

# Earnings management and accrual accounting



**Contents (Jump to)**

Introduction

Motivations for Earnings Management

Techniques

11 Groups to Manage Earnings

Modified Jones Model

Limitations of the Earnings Management Models

Implications and Application of Earnings Management

**References****EARNINGS MANAGEMENT*****Introduction***

There has been significant attention placed on earnings management from regulators, the financial press, and academic researchers in recent years.

Most are in agreement that earnings management does occur; however, there is no uniform definition for what it is or how to detect it.

What are earnings and what is earnings management? Simply stated, earnings are the accounting profits of a company. Stakeholders (current or potential providers of debt and equity capital, employees, suppliers, customers, auditors, analysts, rating agencies, and regulators) use earnings to make important financial decisions. Many investors view earnings as value relevant data that is more informative than cash flow data. (Healy and Wahlen 1999) Others have suggested that current earnings are better

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predictors of future cash flows than are current cash flows. (Dechow 1994) In the US, these profits are derived using Generally Accepted Accounting Principles (GAAP) – a system based on the accrual method, which measures the performance and position of a company by recognizing economic events regardless of when cash transactions occur. The general idea is that economic events are recognized by matching revenues to expenses at the time in which the transaction occurs rather than when payment is made (or received). This method allows the current cash inflows/outflows to be combined with future expected cash inflows/outflows to give a more accurate picture of a company's current financial condition. The objectives of financial reporting and how these relate to the definition of accrual accounting, as laid out by the FASB in various "Statement of Financial Accounting Concepts:"

The primary focus of financial reporting is information about an enterprise's performance provided by measures of earnings and its components [CON1, para. 43]. Accrual accounting attempts to record the financial effects on an entity of transactions, events, and circumstances that have cash consequences for the entity in the periods in which those transactions, events, and circumstances occur rather than only in the periods in which cash is received or paid by the entity [CON6, para. 139]. It uses accrual, deferral, and allocation procedures whose goal is to relate revenues, expenses, gains, and losses to periods to reflect an entity's performance during a period instead of merely listing its cash receipts and outlays. Thus, recognition of revenues, expenses, gains, and losses and the related increments or decrements in assets and liabilities – including matching of

costs and revenues, allocation, and amortization – is the essence of using accrual accounting to measure performance of entities [CON6, para. 145].

The principal goal of accrual accounting is to help investors assess the entity's economic performance during a period through the use of basic accounting principles such as revenue recognition and matching. There is evidence that as a result of the accruals process, reported earnings tend to be smoother than underlying cash flows (accruals tend to be negatively related to cash flows) and that earnings provide better information about economic performance to investors than cash flows (Dechow 1994) This idea raises the following key questions:

What is the objective of accrual accounting? How far should management go in helping investors form “ rational expectations” about the firm's performance through their accruals choices and when does this activity become earnings management? To the extent that these accruals choices often operate to smooth reported earnings relative to the underlying cash flows, when does the appropriate exercise of managerial discretion become earnings management? Perhaps by its very nature, accrual accounting dampens the fluctuations in an entity's underlying cash flows to generate a number that is more useful to investors (for assessing economic performance and predicting future cash flows) than current-period operating cash flows. To characterize this as earnings management, we need to define the point at which managers' accrual decisions result in “ too much” smoothing and becomes earnings management.

To think more generally about how earnings management is defined, consider the following representative definitions from the academic literature:

“...a purposeful intervention in the external financial reporting process, with the intent of obtaining some private gain...” Schipper (1989)

“ Earnings management occurs when managers use judgment in financial reporting and in structuring transactions 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.” Healy and Wahlen (1999)

Although widely accepted, these definitions are difficult to operationalize directly using attributes of reported accounting numbers since they center on *managerial intent*, which is unobservable. Turning to the professional literature, clear definitions of earnings management are just as difficult to discern from pronouncements, statements, and speeches by regulators. An extreme form of earnings management, financial fraud, is well-defined (again in terms of managerial intent) as:

“...the deliberate misrepresentation of the financial condition of an enterprise accomplished through the intentional misstatement or omission of amounts or disclosures in the financial statements to deceive financial statement users.” (Certified Fraud Examiners, 1993)

In recent speeches and writings, regulators at the SEC seem to have a broader concept in mind than financial fraud when they talk about earnings

management, although a strict definition has not been made explicit. In particular, while financial reporting choices that explicitly violate GAAP can clearly constitute both fraud and earnings management, it also seems that systematic choices made within GAAP can also constitute earnings management according to recent SEC discussions. The notion that earnings management can occur within the bounds of GAAP is consistent with the academic definitions described above but is somewhat startling if the idea is that this type of earnings management will lead to explicit adverse consequences for managers and firms (in the form of SEC enforcement activity) in the same way as financial fraud. This is an important point because of the question as to whether income smoothing and other similar processes constitute earnings management and whether they are to be treated in the same manner as fraud.

Former SEC Chairman Levitt indicated that “ flexibility in accounting allows firms to keep pace with business innovations. Abuses such as earnings management occur when people exploit this pliancy. Trickery is employed to obscure actual financial volatility. This in turn, masks the true consequences of management’s decisions.” (1998). This implies that within-GAAP choices can be considered to be earnings management if they are used to obscure or mask true economic performance, bringing us back again to managerial intent. This idea is reinforced by our reading of SAB 99, which also points to the intent to deceive. As accounting researchers have discovered, implementing this type of definition requires a reliable measure of “ the true consequences of management’s decisions” – that is, the earnings number

that would have resulted from a “ neutral operation of the process” (absent some form of managerial intent).

The crucial issues seems to be why firms choose to manage earnings, how do firms manage their earnings, how do we measure earnings management given that implementing GAAP requires management to make judgments and estimates, and what are the implications of earnings management.

### ***Motivation***

Management can have many motivations for managing their earnings. The ultimate motive for earnings management, however, is to aesthetically enhance the performance of a company in the eyes of its stakeholders. The literature cites motives such as stock market incentives, signaling or concealing private information, political cost, internal motives, lending contracts, management compensation contracts, and regulatory issues. A primary purpose of earnings management is to enhance the wealth of its stakeholders such as owners since they are hired by the board of directors and the board of directors is hired by the owners. To enhance the benefits of the owners of a firm, management may manage earnings in order to meet analyst forecasts for present and future periods (Burgstahler and Eames 1998). An owner of that firm’s stock may be rewarded by the appreciation of its stock value which directly relates to the owner’s wealth. Meeting earnings forecast is an important factor on the stock’s price. The more consensus among analysts’ forecasts, the stronger incentive management has to meet those forecasts (Payne and Robb 2000). Moreover, the direction of analysts’ recommendation (buy or sell) about a company can bias management’s decision to manage earnings. If the company misses its earnings this can

have a negative impact on stock returns and negatively impact management's compensation (Matsunaga and Park 2001). However, if management can meet or beat analyst expectations, then this can result in higher stock returns (Bartov et al., 2002). The management of earnings has also been seen prior to a firm's equity offering such as seasoned equity offers (Teoh, Welch, and Wong 1998b), initial public offerings (Teoh, Welch, and Wong 1998a; Teoh, Wong, and Rao 1998), and stock financed acquisitions (Erickson and Wang 1999).

Management may have the incentive to signal positive information or to conceal negative information. If a firm is performing poorly or having financial struggles, management may conceal this performance using earnings management (Rosner 2003). On the other hand, management may want to signal the firm's future performance by revealing more information about a company's future earnings and cash flow prospects (Tucker and Zarowin 2006). Earnings management can also be used to shift earnings to other periods for optimal tax planning (Shane and Stock 2006). The shifting of earnings for tax purposes can be a sign of strength. Other reasons to manage earnings can include meeting bank loan covenants. In order to maintain bank loan covenants, management may have to achieve a certain level of earnings. Failure to reach the requisite earnings can cause the lender to call the loans due, creating liquidity problems for the firm and signaling firm weakness to the bank and other creditors. The literature finds that firms that have violated covenants are more likely to manage earnings, possibly to prevent future defaults (Sweeney 1994).



When earnings management is conducted, managers use it as a tool to enhance perception of their management capabilities during the current reporting period, implying that this type of performance will continue in future reporting periods. They expect to be compensated handsomely for their “ business acumen.” However, Guidry et al. (1998) found that divisional managers for large multinational firms are likely to defer income when the earnings target in their bonus plan will not be met. This indicates that management is willing to take a bath in the current period in order to reap the benefits in a future period. Moreover, it was found in Murphy (2001) that management is more likely to smooth earnings when using internal performance standards (budget goals and prior year) than external standards. Another form of compensation manipulation happens when there is a cap on the bonus awards. Then management is more likely to report an accrual that defers income when the cap is reached (Healy 1985 and Hotausen et al, 1995). Furthermore, management may manage earnings depending on whether they are joining or leaving the firm. A new CEO may be inclined to downwards earnings management (transferring the benefit to future periods), while a retiring CEO may use upward earnings management (reaping the benefits in the current period) (Godfrey et al., 2003).

Certain businesses have regulatory requirements to stay in business. A popular study of earnings management in the literature is the application by banks to manage earnings in order to meet capital requirements and by insurance companies to manage earnings to meet risk regulatory requirements. The literature supports evidence that when banks are close to minimum capital requirements they overstate loan loss provisions,

understate loan write-offs, and recognize abnormal realized gains on securities portfolios (Moyer 1990; Scholes et al. 1990; Beatty et al. 1995; Collins et al. 1995). Additionally, financially weak property casualty insurers that risk regulatory attention understate claim loss reserves (Petroni 1992). The literature has also shown that firms facing anti-trust or potential anti-trust scrutiny are likely to use earnings management. These firms or others vulnerable to adverse political consequences have incentives to manage earnings to appear less profitable (Watts and Zimmerman 1978). Moreover, firms under investigation for anti-trust violations reported income decreasing abnormal accruals in investigation years (Cahan 1992).

### ***Techniques***

Earnings Management can take place by underestimating or overestimating either revenues or expenses. It can be done to affect future earnings as well as current earnings. There are two main types:

1. *Cosmetic Earnings Management using accounting choices from GAAP:* also called accrual based earnings management. It happens when managers use their judgment and discretion to make choices related to accounting principles that can alter earnings in the current or a future period. An example is the modification of depreciation rates, where an increase (decrease) in the expense may occur in the current period leading to a decrease (increase) in the future (Nelson et. al. 2003).
2. *Real-Activity Earnings Management using operating decisions:* this type of earnings management is when managers make decisions that affect the real operations in the firm. This type is more dangerous both

to the firm and to the managers. Managers would be at a higher risk of being caught. As for the firms, real activities earnings management affects the cash flow, and consequently has a higher impact on the company's future. For example, a manager can give discounted sales prices in order to boost sales and consequently meet some target revenues (Roychowdhury 2006).

**The most popular and successful techniques used to manage earnings can be categorized into 11 groups:**

1. Cookie jar (Cosmetic): managers create a “ reserve” or a “ financial slack” to boost earnings in future periods by recording more expenses in the present. For example, when the manager reports higher inventory cost in the current period, it will allow him to reduce this in the future. (Levitt 1998)
2. Big bath (Cosmetic): when the management decides to eliminate or restructure a subsidiary or an operation, GAAP permits the management to record an estimate charge against the income. Managers can record higher charges to dissimulate other charges. (Levitt 1998)
3. Big bet on the future (Cosmetic): when a company acquires another one, managers can get an immediate earnings boost by including the acquired company's earnings in consolidated earnings. On the other hand, to boost future earnings, managers can write-off the acquired in-progress R&D costs against present earnings, and thus protecting future earnings from these charges. (Levitt 1998)
4. Flushing of investment portfolio (Real): passive investments (less than 20% ownership) can be classified as trading securities (reported in operating income) or available-for-sale securities (not reported in operating income <https://assignbuster.com/earnings-management-and-accrual-accounting/>

*until* sold). Earnings can be managed by timing sales (sell securities that gained (lost) value to increase (decrease) earnings) or reclassifying the security portfolio (from trading security to available for sale to move gain or loss from or to the income statement)

5. Throw out a problem child (Real): When a subsidiary underperforms, it decreases the overall company earnings. It is usually expected to cause a bigger decrease in the future. Managers may act in several ways to counter that: sell the underperforming subsidiary and consequently report a gain or a loss (based on the managers' discretion). Another way is to spin-off the subsidiary by distributing or exchanging the shares with current shareholders and in this way the burden is transferred to the latter.

6. Change in GAAP (Cosmetic): Management can manage earnings by undergoing changes to the present accounting standards. For example, it may volunteer for early adoption of new accounting standards, such as the 1985's standard, which allowed companies whose pension assets exceeded their pension liabilities to count the difference as income (Lev 1989). This technique allows for improved revenue and improved expense recognition.

7. Amortization, Depreciation, and Depletion (Cosmetic): Writing-off long-term assets can be managed by selecting write-off method and period, estimating salvage value, or reclassifying as non-operating use.

8. Sale/Leaseback and asset exchange (Real): selling a long-term asset that has unrealized gain (loss) can be used to manage earnings. For example, selling a building, which is carried in the balance sheet at \$25 million, for \$40 million, will give a boost to the current earnings by \$15 million (not

considering tax and transaction costs). Another way is to sell the building and lease it back (recording gains or losses). However, if the management wishes not to record any gains or losses, the long-term asset could be exchanged with a similar one (for example for exchanging a warehouse for another one that is nearer to a production site)

9. Operating vs. Non-operating Income (Cosmetic): Income items can be classified as Operating income (recurring or core income, expected to continue in the future) or non-operating income (non-recurring, not expected to affect future). GAAP permits to management to classify an item as one or the other. The manager's judgment will then affect the financial analysts' forecasts, which are based on the operating or core earnings. For instance, disposition of a major manufacturing plant can be classified either as special charges (Operating income) or discontinued charges (non-operating income) based on the managers' discretion.

10. Early Retirement of Corporate Debt (Real): Managers may decide to prematurely sell long-term corporate debts (bonds) which are usually recorded at an amortized value. The timing of the sale may lead to gains or losses due to the difference between the amortized value and the book value.

11. Stock buybacks (Real): This technique does not affect earnings, however it does affect earnings per share. By repurchasing their own shares, an act that is considered internal and thus not required to be reported under GAAP, companies will report higher EPS. Consider a company with 1 million shares. If the earnings are \$4 million,  $EPS = \$4 \text{ million} / 1 \text{ million shares} = \$4 \text{ per}$

share. Now if the company buys back 100, 000 shares, the same earnings would have to be divided by 900, 000 shares, the reported EPS would be \$4.44 per share.

### *Earnings Management Models and The Accrual Generation Process*

Accruals have the desirable traits of giving summary measures of firm's income and accounting choice. In earnings management research, accruals are divided into discretionary (DA) and non-discretionary (NDA). Most research has focused on the detection of DA. It is customary to start earnings management studies with the study of behavior of sales over time.

First, in the budgeting process, sales determine the firm's production and inventory levels, which in turn determine cost of goods sold, operating expenses, and investment decisions. Second, sales have the highest persistence of any component of the income statement. Therefore, sales are an efficient statistic for describing the characteristics of the firm. The fundamental element of any test for earnings management is a measure of management discretion over earnings. Most studies use DA as a proxy for earnings management. Because DA cannot be observed directly from the financial statement, they have to be estimated using some kind of model. The literature has followed different approaches. According to McNichols (2000), the models can be broadly classified into 3 groups: aggregate accrual models, specific accrual models, and frequency distribution models. Because of their wide use, we discuss the aggregate accrual models as follows:

### ***Models***

Starting with the first and simplest models, both Healy (1985) and DeAngelo (1986) used total accruals (TA) as the proxy for DA to test earnings management in the context of bonus and management buyouts respectively. However, DeAngelo (1986) used first differencing to correct for serial correlation, therefore his NDA will be less contaminated by past accruals that are irrelevant in estimating current DA.

The most popular earnings management model is the Jones Model (1991). It has model has been modified in several ways. Analysis is conducted in 2 stages. In the estimation stage, the DA is assumed to be zero and firm specific coefficients of NDA will be determined. These coefficients are assumed to be stationary and are used to in the event period to determine the DA. In her model, unlike the previous models, NDA are expected to vary with the level of business activity, and revenues and property, plant, and equipment (PPE) are used as proxies to control for NDA. All the variables are deflated by lagged total assets to correct for heteroskedasticity . Dechow et al (1995) argued that earnings can be managed by inflating revenue via receivables. As a result, revenue should be adjusted for change in receivables. This adjusted model is known as the Modified Jones Model.

#### **The Modified Jones Model (1995) is:**

The Industry Model (1991) was developed by Deschow and Sloan when they dealt with R&D spending during the last year of the tenure of an outgoing CEO. They assumed that the variation in NDA is common across all firms in the same industry and formulated a model of how the normal item under investigation behaves. However, this model applies only to event studies in

which not all firms experience the same event and it cannot capture firm specific characteristics.

### **The Industry Model is:**

$$NDA_{t+1} = \beta_1 + \beta_2 \text{Median}(TA_{t+1})$$

### ***Limitations***

All models come with limitations. The limitations of the earnings management models are:

1. Strong assumptions that may not hold. These include the absence of earnings management in the estimation period, stationarity of firm specific characteristics over such a longer time horizon, and orthogonality of NDA with the error term (i. e. DA).
2. All the models assume that abnormal accruals are discretionary. Variation in accrual could be the result of performance or business strategy. The consequence is that it produces a Type II error. The solution is to add variables to control for performance and business strategy (Hansen 1999), however, some performance and growth variables may have non-linear properties.
3. Small samples sizes. Small samples generate higher standard error which can weaken the power for the tests (type II errors).
4. Measurement error. Since DA cannot be observed, it has to be estimated. This produces biased estimate of coefficients. The Balance Sheet approach generates more measurement error than the Cash Flow approach. (Hirbar and Collins 2002)
5. Omission of variables. Most models miss some important variables and this induces a bias on the included variables and higher standard



errors. The obviously omitted variable is an expense. This can cause an accrual conundrum (Ronen et al, 2007).

6. Efficiency of the existing models. Research has shown that most of these models wrongly identify abnormal but NDA as DA (Type I error) and fail to identify higher amount of induced earnings management (Type II errors). This is partly due to the linearity of the models and the non-linear behavior of the variables studied. Moreover, there are many endogenous factors that affect earnings management and it may not be captured by single equations. As a result, a shift to linear specification and non-linear specification of the models could improve the efficiency of the earnings management models.
7. Further decomposition of accruals. The starting point for most earnings management studies is decomposition of TA and most studies decomposed TA into NDA and DA. However, accruals have reversal property that ensures the change in accrued balance to add up to zero. Therefore, reversal of accrued balance limits the opportunity of managed earnings. As a result, further decomposition of TA accrual could provide more information on the exact change in TA.

### ***Implications and Application of Earnings Management***

Literature related to earnings management implies that earnings management could not be completely eliminated. As long as managements can benefit from managing earnings, they would attempt to expand use of it. Earnings management could be reduced while public eyes such as regulators spend many resources to detect it. However, if they lower guard due to lack of perfect restriction methods, earnings management could be re-flourished since it is surely useful for management to achieve their goals. Therefore,

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firms' earnings management activities continually are reiterated. This continued action without a complete elimination can cause various effects on our society. Firms which purposefully manage their earnings for their own good could negatively impact public well-fare. According to Beaver (1998), financial reporting can generate different kinds of economic consequences, mostly related to resource allocation such as wealth distribution, aggregate consumption and aggregate production, and resources devoted to private search for information. Since earnings management could affect the quality of information by producing less reliable financial statement, eventually it could cause various negative economic results. In other words, less reliable information produced because of earnings management may not only make the public worse-off, but may also make the overall economy less stable. For example, because of earnings management, if many investors believe that financial reporting has poor quality and less reliability, they would spend more of their resources to search for better information or private information. It could mean that society wastes resources or re-allocates them to inappropriate places.

Several studies provide evidences of earnings management by testing various types of accruals. Teoh, Wong, and Rao (1998) found that depreciation estimates and bad debt provisions are used for earnings management surrounding initial public offers. Many other studies found proof of earnings management through bank loan loss provisions (Beaver, et al., 1989; Moyer, 1990; Scholes, et al., 1990; Wahlen, 1994; Beatty et al. (1995), Collins et al. (1995), Beaver and Engel (1996), Liu and Ryan (1995), Liu et al. (1997). Studies of insurance claim loss reserves, including Petroni (1992),

Anthony and Petroni (1992), Beaver and McNichols (1998), Penalva (1998), Petroni et al. (1999), have provided evidence of earnings management among insurers. Visvanathan (1998), Miller and Skinner (1998), Ayers (1998) test the use of deferred tax assets as a tool of earnings management, but they only present little evidence of it.

While research indicates evidence of earnings management in a few accruals, numerous studies suggest different methods which could contribute to reduce pervasiveness of earnings management. Such restriction methods could be broadly cauterized in three parts. The first proposed way is to restrict earnings management through the regulatory process. Tan and Jamal (2006) found that strict accounting standards relating to discretionary accruals may reduce earnings management through. However, they also emphasize that too much restriction for cosmetic earnings management could increase real activity earnings management. As such, restriction through regulation would not completely eliminate earnings management because there are trade-offs. Secondly, another method is an appropriate and effective audit procedure. Past studies have shown evidence that various factors related to audit procedure can help constrain earnings management (Krishnan, 2003; Van Caneghem, 2004; Van Caneghem, 2004; Vander Bauwhede & Whillekens, 2004; Kim, et al., 2003; Frankel, 2002; Ferguson, 2004; Carey & Simnet, 2006). According to Kim, et al. (2003), Big 5 auditors were more effective in deterring earnings management when there was an income increasing accrual choice. The last suggested restriction method is effective and efficient corporate governance. This is associated with the firm's structure. For example, if a firm is inclined

to highlight effective corporate governance, this firm could make an effort to prohibit earnings management. It is important to understand that these three methods correlate with each other. For instance, by requiring additional audit procedures or firm policies, regulation would affect audit procedure or corporate governance and would reduce earnings management. On the other hand, auditors or firms could propose new regulations to reduce earnings management. Hence, earnings management could possibly be reduced not through one method but through a combination of all three methods.

**References:**

Ayers, B. C. 1998. Deferred tax accounting under SFAS No. 109: An empirical investigation of its incremental value-relevance relative to APB No. 11. *The Accounting Review* 73 (2): 195-212

Bartov, E., Givoly, D. & Hayn, C. (2002) The rewards to meeting or beating earnings expectations. *Journal of Accounting and Economics*, 33, 173-204

Beatty, A., S. Chamberlain, and J. Magliolo. 1995. Managing financial reports of commercial banks: The influence of taxes, regulatory capital and earnings. *Journal of Accounting Research* 33 (2): 231-261

Beaver, W., C. Eger, S. Ryan, and M. Wolfson. 1989. Financial reporting, supplemental disclosures and bank share prices . *Journal of Accounting Research* (Autumn): 157-178

Beaver, W., and E. Engel. 1996. Discretionary behavior with respect to allowances for loan losses and the behavior of security prices. *Journal of Accounting and Economics* 22: 177-206

Beaver, and M. McNichols. 1998. The characteristics and valuation of loss reserves of property-casualty insurers. Working paper, Stanford University.

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