Title: **Commentary: Revisiting Earnings Management**

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ABSTRACT: In this commentary, I re-visit the issue of earnings management (EM) more than 35 years after Schipper's (1989) influential commentary on the subject. Important legislative, regulatory, and other events have occurred since then (accounting scandals, the Sarbanes-Oxley Act (SOX) and the regulation of auditing), including the literature's recognition that managers can use real activities to manage earnings in addition to, or in place of accounting-based EM techniques. I discuss EM basics, accounting pronouncements constraining EM, and some key research findings in the area. The evidence suggests accounting-based EM declined post-SOX and substitution between accounting-based and real EM weakened. The research also suggests that the role of external auditors in being aware of heightened EM settings and exhibiting extra scrutiny in such settings is also an important factor in the reduction of accounting-based EM. Additionally, the research supports Ball's (2013) claim that EM occurs but rampant EM is a myth.

Keywords: accounting-based earnings management, real earnings management, Sarbanes-Oxley Act, disclosure of auditor materiality thresholds

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COMMENTARY: REVISITING EARNINGS MANAGEMENT

I. SYNOPSIS: INSIGHTS for PRACITIONERS, REGULATORS and RESEARCHERS

In this commentary, I re-visit earnings management, a long-standing mainstream issue in financial accounting. It has been over 35 years since *Accounting Horizons* published Katherine Schipper's influential commentary on earnings management. Many changes and other events have occurred since then, including the 2001-2002 accounting fraud scandals, especially at Enron and WorldCom, which brought about the U.S. Sarbanes-Oxley Act of 2002 (SOX). SOX is arguably the most important U.S. legislation affecting auditing and financial accounting since the passage of the Securities Acts in the 1930s. Among other things, SOX made external auditing a regulated industry, creating the Public Company Accounting Oversight Board (PCAOB) to be the auditing regulator that regularly inspects auditors' work. Further, there has been an expansion of auditor requirements, including their attestation of client firms' internal controls over financial reporting. Moreover, the earnings management literature has grown substantially and increasingly has reflected the reality that managers can use real activities to manage earnings in addition to, or in place of, employing accounting-based earnings management techniques. Hence, the ways and extent to which managers engage in earnings management likely have changed and thus it is important to re-visit the topic of earnings management to see what we have learned.

Section II of the commentary covers earning management basics, including definitions and institutional features, relevant aspects of financial accounting, and earnings management mechanisms and examples. It also identifies examples of accounting standards and Securities and Exchange Commission (SEC) actions that, at least in part, have constrained earnings management. Section III summarizes findings of some key earnings management-related research concerning C-level executives, SOX, the prevalence and extent of earnings management, and auditor disclosures of their

quantitative materiality thresholds; also considered is Ball's (2013) claim that it is a myth that earnings management is rampant. Section IV concludes. I believe the commentary will be of interest to practitioners, financial statement users, standard setters, regulators, and researchers.

II. EARNINGS MANAGEMENT BASICS

Schipper (1989, 92) characterizes earnings management as "'Disclosure management' in the sense of a purposeful intervention in the external financial reporting process, with the intent of obtaining some private gain." Healy and Whalen (1999, 368) argue that earnings management occurs "when managers use judgment…to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers."

In a 1998 speech titled "The Numbers Game," the then SEC Chairman Arthur Levitt talked about earnings management. Excerpts from the speech follow:

> "In the zeal to satisfy consensus earnings estimates and project a smooth earnings path, wishful thinking may be winning the day over faithful representation.… I fear that we are witnessing an erosion in the quality of earnings, and therefore, the quality of financial reporting.… [It is] difficult [for managers] to hold the line on good practices when…competitors operate in the gray area between legitimacy and outright fraud…."

Levitt (1998) also talked about discretion in financial accounting. He said (emphasis added), "*Flexibility in accounting* allows it to keep pace with *business innovations*. Abuses such as *earnings management* occur when people exploit this pliancy…to obscure actual financial volatility… [and mask] the true consequences of management's decisions…." This quote highlights financial accounting as evolving as business practices evolve. People create new business models and transactions, and accounting practitioners, researchers, standard setters and regulators seek to catch up in order to represent faithfully the new business activities. This is the same basic model as, for

example, dealing with a new disease, where doctors, researchers, and public health officials seek to figure out how to treat patients as the disease is spreading.

Schipper (1989, 92) states, "A minor extension to the definition [of earnings management] would encompass 'real' earnings management, accomplished by timing investment or financing decisions to alter reported earnings or some subset of it." It seems reasonable to assume Schipper was not surprised by the subsequent increased recognition in the accounting literature that real earnings management (hereinafter *REM*) was a viable earnings management technique along with accounting-based earnings management (hereinafter *AEM*).[1] That is, since Schipper's (1989) commentary, a substantial portion of the earnings management (hereinafter *EM*) literature has included real activities as an additional *EM* tool, and a possible substitute for *AEM*. Two particularly noteworthy articles in the area are the following. Graham, Harvey, and Rajgopal (2005) who survey and interview corporate financial executives and find 78% say they would sacrifice long-term firm value by using real activities to smooth earnings or meet or beat a short-term earnings target. Roychowdhury (2006) provides evidence of and guidance on estimating *REM* as proxied by abnormal real activities.[2]

Institutional Features of Earnings Management

In her commentary, Schipper (1989, 94) asks, "What institutional features of the reporting environment make earnings management possible?" Schipper cites models from two analytic studies to help answer that question. The first is by Dye (1988) and considers accounting-based compensation contracts, and the second, by Trueman and Titman (1988), focuses on income smoothing, a form of *EM* that dampens earnings volatility to give the impression that a firm has a lower risk of bankruptcy.

[1] As discussed later in the commentary, *AEM*, accounting-based earnings management in a broad sense, includes accruals and accounting method changes and choices.

[2] Barton (2001) and Pincus and Rajgopal (2002) examine trade-offs between *REM* and *AEM* pre-SOX. Cohen, Dey, and Lys (2008) consider a change in that trade-off linked to SOX. I discuss Cohen et al.'s (2008) findings further later in the paper.

The following elements in U.S. Generally Accepted Accounting Principles (GAAP) and the financial reporting environment support these models.

First, the financial accounting equation and double-entry accounting ($A = L+OE$ and *Debits = Credits*) require every transaction and event recognized in the accounting system to balance exactly. Nonetheless, there can be considerable discretion in financial reporting. Managers estimate at least to some extent most of the amounts reported in the financial statements (e.g., bad debts, depreciation, inventory costs, pensions, impairments, etc.); and such estimation can involve substantial subjectively.[3] Second, information asymmetry between a firm's managers and its shareholders as well as with other stakeholders is present. Third, managers likely face incentives that can affect their accounting decisions and real actions, and which in turn can affect their compensation and job security. (Appendix A includes some examples.) Fourth, given the separation of ownership and control in a firm, a principal-agent (i.e., an agency) problem can exist, implying that shareholders' and managers' interests may not always align. Ball (2013, 851) says, "The generic structure of an 'earnings management' story involves some sort of agency theory." Agency problems have costs: in addition to managers not always satisfying shareholders' interests, there are costs to monitor the agents, and perfect monitoring, if even possible, can be very costly.

Moreover, consider Fischer Black's (1993, 1) definition of accounting:

> Accounting is a language that people within a firm can use to discuss its projects and progress with one another, and that they can use to tell outsiders what's happening in the firm without giving too many of its secrets to competitors.

The second part of Black's definition is about external reporting, and the last phrase concerns not giving away secrets to competitors, which makes clear full disclosure is neither desired nor practical. This opens the door to management's omission of information and/or to the commission (i.e., the

[3] Survey evidence, collected by Dichev, Graham, Harvey, & Rajgopal (2013, section 5.1), indicates that 50.3% of chief financial officers believe they have too little discretion in financial reporting whereas 29% claim they have too much discretion.

insertion) of reporting noise or distortions (Beyer, Guttman, and Marinonic 2019). For example, burying start-up and operating costs of a new line of business or business activity in a large expense (e.g., cost of goods sold). Instead of full disclosure, publicly traded firms must adhere to the SEC's mandate for fair disclosure, which prohibits a firm from making selective disclosures.[4]

Together, managerial discretion, information asymmetry, agency problems, and managerial incentives, coupled with the effective impossibility of full disclosure create an environment in which *EM* might arise. However, an additional factor is necessary for *EM* to occur. Consider the fraud triangle (Cressey 1953). First, a financial problem occurs that is non-sharable (though collusion is possible). Second, the opportunity exists to resolve the financial problem through a trust violation. Third, after the fact there is a rationalization of the behavior. While fraud represents the extreme form of earnings management, the fraud triangle is useful when thinking about *EM* in general. For our purposes, the necessary factor from the fraud triangle is having the opportunity to manage earnings, in addition to having the motivation and the means. To achieve *EM* goals one or a few managers must have the ability to overcome a firm's internal controls and implement their *EM* strategies. That is, directing a firm's accounting-related manager(s) to make the needed adjusting journal entries to implement *AEM*, and/or directing key line managers to engage in sub-optimal real activities to implement *REM*.

On one hand, managers may choose to act in overly self-serving ways when exercising discretion in making decisions and taking actions with regard to accounting policies and real activities. On the other hand, managers may use their discretion to communicate some of their private information about their firm's financial position and current and expected performance to produce financial reports that more accurately and reliably reflect their firm's underlying fundamentals,

[4] SEC regulation fair disclosure (Reg FD) requires public companies to disclose material nonpublic information to all investors simultaneously. The regulation aims to prevent selective disclosure, which is when some investors receive key information before others.

without giving away proprietary information. In this regard, managers have their reputation and integrity to consider, personally and with regard to the managerial labor market, as well as their compensation and job security. Hence, discretion is a "double-edged sword." It may be used to communicate in a forthright manner or to misrepresent (i.e., produce disinformation about) the firm. Managers as well as accountants thus face ethical dilemmas in their accounting and reporting decisions and in their real activities. It is not surprising that individuals seeking to obtain and maintain a CPA license must demonstrate competence in the area of professional ethics.

Financial Accounting and Earnings Management

Financial statements reflect a firm's (a) fundamentals, i.e., its substantive economic characteristics and activities, and (b) its accounting policies, which include mandated measurement and disclosure standards and voluntary accounting method choices, estimates, and disclosures. Managers can use form (due to discretion in GAAP rules) to alter substance (i.e., real economic events), and that can negatively affect the quality of a firm's financial reports. A firm's independent auditor is an external monitor over the firm's financial reporting; its audit can constrain client managers' *EM* behaviors, and thus the quality of an auditor's work influences the quality of its clients' financial reports (e.g., Teoh and Wong 1993).

Dechow, Ge, and Schrand (2010) provide a conceptual definition of reported earnings: *Reported Earnings* ≡ *f(X)*, where *X* is a firm's performance for the period (and is largely unobservable), and *f* is the accounting system the firm follows (e.g., GAAP), which converts *X* into observable (i.e., reported) earnings. That performance is mostly unobservable is especially obvious from an outsider's point of view. While a publicly traded firm's financial statements are readily available, financial analysts participate in a firm's conference calls, and the financial reports of a given firm's publicly traded peers can be informative about the firm's performance, much remains

unknown to outsiders about a firm's decisions and activities. Even within a firm, managers may be knowledgeable about only a small part of the entire entity's activities and of management's decisions in general. Moreover, due to information asymmetry top management will be uncertain about all of its subordinates' work and about critical future events. For example, the collectability of receivables from major customers in countries facing considerable political risks. Additionally, it is difficult if not impossible to observe in real time the deterioration in the usefulness and value of certain of a firm's assets, and especially of the depreciation of its property, plant, and equipment.

The well-known income equation is, *NI = Revenues - Expenses*, where NI is Net Income or simply Earnings. It can be re-written as follows: *NI = CFOs + "Accruals"* where CFOs is Cash flows from operations and "Accruals" are accounting adjustments and serve as a shorthand (hence the quotation marks) for accruals, deferrals, apportionments, and corrections affecting NI. Firms recognize "accruals" through adjusting entries, which typically occur after the end of the fiscal period. In contrast, CFOs must occur during a fiscal period. Both CFOs and "Accruals" are net amounts since each can include individual items that increase or decrease reported earnings.

Earnings Management Tools and Incentives

Here are four basic *EM* mechanisms (i.e., tools). (Appendix B includes examples.) The first mechanism is managing the occurrence, timing, and structure of transactions, that is, *REM*. Recalling *NI = CFO + "Accruals,"* CFO is emphasized for *REM* since real resources will be impacted. Generally, there is no disclosure of real activities management, although it may be inferred with error by estimating abnormal real activities. The second mechanism is managing accounting estimates, i.e., "accruals." "Accruals" are generally not disclosed and abnormal "accruals" may be estimated but with error.[5] A third mechanism is a change in or choice of a firm's accounting methods (Moses 1987);

[5] Estimation of abnormal "accruals" and abnormal real activities, respectively, likely include non-discretionary accruals and non-discretionary real activities; thus, these estimates measure discretionary accruals and discretionary real activities with error.

firms disclose their significant accounting policies, and adoptions of accounting methods can affect current and future earnings. Schipper (1989, 102) states, "earnings management explanations for these events must provide reasons why a highly visible manipulation would be expected to have any effect, and what that effect might be." Presumably, accounting method changes and choices are not random events; moreover, in a world of ever-increasing information overload, individuals' limited attention can leave many less informed (Hirshleifer, Lim, & Teoh 2009) such that some financial statement users may not fully understand the accounting methods firms adopt or their *EM* implications. The fourth mechanism is misclassifying (i.e., re-classifying) income statement items to make core earnings (e.g., operating income or some non-GAAP earnings measure) appear more profitable and persistent. Note, misclassifying does not affect the bottom-line GAAP earnings number and firms do not disclose this, although it too may be inferred with error (McVay 2006). Regardless of which *EM* tool(s) a firm might use, any effect on reported earnings will also affect balance sheet accounts due to double entry accounting. For instance, using *AEM* builds-up balance sheet account balances that can become a constraint on future *EM* activity (Simko and Barton 2002).

Figure 1 presents a schematic about the continuum of what reported accounting numbers could reflect. It ranges from normal activities, through earnings management and fraud. First, survey evidence suggests the most common form of *EM* is income increasing (Dichev et al. 2013). In this connection, it may be useful to know whether a firm's accounting policy in a given area for financial accounting (i.e., book) purposes differs from its accounting for income taxes. If there is book-tax *non*-conformity in a given area, then managing book income upwards will not increase taxable income and can enable a firm to report higher book income while reporting lower taxable income. Second, managers can have incentives to manage earnings downwards, which is the second most common form of *EM* (Dichev et al. 2013). The widely used Jones (1991) model for estimating abnormal "accruals" was initially used for firms seeking regulatory relief from foreign competition by

managing earnings downwards to make it appear foreign competition was causing the firms to be less profitable. The extreme form of downward *EM* is the big bath; for example, if a firm is performing poorly in a given year, there can be an incentive to pile on other expenses and losses (i.e., front-loading them) so that they do not affect future earnings. A third category of *EM* is income smoothing. Note, first, "accrual" accounting smooths earnings by taking a firm's discrete and lumpy cash flows and spreading them over time in an attempt to reflect more closely ongoing (underlying) operating performance.[6] Income smoothing as an *EM* device, however, seeks to dampen artificially the volatility over time in a firm's operating cash flows, which induce volatility in the time series of reported earnings.[7] Also included in the schematic is income tax planning, which can be related to managing book income. The fact that making donations near the end of the calendar year generates tax deductions for the full year is widely touted by not-for-profit entities' year-end donation pleas, and suggests that tax income management is often seen as a socially acceptable practice. However, managing book income is typically not socially or potentially legally acceptable, as SEC Chairman Levitt's (1998) speech makes clear.

Insert Figure 1 about here

Figure 1 also lists a non-exhaustive set of possible *EM* incentives.[8] A common incentive is for firms to seek to meet or beat earnings targets, such as the consensus of analysts' earnings forecasts. An important aspect of this can include management's efforts to lower analysts' expectations about upcoming reported earnings (Matsumoto 2002), sometimes referred to as "sandbagging." That is, given a firm's reported earnings, lowered analyst expectations increase the likelihood the firm's reported earnings will meet or beat those expectations, which generally will be well-received by

[6] Dechow (1994) demonstrates that net income not operating cash flows is the primitive performance variable.

[7] Leuz, Nanda, and Wysocki (2003) argue smoother earnings result from managers' efforts to artificially reduce earnings volatility, and thus yield lower earnings quality. Francis, Olsson, and Schipper (2008), however, argue that managers can manage earnings against transitory fluctuations to signal future performance, and thus smoother earnings can indicate higher earnings quality.

[8] Also see Dichev et al. (2013, section 6.2) and Revsine, Collins, Johnson, Mittelstaedt, and Soffer (2021) on accounting magic.

capital market participants. Another common incentive is to avoid a technical violation of a debt covenant. In addition, as previously noted, income smoothing as an *EM* incentive seeks to reduce the perceived risk of financial distress at a firm by managing earnings volatility over time by sometimes managing earnings upwards and sometimes downwards, depending on the firm's pre-earnings-managed performance. Political costs is another area that can give rise to an incentive for downwards *EM* (Zimmerman 1983). This *EM* strategy applies especially to large firms wanting to avoid appearing too profitable (profit gouging) and trying to minimize the risk of wealth expropriation by a governmental authority. A major example was the windfall profits tax the U.S. imposed on highly profitable oil-producing firms during the 1970s oil embargo period. In the case of stock options, there is an incentive for managers to lower earnings in the period preceding a board of directors meeting in which the board grants stock options; the aim is to lower the options' exercise price. After granting stock options, the incentive can be upwards *EM* to raise the firm's stock price, assuming the stock market is less than fully efficient.

Professional Literature

Standard setters and regulators sometimes tighten financial accounting standards and guidance, and the effects may constrain *EM*. An early example was the equity method of accounting for investments (ASC 323-10-05; APB 18; 1971). Prior to mandating the equity method, if an investor firm's earnings were below what management desired, management could direct its investee to pay the investor firm a dividend, thus increasing the investor's earnings. However, the equity method does not permit this. Instead, investors owning between 20% and 50% of the investee's shares outstanding accrue their share of the investee's earnings/losses for the period in which the investee reports the earnings/losses in its accounts, and thus excludes from income any dividends the investee paid to the investor.

Early in its existence, the Financial Accounting Standards Board (FASB)[9] addressed R&D accounting (SFAS 2; 1974) and mandated expensing of all R&D, thereby eliminating the previous option of capitalizing or expensing R&D. By allowing only expensing, FASB eliminated managerial discretion from R&D accounting.[10] The link between R&D expenditures today and future benefits was seen as too tenuous (ASC 730-10-05-2).[11] Fourteen years later, however, FASB issued SFAS 86 (1985) (ASC 985-20) on the accounting for marketable computer software, which included the possibility of capitalization. According to Robert Sprouse, an FASB board member at the time, the SEC had been concerned about a lack of comparability across firms regarding capitalizing software development costs. FASB worked on this and issued an exposure draft identifying certain costs as R&D, which a firm would expense, and treating other software costs as production and capitalizing those costs as assets. Some subjectivity was anticipated but Sprouse's expectation was that reasonable comparability among firms would result.[12] Under SFAS 86, firms initially expense the research component costs of marketable computer software projects but then can capitalize and amortize the development costs once a project achieves technological feasibility, which implies the project has produced an asset. Discretion is involved since management determines when software development has achieved technological feasibility and when to provide its auditor with the necessary evidence of that. Hence, FASB's mandate of expensing R&D costs yields comparability across firms with no managerial discretion while FASB's pronouncement on marketable software development yields comparability across firms with discretion permitted; however, the two standards treat R&D costs

[9] The Master Glossary on the FASB's website does not include an entry for earnings management.

[10] Although not regarding discretion over the amount of real R&D expenditures.

[11] The FASB replaced its predecessor, the Accounting Principles Board (APB), in 1974. This was due at least in part to the following. (a) The APB's failure to fulfill its mission of narrowing differences and inconsistencies in accounting practice; (b) a number of fraud cases where financial statements with unqualified opinions were found to be misleading; and (c) the APB's board members being part-time and not independent of accounting firms, corporations, and/or industries (e.g., Henriksen 1982, chapter 6).

[12] From a 1984 speech delivered at Rice University (*Jones Journal*, Fall/Winter 1984-85, p. 24).

somewhat differently. Note FASB's approach for marketable software accounting is quite similar to the accounting for all R&D costs under IAS 38 of the International Financial Reporting Standards.

As a third example, consider disposal or exit costs. FASB required firms engaged, for example, in downsizing to recognize restructuring charges and associated liabilities when incurring the costs rather than when firms commit to a restructuring plan (ASC 420-10, ASC 712-10; SFAS 146, 2002). The latter approach was based on projected cost estimates, and the subjectivity inherent in that increased the likelihood firms could over-provide for restructuring charges, potentially enabling a big bath and a subsequent reversal of the over-provision by dipping into the "cookie jar reserve" to increase earnings. Furthermore, the SEC defined a higher level of disclosure for these charges. SAB Topic 5.P.4 (Disclosure 420-10-S99-2; 2021) states that beginning with the period a firm initiates an exit plan, and continuing until the plan is completed, a description is required of the exit or disposal activity and its expected completion date. For each major cost, the firm must disclose the current and expected total amounts incurred and the cumulative amount incurred to date. It also must reconcile beginning and ending liability balances, showing a period's changes attributable to the costs incurred and any adjustments (with explanations) to the liability. The firm also discloses this information in its MD&A.

As another example, SEC Staff Accounting Bulletin (SAB) 99, *Materiality* (1999), states that auditor reliance on certain quantitative benchmarks to assess materiality in preparing financial statements and performing audits of those financial statements can be inappropriate. I will discuss SAB 99 further in the next section.

SFAS 123(R) (2014; ASC 718-10) changed the accounting for stock options. Prior accounting (SFAS 123) allowed firms to choose to record stock compensation as an expense over the service

period or include the impact of recognizing the expense in a footnote to the financials. FASB eliminated the choice; firms must expense stock compensation on the income statement.

SAB 117 (2017) is different example. It states that *Other Than Temporary Impairment of Certain Investments in Equity Securities* ("Topic 5.M") is no longer applicable once a firm adopts FASB ASC 321, the accounting guidance for investments in equity securities. Topic 5.M had stated the SEC's view on evaluating impairment losses when investments in equity securities measured at fair value had changes in fair values reported in other comprehensive income. Instead, changes in fair values now immediately go to net income.

III. SOME KEY EARNINGS MANAGEMENT RESEARCH FINDINGS

This section discusses some key findings from the earnings management-related literature about important issues related to *EM*. Among other things, these papers concern CEOs and Chief Financial Officers, SOX, the prevalence and extent of *EM*, and mandated auditor disclosure of client-specific quantitative materiality thresholds. I also consider Ball's (2013) argument that the belief of widespread *EM* is overblown.

CEOs and CFinOs and Earnings Management

Feng, Ge, Luo, and Shevlin (2011) focus on CEOs and Chief Financial Officers (hereinafter CFinOs) at firms found to have manipulated accounting numbers, and compares them to peer firms in which there were no material accounting manipulations. Their sample of manipulating firms spans 1982-2005 and they obtain their sample based on the SEC's Accounting and Auditing Enforcement Releases (AAERs). CEOs at the accounting manipulation firms had greater equity incentives and more power than CEOs at the non-manipulation firms. Feng et al. provide evidence consistent with CFinOs involved with accounting manipulations as succumbing to pressure from their CEOs rather

than the CFinOs seeking immediate financial benefits from their equity incentives. A content analysis of the AAERs reinforced that conclusion.

The Sarbanes-Oxley Act of 2002

In a legislative history of SOX, Hamilton and Trautmann (2002, 87) report that the stated purpose of SOX was to "protect investors by improving the accuracy and reliability of corporate disclosures made pursuant to the securities laws…" and to enhance investor confidence in financial reporting. In the roughly ten months preceding the enactment of SOX in July 2002, there were a large number of announcements of major financial reporting frauds and associated bankruptcies. These began with Enron in Oct. 2001, which was the largest U.S. bankruptcy in history up to that time; there were also accounting fraud and bankruptcy revelations at numerous other firms,[13] and culminated with the WorldCom fraud announcement on June 25, 2002.[14] WorldCom had treated operating lease (i.e., rental) expenses as capital expenditures thereby inflating earnings and assets; most "Accounting 101" students would not make such an error. The WorldCom bankruptcy proved to be six times larger than Enron's bankruptcy. On the day of WorldCom's announcement, President George W. Bush described WorldCom's fraud and bankruptcy disclosures as "outrageous" and called for holding people accountable (Drazen 2002; Romero 2002).

In reaction to the WorldCom fraud, there was an immediate renewed push for financial accounting and auditing legislative reform. Li, Pincus, and Rego (2008) develop a history of the key

[13] Bratton (2003, 1) stated, "The stock market awakened in 2002 to discover that it no longer had numbers it could trust." A sampling of firms having accounting scandals after Enron's announcement and prior to SOX becoming law, gathered from *Forbes*'s The Corporate Scandal Sheet (8/26/2002) at: https://www.forbes.com/2002/07/25/accountngtracker.html, includes the following: Adelphia, AOL Time Warner, Bristol-Myers Squibb, CMS Energy, Duke Energy, Dynergy, Global Crossing, Haliburton, Homestore, Merck, Peregrine Systems, Reliant Energy, and Tyco International.

[14] Enron's bankruptcy announcement came about a month after the 9/11 attacks. It grew into big news including some nightly TV news discussions and analyses about Enron's accounting fraud and its auditor, Arthur Andersen. Newspapers and magazines published numerous articles and even some cartoons about the 2001-2002 accounting scandals, and Appendix C presents some examples of the cartoons. The accounting scandals certainly did not diminish a perception held by some that accounting enabled those seeking to "cook the books" or engage in "creative accounting" or "accounting magic." A cynic might agree with the comedian Groucho Marx, who long ago said, "The secret of life is honesty and fair dealing. If you can fake that, you've got it made."

events and dates that lead to the enactment of SOX in order to investigate the stock market response associated with SOX's passage into law. They concluded that revelations of WorldCom's massive accounting fraud had had the effect of changing the political landscape for reform legislation; it became virtually certain that day that there would be reform legislation aimed at restoring investor confidence in financial reporting. The only uncertainty remaining was how substantive the reforms would be. Their event review indicates the issuance of the report from a closed-door House-Senate Conference committee on financial reform resolved the uncertainty and revealed the final bill would include the more demanding reforms Congress had been considering, mainly the Senate's Sarbanes bill and to a lesser extent a revised Oxley bill in the House of Representatives. Li et al. (2008, 111-112) state, "it was the public outrage following revelations of massive fraud at WorldCom that spurred Congress" to act quickly and pass SOX. SOX became law just over a month after the WorldCom fraud announcement.

President Bush described SOX as the most far-reaching set of "reforms of American business practices" since the Great Depression (Hitt 2002). Li et al. (2008) note that legal commentaries at the time had mixed views about SOX. Brickey (2003) argued SOX expanded legal prohibitions against fraud and obstruction of justice and strengthened sentencing guidelines. These seemingly substantive enhancements in the law would increase the risks of using *AEM*, relative to the costs of using *REM*. However, other legal writers argued SOX criminalized little that was not already present under existing statutes (Perino 2002; Ribstein 2002; Cunningham 2003). Perino (2002, 2) stated, "[T]here was clearly a sense in Washington that Congress had to do something (anything) and do it fast"; and that SOX was little more than a political response to the multiple high-profile cases in 2001-2002 of accounting fraud in corporate America.

Li et al.'s (2008, 112) event study focuses "on earnings management because SOX seeks to improve the accuracy and reliability of financial reporting, and the rhetoric surrounding its passage

suggests that Congress and the…SEC believed SOX would lead to higher quality earnings (DeFond and Francis 2005)." Li et al.'s (2008, 127-128) primary empirical investigation, a cross-sectional multivariate analysis, tests for a link between stock price effects associated with SOX-related events and the extent to which firms had previously managed earnings. Their findings show a significant positive relation between firms' abnormal stock returns associated with the SOX events and the absolute value of firms' abnormal "accruals" estimated over the three-year period prior to SOX. They interpret the results as indicating stock market participants anticipated firms that had had the largest absolute value of abnormal "accruals" in the period preceding SOX would see the greatest reduction in agency costs and the greatest improvement in reported earnings quality post-SOX.[15] Li et al. also find some evidence the market anticipated SOX would be relatively more costly for smaller firms, consistent with Coates (2007) and Cox (2013).[16]

SOX made auditing a regulated industry, overseen by the newly formed PCAOB. SOX tasks the PCAOB with inspecting audit firms that engage in public company audits and disclosing those inspection findings, including audit failures. For public companies that are large accelerated and other accelerated filers, auditors review and opine not only on their clients' financial statements but also on clients' internal controls over financial reporting. Additionally, auditors disclose material weaknesses in a client firm's internal controls over financial reporting and if the client has remediated the weaknesses. Firm managers must make internal controls disclosures and opine on their firms' internal controls. Moreover, firms' CEOs and chief financial officers must review and certify the fairness of

[15] Coates and Srinivasan (2014) acknowledge the importance of an *EM* focus regarding SOX-related event studies. Two other SOX-related event studies are Jain and Razaee (2006) and Zhang (2007), but neither study has a test variable for earnings management in their empirical models. (Jain and Razaee include the absolute value of the year 2001's total "accruals" as a control variable. Li et al.'s (2008) *EM* test variable is the absolute value of abnormal "accruals" estimated over the prior three years.) Jain and Razaee (2006) report positive overall market reactions associated with SOX-related events while Zhang (2007) finds negative stock returns; however, Lie at al. (2008, 129) question the inclusion by Zhang (2007) of certain event dates that appear to drive her results. Akhigbe and Martin (2006) focus on firms in the financial services industry and find positive wealth effects.

[16] Coates and Srinivasan (2014) argue that event studies are better suited for clearly defined events rather than to events that relate to opaque aspects of the legislative process. Leuz and Wysocki's (2016) analyses suggest that non-SOX-related events may be a confounding factor in SOX event studies. In their event study, Li et al. (2008) are transparent in acknowledging and addressing unrelated but contemporaneous news items when identifying SOX-related events and dates, and they employ econometric techniques to address the issue that SOX-related events simultaneously affected all U.S. publicly traded firms.

their firms' quarterly financials, ensuring they do not contain untrue statements or omit material facts. Additionally, firms' audit committees must be comprised of independent board members.[17]

In the initial years following the enactment of SOX, a number of studies found evidence generally consistent with *AEM* declining post-SOX; furthermore, earnings appeared to be more conservative or otherwise of higher quality. These studies include Lobo and Zhou (2006); Cohen, Dey, and Lys (2008); Koh, Matsumoto, and Rajgopal (2008); Bartov and Cohen (2009); Baber, Kang, and Li (2011); Krishnan, Win, and Zhao (2011); Zang (2012)). Pincus, Wu, and Hwang (2022) re-examine Cohen et al. (2008) and like Cohen et al. estimate *AEM* as the absolute value of discretionary "accruals," thus including both income increasing and decreasing *EM* and accrual reversals. They also find *AEM* initially declines post-SOX and, when they extend their sample period through 2017, the initial declines in *AEM* generally continue.

Figure 2 presents evidence of the frequency of reissuance restatements and AAERs. The top part of Figure 2 presents a time-series graph of reissuance restatements from Audit Analytics for 2001-2019 and shows sharp increases over the sub-period 2005-2007.[18] The increases in restatements over 2002-2004, likely reflect, at least in part, the lack of clear-cut regulations from the PCAOB for implementing SOX's provisions and the general tendency of auditors at the time to err on the side of finding errors and irregularities regardless of their magnitude. This changed substantially with the PCAOB's issuance of Auditing Standard 2 (AS2) in 2004 requiring all accelerated filers to comply by mid-2016, and with AS5, which superseding AS2 required compliance for fiscal years 2007 and

[17] In an email to the author, Steve Zeff (2025) notes, "…we have absolutely no literature on what constitutes fair presentation. All we know is fair presentation in conformity with GAAP, which means, in practical terms, complying with GAAP. The framers of SOX have told [him] that they deliberately omitted "in conformity with GAAP" from the obligation they imposed on the CEO and CFO. They did not want them to hide behind GAAP."

[18] Restatement data reflect errors and irregularities. Effective in August 2004, under section 409 of SOX, the SEC required disclosure in Form 8K when a firm concludes its financial statements undermine investors' reliance on them; the firm then issues a restatement, which, following the SEC, Audit Analytics labels as a reissuance restatement. If a firm concludes it needs to restate prior financial statements by making necessary adjustments that will not undermine investors' reliance on their financial statements (i.e., are not material), then the firm releases a restatement that is a revision restatement (Audit Analytics 2020, 11-12).

beyond.[19] The lower part of Figure 2 graphs AAER data collected from the SEC's website over 1999-2023; AAERs generally reflect the more egregious cases of earnings manipulation and their earlier sharp increases may reflect some carryovers from the dot-com bust period.[20] Both the restatements and AAERs graphs suggest SOX was a shock to the system; both graphs also indicate declines in frequencies from about 2008 onward. While the shock associated with SOX dissipated, the infrastructure SOX imposed, including regulation of external auditing and corporate governance provisions, continued in place.

Insert Figure 2 about here

SOX and Substitution between Real and Accounting-based Earnings Management

Cohen et al. (2008) claim that post-SOX, firms increased substitution between *AEM* and *REM*. However, their empirical model can only indicate changes in *AEM-REM* substitution over their sample period, not whether it occurs pre-SOX and/or post-SOX. Pincus et al. alter Cohen et al.'s empirical model and extend the sample period. Figure 3 graphs *AEM* and *REM* over the period 1987-2017. The figure shows the initial and longer-term general decline in *AEM* post-SOX, an initial increase but then volatility in *REM* over time, and the apparent negative relation (i.e., substitution) between *AEM* and *REM* mostly in the pre-SOX period. The empirical analyses in Pincus et al. test for and find the overwhelming majority of *AEM-REM* substitution occurs pre-SOX, which is consistent with the findings in Zang (2012); post-SOX, *AEM-REM* substitution significantly weakens.[21] Note that Ewert and Wagenhofer (2005) show analytically that an exception to the normal substitution

[19] In order to include a long time-series of restatements beginning in 2001 in the Audit Analytics graph that is part of Figure 2, the figure excludes restatements from 2020 and 2021 due to space limits. Per Audit Analytics (2022), there was a continued decrease in reissuance restatements in 2020 and 2021. The 2021 decline is after Audit Analytics deleted restatements due to a large number of accounting errors by special purpose acquisition companies (SPACs) following an SEC staff statement calling on companies to revisit their accounting for redeemable shares and for warrant liabilities.

[20] Given the likelihood that normal models estimate unmanaged accounting numbers with considerable error, a skeptic might argue that the only reliable *EM* numbers are in the AAERs.

[21] Cohen and Lys (2022) are critical of a number of aspects of the Pincus et al. (2022) study and publish a commentary on the paper. Pincus and Wu (2023) publish a response to rebut Cohen and Lys's (2022) main points.

between *AEM* and *REM* occurs when there is a tightening of accounting (as well as auditing) standards, which arguably SOX brought about. So by SOX constraining *AEM*, there likely was an increase in the demand for *REM* (Chi, Lisic, and Perzner 2011), but it may have proven to be too costly for firms to use additional *REM*.

Insert Figure 3 about here

Prevalence and Extent of Earnings Management

The evidence suggests that SOX reduced agency costs at least in part by emphasizing and enhancing internal controls; in turn, this along with the other regulatory changes seemingly should have reduced *EM* opportunities. Moreover, SOX did not eliminate managerial discretion in financial reporting, nor information asymmetry, managerial incentives, and the effective impossibility of full disclosure. Hence, earnings management undoubtedly still exists.

Dichev, Graham, Harvey, and Rajgopal (2013) estimate the extent and prevalence of within GAAP *EM* based primarily on online surveys of Chief Financial Officers of publicly traded firms and private firms.[22] The mean survey response on the prevalence of within GAAP earnings misrepresentation is 19-20% in their sample of public firms and approximately 30% for private firms. Their data also indicate the extent of within GAAP *EM*. Respondents' percentage of earnings per share (EPS) reflecting *EM* is 9-10% of EPS for public firms and approximately 13% of EPS for private firms.[23] The higher *EM* percentage of private firms is consistent with Burgstahler, Hail, and Leuz (2006). Dichev et al. (2013) use 20% as the pervasiveness of *EM* and 10% as the extent *EM* in EPS, and estimate a 2% economy-wide rate of within GAAP *EM*. Excluded from their estimates is *EM*

[22] Dichev et al. (2013) survey chief financial officers keeping the CFinO respondents' identity anonymous (response rate of 5.4%, with sample sizes of 169 public and 206 private firms). They avoided asking CFinOs about *EM* at their own firms since managers might be reluctant to tell them about any such earnings management.

[23] Dichev et al. (2013) also identify a set of *EM* red flags, with the following receiving the most survey responses: NI not being correlated with GAAP earnings; deviations in key factors (e.g., profitability) from a firm's peers; consistently meeting or beating earnings targets; frequent and/or large special items; lots of "accruals"; earnings being consistently too smooth.

outside of GAAP – the likely larger magnitude but less prevalent cases of restatements and AAERs – as well as *REM*. With regard to *REM*, Dichev et al. (2013, section 6.4.4) argue that even financial analysts find it difficult to empirically distinguish between, for example, cutting spending for business-driven economic reasons versus cuts made to meet or beat earnings targets.[24] Moreover, note that audits do not focus on operating effectiveness or efficiency and thus it seems likely external auditors generally have difficulty reliably identifying *REM*.

U.K. Mandatory Auditor Disclosure of Quantitative Materiality Thresholds

The U.K., starting in 2013, and the U.S. beginning in 2017 expanded external auditor reporting, mandating increased auditor disclosures. However, the U.K.'s expanded audit reports go beyond the U.S.'s by requiring auditors to disclose an important audit input – the auditor's client-specific quantitative materiality threshold (QMT). The U.S. did not mandate auditor QMT disclosure due to the belief that it would provide a roadmap to a client firm's management enabling it to manage earnings in an undetected manner. For example, if the auditor sets its QMT at 5% of client pre-tax income, then the auditor will not examine transactions below that amount. Wellmeyer, Pincus, and Yao (2025) examine this setting in the U.K. They test and find that, consistent with QMT disclosure being a roadmap for undetected *EM*, clients manage earnings in relation to their auditor's client-specific QMT, which they estimate based on the disclosure of the auditor's previous year's QMT and expectations of the auditor's current year QMT.[25]

Note that the auditing literature and recent SEC enforcement cases had raised concerns that auditors' reliance on QMTs in making materiality determinations overrode their ability or willingness to consider *qualitative* circumstances, such as small misstatements. As previously noted, the SEC issued SAB 99, which states that, "exclusive reliance on certain quantitative benchmarks to assess

[24] See Ball (2013, 851-852) for an example of non-manipulative behavior misclassified as *AEM*.
[25] Wellmeyer et al. find significant results for *AEM* but not for *REM*.

materiality in preparing financial statements and performing audits of those financial statements is inappropriate." (See IAASB (2022) for the U.K.) Hence, falling below an auditor's QMT does not necessarily make a misstatement immaterial. If, for example, a misstatement enables a firm to avoid reporting a loss, then even if the misstatement is small in magnitude, falling below the auditor's QMT, it is material and the auditor must consider it.

Wellmeyer et al. (2025) examine two settings where qualitative factors arise as clients face heightened *EM* incentives. The first setting is seeking to avoid reporting an earnings decline and the second is clients having a high level of financial risk, which they proxy for using the total number of key (critical) audit areas the auditor identifies and includes in its audit report (Camacho-Minano, Munoz-Izquierdo, Pincus, and Wellmeyer 2023). In both settings, Wellmeyer et al.'s (2025) results suggest auditors are cognizant of the heightened incentive pressures client's likely face and exhibit extra scrutiny of client *EM* behavior. Auditing standards, in fact, require auditors to exhibit such extra scrutiny in heightened incentive (i.e., qualitative) circumstances in general, and the evidence is consistent with auditors doing so in these settings. Overall, the findings should help alleviate concerns that auditors place undue weight on the *quantitative* magnitude of misstatements when determining their materiality in client-heightened incentive settings.

Hence, Wellmeyer et al.'s results suggest *EM* occurs in general settings given the presence of agency costs and opportunities to manage earnings. However, this is not the case in the settings where managers face heightened incentives to manage earnings where we expect auditors to be aware of such settings and to deliver enhanced scrutiny constraining *EM* behavior. They suggest their results are consistent with Ball's (2013, 850) claim in *Accounting Horizons* that, "There…appears to be a widely held belief among accounting researchers that 'earnings management' is rife." Ball (2013, 854) argues the belief "that an extraordinary proportion of accounting accruals are 'managed' or 'discretionary' is particularly troublesome, because it implies that most of what accountants do in

practice – and of what we teach in accounting classes – consists of opportunities to manipulate."[26] Ball (2013, 850) says, "*Of course* earnings management goes on. Agency cost are positive. People have been tried and convicted" (emphasis in the original). Ball states, he has "personally testified in several high profile cases and some of the malfeasance that took place in them was disgusting." While a cynic might believe that whatever can be measured can be gamed, and thus believe that widespread *EM* is rife, in general that requires the presence of agency costs, managerial discretion, information asymmetry, managerial incentives, and the means and opportunity to manage earnings. Wellmeyer et al.'s (2025) results suggest an important mechanism limiting *EM* is auditors being aware of settings of heightened earnings management incentives and duly exhibiting the extra scrutiny required of them to substantially constrain *EM* behavior.[27, 28]

It is worth reminding ourselves that earnings are informative and thus useful (Ball and Brown 1968; Beaver 1968).[29] Revsine (1991, 21) has argued, "the primary purpose of financial reporting is to provide a basis for contracting and decision making…. If misrepresentations were pervasive, accounting would be discredited and opportunities to use the numbers to effect wealth transfers would be limited." Ball (2013, 852) states, "[A] seemingly endless search for agency cost explanations [in accounting research] has been at the expense of diverting attention from the primary economic forces underlying financial reporting. Agency costs assuredly exist but they are not the whole story, or even the primary story. … [What we need] is a better understanding of the properties of 'non-discretionary'

[26] Ball (2008) asks, "How many researchers send a list of their most extreme 'discretionary' accrual behavior to the firms' auditors, to the press, to analysts, to boards or to regulators? [Isn't there] a moral obligation to inform parties affected by it as well as those responsible for acting on it?... the near total absence of such behavior is a litmus test of whether researchers really believe the numbers they report." Also, see Ball and Shivakumar (2008), who in critiquing a prior IPO study find little evidence of adverse post-IPOs events (e.g., management turnover, earnings disappointments, restatements) for aggressive *EM* firms relative to conservative firms.

[27] Over many years of teaching Executive MBAs, I have heard versions of the following from a banker, a gambler, and a tax expert, "Bulls and bears make money; pigs get fat and happy; hogs get slaughtered." Put somewhat differently, there is self-interest, and then there is unbridled self-interest.

[28] Discussions with some practitioners indicate auditors, at least at larger audit firms, make use of software tools to identify red flags in client journal entries and account balances, and impose significant financial penalties on audit partners for audit failures the PCAOB detects in its inspections.

[29] There is a very large number of replications and re-examinations of Ball and Brown (1968), including Ball and Brown 2019. Bamber, Christensen, and Gaver (2000) replicate and re-examine Beaver (1068) after concluding the accounting literature had over-generalized Beaver's (1968) results.

accruals, [i.e.,] the accruals one would expect to observe under the null hypothesis of zero agency costs. Are they not the accruals we teach that firms *should* do?" (emphasis in the original).

IV. CONCLUSION

This commentary revisits earnings management, a central issue in financial accounting and auditing, more than 35 years after Schipper's (1989) influential earnings management commentary. I summarize *EM* basics, provide examples of standard setters' and SEC actions constraining earnings management, note the growth in the literature of real activities *EM*, and discuss some key *EM*-related research. Following the accounting scandals of 2001-2002, research findings suggest the passage and implementation of SOX, with its regulation of the auditing industry, is a major factor lessening the prevalence and extent of earnings management. Future research might examine FASB and SEC pronouncements to provide an assessment of the extent to which their rules constrain *EM*. Additionally, future research might re-examine research such as Lobo and Zhou (2006) on the quality of earnings post-SOX over an extended time-period or replicate other research findings, especially those in Section III, by employing newer methods to estimate *AEM* (Owens, Wu, and Zimmerman 2017) and *REM* (Siriviriyakul (2021).

REFERENCES

Akhigbe, A., & A. Martin. 2006. Valuation Impact of Sarbanes-Oxley: Evidence from Disclosures and Governance within the Financial; services Industry. Journal of Banking & Finance 30(3): 989-1006.

Audit Analytics. 2020. 1999 Financial Restatements. www.auditanalytics.com/doc/AA_RestatmentReport_July2020.pdf.

Audit Analytics. 2022. 2001 Financial Restatements. www.auditanalytics.com.

Baber, W., S.H. Kang, & Y. Li. 2011. Modeling Discretionary Accrual Reversal and the Balance Sheet as an Earnings Management Constraint. The Accounting Review 86(4): 1189-1212.

Ball, R. 2013. Accounting Informs Investors and Earnings Management is Rife: Two Questionable Myths. Accounting Horizons 27(4): 847-853.

Ball, R., & P. Brown. 1968. An Empirical Evaluation of Accounting Income Numbers. Journal of Accounting Research 6(2): 159-178.

----------. 2019. Ball and Brown (1968) After Fifty Years. Pacific-Basin Finance Journal 53: 410-431.

Ball, R., and L. Shivakumar. 2008. Earnings Quality at Initial Public offerings. Journal of Accounting & Economics 45(Aug.): 324-349.

Bamber, L.S., T. Christensen, & K. Gaver. 2000. Do We Really 'Know' What We Think We Know? A Case Study of Seminal Research and Its Subsequent Overgeneralization. Accounting, Organizations and Society 25: 103-129.

Barton, J. 2001. Does the Use of Financial Derivatives Affect Earnings Management Decisions? The Accounting Review 76(1): 1-26.

Bartov, E., & D. Cohen. 2009. "The 'Numbers Game' in the Pre- and Post-Sarbanes-Oxley Eras. Journal of Accounting, Auditing & Finance 24(4): 505-534.

Beaver, W. 1968. The Information Content of Annual Earnings Announcements. Journal of Accounting Research 6 (3. Empirical Research in Accounting: Selected Studies): 67-92.

Beyer, A., A. Guttman & I. Marinovic. 2019. Earnings Management and Earnings Quality: Theory and Evidence. The Accouinting Review 94(4): 77-101.

Black, F. 1993. Choosing Accounting Rules. Accounting Horizons 7(4): 1-17.

Bratton, W. 2003. Enron, Sarbenes-Oxley, and Accounting: Rules versus Standards versus Rents. Villanova Law Review 48:1023-1056.

Brickey, K. 2003. From Enron to WorldCom and Beyond: Life and Crime After Sarbanes-Oxley. Washington University Law Quarterly 81: 357-401.

Burgstahler, D., L. Hail, & C. Leuz. 2006. Earnings Management in European Private and Public Firms. The Accounting Review 81: 983-1016.

Camacho-Minano, M. del M., N. Muñoz-Izquierdo, M. Pincus, P. Wellmeyer. 2024. Are Key Audit Matter Disclosures Informative in Assessing Financial Distress? British Accounting Review 56(March): 1-21.

Chi, W., L.L. Lisic, & M. Perzner. 2011. Is Enhanced Audit Quality Associated with Greater Real earnings Management? Accounting Horizons 25(2): 315-335.

Coates, J.C. 2007. The Goals and Promise of the Sarbanes-Oxley Act. Journal of Economic Perspectives 21(1): 91-116.

Coates, J.C., & S. Srinivasan. 2014. SOX after 10 Years: A Multidisciplinary Review. Accounting Horizons 28(3): 627-671.

Cohen, D., A. Dey, & T. Lys. 2008. Real and Accrual-based Earnings Management in the Pre- and Post-Sarbanes-Oxley Periods. The Accounting Review 83(3): 757-787.

Cohen, D., & T. Lys. 2022. Substitution between Accrual-based Earnings Management and Real Activities Management—A Commentary and Guidance or Future Research. Journal of Financial Reporting 7(2): 75-82.

Cox, J.D. 2013. Strengthening Financial Reporting: An Essay on Expanding the Auditor's Opinion Letter. George Washington Law Review 81(3): 91-116.

Cressey, D.R. (1953). Other Peoples' Money, Montclair, Glencoe: Free Press.

Cunningham, L. 2003. The Sarbanes-Oxley Yawn: Heavy Rhetoric, Light Reform (and It Might Just Work). Connecticut Law Review 35: 915-989.

Dechow, P. 1994. Accounting Earnings and Cash Flows as Measures of Firm Performance: The Role of Accounting Accruals. Journal of Accounting & Economics 18: 33-42.

Dechow, P., W. Ge & C. Schrand. 2010. Understanding earnings quality: A review of the proxies, their determinants and their consequences. Journal of Accounting & Economics 50(2/3): 344-401.

DeFond, M., & J. Francis. 2005. Auditing Research after Sarbanes-Oxley. Auditing: A Journal of Practice and Theory 25: 5-30.

Dichev, I., J. Graham, C. Harvey & S. Rajgopal. 2013. Earnings Quality: Evidence from the Field. Journal of Accounting & Economics 56(Supplement): 1-33.

Drazen, Y. 2002. Sorry, Wrong Number: Bush Promises Touch Response; Probe Advances. Wall Street Journal (June 27).

Dye, R. 1988. Earnings Management in an Overlapping Generations Model. Journal of Accounting Research 26: 195-235.

Ewert, R., and A. Wagonhofer. 2005. Economic Effects of Tightening Accounting Standards to Restrict Earnings Management. The Accounting Review 80(4): 1101-1124.

Feng, M., W. Ge, S. Luo, & T. Shevlin. 2011. Why Do CFOs Become Involved in Material Accounting Manipulations? Journal of Accounting & Economics 51(1/2): 21-36.

Francis, J., P. Olsson, & K. Schipper. 2008. Earnings Quality. Foundations and Trends in Accounting 1(4): 259-340.

Graham, J., C. Harvey, & S. Rajgopal. 2005. The Economic Implications of Corporate Financial Reporting. Journal of Accounting and Economics 40(1-3): 3-73.

Hamilton, J., & T. Trautmann. 2002. Sarbanes-Oxley Act of 2002: Law and Explanation. Chicago: CCH Inc.

Healy, P., & J. Whalen. 1999. A Review of the Earnings Management Literature and Its Implications for Standard Setting. Accounting Horizons 13(4): 365-383.

Hendriksen, E. 1982. Accounting Theory, Irwin, Inc. Homewood, IL.

Hirshleifer, D., S.S. Lim & S.H. Teoh. 2009. Driven by Distraction: Extraneous Events and Underreaction to Earnings News. Journal of Finance 64(5): 2289-2325.

IAASB. 2022. International Standard on Auditing (U.K.) 320: Materiality in Planning and Performing an Audit. https://media.frc.org.uk/documents/ISA_UK_320_Updated_May_2022.pdf

Jain, P.K., & Z. Rezaee, 2006. The Sarbanes-Oxley Act of 2002 and Security Market Behavior: Early Evidence. Contemporary Accounting Research 23(3): 629-654.

Jones, J., 1991. Earnings Management during Import Relief Investigations. Journal of Accounting Research 29: 193-228.

Koh, K., D. Matsomoto, & S. Rajgopal. 2008. Meeting or Beating Analysts' Expectations in the Post-Scandals World: Changes in Stock Market Rewards and Managerial Actions. Contemporary Accounting Research 25(4): 1067-1098.

Krishnan, J., Y. Wen, & W. Zhao. 2011. Legal Expertise on Corporate Audit Committees and Financial Reporting Quality. The Accounting Review 86(6): 2099-2130.

Leuz, C., D. Nanda, & P.D. Wysocki. 2003. Earnings Management and Investor Protection: An International Comparison. Journal of Financial Economics 69(3): 505-527.

Leuz, C., & P.D. Wysocki. 2016. The Economics of Disclosure and Financial Reporting Regulation: Evidence and Suggestions for Future Research. Journal of Accounting Research 54(2): 525-622.

Levitt, A.1998. The Numbers Game. Speech given at NYU Center for Law & Business, New York.

Li, H., M. Pincus & S. Rego. 2008. Market Reaction to Events Surrounding the Sarbanes-Oxley Act of 2002 and Earnings Management. Journal of Law & Economics 51(February): 111-134.

Lobo, G.J., & J. Zhou. 2006. Did Conservatism in Financial Reporting Increase After the Sarbanes-Oxley Act? Initial evidence. Accounting Horizons 20(1): 57-73.

Matsumoto, D. 2002. Management's Incentives to Avoid Negative Earnings Surprises. The Accounting Review 77(3): 483-515.

McVay, S. 2006. Earnings Management Using Classification Shifting: An Examination of Core Earnings and Special Items. The Accounting Review 81(3): 501-531.

Moses, D. 1987. Income Smoothing and Incentives: Empirical Tests Using Accounting Changes. The Accounting Review 62(2): 358-377.

Murphy, K.J. 2001. Performance Standards in Incentive Contracts. Journal of Accounting & Economics 30(3): 245-278.

Owens, E., J. Wu, and J .Zimmerman (2017). Idiosyncratic Shocks to Firm Underlying Economics and Abnormal Accruals. The Accounting Review 92(2): 183-219.

Perino, M. 2002. Symposium: Enron and its aftermath. Some reflections on the deterrence aspects of the Sarbanes-Oxley Act of 2002. St. John's Law Review 76: 671–98.

Pincus, M., & S. Rajgopal. 2002. The Interaction of Accrual Management and Hedging: Evidence from Oil and Gas Firms. The Accounting Review 77 (January): 127-160.

Pincus, M., S. Wu, & J. Hwang. 2022. Did Accrual Earnings Management Decline and Real Earnings Management Increase Post-SOX? A Re-Examination over an Extended Post-SOX Period and a Closer Look at REM-AEM Substitution. Journal of Financial Reporting 7(2): 179-205.

Pincus, M., & S. Wu. Commentary: Enhancing and Updating Cohen, Dey, and Lys's (2008) Methodological Framework to Re-Examine the Relation between Accrual-Based real Earnings Management and Real Earnings Management after SOX. Journal of Financial Reporting 8(1):3-10.

Revsine, L. 1991. The Selective Financial Misrepresentation Hypothesis. Accounting Horizons 5(4): 16-27.

Ribstein, L. 2002. Market vs. regulatory responses to corporate fraud: A critique of the Sarbanes-Oxley Act of 2002. Journal of Corporation Law 28: 1–67.

Romero, S. 2002. Turmoil at WorldCom: The Overview; WorldCom Facing Charges of Fraud; Inquiries Expand. The New York Times (June 27).

Roychowdhury, S. (2006). Earnings management through real activities manipulation. Journal of Accounting and Economics 42(3): 335-370.

Schipper, K. 1989. Commentary on Earnings Management. Accounting Horizons 3(4): 91-102.

Simko, P., & J. Barton. 2002. The Balance Sheet as an Earnings Management Constraint. The Accounting Review 77(Supplement): 1-27.

Siriviriyakul, S. 2021. An Empirical Assessment of Real Activities Manipulation Measures. Journal of Financial Reporting 6(2): 111-128.

Teoh, S.H., & T.J. Wong. 1993. Perceived Auditor Quality and the Earnings response Coefficient. The Accounting Review 68(2): 346-366.

Trueman, B., & S. Titman. 1988. An Explanation for Accounting Income Smoothing. Journal of Accounting Research 26(Supplement): 127-139.

Wellmeyer, P., M. Pincus & L. Yao. 2025. Do Client Managers Strategically Manage Earnings in Response to Auditors' Quantitative Materiality Threshold Disclosures? Accounting Horizons 39(1): 221-240.

Zimmerman, J. 1983. Taxes and Firm Size. Journal of Accounting & Economics 5(Aug.): 119-149.

Zang, A. 2012. Evidence of the Trade-off between Real Activities and Accrual-based Earnings Management. The Accounting Review 87(20): 675-703.

Zhang, I. 2007. Economics Consequences of the Sarbanes-Oxley Act of 2002. Journal of Accounting & Economics 44(1-2): 74-115.

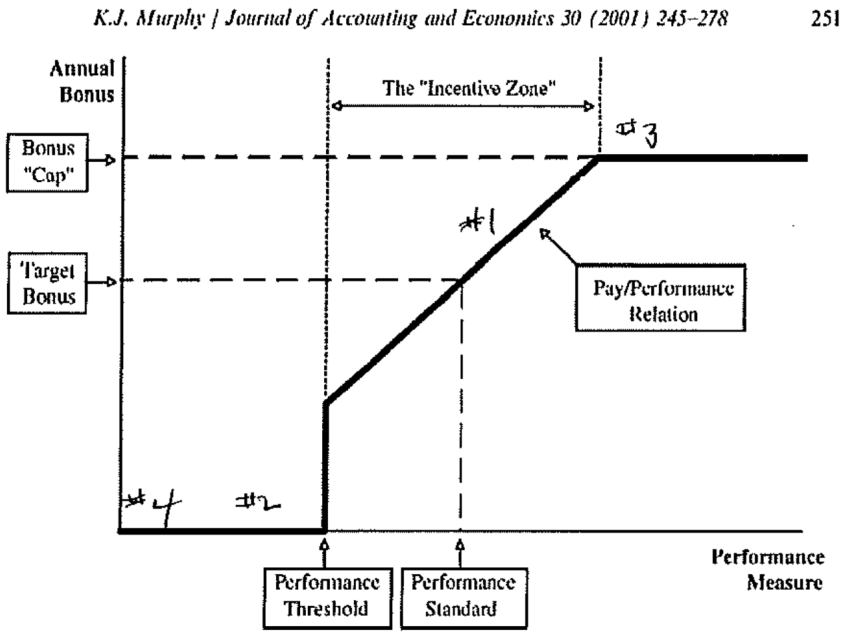
Appendix A

As an example of the incentives implied in an accounting-based compensation plan, consider the common bonus scheme in Murphy (2001), as illustrated in Figure A. #1 illustrates a desired pay-for-performance relation; managers' bonuses increase as performance increases. However, four earnings management scenarios are present. First, given the pay-for-performance set-up, the case #1 is where managers have an incentive to use real and/or accrual-based earnings management (assuming they have the opportunity and means to do so) to increase their bonus. Case #2 illustrates the incentive for the agent(s) to manage earnings upwards to reach at least the threshold for receiving a bonus. Case #3 is where the bonus is (explicitly or implicitly) capped; here, there is an incentive to postpone recognizing excess performance (i.e., where the bonus is effectively capped) and either to go on vacation or be aggressive and "bank" the postponed performance in the "cookie jar reserve." Lastly, case #4 is the situation where there is no way the agent(s) can earn a bonus this period; the incentive then is either to go on vacation or be aggressive and "take a big bath" thereby front-loading additional expenses and losses in the current period. The fact that this is a commonly used bonus incentive plan, for which we only need a few moments to identify the dysfunctional aspects of the plan, raises the question as to why the plan is commonly used. The likely answer is that it typically is too costly (if not impossible) to constantly monitor agents' performance.

Insert Figure A about here

Figure A

Executive Bonus Schedule



Appendix B

Earnings Management Examples by Mechanism

Some examples of real earnings management:

(a) Timing (postpone or speeding up) discretionary expenditures, such as R&D, advertising, employee training, maintenance and repairs – each of these reduce NI if incurred.
(b) Under LIFO inventory costing, managing the timing of year-end inventory purchasing. Assuming rising inventory costs and non-decreasing quantities, if a firm seeks more income it can postpone inventory purchases to the next year; if it seeks lower income, it can make purchases before the end of the current year.
(c) Managing the timing and amount of a restructuring or downsizing provision.
(d) Have a "Sale." This often occurs near the end of a fiscal period in the presence of compensation linked to current period performance. (e)
Paying off current liabilities early using cash. For example, if current assets (including at least $1 million in cash) total $19 million and current liabilities are $10 million, then the firm has a current ratio of 1.9:2. If the firm has a debt covenant requiring at least a 2:1 current ratio, then using $1 million in cash to pay off $1 million in current liabilities results in a new current ratio of 18/9 or 2:1.

Some examples of "accruals" earnings management:

(a) Providing for bad debts. (b)
Estimating depreciable lives and salvage values. (c)
Determining inventory obsolescence.
(d) Determining technological feasibility of marketable software (under IFRS, of all R&D).
(e) Allocating the total purchase price of an acquisition into tangible net assets, patents, in-process R&D, and goodwill. (f)
Providing for impairments of non-current assets.

Some examples of accounting method changes or choices and their earnings management implications:

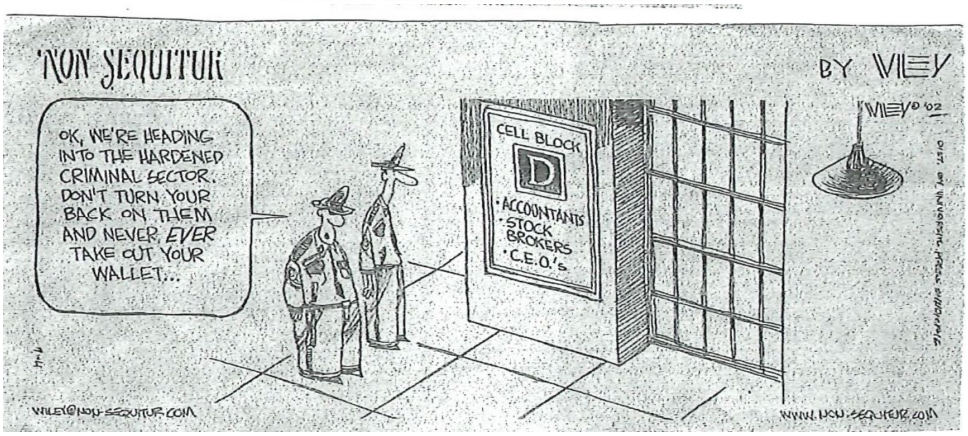
(a) Switching from LIFO to FIFO. Generally, inventory costs will be higher under FIFO and thus current assets will rise. The U.S. statutory LIFO requirement for book-conformity means that if a firm reports using LIFO inventory costing it is highly likely that the firm is also using LIFO for tax purposes. Hence, changing from LIFO to FIFO generally will increase income and total asset values (especially if inventory costs are rising and quantities are not declining) and increase income taxes, and raises the question of why a firm is making such a change. Might the firm be in danger of violating a debt covenant based on the book value of assets? (b)
Choosing LIFO also smooths income, since earnings based on LIFO exclude inventory profits (i.e., holding gains and losses) that are included in FIFO-based earnings. (c)
Adopting a new FASB standard early versus late in the allowed adoption transition period. Is an increase (decrease) in income linked to a new accounting method that was adopted early
(late)? (d)
Recognizing revenue at the time of shipment versus when up and running at the customer's location; the former results in permanently recognizing revenue sooner. (e)
Capitalizing versus expensing of expenditures. The case of WorldCom (discussed in connection with SOX) is classic: it treated substantial amounts of operating lease expenses as capital expenditures (hence, as assets).

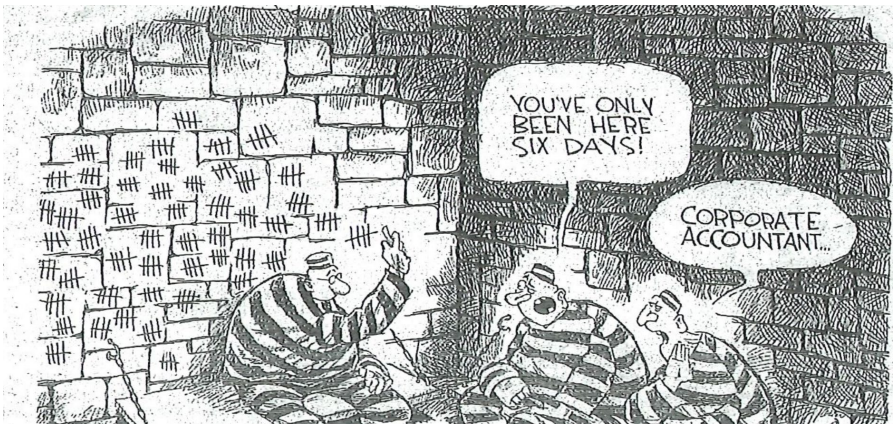
Misclassifying income statement items – some examples:

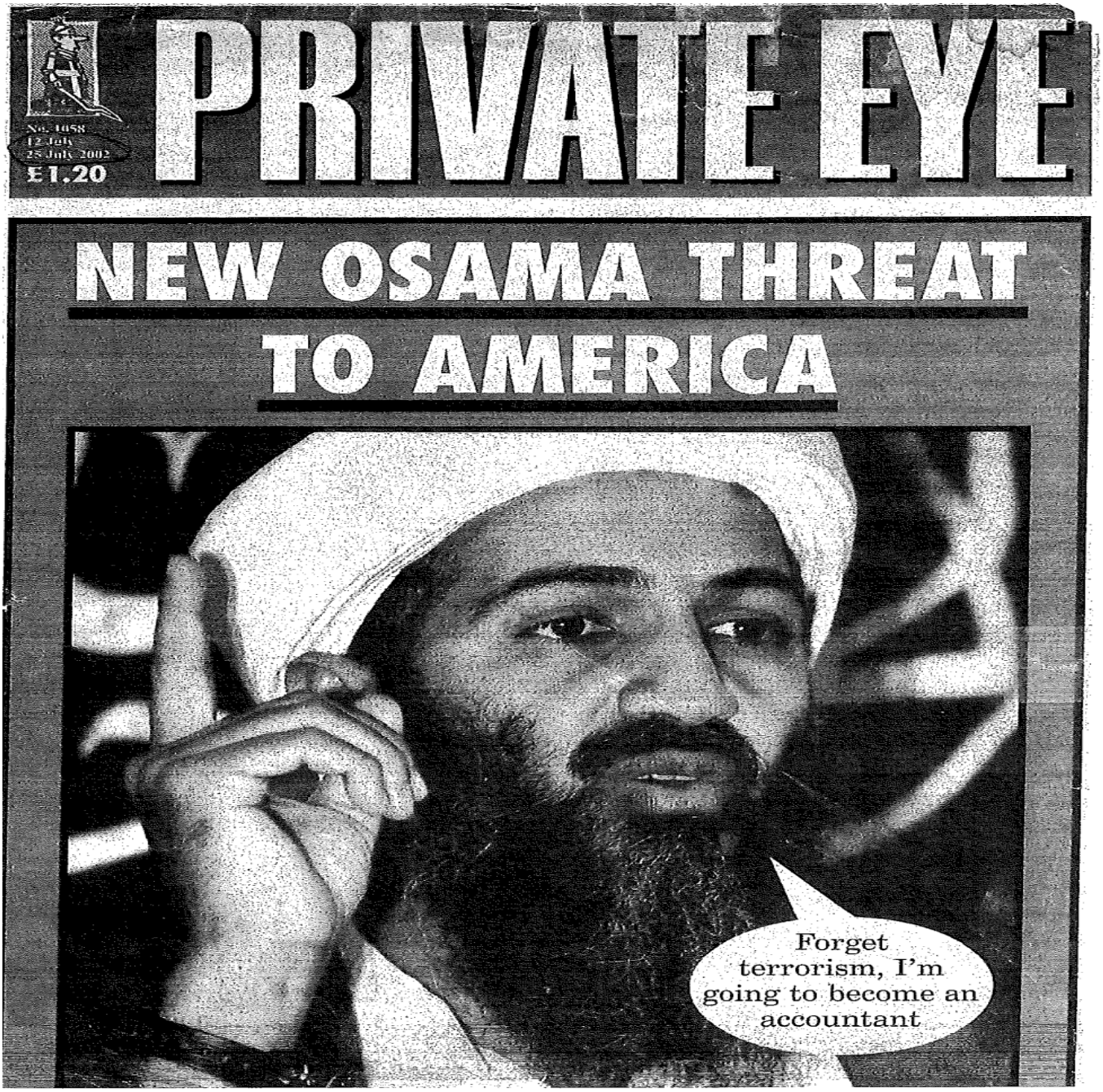
(a) Reclassifying components of cost of goods sold (e.g., manufacturing overhead) to non-recurring items (such as "Special Items" or "Discontinued Operations"). (b)
Reclassifying non-manufacturing firms' SG&A components to non-recurring items.
(c) Reclassifying profits from non-core operations to core operations, which analysts tend to focus on.

Appendix C

Accounting Scandal Cartoons






PRIVATE EYE
No. 1058
12 July
25 July 2002
£1.20
NEW OSAMA THREAT TO AMERICA
Forget terrorism, I'm going to become an accountant

"Being an accountant gives him that extra aura of danger."

Figure 1

Reported Accounting Numbers Reflect

NORMAL ACTIVITIES

EARNINGS MANAGEMENT

FRAUD

Normal Activities *Fraud / Embezzlement / Tax Evasion*

Increase Income (Book-Tax Non-Conformity)

Reduce Income – Big Bath

Income Smoothing – "Cookie-Jar Reserves"

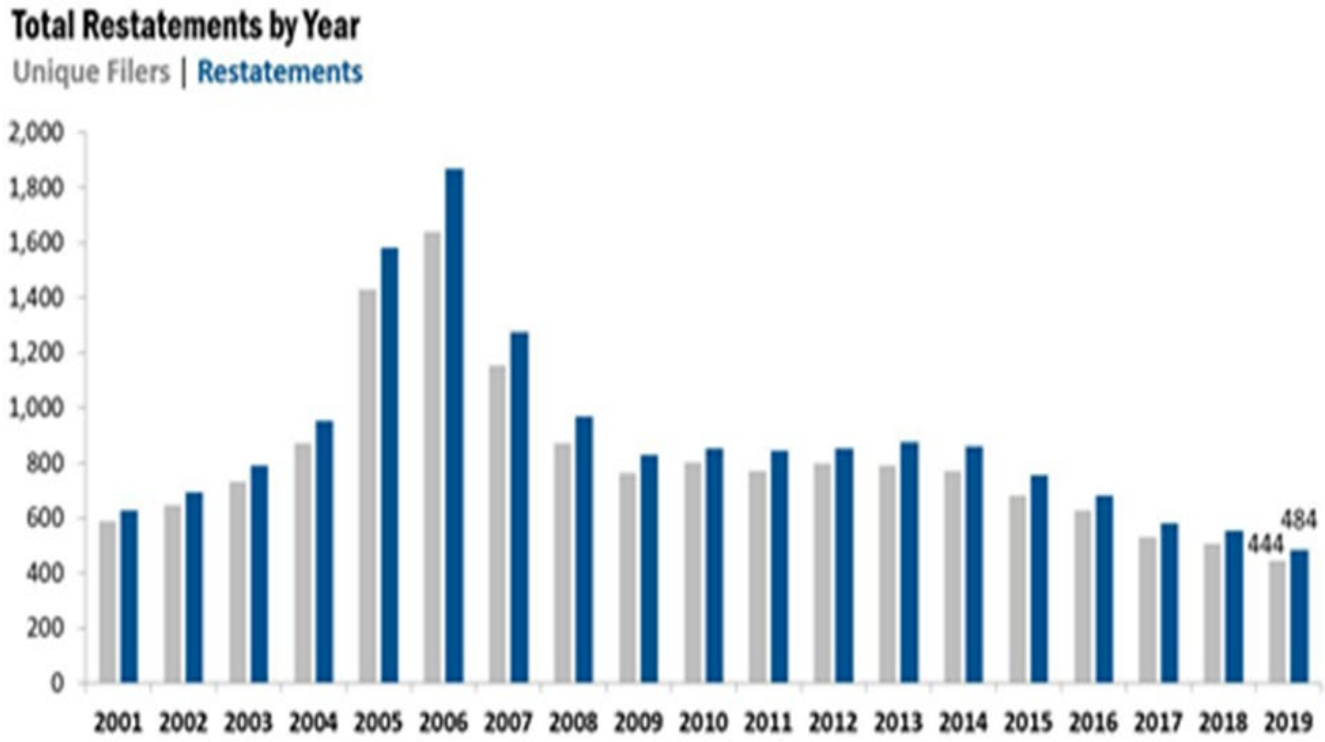
Tax Planning (which may be related to financial reporting EM)

Why? Some Incentives to Manage Earnings (typically up and/or down):

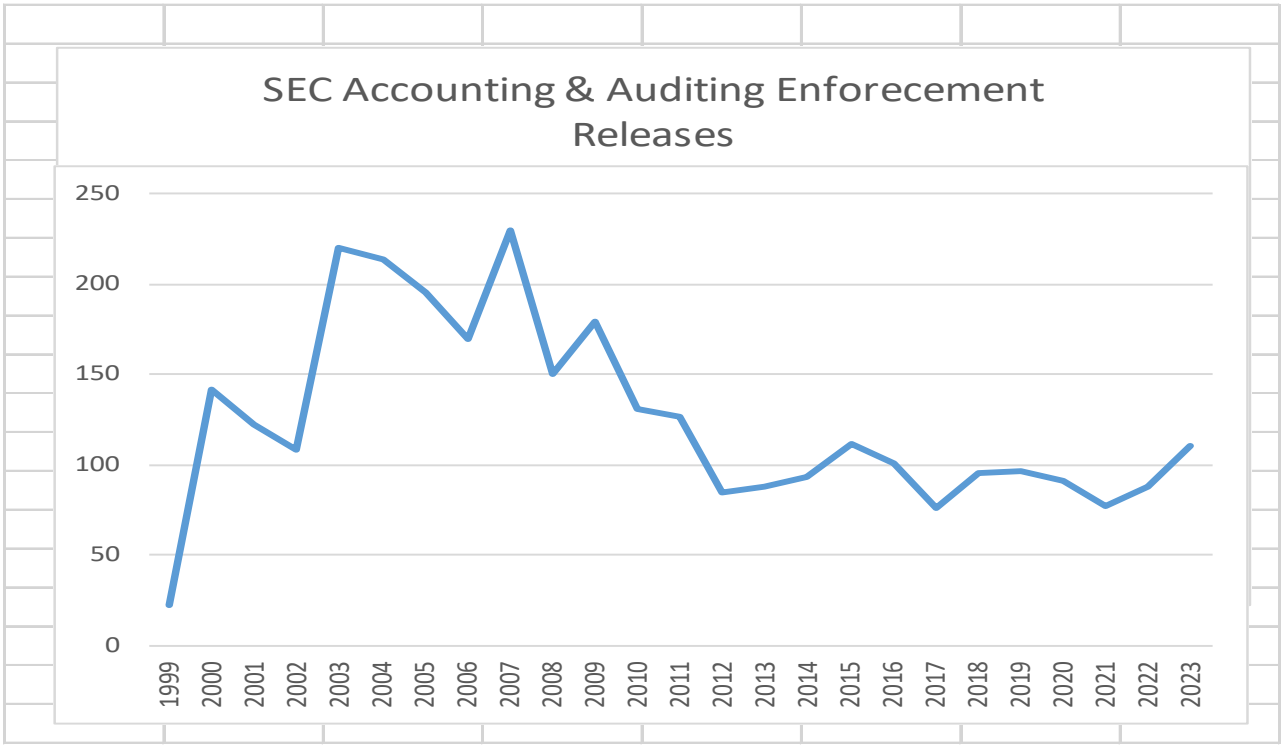
Meeting/Beating Earnings Targets (+)	Negotiations (-)
Debt Covenants (+)	Regulatory Relief (-)
Hide Poor Performance (±)	Political Costs (-)
Compensation & Job Security (±)	Income Taxes (-)
Perceived Firm Risk (±)	Stock Options (±)
Firm's Stock Price (±)	Insider Trading (±)

Figure 2

Financial Statement Reissuance Restatements and SEC AAERs

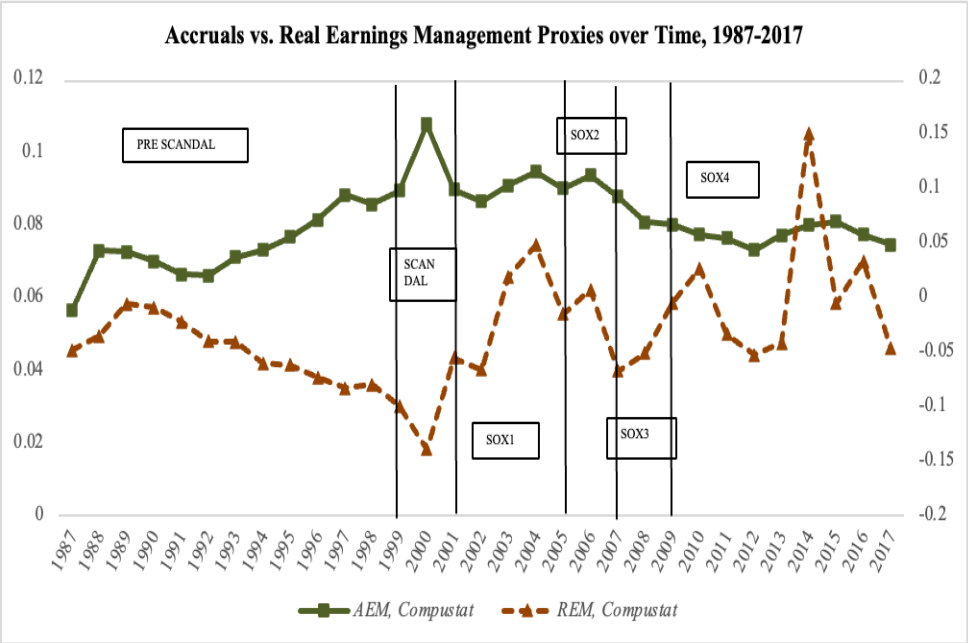


Source, Audit Analytics (2020, 5, Figure 4).



Data Source, SEC (2024) Website

Figure 3



From Pincus, Wu, & Hwang (2022, 190, Fig. 3, separate scales)