

Voluntary versus Mandatory Corporate Disclosures on Management Responsibilities for Financial Reporting: An Empirical Investigation

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This paper examines whether voluntary disclosure of management responsibilities for financial statements promotes transparency in corporate financial reporting to the same degree as mandatory reporting. Examining this issue is of special interest because of the discontent surrounding the enactment of The Sarbanes-Oxley Act in 2002 and the departure from the voluntary cost-benefit disclosures. We hypothesize that voluntary disclosure provides richer information that differentiates good reporting firms from bad ones. This differentiation is lost under pooled-equilibrium mandatory and uniform disclosure. We use a sample of firms that voluntarily reported management responsibilities for financial statements prior to 2002 and compare their results to the SEC's one time mandatory certification sample in 2002. The results show that voluntary reporting has higher positive association with security returns and lower bid-ask spread than those associated with mandatory reporting after controlling for other accounting metrics such as earnings, book value and size. These findings suggest that voluntary reporting is more effective in promoting transparency and helps reduce investors' risk resulting from information asymmetry. With respect to financial reporting policymaking, we conclude that voluntary disclosure of management responsibilities for financial statements is as effective as mandatory reporting.

Field of Research: Accounting/ Financial Reporting

1. Introduction

The debate over voluntary versus mandatory corporate financial disclosures has been examined by academic researchers for many decades. Advocates of mandatory disclosure of financial information argue that additional information disclosure represents a public good that may be under provided in the absence of regulation and that firms have a tendency to suppress disclosures of unfavourable information (Dye 1990, Beaver 1981, Jain et al. 2008). On the other hand, proponents of voluntary disclosure claim that managers have incentives to disclose additional information to differentiate their firms from other unsuccessful and inefficiently run firms (Dhaliwal et al. 2011, Hail 2011, Graham et al. 2005). In addition, investors' incentives to secure trading profits through the search for additional information are considered motives for corporate voluntary disclosures to sustain properly operating capital markets (Dye 1990, Demski 1974). Furthermore, Dye (1990, p.3) argues and analytically shows that under financial externalities, and where accounting systems of competitor firms can be compared, mandatory disclosures are superfluous since the optimal mandatory disclosure coincides with firms' voluntary disclosures.¹ Under this division in opinion,

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actual corporate reporting on management responsibilities (RMR) for financial statements had been voluntary until 2002.

Parallel to that debate, investor confidence in the US capital markets and the existing financial reporting model was severely shaken at the beginning of the current millennium by the sudden failure of many large and seemingly profitable companies, and the increased frequency of accounting irregularities. In the wake of these events, the Sarbanes-Oxley Act of 2002 (SOX) was signed into law in order to help restore investor confidence in the integrity of corporate disclosure and to enhance the reliability of reported financial information. Among its numerous corporate governance and financial reporting mandates, SOX requires CEOs and CFOs of publicly traded companies to certify their responsibilities for the integrity of their firms' financial statements and internal controls.

Management mandatory certification of financial statements (per SOX) was accompanied by discontent from the business world for its departure from voluntary cost-benefit corporate disclosures. Many academic researchers have questioned the benefits of CEO and CFO certifications of financial statements and recommend that the mandate be reconsidered (Marden et al. 2003, Chang et al. 2006, Romano 2005). In addition, investigatory bodies such as the "Committee on Capital Markets Regulation" have examined the impact of many SOX mandates on the competitiveness of US companies and suggest such regulations be subjected to a "rigorous cost-benefit analysis" (Hubbard and Thornton 2006). Furthermore, the recent failure of the financial industry raises doubt as to the effectiveness of SOX in deterring management from making risky operating decisions that were not fully disclosed. The fact that management certified the financial statements raises doubts as to whether mandatory reporting is the optimal practice for promoting transparency in corporate financial reporting.

This study examines whether voluntary disclosure of management responsibilities for financial statements promotes transparency in accounting information to the same degree as mandatory certification by CEOs and CFOs required under the SEC's one-time certification in 2002, which became a permanent mandate under SOX. This study contributes to current literature and regulation in two dimensions. First, it is the first to provide empirical evidence on the level of transparency in financial reporting in comparative design: voluntary vis-à-vis mandatory regulation of reporting on management responsibilities for financial statements. Second, the results of this examination should be of interest to the joint FASB-IASB convergence process in deciding on the level of detail in mandated accounting standards and the underlying accounting principle that reflects the economic substance of corporate activities.

An important premise of management certification (whether voluntary or mandatory) is that explicit *acknowledgement* by principal corporate officers of their responsibilities for financial reporting heightens their awareness of the legal consequences of inaccurate or fraudulent financial reporting. Consequently, management would adopt effective internal controls, appropriate accounting practices and a governance structure that promotes shareholders' interest which, in turn, reduces investors' risk resulting from information asymmetry (Chang et al. 2006). This logic suggests that management certification of financial reports should heighten investors' confidence in corporate disclosure and, thus, enhance the valuation relevance of reported accounting information.

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Our design is based on comparing the level of information asymmetry associated with the filings of firms' annual reports of a sample of voluntary reporting firms before SOX with those of mandatory reporting firms under SOX in 2002. For the voluntary Reports on Management Responsibilities (RMRs) prior to SOX, our base sample represents the 600 firms listed in the *Accounting Trends and Techniques* (ATT) published by the American Institute of Certified Public Accountants (AICPA) for the six-year period from 1996 to 2001 (a total of 3,600 firm-years). The AICPA classifies its population of firms into RMR issuers and non-issuers, which is an essential factor in facilitating this research. Consistent with prior studies, the valuation effects of the one-time management certification under the SEC's administrative order of June 27, 2002 are examined using the 940 firms identified by the SEC on that date.

Our results show several important findings. The coding of voluntary reporting of RMRs shows diverse and rich disclosures, including internal controls, application of GAAP, audit committee oversight and signing of the report among other factors. In contrast, compliance with the mandatory certification consists of a uniform statement that does not differentiate among reporting firms. In terms of market valuation and asymmetry of information, the results show a significant and positive association between voluntary RMR reporting and security prices, after controlling for other value relevant accounting-metrics such as earnings and book value. The results also show that RMR issuers exhibit lower bid-ask spreads compared to non-issuers. Further analysis among voluntary RMR issuers reveals differential valuation effects based on the content of these disclosures, particularly with respect to management's assertions regarding the firm's internal control environment. The results also demonstrate a positive market reaction to the mandatory certification under the SEC's order of June 27, 2002, and a reduction in bid-ask spreads after the certification. Comparing the bid-ask spreads' coefficients, voluntary reporting has a higher impact, leading to the inference of higher transparency.

These results demonstrate that investors consider corporate reporting on management's responsibilities (or the lack of it) when valuing securities and, thus, justifies the voluntary cost-benefit hypothesis. The results also demonstrate the geopolitical vulnerability of the financial disclosure regulation. That is, given the significant losses by investors during the 2001-2002 market collapse from corporate fraud and lack of integrity in financial reporting, the results lend support to the mandated management certification of financial statements.² The findings of this research suggest that, under normal circumstances, voluntary disclosure that is based on cost-benefit criteria is more beneficial to investors in the market.

The remainder of this paper is organized as follows. Section 2 provides the literature review and develops our hypotheses. Section 3 presents the research methodology. Section 4 analyzes the results, while section 5 provides conclusions and recommendations for future research.

2. Literature Review

2.1 Voluntary Reporting on Management's Responsibilities

The demand for corporate reporting on management's responsibilities for financial information had been under debate since the 1970s. During that time, recommendations for explicit and mandatory acknowledgement of management's

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responsibilities for financial statements were made by the Cohen Commission (1978), Treadway Commission (1987) and the SEC, but actual reporting remained voluntary.³ One prevailing view supporting the voluntary nature of such disclosures was that the financial markets would consider the reporting of management's responsibilities (or lack thereof) in valuing security prices. This view continued until 2002 when the loss of confidence in the financial markets and protection of investors became a paramount concern to regulators.

2.2 The Mandatory Certification of Financial Statements

A closer examination of the sudden collapse of many seemingly successful large companies such as Enron, Tyco, and WorldCom revealed illegal corporate activities, fraudulent accounting practices and "executives' self-dealing transactions" (Romano 2005). As a result, market participants lost confidence in corporate disclosure as well as the external auditors who attest to their reliability. Former SEC Chairman Harvey Pitt remarked that a 'package of far reaching reforms' by the Bush Administration, Congress, the SEC and other self-regulatory bodies were necessary remedies to 'restore investor and market confidence in the integrity of public company disclosure' (SEC 2002b).

These remedies came in the form of several mandates. First, the SEC issued an administrative order on June 27, 2002 (SEC 2002a) requiring firms with revenues in excess of \$1.2 billion to certify under oath to the veracity and credibility of their most recently filed Form 10-K and to any subsequent periodic reports and proxy statements. Second, Congress passed SOX in July 2002 imposing a broader and more rigorous framework for improving corporate governance and the credibility of financial reporting. SOX requires, among other mandates, CEOs and CFOs to certify to the veracity and the completeness of their respective firms' financial statements, disclosures and internal controls.

2.3 Certification and the Quality of Accounting Information

Corporate management's explicit acknowledgement of its responsibilities for the preparation, completeness and accuracy of their financial statements indicates its confidence in the firm's operating processes and internal financial controls. In fact regulators view RMRs as evidence of higher levels of corporate transparency and reliability of reported accounting information for investors (SEC 2002b). During the three decades of voluntary reporting prior to SOX, divergent views existed concerning the benefits and consequences of issuing an RMR. Proponents argued that the issuance of RMRs provided management with a platform to disclose their effective stewardship and that they have fulfilled their fiduciary responsibilities as to the effectiveness of internal controls and accuracy of accounting information (Kinney 2000, Verschoor 2001). On the other hand, concerns existed that explicit admission of individual responsibility for financial reporting could also increase management's legal liability in cases of fraudulent reporting. Indeed, the American Bar Association (1994) formally expressed its disapproval of management's policy to issue RMRs stating that such practices could be construed as a certification of compliance with the Foreign Corrupt Practices Act or used by the SEC as a "liability document" (ABA 1994, p.923). Moreover, the RMR could be self-incriminating in cases of alleged violations of securities laws. This awareness of potential legal consequences should lead to management's adoption of transparent and reliable reporting policies.

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To promote investor confidence by issuing an RMR, firms would also develop and employ a governance structure to promote effective oversight and decision making, as well as efficient utilization of corporate resources to reduce their exposure to litigation. The basic assertions contained in a “certification” should improve the reliability and transparency of financial statements and disclosures and, thus, reduce investors’ risk resulting from information asymmetry (Chang et al. 2006). This discussion suggests that management’s voluntary or mandatory certification of financial statements has value relevance in the pricing of corporate securities.

2.4 Relevant Research

Prior research examining the value relevance of accounting information and disclosures has generally focused on the relationship between accounting metrics and security prices or market returns (Beaver 2002, Negakis 2005). No prior empirical studies have examined the value relevance of corporate voluntary versus mandatory reporting on management’s responsibilities for financial information.⁴ Several studies have examined the effects of the mandatory certification under the SEC’s administrative order of June 27, 2002 but report inconsistent and inconclusive results. Accordingly, doubt persists as to the relevance and benefits of the mandated certification. For example, Bhattacharya et al. (2003) report no valuation effects for timely (or late) certifiers under the SEC’s order. On the other hand, Chang et al. (2006) find positive market reaction for firms whose management certified their financials by the August 14, 2002 deadline. In addition, Hirtle (2003) reports positive market reaction to timely certifications using a sample of bank holding companies. Similarly, Jain et al. (2008), using a market liquidity approach, conclude that the SOX regulations have significant and positive market effects for certifying firms. From these relevant studies, it is clear that: 1) some uncertainties still persist concerning the benefits from senior management’s mandatory certification of financial statements, and 2) prior research did not examine whether voluntary cost-benefit disclosure promotes equal or better transparency in financial statements. This research helps to resolve these issues.

Recent studies in corporate disclosure indicate that management has incentives to voluntarily disclose more information when expected benefits exceed the costs of providing such disclosure. For instance, Dhaliwal et al. (2011) argue and find support that firms’ voluntary disclosure of corporate social responsibilities was accompanied by a decline in the cost of capital. El-Gazzar et al. (2012), Hail (2011) and Serafeim (2011) find that voluntary reporting of embedded value by life insurers reduced investor’s asymmetry of information and maintained significant incremental explanatory power to stock prices and returns. Thus, one may infer that corporate voluntary disclosure is beneficial for both the firm and its investors.

Hypotheses

Based on the above discussions, we test the following hypotheses:

Phase I: Disclosure Impact on Markets

H1: *Ceteris paribus*, corporate voluntary (or mandatory) reporting on management’s responsibilities for financial information is an indicator of high quality and transparent financial statements that promotes investors’ confidence in reported accounting information. This implies a positive

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association between a firm's voluntary issuance of an RMR (or mandatory certification of financials) and the market return on its stock.

H2: *Ceteris paribus*, financial disclosures of firms that voluntarily issue RMRs (or mandatorily certify financials) are expected to be more transparent and reliable than non-issuers, thereby reducing information asymmetry. This implies a lower bid-ask spread for RMR firms compared to non-issuers, and a lower bid-ask spread after mandatory certification compared to before.

Phase II: Differential Effect – voluntary versus mandatory

Under the voluntary reporting of RMRs, firms report a wide range of assertions that convey different signals to the market. This diversity of disclosures is not available under the uniform mandatory reporting.

H3: *Ceteris paribus*, the impact on a firm's security price from a voluntary RMR is positively influenced by the type and level of management's assertions disclosed in the report. This hypothesis cannot be extended to mandatory certification since the disclosure is a uniform report.

H4: *Ceteris paribus*, financial disclosures of firms that voluntarily issue RMRs are expected to be more transparent and reliable than non-issuers during the voluntary stage, thereby reducing information asymmetry. This implies a lower bid-ask spread for RMR firms compared to non-issuers.

H5: *Ceteris paribus*, the market effects of voluntary reporting on management responsibilities of financials is equal to or greater than those for mandatory reporting.

3. Research Methodology

3.1 Sample Selection

3.1.1 Voluntary Reporting Sample

Identifying firms' voluntary reports on management responsibilities for financial statements prior to SOX is a very time consuming task. Fortunately, the *Accounting Trends and Techniques* (ATT) published by the AICPA provides annual information on firms that voluntarily reported on management's responsibilities for financial statements (RMRs). We use the entire population of 600 firms included in the ATT analysis for the six-year period from 1996 to 2001 which totals 3,600 firm-years. Based on the ATT classification of firms into RMR-issuers and non-issuers during the test period, we collected the reports and then read and analyzed the contents of the RMRs for the issuing firms. Firms were then screened for: (1) data availability on Compustat and CRSP; and (2) confounding events such as mergers and acquisitions, dividend announcements, or bankruptcies around the filing date of the financial statements with the SEC. Panel A of Table 1 describes the sample selection and elimination process.

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Table 1: Sample Selection and Elimination

Panel A: Voluntary Reporting Sample (1996 - 2001)

	<u>RMR Issuers</u>	<u>RMR Non-Issuers</u>	<u>Total Sample</u>
Initial sample (firm-years)	2,136	1,464	3,600
Sample Eliminations:			
1. Firms with no market data on CRSP	273	247	520
2. Incomplete financial data on Compustat	59	48	107
3. Firms with confounding events	<u>29</u>	<u>34</u>	<u>63</u>
Final sample (firm-years)	<u>1,775</u>	<u>1,135</u>	<u>2,910</u>

Panel B: Firms Required to Certify under the SEC's One-Time Order on June 27, 2002

	<u>Certification Deadline</u>		
	<u>On or Before Aug. 14, 2002</u>	<u>After Aug. 14, 2002</u>	<u>Total</u>
Number of firms required to certify	687	253	940 ^a
Less: Firms that filed late or in wrong format	<u>6</u>	<u>11</u>	<u>17</u>
Firms that filed correctly and on time	681	242	923
Sample Eliminations:			
1. Firms with incomplete data on CRSP	13	9	22
2. Incomplete financial data on Compustat	11	7	18
3. Firms with confounding events	<u>6</u>	<u>4</u>	<u>10</u>
Final Sample	<u>651</u>	<u>222</u>	<u>873</u>

^a The SEC's initial list included 947 companies. Seven companies were later removed from subsequent listings for a variety of reasons.

3.1.2 Mandatory Certification under the SEC's Order

The SEC (2002a) required written certifications from firms with revenues greater than \$1.2 billion. The SEC's initial list included 947 companies, but seven companies were later removed for a final list of 940 firms. Of these 940 firms, 687 firms were required to certify their previously filed financials by August 14, 2002. The remaining 253 firms were required to certify by a later deadline based on the scheduled filing dates of their financials with the SEC. Of the 687 firms, six firms missed the August 14, 2002 deadline. The balance of 681 firms was screened for data availability and confounding events during the filing, resulting in a final sample of 651 firms. Panel B of Table 1 presents the sample selection and elimination process.

3.2 Models

We use two market measures as surrogates for the effect of reporting on management responsibilities for financial statements on investors' perceived transparency in

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reported accounting information. These two measures are: a) the stock market returns around the date of filing with the SEC; and b) the level of bid-ask spread of the firm's stock before and after the reporting.

3.2.1 The Market Returns

We use the market return model with modification, where the informational effect of voluntarily issuing an RMR or mandatory certification is captured through a dummy variable that takes the value of 1 during the test period (-2, 0, +2) where day 0 is the date of the firm's filing of its report with the SEC and zero for other days. The model is run for a period of 100 trading days centred on the filing date. This model takes the following form:

$$R_{jt} = A_0 + B_j (R_{mt}) + C_{jt} (REPORT_{jt}) + U_{jt} \quad (1)$$

Where:

R_{jt} = the market return of security j on day t;

R_{mt} = the equally weighted return on the market portfolio on day t as compiled by CRSP;

$REPORT_{jt}$ = is an information variable taking the value of 1 during the test period and 0 otherwise. The test period is the 5 day period (-2 to +2) around firm j's filing date of its 10-k with the SEC.

C_{jt} = is the coefficient of the information variable capturing the effect of the certification on firm j's security's market return;

U_{jt} = a disturbance term.

3.2.2 Management Assertions

In voluntary corporate disclosures such as RMRs, firms exercise discretion in the type and level of information they release (El-Gazzar et al. 2008). In fact, the analysis of the RMRs issued by sample firms reveals that management is selective in the types of assertions they acknowledge in their reports. Thus, although two reporting firms are classified as RMR firms, each could be reporting different contents and levels of disclosures.

To examine the effect of management assertions in RMRs in the valuation of security prices, we developed an assertions index that is based on 30 disclosure items classified into five categories based on the recommendations of the Treadway Commission (1987) and the Committee of Sponsoring Organizations (COSO 1992). Appendix A identifies the percentage of RMR firms disclosing the information and the assertions contained in each of the five categories.

We test the following cross-sectional model for the voluntary reporting sample only since the data on management assertions are not available in mandatory certifications:

$$C_{jt} = A_0 + B_1 (EPS_{jt}) + B_2 (BV_{jt}) + K_1 (INDEX1_{jt}) + K_2 (INDEX2_{jt}) + K_3 (INDEX3_{jt}) + K_4 (INDEX4_{jt}) + K_5 (INDEX5_{jt}) + e_{jt} \quad (2)$$

Where:

EPS_{jt} = unexpected earnings per share of firm j for the fiscal year t;

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- BV_{jt} = change in the book value per share of firm j for fiscal year t ;
- $GINDEX_{jt}$ = the grand index, equal to the total of all assertions in the five categories listed in Appendix A, divided by 30;
- $INDEX1_{jt}$ = firm j 's score for the assertions in Index 1 (responsibilities for financial statements) reported for fiscal year end t ;
- $INDEX2_{jt}$ = firm j 's score for the assertions in Index 2 (internal controls) reported in the RMR for fiscal year end t ;
- $INDEX3_{jt}$ = firm j 's score for the assertions in Index 3 (corp. governance) reported in the RMR for fiscal year end t ;
- $INDEX4_{jt}$ = firm j 's score for the assertions in Index 4 (independent auditors) reported in the RMR for fiscal year end t ;
- $INDEX5_{jt}$ = firm j 's score for the assertions in Index 5 (signatures of management) reported in the RMR for fiscal year end t ;
- C_j = is the coefficient of the information variable capturing the effect of the Reporting certification on firm j 's security's market return

3.2.3 The Bid-Ask Spread Test

In the voluntary stage sample and based on the rationale analyzed in the previous section one anticipates RMR firms to exhibit lower bid-ask spreads compared to non-RMR firms. To test this inference, we calculate the mean bid-ask spread for the RMR versus non-RMR firms for a window of 100 trading days starting 5 trading days prior to the firm's filing of its 10-K with the SEC.

For the mandatory reporting sample, we also compare the bid-ask spread of certifying firms before and after reporting to the SEC. The test period is 101 trading days centred on the date of filing with the SEC (-50, 0, +50). To control for other factors affecting bid-ask spread, we also regress the bid-ask spread on reporting status, returns volatility and trading volume of the firm similar to Chang et al. (2006) as follows:

$$Spread_{jt} = A_0 + B_1 (Vol_{jt}) + B_2 (RetVol_{jt}) + B_3 (REPORT_{jt}) + e_{jt} \quad (3)$$

Where:

$Spread_{jt}$ = $2 * (\text{Ask} - \text{Bid}) / (\text{Ask} + \text{Bid})$

Vol_{jt} = the log of the trading volume of firm j on day t .

$RetVol_{jt}$ = the square of the stock return of firm j 's stock on day t , a measure of return volatility.

$REPORT_{jt}$ = a dummy variable taking the value of 1 during the test period for voluntary reporting firms and 0 for non-reporting firms. For the mandatory sample test, REPORT takes the value of 1 for the 50 days after the filing and 0 for the days before the filing.

4. Results

4.1 Financial Characteristics of Sample Firms

4.1.1 Voluntary Reporting Sample

Table 2 provides univariate statistics of major financial characteristics of the sample firms used to test the valuation effects during the voluntary reporting period. The statistics show that firms that voluntarily issued RMRs are larger in size and more

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profitable than the non-reporting firms. Table 2 also shows that RMR firms are more highly leveraged, suggesting more extensive use of debt financing compared to non-RMR firms. The statistics also demonstrate that RMR and non-RMR firms are significantly different in terms of ownership structure. RMR firms have higher percentages of institutional ownership and lower insider holdings than non-RMR firms. RMR firms have a higher percentage of firms listed on the New York Stock Exchange and are more likely to be audited by a Big 5 firm. This suggests that RMR firms are subject to more external monitoring and are likely to provide higher levels of voluntary disclosures to satisfy additional external demands for information.

4.1.2 Mandatory Reporting Sample

Comparing the characteristics of voluntary reporting firms with those of mandatory reporting, the statistics demonstrate that there are still some differences between the two samples. Although many of the characteristics are closer to each other such as size, institutional holdings, listings on NYSE and Big 5 auditor, voluntary reporting firms still seem to be more profitable and have a lower percentage of insider holdings. It should be noted that the SEC's 2002 one-time certification was mandated for firms with revenues of 1.2 billion of dollars or more, targeting big size companies. This might have introduced some clustering in the mandatory sample by not including the small and more diverse firms.

4.2 Results of the Market Tests

As stated earlier, we regard voluntary (or mandatory) reporting on managements' responsibilities for financial reporting as an expanded disclosure policy to suggest confidence in internal controls and transparency in financial reporting. Accordingly, reporting on management responsibilities (RMR) is an information quality variable that adds value to the content of the information reported in the financial statements. Our goal in this paper is to examine whether the voluntary reporting promoted transparency in financial information as much as those promoted by mandatory reporting. We employ two market measures to examine this issue: the market return; and the bid-ask spread level.

Table 2: Descriptive Statistics of Key Firm Characteristics: Voluntary Reporting, Voluntary Non-Reporting and Mandatory Certification Samples

Voluntary Stage (Prior to 2002)		Mandatory SEC (2002)		Differences Between Groups	
Voluntary Reporting Sample (1)		Non- Reporting Sample (2)	Mandatory Sample (3)	Group Difference: Voluntary Reporting vs. Non-Reporting) (Z-Value)	Group Difference: Voluntary vs. Mandatory (Z-Value)
Variable	Mean (Median)	Mean (Median)	Mean (Median)	(1-2)	(1-3)
Ln-Total Assets	8.289 (8.261)	6.957 (7.247)	7.861 (7.890)	19.75*	5.11*
Return on Assets	0.071 (0.073)	0.048 (0.061)	0.064 (0.672)	7.22*	4.13*
LTD to Equity	0.785 (0.583)	0.735 (0.335)	0.741 (0.689)	10.52*	4.91*
Institutions	0.629 (0.650)	0.526 (0.550)	0.597 (0.882)	13.08*	5.03*
Insiders	0.064 (0.10)	0.092 (0.30)	0.085 (0.062)	7.29*	11.52*
Big 5 Auditor	0.985 (1.00)	0.917 (1.00)	0.948 (1.00)	8.76*	3.01*
Stock Exchange	0.904 (1.00)	0.620 (1.00)	0.895 (1.00)	18.12*	1.93

* Significant at $p < 0.01$

- Total Assets (Ln)* = natural log of total assets of firm j on fiscal year end t;
Return on Assets = return on total assets, measured as net income plus interest expense over total assets of firm j at fiscal year end t;
LTD to Equity = long term debt over total equity of firm j for fiscal year end t;
Institutions = Institutional ownership percentage at end of fiscal year t;
Insiders = Percentage of stock ownership by insiders at end of fiscal year t;
BIG 5 Auditor = a dummy variable taking the value of 1 if firm j was audited by a Big 5 accounting firm in year t, and 0 otherwise;
Stock Exchange = Stock exchange where the firm is listed. A dummy variable is used that takes the value of 1 for NYSE and 0 for all other.

4.2.1 The Market Return Tests

Table 3 presents the effect of the RMR on the market returns. We use a modified market return model that conditions the return on the firm's stock on the market return and the reporting of RMR in the 5 day period around the date of the firm's filing of its annual report with the SEC.

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Table 3: Parameter Estimates of Regressing Stock Market Return on the Market Return and the Reporting of Management Responsibilities for Financial Statements

(t-values in parentheses)

$$R_{jt} = A_0 + B_j (R_{mt}) + C_{jt} (REPORT_{jt}) + u_{jt}$$

Variable	Expected Sign	Model-1 Voluntary Reporting Sample 1	Model-2 Mandatory Certifying Sample 2	Differences Between Voluntary and Mandatory (1-2)
Intercept (A_0)	+/-	-0.0061 (3.07)*	-0.0065 (7.34)*	-0.0004 (1.82)
R_{mt} (B_j)	+	0.880 (211.98)*	1.475 (201.52)*	-0.595 (5.148)*
$REPORT_{jt}$ (C_{jt})	+	0.005 (2.31)*	0.002 (2.48)*	0.003 (3.841)*
Adjusted R^2		0.076	0.19	-0.114

* Significant at $p < 0.01$

Where:

- R_{jt} = the market return of security j on day t;
- R_{mt} = the equally weighted return on the market portfolio on day t as compiled by CRSP;
- $REPORT_{jt}$ = an information variable taking the value of 1 during the test period and 0 otherwise. The test period is the 5 day period (-2 to +2) around firm j's filing date of its 10-K Report with the SEC. The regression is run for the 100 trading days around the filing date;
- C_{jt} = the coefficient of the information variable capturing the effect of the certification on firm j's security's market return;
- u_{jt} = a disturbance term.

Table 3 reports the coefficient estimates of the impact of RMR reporting on the firm's stock return models: the voluntary reporting sample (M-1) compared to the mandatory reporting sample (M-2). For the voluntary reporting test, the coefficient estimate of the firm's return and the market portfolio return is positive and significant, confirming the co-variability of the firm's return with the market return. The coefficient of the reporting status is also positive and significant; indicating that RMR reporting has information content and adds value to the reported accounting numbers. The statistics for the mandatory reporting sample exhibit similar results: positive and significant relationships between the firm's return and the return on market portfolio as well as the reporting of RMR. However, when comparing the two samples, the coefficient of the market return is higher for the mandatory reporting sample, and the difference is statistically significant.⁵ The coefficient of the RMR impact on return is higher for the voluntary reporting sample compared to the mandatory sample (0.005 versus 0.002). This may suggest that market participants appreciate management's voluntarily disclosing their responsibilities for financial statements. Another explanation is that market participants appreciate the detailed and diverse assertions by management in

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the voluntary disclosure, which is examined in the cross sectional tests in later sections.

4.2.2 The Bid-Ask Spread Results

We hypothesize that voluntary disclosure of RMR or mandatory certification of financial statements promotes transparency in a firm's financial reporting and, thus, reduces investors' asymmetry of information. As a result, we anticipate a reduction in the firm's bid-ask spread associated with filing of its financials with the SEC. Table 4 presents the tests of bid-ask spread for the voluntary and mandatory samples.

Panel A of Table 4 presents the bid-ask spread tests during the voluntary reporting period: voluntary reporting firms versus voluntary non-reporting firms. The mean spread for the reporting firms is 0.0306 compared to 0.0382 for the non-reporting firms suggesting that reporting firms have a lower spread, with a statistically significant difference at a probability of <0.01 . This result supports the hypothesis that issuing an RMR increases the transparency of financial statements, thereby reducing investors' risk. To eliminate the possibility that the obtained results are driven by other bid-ask spread contributors, we regressed the spread on trading volume of the firm, the firm's return volatility and the reporting of RMR. The results in Panel A support prior findings that both volume and return volatility affect the firm's bid-ask spread. The coefficient of RMR is negative and significant, confirming the hypothesis that reporting on management responsibilities reduces investor's risk from asymmetry of information and promotes transparency in reported financials.

Panel B of Table 4 reports the change in bid-ask spread for the mandatory sample following the filing of management certification with the SEC on the due date. The results demonstrate significant reduction in the spread after certification. Similarly, the regression model still shows significant effect of the certification after controlling for trading volume and return volatility. From the results of Panels A and B together, one may conclude that voluntary reporting has the same positive effect on investors' perception as to the transparency in a firm's reporting and disclosure.

4.3 Differential Effects of Management Assertions

Our coding of the voluntary issued RMRs reveals significant differences among firms in terms of the type and nature of assertions included therein (see Appendix A for details). Contrary to this finding, examining actual certification statements under the mandatory reporting to the SEC, we found all reports use common phrases and paragraphs – the pooled-equilibrium mandatory and uniform disclosure. Thus, differentiating good reporting firms from bad ones under mandatory reporting becomes a harder task for investors.

To test whether the market appreciates specific management assertions differently, we regressed the market return during the test period for the voluntary sample against the five types of assertions explained in Appendix A. The results are presented in Table 5.

Model 1 (M-1) of Table 5, uses a Grand Index to surrogate for the total number of items included in the disclosure(report) while Model 2 (M-2) uses separate indexes for each of the five categories of the report. We also control for other accounting

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Table 4: The Bid-Ask Spread Analysis of Voluntary and Mandatory RMR during the Filing Period with the SEC

$$\text{Spread}_{jt} = 2 * (\text{Ask-Bid}) / (\text{Ask} + \text{Bid})$$

$$\text{Spread}_{jt} = A_0 + B_1 (\text{Vol}_{jt}) + B_2 (\text{RetVol}_{jt}) + B_3 (\text{REPORT}_{jt}) + e_{jt}$$

Panel A: Voluntary Stage—Reporting versus Non-Reporting Firms

Mean Differences

Variable	RMR Firms	Non-RMR Firms	Difference	t-statistic
Spread	0.0306	0.0382	-0.0076	62.59*

Regression of Spread on Volume, Return Volatility and RMR

Variable	Predicted Sign	Coefficient	t-statistics
Intercept	+/-	0.0352	388.20*
Volume	+	0.00101	76.52*
Return Volatility	+	1.435	187.08*
RMR	-	-0.0068	59.50*
Adjusted R²			0.18

* Significant at $p < 0.01$

Where:

$$\text{Spread}_{jt} = 2 * (\text{Ask-Bid}) / (\text{Ask} + \text{Bid})$$

Vol_{jt} = the log of the trading volume of firm j on day t.

RetVol_{jt} = the square of the stock return of firm j's stock on day t, a measure of return volatility.

REPORT_{jt} = a dummy variable taking the value of 1 during the test period for voluntary reporting firms and 0 for non-reporting firms.

Panel B: Mandatory Reporting (Certification)

Mean Difference: Before and After

Variable	Before Reporting	After Reporting	Difference	t-statistic
Spread	0.540	0.439	0.101	25.371*

Regression of Spread on Volume, Return Volatility and RMR

Variable	Predicted Sign	Coefficient	t-statistics
Intercept	+/-	0.049	160.88*
Volume	+	-0.066	18.34*
Return Volatility	+	2.253	114.24*
RMR	-	-0.0104	25.99*
Adjusted R²			0.36

* Significant at $p < 0.01$

Where:

$$\text{Spread}_{jt} = 2 * (\text{Ask-Bid}) / (\text{Ask} + \text{Bid})$$

Vol_{jt} = the log of the trading volume of firm j on day t.

RetVol_{jt} = the square of the stock return of firm j's stock on day t, a measure of return volatility.

REPORT_j = a dummy variable taking the value of 1 during the 50 trading days after certification and 0 for the 50 trading days immediately preceded the filing date.

metrics that may influence the market return of the firm during the test period: earnings and book value. The coefficient of the grand index is positive and significant

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in the presence of unexpected earnings and changes in book value. This result reconfirms the effect of the reporting on the market return of the firm and supports the hypothesis that reporting the RMR increases transparency and reduces asymmetry of information in financial reporting. In M-2, INDEX2 (management assertions on internal controls) is positive and significant, while other indexes are not significant. These findings suggest that the market places higher importance on management's disclosures regarding the firm's internal controls and helps substantiate the decision to require mandatory internal control reporting under Section 404 of SOX after 2002.

Table 5: Parameter Estimates of Regressing Stock Returns' Effect of Reporting on Management Responsibilities and the Type of Management's Assertion in the Report

$$C_{jt} = A_0 + B_1 (UEPS_{jt}) + B_2 (CBV_{jt}) + B_3 (GINDEX_{jt}) + e_{jt} \quad \text{M-1}$$

$$C_{jt} = A_0 + B_1 (UEPS_{jt}) + B_2 (CBV_{jt}) + k_1 (INDEX1_{jt}) + k_2 (INDEX2_{jt}) + k_3 (INDEX3_{jt}) + k_4 (INDEX4_{jt}) + k_5 (INDEX5_{jt}) + e_{jt} \quad \text{M-2}$$

Variable	Coefficient	M-1: Grand Index	M-2: Category Index
Intercept	A_0	0.987 (5.84)*	1.003 (5.49)*
Unexpected Earnings	B_1	0.297 (6.85)*	0.361 (7.203)*
Change in Book Value	B_2	0.130 (2.08)**	0.148 (2.65)**
Grand Index	B_3	0.672 (3.85)*	NA
Index1	K_1	NA	-0.416 (0.69)
Index2	K_2	NA	1.513 (4.19)*
Index3	K_3	NA	-0.215 (0.66)
Index4	K_4	NA	0.237 (0.513)
Index5	K_5	NA	0.228 (0.511)
Adjusted R²		0.44	0.43

*, ** Significant at $p < 0.05$ and $p < 0.01$, respectively

Where:

CBN_{jt} = Change in the book value of firm j for year t;

$UEPS_{jt}$ = Unexpected earnings for year of firm j for year t;

$GINDEX_{jt}$ = the grand index, equal to the total of all assertions in the five categories listed in Appendix A, divided by 30;

$INDEX1_{jt}$ = firm j's score for the assertions in Index 1 (responsibilities for financial statements) reported for fiscal year end t;

$INDEX2_{jt}$ = firm j's score for the assertions in Index 2 (internal controls) reported in the RMR for fiscal year end t;

$INDEX3_{jt}$ = firm j's score for the assertions in Index 3 (corp. governance) reported in the RMR for fiscal year end t;

$INDEX4_{jt}$ = firm j's score for the assertions in Index 4 (independent auditors) reported in the RMR for fiscal year end t;

$INDEX5_{jt}$ = firm j's score for the assertions in Index 5 (signatures of management) reported in the RMR for fiscal year end t;

K_j and B_j = the coefficient estimates of the variables in the corresponding model in this table;

NA = Not applicable.

5. Conclusion

The accounting profession (and the financial reporting model in general) became too much of a regulated industry with the significant departure from the cost-benefit framework for corporate disclosure and reporting. Many interested parties are concerned that this departure reduces corporate incentives for voluntary disclosure of useful information for investors. This paper examines whether corporate voluntary disclosure promotes transparency in financial reporting as much as that produced under mandatory disclosure in the area of management responsibilities for financial statements.

Our results show that voluntary reporting of management responsibilities for financial statements has positive and significant relationship to corporate market returns and a negative relationship with the firm's bid-ask spread. Equivalent results are also documented for the mandatory reporting. Our coding of the voluntary reports reveals diverse management assertions about the different reporting issues that management believe are relevant for external users. These important assertions are lost under the uniform pooled-equilibrium disclosure under the mandatory reporting.

Given the above results, we conclude that corporate voluntary cost-benefit disclosures serve investors' interests and promote transparency in financial reporting as much as mandatory reporting. Thus, in steady state conditions, less reporting regulation is recommended to provide management with incentives to differentiate their successful firms from others through the voluntary disclosures. The findings of this paper should be of interest to the joint FASB-IASB convergence project in deciding on the level of regulated and detailed requirements versus cost benefit disclosures that reveal the underlying economic substance of the firm. The results also demonstrate the socio-political vulnerability nature of the accounting profession -- that led to the mandate of SOX to show that the US Congress is monitoring the corporate sector to protect the interests of investors in response to the sudden collapse of many seemingly successful firms at the beginning of this millennium. A better control could have been that the SEC takes a proactive investigation of innovative business practices such as the creation of "special purpose entities" that represented a major part of Enron's business success; and was the main reason for its failure later.

References

- American Bar Association (ABA): Committee on Law and Accounting 1994, 'Management reports on internal control: A legal perspective', *The Business Lawyer*, vol. 49, no. 2, pp. 889-946.
- Beaver, W 1981, *Financial reporting: An accounting revolution*, Prentice-Hall, New Jersey.
- Beaver, W 2002, 'Perspectives on recent capital market research', *The Accounting Review*, vol. 77, no. 2, pp. 453-474.
- Bhattacharya, U, Groznik, P & Haslem, P 2003, 'Is CEO certification credible?', *Regulation*, vol. 26, no.3, pp. 8-10.
- Botosan, C 1997, 'Disclosure level and the cost of equity capital', *The Accounting Review*, vol. 72, no. 3, pp. 323-349.

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- Chang, H, Chen, J, Liao, W & Mishra, B 2006, 'CEOs'/CFOs' swearing by the numbers: Does it impact share price of the firm?', *The Accounting Review*, vol. 81, no. 1, pp. 1-27.
- Commission on Auditors' Responsibilities (The Cohen Commission) 1978, *The Commission on Auditors' Responsibilities: Report, Conclusions, and Recommendations*, New York, AICPA.
- Committee of Sponsoring Organizations of the Treadway Commission (COSO) 1992, *Internal Control-Integrated Framework*, New York, AICPA.
- Dhaliwal, D, Li, OZ, Tsang, A & Yang, YG 2011, 'Voluntary nonfinancial disclosure and the cost of equity capital: The initiation of corporate social responsibility reporting', *The Accounting Review*, vol. 86, no. 1, pp.59-100.
- Dye, R 1990, 'Mandatory versus voluntary disclosures: The cases of financial and real externalities', *The Accounting Review*, vol. 65, no. 1, pp. 1-24.
- Demski, J 1974, 'Choice among financial reporting alternatives', *The Accounting Review*, vol. 49, no. 2, pp. 221-231.
- Easley, D, O'Hara, M 2004, 'Information and the cost of capital', *Journal of Finance*, vol. 59, no.4, pp. 1553-1583.
- El-Gazzar, S, Fornaro, J & Jacob, R 2008, 'An examination of the determinants and contents of corporate voluntary disclosure of management's responsibilities for financial reporting', *Journal of Accounting, Auditing and Finance*, vol. 23, no. 1, pp. 95-114.
- El-Gazzar, S, Jacob, R & McGregor, S 2012, 'The valuation effects of embedded value disclosure by life insurers', *International Journal of Economics and Accounting*, Forthcoming.
- Graham, J, Harvey, C & Rajgopal, S 2005, 'The economic implications of corporate financial reporting', *Journal of Accounting and Economics*, vol. 40, no. 1-3, pp. 3-37.
- Hail, L 2011, 'Discussion of consequences and institutional determinants of unregulated corporate financial statements: Evidence from embedded value reporting', *Journal of Accounting Research*, vol. 49, no. 2, pp. 573-594.
- Hirtle, B 2003, 'Stock market reaction to financial statement certification by bank holding company CEOs', *Federal Reserve Bank of New York Staff Report No. 170, SSRN Working Paper Series*, viewed 10 August 2012, <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=425002>.
- House Committee on Financial Services 2004, *Rebuilding investor confidence, protecting U.S. capital markets: The Sarbanes-Oxley Act: The first year*. U.S. House of Representatives, Washington D.C., viewed 10 August 2012, <<http://www.iasplus.com/en/binary/resource/0307soxreport.pdf>>.
- Hubbard, R & Thornton, J 2006, 'Is the U.S. losing ground?', *The Wall Street Journal*, 30 October, A12.
- Jain, PK, Kim, JC & Rezaee, Z 2008, 'The Sarbanes-Oxley Act of 2002 and market liquidity', *The Financial Review*, vol. 43, no. 3, pp. 361-382.
- Kinney, Jr, W 2000, 'Research opportunities in internal control quality and quality assurance', *Auditing: A Journal of Practice & Theory*, vol. 19 (Supplement), pp. 83-90.
- Marden, R, Edwards, R & Stout, W 2003, 'The CEO CFO certification requirement', *The CPA Journal*, vol. 73, no. 7, pp.36-44.
- National Commission on Fraudulent Financial Reporting (The Treadway Commission) 1987, *Report of the National Commission on Fraudulent Financial Reporting*, Washington D.C., National Commission on Fraudulent Financial Reporting.

El-Gazzar & Fornaro

- Negakis, C 2005, 'Accounting and capital markets research: A review', *Managerial Finance*, vol. 31, no. 2, pp.1-23.
- Romano, R 2005, 'The Sarbanes-Oxley Act and the making of quack corporate governance', *The Yale Law Journal*, vol. 114, no. 7, pp.1521-1591.
- Securities and Exchange Commission (SEC) 2002a, *File No. 4-460: Order requiring the filing of sworn statements pursuant to Section 21(a) (1) of the Securities Exchange Act of 1934*, Washington D.C., June 27, 2002.
- Securities and Exchange Commission (SEC) 2002b, *SEC completes processing of CEO, CFO statements*, Washington D.C., August 20, 2002.
- Turner, L 2006, 'Learning from accounting history: Will we get it right this time?', *Issues in Accounting Education*, vol. 21, no. 4, pp. 383-407.
- Serafeim, G 2011, 'Consequences and institutional determinants of unregulated corporate financial statements: Evidence from embedded value reporting', *Journal of Accounting Research*, vol. 49, no. 2, pp. 529-571.
- Verschoor, C 2001, 'Is public reporting on internal control an important part of governance?' *Internal Auditing*, vol. 16, no. 6, pp. 29–36.

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Appendix A

Management Assertions and Frequency in Voluntary RMRs: Components of Five Indices and Specific Assertions

	<u>Frequency</u>
<u>Index 1: Financial Statements</u>	
1. Management is responsible for the preparation/integrity of the financial statements	90%
2. The financial statements have been prepared in accordance with GAAP	93%
3. The financial statements include estimates and the judgment of management	88%
4. Management is responsible for the “other” financial information	57%
5. The “other” financial information is consistent with the financial statements	26%
6. Representations by management are valid and appropriate	3%
<u>Index 2: System of Internal Controls</u>	
7. Management is responsible for (or maintains) the system of internal controls	32%
<u>The purpose of the internal control system:</u>	
8. • Safeguard assets	80%
9. • Execute transactions in accordance with management’s authorization	51%
10. • Prepare reliable financial information	86%
11. Inherent limitations in internal controls (reasonable assurance, cost/benefits)	20%
12. Other limitations in the internal control system (errors, oversight, etc.)	6%
<u>Elements of the internal control system:</u>	
13. • Appropriate segregation of duties or division of responsibilities	30%
14. • Established guidelines, policies and procedures	55%
15. • Code of professional conduct/improve ethical climate	26%
16. • Careful selection and training of personnel	49%
17. • Monitored by the internal auditing function	82%
<u>Other Commentary on Internal Controls:</u>	
18. • Actions are taken to correct control deficiencies or enhance the system	18%
19. • An opinion as to the reliability/effectiveness internal controls	36%
20. • Criteria used (e.g., COSO Report) to assess effectiveness of controls	1%
<u>Index 3: Corporate Governance</u>	
21. An Audit Committee exists	94%
22. The Audit Committee consists entirely of members who are independent (not officers or employees) of the entity	90%
23. A discussion of the Audit Committee’s role and/or activities (oversight over management and/or financial reporting)	94%
24. The independent auditors are recommended by the Audit Committee and/or approved by shareholders	33%
<u>Index 4: Independent Auditors</u>	
25. An independent accounting firm has audited the financial statements	80%
26. The auditors have ready access to the Audit Committee	60%
27. The audit was conducted in accordance with generally accepted auditing standards	44%
28. The internal control system was reviewed during the performance of the audit	44%
<u>Index 5: Signatures of Senior Management</u>	
29. Chairman of the Board, Vice Chair, Chief Executive Officer, or President	73%
30. CFO, Chief Accounting Officer, or other senior officer	83%

¹ Dye (1990) analyzes mandatory and voluntary disclosures under two externalities: financial and real externalities. Real externalities involve disclosures by one firm that alter competitors' cash flows whereas financial externalities is the case where a firm's disclosure alters investors' perception of the distribution of other firms' cash flows.

² The House Committee on Financial Services (2004, p. 1) states that the US capital markets lost trillions of dollars as a result of corporate fraud, bankruptcies and failures of investor protection. Similarly, Turner (2006) states that the loss resulting from corporate fraud totaled over \$900 billion from WorldCom and 30 other companies.

³ In fact the SEC attempted to mandate these disclosures in 1979 and 1988 but was met with considerable opposition. In both cases the SEC decided to permit RMRs to remain a discretionary disclosure.

⁴ Many articles have examined the relationship between the level of voluntary disclosure, firm characteristics and security prices. For instance, Botosan (1997) develops a voluntary disclosure index and demonstrates that an increase of one unit of disclosure leads to a decline of 28 basis points in the cost of capital. Easley and O'Hara (2004) report that investors holding stocks with greater private information expect higher returns on their investments.

⁵ Additional diagnostic tests were conducted to determine whether the results are driven by other factors such as size of operational complexities. The results (not reported here) did not significantly alter the findings regarding the effect of RMR reporting.