Volume 10, Number 2 *2005*

Allied Academies
International Conference

Las Vegas, Nevada
October 12-15, 2005

Academy of Accounting and Financial Studies

PROCEEDINGS

Volume 10, Number 2 *2005*

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CAPITAL EXPENDITURE AND LONG-RUN PROFITABILITY: EVIDENCE FROM THE PAPER AND FOREST PRODUCTS INDUSTRY

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ABSTRACT

Using the Johansen's procedure I investigate the long-run relationship between operating cash flow and gross capital expenditure for the paper and forest products industry. I find that a long-run relation ship exists between operating income and capital expenditure, for a significant number of the firms in the industry. For a large number of the firms, this does not hold. Moreover for the firms that exhibit this long-run relationship, operating income Granger causes capital expenditure. This is in contrast to accepted finance theory, which requires that capital expenditure determine the firm's level of operating cash flow.

INTRODUCTION

The primary objective of a business enterprise is the maximization of its shareholders' wealth. To achieve this, management is supposed or required to select capital projects that are expected to increase the value of the firm by costing less than they generate in revenue. The net present value (NPV) has generally been accepted as the amount by which shareholders' wealth is expected to increase due to the acceptance of this project. Moreover capital budgeting techniques require that projects be evaluated on a stand alone basis; requiring that incremental cash flow be used in evaluating the acceptability of a proposed project. The sum of the accepted project in a fiscal year comprises the capital budgeting expenditure for the enterprise. Considering that capital expenditures involve current outlays in expectations of future pay off, the question becomes: is there a relationship between the level of capital budgeting expenditures and a firm's profitability. Granted that the answer should be yes, but there is, to the author's best knowledge, no direct empirical investigation of this relationship on a micro level.

Fama and French (1999) studied the relationship between firm investment and profitability for the aggregate non-financial U. S. corporations, by computing the overall internal rate of return on investment. A positive internal rate of return led them to conclude that "on average corporate investment seems to be profitable". The present study is aimed at extending their work by looking at individual firms. Specifically, it attempts to investigate the relationship between operating income and the level of investment. In the Fama and French study, the difference between these two variables (less tax) was one of the three cash flow terms in their present value equation.

The concept of business risk defined as the degree of operating leverage (DOL), measures the sensitivity of operating income to changes in the firm's revenue. The financial press is replete with news of firms reporting a small percentage decline in sales along with disproportionate declines in income. This goes against the finance theory that requires that firms make investment decision on the margin. The concept of DOL aggregates the firm's fixed operating expenses, a practice that ignores the fact that these operating expenses are a result of individual capital budgeting decisions. Such declines in income may be indicative of divergence between theory and practice.

SOME BACKGROUND

Since the seminal work of (Jensen and Meckling,1976) on agency theory, both practitioners and academicians have devoted a considerable amount of resources to design a system of compensation that aligns the interest of management with that of shareholders. At the core of this scheme is the question of how to measure management effectiveness. The most direct measure of management effectiveness as agents of the shareholders is the firm's stock price. But the use of stock price as a sole measure of effectiveness as argued by (Jensen and Murphy,1990) exposes the managers to excessive risk due to market factors that are beyond the control of management.

McConnell and Muscarella (1985) find that on average the stock market reacts positively to announcements of increases in planned capital expenditures and negatively to decreases in planned capital expenditures. (Woolridge,1988) also reports positive stock price reaction to a variety of long-term strategic investments such as joint ventures, plant and equipment purchases, new product introductions, and research and development expenditures. In addition, (Martin and Kensinger,1990), studied the share-price response to announcements of increases in research and development spending. They find, on the average, significant positive reaction even when the announcement occurs in the face of an earnings decline. Stock prices are the present value of expected future cash flows. Capital expenditures are accepted on the basis of expected increase in cash flow as a result of undertaking the investment. Thus there should be a positive long-run relationship between cash flow and capital investment.

Whereas academicians were focusing on stock price, practitioners emphasized accounting –based measures of performance such as EVA (Economic Value Added), CFROI (Cash Flow Return on Investment), TBR (Total Business Return, Economic Profit, and SVA (Shareholder Value Added). Accounting-based measures of firm performance can be manipulated in the short-run at least, through revenue and/or cost recognition. Moreover, any measure of performance must be linked to the goal of shareholder wealth maximization as evidenced by the firm's stock price. (Biddle, Bowen and Wallace,1996) studied the association of EVA and earnings with stock returns. Their findings reveal that earnings is more highly associated with stock returns and firm value than EVA, residual income or cash flow from operations. Farsio, Degel and Degner (2000) in their study of the relationship between EVA and stock returns reported that "a regression of 1998 total return against 1998 EPS and EVA resulted in a model that explained 99% of the variability in total return whereas the same regression using EVA as an explanatory variable resulted in only 7% explanation of variation." (Chen and Dodd,2001) examined the value relevance of operating income, residual income and economic value added in explaining stock returns. They conclude that operating income has a higher relative information value than residual income.

All of the performance measures examined have one thing in common: they are a consequence of actions and decisions taken and made by management. From a management standpoint, the actions they can take to affect these performance measures rests squarely on their investment decisions. Operating income correlates better with stock returns than any other single measure of performance as well as a direct consequence of management's investment decision, it is necessary to ask if it has a long-run relationship with the firm's investment decision as evidenced by the firm's capital expenditure. This is the objective of the present study.

DATA AND METHODOLOGY

The data for this study, obtained from the Compustat database, are the annual operating income before depreciation (OIBD) and gross capital expenditure (GCE) for the period 1960 through 2000, for the paper and forest products industry. The choice of industry is completely arbitrary. Capital projects define the firm and hence the industry or vice versa. Regardless of which industry selected, the goal of the firms within the industry is still the maximization of shareholders'

wealth through the acceptance of positive net present value projects. Of the 114 firms listed in the database, only 22 firms had complete data spanning the study period. A list of firms is presented in Table 1. Establishing the long-run relationship between a pair of time series requires that the variables be cointegrated. If a series must be differenced *d* times before it becomes stationary, it is said to contain *d* unit roots and integrated of order *d*, expressed as *I(d)*. For two series y_t *and* x_t to be cointergrated, they each must be integrated of the same order d. Moreover, there must exist a vector β, such that the error term from the regression $(\epsilon_t = y_t - \beta x_t)$ is of a lower order of integration, *I(d-b)*, where $b>0$. According to Engle and Granger (1987), the two series are said to be cointegrated of order *(d, b)*. Cointegration implies that even though the two or more series themselves may contain stochastic trends, the series are linked to form an equilibrium relationship to which the system converges over time. The error term, ϵ_t, can be interpreted as the distance that the system is away from equilibrium at time *t*.

Table 1: Stationarity Test Results

Company Name	Order of Integration		Estimate of β		t-Value**	
	OIBD	GCE	OIBD	GCE	OIBD	GCE
Panel A						
International Paper Co (IP)	1	1	-1.8481	-2.297	-5.0912	-5.5493
Kimberly-Clark Corp (KMB)	1	1	-1.4496	-2.5017	-4.5095	-6.5049
Maxxam Group Holdings Inc (MXM2)	1	1	-1.0344	-1.3009	-3.4717	-4.0671
Mead Corp (MEA)	1	1	-1.8526	-1.6127	-4.1317	-4.8768
Nashua Corp (NSH)	1	1	-1.5621	-1.3578	-4.3147	-3.8498
Nortek Inc (NTK)	1	1	-1.2749	-1.2196	-3.923	-3.7907
Potlatch Corp (PCH)	1	1	-1.2934	-1.2754	-3.7208	-3.925
Sonoco Products Co (SON)	1	1	-0.9455	-0.6824	-5.2723	-4.004
Westvaco Corp (W)	1	1	-2.0569	-1.9251	-5.1416	-5.1271
Willamette Industries (WLL)	1	1	-1.3082	-1.2756	-4.0034	-3.9256
Panel B						
Champion Enterprises Inc (CHB)	0	0	-1.0003	-1.0001	-2160.3	-7612.9
Domtar Inc (DTC)	0	0	-0.9909	-0.4882	-3.9988	-3.5435
Panel C						
Chesapeake Corp (CSK)	1	0	-1.367	-1.3028	-4.0139	-4.0575
Georgia Pacific Group	1	0	-2.3309	-1.3357	-6.5344	-4.073
Georgia –Pacific CP (GPTG.CM)	1	0	-2.4438	-1.3065	-6.9975	-4.0019
Glatfelter (P H) Co (GLT)	1	0	-0.9444	-0.9166	-5.3513	-5.2181
Panel D						
Pope & Talbot Inc (POP)	0	1	-0.503	-1.2754	-5.0632	-3.925
Weyerhaeuser Co (WY)	0	1	-0.8864	-1.8119	-4.2205	-4.4842

Table 1: Stationarity Test Results

Company Name	Order of Integration		Estimate of β		t-Value**	
	OIBD	GCE	OIBD	GCE	OIBD	GCE
Panel E						
Avery Dennison Corp (AVY)	2	1	-4.0453	-3.5916	-3.6592	-5.011
Bemis Co (BMS)	2	1	-2.2064	-1.8428	-4.9241	-4.2771
Panel F						
Lynch Corp (LGL)	>2	2	NA	-2.648	NA	-5.2068
Skyline Corp (SKY)	>2	2	NA	-2.5257	NA	-4.3173
** Critical value @ 5% level = -3.40, @ 10% level = -3.13						

In order to investigate the long-run relationship between operating income and capital expenditure, it is necessary to determine the integration of these variables for the firms under study. To achieve this, the augmented Dickey-Fuller (ADF) test of (Said and Dickey,1984) and (Said,1991) is employed. The test is based on the null hypothesis of unit root with drift process against the alternate of trend stationary process. The selection of the optimal lag length is based on the Akaike Information criterion (AC), multivariate (Hannan-Quinn,1979) criterion (HQ), and multivariate (Schwarz,1978) Bayesian (SC) criterion.

Given the integration characteristics of the income and expenditure variables for the firms, the Johansen maximum likelihood procedure is used to test for possible cointegration between the variables. (Johansen,1988; 1991) and (Johansen and Juselius,1990) procedure is based on the error-correction representation of the vector autoregression VAR(*k*) model with Gaussian errors. (Johansen and Juselius,1990) likelihood-ratio tests (Lambda-max and Trace tests) are used to determine the number of cointegrating vectors based on the maximum likelihood estimates of the cointegrating vectors. The lag length, *k*, is chosen by a combination of AC, HQ, and SC criteria. (Granger,1986;1988) pointed out that if two variables are cointegrated, then Granger causality must exist in at least one direction. (Granger,1969) describes a variable x_t as Granger causing another variable y_t, if the inclusion of lagged values of x improves the forecast of y. (Engle and Granger,1987) point out that the standard Granger causality tests are inappropriate and misleading in the presence of cointegration. Standard Granger causality tests that are augmented with error-correction terms, obtained from the cointegrating relationship, are used to investigate the long-run effects. According to (Engle and Granger,1987), such tests assure that valid inferences can be made on variables that are cointegrated.

STATIONARITY TEST RESULTS

The augmented Dickey-Fuller (ADF) test was conducted using the following regression model:

$$\Delta z_t = \alpha_0 + \beta z_{t-1} + \eta T + \qquad 1$$

Where z_t is the time series, T is a time trend, and μ_t is white noise. The null hypothesis is that the time series z_t is a unit root with drift process: $\beta = 0$, against the alternate that z_t is a trend stationary process: $\beta < 0$. The test statistic is the t-value of β. The selection of the optimal *p* was based on the

Akaike, Hannan-Quinn and Schwarz information criteria. The results, though not presented in the table, are available upon request. The results of the stationarity or unit root tests are presented in Table 1 for each of the firms in the sample.

The results indicate that the characteristics of the variables differ considerable across the firms in the paper and forest products industry. The order of integration ranged from zero to more than two for the industry. Panel A of the table lists the result for firms for which both the operating income and capital expenditure variables are I(1). Ten firms fall within this category. Two firms, shown in Panel B, have both variables that are I(0). Panel C contains the results for the four firms, which have the capital expenditure variable as I(0), while the operating income is I(1). Two firms, shown in panel D, have operating income series that is I(0) and capital expenditure series that is I(1). In panel E, two firms with operating income I(2) and capital expenditure I(1) are reported. Lastly, panel F reports the results for two firms for which one or both of the variables are integrated of order greater than two, I(>2). Given that a bivariate cointegration analysis requires that both variables be integrated of the same order as well I(1), only the firms in Panel A will be studied for the long-run relationship between operating income and capital expenditure.

COINTEGRATION TEST RESULTS

The use of the Johansen procedure requires the selection of the appropriate lag length for the VAR(*p*) model. The Hannan-Quinn and Schwarz information criteria are used to select the order *p* that ensure the errors are approximately white noise. For all the series in the study, *p=1* is the upper bound value that ensures white noise. Next the Johansen's cointegration analysis was performed with cointegrating restriction on the time trend parameters imposed. The likelihood ratio (LR) tests, of the null hypothesis that the imposed cointegrating restrictions on the time trend parameters hold, are conducted to test the validity of the restrictions. The rejection of the null hypothesis implies that the test results regarding the number of cointegrating vectors are invalid. The results of the tests indicate that the trend restriction is invalid for three of the firms (International Paper, Sonoco Products Co, and Kimberly-Clark). The cointegrating vectors for these firms are recalculated without imposing the restrictions on the time trend parameters.

The lambda-max and the trace test are performed to test for the number of cointegrating vectors. The lambda-max test, tests the null hypothesis that there are cointegrated vectors against the alternative that there are r+1cointegrated vectors. The trace test tests the null hypothesis that there are at most r cointegrated vectors against the alternative that there are 2 cointegrated vectors. Both test strongly support the existence of one cointegrating vector for most of the firms. However the results are mixed, hence inconclusive, for PCH and NSH. For the remainder of the firms, except for MEA, the tests indicate that operating income and capital expenditure are strongly cointegrated at the 20% level of significance. For MEA, the tests are significant at the 5% level. The cointegrating vectors for each of the firms are presented in table 2.

Next is the estimation of the error correction model. Since the number of lagged variables necessary to obtain white noise in the cointegrating equation is one, the error correction model takes the form:

$$z(t) - z(t\text{-}1) = B.H'[z(t\text{-}1)',t\text{-}1]' + c + u(t) \qquad 2$$

for the case in which cointegrating restrictions on the time trend parameters are imposed or

$$z(t) - z(t\text{-}1) = B.H'z(t\text{-}1) + c.d(t) + u(t) \qquad 3$$

for the case without restrictions on the time trend parameters:
where:

1) **z(t)** is a 2-vector with components: z(1,t) = OIBD(t) and z(2,t) = GEC
2) **H'[z(t-1)', t-1]' = e(t-1),** is the 1-vector of error correction terms, with **H** the 3x1 matrix of cointegrating vector
3) **H'z(t-1) = e(t-1**), is the 1-vector of the error correction terms, with **H** the 2x1 matrix of cointegrating vectors.
4) **c** is a 2-vector of constants
5) **d(t)** is the 2-vector of deterministic variables, with components d(t,1) =1, and d(t,2) =t
6) **u(t)** is the 2-vector of error terms.
7) t = 2 (= 1961), ……., 41 (= 2000).

The maximum likelihood estimation results for the vector error correction model (VECM) are presented in Table3. Panel A displays the results for the case with restrictions on the time trend parameters, while panel B shows the results for the case without restrictions.

The result of the VECM estimation is used to test the direction of causality between operating income and capital expenditure. A causal link exists between the variables if the coefficient of the error correction term B1 and or B2 are statistically significant. Significance of the error correction term reflects long-run causality. For each firm, if both coefficients are significant, it indicates that causality is bi-directional. This implies that changes in operating income are Granger caused by capital expenditure as well as changes in capital expenditure being Granger caused by operating income.

Table 2: Standardized Estimate of the Cointegration Vector Based on the Johansen Procedure

Firm Ticker Symbol	With Cointegrating Restrictions On Time Trend Parameter			Without Cointegrating Restriction On Time Trend Parameter	
	OIBD	GCE	T	OIBD	GCE
IP*	-0.00021	-0.0239	1	0.003872	1
KMB*	0.01217	-0.06625	1	-0.1846	1
MEA	-0.0973	0.05988	1	1	-0.6164
NTK	0.03572	-0.03559	1	1	-0.9824
PCH	-0.5049	0.5439	1	-0.9324	1
NSH	-0.6512	1	-0.2554	-0.6518	1
SON*	0.1991	-0.1557	1	1	-0.9493
W	0.0233	-0.1052	1	-0.2552	1
WLL	-0.1127	0.1126	1	1	-0.9989
MXM2	-0.2712	1	-0.0969	-0.2716	1

*The null hypothesis that the imposed restrictions on the time trend holds was rejected for these firms.

As evidenced in Table 3 Panel B, causality runs strongly from operating income to gross capital expenditure. In all of the firms studied, the coefficient of the error correction term (B2) in the Operating income VECM are significant at the 5% level or better. The average R^2 for the firms studied is 43.04%, with a high of 100% and a low of 17.15%. This contrasts with an average of 15.37% and a high of 48.74% and a low of 0.43%. Bi-directional causality exists between operating income and capital expenditure for five of the firms (IP, KMB, MEA, SON, and W) although the causality is much stronger flowing from operating income to capital expenditure as evidenced by the magnitude t-statistic.

Table 3: Maximum Likelihood Estimation Results for the VECM

Firm Ticker Symbol	Change in Operating Income Before Depreciation (ΔOIBD)			Change in Gross Capital Expenditure (ΔGCE)		
Panel A						
	B1	C1	R^2 (%)	B2	C2	R^2 (%)
IP	26.429	-10.301	12.7	31.617	-107.51	38.33
KMB	14.359	-32.708	21.77	11.719	-68.437	39.08
MEA	4.721	-10.583	18.33	-7.103	42.245	34.31
NTK	-0.849	2672.88	.18	14.089	-274.87	48.71
PCH	-0.1735	6.386	2.77	-1.452	15.475	53.5
NSH	0.4008	2.411	6.86	-0.486	-2.64	21.6
SON	-11.407	488.53	48.64	-11.409	479.067	48.65
W	3.723	-0.079	18.56	5.062	-23.811	23.74
WLL	0.2328	2586.4	.07	-8.874	137.43	100.0
MXM2	-0.160	0.654	0.12	-0.582	0.5448	17.05

Panel B (t-Statistic in Parenthesis)								
	B1	C (1,1)	C (1,2)	R^2 (%)	B2	C (2,1)	C (2,2)	R^2 (%)
IP	-0.575 (-2.23)*	-194.72 (-1.45)	31.859 (2.83)*	17.35	-0.7717 (-5.05)*	-99.57 (-1.25)	30.087 (4.52)*	38.95
KMB	-0.7076 (-2.32)*	-113.07 (-1.95)	15.242 (3.67)*	27.74	-0.825 (-4.87)*	-61.191 (-1.90)	11.482 (4.97)*	39.75
MEA	-0.458 (-2.97)*	-16.011 (-0.62)	4.742 (2.66)*	18.31	0.6914 (4.55)*	49.742 (1.96)	-7.0743 (-4.03)*	34.33
NTK	-0.067 (-0.58)	8828.92 (1.66)	-279.68 (-1.31)	4.3	0.5054 (6.00)*	431.57 (0.11)	-12.57 (-0.08)	48.68
PCH	-0.0924 (-1.04)	9.319 (0.92)	-0.302 (-0.69)	2.97	-0.7895 (-6.79)*	16.002 (1.20)	-1.429 (-2.49)*	53.54
NSH	0.4049 (1.76)	6.918 (1.31)	-0.3067 (-1.42)	9.07	-0.4842 (-3.33)*	-0.5625 (-0.17)	0.0215 (0.16)	22.76
SON	-10.048 (-5.74)*	-1168 (-0.28)	92.74 (0.54)	48.74	-10.046 (5.74)*	-1159.67 (-0.28)	91.94 (0.54)	48.74
W	-0.3645 (-2.8)*	-23.214 (-1.03)	4.298 (3.13)*	20.4	-0.5662 (-3.77)*	-4.695 (-0.18)	3.929 (2.48)*	26.63
WLL	-0.0659 (-0.42)	8847.54 (1.69)	-286.28 (-1.35)	4.41	1.0002 (896.35)*	148.12 (3.98)*	-8.957 (-5.94)*	100.0
MXM2	-0.1486 (-0.20)	9.957 (0.34)	-0.4194 (-0.35)	0.43	-0.5795 (-2.86)*	2.36 (0.29)	-0.0317 (-0.09)	17.15

*Significant at the 5% level or better

To further evaluate the effect of operating cash flow on capital expenditure, the coefficient of the error correction term is multiplied by the coefficient of the operating income in the cointegration vector. The resulting product is an estimate of the long-run impact of operating income on capital expenditure. It measures the rate of change of the change in capital expenditure with respect to change in operating income. The results are presented in Table 4 along with the rate of change of the change in operating income with respect to capital expenditure.

Table 4: Estimate of the Slope of the VECM

Dependent Variable: ΔGEC, Independent Variable: OIBD**			Dependent Variable: ΔOIBD Independent Variable: GEC	
Firm Ticker Symbol	With Restrictions on Time Trend Parameter	Without Restrictions on Time Trend Parameter	With Restrictions on Time Trend Parameter	Without Restrictions on Time Trend Parameter
IP	-0.0067	0.003	-0.6323*	-0.5751*
KMB	0.1426	0.1524	-0.9513*	-0.7076*
MEA	0.6912	-16.011	0.2828*	0.2823*
NTK	0.5033	0.5054	0.0302	0.0658
PCH	0.7329	0.7361	-0.0944	-0.0924
NSH	0.3168	0.3156	0.4008	0.4049
SON	-2.2715	10.046	1.776*	9.538*
W	0.1178	0.1445	-0.3917*	-0.3645*
WLL	1.0001	1.0002	-0.0262	0.0658
MXM2	0.1578	0.1574	-0.1599	-0.1485

* Coefficient of the error correction term B1, significant at the 5% level.

** Coefficient if the error correction term B2, significant at the 5% level for all the firms.

The result of the analysis indicates that there is a long-run positive relationship between capital expenditure and operating income. Increase in operating income results in increase in capital expenditure except for MEA and SON that have mixed results depending on whether or not restrictions are placed on the time trend parameter. In the case of the effect of capital expenditure in changes in operating income, of the firms where the error correction term is significant, the results are mixed. For IP, KMB and W, there seems to exist an inverse relationship between increase in operating income and capital expenditure. Where as for MEA and SON, increase in capital expenditure results in a long-run increase in operating income.

ANALYSIS AND CONCLUSION

The result obtained from applying the Johansen procedure on the relationship between operating income and gross capital expenditure, provides a mixed insight into the capital budgeting process in the paper and forest products industry. Firstly, the significance of the variation in the level of integration of the variables begs the issue of the data generating process across firms. Finance theory predicts that there should be a long-run relationship between the cash flow and capital expenditure. The existence of different orders of integration between these variables raises doubt about their long-run relationship and the capital budgeting decision criteria.

Secondly, the impact of time on the long-run relationship between these variables is highly significant. Of the firms studied only three of them rejected trend restriction on the cointegrating vector. This implies that time is a relevant variable in establishing the long-run relationship between operating income and capital expenditure. Moreover, the coefficient of the time variable in the VECM is significant at the 5% level for all but two of the firms with a cointegrating relationship.

Thirdly, the Granger causality test provides mixed results on the impact of operating income on capital expenditure and vice versa. The result indicates that, for half the firms studied, causality runs strongly from operating cash flow to capital expenditure. This implies that the level of capital spending is determined to a significant degree by the operating income. This runs counter to the efficient market theory on capital rationing, wherein capital expenditure is supposed to depend on the profitability of investment projects and the unlimited ability of the capital markets to fund profitable investments. On the other hand, for the remaining five firms, the tests indicate and support the inter-dependence of operating cash flow and capital expenditure through the bi-directional Granger causality between operating income and capital expenditure.

Fourthly, the slope of the operating income on the capital expenditure VECM equation is positive for each of the firms studied. This provides strong evidence in support of the indirect impact of firm's current performance on future profitability as a result of new investments. Finally, this study seems to suggest that there is a significant gap between the dictates of financial theory and the practice of finance as it relates to capital budgeting decision process. This issue merits further investigation to determine whether it is unique to the paper and forest products industry. If not, what are the possible factors responsible for the inconsistency in the data generating process across firms in the same industry?

REFERENCES

Biddle, G. C., R. M. Bowen & J. S. Wallace (1997). Does EVA Beat Earnings? Evidence on Associations with Stock Returns and Firm Values, *Journal of Accounting and Economics* 2, 301-336

Chen S. & J. L. Dodd (2001). Operating Income and EVA: Which Metric is More Value Relevant? *Journal of Managerial Issues* 13 (1), 65-86

Engle, R. F.& C.W.J. Granger (1987). Co-integration and Error Correction: Representation, Estimation, and Testing. *Econometrica* 55, 251-76

Fama, E. F.& K. R French (1999). The Corporate Cost of Capital and the Return on Corporate Investment. *Journal of Finance* 54 (6), 1939-1967

Farsio, F., J. Degel,&d .J. Degner (2000). Economic Value Added (EVA) and Stock Returns. *Financier* 7, 115-118

Granger, C.W.J. (1969). Investigating Causal Relations by Econometric Models and Cross Spectral Methods,*Econometrica,* 424-438

Granger, C.W.J. (1986). Developments in the Study of Cointegrated Economic Variables. *Oxford Bulletin of Economics and Statistics* 48, 213-228

Granger, C.W.J. (1988). Some Recent Developments in a Concept of Causality. *Journal of Econometrics* 39, 199-211

Hannan, E.J. & B.G. Quinn (1979). The Determination of the Order of an Autoregressive. *Journal of the Royal Statistical Society*, 190-195

Jensen, M. C. & W. Meckling (1976). Theory of a Firm: Managerial Behavior, Agency Costs and Ownership Structure," *Journal of Financial Economics* 3,305-360

Jensen, M. C. & K. Murphy (1990). Performance Pay and Top Management Incentives. *Journal of Political Economy* 98: 225-264

Johansen, S. (1988). Statistical Analysis of Cointegration Vectors. *Journal of Economic Dynamics and Control* 12, 231-254

Johansen, S. (1991). Estimation and Hypothesis Testing of Cointegration Vectors in Gaussian Vector Autoregressive Models. *Oxford Bulletin of Economics and Statistics* 54, 1551-80

Johansen, S. & K. Juselius (1990). Maximum Likelihood Estimation and Inference on Cointegration with Application to the Demand for Money, *Oxford Bulletin of Economics and Statistics* 52, 169-210

Martin, J. D. & J.W. Kensinger (1990). Corporate Research and Development Expenditures and Share Value, *Journal of Financial Economics* 26, 255-276

McConnell, J. J. & C. J. Muscarella (1985). Corporate Capital Expenditure Decisions and the Market Value of the firm, *Journal of Financial Economic* 14, 399-422

Said, S.E. (1991). Unit Root Test for Time Series Data with a Linear Time Trend, *Journal of Econometrics* 47, 285-303

Said, S.E. & D.A. Dickey (1984). Testing for Unit Roots in Autoregressive Moving Average of Unknown Order, *Biometrika*, 71, 599-607

Schwarz, G. (1978). Estimating the Dimensions of a Model, *Annals of Statistics*, 461-464

Woolridge, J.R. (1988). Competitive Decline and Corporate Restructuring: Is a Myopic Stock Market to Blame? *Journal of Applied Corporate Finance*, 1, 26-36

INDIVIDUAL INVESTORS, ELECTRONIC TRADING AND TURNOVER

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ABSTRACT

We examine how changes in individual investors' cost for information and trading costs affect stock turnover, i.e., the portion of outstanding stock that trades during a specific period of time. We also test how individual investors with relatively short investment horizons affect turnover. We find that stock turnover increases when electronic trading becomes available to individual investors and that, while turnover is negatively correlated with individual investors' equity ownership, it is positively correlated with the level of electronic trading by individuals. This confirms the theory that investors trade relatively more actively when their costs of trading decline and provides further evidence that, when investors have the same trading costs and access to information, differences in their investment objectives leads to differences in their contribution to stock turnover.

ETHICS STANDARDS FOR THE PROFESSIONAL TAX PRACTICE: NEW DEVELOPMENTS

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ABSTRACT

Tax advisors have become the most recent profession exposed for their unethical practices. When an international firm receives penalties of almost one-half billion dollars due to fraudulent tax activities, the issue of professional accounting ethics again comes to the forefront. Existing ethics standards related to tax services have been recently modified to provide better direction for practitioners and greater authority for implementation.

Pressure to retain clients yet comply with the tax code creates a dilemma for the practitioner. More than half of all taxpayers use a professional preparer. Fees received by tax preparers exceed $11 billion annually. Noncompliance is growing at astounding rates. Due to low audit rates, taxpayers are prone to play the "audit lottery," often insisting on aggressive or inappropriate tax positions when using a professional preparer. Approximately one-fourth of all preparers receive preparer penalties during their careers. In the year 2003, civil penalties for negligence (pre-abatement) totaled almost $18 million; fraud penalties (pre-abatement) totaled $70 million.

Two standards provide guidance for the professional tax practice. The AICPA's Statements on Standards for Tax Services (SSTS) replaces the non-enforceable Statement on Responsibilities in Tax Practice. Additionally, all practitioners are subject to the Treasury Department's Circular 230: Regulations Governing the Practice of Attorneys, Certified Public Accountants, Enrolled Agents, Enrolled Actuaries, and Appraisers before the Internal Revenue Service.

The SSTS (2000) creates mandatory standards for AICPA members. In response to Congressional concerns regarding abusive tax shelters, modifications in 2003 include interpretation of the "realistic possibility of success" standard, a pivotal component of the guideline. Additionally, these standards provide a step-by-step process to guide the practitioner's professional judgment to determine whether or not there is a "good-faith belief that the position is warranted by existing law or can be supported by a good-faith argument for an extension, modification, or reversal of the existing law."

Circular 230, applicable to all tax preparers, was designed to promote ethical practice among tax practitioners and advocates "best practices" in providing advice. The regulations state that tax practitioners must not sign returns if they determine that certain tax positions do not have a realistic possibility (defined as approximately a one in three or greater likelihood) of being sustained on the merits if challenged. Tax advisors are required to communicate clearly with their client regarding the nature of the engagement, determine the reasonableness of facts before determining an appropriate conclusion, disclose potential penalties related to a position, and "act fairly and with integrity in practice before the Internal Revenue Service."

Failure to comply with the AICPA standards could result in expulsion from the association. The IRS imposes censure, suspension, or disbarment from practice before the IRS. Additionally, penalty provisions of tax law provide sanctions for noncompliance. Yet the concepts of professional judgment, realistic possibility, best practices, and good-faith belief contained in the standards are arbitrary and subject to interpretation. The required interpretation of such indeterminate concepts and terminology contained in these ethics standards creates many challenges and more gray areas in the area of compliance.

This paper describes and analyzes the fundamental theory of the two primary tax ethics standards and addresses the potential effect they might have on current practice.

THE DETERMINANTS OF THE REINSURANCE DECISION BY LIFE INSURANCE COMPANIES

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ABSTRACT

Risk management is central to any business including insurance companies, and reinsurance is one of the several risk management tools available to insurance companies. Insurance companies rely on reinsurance to expand capacity, reduce underwriting risk and reduce the likelihood of financial distress. This article investigates the determinants of the reinsurance decision by life insurance companies using research hypotheses in accordance to the motives of risk management practices. Using a cross section data for U.S. life insurance companies, we find measures of underwriting risk, tax incentives, and agency costs are significant determinants of the reinsurance decision.

PREDICTING DOWNGRADES OF A.M. BEST'S RATINGS FOR PROPERTY AND CASUALTY INSURANCE COMPANIES

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ABSTRACT

With intense competition among property and casualty insurance companies and tougher standards for ratings by A. M. Best Company, property and casualty insurers are very concerned with maintaining the current ratings since downgrades will affect insurer's ability to retain and attract new business. A. M. Best Company groups insurers receiving a letter grade rating into two distinct groups, "secure" and "vulnerable." Occasionally, A. M. Best Company uses quantitative and qualitative information in a confidential analysis process to downgrade previously assigned ratings from secure to vulnerable. Using a matching sample of insurers whose rating is downgraded to vulnerable as compared to insurers whose rating remains secure, have the same organizational form and are of similar size, we analyze the level of firms' financial ratios prior to a downgrade to predict subsequent downgrades. This study differs from previous research in the focus on the secure and vulnerable ratings and in the use of a logit model to analyze the data. Our results indicate that the complicated and vague process of downgrading a secure rating to a vulnerable rating can often be predicted with a simple model and a small set of ratios that can be calculated from readily available information.

CHARITABLE ORGANIZATIONS AND A DYNAMIC TAX ENVIRONMENT

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ABSTRACT

This paper will describe the changing tax regulatory environment facing charitable and other not-for-profit organizations in the United States, discuss the implications of these changes for charitable organizations and their managers, and offer suggestions for coping with this increased scrutiny.

For some time the IRS has expressed concern about abuses of the tax exempt status granted under IRC 503. In a news release dated August 10, 2004 the Service announced that increased efforts would be made "to identify and halt abuses by tax-exempt organizations that pay excessive compensation and benefits to their officers and other insiders." In another press release dated June 30, 2004 the Service announced that it "intends to disallow improper charitable contribution deductions for transfers of easements on real property to charitable organizations and for transfers of easements in connection with purchases of real property from charitable organizations." Testimony before House and Senate committees has highlighted the concerns in this area and contributed to Congressional willingness to increase the IRS's enforcement budget.

These enforcement initiatives of the Internal Revenue Service mean that charitable organizations and their managers face a broad range of threats even for organizations that are not engaging in questionable transactions or activities. Since sanctions can be imposed upon the charitable organization, its managers and its donors it is crucial that they

- *Become familiar with all relevant regulatory and reporting requirements.*
- *Compile and maintain complete, accurate records of all transactions.*
- *Carefully review proposed transactions for compliance with tax regulations, particularly those involving insiders and those which are new for the organization.*
- *Justify compensation for managers and document that justification.*

Because some charitable organizations and their managers have entered into transactions that are abusive and/or are not in keeping with the organizations' exempt purposes, all charitable organizations and their managers face increased scrutiny by the Internal Revenue Service and increased skepticism regarding the bona fides of transactions.

This article will provide guidance to charitable organizations and their managers meeting the challenges of that increased scrutiny and skepticism.

INTERVENTION ANALYSIS OF THE EFFECTS OF TAX REFORM ACT ON THE NUMBER OF BUSINESS FAILURES

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ABSTRACT

We investigate whether, the Tax Reform Act of 1978 positively associated with business failure momentum in favor of private workout arrangements as oppose to bankruptcy reorganization /liquidation by giving debtors an economic incentive. The data covers the period January 1967 through December 1986 and divided into pre- and post-event periods for both large and small business failures. We employ intervention analysis with transfer function modeling for the full data set and maximum likelihood time-series regression on the pre- and post-event periods. After controlling for the number of new business formations, we find the Tax Reform Act of 1978 is associated with significant positive change in business failure momentum. These results also echoed in the intervention analysis.

STATE SARBANES OXLEY LEGISLATION: A SURVEY OF THE PERCEPTIONS OF CPAs IN SMALL FIRMS IN CALIFORNIA

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ABSTRACT

Because of the 2002 Sarbanes Oxley Act (SOX), auditors of public companies must now adhere to an unprecedented list of requirements. SOX has already had a major impact on large CPA firms, and some accountants are concerned about possible state-enacted SOX-type legislation and the impact such legislation may have on their practice.

Indeed, until recently, proposed reforms of the public accounting profession have had no impact on smaller firms. For example, there has been debate about whether large CPA firms should do consulting work for their audit clients but smaller firms have not been included in this debate. Now, the provision of other kinds of services is also being questioned. Of major concern is that small CPA firms will cease to perform audits if regulation continues to escalate. Recent evidence supports the concern that audit firms are ceasing to perform SEC audits.

As in many states, the California State Legislature will determine how the SOX act will be implemented for California CPA firms. The purpose of this paper is to present results of a survey questioning how CPAs in the Sacramento, California area perceive the need for legislative reform on specific items and the effect such reform might have on their firms. The paper also includes a presentation and discussion of recent SOX-type legislative efforts in various states.

Results of the survey reveal that audit partners of small CPA firms take a negative view toward increased regulation posed by possible state SOX-type legislation. Of particular concern are possible restrictions on audit partner rotation and rotation of audit firms. The paper contains several comments furnished by the survey respondents and are quite revealing. For example, one of the CPAs commented… "If the accounting profession really needs legislation to govern it, then it is a really sad day for the profession…and the term "professional" no longer has the meaning it had when I first joined the profession."

THE EFFECTS OF EXPECTATION FORMATION ON DETECTING UNEXPECTED NON-CHANGES IN ACCOUNT BALANCES DURING ANALYTICAL PROCEDURES

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ABSTRACT

The effectiveness of audit analytical procedures in identifying financial statement misstatements has been studied from a variety of perspectives. Most analytical procedures research uses unexpected changes in an account balance or ratio to signal a possible misstatement. Some recent misstatements (e.g., Cendant, WorldCom) have involved financial statement accounts remaining the same when they should have changed (i.e., an unexpected non-change). This research assesses whether auditors forming expectations are more sensitive to unexpected non-changes in account balances than auditors not forming expectations. Seventy nine auditors from three different firms participated in an experimental analytical procedure that contained both an unexpected change and an unexpected non-change in a client's accounts. Results indicate that explicit expectation formation increases auditor's sensitivity to unexpected changes in accounts. In the unexpected non-change situation, however, there was no difference between auditors forming expectations and those not forming expectations. Those with more experience were more sensitive to the risk implications of unexpected non-changes.

Keywords: *Analytical procedures, expectation formation, audit experience.*

THE VALUE RELEVANCE OF VALUE ADDED AND STAKEHOLDER COMPENSATION ACROSS BUSINESS CULTURES

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ABSTRACT

Several prior studies indicate that value added is more value relevant or informative than net income for U.S. companies. In addition, stakeholder theory suggests that lower degrees of information asymmetry in stakeholder-oriented Japanese and German companies means that value added will be more value relevant for those companies than for shareholder-oriented U.S. or U.K. companies. This study examines the value relevance of value added and two stakeholder compensation components of value added, employee compensation and interest, in samples of companies from the U.S., the U.K., Japan, and Germany.

Results of the relative value relevance tests indicate that income is more value relevant than value added in all countries other than the U.S. Cross-country tests of the relative value relevance of value added and income do not support the proposition that the value relevance of value added is related to whether a company is located in a shareholder-oriented or stakeholder-oriented business culture. Cross-sectional value relevance tests support the proposition that wages provide incremental value relevance for Japanese and U.K. companies, but not for German or U.S. companies.

WALL STREET JOURNAL DISTRESS DISCLOSURES AND BANKRUPTCY RESEARCH

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ABSTRACT

This study assesses the extent to which the Wall Street Journal (WSJ) is a useful and reliable source of distress disclosures for bankruptcy research. Prior accounting and finance studies document the importance of controlling for distress disclosures in bankruptcy research. These studies identify distress disclosures from numerous sources: 8-Ks, 10-Ks, NT10-Ks, LEXIS, annual reports, Moody's Industrial Manuals, the F&S Index of Corporate Changes, the Dow Jones News Service, and the WSJ. Some sources are costly (e.g., 8-Ks, 10-Ks, NT10-Ks, and the Dow Jones News Service), while other sources do not provide timely distress disclosures (e.g., LEXIS, annual reports, Moody's Industrial Manuals, and the F&S Index of Corporate Changes). This study focuses on the WSJ since it potentially represents a low-cost, timely, and widely-disseminated source of distress disclosure information. We first construct an aggregate WSJ distress disclosure measure, and find that this aggregate WSJ distress disclosure measure mitigates bankruptcy filing price reactions. We then examine WSJ reporting of six types of distress disclosures, and find that three types of WSJ distress disclosures mitigate bankruptcy filing price reactions: qualified audit opinions, technical defaults, and possible bankruptcy filings. The WSJ thus provides a useful and reliable source of distress disclosures for bankruptcy research.

MARKET REACTIONS TO TERRORIST INCIDENTS: AN ANALYSIS

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ABSTRACT

The recent bombings of the London underground stations have again brought the issue of terrorism to the forefront. This paper focuses on the impact of terrorist incidents on stock market returns. We make use of data on terrorist incidents provided by the US Department of State, and stock market return data to see if stock markets are significantly impacted by terrorist incidents. Results of our study indicate that the number of people killed in terrorist incidents is the only significant variable affecting stock market returns.

INTRODUCTION

In the aftermath of the unfortunate events of September 11, 2001, terrorism is no longer an isolated challenge of a distant region. Increasingly, it is becoming a significant operational and business risk element that has the potential of causing large losses, both in terms of property damage and human toll. In the past few years, terrorism has evolved into a valid transnational matter (National Commission on Terrorism, 2000). According to the U.S. Congress Joint Economic Committee, terrorism has four primary economic impacts: the reduction of capital stock, increased uncertainity levels, increased counter-terrorism and security expenses, and industry specific negative impact (such as insurance or travel/tourism). (United States Congress, Joint Economic Committee, 2002).

The purpose of this study is to investigate if terrorist attacks significantly impact the level of stock market activity. This paper will review current related literature, discuss data collection and analysis, and explain statistical methodology employed. The paper will conclude with implications for policy makers, both nationally and internationally.

LITERATURE REVIEW

While newspaper articles and discussions in television media regarding the economic impact of the terrorist attacks on September 11, 2001 are in abundance, not many studies have examined the impact of other terrorist attacks on the stock markets using any scientific approach. Most of conclusions reached are based on speculation and conjecture. However, there have been very few studies detailing the impact of terrorist activities. Chen and Siems (2004) investigate the effects of terrorism on global capital markets using 14 different terrorist/military attacks. They found that "U.S. capital markets are more resilient than in the past and recover sooner from terrorist attacks than other global capital markets". According to Chen and Siems (2004), the 'flight to quality' behavior of investors has the potential of turning a market bearish and into chaos.

A study by International Monetary Fund (2001) reviewed market trends prior to September 11, 2001 terrorist attacks. It analyzed the impact into short-term macroeconomic channels (destruction of life and property, the confidence level, financial market responses and commodity markets.) The first channel, destruction of life, included not only the loss of human life but also the temporary postponement or loss of services such as the NYSE shut-down period, ceased airline travel, and delayed postal service due to biological threats. The second channel, the confidence channel, addressed the individual and corporate hesitations to have confidence in the market and to buy instead of save. The third channel, financial market response, looked at the short-term impact of financial instruments that

involve funding commitments over a period of time such as "equity and bond markets trade securities involving future dividend or coupon payments by corporations or governments". The fourth channel, commodity markets, considered the demand lag and commodity weakening due to concerns with supply disruption because of terrorist attacks.(IMF, 2001)

Abadie and Gardeazabal (2005) employ an economic model to explain the effects of terrorism on international capital flows. Implicit in the model is the idea that terrorism not only increases uncertainity but it also "reduces the expected return to investment". They conclude that "changes in the intensity of terrorism have an ambiguous effect on the overall investment position of the world …and may cause large sudden movements of capital across countries." (Abadie and Gardeazabal, 2005).

According to Neely (2004), the Federal Reserve responded to Sept 11, 2001 by instantly increasing the amount of liquidity five times more than the average on Sept 12. In the previous financial crises, the Fed has stepped in with enough liquidity to forestall any adverse shocks to the system.

MODEL AND DATA

The purpose of this paper is to investigate the relationship between terrorist incidents and the consequent impact on level of stock prices. To conduct this investigation, we develop a regression model to explain the linkages between terrorist attacks, number of people killed and/or injured and whether or not the incident took place in the same location as a major world financial center on closing prices on the New York Stock Exchange. The model tested was:

$$y_t = fn\ (T_t, k_t, l_t)$$

where

y_t = change in level of a NYSE index on day t (measured by the % change in NYSE Composite Index or % change in NYSE World Leaders Index)
T_t = a dummy variable that takes the value 1 if a terrorist incident took place
k_t = a variable measuring the severity of terrorist incident (number of people killed)
and l_t = a dummy variable indicating whether the incident took place in the same location as a major world financial center.

The above model was estimated using closing price for the NYSE Composite Index as the dependent variable. The Composite Index "consists of all common stocks listed on the NYSE…and provides an exceptional breadth of diversification, at it includes U.S. as well as non-U.S. companies from a wide range of economic sectors" (NYSE, 2005). The Composite Index was selected as a dependent variable because it represented 78% of the U.S. total market capitalization and 66% of the world's total market capitalization. It also has a 90% correlation to the overall U.S. equity market (NYSE, 2005).

To see if there is an impact on global stocks, we also estimated the model using the NYSE World Leaders index. This index consists of components from the U.S. 100 and International 100 indexes. The NYSE World Leaders Index tracks, as a single asset class, the performance of 200 true world leaders across 10 industry sectors and all regions of the world. It tracks the performance of 200 true world leaders across 19 countries …[representing] 37% of the world's total market capitalization…with nearly $10 trillion in market capitalization" (NYSE, 2005).

We collected closing price data for indexes between the dates August 20, 2001 and September 11, 2002 because the September 11, 2001 terrorist incident on U.S. soil was the largest attack to date and seemingly had the greatest impact on the international financial markets. The sample included data from 263 trading days.

To measure the presence of a terrorist incidence, we employed the list of significant terrorist incidents published by the U.S. Department of State. This chronology provided an incident date, the number of individuals killed and/or wounded in relation to the incident, the incident location and a brief

description of the incident itself. Numerically, the terrorist attack data was recorded as "0" for no terrorist attack that day and as "1" if there was a terrorist incident on that given day. The data sample (from August 20, 2001 through September 11, 2002) included 39 terrorist incidents.

The "number of people killed and/or injured" data was also extracted from the U.S. Department of State's terrorist incident chronology listing. In addition, data regarding the October and November 2001 anthrax attacks was obtained from the Federation of American Scientists study (Hatch-Rosenberg, 2005). In instances where one or more incidents occurred on the same day, numbers were combined. For example, on January 22, 2002 there were two separate terrorist attacks. There was a drive-by shooting at a U.S. Consulate in Calcutta, India killing 5 and wounding 13. There was also a bomb explosion in Kashmir that killed 3 and injured 9 that day. The dummy variable took on the value 0 if there were no terrorist attacks and therefore no resulting deaths or injuries. The dummy variable indicating location of terrorist incident was recorded as "0" if the terrorist attack did not occur in one of the locations[1] or if there was no attack and "1" if there was an attack in the same location as a major world financial center.

If a terrorist attack occurred on a non-trading day, the attack was recorded on the next open day.[2]

Our null hypothesis is that there is no relationship between variables measuring a terrorist incident and stock market levels. The regression model estimated was:

$$y_t = b1 + b2k_t + b3l_t + u_t$$

where k_t and l_t measure the number of people killed and location of terrorist incident, respectively. The error term, u_t is assumed to be distributed normally.

RESULTS AND CONCLUSIONS

Results indicate that only the number of people killed in a terrorist incident significantly affected stock market returns.

[INSERT TABLES 1 & 2 HERE]

This was true regardless of the index that was used in the analysis. Suspecting multicollinearity between independent variables, we ran the regression using number of people killed and location of incident. Results were no different. The number of people killed in terrorist incidents was the only significant variable explaining the change in stock market activity.[3]

The September 11, 2001 terrorist attacks undoubtedly had a negative impact on the world economy and international stock market. The New York Stock Exchange was shut down for four days, impacting not only domestic trading but also international trade. While there is no argument for the global financial crisis the September 11, 2001 terrorist attacks caused, our analysis indicates that the severity of the attack, as measured by number of people killed, significantly impacts international stock prices. Unfortunately, many terrorist attacks happen in the world multiple times a year as evidenced by the 39 incidents in the August 20, 2001 through September 11, 2002 data sample. The majority of these terrorist attacks kill and wound small numbers of people, occur in financially low visibility locations, and may be relatively unannounced by the international news media. This is perhaps an explanation of why the location of terrorist attacks generally do not affect stock market returns.

This research could be expanded to include the data beyond 2002, especially with the recent significant terrorist attacks in London. Future studies may also want to look at market capitalization statistics in the NYSE World Leaders Index and Composite Index. Data from international stock markets such as the London Stock Exchange could also be incorporated. Other avenues of potential investigation include monitoring the level of media coverage regarding a terrorist attack and reviewing

the significance of an attack on a trading or non-trading day. It would also be interesting to use the U.S. Department of Homeland Security's data on threat levels and regress this variable against the stock market data to determine if the terrorism level (color) has a significant impact on stock market fluctuation.

ENDNOTES

1. Major international offshore financial centers included: Belize, Panama, Cayman Islands, Aruba, Bahamas, Bermuda, Turks and Caicos, Virgin Isles, Anguilla, Antigua, Barbados, Montserrat, Netherlands Antilles, Alderney, Jersey and Guernsey, Dublin, Gibraltar, Isle of Man, Monaco, Malta, Dubai, Cyprus, Switzerland, Liechtenstein, Luxembourg, Bahrain, Singapore, Hong Kong, Mauritius, Labuan, Vanuatu, Western Samoa, and the Cook Islands (Eiteman, Stonehill, and Moffett, 2004).
2. For example, on December 1, 2001, two suicide bombers attacked a Jerusalem shopping mall, killing 10 persons and wounding 170 and on December 2, 2001, a suicide bomb attack aboard a bus in Haifa, Israel, killed 15 persons and wounded 40 (US Department of State, 2005). Those two days were a Saturday and a Sunday, respectively. Since neither of these incidents occurred on a trading day, both were logged on the next open trading day which was December 3, 2001.
3. We ran several regressions, using one independent variable at a time. In all cases, results were uniformly consistent. The number of people killed seemed to be the only significant explanatory variable.

REFERENCES

Abadie, Alberto and Gardeazabal, Javier (July 2005). *Terrorism and the World Economy*. Working Paper, Retrieved September 2, 2005, from http://ksghome.harvard.edu/~aabadie/twe.pdf

Chen, Andrew H. and Siems, Thomas F. (2004). The effects of terrorism on global capital markets. *The European Journal of Political Economy*, 20, 349–366.

Eiteman, David K., Stonehill, Arthur I., and Moffett, Michael H. (2004). *Multinational Business Finance*. Pearson Education, p. 507.

Hatch-Rosenberg,Barbara. *Analysis of the Anthrax Attacks* (n.d.) Retrieved September 2, 2005, from http://www.fas.org/bwc/news/anthraxreport.htm

International Monetary Fund (December 2001). The global economy after September 11. *World Economic Outlook.* Retrieved September 2, 2005, from http://imf.org/external/pubs/ft/weo/2001/03/pdf/chapter2.pdf

National Commission on Terrorism (2000). *Countering the Changing Threat of International Terrorism.* Retrieved September 2, 2005, from http://www.fas.org/irp/threat/commission.html

Neely, Christopher J. (March/April 2004). The Federal reserve responds to crises: September 11th was not the first. *Federal Reserve Bank of St. Louis Review*, *86*(2), pp. 27-42. Retrieved September 2,, 2005, from http://research.stlouisfed.org/publications/review/04/03/Neely.pdf *NYSE Statistics Archive: NYSE Daily Index Closes* (n.d.) Retrieved September 2, 2005, from http://www.nyse.com/marketinfo/datalib/1022221393023.html#Indices

NYSE Indexes, (n.d.) Retrieved September 2, 2005 from http://www.nyse.com/pdfs/NyseIndexes.pdf

Significant Terrorist Incidents, 1961-2003: A Brief Chronology (n.d.) Retrieved September 2, 2005, from http://www.state.gov/r/pa/ho/pubs/fs/5902.htm

United States Congress, Joint Economic Committee (2002). *The Economic Costs of Terrorism.* Retrieved September 2, 2005, from http://www.house.gov/jec/perform.htm

TABLES

Available from the author upon request

AN ANALYSIS OF THE INITIAL ADOPTION OF FAS 141 AND 142 IN THE PHARMACEUTICAL INDUSTRY

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ABSTRACT

In 2001 the Financial Accounting Standards Board issued FAS 141 Business Combinations, and FAS 142 Goodwill and Intangible Assets. These new accounting standards significantly changed the accounting for mergers and acquisitions, dramatically altering how business combinations are reflected in the surviving company's financial statements. These new rules are particularly relevant for companies in industries that rely heavily on intellectual capital to generate future cash flows, or those that are characterized by considerable mergers and acquisitions activity.

Documenting how these new standards are initially applied provides valuable insight into their impact on the structure and content of the resulting financial statements. This study addresses this issue by examining and documenting initial FAS 141 and 142 disclosures for firms in the pharmaceutical industry. We focus on the pharmaceutical industry because it is dominated by a few well defined business models, and is characterized by firms that rely heavily on intangible assets and have considerable mergers and acquisitions activity.

The results of our analysis identify several emerging trends within the pharmaceutical industry. First, strategic analysis indicates that a variety of business models currently exist in the pharmaceutical industry, and most pharmaceutical companies pursue more than one business model. Second, financial disclosure analysis reveals that although different business models led to some variation in disclosures, disclosure practice across firms in the pharmaceutical industry is fairly consistent. Finally, analysis of recent acquisitions provides evidence of consistent reporting and disclosure of purchase type business combinations under FAS 141 and 142. These results provide a benchmark for industry practice that can be used to identify trends in financial reporting and disclosure related to these two accounting standards.

THE DEATH OF THE ESTATE TAX: PROS AND CONS

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ABSTRACT

Congress is currently considering legislation to repeal the estate tax. Debate over the issue has been heated. Proponents of ending the so-called death tax argue it hurts small businesses and farmers by forcing liquidation of family firms to pay the transfer taxes. Supporters of continuing the tax claim it encourages charitable donations, contributes greatly needed revenue to the government coffers, has little or no impact on small businesses, and is necessary to prevent the concentration of wealth in the hands of an elite few. This paper examines the support behind the claims and whether repeal of the estate tax might actually increase the overall taxes collected from family wealth transfers in the long run.

ENGAGEMENT RISK: A PRELIMINARY ANALYSIS OF AUDIT FIRM'S CLIENT ACCEPTANCE DECISIONS

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ABSTRACT

The audit function creates several important relationships among the various parties. One of the most significant and potentially problematic relationships is between the audit firm and the audit client. Accordingly, the decision by the audit firm to accept or retain a client is crucial because of the potential risk of being associated with certain clients. This risk is called engagement risk. The potential damage can range from financial loss, loss of prestige, to the ultimate demise of the audit firm. Engagement risk is considered to be composed of three components: client's business risk, audit risk, and auditor's business risk.

Based upon previous research, it appears that auditing firms may not have significantly changed their opinion about the importance of engagement risk in the post-Enron environment. This research questioned whether audit firms have significantly changed their views regarding engagement risk and how they evaluate and manage this risk. A questionnaire was mailed to audit partners in the southwest region of the United States. A total of sixty-one useable responses was received and was considered adequate for this preliminary study.

An analysis of the surveys revealed that 85 percent of the respondents believed their views regarding the importance of engagement risk have changed, but only to a moderate degree. In addition, 90 percent of the respondents indicated they have standards in place to deal with client acceptance/retention decisions. However, these standards were not considered to be very extensive. This may be because approximately 90 percent of the audit firms consider their clients low to moderate risk clients. In evaluating engagement risk, audit partners considered management integrity to be the most important factor, followed by the effect on audit firm solvency. In addition, strategies (i.e. use of specialists, increased fees, etc.) to mitigate risks of being associated with clients were only used by 35 percent of the respondents.

Based upon our preliminary results, it appears there has not been significant changes in audit partners' views regarding the importance of the client acceptance/retention decision. This study was limited by regional impact and small sample size; therefore, the findings cannot be generalized.

Research funded by Stephen F. Austin State University Minigrant

ACTIVE LEARNING: AN EMPIRICAL STUDY OF THE USE OF SIMULATION GAMES IN THE INTRODUCTORY FINANCIAL ACCOUNTING CLASS

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ABSTRACT

One of the major criticisms of accounting education today is that it is too oriented toward memorization and produces graduates that are incapable of critical thinking and independent evaluation. This paper compares the use of the traditional lecture format using debit/credit journaling to the use of an active learning format using case analysis and a simulation game. The author's hypothesis is that the traditional pedagogy encourages lower level skills of Bloom's taxonomy which involve the ability to memorize and recall information. However the active learning format should result in higher level skills on Bloom's taxonomy which involve critical thinking.
Both pedagogies are tested using a quiz constructed to follow Blooms taxonomy of learning. The quiz has questions that range from the ability to recall knowledge up to the ability to evaluate and make judgments about material presented and the methods involved. Two introductory financial accounting classes were designated as either the control class, which received the traditional lecture based format, or the treatment group which received the active learning format. Both classes received the same quiz, had the same instructor and the same textbook.

Contrary to what the evaluator was expecting, there were no significant differences between the two groups on any of the scales of Blooms taxonomy. One cannot help but wonder if the ability to think critically and come to independent conclusions may be one of those skills that are hard-wired into our brains at an early age and can become very difficult to learn later? Or could it be that students, who are proficient in memorization and prefer procedural methods, are more likely to choose accounting as a major? Answers to these questions, and more like them, are crucial in addressing the criticisms that are being leveled at accounting education today and certainly warrant further research.

INTRODUCTION

Practice sets, debits/credits and the techniques of the accounting system are still the focus of accounting educators in the introductory financial accounting class today. Although one would guess that these time honored techniques are effective, there has been little empirical evidence to support that. There has also been a growing concern that those techniques produce graduates that are good at memorizing and processing data but not effective in developing graduates with critical thinking and independent evaluation skills. Accounting educators, practitioners and students agree that accounting education has become increasingly procedure and knowledge oriented. According to the Accounting Education Change Commission (AECC 1990), the curriculum for general education should develop students that have the capacities for inquiry, abstract logical thinking and critical analysis. The AECC further identified (AECC 1992) that the first introductory accounting class should have as its' objective the requirement that students be able to critically analyze and solve unstructured problems. These sentiments and others like them calling for change in accounting education have come from highly respected sources such as the American Accounting Association, the Institute of Management Accountants and American Institute of Certified Public Accounting.

RELATED RESEARCH AND HYPOTHESIS

In recent years accounting educators have made many efforts to respond to the demands for change. A great deal of that research has focused on different types of active learning techniques. (Barkman 1998), (Hassall 1998) studied the effects of using case analysis to promote critical thinking. (Beets 2003) studied the effects of learning in groups. Alder and Milne studied the motivation behind problem-based learning (Alder and Milne, 1997). (McEwen 1994) considers case studies and problem solving as the most effective teaching method for developing critical thinking skills.

How to measure critical thinking has in itself been a topic of much discussion. The most influential and widely recognized work in critical thinking is the *Taxonomy of Educational Objectives* (Bloom, et al. 1974). It was developed by a committee of college and university examiners and published as two handbooks- *Cognitive Domain* and *Affective Domain.* The categories listed in Bloom's range from what is referred to as lower level thinking skills such as knowledge, comprehension and application to the higher level skills analysis, synthesis and evaluation.

In an effort to develop and measure critical thinking in the classroom, most educators strive to ask questions that evokes the student's abilities to reach the higher level thinking skills. Researchers have used many forms of active learning techniques to try to stimulate and measure those qualities (Burns, et al. 1990). Most agree that passive learning through reading and lectures, which have traditionally been used, are thought to evoke lower level thinking. While interactive techniques like those found in active learning evoke higher level skills (Gentry 1990).

In an effort to shed light on the subject, the author designed a study to capture the quantitative differences between active and passive learning in developing critical thinking and evaluation skills. The null hypothesis is that active learning will yield the same results as traditional learning in increasing higher order thinking.

METHODOLOGY

At a Midwestern college, 101 students agreed to participate in a study that was conducted in the Introductory Financial Accounting class. The study spanned two semesters. In each semester one class was designated as the treatment group and the other class as the control group. The treatment group received the active learning techniques to learn the difference between cash based accounting and full accrual accounting. The other class (control group) was given the traditional lecture format in an attempt to learn the same concepts. All classes had the same teacher, the same textbook, and were in the same size and type of classroom. The average ACT in all four groups of students ranged from 20.5 to 21. Each group received the same post-test. No pre-test was given because the topic tested over was new material for each group.

The treatment group received a case that involved a short scenario that covered a full accounting cycle (one month) of a lawn-mowing service. This was first done on a cash basis by using play money similar to that used in Monopoly. Groups of 4-5 students were formed and the group took the position of the business owner. The instructor assumed the role of various other parties that the owner conducted business with and cash actually changed hands as the transactions occurred. The students were then asked to discuss the business' success within the group and come up with a consensus as to how well the business had fared.

The students were given the same case again. This time no cash was involved and instead the groups were asked to use full accrual accounting and the accounting equation format. This required the students to analyze the transactions and identify which, if any, needed to be recorded. They had to determine what accounts would be involved, and how that would effect the financial statements. The students then discussed the results of the full accrual method and how it differed from the cash basis. To measure learning each student was asked to independently complete a ten point quiz. The quiz was

created by the instructor and contained questions that were constructed to follow each domain of Bloom's Taxonomy: Knowledge, Comprehension, Application, Analysis, Synthesis and Evaluation.

Students in the control group, were given the traditional lecture delivery of the same concepts, cash basis accounting and how it differs from accrual basis accounting. As usual students were shown some exercises from the text and these were solved by recording debit/credit entries in the general journal format. Each student then completed the same quiz that had been given to the treatment group. Neither group was aware that the other group was involved until after the quizzes were returned in the next class period.

RESULTS

As can be seen from Table 1, the difference in the means in the upper levels of Bloom's taxonomy indicate very little difference between the active learning group and the traditional lecture group. Therefore, the null hypotheses cannot be rejected.

Table 1 Descriptive Statistics for performance on domains of Bloom's Taxonomy

Domain	Active Learning Group N = 49		Traditional Lecture Group N = 52		Difference Between Group Means
	Mean	SD	Mean	SD	
Knowledge	.86	.35	.78	.42	.08
Comprehension	.52	.50	.39	.49	.13
Application	.25	.43	.43	.50	-.18
Analysis	.41	.49	.39	.49	.02
Synthesis	.34	.48	.31	.47	.03
Evaluation	.36	.46	.33	.47	.03

DISCUSSIONS AND CONCLUSIONS

So what can we conclude from these results? Although this author found no significant differences between active learning and traditional passive learning, one cannot help but wonder if a longitudinal study covering the same groups of students over an extended period of time might yield different results. However, those types of studies are often difficult to arrange. The logistics involved in tracking the same groups over several semesters is daunting. Also, by its very nature active learning does not lend itself well to rigorous research design. Random selection of treatment and control groups, standardized pre-and post-tests, student-teacher relationships, class size and classroom features are often difficult to control and even more difficult to measure.

Jerry Gosenpud, (Gosenpud 1990) has done a monumental amount of work in reviewing the literature about experiential learning research and has published a comprehensive evaluation summarizing the results. The majority of the studies reviewed by Gosenpud, found no difference between the experiential and the traditional pedagogies. According to Gosenpud, "it should be tentatively concluded that in university classrooms the experiential method is no better or worse than other teaching methods for enhancing cognitive learning".

Considering that one can do no harm with the active learning techniques perhaps a better question would be "What would the students prefer?" Anecdotal evidence from student feedback indicated that they enjoyed the active learning environment more and that they thought they had a better grasp of the material.

REFERENCES

Accounting Education Change Commission (AECC). 1990. Objectives of education for accountants: Position statement number one. *Issues in Accounting Education* (Fall): 307-312.

_____1992. The first course in accounting: Position Statement Number Two. *Issues in Accounting Education* (Fall): 249-251.

Alder, R.W., and M.J. Milne. 1997. Improving the quality of accounting students' learning through action-oriented learning tasks. *Accounting Education* 6(2): 191-215.

Barkman, A. I. 1998. The use of live cases in the accounting information systems course. *Journal of Accounting Education* 16 (3): 507-516.

Beets, S. D. 2003. Differences In Student Leaning Techniques: Cooperative Learning, Quizzes, And Homework. *Journal of the Academy of Business Education* (Fall) 1-11.

Bloom, Benjamin S. and others. 1974. *The Taxonomy of Educational Objectives: Affective and Cognitive Domains.* New York: David McKay Company, Inc.

Burns A. C., J.W. Gentry, and J. Wolfe. 1990. A Cornucopia of Considerations in Evaluating the Effectiveness of Experiential Pedagogies. In Gentry, J.W. (Eds.), *Guide to Business Gaming and Experiential Learning.* (253-278). East Brunswick NJ: Nichols/GP Publishing.

Gentry, J.W. 1990. What is Experiential Learning? In Gentry, J.W. (Eds.), *Guide to Business Gaming and Experiential Learning.* (9-20). East Brunswick NJ: Nichols/GP Publishing.

Gosenpud, J. 1990. Evaluation of Experiential Learning. In Gentry, J.W. (Eds.), *Guide to Business Gaming and Experiential Learning.* (301-329). East Brunswick NJ: Nichols/GP Publishing.

Hassall, T., S. Lewis, and M. Broadbent. 1998. Teaching and learning using case studies: A teaching note. *Accounting Education* 7 (4): 325-334.

McEwen, B. C. 1994. Teaching Critical Thinking Skills in Business Education. *Journal of Education for Business.* 7 (2): 99-103.

ACADEMIC DISHONESTY: A PREDICTOR OF EMPLOYEE DEVIANCE

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ABSTRACT

Many research and media reports have addressed the pervasiveness of academic dishonesty among college students. In a study conducted by J. S. Baird in 1980, 75% of undergraduate business, liberal arts and education majors reported cheating in college. The same percentage was supported by a research study conducted by D. L. McCabe in 1997. Some research studies report that the percentage is as high as 95%.

This research investigates whether the level and severity of academic dishonesty relate to employee deviance which is defined as any conduct that is detrimental to the organization and the employee. Employee theft is at one extreme of employee deviance and counter productive behavior, such as surfing the web for personal use during working hours, is at the other extreme. Two groups of business students, accounting and non accounting majors, at multiple academic levels were surveyed to determine their academic behavior and their reported involvement in actual property and/or production deviance. Universities have long been concerned about the issue of academic dishonesty. This research indicates that employers should be equally concerned because students who admit to academic dishonesty also admit to property and/or production deviant behavior. In addition, non accounting majors reported a higher level of deviant behavior than accounting majors.

TOWARD AN ORDERED MARKET HYPOTHESIS: EVIDENCE AGAINST ACCEPTED THEORY

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ABSTRACT

This article uses the data provided by a portfolio at marketocracy.com that was managed in compliance with those for a diversified management investment company and compares it to the three principal indices, the Standard and Poors 500 (S&P), the Dow Jones Industrial Average (DJIA) and the NASDAQ 100 (NASDAQ). The author also managed parallel real portfolios, but they lack the independent accounting provided by marketocracy.com. Returns were nominally different. There is sufficient variation within the portfolio and the indices themselves to disprove the validity of the CAPM and to call deeply into question Black-Scholes.

On August 23, 2001, the portfolio in this case study began operations. The data from the first year of the portfolio is sufficient for the analysis in this article. The portfolio was managed by the author using traditional methods described by Drs. Graham and Dodd in their work, "Securities Analysis," and in other subsequent works. The portfolio attempted to purchase securities deeply discounted to any fair estimate of future earnings capacity or cash flow. The securities chosen had high quality balance sheets, generally less debt than their competitors, favored firms that had a central role in their customers' markets, and had historical growth rates above the composite rate of the S&P 500. The portfolio was charged daily with a management fee equal to 2% annualized based on each day's net asset value. Likewise, commissions generally ran about 5 cents per share. Generally the portfolio held 23-25 stocks and carried an average daily cash balance of $72,404.18. The net cost of commissions, management fees and SEC fees less interest earned on cash balances was $32,904.60. The initial portfolio held $1,000,000 and for comparison purposes the three principal indices, the DJIA; the S&P; and the NASDAQ; were adjusted to be equivalent to $1,000,000 on the same starting date, however no fees or other costs were charged against the indices.

ANALYSIS

The portfolio outperformed the indices, against the initial investment of $1,000,000 ending $323,876.10 ahead of the NASDAQ, $262,461.90 ahead of the S&P 500 and $201,623.00 ahead of the DJIA. At the same time, a correlation analysis of first differences showed that Beta=.6277 in the DJIA vs. Portfolio relationship, while r2=.6344 and the t-test showed significance. The results for the other indices were similar.

The implication of this finding, if valid, would be that the portfolio significantly outperformed the market while engaging in less risk. During the same period, the beta for the S&P 500 and DJIA was .9609 with 93.68% of the variance attributable to the movement of the DJIA. The alpha coefficient was only -.0003. While these two principal indices had a very high degree of covariance, the DJIA outperformed the S&P 500 by $57,787.37 or almost 6% yet with nearly identical risk as implied by the Beta Analysis. The data will show that this relationship was not entirely describable as a memory free random walk.

Each of the three major indices, the DJIA, the S&P and the NASDAQ were compared against the portfolio and against each other. The chart shows the number of days that each element either outperformed the first listed portfolio or failed to outperform it. It also shows the results of a sign test to determine the likelihood that differences in performance were the result of chance.

Table 1						
A	Dow vs.	Dow vs.	Dow vs.	S&P 500 vs.	S&P 500 vs.	NASDAQ vs.
B	S&P 500	NASDAQ	Portfolio	NASDAQ	Portfolio	Portfolio
B Under Performs A	140	131	105	127	103	111
B Out Performs A	107	116	142	120	144	136
Probability	p<.03		p<.01		p<.01	p<.05

Of the six possible combinations, the portfolio performed better than any of the three indices in a manner not attributable to chance. Of the indices, the S&P 500 under performed the DJIA in a manner not attributable to chance. In itself, this observation is important since it implies not only that the portfolio systematically outperformed the indices and the S&P systematically under performed the DJIA, but also that random motion alone did not mediate the movements in price. The sign test only shows that the performance was systematically different; the second question is were the differences in those four combinations mediated by a random walk with one option more certain or was there deterministic price movements in the various relationships.

To test the data, the data was studied as a Markov renewal process. For this process there are two states studied, periods in which the portfolio out performed the market and periods where the portfolio equaled or under performed the market.

In two state Markov renewal processes, there should always either be an equal number of chains in either state, or the number of chains in either state should differ by one. As the certainty of occurrence of one state increases, the number of chains decreases and the likelihood of long chains increases as well, since a single long chain is equal to several smaller chains. Although both states will have approximately equal number of chains, the distributions of chain lengths are only symmetric if both states are equally likely to occur. Generally, the more certainty that exists of one expected occurrence happening over another in a system, the smaller the number of total chains are expected to be found in the system. This is due to the fact, in a two state system, that as the total number of chains (C) is $C=2tp(1-p)$, where t is the total number of events and p is the probability of being in a state. Thus $C'=0$ when $p=.5$ and $C"=-2$, and C is at a maximum when $p=.5$.

The chains are in fact runs. If the price movements relative to the index were in fact random walks, the distribution of chains in either direction should approximate a Poisson distribution. The relationship of the NASDAQ and the Portfolio could not be disconfirmed as the result of a Poisson process where the Portfolio had an a priori 55% degree of certainty of out performing the NASDAQ on a daily basis. Of the other three relationships, two had strong evidence of deterministic movement while the relationship between the DJIA and the Portfolio showed moderate evidence of deterministic price movements. The distributions of chains of the Portfolio and the NASDAQ are shown below:

Table 2						
Count of Days In Chain Greater Than Or Equal To -->	1	2	3	4	5	6
NASDAQ Outperforms Portfolio	63	28	12	6	2	0
Portfolio Outperforms NASDAQ	63	33	24	10	3	3

The results of the relationship between the DJIA and the Portfolio are dealt with first. Unlike the relationship of the S&P to the Portfolio or the DJIA and the S&P, the unusual aspect is not in the presence of long runs, but in the excess number of chains, particularly chains of length 1. The results of a $\chi 2$ test ($p<05.14\%$, $df=1$, $\chi 2=3.797$) show that the combination of the DJIA and the Portfolio may

not have been mediated by a random walk. The large number of chains and especially short chains is highly unusual, but does not quite pass the generally accepted 5% threshold. However the other two relationships do.

Table 3		
	Number of Chains of Length 1	Total Number of Chains
Actual Observation	72	134
Theoretically Efficient Value	60	121

The DJIA outperformed the S&P during 56.6802% of the days. The S&P had three long runs of underperformance. One run was of nine days in length and two runs were of eleven days in length. The odds of having three or more runs of 9 or more days in length is less than 2.72% while the odds of having two runs of 11 or more days in length is less than 1.84%. The probability is likely smaller however. The one run of 9 days in length is only separated from another run of 11 days in length by one day. Between January 23rd, 2002 and February 21, 2002 there was only one trading day, on February 7th, where the S&P out performed the DJIA. During that time, the DJIA appreciated in value by 1.2446% while the S&P lost 3.427% of its starting value.

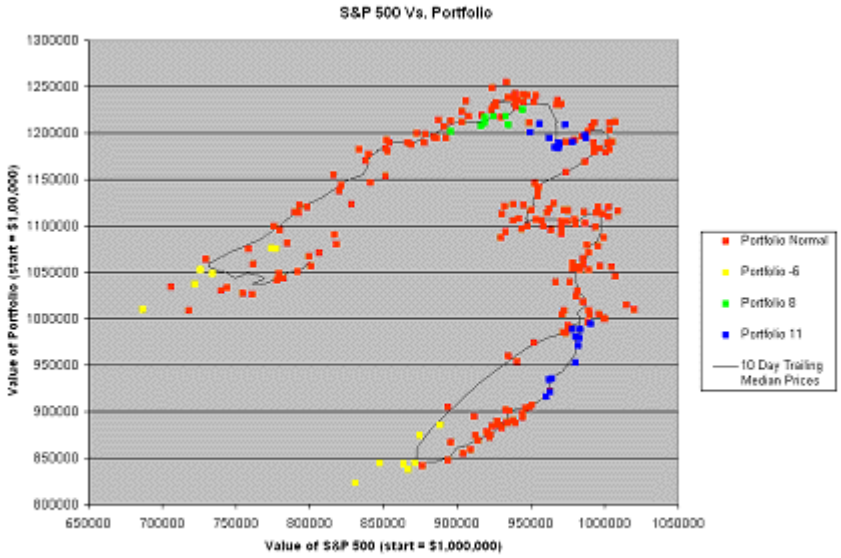
Table 4											
Count of Days In Chain Greater Than Or Equal To -->	1	2	3	4	5	6	7	8	9	10	11
DJIA Outperforms S&P	60	35	19	6	4	3	3	3	3	2	2
S&P Outperforms DJIA	60	28	11	6	2	0	0	0	0	0	0

While not necessarily significant in itself, $p<.0817$, there were only 6 chains of out performance by the DJIA of 4 or longer. Because this value is about 55% of the expected number, the longer runs are even more unusual. If this event is factored into the prospective probabilities, then the probability of having three or more runs of nine days in length is less than 0.04784%, while the odds of two or more runs of length eleven days is less than .02196%.

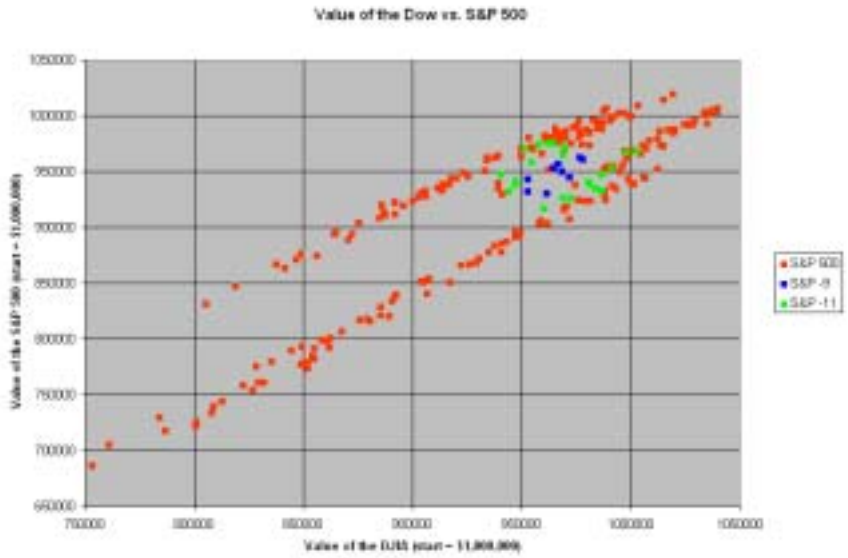
Table 5											
Count of Days In Chain Greater Than Or Equal To -->	1	2	3	4	5	6	7	8	9	10	11
S&P Outperform Portfolio	58	24	12	5	2	2	0	0	0	0	0
Portfolio Outperforms S&P	58	33	17	12	7	5	3	3	2	2	2

The relationship between the S&P and the Portfolio was also probably not mediated entirely by a random walk. Because the Portfolio outperformed the S&P 58.2996% of the time, longer runs are to be expected. There were two runs of length 11 days where the Portfolio outperformed the S&P. The probability of this occurrence is less than 2.9095%. Additionally, there was an additional chain of 8 days, $p<14.9304\%$, where the portfolio outperformed the S&P and two chains of 6 days in length where the S&P outperformed the portfolio, $p<16.6775\%$. While not significant in themselves, their positioning in the data makes them of interest. A visual review of chart 1 shows that the points of long

runs are along the points of disequilibria. They appear to be boundaries between periods of equilibrium and disequilibria. To clarify the path of the price movements, the trailing 10 days median value was superimposed upon the data. The two periods of underperformance are in yellow and the three periods of out performance are in green and blue depending upon the length of the runs.



This same observation on long runs holds for the structure of the DJIA vs. S&P relationship, as shown in chart 2. Green dots are in periods of 11-day runs and blue dots are in the one 9-day run.



This has two important implications. First, that on this data set the beta term is not a function of just the covariance of the data, because the data is not differentiable. For many x there exist multiple y terms. There is at least one significant confounding variable that has not been accounted for. Second, traditional Beta Analysis, where first differences are compared is a function of the higher order original data. It can be shown that the beta term in traditional Beta Analysis is in fact a function of (dy/dx)(x/y) of the raw data since the first difference terms are an approximation of the elasticity measure. In this data set, there does not exist a valid derivative. Since there is no valid function that can describe the raw data, there does not exist a first difference regression that validly describes the data either. The long transition between equilibrium states for the portfolio and the S&P 500 lasted 157 days. Given the structure of the portfolio at the end of the transition, it would be difficult to argue that the portfolio was efficiently priced even then. It would be challenging to hold even the weak form of the efficient market hypothesis under these circumstances.

As important as the question on randomness is the problem of out performing the S&P 500 over the three and a half years from inception to the end period of analysis December 19th, 2004, which was the goal of the portfolio, as shown in Table 6.

Table 6	DJIA First Difference	S&P First Difference	NASDAQ First Difference	Portfolio First Difference
Daily Mean	0.01%	0.01%	0.03%	0.08%
Standard Deviation	1.23%	1.23%	1.71%	1.02%

The portfolio had less variance and a higher mean. Under the formula for the option-pricing model, because the mean is excluded from consideration, it would imply that call options on the portfolio should be less expensive than call options on the three indices. This implies that because the portfolio had a comparatively stable upward march, its option prices should be less. This would invoke great losses to call writers on the portfolio. There does not exist a day where the sell of one year or greater European style calls on the S&P or the DJIA of equal notional value to the purchase of European style calls on the portfolio resulted in a loss, over the life of the portfolio. The purchase of similar calls on the NASDAQ would have resulted in losses at the minimum value of the NASDAQ over the period. The author believes that different methods would have been necessary to out perform the NASDAQ in the same manner it out performs the other indices and that the risks created were outside the scope of the goals of the portfolio.

Table 7	Dow	S&P 500	NASDAQ
Minimum 1 Year Return vs. Indices	3.59%	2.39%	-26.90%
1st Quartile 1 Year Return vs. Indices	11.72%	9.25%	-2.64%
Median 1 Year Return vs. Indices	17.12%	17.16%	10.40%
3rd Quartile 1 Year Return vs. Indices	21.37%	21.94%	16.46%
Maximum 1 Year Return vs. Indices	35.68%	38.68%	43.95%
<0	0.00%	0.00%	29.11%
>=0	100.00%	100.00%	70.89%

DISCUSSION

The ability to construct an options portfolio with little risk of under performing an index with less volatility is deadly to the option pricing models. As well, CAPM as a model for price depends upon

a dynamic that catastrophe theory and singularity theory state should not exist (Lu, 1976; Saunders, 1980). Consequent to this, portfolio price movements occur quite commonly that cannot be understood as function of the markets alone. If the markets are not efficient, then they are ordered. Ordering creates a very different state of dynamics than a perfectly efficient market. Statistics of order and the mathematics of chaotic systems then apply. This also creates the rather interesting possibility that the only way to meet goals with a margin of safety is to reduce risk and that by reducing risk it is possible to significantly outperform the average security. This takes the ordinary risk reward ratio and turns it on its head, because in a goal oriented portfolio risk and reward become inversely related. It also implies that pricing knowledge may not be as precisely knowable as CAPM and Black-Scholes implies. Order statistics are less powerful and generally do not provide the absolutely clear valuations of parametric methods.

REFERENCES

Graham, Benjamin and Dodd, David L.(1934) Security Analysis. New York: Whittlesey House, McGraw-Hill Book Company

Lu, Yung-chen. (1976) Singularity Theory and an Introduction to Catastrophe Theory. New York: Springer-Verlag

Neftci, Salih N. (1996) An Introduction to the Mathematics of Financial Derivatives. San Diego: California: Academic Press

Saunders, P.T. (1980) An Introduction to Catastrophe Theory. New York: Cambridge University Press

DETERMINANTS OF EMERGING STOCK MARKET CORRELATIONS IN THE GRAVITY EQUATION

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ABSTRACT

Gravity models borrowed the idea from Newtonian Physics, where the attraction between two objects is positively related to their mass and negatively related to their distance. The gravity models have been effectively employed in modeling bilateral trading between countries since the 1960s. In these models, geographical and cultural variables are found to be crucial factors of economic relations. This particular study suggests that application of gravity modeling also is useful for the explanation of stock market correlations. This study uses panel data to examine the effect of geographical, cultural and market size variables on the stock market correlations in emerging markets. Empirical analysis found that distance and market size have a profound impact on stock market correlations. The results provide useful information about future vulnerabilities in emerging markets since physical closeness and market size variables are important linkages between stock market correlations among countries.

BUSINESS FAILURE PREDICTION IN RETAIL INDUSTRY: AN EMPIRICAL EVALUATION OF GENERIC BANKRUPTCY PREDICTION MODELS

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ABSTRACT

This paper investigates whether generic bankruptcy prediction models can maintain their validity when applied to firms from an individual industry, namely, the retail industry. The literature suggests that the classification accuracy of generic models is reduced considerably when they are applied to samples drawn from an individual industry. Our study re-estimates two generic bankruptcy prediction models, one by Ohlson (1980) and one by Shumway (2001), with a mixed industry sample of 354 over-the-counter (OTC) traded small firms during the 1990s. Given the limited sample size for the retail industry, both models are validated with an ex post classification test by reclassifying the sample used to estimate the models, while Lachenbruch's U method (1967) is utilized to overcome the problem of classification bias. Our results indicate that the generic models by Ohlson (1980) and Shumway (2001) are modestly robust in classifying bankruptcy incidence of retail firms one year prior bankruptcy, but the classification accuracy levels decrease sharply as the lead-time from bankruptcy increases. Overall, the classification accuracies for the retail industry sample are lower than those for the mixed industry sample.

AN EXAMINATION OF THE RECENT INCREASE IN CORPORATE FINANCIAL RESTATEMENTS DUE TO INAPPROPRIATE LEASE ACCOUNTING

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ABSTRACT

The purpose of this paper is to describe the history surrounding the recent spike in financial statement restatements regarding firms' accounting for leases. The restatements were caused by a letter from the SEC that emphasized the rules for appropriate accounting for leases. This paper explains why the large number of restatements caused by the SEC letter was such a surprise, and discusses the accounting issues raised by the SEC letter. Prior research has found that restatements are more likely in areas where GAAP is contradictory or unclear. GAAP for leases is well established and fairly clear. Also, prior research has found that restatements are more likely due to inappropriate accounting for items that are not part of a company's core earnings, however in this case the lease accounting that led to the restatements was part of the company' s core earnings. Finally the paper provides some analysis regarding the commitment to quality financial reporting practices by the companies that restated their financial statements due to prior inappropriate lease accounting.

GEOGRAPHIC FOCUSED MUTUAL FUNDS: AN EMPIRICAL ANALYSIS OF THE PORTFOLIO PROPERTIES OF A HAWAII FUND

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ABSTRACT

The economies of various states and geographic areas behave differently than the U.S. economy as a whole. Because of these differences, this paper explores the potential for offering geographically focused mutual funds. Geographically focused mutual funds would allow investors to custom tailor their geographic investments, risk exposure and diversification. In this paper, the development and portfolio properties of a Hawaii based mutual fund are discussed. Hawaii is distinct in its location and has a unique blend of customs and cultures. Firms that operate in Hawaii tend to be quite different than mainland firms. Because of these differences, Hawaii firms have unique portfolio properties that are not present in mainland U.S. firms and thereby provide unique contributions to portfolios.

Many financial products have been developed to diversify portfolios and to insulate them from various risks. One such financial product, mutual funds, have been developed for many industries, sectors, types of securities and along many other lines. While closed-end mutual funds trade based on the stocks of a specific country, no known closed end-fund has been developed based on the stocks of a specific state. Moreover, no known open-end equity fund or Exchange Traded fund (ETF) follows a specific country or a specific state. In this paper we explore the desirability of mutual funds focused on firms in specific geographic areas.

Geographic focused mutual funds are of interest because the economies and fortunes of firms in various locations are not perfectly correlated. Individuals that might be interested in purchasing such a mutual fund include those that want to speculate on the prospects of an area, those who want to hedge an existing risk and those that wish to incorporate specific risk reduction properties into their portfolios. An investor that wishes to make a bet that the prospects of an area might improve or decline might wish to invest in the portfolio. These might include individuals that wish to bet that a major facility will be constructed or closed in the area. Individuals desiring to use the fund for hedging might include individuals that wish to hedge their own employment portfolio. Individuals with employment fortunes that are closely tied to a particular state might wish to reduce the risk associated with their employment. Still others may simply wish to diversify their portfolio.

While geographic diversification is interesting in many geographic areas of the U.S., this paper focuses on a Hawaii focused mutual fund. Hawaii is in a unique position because of its geographical location, cultural and ethnic diversity, and economic makeup. The uniqueness of Hawaii is examined in the paper. The Hawaii mutual fund proposed here is compared to the Dow Jones Industrial Average, NASDAQ, Russell 2000, S&P 500 and Nikkei 225, over a period of 18 years. Geographic focused mutual funds, specifically in this case a Hawaii Mutual fund, are found to hold substantial promise as an investment tool.

A REVIEW OF CIVIL WAR TAX LEGISLATION AND ITS INFLUENCE ON THE CURRENT U.S. TAX SYSTEM

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ABSTRACT

This purpose of this paper is to analyze and compare tax legislation passed during the Civil War by both the Union and the Confederacy and compare those features to our current system of taxation. During the Civil War, each side was forced to pass tax laws to raise huge sums of money to fund the war effort. The major tax act for the Confederacy was entitled "An Act to lay taxes for the common defense and carry on the Government of the Confederate States". This legislation was passed on April 24, 1863 and represented the most comprehensive tax system employed by the Confederacy. The most significant Union income tax law was titled the "National Tax Law as approved June 30, 1864". These two major pieces of legislation are compared and contrasted related to the types of taxes used by each side, the rates of taxes employed, and the forms of deductions and tax credits available.

The intent of this paper is to review and examine the tax systems employed by the Union and Confederacy in raising sufficient cash to finance a very expensive war. This is similar to our current system of taxation which is also financing a war effort. Income taxes laws are reviewed in an effort to review inclusions, exclusions, deductions, and tax credits. The Union's "Internal Revenue Act of 1862" will be briefly examined in an attempt to review tax revisions needed in order to raise significantly more revenue as the Civil War intensified.

The analysis of this legislation reveals the many forms of taxes, in addition to the income tax, required in order to raise needed war funds. In particular, "sin taxes" on sprits, ale, beer, porter, and tobacco were a major fundraiser during the Civil War for both sides. These taxes continue in our current system. Stamp duties were commonly assessed on thousands of products sold during the Civil War era. License fees on all major professions also raised additional needed capital. Finally, estate taxes were employed in an effort to supplement revenues generated by all other forms of tax. The majority of these taxes still exist today in an effort to finance the Iraqi war.

Finally, this paper analyzes a variety of specific tax regulations required by both the Union and the Confederacy. In particular, differences in filing requirements, due dates, related penalties, and tax collection personnel and their duties are examined. The authors attempt to identify the rationale for various unique regulations employed by each. Finally, this paper reviews the many aspects of Civil War taxation legislation that remains in effect today. In particular, many income inclusions, exclusions, and deductions found in these 1860's acts continue to exist in our current Internal Revenue Code.

ON DISCOUNTING DEFERRED INCOME TAXES

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ABSTRACT

This paper revisits the debate over whether the tax effects of temporary timing differences between pretax accounting income and taxable income should be discounted. The paper provides an overview of the history of that debate, identifies the conditions under which discounting is appropriate in current practice, and examines the extent to which the tax effects of the four basic types of timing difference satisfy those conditions. The paper concludes that discounting is conceptually inappropriate when revenues and expenses appear in the tax return before they appear in the financial statements. It further concludes that, while discounting is conceptually appropriate when revenues and expenses appear in the financial statements before they appear in the tax return, discounting will be unnecessary in most of these cases because the difference between discounted and undiscounted measures of the tax effects will usually be immaterial.

INFORMAL REGULATORY PRESSURE TO ALTER FINANCIAL REPORTING BEHAVIOR: THE CASE OF IN-PROCESS RESEARCH AND DEVELOPMENT

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ABSTRACT

In 1998, Arthur Levitt, then chairman of the Securities and Exchange Commission (SEC), claimed in a public address that companies making acquisitions frequently allocated overly-large amounts of the purchase price to in-process research and development (IPR&D) instead of goodwill. The result was a one-time charge in the first year followed by several unrealistically rosy years of earnings that were not disturbed by the amortization of goodwill. Levitt warned of increased SEC scrutiny of acquisition purchase price allocations between IPR&D and goodwill. This study investigates the impact of the SEC's informal regulatory pressure by examining acquiring firms' allocation decisions during the three years following Levitt's speech, which we claim marked the beginning of a period of informal regulatory pressure. The results indicate that during this three-year period, the proportion of the acquisition cost firms allocated to IPR&D dropped significantly while the proportion allocated to goodwill and other intangibles increased significantly. Moreover, more-profitable firms began taking bigger IPR&D charges while less-profitable firms began taking smaller charges. These results suggest that the SEC's use of informal regulatory pressure promotes compliance with regulatory requirements.

Keywords: Financial Accounting, In-Process Research and Development, Regulatory Pressure, SEC, Earnings Management

Data Availability: The data used in this study are publicly available from the sources listed in the paper.

We wish to thank Ted Christensen, Richard Dalebout, Peter Johnson, and Kay Stice at Brigham Young University.

THE SURVIVAL OF FIRMS THAT TAKE SPECIAL CHARGES FOR RESTRUCTURINGS AND WRITE-OFFS

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ABSTRACT

In light of recent, well-publicized corporate failures, financial reporting practices are increasingly being scrutinized. One area of scrutiny includes special charges for restructurings and write-offs. This study investigates the survival of firms that take restructuring charges and write-offs. We examine whether the survival of these firms is associated with management's choice of labeling (i.e., restructuring charge or write-off) as well as with the amount and purpose of the charge. Using a sample of large negative special charge announcements during 1986-1992 and 1996-1998, we find that firms reporting smaller charges survive longer than those with larger charges, regardless of any business actions for improvement mentioned. We also find evidence of a decreasing probability of survival for firms using the label of "restructuring" for the charge. These results are consistent with the popular media perception that managers often seek to mask their firms' true performance using special charge labeling.

Keywords: Financial accounting, special charges, restructuring charges, write-offs, survival.

We wish to thank Bruce Behn, Erv Black, Ted Christensen, Dennis Chambers, Richard Dalebout, Young Kwon, Theodore Sougiannis, and seminar participants at Brigham Young University and the University of Illinois at Urbana-Champaign.

Data Availability: The data used in this study are publicly available from the sources listed in the paper.

IKEA: A UNIQUE EXAMPLE OF THE EVOLUTION OF MANAGEMENT ACCOUNTING TECHNIQUES

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ABSTRACT

In today's dynamic international environment, IKEA, led by entrepreneur Ingvar Kampnard, serves as a forerunner in the employment of innovative management accounting techniques. At the heart of IKEA's philosophy is the following concept:

"While most retailers use design to justify a higher price, IKEA designers work in exactly the opposite way. Instead they use design to secure the lowest possible price. IKEA designers design every IKEA product starting with a functional need and a price. Then they use their vast knowledge of innovative, low-cost manufacturing processes to create functional products, often coordinated in style. Then large volumes are purchased to push prices down even further.

Most IKEA products are also designed to be transported in flat packs and assembled at the customer's home. This lowers the price by minimizing transportation and storage costs. In this way, the IKEA Concept uses design to ensure that IKEA products can be purchased and enjoyed by as many people as possible." (http://franchisor.ikea.com/showContent.asp?swfId=concept1)

This concept, as we show in this paper, embodies the development of a target costing system coupled with just-in-time inventory systems, computer-integrated manufacturing, activity based accounting and management, value chain analysis and total quality management. We discuss the unique and unusual history of IKEA to show how Kampnard independently created these techniques. We further show how the successful employment of these techniques has created the IKEA we see today: a multinational company with 202 stores in 32 countries/territories employing more than 84,000 co-workers.

AUDITOR CHOICE AND AGENCY COSTS

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ABSTRACT

There are many reasons that an organization chooses a specific auditor. Some prior research has used agency theory to partially explain auditor choice and auditor switches. Audit services are demanded as monitoring devices because of the potential conflicts of interest between owners and managers as well as those among different classes of security holders. DeAngelo (1981) argues that the provision of audited financial statements is the least-cost contractual response to owner-manager and intra-owner conflicts of interest, i.e., agency costs. Wallace (1981) also identifies that one of benefits that may accrue from an audit is deterrence of management malfeasance. In this study, as an extension of prior studies related to the agency costs, a relation between the ownership control status and the auditor choice is investigated. More specifically, I examine the effect of owner versus management control on the choice of auditors. As in Dhaliwal et al. (1982), an owner-controlled firm as one in which one party owns 10 percent or more of the voting stock and exercise active control or one party owns 20 percent or more of the voting stock. Manager-controlled firms are firms in which no single party controls more than 5 percent of the voting stock.

AN ANALYSIS OF THE INFLUENCE OF ERP IMPLEMENTATION ON FINANCIAL ACCOUNTING MEASURES

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ABSTRACT

This paper compares the actual to the expected long term and short-term results experienced by a company after implementation of an Enterprise Resource Planning (ERP) software system. Although ERP implementations are known to be unusually difficult, compared to other large-scale systems development projects (Hitt, Wu, & Zhou, 2002), several financial improvements are generally expected to follow implementation. These expected financial improvements, along with operational improvements, are often cited as partial justification for the time and resources spent on such implementation. This study is limited to the impact of implementation on financial measures. Other than the costs of implementation, there is little actual data illustrating how Enterprise Resource Planning software systems implementation affects financial measures of performance.

BACKGROUND

Enterprise Resource Planning (ERP) software systems evolved from inventory control systems of the 1960's. Currently, ERP systems allow integration of all application processes; not only in manufacturing, but also sales, accounting, and customer service (Olhager & Selldin, 2003). This integration has extended to encompass information from supply chain management, vendors, and customers of companies using ERP systems. ERP systems, in the 21st century, are no longer a source of competitive advantage; they are needed to simply operate on par with peer companies. Companies that cannot or will not use ERP systems suffer a comparative disadvantage (Hitt, Wu & Zhou, 2002).

There are numerous vendors of ERP systems. Although SAP is most popular with large and mid-size companies, Oracle, PeopleSoft, Cincom, and Lilly Software are just a few vendors that offer a fully integrated ERP system. These fully integrated ERP systems allow "real time" view of all the business processes. The primary benefit of these ERP systems is the ability to capture and analyze non-financial information. The ERP system replaces both the accounting and the operations planning system and has the ability to provide better information about customers, sales, internal processes, and financial transactions. It allows the centralization of administration activities, and the consolidation of multiple information systems reduces redundant data entry, reduces errors and discrepancies between systems, and provides managers access to broader information. By improving operational and management efficiency, ERP system installation and integration is thought to offer financial benefits as well as operational benefits.

It is imperative that decision makers understand and analyze the cost-benefit relationship in deciding to implement an ERP software system and in deciding which ERP vendor's software to use. These systems take an average of 21 months to install and cost a mid-size to large company several million dollars to implement (Hitt, Wu & Zhou, 2002). According to one recent study (Umble, Haft & Umble, 2003), an estimated 50-75% of US firms experience some degree of failure in implementing this type of advanced manufacturing technology. While all ERP systems are similar, they are very complex and diverse with regard to flexibility and the ability to tailor the system to specific needs. System differences make it important to examine the ERP software vendors to be sure of adequate

support and that the software will offer sufficient flexibility to accommodate the strategic plans of management.

So given the expense and the chance of implementation failure, what offsetting advantages do managers expect from ERP systems? Al-Mashari, Al-Mudimigh, and Zairi (2003) present a list of benefits managers expected from implementation based on a survey by Deloitte & Touche. The primary benefits were inventory reduction, personnel reduction, increased productivity, improvements in order management, monthly financial closings performed sooner, improved cash flow, reduction in IT, increased corporate data visibility, new or improved business processes, improved customer service, and Y2K compliance.

This list includes a number of expected outcomes that, while not expressed specifically in financial performance terms should impact financial performance measures. Specifically, changes in inventory, improved cash flow, and increased productivity should have an immediate and measurable impact on financial measures. Other changes, like improved business processes, improved customer service and reduced operating cost from changes in personnel, should result in a positive impact on financial measures of performance.

It is in the best interest of the implementing company that there be sufficient internal research on the ERP system under consideration to provide corroboration of its suitability for the needs of the company. They should keep in mind the strategic goals of the company and how well the ERP system fits those goals.

Among the successful implementations reported on SAP's web site (SAP, 2005), is Hawaiian Tropic. Hawaiian Tropic had enjoyed three years of double-digit growth, but their very poor inventory management system threatened their ability for continued success (SAP, 2005b). Management was hampered by the disjointed use of legacy systems. Inventory reports required data from systems that used different nomenclature and different item numbers. They required multiple manual entries of the same information on more than 500 Hawaiian Tropic products and 500 private label products manufactured for customers, assembled from a materials list with over 7,000 items. The system allowed them no information on the availability of products at the regional distribution centers; a tremendous disadvantage in a rapidly changing and highly seasonal environment where 80% of sales span only six months of the year. Management was undoubtedly diligent in determining the best system to meet company needs. However, one must consider that the previous system was reportedly so poor that change to any organized inventory control system would have been a vast improvement. ERP systems may deliver immediate results in this type of environment, but these results might be argued to have responded to any of a number of appropriate actions.

Texas Instruments, Inc. (TI) implemented SAP as their ERP software system in August of 1999. The project took three and half years and $250 million dollars (Sarkis & Sundarraj, 2003). There were multiple motivations for TI to invest so heavily in the ERP system. Customer service, a move to standardized processes that support market trends, and standardize information systems are just a few of the opportunities that TI saw in the investment (Sarkis & Sundarraj, 2003). Unlike Hawaiian Tropic, where the motivation was apparently operations driven, in the case of TI, investment in the system was partially justified by an expected improvement in ROI (return on investment) and IRR (internal rate of return). While Sarkis and Sundarraj (2003) report that the major goals were met nine months after implementation, they offer little to support this assessment and the timing of their study does not allow for longer-term results. The financial data reproduced here illustrate these improvements are not evident that past the first year of implementation.

Table 1
Financial Data for TI

	2002	2001	2000	1999	1998
ROE	(3.205)	(1.692)	25	15	6
ROI	(2.974)	(1.536)	22	14	5
ROA	(2.343)	(1.274)	17	9	4
Employees	34,589	34,724	42,481	38,197	35,948
Productivity	242	236	279	248	235
Inventory	790	751	1,233	845	583

In 1999 ROI of 13.582% was over double the 1998 level of 5.388%. By 2000, ROI had increase to 22.363% an increase of over four times the 1998 rate. For the next two years the ROI dropped dramatically. Overall, Return on Investment, one of the main justifications for the implementation decreased from 22.363% in December 2000 to (2.97)% in December 2002. Mirroring ROI, the Return on Assets (ROA) decreased from 17.42% in December 2000 to (2.343)% in December 2002. This was after an initial increase to double then quadruple the 1998 level of 3.618% for 1999 and 2000. Return on Equity (ROE) followed a similar pattern of initially increasing from 6.236% in 1998 to 15.192% and 24.523% then plummeting to a low of (3.205)% in 2002. The fact that these three indicators moved similarly tends to support the assumption that the results are not anomalous results due to some one-time occurrence, but fairly represent the financial results of the company. A measure of the operational advantage that was expected to follow implementation was a reduction in the number of employees. Although the number of employees at December 2002 (34,589), was decreased 18.58% from the December 2000 high of 42481, at 3.78% the number has not decreased so substantially over the December 1999 total of 35,948. Perhaps a better measure than the absolute number of employees is the labor productivity as measured by sales/number of employees. Although, labor productivity rose from a low of 235.33 in December of 1998 to a high of 279.18 in December of 2000 and then fell from the December 2000 high it has not fallen below the 1998 level and at 242.36 is improved almost 3%. This is evidence of improved operational efficiency. The final measure examined here is the level of investment in inventories. The value of inventory reported on the balance sheet December 2002, represented a 6.5% decrease compared to December 1999. The results reported in the table illustrates that while there was improvement in the expected areas, the dramatic results reported in 2000, the first full year of implementation, do not appear to have been universally sustainable by TI.

The results indicated above do not take into consideration the impact of external factors that might affect the industry as a whole. In an attempt to normalize the results for economic influences that would affect the entire industry, the results for TI were analyzed in relationship to the average of companies in the same NAICS (North American Industry Classification System) code. Data for this analysis was obtained from Standard and Poor's Compustat Database with the aid of Research Insight in August 2005.

Table 2
Comparison of TI to Their Industry Average (IND)
(All numbers are percentage points.)

Return on Assets									
2002	2,002	2,001	2,001	2,000	2,000	1999	1999	1998	1998
TI	IND	TI	IND	TI	IND	TI	IND	TI	IND
3.62	-15	9	-3	17	-43	-1.27	-26.32	-3.34	-94.97
Difference	18		13		60		27.05		92.14

Return of Equity									
2002	2,002	2,001	2,001	2,000	2,000	1999	1999	1998	1998
TI	IND	TI	IND	TI	IND	TI	IND	TI	IND
6.27	24.51	15.19	8.41	24.52	0.11	-1.69	-20.98	-3.21	-13.5
Difference	-18.27		6.78		24.41		19.29		10.3
Return on Investment									
2002	2002	2001	2001	2000	2000	1999	1999	1998	1998
TI	IND	TI	IND	TI	IND	TI	IND	TI	IND
5.39	-4.26	13.58	-2.27	22.36	-0.24	-1.54	-31.35	-2.97	-145.23
Difference	9.65		15.85		29.6		29.82		142.26

Although it would not be judicious to make sweeping characterizations based on these results, it is not too reckless to claim that they fail to show development of an increasing advantage for TI. Considering ROA, a comparison of the results for TI compared to the industry average shows them going from a position that was 92 percentage points better than the industry average to one that was just over 18 points above the industry average, a negative change of 54.74 points. Considering ROE, TI's results went from a position 10.3 points above the industry average to one that was over 18 points below the industry average, representing a decrease of 28.57 points. On the third measure their comparative position fell from 142.26 points to 9.65 points showing a decrease of 132.61 points. So many elements are captured in these measures that they cannot be considered to be only the results of ERP implementation, but they do illustrate that the company failed to realize comparative advantage because of implementation.

According to Bartholomew (2003), one of the reasons that ERP systems sometime do not deliver anticipated results is that ERP systems are focused on delivering data, not lean systems. Managers may confuse the availability of data by which progress toward lean manufacturing is measured with actual accomplishment of the goals of lean manufacturing. Bartholomew in explaining the relationship between production and customer orders said, "Lean also emphasizes setting up the production process in the most efficient manner from the start and then continually finding ways to make it more streamlined and waste free" (Bartholomew 2003). There is now a response by ERP system vendors to incorporate the data analysis necessary for managers to assess the degree to which they practice lean operations. These systems deliver better reporting and analytical capability to help improve operations rather than delivering the capability and depending upon management to analyze it and use it to accomplish the objectives of lean manufacturing (Bartholomew, 2003).

While ERP systems may not always deliver the expected financial results, they do deliver several benefits in the form of improved information to management. This improved information, properly used, should result in financial benefits. Information is more easily accessible and the interaction across the enterprise improves after implementation (Olhager & Selldin, 2003).

CONCLUSION

ERP Systems are no longer providing a competitive advantage; these systems are necessary for companies to remain competitive. While the improved financial performances companies may have expected may not be immediate, there are many benefits of ERP software. Initial financial improvement may be the results of management attention to issues that should have been addressed independent of implementation of an ERP system. These issues, once resolved, should improve financial performance to the extent the problem is solved, but to maintain improvement a company must constantly look for ways to improve the business process. These improvements may be facilitated by information made more readily available using an ERP system, but it should not be expected that

implementation of the system should in itself accomplish dramatic sustainable improvement. Management should acknowledge the possibility of limited financial improvement from implementation of ERP itself and consider that they must be responsible for developing a strategic solution based on the improved availability of information.

REFERENCES

Al-Mashari, Al-Mudimigh, and Zairi (2003). Enterprise Resource Planning: A taxonomy of critical factors. *European Journal of Operational Research,* Vol 146, pp 352-364.

Bartholomew (2003). ERP Learning to be Lean. *Industry Week,* July.

Hitt, Wu, and Zhou (2002). Investment in Enterprise Resource Planning: Business Impact and Productivity Measures. *Journal of Management Information Systems,* Vol 19, No 1, pp71-98.

Olhager and Selldin (2003). Enterprise resource planning survey of Swedish manufacturing firms. *European Journal of Operational Research,* Vol 146, pp 365-373.

SAP (2005). www.sap.com/solutions/smb/allinone/customersuccess/hawaiiantropic.epx mySAP All-in-One Customer Successes: Hawaiian Tropic.

SAP (2005b). www.sap.com/solutions/smb/pdf/CS_Hawaiian_Tropic_10-25-04.pdf

Sarkis and Sundarraj (2003). Managing large-scale global enterprise resouce planning systems: a case study at Texas Instruments. *International Journal of Information Management*, Vol 23, pp431-442.

Umble, Haft, and Umble (2003). Enterprise resource planning: Implementation procedures and critical success factors. *European Journal of Operational Research*, Vol 146, pp 241-257.

LOSING LIKE FORREST GUMP: WINNERS AND LOSERS IN THE FILM INDUSTRY

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ABSTRACT

There are a number of high-profile cases where films that by most standards of revenue minus cost are very successful, but are reported as providing net losses to the studios. Most of the public attention on these cases arises from lawsuits brought by participants who contracted to receive payment based on a percentage of the profit of the film.

This paper highlights some of the unique costing practices in the film industry and examines several of these well-known "losers" in light of the difference between the gross receipts of the film and the direct costs of production. It provides some insight into the difference between what would be considered a rational indirect cost allocation basis for other industries and the apparently erratic allocation process used in film.

The analysis includes an examination of the relationship between the gross receipts and the production costs of films in a number of categories that might be considered measures of success in the film industry.

INTRODUCTION

In 1999, entertainment accounts for less than one percent of the gross national product of the United States (Berton & Harris, 1999). Despite its small percentage, the film industry gains much attention in the nineties because of its finances (Cheatham, Cheatham, & Davis, 1996). Buzzwords like "creative accounting" are used, and some accountants assert, "The accounting department is the most creative part of Tinseltown" (Cheatham et al., 1996, p. 1). Several major disputes aid in bringing the film industry's accounting practices into the limelight.

In the 1990 court case *Art Buchwald v. Paramount Pictures Corporation*, the court rules in Buchwald's favor *Coming to America*, it makes sense that he should receive the compensation set forth in his original contract with Paramount Pictures Corporation. In addition to a fixed fee, Buchwald's original contract awards him a share of the net profits of the film. The film is a box office success. However, according to Paramount, it lost $18 million. The author of the novel *Forrest Gum* contracts to receive $350,000 and 3% of the net profits of the film for the rights to his book. When Groom tries to collect his 3%, he learns that Paramount is reporting a loss on the film. *Forrest Gump* earns millions at the box office in 1994, yet Paramount reports its profitability in the red. Also fueling the controversy is the fact that director Robert Zemeckis and actor Tom Hanks receives a percentage of the films fees, but they are awarded their money based on gross box office receipts instead of net profits (Pfeiffer, Capettini, & Whittenburg, 1997). Other popular films report losses too. *Batman* shows a $20 million loss, and net profit participants sue Warner Brothers. Net profit participants of the movie *JFK* go to court after no net profits are reported for the film. (Goldberg, 1997). *Rain Man, Dick Tracy, Ghostbusters, Alien, On Golden Pond, Fatal Attraction* are all films grossing over $100 million in the 1990's for which no net profits were reported (Pheiffer, Capettini, & Whittenburg, 1997).

The intriguing conflict surrounding the motion picture industry in the 1990's understandably brings attention to the accounting methods and practices of Hollywood. Accountants uncover costing

methods specific to the film industry, and changes are made in recent years to in an attempt to rectify any wrongdoing. Beyond the actual costing methods, however, are the numbers themselves. After a discussion of the unique accounting methods of the film industry, data is provided to illustrate some relationships that exist between financial figures of films. Specifically, the study examines the relationship between profitability as measured as the difference between the budget of the film and the gross receipts of the film and the success of films as measured by gross receipts.

Studios offer gross profits to certain participants for several reasons. First, many actors require this kind of contract, and studios realize that actors draw audiences to movie theaters. Also, if an actor or director knows that his or her compensation is linked to the gross profitability of a film, he or she may be more likely to promote the film and go the extra mile to ensure its success at the box office (Goldberg, 1997). Goldberg (1997) asserts that when gross profit participants become involved in films, net profits are likely to disappear. He cites examples like the 1993 movie *Indecent Proposal*, which reports a loss of $35 million after paying its five gross profit participants. Star Robert Redford reportedly receives over $20 million. Others cite similar examples like *Hook*, in which 40% of the film's gross profits were given to Julia Roberts, Dustin Hoffman, Robin Williams, and Steven Spielberg (Pfeiffer, Capettini, & Whittenburg, 1997). According to Goldberg (1997), *Indecent Proposal* and *Hook* are naturally doomed for net profit failure because of their large number of gross profit participants. Lesser talent and participants often do not receive gross profit rights.

In the nineties, the film industry is surrounded by major public concern and controversy relating to its accounting methods and practices. The financial accounting and reporting regulations for the film industry are originally established and governed by the Statement of Financial Accounting Standards Number 53. In June 2000, the findings from the investigation prompted the Financial Accounting Standards Board to issue the Statement of Financial Accounting Standards Number 139. This new standard rescinds the Statement of Financial Accounting Standards Number 53 and amends three other regulatory statements. The findings recognize that, first, the film industry is continuously undergoing many relevant changes that affect their financial position and financial reporting; particularly regarding revenue recognition as an increase in film revenue through ancillary forms and international markets is apparent; second, film studios apply the Statement of Financial Accounting Standards Statement 53 differently; and third, the accuracy of the film industry's financial statements are questionable (Financial Accounting Standard Board, 2000).

In August 2000, the American Institute of Certified Public Accountants (AICPA) issues a news release titled "AICPA Issues New Rules for Film Industry" that states three major changes in accounting for the film industry. These include advertising expenses, film amortization, and abandoned projects. According to Berton and Harris (1999), advertising costs are now to be amortized against revenues for the appropriate market rather than against revenues for a specific film. Film amortization is to be based on ten years rather than the twenty-year standard previously used by most film studios. Finally, abandoned projects cannot be written off to the overhead pool as commonly done before.

The production budget for films includes all the classifications of costs accountants would generally associate with direct costs of a film. Gross receipts is a relatively concrete number analogous to what would be considered revenues in accounting for most products, not amenable to easy "management." The controversy may be simplified to a question of what indirect costs should be assigned directly to films and what costs should be borne by the studio. Since major participants in the success of a film are paid on gross receipts it seems that the less powerful providers of contract services for the film industry are forced to bear a disproportionate burden of paying indirect costs.

In general GAAP requires that indirect costs be assigned in rational and consistent manner (Horngren, Foster & Datar, p. 486). In most products this rational and consistent manner would be based on some measure of the cost of the direct inputs.

In spite of the film industry's unique costing methods, an examination of the relationships between profitability and the success of films as measured by gross receipts and production costs offers

interesting insight into whether or not some of these films that have been the center of controversy would have been considered profitable products using costing methods appropriate to most products.

ANALYSIS

This study identifies successful films in two distinct ways. First, the top grossing films of each major film studio are studied (*Box Office Report*, 2004).then Academy Award-winning films for Best Picture are considered. (*Academy Awards Database*, 2004). Information on the gross revenues (*ShowBIZ Data*, 2004) and costs)*Internet Movie Database*, 2004) are compared.

Table 1 : Box Office and Budget Information for Top Films in Dollars

Film	U.S. Gross	Foreign Gross	Budget	Gross/Budget
The Lion King	310,785,532	545,000,000	79,300,000	6.65
Shrek	267,652,016	155,808,898	60,000,000	7.06
Star Wars	460,195,523	319,100,000	11,000,000	70.84
Gone with the Wind	198,933,802	N/A	3,900,000	
Titanic	600,787,052	1,234,600,000	200,000,000	9.17
Spider-Man	403,706,375	380,900,000	139,000,000	5.64
E.T.	399,804,539	305,000,000	10,500,000	67.12
The Two Towers	340,478,898	577,400,000	139,000,000	6.6

Note: Data from ShowBIZ Data and Internet Movie Database

Titanic, the top grossing film for all major film studios, is budgeted more money than any of the other films, perhaps suggesting the belief that budget can ensure large box office sales. However, this does not seem to be the case. While *Titanic*'s return ratio is high, there are others significantly higher. The high ratios have another partial explanation; these films and *Gone with the Wind* are all re-released. The box office figures for *Star Wars*, *Gone with the Wind*, and *E.T.* actually represent two theatrical runs.

Table 2: Box Office and Budget Information for Academy Award Best Picture Winners

Film	Worldwide Gross	Budget	Gross/Budget
Return of the King (2003)	778,174,794	94,000,000	8.28
Chicago (2002)	306,664,505	45,000,000	3
A Beautiful Mind (2001)	295,256,996	60,000,000	4.92
Gladiator (2000)	454,364,866	103,000,000	4.41
American Beauty (1999)	336,104,047	15,000,000	22.41
Shakespeare in Love (1998)	252,241,322	25,000,000	10.09
Titanic (1997)	1,835,387,052	200,000,000	9.18
The English Patient (1996)	230,351,430	27,000,000	8.54
Braveheart (1995)	202,604,871	72,000,000	2.81
Forrest Gump (1994)	629,699,757	55,000,000	11.45

Note: Data from ShowBIZ Data and Internet Movie Database

Based on Table 2, it appears films that win Academy Awards do well at the box office and have higher ratios of box office receipts to budgets. To further analyze this relationship between profitability and success as determined by Academy Award wins, data is analyzed on the four most recent Oscar Best Picture winners compared to their opponents for the award.

The findings offer three very significant insights into the film industry and the relationship between profitability and the success of films. First, a studio cannot guarantee box office success of a film by allocating a large budget to it. Although a substantial budget may lead to large profits as in the case of the 1997 film *Titanic*, other studies show that is not always the case. Second, one way to increase profits is to re-release films. Last, some film studios may view success beyond profits, in qualitative ways such as winning the Best Picture Academy Award. If that is the case, film studios should focus on box office receipts since they seem to indicate winners.

REFERENCES

Academy Awards Database. (2004). Retrieved February 24, 2004, from http://www.oscars.org/awardsdatabase/.

AICPA issues new rules for film industry. (2000). *Journal of Accountancy* [online serial], 190, http://www.aicpa.org/pubs/jofa/aug2000/news3.htm.

Berton, L., & Harris, R. (1999). Reel-world accounting. *CFO*, 15, 34-40.

Box Office Report. (2004). Retrieved February 24, 2004, http://www.boxofficereport.com.

Buchwald v. Paramount Pictures Corporation, No C 706083, 1990 Cal. App. LEXIS 634, 13 U.S.P.Q.2D (BNA) 1497, January 31, 1990.

Cheatham, C., Cheatham, L. R., & Davis D. A. (1996). Hollywood profits: gone with the wind? *CPA Journal*, 66, 32-42.

Davis, C. E. (1997). Accounting is like a box of chocolates: a lesson in cost behavior. *Journal of Accounting Education*, 15, 307-318.

Film Maker Tool (2005). www.filmmakertools.com/ production/easy_budget/ easybudget_products_feature.html

Financial Accounting Standard Board. (2000). *Statement of Financial Accounting Standards No. 139*. Norfolk, Connecticut.

Goldberg, V. P. (1997). The net profits puzzle. *Columbia Law* Review.

Goldstein, Michael. (2004). Studios shoot works on Oscar. *New York Daily News*. Retrieved March 21, 2004 http://www.nydailynews.com/entertainment/movies.

Internet Movie Database, Inc. (2004). Retrieved February 24, 2004 http://www.imdb.com/.

Levine, M. H., & Siegel, J. G. (2001). Accounting changes for the film industry. *CPA Journal*, 71, 32-38.

Pfeiffer, G., Capettini, R., & Whittenburg, G. (1997). Forrest Gump – accountant: a study of accounting in the motion picture industry. *Journal of Accounting Education*, 15, 319 - 344.

ShowBIZ Data. (2004). Retrieved February 24, 2004 http://www.showbizdata.com/.

USING RESPONSE CARD TECHNOLOGY

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ABSTRACT

Those familiar with the television show "So You Want to be a Millionaire" will recall that one of the options for the contestant is to ask the audience for their opinion as to which answer is correct. Whereupon the audience would punch a button and the totals would appear in percentages for each answer. This same technology is available for professors to use along with Power Point or some other software to report not only how the class voted, but on how each student voted. The response pad technology offers faculty a way of enhancing student involvement, creating some excitement, and possibly enhancing the learning experience. .

This article reviews several studies done over the impact of response pad technology on learning outcomes as well as reports on my experience in using response pad technology in two different courses: International Business Law, and Global Entrepreneurship and Innovation. The particular pilot classes used Turning Point Technology LLC's software which integrates into Microsoft's PowerPoint software. The cost of obtaining and using this relatively new classroom technology is presented along with commentary on the pros and cons of altering a course to implement the technology. This technology does require an investment of time for learning the software and an investment of time to rework a class preparation. There are some significant costs involved but publisher-educator programs provide a practical way to finance the introduction of this technology to the classroom.

FURTHER EVIDENCE ON CASH FLOWS' PREDICTIVE VALUE

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ABSTRACT

In the past fifteen years, the quantity of research concerning the implications of cash flow has greatly increased. Research concerning the relationship of cash flows to earnings and stock prices, as well as the information content of cash flow can be found in most current accounting research periodicals. Many of the seminal investigations of cash flow used proxies and estimations for the cash flow component of financial statements. These studies utilized the best available information to further the extent of accounting knowledge. Currently, the information available to accounting researchers has improved, therefore, it is now pertinent to question whether these proxies and estimations were adequate measures of cash flow, or, given the improved accounting information, these studies should be reviewed and the conclusions reexamined. This paper compares cash flow estimates used in prior research to the actual cash flow numbers reported by the firm. The finding is that actual cash flows provide a higher association with security returns than estimates of cash flows, which were used in prior research.

INTRODUCTION

Cash flows have been used in many studies to achieve several objectives. Perhaps the most notable cash flow studies are those of Peter Wilson (1986, 1987). In both studies, Wilson finds that "the cash and total accruals components of earnings have incremental information content beyond earnings themselves". These studies compelled other researchers to evaluate the information content of cash flow components.

Livnat and Zarowin (1990) disaggregated cash flow into its operating, financing and investing components. They concluded that the disaggregation of cash flows into operating cash flows and accruals does not improve the relationship between cash flows and security returns beyond the contribution of net income. Further, they find that there is an improved degree of association between financing and operating cash flows and security returns.

Sloan (1996) found that stock prices "fail to reflect fully information contained in the accrual and cash flow components of current earnings until that information impacts future earnings". Cash flow is defined in this study as the income from continuing operations less accruals. Again, the uncertainty of the accrual calculations limits the accuracy of this proxy for cash flows.

Stunda (1996) found that reported cash flows, when disaggregated by operating, financing and investing components, have a greater relationship with security returns than with the disaggregated estimates reported by Livnat and Zarowin (1990).

Dechow et al (1998) disaggregates the accrual components of cash flows and finds that some have greater predictive value on security returns than others.

Barth et al (2002) pick up on the Dechow et al study (1998) and circle back to the findings of the studies from the 1980's and re-assert that accruals have a greater predictive ability of security returns than do actual cash flows, thereby contradicting the finding of Stunda (1996).

So given all of this, the pertinent question becomes, what is a better predictor of security returns, actual cash flows reported by firms or estimates predicated on accrual components? This study seeks to answer that question using a sample that spans a period greater than any study previously along with a greater number of sample firms than ever before studied.

HYPOTHESIS DEVELOPMENT

As previously noted, recent studies [Dechow et al (1998) and Barth et al (2002)] conclude that when accounting accruals are disaggregated by components, various components provide a greater relationship to security returns, than do actual reported cash flows, and thus greater predictive value. Stunda (1996) found that actual reported cash flows greater predictive value than accounting estimates (i.e., accruals) in total.

Using a larger sample of firms and periods, the predictive value of actual cash flows is tested against the accounting accrual components. The expectation of the study is that actual reported cash flows have greater predictive value in relation to security returns than do accounting estimates as represented by various accruals. Thus stated in the null form:

H1: Reported actual cash flows are not significantly different from accounting accrual estimates in their predictive value of security returns.

RESEARCH DESIGN

The sample firms are selected from the Compustat Annual Industrial File and from the CRSP Monthly Returns File for the period 1993-2004. Only firms with reported data for the entire sample period are included in the study. Cumulative abnormal returns are generated for sample firms for a three day period centered on the release date of cash flow data. Each component of cash flow is assessed for information content relative to the abnormal returns for the three-day window. Table 1 summarizes the sample firms included in the study.

Table 1
Sample Summary

	Number of Firms
Original sample	5,380
Firms with insufficient Compustat data	619
Firms with insufficient CRSP data	388
Final sample	4,373

Utilizing a similar technique of previous cash flow studies, we estimate the expectation model using the Wilson (1987) method. Wilson applied OLS estimation to a pooled cross-section of firms, which assumes that model parameters are the same for all firms. The functional form of the expectation model is the same as that use in Wilson [1986 and 1987], and Bernard and Stober (1989). This methodology is perceived to be more accurate than the random walk model used by Livnat and Zarowin (1990).

Abnormal returns are generated for event days –1, 0, and +1, where day 0 is the release date of firm cash flow data. Derivation of abnormal returns is as follows:

$$_{Arit}=R_{it}-B_iRM_t$$

$$CAR_{it}=\Sigma AR_{it}$$

Where: R_{it} = Return for security i
B_i = Estimated slope coefficient of market model for security i
RM_t = Market adjusted model

Wilson (1987) finds that most firms' earnings and cash flow releases are separate events. Documents used to release cash flow data include annual reports and 10-Ks. Therefore, primary release dates of these documents are used to proxy for the release date of cash flow data. The market model is utilized along with the CRSP equally weighed market index and regression parameters are estimated

between days –290 and –91. Abnormal returns are then summed to calculate a cumulative abnormal return.

In order to assess the information content of cash flow from operations as utilized in the studies of Dechow et al (1998), and Barth et al (2002), the following regression equation is utilized:

$$CAR_{it}=a+b_1AR+b_2AP+b_3I+b_4D+b_5A+e_{it} \quad (1)$$

Where: CAR =The measure of abnormal returns for firm i, period t
- a =The intercept coefficient
- b_1 =The coefficient associated with the annual change in accounts receivable accrual
- b_2 =The coefficient associated with the annual change in accounts payable accrual
- b_3 =The coefficient associated with the annual change in inventory accrual
- b_4 =The coefficient associated with the annual change in depreciation accrual
- b_5 =The coefficient associated with the annual change in amortization accrual
- e =Error term for firm i, period t

The study by Stunda (1996) was evaluated utilizing the following equation:

$$CAR_{it}=a+b_1CFO+b_2CFI+b_3CFF+e_{it} \quad (2)$$

Where: CAR =The measure of abnormal returns for firm i, period t
- a =The intercept coefficient
- b_1 =The coefficient associated with operating cash flows
- b_2 =The coefficient associated with investing cash flows
- b_3 =The coefficient associated with financing cash flows
- e =Error term for firm i, period t

RESULTS

Equation (1) was run using year over year changes in accounting accruals for all 4,373 firms for the periods 1993-2004. The accruals used represent those accruals to be significant in predicting security returns in Dechow et al (1998) and Barth et al (2002). The results are presented in Table 2. As can be seen from the table, each of the accrual variables does have statistical significance ranging from a p-value of .07 (accounts receivable accrual) to .15 (amortization accrual). However, many of these values do not fall into traditional significant levels.

Table 2
Regression Results for coefficients associated with accrual components
$CAR_{it}=a+b_1AR+b_2AP+b_3I+b_4D+b_5A+e_{it}$ (1)

Coefficient (1)	Mean (2)	t-statistic (3)	p-Value (4)	F-Statistic (5)	Mean (Adjusted) R^2 (6)
B_1-Accounts Receivable	.15	2.12	.07	6.91	.054
B_2-Accounts Payable	.11	1.96	.10	3.81	.034
B_3-Inventory	.09	1.88	.11	4.19	.020
B4-Depreciation	.12	1.85	.12	3.98	.013
B5-Amortization	.08	1.62	.15	2.87	.014

Equation (2) was run using actual reported cash flow amounts, by the three disaggregated sub-categories of cash flow specified in SFAS #95. This is comparable to the methodology reported in

Stunda (1996). The results are presented in Table 3. As can be seen from the table, when using actual cash flow components, overall cash flows result in a higher R^2. Also, cash flows from operating activities result in a p-value of .01, which is significant at traditional levels, although the cash flows from investing and financing activities are not statistically significant (similar to Stunda (1996) and other past cash flow studies). These results lead to a rejection of the hypothesis that both accounting accruals and actual cash flow components have similar information content, and thus predictive value, pertaining to security returns. It has been demonstrated that actual cash flows, operating cash flows in particular, lend themselves to greater predictive capabilities than do accounting estimates, typified through accruals. These results support the findings of Stunda (1996).

Table 3
Regression Results for coefficient of independent variables for operating, investing, and financing cash flows
$CAR_{it} = a + b_1CFO + b_2CFI + b_3CFF + e_{it}$ (2)

Model [Mean (Adjusted) R^2] (1)	Coefficient (2)	Mean (3)	t-statistic (4)	p-Value (5)	F-Statistic (6)
Reported Cash Flow [.186]	Operating Cash Flow (b_1)	.12	2.65	.01	5.42
	Investing Cash Flows (b_2)	.08	.98	.19	.89
	Financing Cash Flows (b_3)	.05	.42	.87	.63

CONCLUSIONS

This study compares prior cash flow studies, which utilize cash flow estimates in determining relationships to security returns and predictive value, to actual cash flows as propounded in Stunda (1996), which indicates a higher relationship to security returns and predictive value. Even when disseminating estimate components into their accruals, this study shows that actual cash flows reported by firms still exhibit a higher degree of correlation to security returns and thus establish a more significant basis upon which to predict security returns.

The implication of this study on future cash flow research should be quite clear. Only actual cash flow amounts should be used for the purposes of conveying high quality and more realistic associations to investors and managers.

REFERENCES

Barth, M.E., D.P. Cram, and K.K. Nelson. 2002. Accruals and the Prediction of Future Cash Flows. *The Accounting Review* 76: 27-58.

Bernard, V.L. and T.L. Stober. 1989. The Nature and Amount of Information in Cash Floes and Accruals. *The Accounting Review* 64(4): 624-651

Livnat, J. and P. Zarowin. 1990. The Incremental Information Content of Cash-Flow Components. *Journal of Accounting and Economics* 13(1): 25-46

Stunda, R.A., 1996. An Investigation of Cash Flow Proxies in Accounting Research. *Journal of Accounting and Finance*

Wilson, G.P. 1986. The Relative Information Content of Accruals and Cash Floes: Combined Evidence at the Earnings Announcement and Annual Report Release Date. *Journal of Accounting Research* 24(Supp): 165-200

Wilson, G.P. 1987. The Incremental Information Content of the Accrual and Funds Components of Earnings After Controlling for Earnings. *The Accounting Review* 62(2):293-321

THE NOVEMBER EFFECT AND TAX LOSS SELLING: AN EMPIRICAL INVESTIGATION

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ABSTRACT

The January Effect is a well-documented stock market anomaly that is characterized by abnormally high stock returns in the first couple of weeks of the New Year. The predominant explanation of why this January Effect exists is the tax loss-selling hypothesis, which states that stocks are sold towards the end of the year for tax reasons and subsequently re-bought at the first of the year. The passage of the Tax Reform Act of 1986, which changed the fiscal year end for institutional investors from December 31st to October 31st, allows the authors to test in isolation the tax loss-selling hypothesis. Two things should be expected as a result of the Tax Reform Act: First, the existence of a so-called "November Effect" post 1986, and second, the dissipation of the January Effect. The evidence presented in the paper cooborates neither.

DEMAND FOCUSED SUPPLY CHAIN MANAGEMENT

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INTRODUCTION

Supply chain superiority is the winning formula for successful companies in a competitive global environment. This involves the ability to shape and respond to shifts in customer demand with innovative products and services.

After much hype and fanfare surrounding the emergence of Supply Chain Management (SCM), the failure of large scale vendors such as i2 Technologies and write down of large investments in SCM by companies such as Cisco systems has soured the promise and potential of SCM. However, a careful study indicates that the primary contributing factor was a failure to understand and properly gauge demand.

The success of demand driven companies such as Dell and Wal-Mart underline the importance of incorporating demand data into SCM. Incorporating demand data into SCM leads to a more dynamic Demand Focused Supply Chain Management (DFSCM) that integrates demand data and processes across the supply networks of customers, suppliers and employees with the objective of balancing revenues against costs.

DEMAND FOCUSED SUPPLY CHAIN MANAGEMENT

DFSCMs require reorienting existing SCMs to include the following:

Demand data

Traditional SCMs have focused on structured data pertaining to cost, demand, etc. DFSCMs should attempt to incorporate unstructured and random demand signals from customers and suppliers. Incorporating accurate demand data leads to perfect order fulfillment, lower inventory levels and shorter cash-to-cash cycle times. There are three types of demand signals that have to be incorporated into DFSCM.
They are:

- *Replenishment-based demand*: This is predictable in nature and forms the basis for forecasting and planning. Point-of sale (POS) data helps in predicting replenishment-based demand.

- *Surge demand*: This is unpredictable and requires sophisticated demand modeling and forecasting. Many SCM vendors are now focused on addressing this issue.

- *Future demand*: This involves strategic planning for future products and their effect on customer buying patterns.

Performance Metric for Supply Chain Excellence

A valuable metric to measure supply chain excellence is demand fulfillment capability. Tracking bottlenecks in fulfilling demand allows the manager to focus on the levers of supply chain that yield the most benefit from investment. Demand fulfillment that assures customer satisfaction requires that the order is complete, accurate, on time and in perfect condition. Deficiencies that may prevent demand fulfillment may include:

Orders not delivered on time, due to:

- Stock-out/manufacturing delay
- Late Shipment
- In transit/delivery delays

Orders not meeting customer requirements, due to:

- Inaccurate shipment
- Poor quality of finished goods
- Damage to finished goods in transit

These deficiencies may be traced to the root cause of such problems through an analysis of SCM. The analysis may lead to:

- *Inventories*: Are there adequate levels of inventories?
- *Demand Visibility*: Is there a good view of upcoming demand?
- *Schedule Variance*: Are products manufacture according to schedule?
- *Supply meeting demand*: If there is no coordination there may be enough quantities of wrong inventory.

New Technologies

New technologies such as Radio Frequency Identification (RFID), Point of Sale (POS) data are emerging to tap into real time demand data. These technologies provide unit level demand visibility and can help maximize profit by swiftly reacting to changing customer demand.

Radio Frequency Identification: This is a revolutionary way to keep track of inventory in the supply chain. Real-time access to data will revolutionize all aspects of SCM in the following ways:

- RFID tags will provide 24x7 view of material availability
- This information can be shared with suppliers and customers
- Locating parts in real time reduces risk of loss and as well as costs associated with physical inventories and cycle counting

The advantages that improved information availability generates and the likely supply chain cost savings that RFID creates makes it an essential technology for companies looking to remain competitive.

Summary

The keys to SCM success is characterized by the following supply chain metrics:

- Perfect order rate resulting in demand fulfillment
- Total supply chain costs
- Demand forecast accuracy
- Cash-to-cash cycle time

Of particular importance is demand forecast accuracy. It creates high responsiveness and cuts costs through the supply chain. It also correlates with perfect-order fulfillment. DFSCM performance is closely linked to overall financial performance.

RESPONSE MEASURES USED FOR FINANCIAL DISTRESS AND THEIR IMPACT ON RESULTS

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ABSTRACT

Since the 1960s, researchers have used an ability to predict financial distress criterion to evaluate the usefulness of competing accounting methods. These researchers used various response variables as proxies for economic financial distress. Many researchers used various dichotomous measures of financial distress such as nonfailed versus failed, healthy versus loan default, or nonbankrupt versus bankrupt response variables for financial distress. Some more recent studies used multi-state response variables for financial distress. Researchers often compare results across these different studies, attempting to make conclusions concerning the usefulness of particular accounting information. However, comparisons are valid only if the various response variables used by the various studies have construct validity; the different response variables all measure the same intended construct, economic financial distress.

The primary purpose of this paper is to determine the validity of various response variables of financial distress by observing the stability of results across these different response variables. Similar results across the different response variables would suggest that researchers could validly compare results of the various financial distress studies. However, results that vary depending on the response variable used would indicate that different response variables may actually measure different constructs, and that the results reported in previous studies may be dependent on the response variable used. The findings of this study suggest that results vary across the response variables used for financial distress. Thus, one cannot validly compare the results of prior financial distress studies that used different measures of financial distress. The results of this study suggest that the various response variables are not equal measure of financial distress. Results seem to suggest that a multi-state response measure may be the more valid measure of economic financial distress.

REINSURANCE ACCOUNTING UNDER SFAS NO. 113: AN EMPIRICAL EXAMINATION OF ACCOUNTING POLICY AND ITS DIFFERENTIAL IMPACT TO INSURERS

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ABSTRACT

The purpose of this study is to examine whether insurers are differentially affected by accounting policy because of their size. In examining SFAS No.113, I argue that the cost of reporting for reinsurance activities under SFAS No. 113 are greater for smaller insurers because they are less able to respond to the reinsurance reporting requirements under SFAS No.113.

Specifically, this study examines earnings volatility and leverage indicators in the periods prior to and following SFAS No. 113. Because various constituencies use these indicators as proxies in measuring operating, financing, and regulatory risks, identifying any changes in the measures between periods is a necessary step in determining whether there are potential economic consequences from the implementation of SFAS No. 113. Results from a paired-sample of 339 insurers find that earnings volatility and leverage were impacted by the implementation of SFAS No 113 and that smaller insurers were not able to counteract, with alternative actions, the impact of SFAS No. 113's reporting requirements.

Because of the current alleged misuse of finite reinsurance, FASB and the SEC is currently re-evaluating the deficiencies in the reporting of reinsurance contracts. Findings of this study are relevant to the debate on reinsurance accounting as well as to the debate on how accounting policy differentially affects firms.

REINSURANCE ACCOUNTING UNDER SFAS NO. 113: AN EMPIRICAL EXAMINATION OF ITS VALUE-RELEVANCE

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ABSTRACT

This paper investigates whether SFAS No. 113, "Accounting and Reporting for Reinsurance of Short-Duration and Long-Duration Contracts," provides incremental value-relevant information relative to the preceding statement, SFAS No. 60. There is a general concern among preparers, users, and regulators that more information about the impact of reinsurance contracts is needed.

SFAS No. 113 addresses these concerns by establishing criteria for classifying a contract as reinsurance and prescribing accounting and reporting standards for reinsurance contracts. My study examines the proper measurement of reinsurance assets and the mandated disclosures regarding reinsurance contracts. Implementing a dual-approach association model, I base my research on a sample of 83 publicly-held property-liability insurance holding companies. I find that the measurement requirements under SFAS No. 113 are incrementally value-relevant. I find marginal incremental value-relevance on SFAS No. 113's disclosure requirements. The disclosure results support FASB's decision to re-evaluate reinsurance accounting.

Much of contemporary accounting research examines how financial information is used to assess firms' risks, especially financial performance risk. This study identifies a homogeneous setting where the regulation of risk related activities has escalated over time, thus requiring improved reporting of risk management activities. The study provides an opportunity to make inferences about increased reporting and disclosing for risk management activities by non-regulated firms.

THE VALUATION IMPLICATIONS OF PAST AND FUTURE INVESTMENTS IN INFORMATION TECHNOLOGY: THE CASE OF FIRM'S Y2K COMPLIANCE COSTS

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ABSTRACT

This study examines the extent to which both past and expected future investments in information technology are value relevant. Prior research has provided mixed results on this issue. By controlling for expected future costs as well as current expenditures, and showing that the value relevance of investments in information technology are conditional on future growth, our findings provide an explanation for the contradictory results of prior research. Our findings indicate that expected future expenditures are positively valuation relevant only for high-growth firms, and this relevance is significantly greater than that of aggregate accounting earnings. The value relevance of current period Y2K expenditures is found, for both high- or low-growth firms, to be consistent with other types of expenses recognized in earnings.

THE DETERMINANTS OF THE REINSURANCE DECISION BY LIFE INSURANCE COMPANIES

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ABSTRACT

Risk management is central to any business including insurance companies, and reinsurance is one of the several risk management tools available to insurance companies. Insurance companies rely on reinsurance to expand capacity, reduce underwriting risk and reduce the likelihood of financial distress. This article investigates the determinants of the reinsurance decision by life insurance companies using research hypotheses in accordance to the motives of risk management practices. Using a cross section data for U.S. life insurance companies, we find measures of underwriting risk, tax incentives, and agency costs are significant determinants of the reinsurance decision.

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