

Will Corporate Governance Reform Create an Economic Revival?

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ABSTRACT

In this paper, we investigate whether firm performance is affected by corporate governance and the change of corporate governance after Sarbanes-Oxley Act (SOX hereafter). We find that firm performance, on average, is negatively associated with the corporate governance after the passage of SOX. However, the firm performance is not significantly associated with the change of corporate governance after SOX. Our results suggest that firm performance is not significantly affected by SOX.

Keywords: Corporate Governance; Sarbanes-Oxley Act; Firm Performance

INTRODUCTION

After the Great Depression, the Securities Act of 1933 and the Securities Exchange Act of 1934 were created to fortify corporate governance security law. As a result of the multitude of recent accounting scandals, the Sarbanes-Oxley Act of 2002 became the next far-reaching federal law for corporate governance. In the current financial crisis, poor corporate governance is again considered to be a primary issue. While there is great motivation for additional reform, will the upcoming corporate governance reforms truly improve the economy in this downturn?

The goal of this paper is to review the impact of the Sarbanes-Oxley Act of 2002 (hereafter referred to as SOX) on accounting outcomes. Our focus is to assess if firm performance is affected by corporate governance or the change of corporate governance after the SOX period. Our paper proceeds as follows. First, we recap the effect of SOX and examine the impact of SOX on firm performance. Next, we review prior literature and discuss sample selection procedures. Finally, the empirical tests and results are discussed, and we end with our conclusion.

LITERATURE REVIEW

Outcry for Corporate Governance Reform

Internationally, there is a global movement for corporate governance reform. The European Commission released a paper in May 2010 stating, "Although corporate governance did not directly cause the crisis, the lack of effective control mechanisms contributed significantly to excessive risk-taking on the part of financial institutions." Thus, the European Commission considered a broad overhaul of corporate governance rules for financial institutions in June 2010. Also, capital market corporate governance reforms are being seen in Saudi Arabia, the UAE and Oman. Furthermore, the new Companies Act in South Africa is effective on 1 July 2010, and it represents a significant step in the evolution of corporate governance.

U.S. politicians advocated for the reform of corporate governance after the recent series of accounting scandals. In 2009, several bills were referred to committees in the House, which include the Proxy Voting Transparency Act of 2009, Corporate Governance Reform Act of 2009 (H.R. 3272), Shareholder Empowerment Act of 2009, Shareholder Bill of Rights Act of 2009, and Excessive Pay Shareholder Approval Act. On May 20, 2010, the U.S. Senate passed the Restoring American Financial Stability Act of 2010 (RAFSA). Significant changes to executive compensation and corporate governance rules for all public companies are included in RAFSA, such as say-on-pay, compensation clawbacks, compensation committee and adviser independence, and majority voting for directors.

Finally, Chairman of the Senate Banking Committee, Senator Chris Dodd is promoting his regulatory reform bill, the Restoring American Financial Stability Act of 2010. Senator Dodd's thousand-page financial reform bill intends to

better control financial institutions and their products. The bill includes several corporate governance and executive compensation provisions that would affect all public companies. The above documented events show that the public is still seeking for more effective mechanisms to improve corporate governance.

THE IMPACT OF SOX

Overall Impact

Since the issuance of SOX, researchers have begun an earnest debate on the costs and benefits of SOX (i.e., Cohen et al., 2004; Engel et al., 2007; Jain and Rezaee, 2006; Leuz, 2007; Li et al., 2005; Litvak, 2007; Lobo and Zhou, 2006; Zhang, 2007). Researchers have conflicting results of the benefits of SOX from the perspective of investors. For example, Duarte et al. (2009) documented that SOX increased the costs of opportunistic managerial behavior and was beneficial to minority investors. Also, Akhigbe and Martin (2006) show that the financial service industry benefited from the adoption of SOX. Specifically, firms with a greater degree of independent board members and firms with greater degree of institutional ownership benefit the most from adoption of SOX, since the independent board members and institutional owners tend to have greater motivation and ability to monitor the firm. Findings of the impact of SOX on corporate governance show conflicting results. Jain and Rezaee (2006) indicate that SOX overall is beneficial and SOX benefits firms with existing strong corporate governance. On the other hand, Li et al. (2008) present that SOX is value-increasing and benefits firms with weak corporate governance. Similarly, Zhang (2007) concludes that SOX is costly on average and more costly to firms with weak corporate governance.

What choices have firms made in the post-SOX period? Many firms choose to go private, go dark, delist, and stay small after SOX in order to avoid the huge compliance costs. (Leuz et al., 2007; Engel et al., 2007; Gao et al., 2009; Piotroski and Srinivasan, 2008; Hochberg et al., 2009). Some SOX provisions are detrimental especially to small firms (Wintoki, 2007). Evidence also shows that SOX is more detrimental for private companies than for public companies (DiGabriele, 2008). Mohan and Chen (2007) documented that firms go private due to heavy monitoring cost imposed by SOX.

The number of foreign-listed firms in the U.S. does not change drastically after SOX (Shin, 2007). U.S. publicly traded companies' risk-taking declined after passage of SOX, relative to non-US firms (Bargeron et al., 2009). The negative abnormal returns on SOX-related announcement dates are more significant for firms headquartered in countries with higher-level regulatory systems, firms with dual-class share structures, and firms with a lesser amount of US-based trading activity. New cross listings decrease and voluntary delistings increase following SOX (Smith, 2008).

Impact on Reporting Behavior

The intent of SOX in 2002 is the enhancement of faithful representation of financial reporting and the restoration of investor confidence in financial reporting. Investors are more capable of making wise investment decisions using high quality financial information. Indeed, some believe that SOX has created a significant impact in this respect. The market's perception of earnings quality has improved in the post-SOX period (Chang et al., 2009). Also, James H. Quigley, Deloitte & Touche USA LLP CEO, testified to Congress on July 22, 2004 that Sarbanes-Oxley is working as intended.

While the general public seems to react positively to SOX, academic research gives mixed reviews of the impact of SOX on financial reporting behavior. Some researchers have found that SOX has positively affected the quality of financial reporting. SOX resulted in firms becoming more conservative in their reporting behavior (Lobo and Zhou, 2006). Earnings manipulative behavior has noticeably decreased in the period after SOX relative to the 2-year period prior to SOX (Aono and Guan, 2008). However, other researchers claim minimal or no improvements on financial reporting after SOX. McEnroe surveyed CFOs of the Fortune 500 firms and audit partners for the 33 largest audit firms. These respondents perceived that SOX reduced earnings management in only 4 out of 15 cases. While reporting quality is higher in firms with higher levels of governance, only firms in the highest category of corporate governance experience significantly improved quality of earnings (Jiang et al., 2008). Also, firms have turned away from accounting earnings management to real earnings management after the passage of SOX (Cohen et al. 2008). There is even an increase in upward real earnings management activities documented in Bartov and Cohen (2009). In other words, firms attempt to

achieve preferred earnings numbers by deviating from normal operating activities after SOX. Therefore, conclusive improvement in financial reporting after SOX is debatable.

Impact on Performance

The goal of corporate governance structures is to alleviate agency problems, which are a conflict of interest between the owner and the manager. Consequently, improvements in internal control quality are expected, and they should lead to enhancements in the firm performance. However, determining if SOX improves firm performance can only be resolved through empirical examination. There are a few attempts in prior studies trying to examine the association. For example, Switzer (2007) found that small firms subject to SOX experienced an incremental increase in market valuation ranging between sixteen percent and thirty-four percent. However, Ahmed et al. (2010) recently discovered that average cash flows declined by one percent of total assets after SOX. The prior study shows an inconsistent relationship between corporate governance and firm performance regardless of the firm performance measurements.

Thus, we extended this study by investigating the association between firm performance and corporate governance. We use Gompers' Index, GINDEX, as a measure of corporate governance. Gompers et al. (2003) established a "Governance index" by tracking 24 charter provisions. Gompers' Governance index is a composite ordinal measure that captures many different dimensions of corporate governance. The larger the GINDEX is, the weaker the corporate governance will be. Our measure for firm performance is return on assets ratio (ROA), a popular indicator for profitability.

SAMPLE SELECTION

To construct our sample, we start with firms whose corporate governance indexes are available in the Investor Responsibility Research Center's (IRRC) corporate governance file. To be included in the sample, we require that a firm has Governance Index (GINDEX). We also require that firms' relevant financial data are available in the Standard & Poor's Annual COMPUSTAT Merged Industrial Research File. We delete firms in the financial sector because they have different financial reporting characteristics. We winsorize financial variables at the one percent and ninety- nine percent level.

The sample period spans from 2001 to 2006. We utilize the year of 2001, the year prior to the passage of SOX, as a benchmark for comparison with the change of firm performance after SOX. We exclude firm year observations after 2007 to avoid the impact of the economic downturn on performance. We also require firms to have observations in both pre-SOX and post-SOX periods. Thus, all sample firms have one observation in year of 2001, and at least one observation in years of 2002-2006. We also require firms having valid financial variables defined as follows: ROA is return on assets ($\text{compustat \#18} / \text{average compustat \#6 at } t \text{ and } t-1$); TACC is total accrual scaled by total assets ($(\text{Change of compustat\#4} - (\text{Change of compustat \#5}) - (\text{Change of compustat \#1}) + (\text{Change of compustat \#34} - \text{compustat \#14})) / \text{compustat \#6}$); LEVERAGE is leverage ratio defined as long-term debt over total assets ($\text{compustat \#9} / \text{compustat \#6}$); LOGSIZE is log of total assets ($\log \text{ of compustat \#6}$); and M2B is the market-to-book ratio ($\text{compustat \#199} * \text{compustat \#25} / \text{compustat \#60}$).

We then calculate the average financial variables for each firm in the post-SOX period. Thus, ROA_{POST} , $\text{LEVERAGE}_{\text{POST}}$, M2B_{POST} , $\text{TACC}_{\text{POST}}$, respectively, represent the average of ROA, LEVERAGE, M2B, and TACC of each firms during 2002-2006. Afterwards, we compare the differences of these firm characteristics between pre- and post-SOX periods.

Table 1 presents summary statistics for firm performance and other firm characteristics. The results indicate that GINDEX ranges between 2 and 17 in the pre-SOX period ($\text{GINDEX}_{\text{PRE}}$), with a mean of 9.221 and a median of 9. The average value of GINDEX ranges between 3 and 17 in the post-SOX period ($\text{GINDEX}_{\text{POST}}$), with a mean of 9.634 and a median of 10. The average value of ROA in the pre-SOX period is 0.019 with a median of 0.035. In the post-SOX period, the value of ROA ranges between -0.374 and 0.187 with a mean of 0.038 and a median of 0.047.

Table 1: Summary Statistics of Corporate Governance and Firm Characteristics

Variables	Pre-SOX (2001)				Post -SOX (Average from 2002 to 2006)				Post-SOX Minus Pre-SOX
	N	Mean	Median	Std Dev	N	Mean	Median	Std Dev	t-value
ROA	932	0.019	0.035	0.116	932	0.038	0.047	0.082	6.72***
GINDEX	932	9.221	9.000	2.612	932	9.634	10.000	2.509	12.42***
TACC	932	-0.018	-0.010	0.062	932	-0.0001	0.001	0.027	8.17***
LEVERAGE	932	0.217	0.221	0.171	932	0.196	0.185	0.150	-5.50***
LOGSIZE	932	7.369	7.235	1.467	932	7.534	7.458	1.493	14.55***
M2B	932	2.980	2.172	3.396	932	2.777	2.191	2.435	-2.42***

TESTS AND RESULTS

We compare the differences of firm characteristics between pre-SOX and post-SOX periods. As reported in table 1, firm performance as measured by ROA is significantly different from zero (t = 6.72, p < 0.01). It presents the evidence that firm performance in the post-SOX period is significantly greater than the pre-SOX period. On the same note, the TACC is significantly higher in the post-SOX period. Referring to the difference for the LOGSIZE, it indicates that firm size is higher in the post-SOX period than the pre-SOX period. On the other hand, LEVERAGE and M2B are significantly lower in the post-SOX period. The untabulated results of the sign and signed rank median tests are consistent with the results of the above student’s t-test.

Turning our attention to the corporate governance measure (GINDEX), the difference is statistically different from zero (t= 12.42, p < 0.01). Recall that the higher GININDEX is, the weaker the corporate governance will be. Interestingly, the result suggests that the corporate governance in the post-SOX period is statistically weaker than that in the pre-SOX period. This preliminary result set the stage for addressing the main question of the paper: Is SOX effectively improving corporate governance?

To further investigate the above question and examine the impact of corporate governance on firm performance, we use a methodological approach similar to the technique used in the Larcker et al. (2007). In our model specification, we use LEVERAGE, M2B and TACC as control variables and GININDEX as the measure for corporate governance. To assess the effect of governance mechanism on firm performance, we regress the average firm performance (ROA_{POST}) in the post-SOX period on control variables and corporate governance index (GINDEX_{POST}). Also, to distinguish the effect of the pre- and post- SOX periods, we include a change variable, GININDEX_{CH}, in the model. The coefficient of GININDEX_{CH} captures the impact of SOX on firm performance. We control the firm size by including the inverse of the average total assets (1/TA_{POST}) in the post-SOX period. IND variable indicates industry dummy variable, which takes a value of one if a firm belongs to a specific industry (The industry classification scheme is followed the definitions in the Barth et al. (2001)), zero otherwise.

$$ROA_{POST} = \alpha_0 \frac{1}{TA_{POST}} + \sum_{j=1}^{12} \alpha_{1j} IND_j + \alpha_2 GININDEX_{POST} + \alpha_3 GININDEX_{CH} + \alpha_4 LEVERAGE_{POST} + \alpha_5 M2B_{POST} + \alpha_6 TACC_{POST} + \alpha_7 ROA_{PRE} + \epsilon \quad (Model 1)$$

To correlate the change of firm performance with change of corporate governance, we also implement a version of the model (Model 2) in which includes all variables in change value. We regress the change of firm performance (ROA_{CH}) in the post-SOX period on LEVERAGE_{CH}, M2B_{CH}, TACC_{CH} and governance index change (GINDEX_{CH}) in Model (2).

$$ROA_{CH} = \beta_0 \frac{1}{TA_{CH}} + \sum_{j=1}^{12} \beta_{1j} IND_j + \beta_2 GININDEX_{CH} + \beta_3 LEVERAGE_{CH} + \beta_4 M2B_{CH} + \beta_5 TACC_{CH} + \epsilon \quad (Model 2)$$

Referring to the estimation results corresponding to Model 1 in table 2, the coefficient of GININDEX_{POST} is positive and significant (t= 2.77, p < 0.01). It indicates that GININDEX_{POST} is positively related to the firm performance. In other words, the stronger the corporate governance is in the post-SOX period, the worse firm performance is. More importantly, the coefficient of GININDEX_{CH} is not significant (t= -0.22, p > 0.1). These results imply that strong corporate governance does not necessarily indicate better firm performance, and the change of corporate governance does not seem to have

statistical significant association with firm performance. With respect to the model 2, the results are consistent with model 1 as documented in the panel b.

Table 2: The Association of Corporate Governance and Firm Performance (Sample period: 2001-2006)

Panel A: Model 1			Panel B: Model 2		
Variable Name	Estimates	t Value	Variable Name	Estimates	t Value
α_0	-6.316	-7.98***	β_0	3.351	1.46
GINDEX _{POST} (α_2)	0.002	2.77***	GIDNEX _{CH} (β_2)	-0.001	-0.39
GIDNEX _{CH} (α_3)	0.000	-0.22	LEVERAGE _{CH} (β_3)	-0.087	-3.79***
LEVERAGE _{POST} (α_4)	-0.075	-5.61***	M2B _{CH} (β_4)	0.007	6.24***
M2B _{POST} (α_5)	0.008	10.28***	TACC _{CH} (β_5)	0.309	7.84***
TACC _{POST} (α_6)	0.548	7.84***	R-Square	0.200	
ROA _{PRE} (α_7)	0.328	17.21***	Adj R-Sq	0.187	
R-Square	0.631				
Adj R-Sq	0.625				

In our primary tests, we only included the observations in 2001 as the representation of the pre-SOX period. To verify the reliability of firm performance prior to SOX, we calculated the average annual firm performance from 1998 to 2001. After calculating the average annual financial variables for each firm from 1998 to 2001, we compared these results with the average financial variables from 2002 to 2006. As summarized in Table 3, the results of the robustness check are consistent with the results of the main tests for the single year of 2001.

Table 3: The Association of Corporate Governance and Firm Performance (1998-2001 versus 2002-2006)

Panel A: Model 1			Panel B: Model 2		
Variable Name	Estimates	t Value	Variable Name	Estimates	t Value
α_0	-9.763	-12.79***	β_0	-4.551	-6.00***
GINDEX _{POST} (α_2)	0.002	2.95***	GIDNEX _{CH} (β_2)	0.001	0.47
GIDNEX _{CH} (α_3)	0.001	0.62	LEVERAGE _{CH} (β_3)	-0.139	-7.28***
LEVERAGE _{POST} (α_4)	-0.097	-7.15***	M2B _{CH} (β_4)	0.003	4.21***
M2B _{POST} (α_5)	0.007	10.56***	TACC _{CH} (β_5)	0.464	8.75***
TACC _{POST} (α_6)	0.401	5.62	R-Square	0.159	
ROA _{PRE} (α_7)	0.302	11.53	Adj R-Sq	0.147	
R-Square	0.532				
Adj R-Sq	0.525				

SOX became effective in 2002, and it is possible that ACT was not fully implemented that year. Thus, we repeated our analysis by excluding year 2002 from our sample. In addition, we also conduct a sensitivity test by including only year 2003 in the post-SOX period. We have not tabulated these results for brevity, but they yield qualitatively the same inferences.

CONCLUSION

The recent corporate scandals quickly led to the issuance of SOX and to a range of amendments to the U.S. stock exchange regulations. Eight years after its issuance, there is a lack of consensus on the impact of the Sarbanes-Oxley Act. The Act has been the subject of a challenge due to its negative impact on entrepreneurs, reduction in the number of IPOs, increases in the size of IPOs, and ineffectiveness in fighting fraud. Also, our study's findings appear to be in general agreement with the public's concerns, and the results show that weak strong corporate governance does not necessary indicate poor firm performance. Moreover, corporate governance is even weaker after the passage of SOX.

Given the lack of success with SOX, a critical perspective should be applied to a new round of reforms. There are a few legislation drafts that are currently in Committee: Corporate Governance Reform Act of 2009, Proxy Voting Transparency Act of 2009, Shareholder Empowerment Act of 2009, Shareholder Bill of Rights Act of 2009, and

Excessive Pay Shareholder Approval Act. These proposals aim to set a uniform corporate governance standard. However, firms desire corporate governance structures in response to their distinctive operating and contracting environments (Haniff and Hudaib, 2007). A one-size-fits-all governance guideline may be detrimental to firms. The Sarbanes–Oxley Act of 2002 utilized homogeneous monitoring on all firms creating loopholes and discrepancies which discouraged business growth.

We are struggling in the current economy downturn and looking for effective strategies to recover from it. From the lesson we learned from implementing SOX, we should think carefully before we rush into another round of costly corporate governance reform. Accounting professions should participate in the early stages of reform policy to ensure meaningful and legitimate progress.

REFERENCE

- Ahmed, A. S., McAnally, M. L., Rasmussen, S. & Weaver, C. D. (2010). How costly is the Sarbanes Oxley Act? Evidence on the effects of the Act on corporate profitability, *Journal of Corporate Finance*, 16, 352–369.
- Akhigbe, A. & Martin, A. D. (2006). Valuation impact of Sarbanes–Oxley: Evidence from disclosure and governance within the financial services industry. *Journal of Banking & Finance*, 30, 989–1006.
- Aono, J. Y. & Guan L. (2008). The Impact of Sarbanes-Oxley Act on Cosmetic Earnings Management. *Research in Accounting Regulation*, 20, 205-15.
- Bargeron, L., Lehn, K., & Zutter, C. J. (2009). Sarbanes-Oxley and corporate risk-taking. *Journal of Accounting and Economics*, 49, 34-52.
- Barth, M. E., Cram, D.P. & Nelson, K.K. (2001). Accruals and the Prediction of Future Cash Flows. *The Accounting Review*, 76, 27-58.
- Bartov, E. & Cohen, D. A. (2009). The 'Numbers Game' in the Pre- and Post-Sarbanes-Oxley Eras. *Journal of Accounting, Auditing and Finance*, 24, 505-534.
- Chang, H., Fernando, G.D. & Liao, W. (2009). Sarbanes-Oxley Act, perceived earnings quality and cost of capital'. *Review of Accounting and Finance*, Vol. 8, No. 3, 216-231.
- Cohen, D.A., Dey, D., & Lys, T.Z. (2008). Real and Accrual-based Earnings Management in the Pre- and Post-Sarbanes Oxley Periods. *The Accounting Review*, 83, Iss. 3, 757-787.
- DiGabriele, J.A. (2008). The Sarbanes-Oxley Act and the private company discount: An empirical investigation. *Critical Perspectives on Accounting*, 19, Issue 8, 1105-1121.
- Duarte, J., Kong, K., Young, L.A. & Siegel, S. (2007). "Foreign Listings, U.S. Equity Markets, and the Impact of the Sarbanes-Oxley Act, 2007. Working paper, University of Washington.
- Engel, E., Hayes, R.M., and Wang, X. (2007). The Sarbanes–Oxley Act and firms' going-private decisions. *Journal of Accounting and Economics*, 44, 116–145.
- Gao, F., Wu, J. S. and Zimmerman J. (2009), Unintended Consequences of Granting Small Firms Exemptions from Securities Regulation: Evidence from the Sarbanes-Oxley Act. *Journal of Accounting Research*, 47, Issue 2, 459–506.
- Gompers, P., Ishii, J., & Metrick, A. (2003). Corporate Governance and Equity Prices.
- Haniffa, R. & Hudaib, M. (2007). Corporate Governance Structure and Performance of Malaysian Listed Companies. *Journal of Business Finance & Accounting*, 33, No. 7-8, 1034-1062.
- Hochberg, Y.V., Paola, S. & Vissing-Jorgensen, A. (2009). 'A Lobbying Approach to Evaluating the Sarbanes-Oxley Act of 2002'. *Journal of Accounting Research*, Vol. 47, No. 2, 519-583.
- Jain, P.K. & Rezaee Z. (2006). The Sarbanes-Oxley Act of 2002 and Capital-Market Behavior: Early Evidence. *Contemporary Accounting Research*, Vol. 23, Iss. 3; p. 629.
- Jiang, W., Lee, P., & Anandarajan, A. (2008). The association between corporate governance and earnings quality: Further evidence using the GOV-Score. *Advances in Accounting*, 24, 191-201.
- Larcker, D., Richardson, S. A. & Tuna, A. I. (2007). Corporate Governance, Accounting
- Leuz, C. (2007). Was the Sarbanes-Oxley Act of 2002 really this costly? A Discussion of Evidence from Event Returns and Going-Private Decisions. *Journal of Accounting and Economics*, 44, 146–165.
- Li, H., Pincus, M. & Rego, S.O. (2008). Market Reaction to Events Surrounding the Sarbanes-Oxley Act of 2002 and Earnings Management. *The Journal of Law and Economics*, 51, 111-134.
- Litvak, K. (2007). The effect of the Sarbanes-Oxley act on non-US companies cross-listed in the US'. *Journal of Corporate Finance*, 13, 195–228.

- Lobo, G. J. & Zhou, J. (2006). 'Did Conservatism in Financial Reporting Increase after the Sarbanes-Oxley Act? Initial Evidence'. *Accounting Horizons*, 20, 57-73.
- Mohan, N.J. & Chen, C.R. (2007). The Impact of the Sarbanes-Oxley Act on Firms Going Private. *Research in Accounting Regulation*, 19, 119–134.
- Outcomes, and Organizational Performance. *The Accounting Review*, 82, 963-1008.
- Piotroski, J. D. & Srinivasa, S. (2008). Regulation and Bonding: the Sarbanes-Oxley Act and the Flow of International Listings. *Journal of Accounting Research*, 46, 383–425.
- Quarterly Journal of Economics*, 118, 107-155.
- Shin, S. 2007. The effect of the Sarbanes-Oxley Act of 2002 on foreign issuers listed on the U.S. capital markets. *NYU Journal of Law and Business*.
- Smith, G.P. (2008). A look at the impact of Sarbanes-Oxley on cross-listed firms. January 12, 2007. Working paper.
- Switzer, L.N. (2007). Corporate governance, Sarbanes-Oxley, and small-cap firm performance. *The Quarterly Review of Economics and Finance*, 47, 651–666.
- Wintoki, M.B. (2007). Corporate boards and regulation: The effect of the Sarbanes–Oxley Act and the exchange listing requirements on firm value. *Journal of Corporate Finance*, 13, 229–250.
- Zhang, I. X. (2007), 'Economic Consequences of the Sarbanes-Oxley Act of 2002', *Journal of Accounting and Economics*, Vol.44. pp. 74-115.