Research on Implications of Fraud for Investors, Managers, Auditors and Regulators

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Focus

- Perspective from research on the benefits and costs of fraud detection
  - The role of financial reporting in providing information to investors and other stakeholders, and implications of varying financial reporting quality
  - Evidence on earnings management and its implications for fraud detection
  - Evidence on corruption and its implications for regulation
  - The costs and benefits of alternative practices, procedures or standards to deter and detect fraud
- Potential directions for the task force on the auditor’s approach to detecting fraud

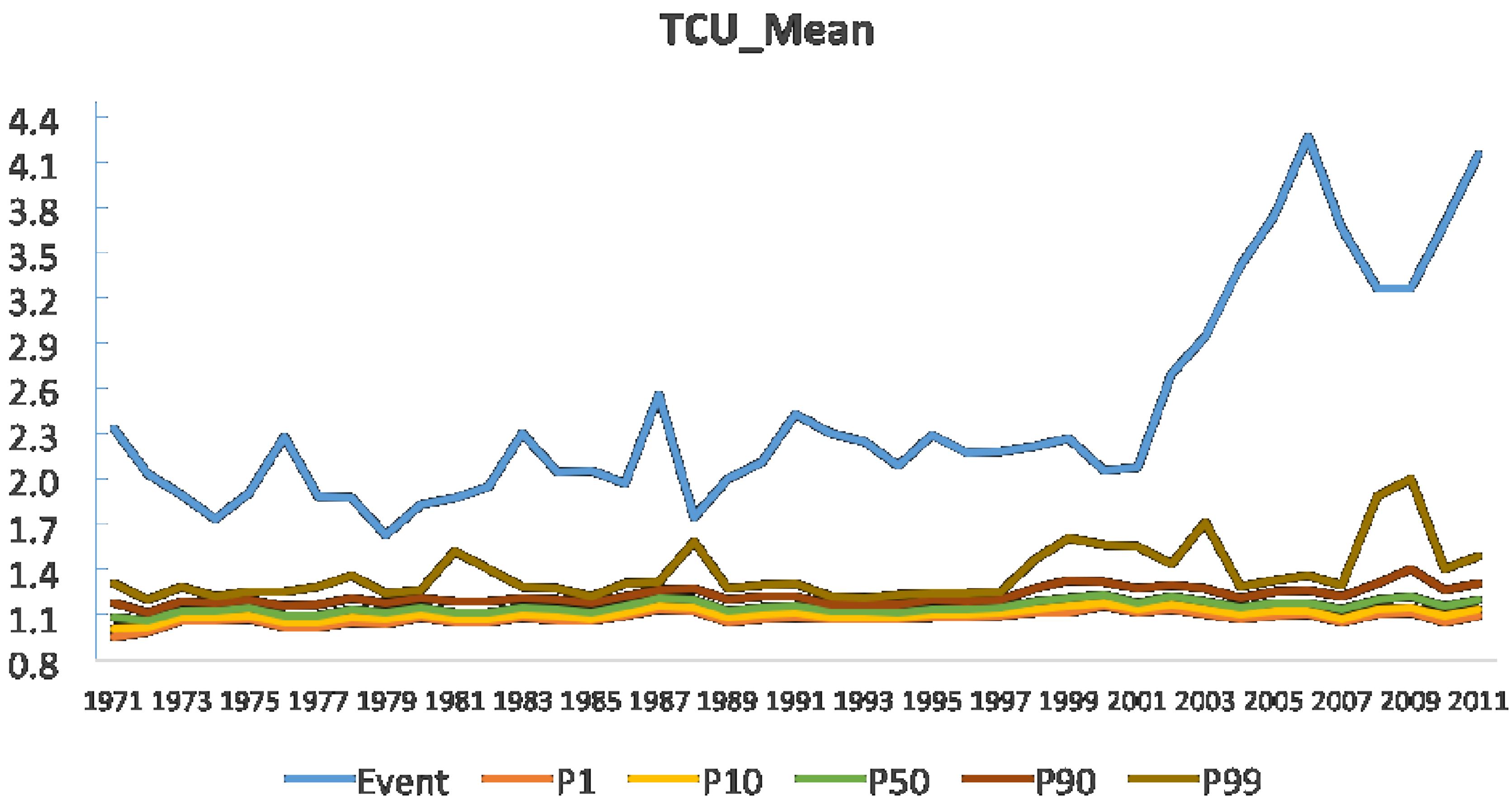
Key Elements of Fraud and its Detection

- Manipulator perceives a gain to the activity net of the costs to implement the fraud and the risk of penalty if caught.
- The gain to showing better performance may vary over economic cycles and firm life cycles but is likely ever-present.
- The improvements in controls and governance from SOX have reduced the ability of managers to engage in certain forms of manipulation.
- Other factors contributing to the potential for manipulation may be increasing:
    - Increasing role of earnings in informing investors and other decision-makers
    - increasing role of judgment in financial reporting,
    - the pace of change in business models due to technological innovation
    - the globalization of business.
- The likelihood of detection and the penalty if caught can vary with the scope of audits and enforcement resources but some evidence suggests the likelihood of detection may be low.

The role of financial reporting in informing investors

- There is a large literature in accounting documenting that the market responds to earnings information, and that earnings are a key variable in the valuation of firms
- Studies examining the information content of earnings through the 1990's found increasing information content through this time period (Francis, Schipper and Vincent (2002), Landsman and Maydew (2002))
- Current research by Beaver, McNichols and Wang (2013) documents increasing price revision at earnings announcements through the 2000's

The role of financial reporting in informing investors



Beaver McNichols and Wang, 2013, A Re-Examination of the Information Content of Earnings

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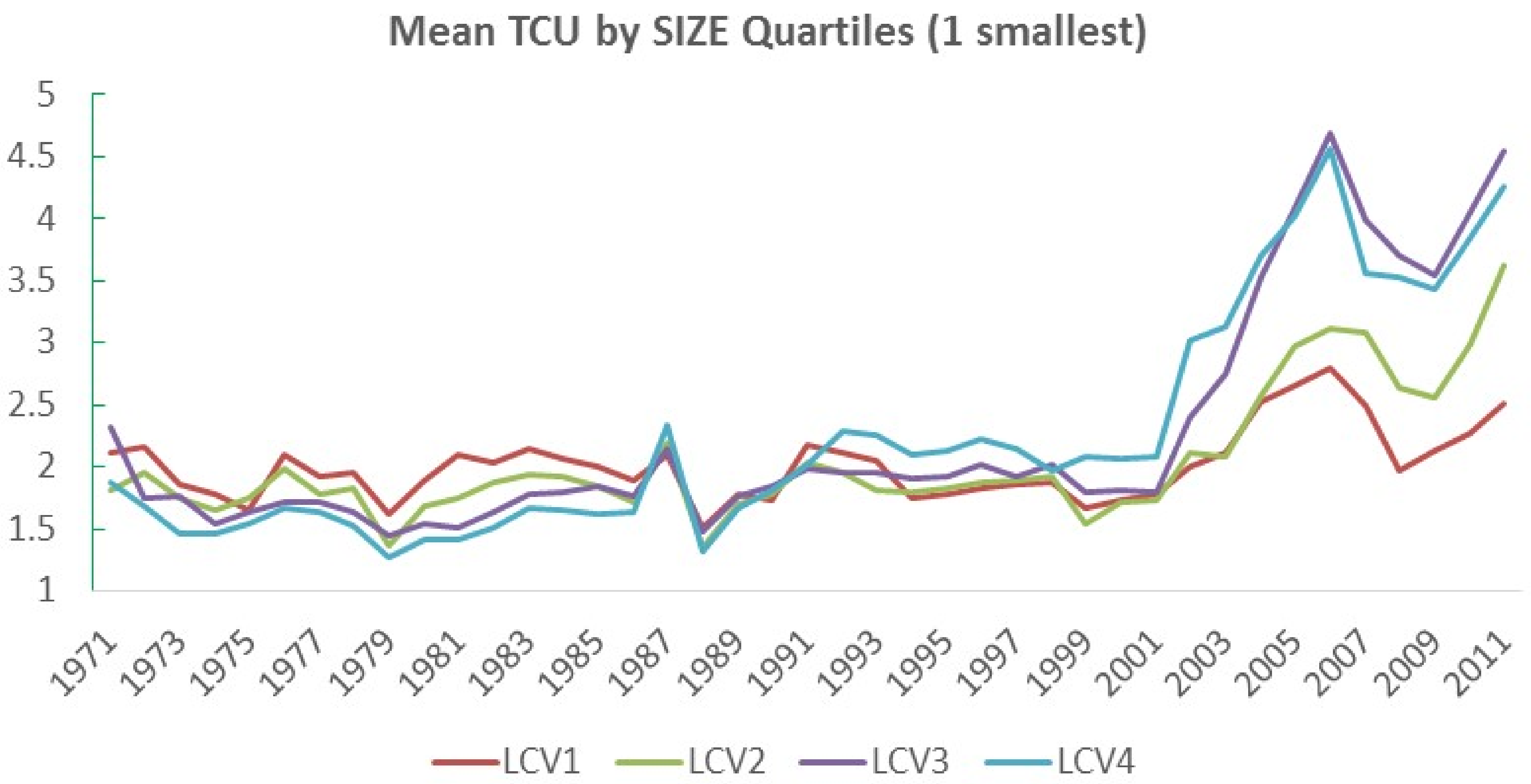


Beaver McNichols and Wang, 2013, A Re-Examination of the
Information Content of Earnings

The role of financial reporting in informing investors

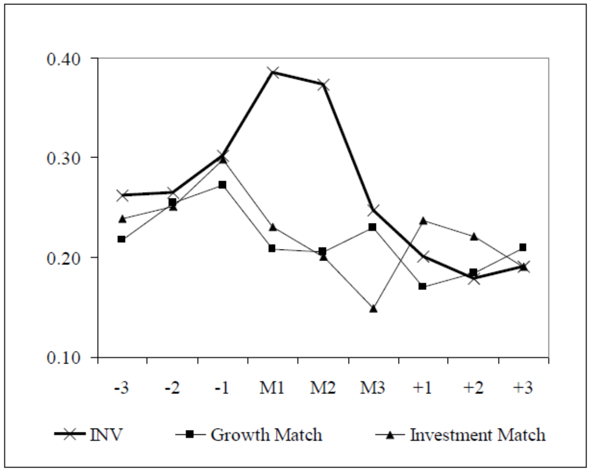
- The revision of prices conditional on earnings announcements has increased considerably over the past decade.
- The revision of prices at earnings announcements has increased more for larger firms, so the economic magnitude of this phenomenon is substantial.
- The increasing role of financial reporting in informing investors suggests managers may have greater incentives to manipulate reported earnings.
- The increasing market reaction to earnings suggests the role of financial reporting in informing others has increased as well: managers, boards, employees, competitors, acquirers.
- The increasing role of financial reporting in informing investors suggests the benefits to fraud detection are increasing as well.

The role of financial reporting in influencing investment decisions within firms

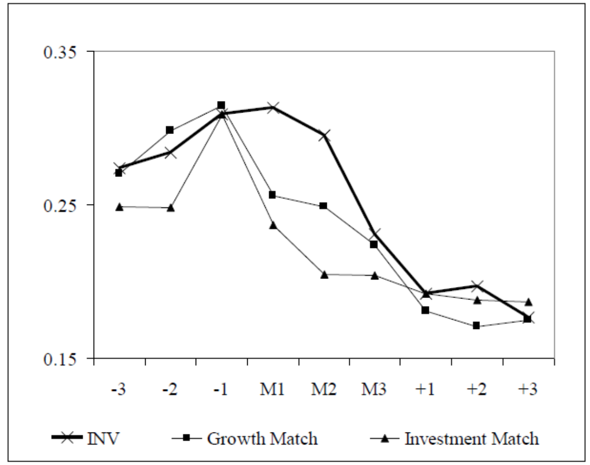
- McNichols and Stubben (2008) document that investment decisions are influenced by misleading reporting.
- We examine investment decisions for three samples of misreporters: AAER's, class action lawsuits, restatements
- Firms overinvest in periods in which they are misreporting earnings.
- Sample firms invest more than matched control firms, and thus do not support the argument that misreporting firms are attempting to pool with firms in their industry. Rather the findings suggest their investment decisions are influenced by the misleading information they are reporting externally.
- Once misreporting is corrected, firms no longer overinvest, indicating corrected information leads to more efficient investment.

FIGURE 3
Plots of Investment for Sample and Control Firms

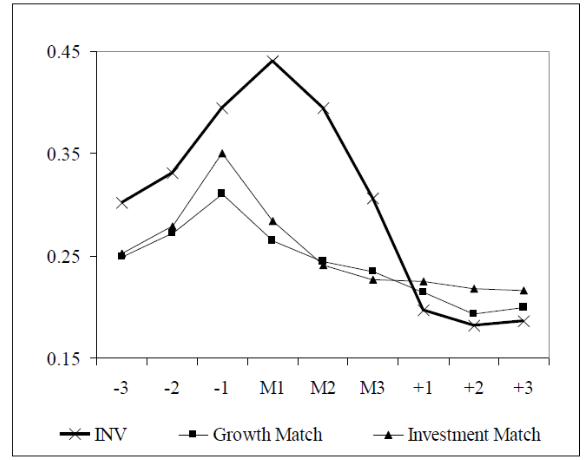
Panel A: SEC Sample Firms



Panel B: GAO Sample Firms



Panel C: Litigation Sample Firms



These charts present the median investment (*INV*, which equals capital expenditures scaled by net property, plant, and equipment at the beginning of the year) through event time for firms in the SEC enforcement action sample (panel A), the GAO restatement sample (panel B), and the Woodruff-Sawyer securities litigation sample (panel C). Also presented are two control measures of investment. "Growth Match" ("Investment Match") is the median investment of each sample firm's control firm matched on asset growth (excess investment), size, and industry, in event year t-1. M1 (M2, M3) represents the first (second, third) year of the misreporting period.

McNichols and Stubben, 2008. Does Earnings Management Affect Firms' Investment Decisions. Published in The Accounting Review

Additional consequences of financial reporting quality

- McNichols and Stubben (2013) document that acquirers are less likely to overpay for target companies that have higher earnings quality
- Firms with higher earnings quality have a lower cost of capital (Francis, LaFond, Olsson, Schipper, 2004, 2005)
- Firms with greater information asymmetry in less competitive markets have higher cost of capital (Armstrong, Core, Taylor and Verrecchia, 2013)

Evidence on corruption and implications for regulation

- Evidence from Parking Tickets of UN Diplomats by Fisman and Miguel (2007)
- The authors examine the extent of violations from 1997-2002 when the NYPD had no authority to enforce unpaid parking tickets and found unpaid parking tickets averaged 2500 per month for the diplomats from 149 UN missions.
- The authors document that in October 2002 when the NYPD gained permission from the State Department to remove plates with 3 unpaid tickets, the number of unpaid parking tickets dropped by 98%.
- The authors document that the violations before and after October 2002 were significantly associated with indices of corruption for the home country of the diplomat.
- Key takeaway: Enforcement had a significant effect on behavior. Cultural norms are significant in predicting violations in the no-enforcement and post-enforcement periods, so norms toward corruption are persistent.

"Corruption, Norms, and Legal Enforcement: Evidence from Diplomatic Parking Tickets," by Raymond Fisman and Edward Miguel. Journal of Political Economy, Vol. 115, No. 6 (December 2007), pp. 1020-1048

Evidence from bribes and restatements on the incidence and probability of detection

- Evidence from FCPA Enforcement Actions (Karpoff, Lee and Martin, University of Washington working paper, 2013)

The study estimates the likelihood of a prosecutable bribe is 22% over the sample period, and the probability a bribe-paying firm is prosecuted is 6.4%.

- Evidence on Restatements by foreign firms listed on US exchanges (Srinivasan, Wahid and Yu, Harvard Business School working paper, 2013)

Foreign firms listed in the US restate their accounts less frequently than US listed companies, and less than would be expected based on internal control violations. Foreign firms are 46% less likely to restate relative to US matched sample firms, primarily due to lower probability of restatements by firms from countries with weak legal institutions.

Evidence from restatements and class action lawsuits on the incidence and probability of detection

- Evidence from restatements by Zakolyukina (University of Chicago 2013 working paper)

Using a structural model incorporating CEO incentives and non-technical restatements from Audit Analytics, the probability a firm misreports is 66% and the probability of detection is 9%.

- Evidence from Class Action Lawsuits by Dyck, Morse and Zingales (2013 working paper)

Using data on class action lawsuits of Arthur Andersen clients and assuming their subsequent auditors identify fraud, they estimate the probability of fraud in any given year to be 14.5% and the value loss in fraud firms to be 21.7%

- Evidence from survey of CFO's by Dichev, Graham, Harvey and Rajgopal (Journal of Accounting and Economics, 2013)

CFO's believe about 20% of firms manage earnings.

Indicators of earnings quality from research and analysis of cases

Consistent relation between financial statement variables, e.g. revenues and receivables, revenues and inventory, and over time

Relation between earnings and cash from operations

Relation between earnings and taxable income

Earnings derived from core operations vs. peripheral transactions

Use of appropriate accounting principles and estimates

Financial results consistent with economic environment and firm's strategy

Tone at the top

Many of these indicators were visible in classic cases like Waste Management, Sunbeam, Worldcom, Enron, Krispy Kreme, Tyco, and in financial companies leading up to the financial crisis.

Task Force

- What fraction of frauds are detected by the auditors but not corrected initially? What are the factors that contribute to this?
- What fraction of frauds are missed by the auditors? What are the key factors relevant to their missing the fraud?
- Certain industries, audit offices and geographic regions have a higher risk of audit failures. What factors explain this and what strategies are cost-effective in response?
- Emerging literature estimating the probability of misreporting finds a range of estimates but generally suggests low probabilities of detection. Taking a deeper look at the alternative approaches in this literature could yield helpful guidance to audit firms and regulators.
- What are the likely costs and benefits to changes to audit education, practices, procedures and standards to improve fraud detection ability?