARMFUL TO SOCIETY

Floyd W. Carpenter, Murray State University
Dennis R. Lassila, Texas A&M University
L. Murphy Smith, Murray State University

ABSTRACT

Empirical research has shown that public policy such as tax and transfer programs have had a deleterious effect on marital stability. This study analyzes the cost to individuals of various aspects of the marriage penalty tax (MPT) and thereby how it discourages marriage and how it harms both individuals and society at large. Decline of the family, especially married couples, is regarded as one of the critical problems facing American society. Findings of this study indicate that the MPT results in major social and economic costs (e.g. education and employment, crime, and health). Given its harm, the conclusion is that the MPT should be eliminated from the tax code. Opponents to repealing the marriage penalty have complained that 'higher-income' taxpayers receive disproportionate benefit. However, this research shows that the MPT has an equally negative effect on couples in the lowest income categories, particularly with its impact on the earned income tax credit. Further, regardless of a couple's income level, the marriage penalty is detrimental to marriage, and thus, to society overall. Tax laws, as part of public policy, should foster, not hamper, two-parent families and their corresponding economic benefits such as improved employment, better public health, and lower crime.

RECONCILING COST CALCULATIONS AND MANAGEMENT CONTROL TOOLS IN MUNICIPAL SERVICES: AN EMPIRICAL STUDY

Donatien Avelé, University of Moncton

ABSTRACT

Municipality control has not always led to conclusive results. This is particularly true for the municipalities of the emerging countries of francophone Sub-Saharan Africa. Thus local managers are increasingly faced with the difficulties related to controlling the costs of their various services. In this context, how can cost calculations and management control tools be reconcile for a better control of municipal performance? To achieve this, an empirical study was carried out in Cameroonian municipal public services, in francophone Sub-Saharan Africa, in the third quarter of 2007.Based on a principal component analysis (PCA) and a typology trial of management tools, the results show the existence of necessary control tools to monitor the municipal performance of these local entities.

INTRODUCTION

Generally, management controls in local communities and particularly in municipalities has no specific theoretical foundation. However, it is possible to identify two groups of authors that provide a reference on which to base ourselves: One group made up of traditional works in management control (Bouquin, 1986; Anthony, 1965; Anthony & Young, 1988), and one other group for which the writings are more specific, if not to municipalities, then to not for profit organizations (Hofstede, 1981; Gibert, 1995; Burlaud, 1995). Hofstede's (1981) reflexions provide a typology composed of six types of controls (from routine controls to political controls) that can be grouped into two categories: cybernetic controls that globally apply to situations where the goals of the activities are identifiable and their results are measurable, and non cybernetic controls used when the goals of the activities are vague and the results immeasurable. In the first instance, control tools, such as balance scorecards, costing and ZBB (zero-based budgeting), can be applied.

In the second case, the use of these techniques will lead to management errors. Hofstede (1981) thus proposes to apply political analysis and public policy evaluation techniques. H. Bouquin's works on management controls are not specific to not for profit organizations, but he also proposes a control typology that is not based on the same criteria as Hofstede. The criterium used is that of strategic nature and not of the decisions that are made in the organization. There are two types of controls: a routine control for non-strategic decisions and for which ZBB, balanced scorecards and cost calculation-type tools apply, and strategic controls for which "strategic" controls would apply.

A reconciliation of cost calculations and management control tools supposes the establishment of a cost calculation system in municipalities, allowing the perfect control of charges and the proper pricing of services to users. However, municipalities have several information systems at their disposal: public accounting (financial and obligatory), analytical accounting (more or less developed), balance scorecards, etc. Public accounting is more so a means to control the regularity of municipality management by public power than a management tool that can finely guide municipal choices. A clear-cut opposition can be made between public accounting on the one hand as it is mostly produced for external users and for auditing purposes, and the more or less developed components of management controls on the other hand, which are produced for internal users and aim at facilitating local public management. Public accounting has its peculiarities: it accounts for inflows and outflows and is not of the patrimonial accounting type (Avelé, 2011; Meyssonnier, 1991). It makes a distinction between operating and financing activities. It does not account for amortisation (Meyssonnier, 1991; Griffiths, 1988). Public accounting is often seen is as restricting. According to Hofstede (1981), when the goals are ambiguous because of conflicts of interest or values, of a lack of knowledge regarding ends-means, or of a turbulent environment, then the control problem causes serious difficulties. Having said that, would it be possible to reconcile cost calculations and management control tools in municipal services? Could a hierarchical ascending classification allow proper structuring and a good readability of the management control tools being used in the municipalities visited? This article thereby aims at providing a description of the state of the current municipal practices so as to contribute to the knowledge of the management control tools necessary to the monitoring of these local entities' performances. This study uses data collected via surveys completed by the 60 services visited that compose the sample. Theoretic contributions and methodology will first be presented; empirical results will then be analyzed and discussed.

LITERATURE REVIEW

Management control went from being an auditing and sanctioning role to an advising and monitoring of decisions and actions role (Colton, 2001; Betard, 1994; Mévellec, 1995). The job of a controller has evolved from a traditional technical function to an advising and communications one (Hrisak, 1996; Sponem and Lambert, 2009). Its human qualities are indispensable to legitimizing its position and inciting various services to cooperate with him. The reconciliation of cost calculations and management control tools in municipalities involves empowering local managers, but also an effective system of performance measures (Ahrens & Chapman, 2000). Management control is explicit in this empowering approach (Anthony, 1988; Indjejikian and Matejka, 2006). In the literature, the crossover between management control and accountability refers, on the one hand, to the appropriation and mastery of performance (Matic, 2012), and on the other hand, to the animation system that allows one to set and attain goals (Stephen et al., 2007; Gregg et al., 2007). The measure of performance can be achieved with the help of animation controls stipulating accountability (Kopel, 2001). According to this view, supervision plays a key role (De Lancer Julnes and Holzer, 2001). On the other hand, accountability is one of the steps of establishing management control, and comes after fixing goals and before operational management (Van Ryzin and Immerwahr, 2004). Some of these objectives must be set before all local managers can manage performance (Golooba-Mutebi, 2003). Accountability concerns them so that decisions can be coherent in regards to strategic objectives (Melkers and Willoughby, 2005). This is one of the classic missions of organizational control (Bouquin, 1997). To do this, persons in charge must be aware of the objectives and be encouraged to abide by them (Golooba-Mutebi, 2003; James, 2007). Management control allows all staff to be aware of the need to preserve public funds, and to better monitor spending. This measure imposes the concept of truth of cost and prime cost. Public service must not longer be achieved at all costs (Golooba-Mutebi, 2003; James, 2007). Herein lays an answer that, until now, had not been provided to accusations of irresponsibility being levelled against (Bouquin, 1988). This language enables to engage the personnel of the municipality by improving their image on the inside and on the outside. We have noticed that a municipality is a heteregeneous organization, composed of multiple activities with different goals and workings; sometimes they are even opposing (Avelé, 2011). The adaptation of management control tools must take this complexity into account Roussarie, 1995). Drawing on the works of Ouchi (1979), which discuss the process of goods and services fabrication and the nature of the goods produced goods, we propose a simple table, which will display management control tool classification as according to the service activity. This will allow us to retain two criteria: the possibility of measuring outputs (can we identify goods and services, account for them?) and the presence or absence of the gratuitousness of the service or product (is it a public or merchant good?). These two characteristics are easy to measure. They enable us to link the goods' characteristics and fabrication process. Depending on the case, the cost calculation methods must be different, as seen in the table below.

Table 1 Adaptation of Management Control Tools

	Measurable Outputs	Non Measurable Outputs
Paying Good or Service	full cost	variable cost
Free Good or Service	direct cost	nothing

Where it is possible to identify the products or services and they are charged to users, full cost accounting is the best option. It allows for a sound analysis of each charge and the determination of the production cost, margin or deficit per product. For a paying service for which each product's identification is delicate, it is better to globally monitor fixed charges for services and to calculate the evolution of variable charges commensurate with the activity (Hrisak, 1996; Sponem and Lambert, 2009; Byrne and Pierce, 2007). It would also be possible to consider a rational allocation of fixed cost from an activity indicator, which cannot have a good effect on the quantity produced (Waterhouse, 1999; Kaplan and Norton, 2001). In contrast, if products are identifiable, but not chargeable, it is not necessary to calculate a full cost (Anthony, 1988; Bouquin, 1998; Kaplan and Norton, 2001). A follow-up of the direct charges per product and of the indirect charges for the entire service are sufficient (Hoffmann-Martinot, 1988; Anthony, 1988; Melkers and Willoughby, 2005).

After a brief presentation of the state of the art, it is now time to present the research methodology.

RESEARCH METHODOLOGY

All research works rely on a certain vision of the world, use a methodology, and propose results to predict, dictate, understand or explain. An explanation of the epistemological presuppositions allows one to control the research process, to increase the validity of the knowledge in question and to provide it with a combined nature. For this purpose, a survey was conducted among local elected officials (mayors) and officials responsible for municipal public utilities in Cameroonian cities.

Survey Development and Pre-Testing

To answer the question posed, we decided to use the survey as the principal means of collecting data. The use of this technique seemed appropriate and unavoidable because the exploratory nature of the study did not allow us to have the maximum information sought without resorting to the administration of a questionnaire. Thus, during the first quarter of 2007, the first survey was administered in two dozen heads of various departments of the city of Douala. The statements that seemed to cause confusion were reformulated. The errors detected during this pre-testing were corrected, so the development of the modified questionnaire seemed plausible. The new survey, just like the first one, was tested on about twenty elected officials and service heads of the city of Yaounde. The second pre-test did not bring forth any major anomalies in the surveys, so it confirmed its validity. The final phase of the administration of the survey could therefore begin.

Data Collection

During the data collection, surveys were sent to Cameroonian municipal elected officials and service heads. The details related to relative response rates of sent, returned, usable and non-usable surveys are presented in the table below.

Table 2 Global Response Rate of the Quantitative Study

	Totals	Percentages
Questionnaires sent	250	100 %
Questionnaires returned	150	60 %
Non Usable Questionnaires	40	16 %
Usable Questionnaires	**110**	**44 %**

Verification of the validity and reliability of the measuring instrument

By recognizing the necessity to adapt the rule to each research study's specific context, Perrien et al. (1984), Evrard et al. (2003) and Usunier et al. (1993) estimated that for exploratory research, an alpha coefficient between 0.5 and 0.6 is acceptable. Thus, within the framework of this study, all elements that did not attain this threshold were simply excluded so as to obtain much more reliable results. With that being said, the method of internal consistency was used to measure the reliability of the measuring instrument for this quantitative study. Cronbach's alpha was estimated to verify the homogeneity of the items involved in the measurement of variables related to management control tools needed to monitor the performance of the municipal utilities of the cities in Cameroon. The various Cronbach's alphas obtained are presented in the table below:

Table 3 Cronbach's Alpha

Variables	Cronbach's Alpha
Q202_CSM : Cost calculation for municipal service pricing Q203_CUC : Cost calculation for user pricing	0.853
Q21_RTB : Creation of balanced scorecards	0.794
Q322_CAU : Analytical accounting to users Q321_CC : Cash-based accounting	0.756
Q323_TBE : Balanced scorecards for follow up on spreads Q324_CAI: Internal analytical accounting	0.873
Q153_OGP : Existence of management planning Q26_PA : Activity forecasting	0.714
Q325_CB : Budgetary control Q326_TBA : Activity balanced scorecards Q327_CMC : Zero-based budget	0.721
Q201_CMC : Cost calculation to control charges;	0.472

Almost all of Cronbach's alphas are above 0.6 and meet the reliability criteria. The only one with a low value (0.472) is the one linked to variable *Q201_CMC*. Also, a correlation analysis between this variable and the other variables of management control tools was done. All of the model's variables were measured with a Likert squale of five or seven points. Lastly, we used the Statistical Package for the Social Sciences (SPSS) version 13.00 to process the data in this study.

MAIN RESULTS

All results are presented in the full paper

CONCLUSION

The conclusions drawn in this study are mainly based on calculations of cost and management control tools needed to monitor municipal performance. To obtain a comprehensive picture and a broader analysis of the variables studied previously, we felt it was important to use a multivariate analysis-based approach. This approach known as principal component analysis (PCA) allowed us to enrich the results eventually leading to the identification of management control tools needed to monitor performance. For this purpose, we have used factorial component analysis and clustering (agglomerative hierarchical clustering). The aim is to identify the structure of the representations in order to organize classes of elements of the scope of representations. Thus, the hierarchical classification was based on squared Euclidean distances using Ward's algorithm. The latter revealed four types of the management control tools used in municipalities visited.

REFERENCES

Ahrens,T. & Chapman, C.S. (2000). Occupational identity of management accountants in Britain and Germany. *The European Accounting Review* 9(4): 477-498.

Anthony R.N. (1988), *The management control function*, Boston, MA: The Harvard Business School Press.

Anthony R.N. (1965), *Planning and control system, a framework for analysis, Division or Research,* Harvard Business School, 180p.

Anthony R.N. & Young D.W. (1988), *«Management control in non-profit organizations»*, Irwin, Homewood? Lllinois, 918 pages.

Avelé, D. (2011*), L'évaluation et le contrôle de la performance des services publics municipaux.* Editions Universitaires Européennes, 558 pages.

Beard, V. (1994). Popular culture and professional identity : *Accounting, Organization and Society*, 19 (3): 303-318.

Bouckaert, G. & Halligan J. (2008), Managing perfirmance. *International comparisons*, Routledge, London.

Bouquin H. (1986), *Le contrôle de gestion, Paris,* Presses Universitaires de France.

Bouquin H. (1997), b – *« Contrôle »* in Joffre P. et Simon Y., Encyclopédie de gestion, tome 1, Economica, Paris, article 33, pp. 667-685.

Bouquin H. (1998), Le contrôle de gestion pousse-t-il les managers à des comportements irresponsables? *Colloque : Contrôle et responsabilité,* Cahier de recherche du GREFFIGE numéro 9801, Université Paris Dauphine, Paris, p. 1-21.

Burlaud A. (1995), « L es méthodes et les outils du contrôle de gestion à l'épreuve de la diversité des organisations », séminaire CEFAG-FENEGE.

Byrne, S. & Pierce, B. (2007), Towards a more comprehensive understanding of the role of management Accountants. *European Accounting Review,* 16(3): 469-498.

Colton, S.D. (2001). The changing role of the controller. *Journal of Cost Management*: 5-10

De Lancer J., P. (2001), Promoting the utilization of performance measures in public organizations: an empirical study of factors affecting adoption and implementation, *Public Administration Review* (61)6, 693-708.

Evrard Y., B. Pras & E. Roux (2003). *Market: Études et recherche en marketing*. Paris: Dunod, 3ème édition

Gianneloni, J.L. & E. Vernette (1995). *Études de marché*. *Analyse et Gestion*, Éditions Vuibert

Gibert P. (1995), *«* La difficulté émergence du contrôle de gestion territorial *»*, *Politiques et Management public,* septembre, vol.13, n°3, pp.204-224.

Griffiths S. (1988), «La demande d'informations comptables pour le contrôle de gestion des communes», Acte du congrès de l'AFC.

Hoffmann-Martinot, V. (1988). Enseignements pour les collectivités locales françaises des pratiques de planification et de gestion prévisionnelles appliquées à l'étranger. *Politiques et Management Public,* Septembre.

Hrisak, D. (1996). The controller as business strategist. *Management Accounting* : 48-49

FULLY INTEGRATED VS. LIMITED INTEGRATION OF SUSTAINABLE PRACTICES: IS THERE A DIFFERENCE IN FINANCIAL PERFORMANCE?

Jane M. Weiss, University of Idaho

INTRODUCTION

There is much debate on whether a company's sustainability practices and the reporting of practices increase profitability and create value or only create additional costs with limited benefits to the company. For example, in 2008, Exxon made a decision not to implement sustainability policies because management felt it was not financially viable, even though competitors such as Shell and BP implemented policies.[1] There exist many articles and books identifying companies that practice corporate sustainability and claim improved financial performance relative to the competition not ingrained in sustainability.[2] Proponents of sustainability practices argue that a sustainability report is issued to mutually manage financial outcomes and sustainability practices, with such practices requiring transparency and accountability [IFAC, 2007]. The opponents of sustainability reporting believe that the sustainability reporting is nothing more than window dressing to manage firm reputation for competitive purposes and has become a centerpiece of corporate image-crafting [Elgin, 2007].

The purpose of the study is to evaluate the sustainability practices of companies and 1) determine which companies have fully integrated sustainability programs into current operations and 2) examine whether companies with full integration of sustainability practices create stronger returns and more firm value then companies with limited or no sustainability practices. Since there appears to be different incentives behind a company's willingness to adopt a sustainability program, it can be inferred that commitment level to sustainability practices will vary, which will result in different performance outcomes. Full commitment and therefore full integration is defined by the implementation of the 9 principles of sustainability [Epstein, 2008]. He argues that companies need to fully integrate the 9 principles of sustainability into current operations to achieve success in their sustainability programs.

The study examines a matched sample of companies filing CSR reports. The first sample is selected from the Global 100 Most Sustainable Companies, and therefore considered to be the firms with the best and most integrated sustainability practices (i.e., fully integrated with the 9 principles). The second sample consists of firms in similar industries not filing a complete CSR report and/or not recognized by sustainable indexes.

The contribution of this study is two-fold. First, the results identifying larger earnings and market value for fully integrated sustainable firms would add clarification to the mixed results of existing studies. Second, it is the first paper to develop metrics in measuring sustainable outcomes found in CSR reports to evaluate the different levels of sustainability integration and its impact of overall firm performance.

HYPOTHESIS DEVELOPMENT

Sustainability interchanges with the terminology, "corporate social responsibility" (i.e., CSR). To be sustainable, a company's CSR practices require the balance in achieving economic viability, environmental soundness, and social responsibility. In 2006, the Global Reporting Initiative developed CSR reporting guidelines. The objective of the guidelines is to "measure, disclose, and be accountable to internal and external stakeholders for organizational performance towards the goal of sustainable development to describe the reporting on economic, environmental, and social impacts." Most companies follow those guidelines and issue CSR reports.

Research examining whether sustainability practices improve financial performance is mixed.[3] Lawrence and Weber (2008) reviewed 52 studies that examined the relationship between CSR reporting and firm performance. In the majority of the studies, the overall conclusion was that firms with more responsible behavior achieved soled financial results. In contrast, a survey conducted by ACCA (2004), found no significant correlation between CSR reporting and financial performance.

With the differing beliefs in what motivates a firm to adopt a sustainability program (i.e., concern over resources for future generations or reputation management), it is critical to determine if different commitment levels to sustainability result in different performance outcomes. Epstein (2008) identifies 9 principles of corporate responsibility. He argues that if all 9 principles are adopted, full integration of sustainable practices has taken place. Firms that have not adopted all nine principles would be classified as a limited integrated firm. The 9 principles include 1) ethics, 2) governance, 3) transparency, 4) business relationships, 5) financial return, 6) community involvement and economic development, 7) value of products and services, 8) employment practices, and 9) protection of the environment.

None of these 9 principles are mutually exclusive. For example, sound ethical practices would make it easier to develop strong governance practices, transparency, and business relationships. In other words, without strong ethical practices, the balance of economic viability, sound environmental practices and social responsibility would be difficult to achieve.

Therefore, I hypothesize that firms adopting all 9 principles of sustainability are fully integrated, which results in stronger returns and more value than firms with partial or .limited integration. Thus, for firms not fully integrating sustainability (i.e., one or more of the nine principles not achieved), firm returns and values will be less.

SAMPLE

The sample of firms with fully integrated sustainability practices is chosen from the Global 100 "Most Sustainable Companies" for years 2007-2011 (i.e., fiscal years 2006-2010), Excluding firms in the finance, insurance, and real estate sector, results in a sample size of 191 firms. A matched sample by industry SIC code is selected. The majority of the firms are from the manufacturing or transportation/public utilities industry sector.

Descriptive analysis of the two samples is performed. The paired-differences test identifies that size is an issue. Firms in the fully integrated sample are significantly larger than the matched sample. In addition, market value per share, book value per share, and EBIT per share is significantly larger for the fully integrated firms. Results must be interpreted with caution. Not only can the results be driven by other factors, the results suggest that the larger firms have the means to implement sustainability practices and possibly market such practices relative to the limited integrated firms.

TESTING THE HYPOTHESIS AND CONCLUSION

In testing whether fully integrated firms create larger returns and create more firm value, regression analysis is applied to control for significant variables identified in the descriptive analysis. Because the initial results of this test are mixed, further development that better defines the metrics in the regression model is in progress.

To aide in developing the metrics that better identify the 9 principles of sustainability, the 16 criteria from the GASB Special Report, "Reporting Performance Information: Suggested Criteria for Effective Communication" are used as a guideline. The government's service efforts and accomplishments (SEA) performance report has many similarities to the CSR report. For example, a government municipality's primary purpose is to provide services that enhance or maintain the well-being of their citizens and is therefore communicated in a SEA report. Similar to that is the CSR report that firms use to communicate to all stakeholders their practices in economic, environmental, and social responsibility policies. The data in the CSR report is evaluated to identify the criteria and therefore the level of commitment to sustainability practices (i.e., how many of the 9 principles are integrated). Therefore, results and conclusion will be forthcoming.

REFERENCES

Association of Chartered Certified Accountants (ACCA) 2004. "The Importance of Corporate Responsibility" http://www.Accaglobal.com/publicinterest/activities/library/sustainability/accounting_sustainability/archive/2005/19/publications/2784968 (accessed 29, August 2011).

Anderson, R. C. 2009. *Business Lessons from a Radical Industrialist,* St. Martin's Press, New York, NY.

Elgin, B. (2007, October). LITTLE GREEN LIES: The sweet notion that making a company environmentally friendly can be not just cost-effective but profitable is going up in smoke. Meet the man wielding the torch. *Business Week,* (4056), 44.

Epstein, J. M. 2008. *Making Sustainability Work: Best Practices in Managing and Measuring Corporate Social, Environmental, and Economic Impacts,* Greenleaf Publishing Limited, UK.

Governmental Accounting Standards Board. 2003. "Reporting Performance Information: Suggested Criteria for Effective Communication" (Norwalk, CT) GASB.

Global Reporting Initiative (GRI) 2006. "RG: Sustainability Reporting Guidelines, Global Reporting Initiative, http://www.globalreporting.org/ReprotingFramework/GSGuidelines (accessed 29 August 2011).

International Federation of Accountants (IFAC) 2007. "Format and Content of Sustainability Reporting" http://web.dev.ifac.org/sustainability-framework/ohp-format-and-content (accessed 29, August 2011).

Kiernan, M. J. 2009. *Investing in a Sustainable World: Why Green is the New Color of Money on Wall Street,* AMACOM, New York, NY.

Lawrence, A. T. and Weber, J. 2008. *Business and Society: Stakeholders, Ethics, Public Policy,* 12th ed. McGraw-Hill, New York, NY.

ENDNOTES

[1] http://www.guardian.co.uk/business/2008/may/19/exxonmobil.oil.

[2] Examples include "Business Lessons from a Radical Industrialist" by Ray C. Anderson and "Investing in a Sustainable World" by Matthew J. Kiernan, Ph.D.

[3] See Oeyono, et al (2011) for an extensive review of studies.

THE INCIDENCE OF FRAUD POST SARBANES OXLEY ACT: A REALITY CHECK

P.N. Saksena, Indiana University South Bend

ABSTRACT

The Sarbanes–Oxley Act (SOX) became law in 2002 after the discovery of significant fraudulent activity on the part of officers of several corporations (Enron, WorldCom, Adelphia, etc.). The goal of the law was to stem the tide of continuing fraudulent behavior, tighten governance and make it more costly for individuals if they were involved in frauds. Unfortunately, the goals were not achieved, and the spate of significant frauds continued with frauds involving major banks and corporations (HealthSouth, Lehman Brothers, AIG, Madoff Securities, etc.). These frauds took place which has led to the additional passage of the Dodd-Frank Act in 2010. This paper discusses SOX, the Dodd-Frank Act and subsequent frauds. In conclusion, it points to the inability of laws and regulations, by themselves, to prevent fraudulent behavior. It suggests that we need to focus on the dangers of unbridled greed and on inventing fancy investment instruments that few people understand but many people trade since no one wants to be left behind in the often believed unlimited profit potential of the markets.

INTRODUCTION

The Sarbanes–Oxley Act (SOX) became law in 2002 after the discovery of significant fraudulent activity on the part of officers of several corporations (Enron, WorldCom, Adelphia, etc.) (Public Law 107-202, 2002). The goal of the law was to stem the tide of continuing fraudulent behavior, tighten governance and make it more costly for individuals if they were involved in frauds. Its goal was to create an environment that would reduce the incentive for individuals to engage in fraud, with greater oversight, more accountability and meaningful penalties for illegal behavior.

Unfortunately, while SOX included a long list of regulations and requirements, it did not stem the tide of ‘significant’ frauds. Unbridled greed and creative financial instruments, with a belief that the only way the economy could go was up, led to another wave of significant financial debacles, leading to the worst economic downturn since the great depression.

This paper flows as follows. The next section discusses the Sarbanes-Oxley Act, including a brief discussion of its eleven titles. The section after that briefly discusses the Dodd-Frank Act and its sixteen titles. That is followed by a brief discussion of two significant frauds that have occurred in the past few years (Lehman Brothers and Madoff Investments). The final section in the paper is the conclusion section, which discusses the dangers of unbridled greed and the consequences of inventing fancy trading instruments that most people don’t understand but trade in just so they can make a quick profit.

SARBANES-OXLEY ACT

The Sarbanes-Oxley Act of 2002 (SOX), known as the Public Company Accounting Reform and Investor Protection Act, in the Senate, and the Corporate and Auditing Accountability and Responsibility Act, in the House, was signed into law on July 30, 2002. The law was in reaction to significant fraudulent activity that was reveled in major corporations including, Adelphia, Enron, Tyco International and WorldCom, in the late 1990s and early 2000s. These frauds, along with others, revealed a corporate environment that was riddled with systemic problems, some of which are detailed below.

External Audit Firm Issues: The external auditing profession had prided itself in self-governance. Leaders within the profession convinced regulators that its self-regulation was effective, that members were ethical and independent in their decision-making and that there was no conflict of interest when the same firm offered consulting as well as audit services. Lawmakers, based on the evidence, felt that self-regulation had not worked and the same firm offering audit as well as consulting services was a problem that needed to be fixed.

Board of Director Issues: Companies where fraud was discovered had Boards lacked independence, expertise or both. Competence and independence are of primary importance since the Board is responsible for governance at the highest level, one example being that the audit committee of the board has to understand the complexities of the audit function and be competent to communicate with both the audit firm and upper management.

Executive Compensation Issues: Stock and bonus options for upper management were initially celebrated as ideas that would minimize agency costs and put manager incentives and behavior in line with those of owners (Jensen and Meckling 1976). However, given significant stock price movement, for insignificant earnings shortfalls, and since stock options were not considered to be expenses, managers were extremely aggressive when it came to ‘cooking the books’ to meet their target numbers.

Security Analyst Issues: In addition to audit firms’ conflicts arising from them offering audit and consulting services, security analysts were in an awkward position since their banks’ investment banking division’s business depended on their recommendations of company stock. They faced pressure to recommend stock, even if they had concerns, because it had an impact on whether or not the investment banking division got business or not.

SOX has eleven titles that cover a wide range of issues that were identified as weaknesses in the frauds before its passage. Title I discusses the creation of the Public Company Accounting Oversight Board (PCAOB). Its role is to oversee the public accounting profession, to inspect firms and to enforce compliance with laws, among other things. Title II addresses auditor independence. It addresses, among other things, reporting requirements, partner rotation, new auditor approval requirements and establishes standards for external auditor independence. It also addresses the restriction that external audit companies cannot provide non-audit services to their clients.

Title III addresses corporate responsibility. For example, it mandates that the CEO and CFO need to sign the financial statements to ensure accountability and responsibility. Title IV addresses internal controls. It addresses the need to audit internal controls and discusses issues such as off balance sheet financing and the timely disclosure of material changes in financial position. Titles V and VI discuss conduct of securities analysts and requires them to disclose any known conflicts of interest.

Title VII requires the SEC to conduct studies and to report the finding of those studies. Title VIII addresses penalties for manipulation of financial statements, interfering in investigations and protections for whistle-blowers. Title IX discusses penalties for committing fraud; title X requires the CEO to sign the company tax return; and finally title XII discusses corporate fraud accountability.

Unfortunately, the sweeping SOX legislation, by itself, was not enough. Frauds continued along with the great recession of 2007-2008. An analysis of the reasons for that meltdown led to the passage of the Dodd-Frank Wall Street Reform and Consumer Protection Act, in July 2010 (Public Law 111-203, 2010).

The Act has sixteen titles. Title I discusses financial stability. It creates the Financial Stability Oversight Council and the Office of Financial Research. The goal of these organizations is to respond to threats and stability of the US financial system. Title II discusses orderly liquidation authority; title III discusses the transfer of powers to the comptroller, FDIC and the Fed; title IV discusses regulation of advisors to hedge funds and others; title V tackles insurance; title VI, improvements to regulations; title VII addresses Wall Street transparency and accountability; title VIII discusses payment, clearing and settlement supervision; title IX, investor protection and improvements to the regulation of securities; title X established the Bureau of Consumer Financial Protection; title XI addresses Federal Reserve systems provisions; title XII, improving access to mainstream financial institutions; title XIII is the pay it back act; title XIV discusses the Mortgage Reform and Anti-Predatory Lending Act; title XV, miscellaneous provisions; and, finally, title XVI discusses Section 1256 contracts.

SIGNIFICANT FRAUDS, POST SOX

Despite the passage of SOX, significant, expensive frauds continued to take place in the US investment sector. Two frauds are briefly discussed next.

Lehman Brothers

Lehman Brothers was a global financial service powerhouse before its bankruptcy in 2008. It was ranked number four in investment banks and had an impressive array of products that it sold to its varied clients. Lehman had significant exposure to the sub-prime mortgage investment securities which led to it using creative off-balance sheet devices (Repo 105 and Repo 108). They used the sections to create a financial position that looked a lot better than it really happened to be. They 'fixed' ratios that analysts and investors were most interested in and continued until its exposure was so significant that it could not sustain itself.

Madoff Investment Securities

Bernie Madoff was a respected investment expert on Wall Street. He used his leadership position to setup and run a Ponzi scheme which ended up costing trusting investors tens of billions of dollars. He promised and delivered unrealistic and untenable results which no one else could replicate, even in theory. Madoff was helped in his fraud by an ineffective accounting firm that supposedly audited his books and certified his statements. It also helped that Madoff had contacts in the SEC, since this helped him keep the regulators and investigators away from the company and its transactions.

These two brief examples show that frauds remain a very real part of the US economy and that they have the potential to significantly impact the financial stability and structure of the entire financial system. Again, these are only two of the significant frauds which have occurred since the passage of SOX.

CONCLUSION

This article has discussed SOX, the Dodd-Frank Act, two frauds which occurred post-SOX and points to the importance of having a broad and sweeping discussion of the dangers of greed, the dangers of inventing financial instruments which are poorly understood. The goal of the paper is to continue the dialogue that helps the US clean-up its financial house, before it is too late.

REFERENCES

Jensen, Michael & W. Meckling. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, *Journal of Financial Economics*, 3(4).

Public Law 111-203, July 2012, retrieved from the internet on March 13, 2012, www.sec.gov/about/laws/wallstreetreform-cpa.pdf.

Public Law 107-202, July 2002, retrieved from the internet on March 12, 2012, http://www.sec.gov/about/laws/soa2002.pdf.