

financial accounting theory

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Chapter 11

Earnings Management

Figure 11.1 Organization of Chapter 11



11.1 OVERVIEW

Earnings management can be viewed from both a financial reporting and a contracting perspective. From a financial reporting perspective, managers may use earnings management to meet analysts' earnings forecasts, thereby avoiding the reputation damage and strong negative share price reaction that quickly follows a failure to meet investor expectations. Also, they may record excessive write-offs, or emphasize earnings constructs other than net income, such as "pro-forma" earnings. Some of these tactics suggest that managers do not fully accept securities market efficiency.

There is another view of earnings management, however. Management may use it to report a stream of smooth and growing earnings over time. Given securities market efficiency, this requires management to draw on its inside information. Thus, earnings management can be a vehicle for the communication of management's inside information

to investors. Interpreted this way, income smoothing leads to the interesting, and perhaps surprising, conclusion that some earnings management can be useful from a financial reporting perspective.

From a contracting perspective, earnings management can be used as a way to protect the firm from the consequences of unforeseen events when contracts are rigid and incomplete. Also, as we saw in Chapter 9, managerial compensation contracts that allow some earnings management can be more efficient than ones that do not, due to the high costs of eliminating earnings management completely.

Too much earnings management, however, may reduce usefulness for investors. This is particularly so if the earnings management is buried in core earnings or otherwise not fully disclosed. Also, earnings management affects the manager's motivation to exert effort, because managers can use earnings management opportunistically to smooth their compensation over time, thereby reducing compensation risk. But, we have seen that managers need to bear some risk if they are to work hard.

For whatever reason, it should be apparent that managers have a strong interest in the bottom line. Given that managers can choose accounting policies from a set of policies (for example, GAAP), it is natural to expect that they will choose policies so as to help achieve their objectives. They may also take real actions affecting earnings, such as cutting R&D. As mentioned, these choices can be motivated either by efficient markets and contracts, or by opportunism and rejection of market efficiency. Whatever the reason, this is called **earnings management**.

An understanding of earnings management is important to accountants, because it enables an improved understanding of the usefulness of net income, both for reporting to investors and for contracting. It may also assist accountants to avoid some of the serious legal and reputation consequences that arise when firms become financially distressed. Such distress is often preceded by serious abuse of earnings management.

***Earnings management** is the choice by a manager of accounting policies, or actions affecting earnings, so as to achieve some specific reported earnings objective.*

Thus, earnings management includes both accounting policy choice and real actions. We consider accounting policy choice first. It should be mentioned that choice of accounting policies is interpreted quite broadly. While the dividing line is not clear-cut, it is convenient to divide accounting policy choice into two categories. One is the choice of accounting policies per se, such as straight-line versus declining-balance amortization, or policies for revenue recognition. The other category is discretionary accruals, such as provisions for credit losses, warranty costs, inventory values, and timing and amounts of non-recurring and extraordinary items such as write-offs and provisions for reorganization.

Regardless of its rationale, it is important to realize that there is an "iron law" surrounding accruals-based earnings management, which will be familiar from introductory accounting. This is that *accruals reverse*. Thus, a manager who manages earnings upwards to an amount greater than can be sustained will find that the reversal of these accruals in

subsequent periods will force future earnings downwards just as surely as current earnings were raised.¹ Then, even more earnings management is needed if reporting of losses is to be further postponed. In effect, if a firm is performing poorly, earnings management cannot indefinitely postpone the day of reckoning. Thus, the possibility that earnings management can be good should not be used to rationalize misleading or fraudulent reporting. The accountant treads a fine line between earnings management and earnings mismanagement. Ultimately, the location of this line must be determined by effective corporate governance, reinforced by securities and managerial labour markets, standard setters, securities commissions, and the courts.

The iron law of accruals reversal leads to an important aspect of earnings management. All of the models of earnings management in Chapter 9 were single-period. Even then, we showed that earnings management could, in theory, be beneficial. However, to better understand earnings management, we need to think in terms of multiple periods. Then, further earnings management potential, such as income smoothing and "big bath," is revealed. Indeed, the three hypotheses of positive accounting theory (Section 8.5.2) implicitly assume a multi-period horizon.

Yet, multi-period horizons also operate to inhibit earnings management. For example, to what extent is a manager's propensity to over- or understate reported net income reduced by the knowledge that such misstatements will inevitably reverse? To what extent do markets, such as the securities market and the manager's reputation on the managerial labour market, help to control opportunistic earnings management? We saw some evidence in Wolfson's (1985) study of oil and gas limited partnerships in Section 10.2 that reputation effects reduce but do not eliminate the moral hazard problem. While a multi-period horizon increases the potential for earnings management, it also operates to constrain the practice.

Another way to manage earnings is by means of *real* variables, such as advertising, R&D, maintenance, timing of purchases and disposals of capital assets, stuffing the channels, etc. These devices may be costly, since they directly affect the firm's longer-run interests. Nevertheless, managers may use them since the costs of managing earnings using accounting variables has increased of late, due to reporting failures such as Enron and WorldCom and resulting legislation, notably Sarbanes-Oxley (see Section 1.2). Indeed, Graham, Harvey, and Rajgopal (2005), in a survey of chief financial officers of 312 U.S. public companies, report that most respondents indicated a willingness to manage real variables in order to meet earnings targets and/or smooth earnings, even though such actions may compromise longer-term objectives. Use of accounting policy variables for these purposes received relatively little support from the respondents. Note that earnings management by real variables manages cash flows as well as earnings. Nevertheless, we concentrate primarily on management of accounting variables rather than real variables due to their historical importance, their relevance to accounting, and the likelihood that the lessons of Enron and WorldCom will grow dim over time.

Figure 11.1 outlines the organization of this chapter.

11.2 PATTERNS OF EARNINGS MANAGEMENT

Managers may engage in a variety of earnings management patterns. Here, we collect and briefly summarize these patterns.

1. **Taking a bath** This can take place during periods of organizational stress or reorganization. If a firm must report a loss, management may feel it might as well report a large one—it has little to lose at this point. Consequently, it will write-off assets, provide for expected future costs, and generally "clear the decks." Because of accrual reversal, this enhances the probability of future reported profits. In effect, the recording of large write-offs puts future earnings "in the bank."
2. **Income minimization** This is similar to taking a bath, but less extreme. Such a pattern may be chosen by a politically visible firm during periods of high profitability. Policies that suggest income minimization include rapid write-offs of capital assets and intangibles, expensing of advertising and R&D expenditures, successful-efforts accounting for oil and gas exploration costs, and so on. Income tax considerations, such as for LIFO inventory in the United States, provide another set of motivations for this pattern, as does enhancement of arguments for relief from foreign competition.
3. **Income maximization** From positive accounting theory, managers may engage in a pattern of maximization of reported net income for bonus purposes, providing this does not put them above the cap. Firms that are close to debt covenant violations may also maximize income.
4. **Income smoothing** This is perhaps the most interesting earnings management pattern. From a contracting perspective, risk-averse managers prefer a less variable bonus stream, other things equal. Consequently, managers may smooth reported earnings over time so as to receive relatively constant compensation. Efficient compensation contracting may exploit this effect, and condone some income smoothing as a low-cost way to attain the manager's reservation utility.
We considered covenants in long-term lending agreements in Section 9.7. The more volatile the stream of reported net income, the higher the probability that covenant violation will occur. This provides another smoothing incentive—to reduce volatility of reported net income so as to smooth covenant ratios over time.
Managers may feel, with some justification, that they may be fired when reported earnings are low. Income smoothing reduces the likelihood of reporting low earnings.
Finally, firms may smooth reported net income for external reporting purposes. As we have suggested, smoothing can convey inside information to the market by enabling the firm to communicate its expected persistent earning power.

It should be apparent that these various earnings management patterns can be in conflict. Over time, the pattern chosen by a firm may vary due to changes in contracts, changes in levels of profitability, and changes in political visibility. Even at a given point in time, the firm may face conflicting needs to, say, reduce reported net income for political reasons, increase it to meet analysts' forecasts, or smooth it for borrowing purposes.

11.3 EVIDENCE OF EARNINGS MANAGEMENT FOR BONUS PURPOSES

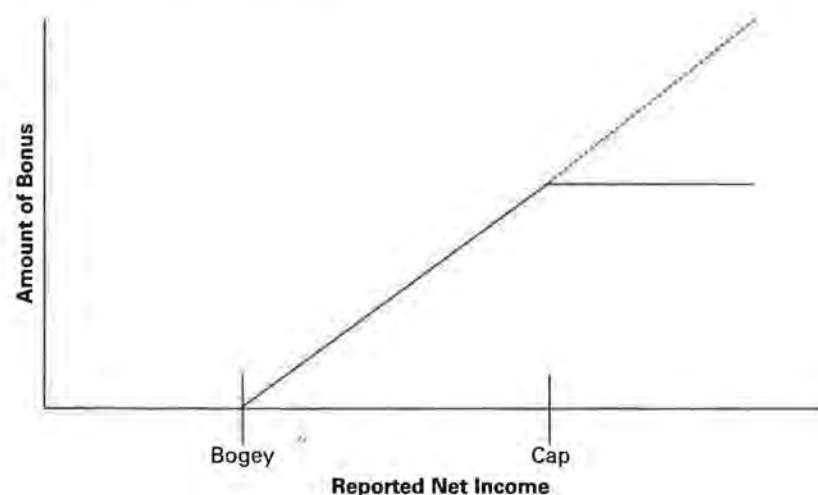
A paper by Healy (1985), entitled "The Effect of Bonus Schemes on Accounting Decisions," is a seminal investigation of a contractual motivation for earnings management. Healy observed that managers have inside information on the firm's net income before earnings management.² Since outside parties, including the board itself, may be unable to learn what this number is, he predicted that managers would manage net income so as to maximize their bonuses under their firms' compensation plans. Here, we will review Healy's methods and findings.

Healy's paper is based on positive accounting theory (Section 8.5). It attempts to explain and predict managers' choices of accounting policies. More specifically, it is an extension of the bonus plan hypothesis, which states that managers of firms with bonus plans will maximize current earnings. By looking more closely at the structure of bonus plans, Healy comes up with specific predictions of how and under what circumstances managers will engage in this type of earnings management.

Healy's study was confined to firms whose compensation plans are based on current reported net income only. These will be called **bonus schemes** for the rest of this section. As we saw for BCE Inc. in Section 10.3, net income-based financial targets are a major input into short-term incentive awards. We also pointed out, in Section 10.4.3, reasons why bonus schemes may have bogeys and caps. Figure 11.2 illustrates a typical bonus scheme.

In the figure, the bonus increases linearly (for example, 10% of net income) between the bogey and the cap. Below the bogey, bonus is zero. If there is no cap, the bonus would increase along the dotted line. Otherwise, the bonus becomes a constant for net income

Figure 11.2 Typical Bonus Scheme



greater than the cap. Such bonus plans are called **piecewise linear**. A piecewise linear bonus scheme is simpler than that of BCE's short-term incentive plan, where the bogey and cap are implicit. Nevertheless, the basic idea of compensation increasing in earnings performance carries over. The question then is, do managers manage earnings as predicted by the bonus hypothesis?

To explore this question, consider the incentives to manage reported net income faced by a manager subject to such a scheme. If net income is low (that is, below the bogey), the manager has an incentive to lower it even further, that is, to take a bath. If no bonus is to be received anyway, the manager might as well adopt accounting policies to further reduce reported net income.³ In so doing, the probability of receiving a bonus the following year is increased since current write-offs will reduce future amortization charges. Similarly, if net income is high (above the cap), there is motivation to adopt income minimization policies, because bonus is permanently lost on reported net income greater than the cap.

Only if net income is between the bogey and cap (except for the case in Note 3) is the manager motivated to adopt accounting policies to increase reported net income. Thus, Healy refines the bonus plan hypothesis—it really only applies when net income is between the bogey and the cap.

How does a manager manage net income? Healy assumed that managers use accruals. To illustrate how accruals may be used to manage earnings, we begin by repeating again the formula given in Sections 5.4.1 and 6.2.6:

$$\text{Net income} = \text{cash flow from operations} \pm \text{net accruals}$$

This can be broken down into:

$$\begin{aligned} \text{Net income} = & \text{cash flow from operations} \pm \text{net non-discretionary accruals} \\ & \pm \text{net discretionary accruals} \end{aligned}$$

The concept of discretionary accruals was introduced in Section 8.5.3. These are accruals over which the manager can exercise some control. As pointed out there, the estimation of discretionary accruals by researchers poses a major challenge.

To illustrate the interplay between discretionary and non-discretionary accruals, consider the hypothetical example in Table 11.1.

Table 11.1 Discretionary and Non-Discretionary Accruals

Cash flow, as per cash flow statement		\$1,000
Less: Amortization expense	- 50	
Add: Increase in (net) accounts receivable during the year	+ 40	
Add: Increase in inventory during the year	+ 100	
Add: Decrease in accounts payable and accrued liabilities during the year	+ 30	120
Net income, as per income statement		<u>\$1,120</u>

In the table, a positive sign for an accrual means that, for given cash flow, it increases net income, and vice versa. The information in the table could be taken from the statement of cash flows.⁴ For simplicity, we have assumed that there are no extraordinary income statement items and no income tax expense. Assume that explanations for the four accrual items are as follows:

- **Amortization expense** Annual amortization expense is laid down by the firm's amortization policy and its estimates of assets' useful lives. Given this policy, amortization expense is a non-discretionary accrual. Of course, the firm might change its policy, for example by changing estimates of useful life, in which case amortization expense would contain a discretionary component.
- **Increase in net accounts receivable** Assume that this derives from a decrease in the allowance for doubtful accounts, resulting from a less conservative estimate than in previous years. This accrual is discretionary, since management has some flexibility to control the amount. Other reasons for the increase could include earlier revenue recognition, a more generous credit policy, keeping the books open beyond the year-end, or simply an increase in volume of business. The first three of these accruals are discretionary, the fourth is non-discretionary.

Thus, we see that there can be several reasons for an increase in receivables. A researcher with access only to the comparative financial statements would be unlikely to know what particular reason or reasons accounted for the increase or whether the increase was discretionary or non-discretionary or both. Nevertheless, it is clear that the manager who wishes to increase reported net income through accounts receivable accruals has several means available.

- **Increase in inventory** Assume that this derives from the firm manufacturing for stock during a period of excess manufacturing capacity. The result is to include fixed overhead costs in inventory rather than charging them off to expense as unfavourable volume variances. This accrual is discretionary, and illustrates the use of a real variable to manage earnings. However, non-discretionary reasons for the increase could be an inventory buildup in anticipation of a strike, or simply increased demand.

While other reasons for the increase are possible, just as in the case of accounts receivable, discretionary, income-increasing accruals are available for inventory as well.

- **Decrease in accounts payable and accrual liabilities** Assume that this derives from the firm being more optimistic about warranty claims on its products than it has been in previous years. Alternatively, or in addition, the decrease could be due to regarding certain borderline items as contingencies rather than accruals. Again, we see that there can be ample room for discretionary accruals in accounts payable.

The main point to note is that the manager has considerable discretion to manage reported net income. While it is easy to determine the change in account balances, the reasons for the change are typically unknown to the investor and researcher. Also, for many of these discretionary accruals, it would be difficult for the firm's auditors to discover

the earnings management or, if they did discover it, to object, since all of the techniques mentioned, with the exception of holding the books open past the year-end, are within GAAP. A similar set of discretionary accruals to decrease reported net income is available to the manager, simply by reversing those described above.

Healy did not have access to the books and records of his sample firms, and was unable to determine the specific discretionary accruals made by those firms' managers. As a result, he used another approach, namely to take total accruals as a proxy for discretionary accruals. Thus, in our example, he would estimate discretionary accruals as +\$120, instead of the +\$170 that would be used if he had full information. The +\$170 of discretionary accruals will raise total accruals by \$170, regardless of what other non-discretionary accruals may be present; that is, higher total accruals contain higher discretionary accruals, and vice versa.

Healy obtained a sample of 94 of the largest U.S. industrial companies. He followed each company over the period 1930–1980 and obtained a total of 1,527 usable observations, that is, 1,527 firm years where the bogey and (if applicable) cap for a firm's bonus scheme could be calculated. Of these, 447 observations included both a bogey and a cap.

Each observation was then classified into one of three categories, or "portfolios" as Healy calls them. Portfolio UPP consisted of observations where earnings were above the cap, portfolio LOW of observations where earnings were below the bogey, and portfolio MID where they were between the bogey and cap. If the bonus plan hypothesis is valid, total accruals should be greater for the MID portfolio than for UPP and LOW.

For the 447 observations that had both a bogey and a cap, the results are summarized in Table 11.2. We see that 46% of the 281 observations in the MID portfolio had total accruals that were positive, that is, income-increasing. The average accrual of these 281 observations was +0.0021 of total assets (accruals were deflated by total assets so that they could be compared across firms of different sizes). For the observations in the LOW and UPP portfolios, the proportions with positive total accruals were much lower—only 9% and 10%, respectively. In fact, the average accruals for these observations were negative (income-decreasing). These results are consistent with Healy's arguments that firm managers whose net incomes are below the bogey and above the cap will tend to adopt income-decreasing accruals and only managers with net income between the two will tend to adopt income-increasing accruals. Thus, Healy's predictions of earnings management by managers subject to bonus schemes were supported by the empirical results.

It should be emphasized that empirical earnings management studies face severe methodological problems. As mentioned earlier, a major difficulty is that discretionary accruals cannot be directly observed. Consequently, some proxy must be used. Using total accruals, as Healy did, introduces measurement error into the discretionary accruals variable, making it more difficult to detect earnings management should it exist. For example, the amount of non-discretionary accruals is likely correlated with net income. As Kaplan (1985) pointed out, a firm with reported net income above the cap of its bonus plan may have low non-discretionary accruals if its high income is due to an unexpected increase in demand that runs down inventory. Then, the low total accruals that are used to infer

Table 11.2 Observations With Both a Bogey and a Cap

	PROPORTION OF ACCRUALS WITH GIVEN SIGN		NUMBER OF OBSERVATIONS	AVERAGE ACCRUALS
	Positive	Negative		
LOW	0.09	0.91	22	-0.0671
MID	0.46	0.54	281	+0.0021
UPP	0.10	0.90	144	-0.0536
			447	

Source: P. M. Healy, "The Effect of Bonus Schemes on Accounting Decisions," *Journal of Accounting and Economics* (April 1985), p. 96, Table 2. Reprinted by permission.

earnings management are really due to the level of the firm's real economic activity and not to low discretionary accruals. Healy was aware of these problems and conducted additional tests to control for them, which he interpreted as confirming his findings.⁵

McNichols and Wilson (1988) also studied the behaviour of accruals in a bonus context. They confined their investigation to the provision for bad debts, on the grounds that a precise estimate of what the bad debts allowance should be (that is, the non-discretionary portion of the bad debts accrual) can be made. Then, discretionary accruals can be taken as the difference between this estimate and the actual bad debts provision. A precise estimate of non-discretionary accruals will reduce the problem of measurement error in the discretionary accruals variable. This approach also reduces the problem of correlation between net income and non-discretionary accruals, since the impact on the bad debts provision of the firm's level of economic activity is captured by their estimate of what the bad debts allowance should be. They found that, over the period 1969–1985, discretionary bad debt accruals were significantly income-reducing both for firm years that were very unprofitable and those that were very profitable (and thus likely to be below and above the bogeys and caps, respectively, of the bonus agreements). For firm years that were between these profitability extremes, discretionary accruals were much lower, and usually income-increasing. These results are consistent with those of Healy.

The methodology used by Jones (1991), described in Section 8.5.3, provides a more refined way to estimate non-discretionary accruals (Healy's study preceded development of this approach). In this regard, Holthausen, Larcker, and Sloan (1995) (HLS) also studied managers' accruals behaviour for bonus purposes. They were able to obtain data on whether managers' annual earnings-based bonuses were in fact zero, greater than zero but less than the maximum bonus, or at the maximum. These are substantially better data than Healy, who had to estimate whether earnings before discretionary accruals were below bogey, between bogey and cap, or above cap on the basis of available descriptions of bonus contracts, and assume that if earnings were below the bogey the manager would not receive a bonus, etc.

Using a version of the Jones (1991) model to estimate non-discretionary accruals for a sample of 443 firm-year observations over 1982–1990, HLS found that managers who received zero bonus did not use accruals to manage earnings downward, which differed from Healy's findings (row 1, Table 11.2). They concluded that methodological problems arising from Healy's procedures for estimating discretionary accruals explained why he appeared to find negative accruals for his low portfolio.⁶ However, HLS did find that managers who were at their bonus maxima managed accruals so as to lower reported earnings. This is consistent with Healy's results—see row 3 of Table 11.2.

We may conclude that, despite methodological challenges to Healy's seminal study, there is significant evidence that, on average, managers use accruals to manage earnings so as to influence their bonuses, particularly when earnings are high. This evidence is consistent with the bonus plan hypothesis of positive accounting theory.

However, we can think about consistency with the bonus plan hypothesis in two ways. Perhaps the most natural way is to view it as opportunistic behaviour by managers to exploit their power in the organization, by maximizing their utility at the expense of the firm's shareholders and other investors who may find it prohibitively costly to unravel discretionary accruals. More visible earnings management techniques, such as accounting policy changes, timing of capital gains and losses, and provisions for restructuring can also be difficult to interpret. For example, is a firm's sale of one of its divisions driven by necessity or by timing considerations, or is a provision for restructuring excessive? Answers to questions such as these are typically private, inside information of the manager.

A second way to think about earnings management, however, is from an efficient contracting perspective. When setting compensation contracts, firms will rationally anticipate managers' incentives to manage earnings and will allow for this in the amount of compensation they offer. This was illustrated in Example 9.7, where a contract that allowed for some earnings management was less costly than eliminating it completely. Consequently, even boards of directors may not be motivated to unravel earnings management.

Nevertheless, whether we view them from an opportunistic or efficient contracting perspective, compensation contracts do create earnings management incentives.

11.4 OTHER MOTIVATIONS FOR EARNINGS MANAGEMENT

Healy's study applies to bonus contracts. However, managers may engage in earnings management for a variety of other reasons. Now, we will consider some of these.

11.4.1 Other Contracting Motivations

Debt contracts typically depend on accounting variables, arising from the moral hazard problem between manager and lender analyzed in Section 9.7. To control this problem, long-term lending contracts typically contain covenants to protect against actions by

managers that are against the lenders' best interests, such as excessive dividends, additional borrowing, or letting working capital or shareholders' equity fall below specified levels, all of which dilute the security of existing lenders.

Earnings management for covenant purposes is predicted by the debt covenant hypothesis of positive accounting theory. Given that covenant violation can impose heavy costs, firm managers will be expected to avoid them. Indeed, they will even try to avoid being close to violation, because this will constrain their freedom of action in operating the firm. Thus, earnings management can arise as a device to reduce the probability of covenant violation in debt contracts.

Earnings management in a debt covenant context was investigated by Sweeney (1994). For a sample of firms that had defaulted on debt contracts, Sweeney found significantly greater use of income-increasing accounting changes relative to a control sample, and also found that defaulting firms tended to undertake early adoption of new accounting standards when these increased reported net income, and vice versa.

DeFond and Jiambalvo (1994) also examined earnings management by firms disclosing a debt covenant violation during 1985–1988. They found evidence of the use of discretionary accruals to increase reported income in the year prior to and, to a lesser extent, in the year of the covenant violation.

Somewhat different results are reported by DeAngelo, DeAngelo, and Skinner (1994), however. They studied a sample of 76 large, troubled firms. These were firms that had three or more consecutive loss years during 1980–1985 and that had reduced dividends during the loss period. For 29 of these firms, the cut in dividends was forced by binding debt covenant constraints.

After controlling for the influence of declining sales and cash flows on accruals, DeAngelo et al. failed to find evidence that these 29 firms used accruals to manage earnings upward in years prior to the cut in dividends, relative to the remaining sample firms that did not face debt covenant constraints. Rather, all the 29 firms exhibited large negative (that is, earnings-reducing) accruals extending for at least three years beyond the year of the dividend cut. DeAngelo et al. attribute this conservative behaviour as due in part to large, discretionary non-cash write-offs. Apparently, these were to signal to lenders, shareholders, unions, and others that the firm was facing up to its troubles, and to prepare the ground for subsequent contract renegotiations that frequently took place.

It thus seems that when its troubles are profound, the firm's behaviour transcends that which is predicted by the debt covenant hypothesis and, instead, earnings management becomes part of the firm's (and its manager's) overall strategy for survival.

Earnings management incentives also derive from **implicit contracts**, also called relational contracts. These are not formal contracts, such as the compensation and debt contracts just considered. Rather, they arise from continuing relationships between the firm and its stakeholders (e.g., employees, suppliers, lenders, customers) and represent expected behaviour based on past business dealings. For example, if the firm and its manager develop a reputation for always meeting formal contract commitments they will receive better terms from suppliers, lower interest rates from lenders, etc. In effect, the

parties act as if such favourable contracts exist. In terms of our game theory Example 9.1, the manager and the firm's stakeholders trust each other sufficiently that they play the cooperative solution rather than the Nash equilibrium.

Earnings management for implicit contracting purposes was investigated by Bowen, DuCharme, and Shores (1995) (BDS). They argued that the manager's implicit contracting reputation can be bolstered by high reported profits, which increase stakeholders' confidence that the manager will continue to meet contractual obligations.⁷ For example, they predicted that firms with relatively high cost of goods sold and notes payable (used as proxies for high continuing involvement with suppliers and short-term creditors, respectively) would be more likely to choose FIFO inventory and straight-line amortization accounting policies than LIFO and accelerated amortization policies. FIFO and straight-line amortization are regarded as income-increasing since they tend to produce higher reported earnings over time than their LIFO and accelerated amortization counterparts.

Based on a large sample of U.S. firms over 1981–1993, BDS found that firms with a high level of continuing involvement with stakeholders were more likely to choose FIFO and straight-line amortization policies than firms with lower levels of continuing involvement, consistent with their prediction. Furthermore, this tendency was still evident after they controlled for other earnings management motivations, such as those arising from the compensation and debt contracts discussed above. The survey results of Graham, Campbell, and Harvey (2005) support BDS' findings. They report that managers ranked relations with other stakeholders as an important reason to meet earnings targets.

11.4.2 To Meet Investors' Earnings Expectations and Maintain Reputation

Investors' earnings expectations can be formed in a variety of ways. For example, they may be based on earnings for the same period last year, or on recent analyst or company forecasts.

Firms that report earnings greater than expected typically enjoy a significant share price increase, as investors revise upwards their probabilities of good future performance. Conversely, firms that fail to meet expectations suffer a significant share price decrease. Bartov, Givoly, and Hayn (2002), in a study over the years 1983–1997, documented significantly greater abnormal share returns for firms that exceeded their most recent analysts' earnings forecasts, relative to firms that failed to meet their forecasts. Skinner and Sloan (2002), in a study over 1984–1996, documented negative share returns for firms that failed to meet earnings expectations. These were significantly greater in magnitude than the positive returns for firms that exceeded expectations. This suggests that the market penalizes firms that fall short of expectations by more than it rewards firms that exceed them.⁸

As a result, managers have a strong incentive to ensure that earnings expectations are met, particularly if they hold ESOs or other share-related compensation. One way to do this is to manage earnings upwards.⁹ Rational investors will be aware of this incentive, of

course. This makes meeting expectations all the more important for managers. If these are not met, the market will reason that if the manager could not find enough earnings management to avoid the shortfall, the firm's earnings outlook must be bleak indeed, and/or the firm is not well managed since it cannot predict its own future. This could explain the more severe market penalty for failure to meet expectations, particularly if the shortfall is small.

Of course, managers who miss earnings expectations may offer explanations. Some explanations candidly face up to the firm's problems. Others, however, are simply excuses. For example, the weather may be blamed for disappointing results when the real reason is that the firm does not have adequate strategies to cope with the risks it faces. Barton and Mercer (2005) provide experimental evidence on analyst reaction to manager explanations for poor performance. They find that if an explanation is plausible, analysts will increase both their earnings forecasts and their opinion of management. However, if the explanation is not plausible, earnings forecasts and opinion of management decrease. This latter finding is of particular interest since one might think that implausible information would simply be ignored.

Failure to meet investors' earnings expectations thus has serious consequences. There is a direct effect on the firm's share price and cost of capital as investors revise downwards their probabilities of good future performance. There can also be an indirect effect through manager reputation, particularly if the shortfall is small and if manager explanations are perceived as excuses. Consequently, meeting earnings expectations and maintaining reputation are powerful earnings management incentives.

11.4.3 Initial Public Offerings

By definition, firms making initial public offerings (IPOs) do not have an established market price. This raises the question of how to value the shares of such firms. Presumably, financial accounting information included in the prospectus is a useful information source. For example, Hughes (1986) showed analytically that information such as net income can be useful in helping to signal firm value to investors, and Clarkson, Dontoh, Richardson, and Sefcik (1992) found empirical evidence that the market responds positively to earnings forecasts as a signal of firm value. This raises the possibility that managers of firms going public may manage the earnings reported in their prospectuses in the hope of receiving a higher price for their shares.

Teoh, Welch, and Wong (1998) investigated the stock market performance of a sample of firms issuing IPOs during 1980–1992, following their share returns for several years after the IPO. They estimated the discretionary accruals of these firms around the IPO date, using a version of the Jones model (Section 8.5.3). They concentrated on working capital accruals, on grounds that these were relatively easy for managers to manage (e.g., revenue recognition) and relatively difficult for investors to decipher (e.g., lack of prior financial data, strong firm growth). After extensive tests to control for other factors affecting accruals and share returns, they found that the subsequent abnormal stock market

returns of IPO firms with high discretionary accruals were significantly negative relative to IPO firms with low accruals. This suggests that many IPO firms do manage earnings upwards and that lower reported earnings in subsequent years, driven by accrual reversals, contribute to poor share return performance.

11.5 THE GOOD SIDE OF EARNINGS MANAGEMENT

In Section 11.1, we suggested that earnings management can be good. Here, we review these arguments, and outline theoretical and empirical evidence in their favour.

11.5.1 Blocked Communication

An argument in favour of good earnings management is based on the **blocked communication** concept of Demski and Sappington (1987) (DSa). Frequently, agents obtain specialized information as part of their expertise, and this information can be prohibitively costly to communicate to the principal, that is, its communication is blocked. For example, it may be difficult for a physician to communicate to the patient exact details of an examination and diagnosis. Then, the physician's act (e.g., operating on the patient) must stand in not only for the physician's surgical skills but also for the information acquired during the diagnosis. DSa show that the presence of blocked communication can reduce the efficiency of agency contracts, since the agent may shirk on information acquisition and compensate by taking an act that, from the principal's standpoint, is sub-optimal—the physician may simply sew up a badly cut hand on the basis of a cursory examination that fails to check for possible tendon or nerve damage, for example. If so, the principal has an incentive to try to eliminate or reduce the blocked communication.

There is a variety of ways to reduce blockage. Gu and Li (2007) report an increased positive market reaction to disclosures of business strategy by high-tech firms when the disclosures are preceded by a credible gesture of confidence in the firm by management, namely insider stock purchases. Hirst, Koonce, and Venkataraman (2007) report, based on an experimental study, that disaggregation of a good news forecast (i.e., forecasting sales and expenses as well as net income) increases its credibility. They argue that disclosure of line items reduces the ability of managers to use earnings management to attain the forecast, thereby offsetting investor suspicions that the forecast may be biased upwards.

In our context, earnings management can also be a device to reduce blockage. To illustrate, suppose that the manager desires to communicate the firm's expected long-run, persistent earnings potential. Assume that this amount is \$1 million per annum. This earnings potential is complex inside information of the manager. If the manager simply announced it, the announcement would not be credible, since the market would find it prohibitively costly to verify. Suppose, however, that the firm has just realized a profit of \$200,000 from the sale of a division. Suppose also that this item increases current reported

net income to \$1,180,000, well above its sustainable level of \$1 million. Rather than report a net income substantially higher than what is expected to persist in the long run, the manager decides to record a provision for restructuring of \$180,000, thereby reducing current earnings to the \$1 million the manager feels will persist.

This "unblocking" of the manager's inside information by means of large discretionary accruals to produce a desired result has credibility. The market knows that a manager (except one with a very short decision horizon) would be foolish to report higher earnings than can be sustained, since the inevitable reduction in future earnings would severely punish him/her through capital and labour market reaction. Notice that the market cannot unravel this earnings management, since it is based on inside information about sustainable earning power. However, the market can use the earnings management to infer what this inside information is.

Arguments for good earnings management are strengthened by a further paper by Demski and Sappington (1990) (DSb), who show conditions under which management's inside information can always be conveyed by means of earnings management, should management wish to do so. DSb point out that operating cash flows, or some other relatively unmanaged performance measure such as core earnings (see Section 5.5), convey some information about future firm performance. However, management typically has additional information about future performance, such as new firm strategies, changes in firm characteristics, or changes in market conditions. While quite relevant, this information is likely to be sufficiently complex that its direct communication is blocked. Then, DSb show that judicious choice and disclosure of discretionary accruals can reveal this information to investors.¹⁰

*11.5.2 Theory and Empirical Evidence of Good Earnings Management

We first outline some other theoretical models that suggest earnings management can be good, and then consider empirical evidence in this regard.

Stocken and Verrecchia (2004) argue that while earnings management can be used to reveal inside information to investors as just described, it also imposes a cost since, if it is buried in operations, the ability of investors to make good investment decisions is reduced. That is, the ability of current net income to predict future performance is "jammed." For example, the inside information may be unreliable since, by definition, it has not yet been recognized by the firm's accounting system (if it was, it would no longer be inside). We saw in Chapter 5 that investors find current net income useful. We also know, however, that low reliability reduces (jams) this usefulness. To the extent investors' decisions are jammed, the firm faces higher cost of capital and reduced profits. This cost affects both shareholders and, through lower compensation, the manager.

¹⁰This section can be skipped with little loss of continuity.

The manager also faces another cost of earnings management. He/she may be held liable for excessive earnings management, as illustrated, for example, by the Qwest Communications vignette in Section 1.2. Here, early revenue recognition, which Qwest's managers may, at the time, have felt revealed relevant inside information about future earnings, was proven unreliable by later events.

Stocken and Verrecchia go on to show conditions under which earnings management can be good, that is, under which the benefits of revealing inside information outweigh the two costs just mentioned. Essentially, these are that the firm's environment is volatile (so that there is lots of potential for inside information to be useful) and the amount of inside information is high. Then, earnings management benefits both investors and the manager.

The good side of earnings management is also supported by efficient contracting theory. Some support was provided in Chapter 9 in a single-period context. However, as argued above, a multi-period horizon increases both the potential for and the constraints on earnings management. In this regard, Evans and Sridhar (1996) (ES) present a two-period contract where the manager has an information advantage. Specifically, the manager knows the firm's unmanaged earnings, but the owner can only observe the net income reported by the manager.

The potential for earnings management in the ES analysis is determined by GAAP, which they view as changing over time. The probability that GAAP completely specifies the firm's accounting and accrual policies next period is termed the *flexibility* of its accounting system. If this probability is high, leaving little likelihood of earnings management, the system has low flexibility, and vice versa. Nevertheless, for given GAAP, there will typically be some flexibility. The extent to which the firm exploits this earnings management discretion will be determined by the firm's detailed accounting and accrual policies. These policies are assumed to be inside information of the manager. Furthermore, they are sufficiently complex and technical that their communication to the owner is blocked. This creates the potential for low manager effort to be concealed by earnings management.

Since the ES model spans two periods, any earnings overstatement in the first period will reverse in the second, and vice versa. The question then is, will the manager still manage earnings? ES show that the answer is yes, under two conditions. First, the probability of earnings management being caught and/or the penalty if caught must be sufficiently low that the manager can attain reservation utility. Second, the accounting system must have low flexibility (i.e., strong GAAP).

To explain this strong GAAP result, note first that in a two-period contract, a manager's utility is maximized, other things equal, if the same compensation is received in each period. However, it is possible that first-period unmanaged earnings might be low due to random state realization. Then, if the manager reports a low earnings amount, compensation will be low. This creates an incentive for earnings management. The manager faces less compensation risk if some earnings can be "borrowed" from the expected earnings of the second period, thereby smoothing compensation across periods. If unmanaged first-period

earnings are high, the manager can accomplish the same thing by deferring earnings from the current period to the next.

This risk reduction through earnings management enables the manager to attain reservation utility with a lower profit share than if earnings management was not possible. In effect, in the ES model, a contract that allows for earnings management can be more efficient than one that does not.

The reason why this result only works when there is strong GAAP is that if GAAP is weak the manager can shed too much risk through earnings management. Then, the incentive to exert effort falls. In effect, the manager "overdoses" on earnings management, resulting in an inefficient contract. We saw a similar effect in Chapter 9. There, the limitation on earnings management created by GAAP enabled a contract whereby the manager worked hard (Example 9.7). When GAAP is weak or non-existent (Example 9.5), the manager shirked. As a result, the owner was better off under strong GAAP.

Dye (1988) also investigated the possibility of earnings management. In a multi-period analysis that allows for accruals reversal, he showed conditions under which current shareholders will prefer a compensation contract that motivates the manager to smooth reported income. This contract benefits current shareholders not only by efficiently implementing a desired level of manager effort, as in the Evans and Sridhar analysis, but also by maximizing the proceeds received by current shareholders when they sell their shares to new investors.

It may seem that maximizing the proceeds received by current shareholders benefits one class of investors relative to another. However, this is not the case if markets have rational expectations, as Dye assumes. The reason is that since investors cannot control or directly observe the extent of any earnings management, the manager cannot credibly commit *not* to manage earnings, and investors realize that the manager has an incentive to manage earnings. If the efficient market has rational expectations, it will correctly anticipate the earnings management incentives and will adjust for any overstatement or understatement of earnings in setting the firm's share price, even though investors do not know specific details of what the earnings management is. Thus, when current shareholders sell their shares, they receive what the shares are really worth, not some lower amount.

When markets have rational expectations, the manager may as well go ahead and manage earnings since the market anticipates it. For example, if the manager in Dye's model does not smooth earnings as expected, investors will nevertheless think that earnings have been smoothed. They will then conclude that the firm's real earnings are lumpier than they actually are, and bid down share price accordingly. Then, the proceeds received by current shareholders will not be maximized, adversely affecting the manager's compensation as well as the current shareholders' welfare. Thus, when markets have rational expectations, earnings management is good in the sense that it avoids this market penalty.

More recently, Chen, Hemmer, and Zhang (2007) (CHZ) analyzed a related model in which the owner of a firm plans a future sale of the firm to outside investors.

The firm is operated by a manager whose compensation is based on net income. To maximize the proceeds of the sale, the owner's incentive is to manage current earnings upwards. As in the Dye model, investors are assumed to have rational expectations. Consequently, the firm owner does not benefit from the upward earnings management, since the market correctly anticipates this and adjusts its valuation of the firm accordingly. Nevertheless, the firm has to engage in this earnings management since investors expect it.

However, as we know from the analysis in Chapter 9, managing earnings upwards decreases the informativeness of net income about manager effort. That is, knowing that the owner supports managing earnings upwards, the manager has an incentive to shirk, but still receive high compensation. Consequently, the firm is in a bind—it has to manage earnings upwards since the market anticipates this, but doing so decreases contract efficiency, thereby lowering firm value.

CHZ then introduce conservative accounting (regarded here as a form of earnings management). Conservative accounting further decreases contract efficiency since it is now more likely that high manager effort will result in low reported net income and compensation. At the same time, conservative accounting increases contract efficiency by reducing the need for upward earnings management (to rational investors, a low reported net income generated by conservatism is not really as bad as it looks). A reduction in earnings management benefits the firm by reducing the manager's incentive to shirk. CHZ then show conditions (essentially, that the manager is reasonably risk-averse) under which the net of these two effects is positive.

In sum, the CHZ model predicts that managing earnings through conservative accounting can be good through its effect in reducing compensation contract inefficiency.

We conclude on the basis of the models described above that the possibility of good earnings management for both contracting and financial reporting purposes is predicted by theory.

However, given the variety of motivations for earnings management, and the difficulty of discovering and interpreting discretionary accruals including extraordinary items, it is a complex task to establish empirically whether the stock market reacts to earnings management as the theory predicts. In particular, does the market react to earnings management as if it is good? The answer to this question is important to accountants since they are prominently involved in the techniques and implementation of earnings management, and will get drawn into the negative publicity and lawsuits that inevitably follow the revelation of bad earnings management practices. Also, to the extent that earnings management is good, excessive standard setting to overly limit accounting choice may not be cost effective.

Subramanyam (1996) provided some evidence on this issue. He separated accruals into discretionary and non-discretionary components, using the Jones model (Section 8.5.3), for a large sample of firms over the years 1973–1993. Subramanyam found, after controlling for the effects of operating cash flows and non-discretionary accruals on share returns, that the stock market responded positively to the current period's discretionary accruals,

consistent with managers, on average, using earnings management responsibly to reveal inside information about future earning power.

As Subramanyam pointed out, however, this finding is subject to different interpretations. For example, the market may be responding naïvely to the higher/lower reported earnings that result from high/low discretionary accruals. If so, managers may be exploiting a securities market anomaly similar to that of Sloan (1996) (Section 6.2.6).

Subramanyam conducted extensive tests, though, that tend to support that the market responds efficiently to the discretionary accruals.

However, a study by Xie (2001) questions this interpretation. For a large sample of firms over the years 1971–1992, Xie used the Jones model to estimate discretionary and non-discretionary accruals for each firm-year observation. He then estimated the persistence of these two accruals components. As we would expect, he found the persistence of discretionary accruals to be less than that of non-discretionary accruals. As a result, the efficient market should assign a lower ERC to a dollar of discretionary accruals than to a dollar of non-discretionary. However, Xie found, consistent with Sloan (1996), that the ERCs for discretionary accruals in his sample were significantly higher than their low persistence would suggest. In other words, rather than reacting to discretionary accruals as if they were good, the market appears to overvalue them.

Thus, evidence on whether the market reacts to discretionary accruals as if they are good appears mixed. However, a more direct test of this argument was conducted by Tucker and Zarowin (2006). They argued that to the extent income smoothing increases investors' ability to predict future earnings (i.e., good earnings management), the response of share return to reported earnings (which we documented in Chapter 5) will increase, assuming securities market efficiency. Conversely, if smoothing makes it more difficult for investors to predict future earnings, this response will decrease.

The authors measured income smoothing by the correlation of changes in discretionary accruals with changes in pre-smoothed earnings (measured by reported earnings minus discretionary accruals). For example, if a smoothing firm's pre-smoothed earnings are up this year, we would expect it to adopt more income-decreasing discretionary accruals to reduce reported earnings, and vice versa. Thus, the correlation should be negative, and a more negative correlation implies greater smoothing.

Based on a large sample of U.S. firms over 1993–2000, Tucker and Zarowin report that greater smoothing behaviour is accompanied by increased market response, consistent with the good earnings management argument.

All of these findings depend on the ability of the Jones model to separate accruals into discretionary and non-discretionary components in a manner consistent with how the market interprets them. Like any model, the validity of the Jones model has been extensively debated. This suggests that alternate approaches to studying the market's reaction to earnings management are desirable. For example, Liu, Ryan, and Wahlen (1997) examined the quarterly loan loss accruals (a vehicle for earnings management) of a sample of 104 U.S. banks over 1984–1991. After separating these accruals into expected and unexpected components, they found a significantly positive share price reaction to unex-

pected increases in loan loss provisions for "at-risk" banks (banks with regulatory capital close to legal minimums), but only in the fourth quarter. For banks not at risk, share price reaction to unexpected loan loss provisions was negative. These results suggest that at-risk banks, by managing their earnings downwards, credibly convey to the market that they are taking steps to resolve their problems, which should improve their future performance. This good news was strong enough to outweigh the bad news of the fact of the loan write-downs per se, particularly since the market may have already reacted to the banks being at risk. For banks not at risk, there is less need to take steps to resolve problems, with the result that the bad news component dominated the market's reaction. The reason why the at-risk banks' share prices rose only in the fourth quarter appears to be due to auditor involvement in that quarter. Presumably, management, and investors, take loan loss provisions more seriously when auditors are involved.

In addition to providing further evidence of how earnings management can convey inside information, Liu, Ryan, and Wahlen's results suggest considerable sophistication in the securities market's response, supporting the efficient market interpretation of the findings of Subramanyam, and Tucker and Zarowin.

Additional evidence consistent with responsible earnings management is provided by Barth, Elliott, and Finn (1999). From a large sample of U.S. corporations over the years 1982–1992, they report evidence that firms with patterns of steadily increasing earnings for five years and longer enjoy higher price/earnings multiples than firms with equivalent levels and variability of earnings growth but absent the steadily increasing pattern. To the extent the steadily increasing earnings patterns are created by earnings management, the market appears to reward earnings management that does not overstate future earning power.

It should be noted that in deriving their result, Barth, Elliott, and Finn control for earnings persistence. Thus, the increased market valuation of their subject firms derives from factors beyond the use of earnings management to reveal persistent earning power. The most likely explanation, they suggest, is that the increasing earnings patterns reveal inside information about growth opportunities. For a specific example of a firm that reports steadily increasing earnings, see problem 9.

Callen and Segal (2004) also studied the market response to accruals. They point out that increases in expected future share returns (implying from the CAPM, an increase in firm risk) drive down current share returns, much like increases in expected future interest rates drive down current bond prices. After allowing for this effect in a large sample of firms over 1962–2000, they report that both accrual information and operating cash flow information have a positive effect on annual abnormal share returns, with some evidence that the accrual effect is the stronger of the two.

While Callen and Segal do not break accruals into discretionary and non-discretionary components, their findings of a positive relationship between accruals and annual share returns suggest that, on balance, accruals have information content for investors. If opportunistic earnings management overwhelmed the information content of accruals, an efficient market would not react positively to them.

Another approach to whether discretionary accruals are perceived as good or bad is to use the Dechow and Dichev procedure described in Section 5.4.1 to determine accrual quality. Francis, LaFond, Olsson, and Schipper (2005) (FLOS) studied a large sample of U.S. firms over 1970–2001, yielding 91,280 observations. For each firm, for each year, they measured accrual quality residuals ϵ_t . They then estimated the portion of these residuals arising from “innate” firm characteristics such as the volatility of its operations. More volatile firms need to record larger accruals to meet earnings expectations and to smooth earnings for compensation and covenant reasons. FLOS then regarded the remaining portion of the Dechow and Dichev residuals as discretionary, representing earnings management activities.

The question, then, is how does the market react to these accrual quality components? FLOS reported a positive market reaction to the innate components. This is to be expected if accruals are doing their job. That is, it seems that larger innate accruals convey useful information to the market, despite the potential for greater estimation error in a more volatile environment.

FLOS also reported a positive market reaction to the discretionary accrual components, although less positive than to the innate components. From this, they argued that managers use discretionary accruals responsibly to convey useful information to investors, also supporting the efficient contracting results of Subramanyam outlined above. This finding, on balance, supports the good side of earnings management. However, to the extent the market reaction is less than to the innate accruals component, it seems that some bad earnings management is mixed in with the good.

We conclude that there is substantial theory and evidence that earnings management can both inform investors and enable more efficient contracting. However, the possibility that opportunistic earnings management is mixed in with the good cannot be ruled out.

11.6 THE BAD SIDE OF EARNINGS MANAGEMENT

11.6.1 Opportunistic Earnings Management

Despite theory and evidence of responsible use of earnings management, there is also evidence of bad earnings management. From a contracting perspective, this can result from opportunistic manager behaviour. The tendency of managers to use earnings management to maximize their bonuses, as documented by Healy, can be interpreted this way, for example.

Further evidence is supplied by Dechow, Sloan, and Sweeney (1996), who examined the earnings management practices of a test sample of 92 firms charged in the United States by the SEC with alleged violation of GAAP (i.e., bad earnings management), compared to a control sample of firms of similar size and industry. Their investigation revealed a number of motivations for such earnings management. A common one was closeness to debt covenant constraints. The firms in their test sample had, on average, significantly greater leverage and significantly more debt covenant violations than the control sample.

It seems that at least some firms follow the opportunistic version of the debt covenant hypothesis.

As mentioned earlier, another motive for bad earnings management arises when a manager intends to raise new share capital and wants to maximize the proceeds from the new issue. A variety of discretionary accruals can be used to increase reported net income in the short run, such as speeding up revenue recognition, lengthening the useful life of capital assets, underprovision for environmental and restoration costs, etc. The iron law of accruals reversal is of less concern due to the short decision horizon. To the extent that earnings management to raise the issue price is unanticipated, the current shareholders benefit at the expense of new ones. Dechow, Sloan, and Sweeney (1996), mentioned above, also studied the financing decisions of their sample firms. They found that their charged firms (which, by definition, were heavy users of earnings management) issued, on average, significantly more securities during the period of earnings manipulation than the control sample.

Hanna (1999) discussed another type of earnings management. This is the frequent recording of excessive charges for non-recurring items such as writedowns under ceiling test standards, and provisions for reorganization. Hanna asserted that manager bonuses are typically based on core earnings. Furthermore, analysts' forecasts are typically of core earnings. Thus non-recurring charges do not affect manager bonuses and do not take away from the ability to meet earnings forecasts. But, excessive non-recurring charges increase *future core earnings*, by putting them in the bank through reduced future amortization charges and absorption of future costs that would otherwise be charged to operating expense when incurred. Then, the manager benefits both ways. Major costs that may have been accumulating for several years (i.e., the non-recurring charges) do not affect bonuses or ability to meet earnings forecasts, and the future expense reductions increase future core earnings, on which the manager is evaluated.

Furthermore, the upwards effect on future core earnings is very difficult to detect, since reduced future amortization charges and other expense reductions are buried in larger totals. In effect, poor disclosure of the effects of past non-recurring charges enables managers to engage in this type of earnings management. Nevertheless, the market does appear to react to earnings management of this nature. As mentioned in Section 5.5, Elliott and Hanna (1996) found that the ERC for a dollar of quarterly core earnings is lower for firms that have frequently recorded large unusual and non-recurring charges than for firms that have not recorded such charges. This is consistent with the market using the frequency of non-recurring charges as a proxy for the extent to which core earnings may be overstated. Of course, if accountants would disclose the effect on core earnings of past non-recurring write-offs, a proxy such as this would not be needed.

The earnings management practices discussed by Hanna are illustrated by the following vignette.

Earnings management in an international context was studied by Leuz, Nanda, and Wysocki (2003). They evaluated the extent of earnings management in each of 31 countries during 1990–1999. Their measures of earnings management differed from the discretionary

Theory in Practice 11.1

In April 2004, Nortel Networks Corp. announced that it had fired its CEO, Chief Financial Officer, and Controller. Its share price, over \$11 prior to the announcement, fell to \$5.26. The company later announced that several more senior managers were also fired. It appears that Nortel's 2003 reported net income of \$734 million U.S. was substantially overstated.

The overstatement arose out of the collapse of the technology boom in the early 2000s. This left many of Nortel's customers and subsidiary companies in financial distress. Accruals were recorded by Nortel in 2001 and 2002 to provide for costs of contract cancellations, bad debts, lay-offs, and plant closures. By mid-2002, about \$5 billion of such accruals were on Nortel's balance sheet.

It appears, however, that many of these accruals were excessive, and in 2003 the company reversed them. The reversals, which were not disclosed to investors, were credited to operating expense. In retrospect, Nortel's 2001 and 2002 losses were overstated and its 2003 profit was overstated.

The significance of the 2003 profit overstatement was that Nortel's compensation plan provided for bonuses if the company returned to profitability, where profits were defined as quarterly pro-forma income (see Section 7.4.2). The company reported pro-forma income of \$40 million U.S. in the first quarter of 2003 and

\$34 million U.S. in the second. Consequently, most employees received cash bonuses, including the CEO, who received \$3.6 million U.S. However, after the effects of excessive accrual reversals are taken into account, it appears that the first two quarters of 2003 may have been loss quarters.

The company issued restated 2001–2003 results in January 2005, reporting first and second quarter 2003 net losses of U.S. \$146 and \$128 million, respectively, compared with an originally stated first quarter loss of \$16 million and a second quarter profit of \$40 million. In February 2005, the company announced that it was suing three former executives to recover \$13 million in bonuses and, in March 2007, the SEC began civil proceedings against four former executives.

In February 2006, Nortel agreed to a \$2.5 billion U.S. settlement of class-action lawsuits resulting from this incident. In May 2007, it agreed to pay \$1 million to the Ontario Securities Commission to meet the costs of the Commission's investigation. No penalty was paid, although the company formally agreed that its 2002 and 2003 financial statements were misleading. On March 1, 2007, Nortel announced a revenue timing restatement, reducing earnings for 2005 and prior by \$134 million. It also indicated that the restatement would put it into violation of certain debt covenants.

accruals approach of Jones. One measure was based on the variability of operating income—lower variability implies less income smoothing. Another measure was based on the correlation between accruals and cash flow—low correlation implies, for example, that firms in a country may be recognizing revenue well before it is received in cash. A third measure was the magnitude of total accruals—high total accruals contain high discretionary accruals, similar to the reasoning of Healy. Finally, drawing on the implication of prospect theory that small losses are more serious than small gains (Section 6.2.2), they calculated each country's ratio of small earnings losses to small gains. A low ratio suggests earnings management to avoid small losses.

Leuz, Nanda, and Wysocki combined these measures into a score for each country. For example, the United States scored 2, Canada 5, Hong Kong 15.5, and Germany 21.5, where lower scores imply less earnings management. Then, they related these scores to various country institutional characteristics, such as the level of investor protection. They found that lower investor protection was associated with more earnings management. This suggests that in countries with poor investor protection, opportunistic earnings management is more prevalent.

We conclude from these various results that accountants must scrutinize manager motivations with great care if they are to detect opportunistic earnings management.

11.6.2 Do Managers Accept Securities Market Efficiency?

The earnings management techniques just outlined, including those of Nortel, are not necessarily inconsistent with securities market efficiency. They rely on poor disclosure and limited investor attention to keep the extent of earnings management as inside information. Yet, other results question management's acceptance of efficiency itself.

We reported in Section 11.5.2 on the finding of Barth, Elliott, and Finn (1999) that the market favours firms with steadily increasing earnings patterns. Their interpretation is that the efficient market responds to the persistence and growth information implicit in the increasing earnings. However, Barth, Elliott, and Finn do not rule out an alternative, inefficient market interpretation, which is that momentum trading (see Section 6.2.1) in response to the increasing earnings pattern drives the favourable market reaction.

Schrand and Walther (2000) report yet another form of earnings management. They analyzed a sample of firms that reported a material, non-recurring gain or loss on disposal of property, plant, and equipment in the *prior year's* quarter but no such gain or loss in the same quarter of the *current year*. In news releases that typically accompany earnings announcements, managers compare the current quarter's performance with the prior year's quarter. This is consistent with the survey results of Graham et al. (Section 11.1), who report that same-quarter earnings of the previous year are a very important earnings benchmark for managers. The question then is, in these news releases, do managers remind investors of the non-recurring gain or loss in the prior quarter? Schrand and Walther found that the likelihood of such a reminder was significantly greater if the prior quarter's non-recurring item was a gain rather than a loss. In this way, the lowest possible prior period benchmark was emphasized (i.e., managed), thereby showing the change in earnings from the prior quarter in the most favourable light.

Pro-forma earnings (see Section 7.4.2) represent another form of earnings management that questions managers' acceptance of market efficiency. Managers who emphasize pro-forma earnings claim that this measure better portrays the firm's (and their own) performance than GAAP net income. However, since there are no standards to determine pro-forma earnings, managers may be tempted to leave out expense items that do

contain relevant, persistent information, in order to meet earnings targets, maximize compensation, and/or improve reputation. Since the GAAP-based income statement is also available, an efficient market would quickly adjust for the omitted items. Consequently, managers' emphasis on pro-forma earnings suggests they do not accept efficiency.

Investor reaction to pro-forma earnings was studied by Doyle, Lundholm, and Soliman (2003) (DLS). They obtained a large sample of firms that reported pro-forma quarterly earnings over 1988–1999 and, for each firm and quarter, calculated the difference from GAAP net income. They found, contrary to management's claim, that many expenses excluded from GAAP net income (for example, provisions for reorganization) did have significant future effects on operating cash flows, persisting for up to three years from the dates of the quarterly announcements. Consequently, investors who look only at pro-forma earnings ignore useful information.

DLS also examined abnormal share returns of their sample firms over a three-day window surrounding the date of their quarterly earnings announcements. After controlling for other factors that affect share returns, they found that the greater the difference between pro-forma and GAAP earnings (recall that since there are no rules surrounding pro-forma earnings, some managers may leave out more expenses than others) the lower the abnormal share return over the three days. This suggests that the market does not ignore the excluded items—if it did, the abnormal returns would not be affected by the amounts of omitted expenses.

However, the market's reaction was not complete. DLS report that the lower share returns for firms with greater pro-forma–GAAP discrepancies continued for up to three years. If the market was fully efficient, all of the negative reaction would have taken place within the three-day window.

The important point from the Schrand and Walters and DLS studies is that these earnings management policies make little sense if securities markets are efficient. Consequently, managers who engage in them must not fully accept efficiency. Furthermore, despite our suggestion in Section 9.9, rejection of efficiency implies that contracting variables do not completely reconcile economic consequences and market efficiency. That is, accounting policies without cash flow effects can matter to managers simply because they believe that the market will not see through them.

11.6.3 Implications for Accountants

The implication for accountants who wish to reduce bad earnings management, however, is not to reject market efficiency, but to improve disclosure. As argued in Section 6.2.7, full disclosure helps investors to evaluate the financial statements, thereby reducing their susceptibility to behavioural biases and reducing managers' ability to exploit poor corporate governance and market inefficiencies. For example, clear reporting of revenue recognition policies, and detailed descriptions of major discretionary accruals such as writedowns and provisions for reorganization, will bring bad earnings management into the open, reduc-

ing managers' ability to manipulate and bias the financial statements for their own advantage. Other ways to improve disclosure include reporting the effects on core earnings of previous write-offs and, in general, assisting investors and compensation committees to diagnose low-persistence items. Managers would then bear the full consequences of their actions and bad earnings management would decrease.

11.7 CONCLUSIONS ON EARNINGS MANAGEMENT

Earnings management is made possible by the fact that true net income does not exist (Section 2.6). Furthermore, GAAP do not completely constrain managers' choices of accounting policies and procedures. Such choices are much more complex and challenging than simply selecting those policies and procedures that best inform investors. Rather, managers' accounting policy choices are often motivated by strategic considerations, such as meeting earnings expectations, contracts that depend on financial accounting variables, new share issues, discouraging potential competition, and unblocking of inside information. In effect, accounting policy choice has characteristics of a game. Economic consequences are created when changes in GAAP adversely affect managers' abilities to play the game. That is, managers will react against rule changes that reduce their flexibility of accounting choice. As a result, accountants need to be aware of the legitimate needs of management, as well as of investors. Actual financial reporting represents a compromise between the needs of these two major constituencies.

Despite the reduction of reliability and sensitivity that often accompanies earnings management, strong arguments can be made that it is useful if kept within bounds. First, it gives managers flexibility to react to unanticipated state realizations when contracts are rigid and incomplete.

Second, earnings management can serve as a vehicle for the credible communication of inside information to investors.

Both of these arguments are consistent with efficient securities markets and the efficiency version of positive accounting theory.

Nevertheless, some managers may abuse the communications potential of GAAP by pushing earnings management too far, with the result that persistent earning power is overstated, at least temporarily. This behaviour can result from a failure to accept securities market efficiency or from an ability to hide bad earnings management behind poor disclosure, or both. To the extent managers do not accept securities market efficiency, believing instead that they can fool the market by their disclosure decisions, positive accounting theory does not fully reconcile market efficiency and economic consequences.

Thus, whether earnings management is good or bad depends on how it is used. Accountants can reduce the extent of bad earnings management by bringing it out into the open. This can be accomplished by improved disclosure of low-persistence items and reporting the effect of previous write-offs on core earnings. In addition to assisting share

prices to more closely reflect fundamental firm value, improved disclosure assists corporate governance, since compensation committees and the managerial labour market can better reward good manager performance and discipline managers who shirk. The resulting improvements in allocation of scarce investment capital and firm productivity increase social welfare.

Questions and Problems

1. Explain why a firm's manager might both believe in securities market efficiency and engage in earnings management.
2. For an income management strategy of taking a bath, the probability of the manager receiving a bonus in a future year rises. Explain why. (CGA-Canada)
3. A manager increases reported earnings by \$1,300 this year. This was done by reducing the allowance for credit losses by \$500 below the expected amount, and reducing the accrual for warranty costs expense to \$800 below the expected amount. Explain why, other things equal, this will lower next year's earnings by \$1,300.
4. You are a CEO operating under a bonus plan similar to the one assumed by Healy (Section 11.3). Explain whether you would react favourably or negatively to an exposure draft of a proposed change in GAAP that has the following effects on your financial statements. Treat each effect as independent of the others.
 - a. The effect will be to increase liabilities. Examples of such GAAP changes include capitalization of long-term leases (Section 7.2.2), and recording of pension plan obligations and other postretirement benefits (Section 7.2.6).
 - b. The effect will be to increase the volatility of reported net income. An example would be a standard that required unrealized gains and losses on capital assets and securities to be included in net income.
 - c. The effect will be to exert downward pressure on reported net income. An example is the expensing of employee stock options (Section 8.3) and the ceiling tests for property, plant, and equipment (Section 7.2.5), and purchased goodwill (Section 7.4.2).
 - d. The effect will be to eliminate alternative ways of accounting for the same thing. For example, a new standard might remove LIFO inventory method from GAAP.
5. The firms in Healy's study of earnings management (Section 11.3) would have been using the historical cost basis of accounting. Given that accounting standards have moved to fair value accounting for financial instruments, as described in Section 7.3.2, would this increase or decrease the potential for opportunistic earnings management for bonus purposes? Explain.

6. The comparative balance sheet of JSA Ltd. as at June 30, 2008 is as follows:

	June 30, 2008	June 30, 2007
Assets		
Current assets:		
Accounts receivable (net)	\$ 76	\$ 60
Inventories	35	53
Prepaid expenses	<u>2</u>	<u>1</u>
	113	114
Capital assets (net)	37	39
Long-term investments	2	2
Prepaid development costs	<u>40</u>	<u>39</u>
	<u>\$192</u>	<u>\$194</u>
Liabilities and Shareholders' Equity		
Current liabilities:		
Bank indebtedness	\$ 18	\$ 4
Accounts payable	64	71
Customer advances	13	8
Current portion of long-term debt	1	2
Current portion of future income taxes	<u>2</u>	<u>1</u>
	98	86
Long-term debt	5	3
Liability for future income taxes	0	6
Share capital	73	71
Retained earnings	<u>16</u>	<u>28</u>
	<u>\$192</u>	<u>\$194</u>

JSA Ltd.'s 2008 income statement is as follows:

Sales		\$233
Expenses:		
Cost of sales	184	
Administrative and selling	35	
Research and development	4	
Depreciation and amortization	14	
Interest	<u>3</u>	<u>240</u>
Loss before undernoted items		(7)
Income tax recovery		7
Provision for reorganization		<u>(12)</u>
Net loss for the year		<u>\$ (12)</u>
Cash flow from operations for 2008 was \$7.		

Required

- a. Calculate the various accruals on an item-by-item basis. For each accrual indicate the extent to which that accrual may contain a discretionary component and briefly explain why.
 - b. Briefly describe two other ways that researchers have used to estimate the discretionary component of total accruals.
 - c. A manager, whose bonus is related to reported net income, finds that net income for the year (before bonus) is below the bogey of the incentive plan. What type of earnings management might the manager then engage in? Which of the accruals in part a would be most suitable for this purpose? Explain.
7. A common tactic to manage earnings is to "stuff the channels," that is, to ship product prematurely to dealers and customers, thereby inflating sales for the period. A case in point is Bristol-Myers Squibb Co. (BMS), a multinational pharmaceutical and baby food company headquartered in New York. In August 2004, the SEC announced a \$150 million penalty levied against BMS. This was part of an agreement to settle charges by the SEC that the company had engaged in a fraudulent scheme to inflate sales and earnings in order to meet analysts' earnings forecasts.

The scheme involved recognition of revenue on pharmaceutical products shipped to its wholesalers in excess of the amounts demanded by them. These shipments amounted to \$1.5 billion U.S. during 2001–2002. To persuade its wholesalers to accept this excess inventory, BMS agreed to cover their carrying costs, amounting to millions of dollars per quarter. In addition, BMS understated its accruals for rebates and discounts allowed to its large customers.

According to the SEC, the company also engaged in "cookie jar" accounting. That is, it created phony reserves for disposals of unneeded plants and divisions during high-profit quarters. These would be transferred to reduce operating expenses in low-profit quarters when BMS' earnings still fell short of amounts needed to meet forecasts.

Required

- a. Give reasons why managers would resort to extreme earnings management tactics such as these.
 - b. Evaluate the effectiveness of stuffing the channels as an earnings management device. Consider both from the standpoint of a single year and over a series of years.
 - c. Evaluate the effectiveness of cookie jar accounting as an earnings management device. What earnings management pattern did BMS appear to be following by means of this tactic?
8. The potentially serious consequences of bad earnings management are illustrated by the case of Atlas Cold Storage Income Trust, which operates a system of refrigerated warehouses across Canada and the United States. During June 2004, the Ontario Securities Commission filed quasi-criminal charges under the Ontario Securities Act against four senior officials of the company, including its CEO. The company itself was not charged because it cooperated with the investigation and took steps to remedy the problems.

The OSC charged that during 2001–2003, Atlas had engaged in several types of financial statement manipulations. One tactic was to capitalize certain costs that, according to

GAAP, should have been charged to expense. Another involved deferring recognition of a large customer claim for damaged goods from 2001, where it belonged, to 2002. A third tactic was to disguise breaches of debt covenants by a subsidiary company by advancing money to the subsidiary at financial statement dates. These advances were repaid shortly thereafter. According to revised financial statements filed by the company, net income was originally reported too high by \$5.2 million for 2001 and \$32.4 million for 2002. The company also faced a class-action lawsuit by investors.

Required

- a. Evaluate the short-run (i.e., one year) and long-run effectiveness of capitalizing expenses as an earnings management device.
 - b. The motivation for some of the claimed manipulations was apparently to meet earnings targets. Why is it important to managers to meet earnings targets? Use concepts of market efficiency and investor rationality in your answer.
 - c. With respect to earnings targets, Coca-Cola Co. announced in December 2002 that it was discontinuing the provision of quarterly and annual earnings forecasts to analysts. Some other large public companies, including BCE Inc., have taken similar action. Why would they do this?
9. General Electric Company (GE) is a large United States-based conglomerate, with operations extending from a large variety of industrial equipment and services, to healthcare, to TV and entertainment, to commercial finance. The sheer complexity and industry diversity of GE makes it particularly difficult for even financial analysts to fully understand the company, since it is unlikely, if not impossible, for anyone to be an expert in all the industries in which the company operates. As a result, it is very difficult for investors to predict GE's future performance. This puts a strong onus on GE management to assist investors in this regard.

Table 11.3 shows reported earnings for GE for the years indicated. What is striking is the steady increase in reported earnings. Only in 2005, when net income was pulled down by a large loss on discontinued operations, is there a small break in this impressive pattern of earnings growth.

Table 11.3 General Electric Company Reported Net Income, 1993–2006, Incl.

Year	Reported Net Income	Year	Reported Net Income
2006	\$20,829	1999	\$10,717
2005	16,711	1998	9,296
2004	17,160	1997	8,203
2003	15,002	1996	7,280
2002	14,118	1995	6,573
2001	13,684	1994	4,726
2000	12,735	1993	4,315

Source: Annual Reports, General Electric Company.

GE has long been regarded as using earnings management to smooth its reported earnings to a pattern of steady growth. Some of the techniques with earnings management potential that it has used are:

- Changes to the expected rate of return on pension plan assets.
- Sales of divisions. Such sales generally lead to large non-recurring gains.
- Restructuring charges. These are charges to current earnings to provide for expected costs of restructuring the operations of one or more of its many divisions. It is claimed that GE manages the amounts and timing of these charges so as to offset large non-recurring gains, such as from sales of divisions. The objective is to avoid reporting higher earnings than can be sustained in future years.
- Buying profitable businesses. GE is constantly acquiring new subsidiary companies. If needed to prevent reporting an earnings decrease, management of the timing and identity of such acquisitions can achieve an immediate contribution to consolidated reported earnings in the year of acquisition.
- Conservative accounting. Rapid amortization of, for example, leased aircraft by GE's commercial finance division enables large profits to be recorded when the aircraft are eventually sold. The timing of such sales can be managed by GE.
- Allocation of purchased goodwill upon acquisition of subsidiary companies. When GE acquires a subsidiary, it may decide, or be required, to dispose of segments of the acquired business. The flexibility under GAAP of allocation of the excess of amount paid for a subsidiary company over the fair value of assets acquired enables GE to record a gain on such dispositions, by allocating a relatively small amount of amount paid to any subsidiary segments that it intends to dispose of.

The important point about the array of earnings management techniques available to GE is that they can be used in concert to report a smooth earnings sequence. Table 11.3 suggests that GE has been quite successful in this regard.

Required

- a. Evaluate restructuring charges as an earnings management device. Relate your answer to the claims of Hanna (1999) about misuse of restructuring charges.
 - b. Under securities markets efficiency, share prices always fully reflect all public information about a firm's securities. Given its complexity, would GE's share price always reflect all public information about GE? Explain why or why not.
 - c. Is earnings management by GE good or bad? Explain.
10. The article "Dangerous Games," by Jonathan Laing is here reproduced from *Barron's* (June 8, 1998). The article describes apparent earnings management devices used by Sunbeam Corp., with "Chainsaw Al" Dunlap as CEO, to "largely manufacture" its 1997 reported earnings of \$109.4 million.

Dangerous Games

Did "Chainsaw Al" Dunlap manufacture Sunbeam's earnings last year?

Albert Dunlap likes to tell how confidants warned him in 1996 that taking the top job at the small-appliance maker Sunbeam Corp. would likely be his Vietnam. For a time, the 60-year-old West Point graduate seemingly proved the Cassandras wrong. As the poster boy of 'Nineties-style corporate cost-cutting, he delivered exactly the huge body counts and punishing airstrikes that Wall Street loved. He dumped half of Sunbeam's 12,000 employees by either laying them off or selling the operations where they worked. In all, he shuttered or sold about 80 of Sunbeam's 114 plants, offices and warehouses.

Sunbeam's sales and earnings responded, and so did its stock price, rising from \$12.50 a share the day Dunlap took over in July 1996 to a high of \$53 in early March of this year.

But last month Sunbeam suffered a reversal of fortune that was as sudden and traumatic for Dunlap as the Viet Cong's Tet offensive was to U.S. forces in 1968. After several mild warnings of a possible revenue disappointment, Sunbeam shocked Wall Street by reporting a loss of \$44.6 million for the first quarter on a sales decline of 3.6%. In a trice, the Sunbeam cost-cutting story was dead, along with "Chainsaw Al" Dunlap's image as the supreme maximizer of shareholder value. Now Sunbeam stock has fallen more than 50% from its peak, to a recent \$22.

And just as suddenly, what was supposed to be an easy sprint, Dunlap's last hurrah as a corporate turnaround artist, has turned into a grinding marathon. Lying in tatters is his growth scenario for Sunbeam, based on supposedly sexy new offerings such as soft-ice cream makers, fancy grills, home water purifiers and air-filter appliances. Many of the new products have bombed in the marketplace or run into serious quality problems. Moreover, Sunbeam has run into all manner of production, quality and delivery problems. It recently announced the closing of two Mexican manufacturing facilities with some 2,800 workers, citing the facilities' lamentable performance. Dozens of key executives, members of what Dunlap just months ago called his Dream Team, are bailing out. And now he faces another year or more of the wrenching restructuring that's needed to meld Sunbeam with its recently announced acquisitions, including the camping-equipment maker Coleman Co., the smoke detector producer First Alert and Signature Brands USA, best known for its Mr. Coffee line of appliances. These acquisitions will double the size of a company whose wheels are coming off. This may not be Vietnam, but it sure ain't Kansas, Toto.

Sunbeam declined to discuss the company's problems with *Barron's*. In some ways, Dunlap seems to have morphed into a latter-day Colonel Kurtz of the movie *Apocalypse Now*, increasingly out of touch with the grim realities of Sunbeam's situation and suspicious of friend and foe alike. For example, Wall Street is still buzzing over a confrontation that Dunlap had with PaineWebber analyst Andrew Shore at a Sunbeam meeting with the financial community in New York three weeks ago. Shore had the temerity to ask several questions that Dunlap deemed impertinent, and Dunlap snarled, "You son of a bitch. If you want to come after me, I'll come after you twice as hard."

Shore, the first major analyst to downgrade Sunbeam's stock in April when word began to circulate of a possible first-quarter earnings debacle, is still upset over the incident.

"As far as I'm concerned, Al is the most overrated CEO in America," he grouses. "He's nothing but a bully who speaks in sound bites and completely lacks substance."

Despite Sunbeam's latest reversal of fortune, don't expect Al Dunlap to be headed for the poorhouse any time soon. Though the swoon in Sunbeam shares has vaporized the value of the options held by most of the company's executives and managers, Dunlap's large option and stock grants are still worth about \$70 million, down from a peak value of over \$300 million when the stock was at its high. Moreover, in February Dunlap negotiated a new contract, doubling his annual base salary of \$2 million. Under a rich benefits package, Sunbeam even foots the bill for Dunlap and his wife's first-class air fare from Florida, where Sunbeam is headquartered, to Philadelphia so that Dunlap can visit his personal dentist to keep his latest bridge comfy and pearly white. Limo charges and overnights at the Four Seasons hotel are included as well. All this from the self-styled champion of shareholder value.

We can't say we are surprised by Sunbeam's current woes. In a cover story last year entitled "Careful, Al" (June 16), we cast a skeptical eye on Dunlap's growth objectives in the low-margin, cutthroat small-appliance industry. We also pointed out the yawning gap between Sunbeam's performance claims and reality. We took special note of Sunbeam's accounting gimmickry, which appeared to have transmogrified through accounting wizardry the company's monster 1996 restructuring charge (\$337 million before taxes) into 1997's eye-popping sales and earnings rebound. But to no avail. Wall Street remained impressed by Sunbeam's earnings, and the stock continued to rise from a price of \$37 at the time of the story.

Sunbeam's financials under Dunlap look like an exercise in high-energy physics, in which time and space seem to fuse and bend. They are a veritable cloud chamber. Income and costs move almost imperceptibly back and forth between the income statement and balance sheet like charged ions, whose vapor trail has long since dissipated by the end of any quarter, when results are reported. There are also some signs of other accounting shenanigans and puffery, including sales and related profits booked in periods before the goods were actually shipped or payment received. Booking sales and earnings in advance can comply with accounting regulations under certain strict circumstances.

"We had an amazing year," Dunlap crowed in Sunbeam's recently released 1997 annual report, taking an impromptu victory lap for the profit of \$109.4 million, or \$1.41 a share, on sales of \$1.2 billion. Sunbeam had every incentive to try to shoot the lights out in 1997. Dunlap and crew were convinced they would be able to attract a buyer for the company just as they had done in the second year of their restructuring of Scott Paper in 1995, when Dunlap managed to fob Scott off on Kimberly Clark for \$9 billion. They openly shopped Sunbeam around in the second half of last year, but the offer never came. The rising stock price made the company too expensive, and would-be buyers were also deterred by the nightmares Kimberly Clark experienced after buying Scott.

Yet, sad to say, the earnings from Sunbeam's supposed breakthrough year appear to be largely manufactured. That, at least, is our conclusion after close perusal of the company's recently released 10-K, with a little help from some people close to the company.

Start with the fact that in the 1996 restructuring, Sunbeam chose to write down to zero some \$90 million of its inventory for product lines being discontinued and other perfectly good items. Even if Sunbeam realized just 50 cents on the dollar by selling these

goods in 1997 (in some cases, they reportedly did even better), that would account for about a third of last year's net income of \$109.4 million.

One has to go to the 1997 year-end balance sheet to detect more of mother's little helpers. One notes a striking \$23.2 million drop, from \$40.4 million in 1996 to \$17.2 million in 1997, in pre-paid expenses and other current assets. There's no mystery here, according to a former Sunbeam financial type. The huge restructuring charge in 1996 made it a lost year anyway, so Sunbeam prepaid everything it could, ranging from advertising and packaging costs to insurance premiums and various inventory expenses. The result: Costs expensed for 1997 were reduced markedly, if unnaturally. This artifice alone probably yielded an additional \$15 million or so in 1997 after-tax income.

Why did Sunbeam's "Other Current Liabilities" mysteriously drop by \$18.1 million and "Other Long-Term Liabilities" fall by \$19 million in 1997? The answer is simple, according to folks close to the company. Various reserves for product warranties and other items that were set aside during Sunbeam's giant 1996 restructuring were drained down in 1997, creating perhaps an additional \$25 million or so in additional net income for the year.

On top of all that, as part of the 1996 restructuring charge, Sunbeam reduced the value of its property, plant, equipment and trademarks by \$92 million. Though some of these charges applied to assets Sunbeam was selling off, the bulk of the charge related to ongoing operations. This allowed Sunbeam to lower its depreciation and amortization expense on the 1997 income statement by nearly \$9 million. That would create about \$6 million of additional after-tax income.

Oddly enough, the figure for net property, plant and equipment on Sunbeam's balance sheet still rose during 1997, to \$241 million from \$220 million the year before. This is likely an indication that such costs as product development, new packaging and some advertising and marketing initiatives were capitalized or put straight on the balance sheet instead of being expensed in the year they were incurred, as was the previous practice. In this manner, expense could have been shifted from 1997 into future years, when they can be burned off at a slower, more decorous pace afforded by multi-year depreciation schedules. Why else would Sunbeam's advertising and promotion expense drop by some \$15 million, from \$71.5 million in 1996 to \$56.4 million last year? Particularly when Sunbeam trotted out a splashy national television ad campaign in 1997 to boost consumer demand for its new products. This advertising shortfall alone contributed another \$10 million to Sunbeam's 1997 profits.

The company also got a nice boost from a 61% drop in its allowance for doubtful accounts and cash discounts, from \$23.4 million in 1996 to \$8.4 million in 1997. And this decline occurred despite a 19% rise in Sunbeam's sales last year. The milking of this bad debt reserve in 1997 likely puffed net income by an additional \$10 million or so.

Then there's the mystery of why Sunbeam's inventories exploded by some 40%, or \$93 million, during 1997. Quite possibly, Sunbeam was playing games with its inventories to help the income statement. By running plants flat out and building inventories, a company can shift fixed overhead costs from the income statement to the balance sheet where they remain ensconced as part of the value of the inventory until such time as the inventory is sold. To be conservative, let's assume this inventory buildup might have helped Sunbeam's profits to the tune of, say, \$10 million.

Lastly, there are more than superficial indications that Sunbeam jammed as many sales as it could in 1997 to pump both the top and bottom lines. The revenue games began innocently enough early last year. Sales were apparently delayed in late 1996, a lost year anyway, and rammed into 1997. Likewise, *The Wall Street Journal* reported several instances of "inventory stuffing" during 1997, in which Sunbeam either sent more goods than had been ordered by customers or shipped goods even after an order had been cancelled. But these are comparatively venial sins that companies engage in all the time to make a quarter's results look better. Besides, Sunbeam gave the plausible excuse at the time that glitches in a computer system consolidation in the first quarter had them flying blind for a time.

But as 1997 dragged on and the pressure to perform for Wall Street intensified, Sunbeam began to take greater and greater liberties with sales terms to puff current results. The latest 10-K, for example, discloses that in the fourth quarter of last year Sunbeam recorded some \$50 million in sales of cooking grills under an "early buy" program that allowed retailers to delay payment for the items as long as six months. Moreover, some \$35 million of these "early buys" were categorized "bill and hold" sales and never even left Sunbeam's warehouses.

Sunbeam engaged in bill-and-hold transactions in other product lines, too, according to a number of people in the appliance industry. In the second quarter, for example, Sunbeam booked a sale and "shipped" some \$10 million of blankets to a warehouse it had rented in Mississippi near its Hattiesburg distribution center. They were held there for some weeks for Wal-Mart. The company also pumped millions of dollars of goods into several national small-appliance distributors on such easy payment terms as to call into question whether a sale ever took place. Some with knowledge of Sunbeam's business practices say the appliance maker in some instances transferred title for the goods to distributors but then agreed to not only delay payment but actually pay the distributors what amounted to a storage charge for taking the goods. These sources also said that in some cases distributors also had the right to return the items to Sunbeam without suffering any loss.

How much did various types of questionable sales add to 1997's net income? No outsider can know for sure. But we can make an educated guess based on the fact that Sunbeam's receivables, or unpaid customer accounts, jumped by 38%, or \$82 million, in 1997. Taking into account Sunbeam's profit margins, it seems that questionable sales could have boosted 1997 net income by as much as \$8 million.

We by no means are privy to all Sunbeam's techniques for harvesting current earnings from past restructuring charges and future sales. Deconstructing Al Dunlap is a daunting task. But to save our gentle readers the effort, our total estimate of artificial profit boosters in 1997 came to around \$120 million compared with the \$109.4 million profit the company actually reported. Thus, one is left to wonder whether Sunbeam made anything at all from its actual operations, despite Dunlap's claim to have realized some \$225 million in cost savings as a result of his restructuring prowess.

Our dour view of Sunbeam's current financial health is only confirmed by the company's consolidated statement of cash flow in the latest 10-K. These numbers, of course, are harder to finesse because they track the actual cash that flowed in and out of the company during 1997. And the statement doesn't paint a pretty picture. Despite 1997's eye-catching \$109.4 million net profit, Sunbeam still suffered negative cash flow from operations of \$8.2 million, after taking into account the explosion in Sunbeam's inventory

and accounts receivable during the year. And that operating cash flow deficit would have been an even larger \$67.2 million if not for the sale of \$59 million in receivables in the last week of 1997. After capital expenditures of \$58.3 million is thrown into the equation, Sunbeam's free cash flow deficit amounts to more than \$125 million.

Sunbeam's first-quarter earnings debacle is yet another sign of a company that's in anything but the pink of health. Despite management assertions into April that Sunbeam's first-quarter sales would finish comfortably ahead of those for the first quarter of 1997, they ended up declining 4%. Even more shocking to Dunlap's fans was the \$44.6 million loss in the March quarter compared with a profit in the year earlier period of \$6.9 million. Sure, \$36.8 million of that first-quarter loss was the result of nonrecurring charges, mostly a handsome new pay package Dunlap managed to negotiate in February. But the operating loss Sunbeam suffered of \$7.8 million was a clear sign of its true earnings power once the tank from the 1996 restructuring charge had run dry.

Dunlap trotted out a whole raft of excuses for the company's lamentable first-quarter performance. He cited dumb deals his former No. 3 executive had made with major retailers before Chainsaw fired him in April, the effect of bad weather on grill sales caused by El Nino, and so forth.

Whatever the case, the first-quarter disaster wasn't the result of any lack of effort on Sunbeam's part to pump up the results. The company recorded \$29 million of additional "buy now, pay later" grill sales. In fact, the company is now holding so many grills, in various warehouses around its Neosho, Missouri, grill plant that it has had to lease warehouse space in nearby Oklahoma. Who knows how many of these grills will ever make it to the selling floor?

Sunbeam also extended its quarter by three days, from March 28 to March 31. This allowed the company to book an extra \$20 million in sales both from ongoing Sunbeam operations and two days of sales from Coleman (its acquisition closed on March 30). But to no avail. Sunbeam still fell \$9 million short of last year's sales of \$253.5 million.

Reports are rife that Sunbeam tried to strong-arm suppliers into "recutting" their invoices for various goods and services so that Sunbeam would officially owe less money. The proviso was that the suppliers would be allowed to add back the amount forgone, plus interest, in invoices submitted after the first quarter had ended. A Sunbeam financial official denies the "recutting" charge and characterizes the activity by the company's procurement department as the normal give-and-take that goes on between suppliers and companies seeking rebates.

But that's not the understanding held by an official at one China-based supplier. When contacted by *Barron's*, this official readily acknowledged that he had sent Sunbeam a check for \$500,000, or 5% of the business he does annually with the company, in late March. "The only reason I sent them a check rather than a new invoice is that we had no invoices outstanding at the time we received the call," he explained. "We figure our contribution dropped right down to the bottom line if Sunbeam actually booked it. I don't know what happened, though."

For the next few quarters, expect the recent acquisition of Coleman, First Alert and Mr. Coffee to restore a measure of calm to Sunbeam's financial performance. The giant restructuring charges that Sunbeam is taking to integrate the new units, at \$390 million before taxes, will give the company plenty of fodder with which to play earnings games.

The company is even forecasting earnings of \$1 a share this year and \$2 next year—before extraordinary items, naturally.

But Dunlap's days at Sunbeam may be numbered. The already-ailing company now has to struggle under \$2 billion of additional debt and a negative tangible net worth of \$800 million. And his enemies, including disenchanted shareholders, angry securities analysts, and bitter former employees, are growing in number and circling ever closer to the company's headquarters in Delray Beach. Of course, Dunlap could always escape by using the building's flat roof to chopper out, should it come to that. One can only hope he'll remember to take the American flag with him.

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Required

- a. Jonathan Laing notes that Sunbeam's prepaid expenses declined from \$40.4 million at December 31, 1996, to \$17.2 million at December 31, 1997, a reduction of \$23.2 million. He points out that 1996 was a "lost year anyway" (because of a 1996 restructuring charge of \$337 million), so Sunbeam "prepaid everything it could." Laing then states that this "artifice alone probably yielded" \$15 million in 1997 after-tax income. Do you agree with Laing's analysis of the effect of the decline in prepaid expenses during 1997 on 1997 net income? Explain why or why not.
 - b. Laing reports that 1997 operating cash flow was -\$8.2 million. Since net income was reported as \$109.4 million, net income-increasing accruals must have totalled \$117.6 million. Use the information in the article to itemize the impacts on net income of the various earnings management devices described. How close does your itemized list come to \$117.6 million? In arriving at your itemized total, take your answer to part a into account. Do you agree with Laing's statement that 1997 earnings "appear to be largely manufactured"? Explain why or why not.
 - c. On the last page, the article refers to Sunbeam's acquisition of Coleman, First Alert, and Mr. Coffee, indicating that Sunbeam is taking restructuring charges of \$390 million to integrate these firms into its operations. Explain how this will "give the company plenty of fodder with which to play earnings games."
 - d. Use the "iron law" of accruals reversal to help explain why there was a substantial first quarter 1998 loss.
11. Barton (2001) studied managers' use of derivatives and discretionary accruals to smooth reported earnings. As Barton points out, both of these devices have smoothing potential—since earnings can be expressed as the sum of operating cash flows and total accruals, smoothing can be accomplished through operating cash flows (which can be hedged by derivatives—a real earnings management device) and/or through accruals (by means of the discretionary portion).
- From a sample of large U.S. firms during 1994–1996, inclusive, Barton found that managers trade off the use of derivatives and discretionary accruals in order to maintain (i.e., smooth) earnings volatility at a desired level. Specifically, firms that were heavy derivatives

users tended to be low users of discretionary accruals, and vice versa. Other things equal, this suggests that managers are sensitive to the costs of smoothing earnings. That is, firms appear to use the combination of smoothing devices that are, for them, the least costly.

Required

- a. Give reasons why managers may want to smooth earnings.
 - b. What are some of the costs of opportunistic smoothing of earnings? Why would managers trade off these two earnings smoothing devices, rather than using only one or the other?
 - c. Are Barton's results more consistent with the opportunistic or efficient contracting version of positive accounting theory? Why?
12. Refer to Theory in Practice 11.1 in Section 11.6.
- #### Required
- a. Which earnings management policy did Nortel appear to be using in 2001 and 2002? Why? Which policy did it appear to be using in 2003? Why?
 - b. Discuss the possible impacts on manager effort of the Nortel compensation plan's tying of bonuses to a return to profitability.
 - c. Assuming that the accruals recorded by Nortel in 2001 and 2002 were justified by pessimistic economic conditions at the time, where did Nortel management go wrong? Explain.
13. You are an expert on generally accepted accounting principles and the quality of financial reporting, with extensive experience in rational investing. You determine the current quality of financial reporting as summarized in the following information system:

State of Nature		GN	BN
	High	0.9	0.1
	Low	0.2	0.8

The states of nature refer to future firm performance. GN (good news) and BN (bad news) summarize the information content of current financial statements.

You are a shareholder of CG Ltd., which has just released its quarterly financial report, and are evaluating this report to decide whether to sell your shares now or hold them for another quarter.

Your prior probability of the high state is 0.7. The current market value (i.e., your payoff if you sell now) of your CG Ltd. shares is \$81. If CG is in the high state, your payoff will be \$100 if you sell at the end of the next quarter. If CG is in the low state, your payoff will be \$36. You are risk-averse, with utility equal to the square root of your payoff.

Required

- a. CG Ltd. has reported steadily increasing earnings for several years. This quarter is no exception, with earnings up 10% from the same quarter last year, and exactly equal to analysts' consensus forecast. However, you notice a large, non-recurring loss in net income. Does the current financial report show GN or BN? Explain.

- b. Based on your evaluation in a, should you sell or hold your CG shares? Show calculations.
- c. Assume the same scenario as in a, but that CG's earnings per share are 1 cent below analysts' consensus forecast. Would your evaluation of the GN or BN in earnings change? Explain why or why not.
14. On March 10, 2006, Nortel Networks Corp. announced that it would delay filing its 2005 financial reports with the SEC. The delay arose because Nortel and its auditors decided that certain revenue recognized in prior periods should have been deferred. The estimated deferral of revenue previously recognized in the first nine months of 2005 totalled \$162 million U.S., reducing 2005 earnings from continuing operations by \$95 million. For 2004 and prior years, the corresponding amounts were deferral of \$704 million of previously recognized revenue and a reduction of prior years' earnings of \$279 million.

Nortel explained that these changes follow from Statements of Position issued by the AICPA (Nortel follows U.S. GAAP), which require that revenue from longer-term contracts involving "multiple deliverables," such as hardware, software, and services, should be deferred until delivery.

On the same day, Nortel announced an estimated, unaudited, net loss from 2005 continuing operations of \$2.421 billion. This loss included an expense of \$2.474 billion to settle shareholder litigation resulting from previous accounting restatements (see Theory in Practice 11.1).

On March 10, 2006, Nortel's share price on the TSX composite index fell 11 cents in heavy trading to \$3.50 Can., for a return of -3.05% for the day. On the same day, the TSX composite index rose 68.28 points to 11,833.61, for a return of 0.58%. According to Reuters' web site, Nortel's beta on the TSX at this time was 1.96. The risk-free interest rate R_f was 4.5%, or 0.0001 per day.

Required

- Evaluate the effect of Nortel's revenue deferral on the relevance and reliability of its 2005 financial statements.
 - What earnings management pattern did Nortel appear to be following for 2005? Why?
 - Calculate the abnormal return on Nortel's shares, relative to the return on the TSX, for March 10, 2006. Do you feel that the abnormal return arose primarily from the news of the revenue deferral or from the \$2.474 billion shareholder litigation expense? Explain.
Hint: According to the market model and CAPM, $\alpha_i = R_i (1 - \beta_i)$.
 - Nortel included the \$2.474 billion shareholder litigation expense as part of continuing operations, rather than as an extraordinary item. Do you agree? Explain.
15. In April 2005, the SEC announced settlement with Coca-Cola Company of charges of fraud and false and misleading financial reporting. The charges arose from "gallon pushing" at Coca-Cola's Japanese subsidiary during 1997 to 1999, whereby the subsidiary shipped more concentrate to its bottlers than needed to meet sales volumes.
- According to the SEC, in the first quarter of 1997 over 3.3 million extra gallons were pushed, generating additional revenue for Coca-Cola of \$46.2 million for the quarter. Amount pushed increased over the two years, reaching 10.1 million gallons in the fourth quarter of 1999, generating almost \$209 million in extra revenue for that quarter. Coca-Cola

granted extended credit terms to its bottlers to assist them in carrying the excess inventory.

The result of these activities was to increase Coca-Cola's quarterly earnings by 1 or 2 cents per share. This increase enabled Coca-Cola to meet analysts' earnings per share projections in eight of the 12 quarters under investigation. However, by the end of 1999, Japanese bottlers' inventories had risen to the point where additional gallonage could not be pushed. In January 2000, Coca-Cola announced a worldwide inventory reduction program to "optimum" levels. The company estimated that this would create a one-time reduction of earnings per share of 11 to 13 cents in the first two quarters of 2000, with about 5 cents of this reduction coming from Japan alone.

According to the SEC, Coca-Cola did not disclose the existence of the gallon-pushing program, its impact on earnings per share, or its likely impact on future reported earnings. The company was charged with violations of the U.S. Securities Act. Under the April 2005 settlement, Coca-Cola agreed, without admitting or denying liability, to remedial actions, including establishment of an Ethics and Compliance Office and a Disclosure Committee, close monitoring of any extended payment terms to customers, and adding an independent legal advisor experienced in securities law disclosure issues to its Audit Committee.

Required

- Evaluate revenue recognition as an earnings management device. Give possible reasons why Coca-Cola managed its reported earnings upwards.
- Explain why Coca-Cola had to increase the gallonage pushed over the 12 quarters in order to maintain a 1 to 2 cents per share increase of earnings per share each quarter.
- Why did Coca-Cola undertake the inventory reduction program in 2000? Consider the effect of the program on core earnings and earnings from continuing operations as well as on net income.

Note: Problem 14 of Chapter 7 should be read prior to answering the following problem.

16. On October 3, 2007, Deutsche Bank AG announced that it would record a writedown of EUR 2.2 billion. Most of the writedown applied to its investments in asset-backed securities and related financial instruments, following from the August meltdown of the market for these investments. This writedown materially reduced third quarter, 2007, earnings. At the same time, the Deutsche Bank CEO reaffirmed the company's previous earnings guidance for 2008, which was for a profit of EUR 8.4 billion. However, he qualified this forecast with the comment that this assumed "normally functioning markets."

Comments appeared in the financial press, following these announcements, about the difficulties faced by Deutsche Bank in determining the new fair value of these written-down investments, since market values were not readily available. Some comments suggested the possibility that the company was taking a bath, thereby creating a "cookie jar" that could be used to augment future earnings. Other commentators were concerned that the writedowns may have been understated, rather than overstated, so as to disguise losses, and that further writedowns would likely follow. The company assured investors, however, that it had used "a rigorous process applying appropriate accounting principles."

In the face of these events, the share price of Deutsche Bank rose 2.1% on October 3, compared with a rise of about 0.6% on that day for the Dow Jones Stoxx European banking index. On October 4, Deutsche Bank shares closed unchanged, compared with a 0.96 increase in the banking index.

Required

- a. Give reasons why Deutsche Bank's share price rose on October 3.
- b. Give reasons why Deutsche Bank may want to take a bath.
- c. Give reasons why Deutsche Bank may want to understate its writedown.
- d. You are an auditor of Deutsche Bank. Prior to the writedown, the bank suggests that the investments in question be reclassified from held-for-trading (their present classification under IAS 39) to held-to-maturity. What is your reaction to this suggestion? Explain.

Notes

1. This assumes that the manager stays with the firm throughout the period required for the accruals to reverse. Should this not be the case, the manager may escape some of the accrual reversal consequences.
2. This is a case of post-decision information. See Section 9.5.1.
3. Healy points out that if net income is just below the bogey, the manager might instead adopt policies to increase net income, so that at least some bonus would be received.
4. An alternative is to take changes in working capital items from the comparative balance sheets. However, Hribar and Collins (2002) caution that this may bias the accruals estimates. The reason is that many firms engage in acquisitions and divestitures. Then, working capital items are increased or decreased on the consolidated balance sheet but these changes do not affect net income, and thus are not subject to earnings management. Changes in working capital items on the statement of cash flows do not include these non-earnings-related changes.
5. For further discussion of methodological issues in this area see McNichols and Wilson (1988), Schipper (1989), Dechow, Sloan, and Sweeney (1995), and Bernard and Skinner (1996).
6. Evidence for an alternative explanation is provided by Abarbanell and Lehavy (2003). They argue that if managers are also compensated based on share price performance (recall that Healy studied only bonus plans, which are typically based on earnings), they will want to avoid the negative share price reaction that follows bad earnings news.
7. This assumes that stakeholders do not unwind the earnings management. Consistent with our argument in Section 11.3, BDS argue that it is not cost effective for them to do so since it is difficult to isolate effects on reported income of continuing use of, for example, FIFO inventory or accelerated amortization, particularly since many stakeholders have limited ability to process information and may not have enough at stake to warrant careful evaluation of reported earnings.
8. Skinner and Sloan studied growth firms (firms with a high ratio of market value to book value). They argue that investors overestimate the future performance of growth firms, due to behavioural factors such as self-attribution bias discussed in Section 6.2. Failure to meet earnings expectations brings investors "back to earth," resulting in a major share price decline.
9. Another way is to lower investors' expectations by "talking down" analysts, to the point where reported earnings meet or exceed the analysts' revised, lower forecasts. This was studied by Matsumoto (2002), who found that firms in her sample used both approaches. As Matsumoto points out, however, her study preceded regulation FD (an SEC regulation introduced in 2000 to prohibit firms from releasing material information only to analysts). Subsequent to 2000, the incidence of talking down analysts should decrease.
10. As DSb point out, the information conveyed by the financial statements in their model does not purport to fully convey the value of the firm. All that is claimed is that some value-relevant information is conveyed by net income. That is, their model does not get around our general observation that net income is only well defined under ideal conditions.