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Sarbanes-Oxley Act of 2002 Five Years On: What Have We Learned?

I. INTRODUCTION

THE SARBANES-OXLEY ACT OF 2002¹ (THE "ACT" OR SOX) was signed into law on July 30, 2002 in response to a series of corporate scandals that had rocked the U.S. capital markets over the previous year, including the bankruptcies of Enron and WorldCom.² The Act was designed to restore investor confidence in the capital markets by introducing several sweeping changes and reaffirming other extant rules and regulations.³ The changes included the introduction of the Public Company Accounting Oversight Board (PCAOB) to oversee the auditing of public companies,⁴ reaffirming the requirements for companies to maintain effective internal controls,⁵ and requiring the auditors to attest to the effectiveness of these changes.⁶ These changes were seismic and felt by all parties involved in the capital markets, especially the accounting and auditing professions.⁷

Over five years have passed since the passage of the Act. It is time to evaluate what we know about its impact. The purpose of this Article is to review the accounting literature to assess what we have learned to date. I break the research up into several major areas: economic impact of the passage of the Act,⁸ internal controls,⁹ the impact on earnings and earnings quality,¹⁰ auditing and audit-related

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1. Pub. L. No. 107-204, 116 Stat. 745 (codified as amended in scattered sections of 11, 15, 18, 28, and 29 U.S.C.).

2. See John Paul Lucci, *Enron—The Bankruptcy Heard Around the World and the International Ricochet of Sarbanes-Oxley*, 67 ALB. L. REV. 211, 214–15 (2003).

3. *Id.* at 216.

4. *Id.* at 222.

5. J. Brent Wilkins, *The Sarbanes-Oxley Act of 2002: The Ripple Effects of Restoring Shareholder Confidence*, 29 S. ILL. U. L.J. 339, 344 (2005).

6. Yan Zhang et al., *Audit Committee Quality, Auditor Independence, and Internal Control Weaknesses*, 26 J. ACCT. & PUB. POL'Y 300, 303 (2007).

7. See Robert Charles Clark, *Corporate Governance Changes in the Wake of the Sarbanes-Oxley Act: A Morality Tale for Policymakers Too*, 22 GA. ST. U. L. REV. 251 (2005) (explaining the changes brought by Sarbanes-Oxley and the effects that those changes had on all those involved).

8. See *infra* Part II.

9. See *infra* Part III.

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issues,¹¹ and corporate governance.¹² While not always exhaustive, this review includes a broad sampling of the major studies in each area. Overall, SOX has been a hugely significant piece of legislation as can be seen from the broad range of research topics.

Research on the economic impact of the Act focuses on the market reaction to the passage of the Act, the going private or going dark decisions of firms, and the choice of the location of new stock market listings.¹³ Overall, the results surrounding the market reactions to events surrounding the passage of the Act have been mixed, most likely due to the difficulty of controlling other news events and the choice of event dates. There has been a spike in the numbers of firms going private and going dark.¹⁴ However, it is difficult to disentangle the effects of SOX from other concurrent changes in the economy, e.g., during the same period there has been a rise in private equity as a source of capital, which could explain the increase in the number of firms choosing to go private. Finally, some firms may be choosing to list on foreign stock markets over the U.S. stock markets due to the requirements of SOX.¹⁵ At the same time, there have been significant changes in the global markets, unrelated to SOX, that could explain these listing choices.¹⁶ Overall, it is difficult to attribute any economic consequences solely to SOX. However, it is more than likely that SOX has played a significant role in many of these decisions.

Among some of the most significant requirements of SOX are those for reporting on the effectiveness of internal control. Two sections of SOX deal with internal controls. Section 302 requires management to evaluate the effectiveness of the internal control system on a quarterly basis, and disclose any identified problems.¹⁷

10. See *infra* Part IV.

11. See *infra* Part V.

12. See *infra* Part VI.

13. See *infra* Part II.A–C.

14. Ginger Carroll, Comment, *Thinking Small: Adjusting Regulatory Burdens Incurred by Small Public Companies Seeking to Comply with the Sarbanes-Oxley Act*, 58 ALA. L. REV. 443, 460–61 (2006). When a firm leaves the public markets completely, it is referred to as going private. *Id.* at 460. When a firm ceases to file with the Securities and Exchange Commission (SEC), but continues to trade on the over-the-counter markets, it is referred to as going dark. *Id.* at 461.

15. Cory L. Braddock, Comment, *Penny Wise, Pound Foolish: Why Investors Would be Foolish to Pay a Penny or a Pound for the Protections Provided by Sarbanes-Oxley*, 2006 BYU L. REV. 175, 200–01.

16. Joseph D. Piotroski & Suraj Srinivasan, *The Sarbanes-Oxley Act and the Flow of International Listings* 3, 5, 22, 32 (Apr. 2007) (unpublished manuscript, available at <http://ssrn.com/abstract=956987>). Changes in the global market, such as “improved quality, pricing, and liquidity of non-U.S. markets, the control by their governments of many prospective non-U.S. issuers and their preference for a home country listing, and lower transaction costs associated with listing in a non-U.S. market” as well as the “decline in the equity rating premium for listing in” the United States have influenced the choice of firms to list on foreign stock markets over the United States. See Steven M. Davidoff, *Regulating Listings in a Global Market*, 86 N.C. L. REV. 89, 102 (2007) (evaluating the decline in non-U.S. issuers choosing to list on the U.S. stock market and recognizing that SOX is not the sole contributor to the decline).

17. Zhang et al., *supra* note 6, at 303.

Section 404 requires management to report their assessment of the effectiveness of the internal controls and have the auditors attest to management's report.¹⁸

The research finds that firms reporting internal control problems have more complex operations, recent organizational changes, greater accounting risk, more auditor resignations, and fewer resources available for internal controls relative to firms not disclosing such problems.¹⁹ Furthermore, firms disclosing the most severe internal control problems have material weaknesses, and are "smaller, younger, financially weaker, more complex, growing rapidly and undergoing restructuring" relative to non-disclosing firms.²⁰ While the types of firms experiencing internal control problems may not be surprising, the research highlights the importance of understanding the type and severity of the internal control problems.²¹

The market reactions to internal control problems disclosed under section 302 have been negative; market returns have been negative and the cost of equity capital has increased for these firms.²² However, these reactions have been attenuated by details in the disclosure (e.g., management's conclusions about the effectiveness of the internal control system).²³ For disclosures under section 404, there has been no market reaction.²⁴ This is somewhat surprising, and potentially could be a result of these disclosures acting as a lagging indicator (i.e., the market already is aware of the internal control problems) rather than a leading indicator (i.e., informing the market of new internal control issues).

Furthermore, firms disclosing internal control problems have weaker earnings quality.²⁵ If a firm has an internal control problem, it is more likely that the earnings contain intentional or unintentional errors.²⁶ Therefore, we expect to see an association between internal problems and earnings quality. Interestingly, this association holds for entity level problems and not problems with account-specific controls. Once the internal control problem is remediated, the earnings quality of these firms improves relative to those firms that have not remediated their internal control problems.

18. *Id.*

19. Hollis Ashbaugh-Skaife et al., *The Discovery and Reporting of Internal Control Deficiencies Prior to SOX-Mandated Audits*, 44 J. ACCT. & ECON. 166, 168 (2007).

20. *Id.* at 169.

21. Rani Hoitash et al., *Internal Control Quality and Audit Pricing Under the Sarbanes-Oxley Act 3* (Jan. 2007) (unpublished manuscript, available at <http://ssrn.com/abstract=960720>).

22. Messod Daniel Beneish et al., *Internal Control Weaknesses and Information Uncertainty 34–35* (Sept. 2007) (unpublished manuscript, available at <http://ssrn.com/abstract=896192>).

23. Jacqueline S. Hammersley et al., *Market Reactions to the Disclosure of Internal Control Weaknesses and to the Characteristics of those Weaknesses Under Section 302 of the Sarbanes Oxley Act of 2002*, 13 REV. ACCT. STUD. 141, 146–47, 164 (2008), available at <http://www.springerlink.com/content/c55826x43p2g618k/fulltext.pdf>.

24. Beneish et al., *supra* note 22, at 34.

25. See Hollis Ashbaugh-Skaife et al., *The Effect of SOX Internal Control Deficiencies and Their Remediation on Accrual Quality*, 83 ACCT. REV. 217 (forthcoming 2008) (manuscript at 2, available at <http://ssrn.com/abstract=906474>).

26. See *id.* (manuscript at 7).

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Researchers have asked two main questions related to the impact of SOX on auditing and audit firms. First is whether firms that disclose internal control problems pay higher audit fees.²⁷ Because internal control reporting by the auditor is likely to increase their audit risk exposure, it is reasonable to expect that firms with internal control problems will pay higher audit fees. The results generally show that firms disclosing internal control problems pay higher fees, and these fees appear to remain high once the problem has been remediated.²⁸ The second question focuses on auditors themselves, and asks whether audit firms have been dropping high risk clients.²⁹ The results generally indicate that rather than dropping high risk clients, auditors have been realigning their client portfolios because of capacity constraint issues.³⁰

Several studies have examined many issues related to SOX and corporate governance. For example, studies have looked at audit committees, chief executive officer (CEO) certifications, and revolving door appointments.³¹ Interestingly, internal controls weaknesses are associated with less accounting financial expertise on the audit committees.³² There was no market reaction to CEO certifications required by the Securities and Exchange Commission (SEC) after the WorldCom failure.³³ Finally, revolving door appointments, the practice of hiring auditors to finance positions, had positive market reactions and were not associated with restatements or SEC actions.³⁴ This result suggests that SOX may have been a little too zealous in banning this practice.

Overall SOX, like all major reforms, has generated a significant amount of research.³⁵ One could argue that some of the results could have been expected. However, three consistent themes come out of the results. First, the research highlights the difficulty in disentangling the effects of SOX from other concurrent events. Second, it is not merely the existence of an internal control problem that matters,

27. See K. Raghunandan & Dasaratha V. Rama, *SOX Section 404 Material Weakness Disclosures and Audit Fees*, 25 *AUDITING: J. PRAC. & THEORY* 99, 101 (2006).

28. Jean C. Bedard et al., *Audit Pricing and Internal Control Disclosures Among Non-Accelerated Filers 4-5* (2006) (unpublished manuscript, available at <http://ssrn.com/abstract=954048>).

29. See Raghunandan & Rama, *supra* note 27, at 113.

30. See Michael Ettredge et al., *Auditor Realignment Accompanying Implementation of SOX 404 Reporting Requirements 1* (Sept. 2007) (unpublished manuscript, available at <http://ssrn.com/abstract=874836>). See generally Lynn E. Turner et al., *An Inside Look at Auditor Changes*, CPA J., Nov. 2005, available at <http://www.nysscpa.org/cpajournal/2005/1105/specialissue/essentials/p12.htm>.

31. See Marshall A. Geiger et al., *The Hiring of Accounting and Finance Officers from Audit Firms: How Did the Market React?*, 13 *REV. ACCT. STUD.* 55 (2008); Brett R. Wilkinson & Curtis E. Clements, *Corporate Governance Mechanisms and the Early-Filing of CEO Certification*, 25 *J. ACCT. & PUB. POL'Y* 121 (2006); Zhang et al., *supra* note 6.

32. Zhang et al., *supra* note 6, at 301.

33. See BEVERLY HIRTLE, FED. RESERVE BANK OF N.Y., *STOCK MARKET REACTION TO FINANCIAL STATEMENT CERTIFICATION BY BANK HOLDING COMPANY CEOs 10* (2003), available at <http://ssrn.com/abstract=425002>.

34. Geiger et al., *supra* note 31, at 57.

35. See Raghunandan & Rama, *supra* note 27, at 101; see also Hoitash et al., *supra* note 21, at 7.

but the specific details of each problem. Third, understanding the whole information environment is essential, e.g., why are there no reactions to section 404.

This Article outlines the research in more detail in each area identified, and then concludes.

II. ECONOMIC IMPACT OF THE PASSAGE OF SOX

Researchers have asked three basic questions relating to the economic impact of the passage of the Act: (1) What was the stock price reaction to key legislative dates leading up to the passage of the Act?³⁶ (2) Did more firms choose to go private or go dark as a result of SOX?³⁷ (3) Are firms choosing not to list in the United States as a result of SOX?³⁸ Each question has been posed by numerous researchers, but not always with consistent results.

A. *What is the stock price reaction to the key legislative dates?*

SOX purposefully was designed to restore investor confidence in the capital markets.³⁹ It is assumed that the stock price reactions to significant events related to the probability of the passage of the Act summarize all of the market's perceived costs and benefits of the Act. If the market agrees with SOX (i.e., benefits exceed costs) then events increasing (decreasing) the probability of the Act passing should experience a positive (negative) reaction. However, if the market believes SOX's provisions are an overreaction to an isolated problem, and the costs exceed the benefits, then events increasing (decreasing) the probability of the Act passing should experience a negative (positive) reaction.

Zhang investigates the market reactions to seventeen events occurring from January 2002 through July 2002.⁴⁰ She finds that overall the cumulative raw return for the U.S. markets for these dates is significant (at a 10% level) and negative at about 15%.⁴¹ Once she controls for other news, the abnormal return for U.S. markets is insignificant.⁴² Controlling for news events is difficult because Zhang is looking at market-wide implications of SOX.⁴³ Therefore, she uses the returns from non-U.S. traded foreign firms to proxy for normal U.S. returns.⁴⁴ After further investigation, she classifies four of the seventeen events as key.⁴⁵ The cumulative abnormal (raw)

36. See *infra* Part II.A.

37. See *infra* Part II.B.

38. See *infra* Part II.C.

39. Lucci, *supra* note 2, at 216.

40. Ivy Xiyang Zhang, *Economic Consequences of the Sarbanes-Oxley Act of 2002*, 44 J. ACCT. & ECON. 74, 89–91 (2007) (listing, describing, and summarizing information relating to the seventeen events).

41. *Id.* at 75.

42. *Id.* at 76.

43. *Id.* at 77.

44. *Id.* at 75, 77.

45. *Id.* at 88–93. These events are: (1) a speech by President Bush on July 9, 2002; (2) the Senate debates during July 8–12, 2002; (3) the House Republicans giving up efforts to weaken the Senate Bill around July 18,

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return for these four key events is negative and significant, ranging from -3.76% to -8.21% (15%).⁴⁶

Next, Zhang investigates the possible sources of these private costs by looking at cross-sectional results in relation to the major provisions of the Act.⁴⁷ In particular, she looks at the provisions related to non-audit services, corporate responsibilities, provisions on the forfeiture of incentive pay, insider trading, and internal controls (section 404).⁴⁸ Overall, she finds that abnormal returns decreased for firms that purchase non-audit services, have foreign operations or international transactions, and weak shareholder rights.⁴⁹ Finally, she finds that firms receiving longer deferral periods to the internal control requirements experienced significantly higher returns.⁵⁰ Overall, Zhang concludes that she finds no evidence that SOX was considered beneficial by investors.⁵¹ Furthermore she finds some evidence that certain provisions of the Act impose private net costs on firms.⁵²

Jain and Rezaee find contradictory results suggesting that the benefits of SOX outweigh the costs for twelve event dates in the period from February 2002 to July 2002.⁵³ They classify these event dates as having a favorable, unfavorable, or ambiguous impact on the passage of the Act.⁵⁴ Jain and Rezaee hypothesize that investors will react positively to events that increase the probability of passage of the Act.⁵⁵ Overall, the results are consistent with investors reacting positively (negatively) to events that increase (decrease) the passage of the Act.⁵⁶ The market reaction to ambiguous events was negative, but not significant.⁵⁷

Next, they investigate if the magnitude of returns relating to favorable events varies with firm corporate governance characteristics, financial reporting attributes, and audit functions.⁵⁸ They find that firms had more positive returns when they were considered more compliant with the Act prior to enactment, e.g., firms with better corporate governance, more reliable financial reports, and more credible audit functions.⁵⁹ They interpret this result as the Act imposing more compliance

2002; and (4) the Senate and the House agreement on the final rule on July 24, 2002 that President Bush signed into law on July 30. *Id.*

46. *Id.* at 76.

47. *Id.*

48. *Id.*

49. *Id.*

50. *Id.*

51. *See id.* at 111.

52. *Id.* at 82, 110 (discussing the provisions giving rise to private costs).

53. Pankaj K. Jain & Zabihollah Rezaee, *The Sarbanes-Oxley Act of 2002 and Capital-Market Behavior: Early Evidence*, 23 CONTEMP. ACCT. RES. 629, 634–35, 652 (2006).

54. *Id.* at 633–36.

55. *Id.* at 638.

56. *Id.* at 647.

57. *Id.* at 642–44.

58. *Id.* at 648.

59. *Id.* at 651–52.

costs on firms with poor governance and lower disclosure standards.⁶⁰ Overall, their results support the hypothesis that investors perceived passage of the Act as a positive event with the benefits of the Act outweighing the costs.⁶¹

Li, Pincus, and Rego look at the market reactions to critical events surrounding the passage of the Act, but are different from the previous two studies because they investigate whether the extent of earnings management is associated with the magnitude of the return.⁶² This study investigates eight separate event dates over the period June 2002 through August 2002; the first event date is the WorldCom fraud announcement, and the remaining event dates are related to passage of the Act.⁶³ The market reaction was negative and significant surrounding the WorldCom fraud announcement (first event date) consistent with the market losing confidence in corporate financial reporting.⁶⁴ Overall, the remaining seven event dates have cumulative positive and significant return consistent with investors expecting SOX to have net benefits.⁶⁵ When Li et al. condition on the extent of earnings management by firms, they find that the market reaction is stronger for firms that engage in relatively more earnings management.⁶⁶ These firms had a stronger negative reaction to the WorldCom fraud announcement and a stronger positive reaction to the remaining seven event dates.⁶⁷

Finally, Engel, Hayes, and Wang investigate the abnormal returns surrounding the passage of the Act as part of a larger study looking at the going private decisions of firms surrounding the enactment of SOX.⁶⁸ They consider six events in the period from June 2002 to July 2005.⁶⁹ Though the overall abnormal return is negative for their event windows, they find that the return is positively related to firm size and trading activity.⁷⁰ This is consistent with smaller and less actively traded firms reacting less favorably to events that increased the probability of the passage of the Act.⁷¹

60. *Id.* at 652.

61. *Id.*

62. Haidan Li et al., *Market Reaction to Events Surrounding the Sarbanes-Oxley Act of 2002 and Earnings Management*, 51 J.L. & ECON. (forthcoming 2008) (manuscript at 1–5, available at <http://ssrn.com/abstract=475163>).

63. *Id.* (manuscript at 5–6).

64. *See id.* (manuscript at 13).

65. *See id.* (manuscript at 13–16).

66. *Id.* (manuscript at 18).

67. *Id.* (manuscript at 20).

68. *See* Ellen Engel et al., *The Sarbanes-Oxley Act and Firms' Going-Private Decisions*, 44 J. ACCT. & ECON. 116 (2007).

69. *Id.* at 134. The events studied were: (1) the SEC's proposal requiring executives to certify the information in their companies' quarterly and annual reports on June 12, 2002; (2) the approval of Sarbanes' bill by the Senate Banking Committee on June 18, 2002; (3) the WorldCom accounting scandal on June 26–27, 2002; (4) the Senate's consideration of Sarbanes' bill between July 8–12, 2002; (5) the passage of Sarbanes' bill in the Senate on July 15–16, 2002; and (6) the passage of SOX on July 24–25, 2002. *See id.*

70. *Id.* at 129, 143.

71. *Id.* at 136.

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Overall, the above results of the market reaction to the key legislative dates do not present a clear picture of the perceived costs and benefits of the Act. This is perhaps not surprising for several reasons. First, the studies focus on market-wide effects for a given set of dates.⁷² Some of these dates cluster significantly in time, particularly July 2002. It is difficult to isolate the impacts of just SOX; other information events that impact the market⁷³ need to be separated, and the studies described above use differing methodologies to control for these effects. These differences may, in part, help explain the different results. Second, the overall conclusion about the perceived benefits of SOX is sensitive to the choice of those event dates. Zhang, Jain and Rezaee, and Li et al. all have slightly different, but still relevant, event dates resulting in different interpretations of the impact of the Act.⁷⁴ It is reasonable to assume that the probability of the passage of SOX impacted firms, but it is unlikely to have impacted all firms in exactly the same way. Therefore, I think the cross-sectional tests provide more insights into the costs and benefits imposed by the Act.⁷⁵

B. Did more firms choose to go private or go dark as a result of SOX?

A second line of research into the economic consequences of SOX is looking at decisions of firms where the costs of SOX would be greater than the benefits of SOX. For such firms there are two potential decisions. First, firms could choose to leave the public markets completely, i.e., firms could choose to go private.⁷⁶ Private firms are not subject to the provisions of SOX.⁷⁷ Second, firms could choose to go

72. See *id.* at 134; see also Li et al., *supra* note 62, (manuscript at 28–29 tbl.1) (describing “Critical Events in the SOX Legislative Process and Contemporaneous Events”).

73. Other information events that impact the market include news of other companies engaging in accounting fraud, and more generally, changes in credit ratings. See Mark Maremont & Laurie P. Cohen, *Former Tyco CEO Is Charged With Two New Felony Counts*, WALL ST. J., June 27, 2002, at A3 (reporting that Dennis Kozlowski was charged with tax evasion and tampering with evidence); Mark Maremont, *Xerox Overstated Pretax Income By \$1.41 Billion, Filing Reveals*, WALL ST. J., July 1, 2002, at A3 (severe misstatement of income); see also Robert Brooks et al., *The National Market Impact of Sovereign Rating Changes*, 28 J. BANKING & FIN. 233, 249 (2004).

74. The Jain and Rezaee study considered three periods of several weeks: from Feb. 14, 2002 to June 25, 2002; from July 9, 2002 to July 19, 2002; and from July 24, 2002 to July 30, 2003. Jain & Rezaee, *supra* note 53, at 634 fig.1. The dates of the Li et al. study include: June 25, 2002; June 26, 2002; July 8–12, 15–16, 24, 25, and 29–30 2002; and Aug. 14–15, 2002. Li et al., *supra* note 62, (manuscript at 28–29 tbl.1). Finally, the dates used in the Zhang study include: Jan. 17, 2002; Feb. 2, 13, and 28, 2002; Mar. 7 and 26, 2002; Apr. 11, 16, 24, and 25, 2002; May 8, 2002; June 11–12, 18 and 25, 2002; July 8–10, 15–16, 18–20, and 23–25, 2002. Zhang, *supra* note 40, at 89–91 tbl.2.

75. These cross-sectional tests are subject to some of the same criticisms as the main univariate results: clustering of dates in time and adequately controlling for other news events. See Li et al., *supra* note 62, (manuscript at 7).

76. See Engel et al., *supra* note 68, at 122.

77. See *id.* at 119–20 (stating that “SOX mandates a series of changes in corporate financial reporting and corporate governance for public companies”).

dark, i.e., cease filing with the SEC, but continue to trade on the over-the-counter (OTC) markets.⁷⁸

Engel, Hayes, and Wang look at the effects of SOX on firms perceived to be close to going private.⁷⁹ They argue that for a firm to go private because of SOX, the additional net costs of SOX must exceed any net benefits of being a publicly listed company.⁸⁰ Overall, they conclude that SOX impacted firms' going-private decisions.⁸¹ They look at the quarterly frequency of firms' going-private decisions over the period from 1998 through 2005 and find a statistically significant increase in the number of firms going private in the post-SOX period.⁸² In addition, as discussed above, they find that returns to key legislative dates are positively associated with firm size and trading activity, suggesting that the costs of SOX are greater for smaller, less liquid companies.⁸³ Finally, they find that the determinants of going-private decisions have not changed, but the market reactions to going-private announcements have resulted in larger market returns for smaller firms with greater inside ownership in the post-SOX world.⁸⁴

Overall, it appears reasonable to think that SOX has been responsible, in part, for the rise in the incidence of firms going private. However, it is difficult to completely disentangle the effects of SOX from the effects of the rise in private equity on the decisions of firms to go private.⁸⁵ It is likely many of these decisions were made with factors such as the growth in private equity and SOX, among others, in play.⁸⁶

Instead of going private, firms could choose to cease filing with the SEC, but to continue to trade on the OTC markets.⁸⁷ These firms no longer report financial information to the SEC, hence the term "go dark." Leuz, Triantis, and Wang investigate the firms that chose to go dark over the period from 1998 through 2004.⁸⁸ In general, firms that choose to go dark are more distressed, have increased short-term liabilities, decreased trading volume, and deteriorating operating performance

78. *See id.* at 125.

79. *Id.* at 121–124.

80. *Id.* at 122.

81. *Id.* at 142.

82. *Id.* at 125–27.

83. *Id.* at 132–36. The costs of SOX are unlikely to vary completely with firm size. Smaller firms will experience relatively more costly compliance costs. *See id.* at 143.

84. *Id.* at 142–43.

85. Christian Leuz, *Was the Sarbanes-Oxley Act of 2002 Really This Costly? A Discussion of Evidence From Event Returns and Going-Private Decisions*, 44 J. ACCT. & ECON. 146, 149 (2007).

86. *Id.* at 161–62.

87. *See* Christian Leuz et al., *Why Do Firms Go Dark? Causes and Economic Consequences of Voluntary SEC Deregistrations*, 45 J. ACCT. & ECON. (forthcoming 2008) (manuscript at 1, on file with author). Firms can deregister from the SEC if they have fewer than 300 shareholders of record or fewer than 500 shareholders of record, and less than \$10 million in assets in each of the previous three years. *Id.* Many beneficial shareholders have their shares held by financial institutions. *Id.* The financial institution and not the beneficial shareholder would count for the deregistering requirements. *Id.*

88. *Id.* (manuscript at 2).

compared to firms that could deregister, but choose not to.⁸⁹ There is an increase in the number of deregistrations in the post-SOX period; more than 60% of the going-dark decisions made from 1998 through 2004 were made in the last two years.⁹⁰ After controlling for both the market return and any time trends, SOX is significantly associated with going dark.⁹¹ The results show that the number of going-dark firms decreases when the SEC extended the deadline for smaller firms to meet the requirements of section 404.⁹² Furthermore, the study finds that in the post-SOX period agency problems appear to be more important determinants than distress factors.⁹³ The study concludes that it appears the higher costs of SOX may have been attributable to the increased rise in firms' going-dark decisions.⁹⁴

These results would appear to provide strong evidence of the impact of SOX on firm behavior. It would be interesting to see the study extended to past the time period when all firms must comply with the internal control provisions of the Act (years ending on or after December 15, 2008) to determine whether 2003–04 is only a spike or a rising trend due to other related factors in the market.

C. Are firms choosing not to list in the United States as a result of SOX?

If SOX creates a cost barrier to entry into the U.S. markets, then we would expect to see a drop in the number of listings into U.S. markets from foreign firms. Piotroski and Srinivasan investigate whether there has been a change in the listing behavior of firms into the United States since the enactment of SOX, by comparing U.S. and U.K. listings over the time period from 1995 to 2006.⁹⁵ New foreign listings on both U.S. markets and the U.K. main market declined in the post-SOX period, but listings on London's Alternative Investment Market (AIM) increased.⁹⁶

Piotroski and Srinivasan investigate whether the changes in the listing behaviors can be attributable to SOX.⁹⁷ They find that there have been changing attributes in listing firms that explain about half of the post-SOX decline in listings.⁹⁸ In particular, smaller less profitable firms are choosing to list on London's Alternative Investment Market (AIM).⁹⁹ So even without the enactment of SOX, the frequency of U.S. listings relative to U.K. listings would have declined.¹⁰⁰ However, once these changes in attributes are controlled for, a strong time effect exists for the SOX time

89. *Id.* (manuscript at 3).

90. *See id.* (manuscript at 48 tbl.1) (listing timing of deregistration filings).

91. *Id.* (manuscript at 24).

92. *Id.* (manuscript at 25–26).

93. *Id.* (manuscript at 26).

94. *See id.* (manuscript at 27–33).

95. Piotroski & Srinivasan, *supra* note 16.

96. *Id.* at 4–5.

97. *Id.* at 2.

98. *Id.* at 6.

99. *See id.* at 5.

100. *See id.* at 6.

period.¹⁰¹ The study provides evidence that the firms that chose to list in the United Kingdom rather than in the United States in the post-SOX period mainly are composed of AIM-listed firms; these firms are from developed countries and are smaller and less profitable than U.S. listed firms.¹⁰² In addition, a small set of large profitable firms from emerging markets have chosen to list in the United States in the post-SOX period.¹⁰³

The study finds an increase in the number of AIM listings but does not control for the preferential tax treatment now received by investors in the AIM market.¹⁰⁴ In addition, the passage of SOX coincides with the European Union introducing a requirement for all European countries to file using International Financial Reporting Standards (IFRS).¹⁰⁵ These variables could have an important impact on the location of a new listing. Furthermore, there appears to have been a shift in global equity markets away from the United States,¹⁰⁶ of which SOX may be only a small component. Interestingly, no study has looked at the firms choosing to delist for the United States. This group of firms may provide an interesting sample to study.

Overall the results on the economic consequences of the passage of the Act are mixed. The market reactions to its passage do not present a consistent pattern, likely consistent with the differential impact that regulation has on firms. It appears that more firms have gone private or dark since the Act. These are likely to be partly due to SOX, but isolating the impacts of SOX alone is very challenging. Finally, there appears to have been a shift away from U.S. capital markets, but this is likely due not only to U.S. regulatory changes, but also to changes in global markets.

III. INTERNAL CONTROL

Two provisions of SOX require firms to make disclosures about internal controls. Section 302 requires senior management of the firm to evaluate the effectiveness of the internal control system and to report on its effectiveness on a quarterly basis.¹⁰⁷ Section 404 requires an annual audit of management's assessment of the effectiveness of the internal control.¹⁰⁸ These two sections, in particular section 404, have

101. *See id.* at 7.

102. *Id.* at 31.

103. *Id.*

104. *See generally* BAKER TILLY & CO. LTD., A GUIDE TO AIM TAX BENEFITS (2007).

105. *See* Jeannot Blanchet, *Global Standards Offer Opportunity*, FIN. EXECUTIVE, Mar. 1, 2002, at 28. For example, British Airways delisted from the U.S. in April 2007, stating that "the cost and complexity" of complying with two sets of regulations that are quite similar substantively could no longer be justified. Emmet Oliver, *BA to leave the Big Board Marketplace*, INT'L HERALD TRIB., Apr. 26, 2007, available at <http://www.iht.com/articles/2007/04/25/business/bxboac.php>.

106. *See* COMM. ON CAPITAL MKTS. REGULATION, THE COMPETITIVE POSITION OF THE U.S. PUBLIC EQUITY MARKET 29 (2007), available at http://www.capmksreg.org/pdfs/The_Competitive_Position_of_the_US_Public_Equity_Market.pdf.

107. Sarbanes-Oxley Act of 2002 § 302, 15 U.S.C. § 7241 (2000).

108. 15 U.S.C. § 7262.

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generated the most discussion in the press about the appropriateness of the Act.¹⁰⁹ The research in this area addresses two main questions: (1) What types of firms have internal control problems?¹¹⁰ (2) What are the market reactions to the disclosure of an internal control problem?¹¹¹

A. *What types of firms have internal control problems?*

The three types of internal control problems or deficiencies are, in increasing order of severity: deficiencies, significant deficiencies, and material weaknesses.¹¹² Material weaknesses are especially severe because they indicate control problems that are most likely to result in material misstatements of the financial statements.¹¹³ Two studies have investigated the determinants of internal control deficiencies. Ashbaugh-Skaife et al. look at the determinants of reporting internal control deficiencies (ICD) for a sample of firms that disclosed ICDs prior to the mandatory internal control audits required by section 404 of the Act.¹¹⁴ Doyle, Ge, and McVay focus on the determinants of the most severe ICDs, material weakness disclosures.¹¹⁵

Prior to the implementation of section 404, management was required, under section 302, to disclose their evaluation of the effectiveness of the system of internal controls.¹¹⁶ Using a sample of 585 firms over the period from November 2003 through December 2004, Ashbaugh et al. investigate the determinants of reporting an ICD under section 302.¹¹⁷ This time period has the advantage that both accelerated and non-accelerated filers filed all three internal control deficiencies.¹¹⁸ They model ICD disclosures as a function of internal control risk factors and the incentives to discover and disclose control problems for management and auditors. Internal control risk is modeled as complexity and scope of firms' operations, changes in the firms' organizational structure, exposure to accounting errors due to judgment or difficulty, firms' resources available for internal controls, and whether the auditor resigned in 2003.¹¹⁹ Incentives to discover and disclose are modeled as auditor dominance, prior restatement or SEC enforcement action, monitoring by

109. See Greg Farrell, *Accounting Costs Rising As Wary Companies Play It Safe*, USA TODAY, July 31, 2003, at 2B; SEC to Delay 404(b) for Small Companies, CFO MAG., Feb. 1, 2008, at 31; Allison Fass, *One Year Later, The Impact of Sarbanes-Oxley*, FORBES.COM, July 22, 2003, http://www.forbes.com/excepicks/2003/07/22/cz_af_0722_sarbanes.html.

110. See *infra* Part III.A.

111. See *infra* Part III.B.

112. See Ashbaugh-Skaife et al., *supra* note 19, at 170.

113. *Id.*

114. *Id.* at 167–68.

115. Jeffrey Doyle, Weili Ge & Sarah McVay, *Determinants of Weaknesses in Internal Control Over Financial Reporting*, 44 J. ACCT. & ECON. 193, 194 (2007).

116. Ashbaugh-Skaife et al., *supra* note 19, at 167.

117. *Id.* at 168.

118. *Id.* at 170.

119. *Id.* at 168.

institutional investors, and industry litigation risk.¹²⁰ Firms that disclose ICDs have more complex operations and are exposed to more potential accounting errors relative to non-ICD firms.¹²¹ In addition, these firms are more likely to have recently experienced an organizational change and/or an auditor resignation.¹²² Finally, firms that report a higher frequency of losses and are in financial distress are more likely to report ICDs.¹²³ Incentives to discover and disclose an ICD are driven by firms that engage one of the largest U.S. audit firms, firms that previously restated or were subject to an SEC enforcement action, and by firms that have concentrated institutional ownership.¹²⁴

Doyle, Ge, and McVay focus only on firms disclosing a material weakness in the period between August 2002 to 2005.¹²⁵ They consider whether the material weakness is an account-specific problem or an entity-level problem.¹²⁶ The former are considered auditable, while the latter are considered much more serious. Overall, Doyle, Ge, and McVay find that firms that disclose a material weakness are “smaller, younger, financially weaker, more complex, growing rapidly, and/or undergoing restructuring” (as stated in the findings of Ashbaugh-Skaife et al.).¹²⁷ When Doyle et al. condition on the type of material weakness, account-specific or entity-level, they find that the determinants of ICD change across the two sub-samples.¹²⁸ Firms with entity-level problems are smaller, younger, and financially weaker.¹²⁹ Firms with account-specific problems are financially healthy, but have complex, diversified, and rapidly changing operations.¹³⁰ Finally, Doyle look at a specific reason for the weakness.¹³¹ They categorize the weaknesses into three types based on management’s disclosed cause: weakness related to staffing issues, weakness related to complexity, and other issues.¹³² Again, they find that rapidly growing, smaller, and younger firms have weaknesses related to staffing and that smaller, financially weaker, more operationally and geographically diverse firms suffer from weaknesses related to complexity.¹³³

While the types of firms that experience material weakness are perhaps not surprising, the differences in the determinants of different types of weaknesses reinforce that not all material weaknesses are created equal. The incentives to discover

120. *Id.* at 174.

121. *See id.* at 169–70.

122. *Id.* at 181.

123. *Id.*

124. *Id.* at 178.

125. *See Doyle, Ge & McVay, supra* note 115, at 194.

126. *See id.* at 196.

127. *Id.* at 195; *see also* Ashbaugh-Skaife et al., *supra* note 19, at 169.

128. *See Doyle, Ge & McVay, supra* note 115, at 196–97.

129. *Id.* at 195.

130. *Id.* at 196–97.

131. *See id.* at 197.

132. *Id.*

133. *Id.*

and disclose internal control problems are important to understand. However, Leone raises concerns about possible alternate explanations for some of the results in Ashbaugh-Skaife et al., suggesting that we do not yet understand this critical part of internal control deficiencies.¹³⁴

B. What are the market reactions to the disclosure of an internal control problem?

It is unclear how investors perceive disclosures of internal control problems. On the one hand, research has shown that there is a clear correlation between internal control problems and firm characteristics; therefore investors already may have anticipated the internal control problem and may not be surprised by the disclosure.¹³⁵ Alternatively, auditors have suggested that investors will not fully understand the implications of these disclosures.¹³⁶ Investigating investors' reactions to such disclosures, however, is not that straightforward because these disclosures are contained in SEC filings that always contain other information.¹³⁷ Nevertheless, three published studies looked at investor reactions to internal control problem disclosures.

Hammersley, Myers, and Shakespeare examine the stock price reaction to internal control weaknesses disclosed under section 302.¹³⁸ They hypothesize that the size of the market reaction will vary with the severity of the weakness and with the characteristics of the disclosure.¹³⁹ They find that size-adjusted returns on the date of the disclosure are on "average -0.95% when material weaknesses are disclosed," "-0.75% when significant deficiencies are disclosed," and "are not different from zero when control deficiencies are disclosed."¹⁴⁰ They also find that if the weaknesses are not auditable, or when the disclosures are vague, the returns are significantly more negative.¹⁴¹ However, if management concludes that the internal control system is effective, the returns are significantly less negative.¹⁴² These results emphasize the importance of not only the disclosure itself, but the content of the disclosure as well.¹⁴³

134. Andrew J. Leone, *Factors Related to Internal Control Disclosure: A Discussion of Ashbaugh, Collins, and Kinney (2007) and Doyle, Ge, and McVay (2007)*, 44 J. ACCT. & ECON. 224, 230-36 (2007). Large audit firms are better equipped to identify internal controls problems than small audit firms. *Id.* at 230-33.

135. See *supra* notes 125-34 and accompanying text; see also Edith G. Orenstein, *Remediation, Communication, Education: Sarbanes-Oxley Section 404*, FIN. EXECUTIVE, Nov. 2004, at 28. See generally Beneish et al., *supra* note 22.

136. Orenstein, *supra* note 135, at 28-29.

137. See, e.g., Sarbanes-Oxley Act of 2002 § 401, 15 U.S.C. § 7261 (2000).

138. Hammersley et al., *supra* note 23, at 142-45.

139. *Id.* at 143-45.

140. *Id.* at 144.

141. *Id.*

142. *Id.*

143. See *id.* at 144-45.

Beneish, Billings, and Hodder analyze the unaudited 302 disclosures and the audited 404 disclosures.¹⁴⁴ They find that the disclosures made under section 302 are associated with a negative market reaction of -1.8% and with an abnormal increase in the cost of equity of 68 basis points.¹⁴⁵ Next, the study looks at the market response to section 404 both conditional and unconditional on prior 302 disclosures.¹⁴⁶ However, they do not find any impact on stock prices or cost of equity when internal control weaknesses are disclosed under section 404.¹⁴⁷

Ogneva, Subramanyam, and Raghunandan examine the association between the cost of equity capital and the first-time disclosure of an internal control problem under section 404 of the Act.¹⁴⁸ They find higher cost of implied equity capital for these firms.¹⁴⁹ However, once they control for the characteristics of firms with internal control problems identified in previous research and analysts' forecast bias, the association disappears, consistent with Beneish, Billings, and Hodder.¹⁵⁰

The lack of reaction to the disclosures under section 404 could be a result of section 404 being a lagging indicator of problems, rather than a leading indicator.¹⁵¹ It appears that management needs to identify an error before reporting a problem.¹⁵² In addition, firms are reporting problems under section 302, so the section 404 news may not be new.¹⁵³ The spirit of the Act appeared to intend these control disclosures to be a warning sign of potential future problems.¹⁵⁴ However, even given these limitations, there appears to be a consensus that internal control reporting has led to improved controls.¹⁵⁵

144. See Beneish et al., *supra* note 22, at 2.

145. *Id.* at 31-32.

146. *Id.* at 2.

147. *Id.* at 27-28.

148. Maria Ogneva et al., *Internal Control Weaknesses and Cost of Equity: Evidence from SOX Section 404 Disclosures*, 82 ACCT. REV. 1255, 1256, 1286 (2007).

149. *Id.* at 1256, 1267, 1286.

150. *Id.* at 1256-57, 1267, 1271-72, 1286.

151. GREGORY JONAS ET AL., *MOODY'S INVESTOR SERV., THE THIRD YEAR OF SECTION 404 REPORTING ON INTERNAL CONTROL 2*, 5-6 (2007).

152. *Id.* at 6.

153. See Alok Ghosh & Martien Lubberink, *Timeliness and Mandated Disclosures on Internal Controls Under Section 404 6* (Sept. 2006) (unpublished manuscript, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=931896); Nate M. Stephens, *The Discovery and Disclosure of Material Weaknesses Under SOX Section 302: The Role of Company and Auditor Characteristics and Incentives* 27-28 (Dec. 13, 2007) (unpublished Ph.D. dissertation, University of Arizona, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1073026).

154. See Hammersley et al., *supra* note 23, at 142.

155. See, e.g., Ashbaugh-Skaife et al., *supra* note 25.

IV. IMPACT ON EARNINGS AND EARNINGS QUALITY

The quality of financial reporting is fundamentally linked to the strength of the internal control system.¹⁵⁶ Weak control environments can lead to intentional or unintentional errors in the financial reports.¹⁵⁷ The accounting literature considers earnings quality to be an important dimension of financial reporting quality.¹⁵⁸ There is no single agreed upon definition of earnings quality.¹⁵⁹ However, earnings would be considered high quality if the related receivables turn into cash flows, i.e., customers paying, and are repeatable or persistent, i.e., not a once-off gain.¹⁶⁰ Research in this area has focused on many aspects of earnings including the quality of accounting accruals, the impact of internal control reporting on the earnings quality for banks, meeting an earnings target, and the use of pro-forma (non-standard) earnings.¹⁶¹

Doyle, Ge, and McVay investigate the quality of financial reporting, specifically the quality of accruals, for firms disclosing material weaknesses.¹⁶² A weak control environment could allow for intentionally biased accruals, via earnings management, or unintentional errors.¹⁶³ Doyle, Ge, and McVay hypothesize that weak internal controls are associated with low accruals quality, i.e., earnings are not realized as cash flows, and that entity-level weaknesses are associated with lower accruals quality than account-specific weaknesses.¹⁶⁴ Overall, they find that weak internal controls are associated with lower accruals quality.¹⁶⁵ However, when they condition on the type of problem, only the entity-level weaknesses are associated with lower accruals quality.¹⁶⁶ This result further enforces the importance of not treating all material weaknesses uniformly.

Ashbaugh-Skaife, Collins, Kinney, and Lafond examine the relationship between accrual quality and internal controls and their remediation.¹⁶⁷ Consistent with Doyle et al., they find that firms with internal control problems have lower quality

156. See David W. Wright, Evidence on the Relation Between Corporate Governance Characteristics and the Quality of Financial Reporting 1-4 (May 1996) (unpublished manuscript, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=10138).

157. See, e.g., Jeffrey T. Doyle et al., *Accruals Quality and Internal Control Over Financial Reporting*, 82 ACCT. REV. 1141, 1142 (2007).

158. PATRICIA M. DECHOW & CATHERINE M. SCHRAND, EARNINGS QUALITY 5 (2004).

159. *Id.* at 2.

160. *Id.*

161. *Id.*

162. See Doyle et al., *supra* note 157, at 1141. Li, Pincus, and Rego describe accruals in the following way: "[N]et income can be decomposed into operating cash flows and accruals. Accruals are accounting adjustments management makes to place a company's financial statements on a full accrual (rather than cash) basis, as required under generally accepted accounting principles." Li et al., *supra* note 62, (manuscript at 10).

163. Doyle et al., *supra* note 157, at 1142.

164. *Id.*

165. *Id.*

166. *Id.*

167. See Ashbaugh-Skaife et al., *supra* note 25, (manuscript at 1). Remediation involves modifying the internal control system to remove any identified weakness. See *id.* (manuscript at 2).

accruals relative to firms without these problems.¹⁶⁸ These weak internal control firms have large positive and negative accruals that could suggest intentional or unintentional errors.¹⁶⁹ Once the internal control system has been remediated and the remediation has been confirmed by the auditor, the firms exhibit an improvement in accruals quality relative to firms not reporting a remediation.¹⁷⁰ Finally, for firms receiving different internal control opinion audits over successive years, Ashbaugh-Skaife et al. document changes in accrual quality that are consistent with the changes in the quality of the internal control system.¹⁷¹ Combined, these two papers show a strong association between internal control quality and accruals quality, an important determination in the quality of the reported earnings.

SOX was not the first piece of legislation to require reporting on internal controls systems. The Federal Deposit Insurance Corporation Improvement Act of 1991¹⁷² (FDICIA) requires large banks to report management's assessment of the effectiveness of internal control systems.¹⁷³ These requirements were largely the model used by Congress in the design of the internal control sections for SOX.¹⁷⁴ Altamuro and Beatty examine the relationship between the characteristics of earnings and increased internal control procedures for the banks affected by the regulation.¹⁷⁵ Their results showed improvements in earnings quality in the post-FDICIA period for the affected banks.¹⁷⁶ They conclude that it is not unreasonable to anticipate similar improvements in earnings quality in a post-SOX world.¹⁷⁷

Cohen et al. look at earnings management behavior pre- and post-SOX.¹⁷⁸ They classify earnings management into two main types, accruals-based earnings management¹⁷⁹ and real earnings management.¹⁸⁰ They find that accruals-based earn-

168. *Id.*

169. *See id.* (manuscript at 1).

170. *Id.* (manuscript at 2).

171. *Id.*

172. Pub. L. No. 102-242, 105 Stat. 2236 (codified as amended in scattered sections of 12 U.S.C.).

173. *Id.* § 112, 105 Stat. at 2242-43.

174. *See* Jennifer Altamuro & Anne Beatty, Do Internal Control Reforms Improve Earnings Quality? 25-26 (May 1, 2007) (unpublished manuscript, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=930690).

175. *Id.* at 4-6, 9-10, 25-26.

176. *See id.* at 19-23.

177. *See id.* at 25-26.

178. Daniel A. Cohen et al., *Real and Accrual-Based Earnings Management in the Pre- and Post-Sarbanes Oxley Periods*, 83 ACCT. REV. (forthcoming 2008) (manuscript at 2, 33, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=813088).

179. *See id.* (manuscript at 5). Accruals earnings management involves management changing estimates of accruals, either up or down, to ensure a certain earning target is met. John R. Graham et al., *The Economic Implications of Corporate Financial Reporting*, 40 J. ACCT. & ECON. 3, 32-36 (2005). Real earnings management involves management cutting real expenditures to meet an earnings target, e.g., cutting research and development expenditures. *Id.*

180. *See* Cohen et al., *supra* note 178, (manuscript at 5). Common earnings targets, or benchmarks, are making a profit, showing positive growth in earnings and meeting or exceeding the consensus analysts forecast. *See* Graham et al., *supra* note 179, at 5-6, 21-24.

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ings management increased steadily up to the passage of the Act followed by a significant decline in the post-SOX period.¹⁸¹ Conversely, real earnings management declined prior to the passage of the Act, but has been on the rise since.¹⁸² So in the post-SOX world, firms are meeting earnings targets by cutting real expenditures. SOX reduced the level of accruals-based earnings management, but the rise of real earnings management may be an unintended consequence.¹⁸³

Consistent with Cohen et al., Koh et al. find that managers are relying less on accruals-based management to hit analyst earnings targets post passage of the Act.¹⁸⁴ Instead, managers appear to be using earnings guidance to meet earnings benchmarks.¹⁸⁵ Koh et al. also find that the incidence of just meeting an earnings benchmark, and the related market premium have decreased.¹⁸⁶ However, the reduction in the market premium may be unwarranted as just meeting an earnings benchmark appears to be a signal of future operating performance.¹⁸⁷

In recent years, many firms have emphasized pro-forma, or generally accepted accounting principles (GAAP)-adjusted, earnings in their press releases.¹⁸⁸ Section 401(b) of SOX directs the SEC to issue final rules on pro-forma disclosures.¹⁸⁹ The regulation must ensure that these disclosures do not mislead investors and provide

181. See Cohen et al., *supra* note 178, (manuscript at 2, 20, 33–34).

182. *Id.*

183. See *id.*

184. Kevin Koh et al., Meeting or Beating Analyst Expectations in the Post-Scandals World: Changes in Stock Market Rewards and Managerial Actions 2–3, 15–24 (Apr. 24, 2007) (unpublished manuscript, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=879831).

185. See *id.* at 16, 18.

186. *Id.* at 2–3, 15, 24.

187. See *id.* at 25–26.

188. See Press Release, Corel Corp., Corel Corporation Reports Second Quarter Results (June 28, 2006), available at <http://www.corel.com/servlet/Satellite/us/en/Content/1153321430604?pressId=1154111596230>; Press Release, Handspring, Inc., Handspring Reports Third Quarter Results (Apr. 15, 2003), available at http://www.palm.com/us/company/pr/hs_archive/041503.html; Press Release, Intuit Inc., Intuit First-Quarter Revenue Grows 27 Percent (Nov. 15, 2007), available at http://www.intuit.com/about_intuit/press_room/press_release/2007/1115.jhtml; Press Release, Merck & Co., Inc., Merck Anticipates Earnings Per Share Growth in 2008; Reaffirms Long-Term, Double-Digit Compound Annual EPS Growth from 2005 to 2010, Excluding Certain Items (Dec. 4, 2007), available at http://www.merck.com/newsroom/press_releases/financial/2007_1204.html; Press Release, Monolithic Power Sys., Inc., Monolithic Power Systems, Inc. Announces Financial Results for Third Fiscal Quarter of 2006 (Oct. 30, 2006), available at http://www.monolithicpower.com/Press_Releases/pr_06103001_Q306_Financial_Results.htm; Press Release, Sycamore Networks, Inc., Sycamore Networks, Inc. Reports First Quarter Fiscal Year 2008 Financial Results (Nov. 28, 2007), available at http://www.sycamorenet.com/corporate/news/press_release.asp?news_item_id=881 (all referencing GAAP standards in their profits forecast).

189. See Sarbanes-Oxley Act § 401(b), 15 U.S.C. § 7261(b) (Supp. V 2007) (“Not later than 180 days after July 30, 2002, the Commission shall issue final rules providing that pro forma financial information included in any periodic or other report filed with the Commission pursuant to the securities laws, or in any public disclosure or press or other release, shall be presented in a manner that—(1) does not contain an untrue statement of a material fact or omit to state a material fact necessary in order to make the pro forma financial information, in light of the circumstances under which it is presented, not misleading; and (2) reconciles it with the financial condition and results of operations of the issuer under generally accepted accounting principles.”).

a reconciliation to earnings reported under GAAP.¹⁹⁰ This section led to the SEC issuing Regulation G in January 2003. Bhattacharya, Black, Christensen, and Mergethaler examine who trades on pro-forma earnings.¹⁹¹ Their results show that less sophisticated individual investors appear to rely most heavily on these disclosures.¹⁹² These results further justify the SOX-related regulations designed to protect investors.

V. AUDITING AND AUDIT FIRMS

SOX, and the events surrounding its passage, brought massive change to the accounting profession. The Act established the PCAOB to oversee the audit of public companies.¹⁹³ All audit firms that wish to audit a public company must be registered with the PCAOB and are subject to its oversight.¹⁹⁴ Auditors are required to opine on management's assessment of the effectiveness of internal controls.¹⁹⁵ In addition to all these changes, the demise of Arthur Andersen caused many large public companies to look for a new auditor.¹⁹⁶ There have been two types of questions examined with regard to auditing and the audit firms: (1) What is the impact of the Act on audit fees?¹⁹⁷ (2) What is the impact of the Act on client risk assessment?¹⁹⁸

A. *What is the impact of the Act on audit fees?*

Internal control problems should be considered an increase in audit risk resulting in a commensurate increase in audit fees.¹⁹⁹ Currently, firms are subject to different internal control requirements based on size.²⁰⁰ Accelerated filers must have their

190. *Id.*

191. See Nilabhra Bhattacharya et al., *Who Trades on Pro Forma Earnings Information?*, 82 ACCT. REV. 581 (2007).

192. *Id.* at 605.

193. See 15 U.S.C. § 7211 ("There is established the Public Company Accounting Oversight Board, to oversee the audit of public companies that are subject to the securities laws, and related matters, in order to protect the interests of investors and further the public interest in the preparation of informative, accurate, and independent audit reports for companies the securities of which are sold to, and held by and for, public investors.").

194. Pub. Co. Accounting Oversight Bd., Bylaws and Rules § 2.2100 (2007), available at http://www.pcaobus.org/Rules/Rules_of_the_Board/Section_2.pdf.

195. See *id.* § AS5.71, available at http://www.pcaobus.org/Rules/Rules_of_the_Board/Auditing_Standard_5.pdf ("The auditor should form an opinion on the effectiveness of internal control over financial reporting by evaluating evidence obtained from all sources, including the auditor's testing of controls, misstatements detected during the financial statement audit, and any identified control deficiencies.").

196. See Cathy Booth Thomas, *Called to Account*, TIME, June 18, 2002, at 52 (noting that as of June 2002, over one third of Andersen's 2,300 clients had left the firm).

197. See *infra* Part V.A.

198. See *infra* Part V.B.

199. See Raghunandan & Rama, *supra* note 27; Hoitash et al., *supra* note 21 (each paper discussing the correlation between internal control problems and increased audit fees).

200. See Marc H. Folladori, *A Practical Overview of the SEC's Internal Controls and Executive Certification Disclosure Rules*, in CORPORATE LAW AND PRACTICE COURSE HANDBOOK SERIES 470 (2008) (noting that at least

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auditor attest to the effectiveness of the internal control.²⁰¹ Non-accelerated filers are not yet subject to the internal control audits, but are subject to disclosures under section 302.²⁰²

Both Raghunandan and Rama, and Hoitash et al. examine association between audit pricing and internal control problems under sections 302 and 404.²⁰³ They find a strong association between audit fees and internal control problems.²⁰⁴ In addition, Hoitash et al. show that the audit pricing varies with the severity of the control problems or by the nature of the problem.²⁰⁵ Audit fees increased in the section 404 period.²⁰⁶ However, the results show relatively less risk adjustment to fees in the section 404 period as compared with the section 302 period.²⁰⁷ Finally, the results show that if firms disclose a problem under 302 they continue to pay higher audit fees, even if there were no disclosures about internal control problems when section 404 became effective.²⁰⁸

The requirement to attest to the effectiveness of the internal control system means the auditor is required to do considerably more work.²⁰⁹ However, these opinions have been required only for accelerated filers.²¹⁰ Bedard et al. examine the audit fees of non-accelerated filers who are subject to section 302 only.²¹¹ Auditors are not required to audit the controls under section 302.²¹² However, any disclosed problem is likely to indicate an additional audit risk or greater engagement effort. Bedard et al. find that the audit fees are higher for firms that disclose internal control problems.²¹³ They also find any risk adjustment to fees does not change

until December 15, 2008 accelerated filers, those with an aggregate market value of over \$75 million, are subject to the full section 404 filing requirements, whereas smaller companies are not).

201. See *id.* ("All domestic companies meeting the definition of 'accelerated filer' (i.e., a company having an aggregate market value of common equity held by non-affiliates of \$75 million or more as of the last day of its most recently completed second fiscal quarter), have been required to comply with the SOX Section 404 rules [including an auditor attestation to the effectiveness of the internal control] for their annual reports with respect to fiscal years ending on or after November 15, 2004.").

202. See *id.* ("For these non-accelerated filers, the auditor's attestation report on internal controls would not be required to be filed until their annual report for the first fiscal year ending on or after December 15, 2008.").

203. See Raghunandan & Rama, *supra* note 27; Hoitash et al., *supra* note 21.

204. See Raghunandan & Rama, *supra* note 27, at 112; Hoitash et al., *supra* note 21, at 25.

205. See Hoitash et al., *supra* note 21, at 25-27.

206. See *id.* at 21 (noting a 28.1% increase in auditing fees for companies disclosing at least one control problem in the 404 period).

207. See *id.* at 21-22.

208. See *id.* at 27-28.

209. See, e.g., Nancy T. Hill et al., *Auditors' Reactions to Sarbanes Oxley*, CPA J., July 2007, at 6 (noting that when Sarbanes-Oxley was first implemented that there was a great increase in the workload of auditors).

210. See *supra* notes 201-02 and accompanying text. Non-accelerated filers must comply with section 404 for fiscal years ending on or after December 15, 2008. See Folladori, *supra* note 200.

211. See Jean C. Bedard et al., *Audit Pricing and Internal Control Disclosures Among Non-Accelerated Filers* (2007) (unpublished manuscript, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=954048).

212. See *id.* at 3-4 & n.2 (noting that the only internal controls reporting required for non-accelerated filers is currently derived from section 302).

213. *Id.* at 4-5.

between 2003 and 2004.²¹⁴ In addition, firms that remediate their internal control problems in 2003 continue to pay higher fees in 2004.²¹⁵ These results suggest there is a spillover effect from section 404 to section 302, with audit firms preparing their clients for eventual compliance with section 404.²¹⁶ Alternatively, the results could be due to reduced competition and increased market power of audit firms after Arthur Andersen.²¹⁷

Overall, these results show a fee increase in response to an increased audit risk. An intuitively pleasing result, but one that previous research on the relationship between audit pricing and audit risk has not had clear results on.

B. What has been the impact of the Act on client risk assessment?

Two major structural changes have occurred in the industry that would have required the audit firms to reevaluate their portfolio of audit clients. First, a flood of potential new clients became available with the demise of Arthur Andersen.²¹⁸ Second, section 404 required the auditors to attest to the internal control assessment of management.²¹⁹ Landsman, Nelson, and Roundtree investigate auditor switches in the pre- and post-Enron era.²²⁰ They find that auditors realigned their client portfolios due to capacity constraints rather than in response to sensitivity to client risk assessment.²²¹ Additionally, their results suggest that SOX did not impact Big N switching behavior incremental to the initial Arthur Andersen shock.²²²

Client risk assessment and audit intensity will be affected directly by the strength of the internal control system.²²³ In a theoretical investigation into the effects of SOX on audit intensity and internal controls, Patterson and Smith find that internal control tests are a valuable tool when these tests are informative about the likelihood of fraud.²²⁴ SOX has the desired impact of inducing stronger internal

214. *Id.* at 5.

215. *Id.*

216. *See id.* at 21.

217. *See, e.g.,* Emilie R. Feldman, *A Basic Quantification of the Competitive Implications of the Demise of Arthur Andersen*, 29 REV. INDUS. ORG. 193, 193–98 (2006).

218. *See id.* at 197–98.

219. Sarbanes-Oxley Act § 404, 15 U.S.C. § 7262 (Supp. V 2007) (requiring that “each registered public accounting firm that prepares or issues the audit report for the issuer shall attest to, and report on, the assessment made by the management of the issuer”).

220. Wayne R. Landsman et al., *An Empirical Analysis of Big N Auditor Switches: Evidence From the Pre- and Post-Enron Eras* (Apr. 2006) (unpublished manuscript, available at <http://ssrn.com/abstract=899544>).

221. *See id.* at 30–31.

222. *See id.* Big N in this study refers to Arthur Andersen, Deloitte & Touche, Ernst & Young, KPMG, and PricewaterhouseCoopers (or its predecessor firms, Price Waterhouse and Coopers & Lybrand). *Id.* at 35 tbl.1.

223. *See, e.g.,* Evelyn R. Patterson & J. Reed Smith, *The Effects of Sarbanes-Oxley on Auditing and Internal Control Strength*, 82 ACCT. REV. 427, 442 (2007).

224. *See id.* at 427.

control systems and less fraud, but does not necessarily lead to more control testing.²²⁵ Furthermore, the passage of SOX leads to higher audit risk.²²⁶

VI. CORPORATE GOVERNANCE

Several studies have looked at either the changes in corporate governance requirements resulting directly from provisions of SOX or at the impact on corporate governance in a post-SOX environment. Prior to SOX, it was not uncommon for firms to hire accounting and financing officers from their auditors, referred to as revolving-door hires.²²⁷ SOX prohibited these revolving door hires.²²⁸ Geiger, Lennox, and North examined the market reaction to these hires before the SOX changes.²²⁹ They find the number of revolving-door hires is very small, only about 6.1%, and the market reacts more positively to these appointments than other types of appointments.²³⁰ This positive market reaction is driven by smaller companies.²³¹ In addition, these appointments are not associated with lower financial reporting quality or receipt of Accounting and Auditing Enforcement Releases (AAER).²³² Overall, it might appear that this is an area where SOX may have overstepped.

Zhang, Zhou, and Zhou investigate the quality of the audit committee post-SOX; in particular, they look at the relation between audit committee quality, auditor independence, and internal control weaknesses.²³³ Firms are more likely to have internal control weaknesses when they lack a financial expert, in particular an accounting expert, on their audit committee.²³⁴ In addition, firms with more independent auditors or that recently have experienced a change in auditors are more likely to have disclosed an internal control weakness.²³⁵

Finally, Wilkinson and Clement examine the market reaction to early certification of the accuracy of the firm's financial statements by CEOs.²³⁶ On average, Wilkinson and Clement find no market reaction to early CEO certifications.²³⁷ However, they do find that for firms that already had strong corporate governance

225. See Robert Prentice, *Sarbanes-Oxley: The Evidence Regarding the Impact of SOX 404*, 29 CARDOZO L. REV. 703, 711-40 (2007) (discussing the benefits and shortcomings of Sarbanes-Oxley and section 404).

226. Patterson & Smith, *supra* note 223, at 441.

227. Geiger et al., *supra* note 31, at 55.

228. *Id.* at 82.

229. *See id.*

230. *See id.* at 82-83.

231. *See id.* at 83.

232. *See id.*

233. Zhang et al., *supra* note 6.

234. *Id.* at 322.

235. *See id.*

236. See Wilkinson & Clements, *supra* note 31. In the wake of the collapse of WorldCom, the SEC required all CEOs to file sworn statements by August 14, 2002. See Order Requiring the Filing of Sworn Statements Pursuant to Section 21(a)(1) of the Securities Exchange Act of 1934 No. 4-460 (June 27, 2002), available at www.sec.gov/rules/other/4-460.htm.

237. See Wilkinson & Clements, *supra* note 31, at 131-32.

mechanisms in place pre-SOX (such as firms that pay dividends, have appropriate board size and have high institutional ownership—all proxies for good corporate governance), these firms experienced significantly positive abnormal returns at the time of the early CEO certification.²³⁸

VII. CONCLUSION

SOX is considered by many to be one of the most important pieces of corporate legislation enacted since the securities laws of the 1930s.²³⁹ Like any major piece of legislation it has generated a large amount of research.²⁴⁰ Many of the findings of the research are not too surprising, e.g., smaller and younger firms are more likely to suffer from internal control problems.²⁴¹ However, three major themes come out of reviewing the literature in accounting related to the Act. First, it is widely believed that SOX has restored investor confidence in the U.S. capital markets.²⁴² In some regards, this position is more of belief than an empirical fact. It is incredibly difficult to disentangle the impact of SOX from the impact of the other events occurring concurrently. Second, when it comes to internal control problems the details contained in the disclosure matter more than the simple disclosure of a control problem.²⁴³ Finally, when we consider the effects of SOX, we need to focus on the whole information environment. For example, the research has consistently found no reaction to an internal control problem under section 404, but firms must make section 302 disclosures, making the section 404 disclosures old news.²⁴⁴

The next couple of years will continue to be exciting times for followers of SOX. Section 404 reporting has been credited with improving the internal control environments of the accelerated filers, the largest companies in the United States.²⁴⁵ So much of the improvements from SOX go unobserved. The non-accelerated filers start to report under section 404 for fiscal years ending on or after December 15, 2008.²⁴⁶ These companies are likely to benefit greatly from strong internal controls systems. Improved internal controls should lead to better financial reporting quality. Continued improvements in financial reporting quality should continue to strengthen investor confidence in the equity markets.

238. See *id.* at 138 (noting that “[i]t is likely that good corporate governance renders CEO early certification more believable”).

239. See, e.g., *Testimony Concerning the Implementation of the Sarbanes-Oxley Act of 2002: Hearing Before S. Comm. On Banking, Housing and Urban Affairs*, 108th Cong. (Sept. 9, 2003) (testimony of William H. Donaldson, Chairman, SEC), available at <http://www.sec.gov/news/testimony/090903tswhd.htm>.

240. See, e.g., Robert A. Prentice & David B. Spence, *Sarbanes-Oxley as Quack Corporate Governance: How Wise is the Received Wisdom?*, 95 *Geo. L.J.* 1843, 1858–1907 (2007) (discussing a vast number of empirical studies related to Sarbanes-Oxley).

241. See *supra* notes 127–29 and accompanying text.

242. See JONAS ET AL., *supra* note 151, at 1.

243. See *supra* notes 138–43 and accompanying text.

244. See *supra* notes 151–55 and accompanying text.

245. See JONAS ET AL., *supra* note 151, at 4.

246. See Folladori, *supra* note 200, at 471.