



## Compliance with flexible accounting standards

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### Abstract

We examine to what extent firms adhere to the stated intent of noncompulsory accounting standards when reporting for intercorporate investments. The Generally Accepted Accounting Principles (GAAP) in Norway strongly recommend that a 20–50% intercorporate investment is accounted for by the equity method rather than the cost method, if the investment is long-term, of strategic importance, and involves significant influence. Even so, we find that the actual use of the equity method is independent of the duration of the investment period, the fraction of equity held, its recent growth, and the investor's voting power. This lack of compliance suggests that one cannot use the observed choice between the cost method and the equity method to infer the underlying characteristics of the investment as specified by the accounting standard. Flexible GAAP may therefore not induce firms to disclose the information that the GAAP were designed to produce.

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### 1. Introduction

A fundamental concern in accounting regulation is that financial statements are informative; that is, they reflect the underlying economic condition of the reporting firm. Two key questions in this context are whether firms comply with stated accounting principles (Zeff, 1995) and whether noncomplying firms ignore the standard to manage reported earnings (Bernard & Skinner, 1996; Guidry, Leone, & Rock, 1999; Mazay, Wilkins, & Zimmer, 1993). Whereas earnings management is relatively well explored in

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the academic literature, much less attention has been paid to compliance. This paper analyzes compliance in a regulatory environment, where the Generally Accepted Accounting Principles (GAAP) make it nontrivial for firm outsiders to determine whether the accounting standard is adhered to. The GAAP are explicitly stated and strongly recommended by regulatory bodies, but are still noncompulsory and open to judgment and interpretation. Such a regime of flexible accounting standards, which is quite common internationally (Cooper, 1996; Zeff, 1995), are very different from the rigid (i.e., legalistic, directive, and nonjudgmental) system in North America.

Our paper asks whether flexible GAAP ensure that the observed accounting method choice reflects the firm's underlying economic reality in the way intended by the regulator. We answer this question by empirically analyzing whether firms that account for intercorporate investments adhere to the flexible Norwegian GAAP (N GAAP) in choosing between the equity method and the cost method. The N GAAP state that if the investor has a significant influence over the investee, the investor should, but is not obliged to, use the equity method (i.e., consolidate to a limited extent) rather than the cost method (i.e., not consolidate). This general consolidation criterion is operationalized by requiring the investment (1) to be between 20% and 50% of the investee's outstanding equity, (2) to give the investor significant voting power relative to other investors, (3) to be considered a long-term holding, and (4) to be a natural component of the investor's overall corporate strategy. If these criteria are met, the investment should be accounted for by the equity method. Otherwise, the cost method is mandatory.

We find that less than 40% of the Oslo Stock Exchange (OSE) firms with 20–50% investments chose to consolidate during our sample period 1986–1994. The investors did not comply with the N GAAP, as the observed reporting practice is inconsistent with the predictions of the accounting regulations. Neither the relative voting power of the investor, the length of the investment period, the size of the investment, the investment's recent growth, nor its strategic fit influences the choice between the equity method and the cost method.

This evidence suggests that under flexible GAAP, the firms' accounting-method choice may be contrary to the regulators' intent. The regulator may be unable to influence the accounting practice if the standard lacks objective criteria for when an accounting method can be used, if there are no mandatory reporting principles ensuring that the method is used when the criteria are met, or if disciplining mechanisms for noncompliers are weak.

The paper is organized as follows. Section 2 describes the regulatory environment, and Section 3 states the hypotheses about complying reporting behavior as implied by the N GAAP. The methodology is specified in Section 4, whereas Section 5 describes our data selection procedures and presents descriptive statistics. The hypotheses are formally tested in Sections 6, and 7 summarizes and concludes the paper.

## 2. Regulation and flexibility

The major reason why compliance *per se* is seldom explored in accounting research is probably that in some regulatory regimes, separating compliers from noncompliers is

either irrelevant or trivial. Irrelevance occurs when there is no binding standard to comply with. Developing countries often have such nondirective systems (Ahmed & Nicholls, 1994; Rahman & Scapens, 1988), and some countries with strict, elaborate standards also end up here when enforcement is weak (Zeff, 1995). An example is the Australian pre-1984 GAAP, where firms were free to choose between the equity method and the cost method for 20–50% of investments (Mazay et al., 1993).<sup>1</sup>

According to Zeff (1995), the United States is the prime example of rigid accounting regulations, driven by detailed, objective standards issued by the Financial Accounting Standards Board (FASB) and strict enforcement by the Securities and Exchange Commission (SEC). In such regimes, the GAAP state that according to readily observable criteria defining a set of contexts, accounting Principle A must be used in Context X, and Principle B must be used in Context Y. For instance, U.S. GAAP state that a 20–50% equity investment must be accounted for by the equity method, and that the cost method must be used if the investment is below 20% (FASB Opinion No. 18 §17, Statement on Accounting Standards No. 81). There is no room for the reporting firm's judgment and discretion, neither on the context nor what method to use in a given context. This inflexible system effectively ensures widespread compliance; thus, separating compliers from noncompliers is a trivial task.

Norway is between these two extremes of full flexibility and no flexibility. The GAAP is explicitly stated and strongly recommended by standard-setting bodies, but still open to judgment and interpretation. Based on the general framework specified in the corporate law, the details of the regulation are spelled out by the Ministry of Commerce, the state owned OSE,<sup>2</sup> and the private Norwegian Accounting Standards Board (NASB). The daily enforcement of the accounting standards for listed firms is carried out by the OSE, which can issue daily fines of NOK 500,000 (about USD 65,000) if firms fail to comply with the information requirement of the Stock Exchange Act or the NASB regulations.

According to §11–13 of the corporate law, an intercorporate investment may be accounted for by the equity method rather than the cost method if the investor has significant influence in the investee. However, this rule only applies to firms with group accounting statements, implying that the cost/equity choice is only open to investors who have at least one other investment of 50% or more, which must always be consolidated in full. If the 20–50% holding gives the investor significant influence, the investee is called an associated firm. Otherwise, it is not associated, and the N GAAP mandate the cost method.

The Ministry of Commerce (1987), the NASB (1991), and the OSE (1986, 1987a, 1987b, 1988) have defined the associate firm concept by four criteria.<sup>3</sup> The equity method should be used if (i) the investor is sufficiently powerful relative to other owners, (ii) the investment is long-term, and (iii) the investment is a natural component of the investor's

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<sup>1</sup> After 1984, Australia switched to a system where the cost method is mandatory, but where the effect of the equity method must be reported in footnotes (Mazay et al., 1993).

<sup>2</sup> The OSE was privatized after our sample period.

<sup>3</sup> The criteria are specified in the first statement released by the OSE (1986), and later statements repeat and elaborate on them.

overall business strategy.<sup>4</sup> The fourth and final criterion is the time consistency requirement that once an investor has chosen the equity method, the investor should continue using it in subsequent years unless the influence is unquestionably reduced.

This setting differs fundamentally from the inflexible, legalistic standard in the United States and in E.U. countries.<sup>5</sup> First, except for the 20–50% requirement, insiders of the investing firm may argue that nobody else has the required information to determine whether an investment satisfies the associated-firm criterion of the N GAAP. Second, since the equity method is not mandatory for associated firms, the investor may still choose the cost method even if the investment qualifies for the equity method. Thus, both the criteria defining the context (associated or nonassociated firm) and the link between context and accounting method (equity method for associated firm vs. cost method for nonassociated firm) are judgmental, despite the fact that N GAAP strongly recommend how to interpret the criteria and how to choose the method. For the same two reasons, this setting allows us to empirically analyze how flexible accounting regulations influence observed accounting practice. In particular, we can explore whether investors using the equity method are more influential, strategic, and long term than investors using the cost method. The next section uses the N GAAP to generate testable hypotheses about the expected relationship between characteristics of the investment and the choice between the cost method and the equity method.

### 3. Empirical predictions

The general rule for *significant influence* is that the investor must control between 20% and 50% of the investee's voting equity, and no other investor should have significant influence. The latter restriction reflects the idea that your influence depends not only on your absolute share of voting equity, but also on the distribution of ownership among the remaining stockholders. Generally, the more dispersed the remaining ownership structure, the more influential the large investor. If the holding is below 20%, the investor must document that the influence is still significant relative to other owners. The N GAAP state that this should only be possible under "extraordinary circumstances" (Bettmo, Drake, Huneide, & Schwenke, 1989, p. 142).

**Hypothesis 1:** The propensity to use the equity method is higher the more voting equity the investor has relative to other investors.

According to the accounting standard, the investment is *long term* if the owner currently considers it a long-lived commitment. While the expected remaining holding period is not observable, the number of years to date that the stake of at least 20% has been held is public information. We argue in Section 4 that the information content of this

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<sup>4</sup> In a statement released by NASB in October 1993, strategic importance is no longer listed as a requirement. As this criterion is explicitly expressed in several OSE policy statements in our sample period, we will still use strategic importance as a criterion.

<sup>5</sup> The International Accounting Standard (IAS) is similar to the U.S. GAAP in that the equity method is mandatory "unless it can be clearly demonstrated that the investor does not have significant influence" (IAS 28 §4).

backward looking duration measure is similar with that of expected remaining duration. In addition, because the past holding period is known to regulators, it becomes increasingly difficult for investors to credibly contend that the investment is short term as the holding period increases.

**Hypothesis 2:** The propensity to use the equity method increases with the number of years that the shares have been held.

N GAAP partially clarify the meaning of a *strategic* investment by excluding investments with no clear relationship to the investor's operational strategy (Bettmo et al., 1989, p. 141). Although there is no further specification in the standard, we would expect that for an investment to be of any significance in the firm's overall strategy, it must be of nonnegligible size and offer an opportunity to gain influence and information access. A larger investment increases the expected impact on the investor's overall cash flow. Moreover, the corporate-governance literature suggests that the larger the equity stake, the higher the probability of exerting monitoring power by communicating directly with management, voting at the stockholder meeting, and becoming a director (Shleifer & Vishny, 1997). Hence, the fraction held of the investee's equity may proxy for strategic importance. Moreover, if this fraction has recently grown, it may reflect the owner's decision to make the investment a more important part of his operational strategy. Consequently, if the investor complies with the intent of the N GAAP, we expect that:

**Hypothesis 3.** The propensity to use the equity method increases with the size and the growth of the investment.

As the N GAAP define a strategic investment relative to the investor's operations, we should also consider the strategic fit between the investor and the investee. According to Porter (1980, 1985), the fundamental concerns in corporate strategy are focus, specialization, and competence. This view suggests that value-maximizing firms acquire firms that strengthen their core competence when making intercorporate investments for strategic purposes. We would, for instance, expect that a shipping firm tends to invest in the shipping industry rather than in banking.

The view that intercorporate investments should foster specialization runs counter to the rationale for conglomerates, where firms buy other firms to become less rather than more specialized (Weston, Chung, & Hoag, 1990). However, empirical research shows time and time again that diversifying conglomerates destroy value, and that value is created once firms are split up into separate, specializing entities (Servaes, Rajan, & Zingales, 2000). Overall, this suggests that under the assumption of value-maximizing investors, we would expect that a 20–50% investment is more often strategic if the two firms' operations are related.

**Hypothesis 4:** The propensity to use the equity method is higher if the investor and the investee are in the same industry.

*Time consistency* requires that the investor does not shift from the equity method to the cost method, unless the conditions for using the equity method are no longer met. Since an external party cannot observe whether these criteria are satisfied, consider instead the weaker requirement that the investment is still in the 20–50% range. Using only public information, we can state the following testable prediction.

Table 1  
The hypotheses

<i>N GAAP compliance</i>		
H1	The propensity to use the equity method is higher the more voting equity the investor has relative to other investors.	$INF_{ijt}$
H2	The propensity to use the equity method increases with the number of years that the shares have been held.	$DUR_{ijt}$
H3	The propensity to use the equity method increases with the size and the growth of the investment.	$\gamma_{ijt}, \Delta\gamma_{ijt}$
H4	The propensity to use the equity method is higher if the investor and the investee are in the same industry.	$\chi(\mathbf{IND}_{ij})$
H5	The propensity to use the equity method in the current year is higher if it was used last year, provided the investment is still in the 20–50% range.	$\chi(E_{t-1})$
H6	The propensity to use the equity method increases with its impact on the investor's reported earnings.	$\delta_{it}$
<i>Industry practice</i>		
H7	The propensity to use the equity method varies across industries.	$\mathbf{IND}_i$

The table summarizes the conjectures made in Section 3. The labels in the left column are used for later reference to a specific hypothesis. The variables in the right column are empirical proxies, which are defined in Section 4.  $\gamma_{ijt}$  is the fraction of voting equity held by investor  $i$  in investee  $j$  at time  $t$ .  $\Delta\gamma_{ijt}$  is the difference between the fraction of investee  $j$  held this year and last year.  $INF_{ijt}$  is the voting equity in investee  $j$  held by investor  $i$  relative to the voting equity held by the largest of the remaining owners.  $DUR_{ijt}$  is the number of years up to and including time  $t$  that the investment is at least 19%.  $\chi(\mathbf{IND}_{ij})$  equals one if firms  $i$  and  $j$  are in the same industry, and zero otherwise.  $\chi(E_{t-1})$  equals one if the equity method was used last year, and zero otherwise.  $\delta_{it}$  is the percentage change in the investor's reported earnings if the equity method rather than the cost method is used for all 20–50% investments.  $\mathbf{IND}_i$  is a vector of indicator functions identifying the industry of firm  $i$ .

**Hypothesis 5:** The propensity to use the equity method in the current year is higher if it was used last year, provided the investment is still in the 20–50% range.

Like the U.S. GAAP, the N GAAP include the criteria of materiality and intent. In our setting, *materiality* means that to justify the extra preparation costs of reporting by the equity method rather than the cost method, the effect of the equity method on the investor's total earnings should be nontrivial.<sup>6</sup> Moreover, the materiality criterion does not apply to each individual investment, but only to the aggregate effect of using the equity method on all the firm's 20–50% investments.

**Hypothesis 6:** The propensity to use the equity method increases with its impact on the investor's reported earnings.

The principle of *intent* implies that the criteria of significant influence, strategic importance, and long-term commitment should be based on forward looking variables

<sup>6</sup> The cost method relies only on the dividend received and the historic cost of the investment. The equity method requires detailed information about the investee's net income, write-offs of net excess value and goodwill, and intercorporate transactions between investor and investee. PricewaterhouseCoopers estimates that the marginal preparation cost of the equity method for large Norwegian firms in 1999 was NOK 440,000 in the switching year and NOK 210,000 thereafter. Vårdal (1986) suggests that an impact below 3% is immaterial, whereas an impact above 10% is material. The intermediate cases should be determined on a case-by-case basis.

rather than current or historic ones. We postpone the operationalization of this property until Section 4.

Watts and Zimmerman (1986, 1990) argue that even if the overall GAAP are given, the set of accepted accounting-method alternatives may still vary across *industries*. For instance, manufacturing firms may use the equity method quite frequently simply by custom, whereas shipping firms may do so very seldom. Such differences may be due to accounting practices that are shaped by conformity pressure from industry organizations, or simply by a long-lived industry tradition. Although such norms are neither legally binding nor stated in the GAAP, they may still influence the manager’s choice of accounting method. We therefore control for industry-specific accounting choice by stating.

**Hypothesis 7:** The propensity to use the equity method varies across industries.

Table 1 summarizes our predictions and names the variables that will be used to measure the theoretical constructs in the empirical tests. The proxies are further explained in Section 4.

#### 4. Methodology

We define a *consolidator* as a firm that chooses to account for an intercorporate investment by the equity method. Conversely, a *nonconsolidator* uses the cost method. To analyze if a firm’s consolidation decision complies with the N GAAP, we specify the following model:

$$P(\text{CHO}_{ijt} \in A) = g(\beta_0 + \beta_1 \text{INF}_{ijt} + \beta_2 \text{DUR}_{ijt} + \beta_3 \gamma_{ijt} + \beta_4 \Delta \gamma_{ijt} + \beta_5 \chi(\mathbf{IND}_{ij}) + \beta_6 \chi(E_{t-1}) + \beta_7 \delta_{it} + \beta_8^T \mathbf{IND}_i + \varepsilon_{it}) \quad A = E, C \quad (1)$$

where  $\text{CHO}_{ijt}$  is the accounting choice made by investor  $i$  for its investment in investee  $j$  at time  $t$ . The available alternatives are to use the consolidating equity method,  $E$ , or the nonconsolidating cost method,  $C$ .  $\text{INF}$  proxies for influence, and  $\text{DUR}$  reflects the long-term nature of the investment. The variables  $\gamma$ ,  $\Delta \gamma$ , and  $\chi(\mathbf{IND})$  proxy for strategic importance,  $\chi(E_{t-1})$  measures whether the equity method was used in the preceding period,  $\delta$  reflects materiality, and the vector  $\mathbf{IND}$  controls for industry-specific variations in the set of accepted accounting principles. We next discuss each of these variables in more detail.

*INFLuence* (H1). The best measure of influence is probably the fraction of the board seats controlled by the investor. As this information is not available, and also because the GAAP make specific references to voting equity, we use:

$$\text{INF}_{ijt} = \min_{k \neq i} \left\{ \frac{\xi_{ijt}}{\xi_{kjt}} \right\},$$

where  $\xi_{ijt}$  is the voting equity held by intercorporate investor  $i$  in firm  $j$  at time  $t$ . As the minimum is taken over all remaining investors,  $\text{INF}_{ijt}$  is the investor’s voting power relative to the power of the most influential of the remaining investors. This definition captures the GAAP criterion that an investee can only be an associated firm if there are no other



influential investors (Norwegian Accounting Standards Board, 1991; Oslo Stock Exchange, 1986).

*DURATION* (H2) is measured as the number of consecutive years up to and including time  $t$  that the investment has been 19% or higher (period  $t_1$ ).<sup>7</sup> Alternatively, we may appeal to rational expectations and use the remaining duration ( $t_2$ ), which is the number of consecutive years from time  $t+1$  until the investment drops below 19%. As  $t_1+t_2$  is constant over time for a given investment, the alternative duration measure  $t_2$  is just this constant minus  $t_1$ . The effect on the regression of using  $t_2$  rather than  $t_1$  will therefore be negligible. We disregard years where the investment is below 19% to ensure we use a time period in which the investment is large enough to potentially be classified as strategic by the GAAP. None of our results change significantly if we choose a slightly higher lower limit, for example 20%, or use  $t_2$  instead of  $t_1$ .

*Size of the investment* (H3),  $\gamma_{ijt}$ . This measure of strategic importance is the fraction of outstanding shares held by the investor.

*Change in the investment* (H3),  $\Delta\gamma_{ijt} \equiv \gamma_{ijt} - \gamma_{ijt-1}$ , is the current year's change in the fraction of equity held.

*Related operations* (H4),  $\chi(\text{IND}_{ij})$ , is the third proxy for strategic importance. As our partitioning of industries according to IND is quite coarse, we expect firms with different IND to have unrelated operations. The indicator function  $\chi(\text{IND}_{ij})$  is equal to one if the two firms are in the same industry and zero otherwise.

*Previous consolidation* (H5),  $\chi(E_{t-1})$ . The N GAAP state that if an investment was consolidated last year, it should be consolidated this year, if the influence is still significant. We capture this time-consistency rule by the indicator function  $\chi(E_{t-1})$ , which is unity whenever this criterion is met, and zero otherwise.

*Materiality and intent* (H6): To control for materiality, we include the consolidation impact ratio

$$\delta_{it} \equiv \left| \frac{\sum_j \Delta \text{EC}_{ijt}}{\text{Profits before taxes under the cost method}_{it}} \right|$$

where  $\Delta \text{EC}_{ijt}$  is our estimate of the effect on investor  $i$ 's earnings of using the equity method rather than the cost method, for investee  $j$  at time  $t$ .<sup>8</sup> We assume that intent is stronger the higher the time  $t$  values of INF, DUR,  $\gamma$ , and  $\delta$ .

<sup>7</sup> The reason we use 19% rather than 20% is explained in Section 5.

<sup>8</sup> Let  $\text{EM}_{ijt}$  be the effect on investor  $i$ 's earnings by accounting for investee  $j$  by the equity method at time  $t$ , and let  $\text{CM}_{ijt}$  be the effect when using the cost method. The net effect of using the equity method rather than the cost method is  $\Delta \text{EC}_{ijt} \equiv \text{EM}_{ijt} - \text{CM}_{ijt}$ . The effect on consolidated earnings of using the equity method is  $\text{EM}_{ijt} = \gamma_{ijt} \text{ANI}_{jt}$ , where  $\text{ANI}_{jt}$  is the adjusted net income in investee  $j$  at time  $t$ , which corrects for intercorporate transactions and for write-offs of net excess value and goodwill. Due to missing data, write-offs of net excess value and goodwill are set to zero, biasing our estimate of ANI upwards. We approximate intercorporate transactions by the intercorporate dividend. Since the effect of the cost method is  $\text{CM}_{ijt} = \gamma_{ijt} \text{DIV}_{jt}$ , it follows that  $\Delta \text{EC}_{ijt} = \gamma_{ijt} (\text{NI}_{jt} - 2\text{DIV}_{jt})$ , where  $\text{DIV}_{jt}$  is the intercorporate dividend, and  $\text{NI}_{jt}$  is the net income of investee  $j$ .



*INDustry* (H7). We use the UN international classification standard ISIC to assign firms to industries. When firms are in several industries, we select the industry, in which the largest number of the firm's affiliates is operating.<sup>9</sup> We restrict the classification to the first ISIC digit, as finer partitions are ruled out by the sample size. In addition, H4 is valid only for coarse partitions. The industry proxy  $IND_i^j$  enters as a dichotomous variable, taking on the value of one if firm  $i$  is from industry  $n$  and zero otherwise. We set  $IND^0 \equiv 0$  and define the industry proxies as:

Index value ( $n$ )	ISIC group	Industry
0	2; 5	Petroleum drilling and production
1	3	Manufacturing
2	7	Shipping
3	8.3	Real estate
4	8.1	Finance and banking
5	8.2	Insurance

Numbers zero through five refer to superscripts of  $IND$ , such that  $IND_i^4$  is the financials dummy. Since the real estate and insurance industries contain only one firm each,  $IND^{3,5}$  is used as a joint category.  $\mathbf{IND}_i$  is the vector of the five industry dummies, and  $\beta_{8-11}^T = (\beta_8, \dots, \beta_{11})$  is the transpose of the vector of industry coefficients.

## 5. Sample selection and descriptive statistics

### 5.1. The sample

Our sample consists of firms where both the investor and the investee are listed on the OSE during the years 1986–1994.<sup>10</sup> The ownership data relate to the end of the calendar year, which also ends the fiscal year. To be included in our sample, the investor must have group financial statements, and the investment of interest must be in the range  $0.19 \leq \gamma_{ijt} < 0.50$ . All such investments are included whether they are accounted for by the equity method or the cost method. We use the lower limit of 19% because the population of potential equity method users is difficult to quantify. As discussed in Section 2, a firm can use the equity method when  $\gamma_{ijt} < 0.20$  if it exerts significant influence. One firm in our sample actually consolidates a fraction that is marginally below 20% (19.9%) in two consecutive years.<sup>11</sup>

<sup>9</sup> We could alternatively assign a firm to its largest industry as measured by market values. Since major parts of a conglomerate are often not listed, this approach is infeasible.

<sup>10</sup> Investments in nonlisted firms are excluded due to missing data on ownership structure and the market price of equity.

<sup>11</sup> One might argue that 19.5% is a more logical lower bound, since this is the lower decimal limit for rounding off to 20%. Using 19.5% instead of 19% reduces the sample size by just three observations, and there is no effect on any of our results. Similarly, using 20% as a lower bound has no substantive effect.

Data were partly obtained from electronic sources, and partly hand-collected from annual reports. All firms were asked to supply information missing from these sources. Using the restrictions that  $0.19 \leq \gamma_{ijt} < 0.50$  and that the investor is fully consolidating at least one subsidiary, the population contains 161 firm-year investments. There are 46 distinct investors and 69 distinct investees, implying that the average investor listed on the OSE holds a 19–50% equity stake in 1.5 other OSE firms.

As of 1994, the average market cap per OSE firm is roughly 1.8 times the average NASDAQ firm and 0.2 times the average NYSE firm. Although market cap roughly doubled over the sample period, the OSE is small by international standards. According to 1994 year-end estimates, the OSE ranks 12th among the 17 European countries from which comparable data is available ([Federation Internationale des Bourses de Valeurs 1995](#)).

Investors in our sample represent about 40% of the total OSE equity-market capitalization, and the average investor is about four times larger than the investee. Manufacturing, shipping, and finance firms hold disproportionately many intercorporate investments between 19% and 50%, whereas manufacturing and shipping are also overrepresented among the investees. These two industries account for 70% of the investors, while finance represents one fifth.

## 5.2. Consolidation policy under the N GAAP

[Panel A of Table 2](#) shows that the mean fraction of actual to potential users of the equity method is 39%. There is an increasing tendency to use this method, as the fraction shifts abruptly in 1990 from about 25% to approximately 50% thereafter. For instance, while 28% of the investments are consolidated in 1988, half of them are in 1994.<sup>12</sup> [Panel B](#) breaks the sample down according to the equity fraction held. Seventeen of the one hundred sixty-one investments are between 19% and 20%, and fifteen of them probably do not have the option to use the equity method. The extra noise from including these cases should have a negligible effect on our findings.

The N GAAP state that an investment should be consolidated if the investor considers it a long-term commitment (H2). [Panel A of Table 3](#) shows the summary statistics for investment duration, that is, the number of consecutive years that the investments in our sample have been strictly positive. The duration of the subsample of these investments that are actually consolidated is shown in [Panel B](#). To ensure that long-term commitment is estimated with minimal error, we use 1980 rather than 1986 as the start of the measurement period. This means that the minimum and maximum duration of an investment is 1 and 15 years, respectively. The main impression from [Panel A](#) is that large investments between OSE firms are short-lived. Seventy-eight percent of them last

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<sup>12</sup> As this paper studies compliance with the accounting standard rather than the adoption of one of the two methods specified by the standard, we will not analyze why the propensity to use the equity method changes over time. Nevertheless, when relating the scores on the equity-method criteria to the actual adoption of the method in [Section 6](#), we will account for a potential shift in the interpretation of the GAAP in 1990.

Table 2

The fraction of Oslo Stock Exchange firms using the equity method to account for intercorporate investments between 19% and 50%, 1986–1994

	Sample size	Fraction of firms using the equity method
<i>(A) By year</i>		
1986	32	0.13
1987	23	0.35
1988	18	0.28
1989	17	0.12
1990	18	0.56
1991	13	0.46
1992	16	0.56
1993	14	0.57
1994	10	0.50
Mean (S.D.)	17.89 (0.17)	0.39
Median	17.44	
<i>(B) By fraction of equity held</i>		
$0.19 \leq \gamma < 0.20$	17	0.12
$0.20 \leq \gamma < 0.30$	69	0.33
$0.30 \leq \gamma < 0.40$	34	0.44
$0.40 \leq \gamma < 0.50$	41	0.41
Mean (S.D.)	40.25 (0.15)	0.33
Median	37.5	
Total	161	

Panel A shows the number of observations by year, where the middle column is the total number of 19–50% investments. The right column shows the fraction of these investments accounted for by the equity method rather than the cost method. Panel B classifies the sample by the fraction of equity held ( $\gamma$ ).

Table 3

The duration of intercorporate investments between 19% and 50%, and the corresponding duration of equity method use, for firms listed on the Oslo Stock Exchange, 1986–1994

	Duration (years)											Total	Mean	Median	S.D.
	1	2	3	4	5	6	7	8	9	13	15				
<i>(A) Duration of the investment (years)</i>															
Number of cases	21	15	9	2	2	1	2	1	2	2	1	58	3.16	2	3.22
Rel. freq.	0.36	0.26	0.16	0.03	0.03	0.02	0.03	0.02	0.03	0.03	0.02	1.00			
<i>(B) Duration of the equity method (years)</i>															
Number of cases	15	9	5	2	0	0	0	0	0	0	0	31	1.81	2	0.95
Rel. freq.	0.48	0.29	0.16	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00			

The duration of the investment is the number of consecutive years during 1980–1994 that the investment is strictly positive, provided the investment is at least once in the 19–50% range. The duration of the equity method is the number of years that the investment is accounted for by the equity method. Panel A shows the relative frequency distribution of the investment’s duration, regardless of whether the investment is accounted for by the cost method or the equity method. Correspondingly, Panel B shows the duration of the equity method. The mean, median, and standard deviations are weighted by relative frequency, which is the number of observations of that duration divided by the total number of observations.

less than 4 years, and the mean and median duration is 3.2 and 2 years, respectively.<sup>13</sup> Panel B shows that the average consolidation period is roughly half the average investment period: 1.8 and 3.2 years, respectively. No consolidation lasts longer than four years, and 93% of them do not survive three years.

These results are surprising because the N GAAP strongly recommend that investments with significant influence be consolidated if they are strategic (H3 and H4) and *long-term* (H2). Based on Panel A alone, the short investment periods may suggest that most of these investments are not strategic. However, not all of them have a short life, and the critical issue is the relationship between duration and accounting-method choice rather than absolute duration alone. By relating the figures in Panels A and B, however, we find an inverse association between the duration of an intercorporate investment and the tendency to account for it by the equity method (the correlation is  $-.62$ ). The observed accounting practice seems to be at odds with the N GAAP.<sup>14</sup>

The same impression is given by Table 4, which shows how the relevant investment characteristics specified by the GAAP differ across users of the equity method and the cost method. The average duration (DUR) of the investment in the second row is marginally longer for the cost method than for the equity method (3.13 vs. 3.11 years), but the difference is not significant ( $t = -0.04$ ). The same is true for the investor's influence over the investee (INF). As for strategic importance, the average value of two of the three proxies ( $\gamma$  and  $\Delta\gamma$ ) are consistent with our hypotheses that investments accounted for by the equity method are larger and grow more. The third proxy [ $\chi(\text{IND})$ ] is not consistent, as our sample firms use the cost method more often when the investor and the investee are in the same industry. However, like for the two other proxies of strategic importance, this difference is statistically insignificant.

The table shows that investors generally adhere to the time-consistency criterion [proxied by  $\chi(E_{t-1})$ ], as the equity method is used significantly more often by investors who used the equity method the previous year (H5). Time consistency is the only GAAP criterion that differs significantly between users of the equity method and the cost method at conventional levels of significance.

<sup>13</sup> Similar results are reported by Bøhren and Norli (1997), who analyzed every intercorporate investment between OSE firms in 1980–1994, regardless of size (10,189 holdings altogether). They find that duration tends to be short (1.74 years on average) and somewhat longer for large holdings than for small. The typical intercorporate investment is small, as the mean (median) fraction is 2.8% (0.4%), and 82% of the holdings are below 5%. Bøhren and Norli (1997) find that intercorporate investments can be explained as activities in the market for corporate control, as a source of financial slack for growing firms that want to reduce adverse selection costs in the market for new security issues, and as a buffer in the investor's liquidity management system.

<sup>14</sup> There is a potential truncation bias in our sample. Table 3 implicitly assumes that investments in 1980 start that year, and that investments in 1994 end that year. Still, the table indicates that the bias is negligible, as both the investment period (Panel A) and the consolidation period (Panel B) are very short relative to the period 1980–1994. To formally check this, we excluded all investments that are positive in 1980 or 1994 when estimating the investment's duration. As expected, the results are practically unchanged. For instance, when removing investments that are positive in 1994 (1980), the number of 1-year durations in Panel A decreased from 21 to 19 (21). Durations of 2 years decreased from 15 to 13 (15). The number of consolidations in Panel B that last 1 year decreased from 15 to 13 (15), while the number of 2-year consolidations decreased from nine to seven (five). The correlation coefficient between the duration of the investment and use of the equity method changed from  $-.62$  to  $-.60$  ( $-.56$ ).

Table 4

Investment characteristics by accounting method for firms listed on the Oslo Stock Exchange, 1986–1994

Investment characteristic	Equity method				<i>t</i>	Cost method			
	<i>N</i>	Mean	Median	Standard deviation		<i>N</i>	Mean	Median	Standard deviation
INF	51	2.66	2.01	1.78	−0.19	80	2.74	2.47	2.76
DUR	57	3.11	2.00	3.53	−0.04	104	3.13	2.00	3.04
$\gamma$	57	0.33	0.36	0.10	1.37	104	0.31	0.28	0.10
$\Delta\gamma$	57	0.12	0.01	0.17	0.32	104	0.11	0.04	0.16
$\chi(\mathbf{IND})$	33	0.44	0.00	0.50	−0.45	61	0.57	1.00	0.50
$\chi(E_{t-1})$	57	0.44	0.00	0.50	7.96	104	0.02	0.00	0.14
$\delta$	47	0.27	0.04	0.51	−1.12	78	0.50	0.06	1.57
$S(t)$	57	0.67	1.00	0.48	4.48	104	0.32	0.00	0.47

The table reports means, medians, and standard deviations of investment characteristics that are relevant according to the GAAP for choosing between the equity method and the cost method. Simple averages are computed across all observations, except for industry closeness [ $\chi(\mathbf{IND})$ ] and earnings impact ( $\delta$ ). The former is constant over time for a given investment, while the latter is constant across investments for a given investee. Simple averages for these two variables are computed only across the dimensions in which they vary. *N* is the number of observations of the investments' characteristics, and the *t* is the *t* statistic for difference in means. INF is the voting equity held in an investee relative to the equity held by the largest of the remaining owners. DUR is the number of consecutive years up to and including the current year that the investment is at least 19%.  $\gamma$  is the fraction of voting equity held by the investor in the investee.  $\Delta\gamma$  is the difference between the fraction held this year and last year.  $\chi(\mathbf{IND})$  equals one if the investor and the investee are in the same industry, and zero otherwise.  $\chi(E_{t-1})$  equals one if the equity method was used last year, and zero otherwise.  $\delta$  is the absolute value of the percentage change in the investor's reported earnings if the equity method had been used instead of the cost method.  $S(t)$  equals one if the current year is 1990 or later, and zero otherwise.

It may still be argued, however, that the time-consistency rule can easily be bypassed without formally violating the GAAP. An owner who used the equity method last year may reduce the investment to slightly below 20% this year, and thereby switch to the cost method. We explore this possibility by analyzing a consolidation policy for investments around the lower qualification limit. Table 5 shows the time pattern of 11 intercorporate investments that are accounted for by the equity method at least once and that are also at least once between 19% and 22% during the sample period. The first two cases are consistent with the notion that firms marginally adjust the investment downward to escape the consolidation requirement. Cases three through eight do not fit such an explanation, whereas cases nine and ten violate the time-consistency criterion. Overall, there is no obvious indication that marginal adjustments in investments are widely used to bypass the accounting standard.

### 5.3. Industry-specific accounting practice

As discussed in Section 2, the accounting norms of the industry may influence the accounting-method choice in ways not dictated by the GAAP (H7). The propensity to consolidate in our sample does indeed vary substantially across industries. The equity method is widespread in manufacturing (52% of the firms), and hardly used at all in real estate (0%), finance (11%), and insurance (0%). The petroleum and shipping industries are in between these extremes (14% and 31%, respectively). This finding strengthens our prior

Table 5

Dynamics of intercorporate investments between 19% and 22% for firms listed on the Oslo Stock Exchange, 1986–1994

Investment <sup>a</sup>	Fraction owned (%)								
	1986	1987	1988	1989	1990	1991	1992	1993	1994
1	16.4	20.2 <sup>c</sup>	18.7	19.5	14.5	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	20.0 <sup>c</sup>	29.8 <sup>c</sup>	19.5	0.0	0.0	0.0
3	27.4	20.5 <sup>c</sup>	0.0	0.5	0.0	0.2	0.0	0.0	0.0
4	20.8 <sup>c</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	20.8 <sup>c</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.6	20.0 <sup>c</sup>	20.0 <sup>c</sup>	14.0	2.3	2.3	2.3	2.3	2.2
7	0.0	0.0	20.0 <sup>c</sup>	0.0	2.6	2.6	2.6	2.6	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	20.5 <sup>c</sup>	33.4 <sup>c</sup>	32.0 <sup>c</sup>
9	21.1 <sup>c</sup>	21.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	18.3	20.2 <sup>c</sup>	20.0	0.0	0.0	0.0
11	0.0	0.0	0.0	24.5	14.5	19.3	20.5 <sup>c</sup>	20.5 <sup>c</sup>	0.0

The table shows the time pattern of investments that include at least one holding in the 19–22% range over the sample period, and that are accounted for by the equity method at least once. Investments that are accounted for by the equity method in a given year are superscripted “e” that year.

<sup>a</sup> Investments 5–7 belong to the same owner.

belief of a systematic variation in the accepted set of accounting principles across industries.

## 6. Statistical tests

When analyzing the multivariate relationship between investment characteristics and accounting-method choice, we express Model (1) as a dichotomous logit model. To account for the increasing propensity to consolidate from 1990 onwards documented by Tables 2 and 4, we include the shift variable  $S(t)$ , which is zero for  $t < 1990$  and one otherwise. The conditional probability that investor  $i$  accounts for investee  $j$  at time  $t$  with the equity method,  $P(E) = 1 - P(C)$ , is given by:

$$P(E) = \frac{\exp(\beta^T \mathbf{x}_{it})}{1 + \exp(\beta^T \mathbf{x}_{it})}, \quad \beta, \mathbf{x}_{it} \in \mathfrak{R}^{13} \quad (2)$$

The vector  $\mathbf{x}_{it}$  contains the constant 1, the seven regressors discussed in Section 4 [INF, DUR,  $\gamma_{ijt}$ ,  $\Delta\gamma_{ijt}$ ,  $\chi(\mathbf{IND}_{ij})$ ,  $\chi(E_{t-1})$ ,  $\delta_{ijt}$ ], the four industry dummies ( $\mathbf{IND}_i$ ; recall that  $\mathbf{IND}^0 \equiv 0$ ), and the time dummy  $S(t)$ . The  $\beta$  is the corresponding vector of 13 coefficients to be estimated.

According to our hypotheses summarized in Table 1, an increase in any of the GAAP related regressors in Model (2) increases the propensity to choose the equity method instead of the cost method. Consequently, we predict a positive sign for the corresponding coefficients, whereas the signs of the dummies representing industry specific accounting practice are indeterminate. We show the maximum likelihood estimate of Model (2) in

**Table 6.** The regression is based on a subsample of 131 observations due to missing observations of INF.<sup>15</sup>

Panel A compares the log likelihood of the estimated model to a restricted version that only fits the intercept term. As the restricted model forces all coefficients except  $\beta_0$  to equal zero, every investment is assigned the same probability of being accounted for by the equity method, regardless of individual investment characteristics. The estimated  $\beta_0$  will be such that the probability of any investment being accounted for by the equity method equals its actual frequency in the sample firms. The  $\chi^2$  statistic shows that the full model outperforms such a restricted alternative at a significance level below 1%.

Panel B shows maximum likelihood coefficients for the unrestricted model. The results can be summarized as follows, using 5% as the significance level.<sup>16</sup> First, there is no significant association between relative voting power and accounting-method choice, suggesting that managers do not comply with the fundamental consolidation criterion of significant influence (H1). Second, neither is long-term commitment a determinant, as the investment period has no significant influence on the accounting choice (H2).<sup>17</sup> Third, strategic importance is irrelevant as well. Although neither the size nor the recent growth of the investment has a statistically significant impact (H3), the signs of the coefficients are as predicted. Fourth, the tendency to use the cost method increases significantly if the investee belongs to the investor's industry, which is contrary to our prediction (H4).<sup>18</sup>

The materiality criterion receives no empirical support (H6). The only part of the N GAAP that is generally observed in practice is the time-consistency rule. There is a significant tendency for an investment that was accounted for by the equity method last year to be accounted for by that the same method this year as well (H5).

We next use Model (2) to predict whether a given investment will be reported by the equity method or the cost method. The estimated parameters from Panel B and a given investment's unique characteristics (i.e., the values of its independent variables) are used to estimate the probability that either accounting alternative will be chosen. The equity method is predicted whenever this estimated probability exceeds .5.

According to the bottom row of Panel C, our prediction model is correct in 82% of the 131 cases. To evaluate this hit ratio, the model may first be compared with an uninformed

<sup>15</sup> The ownership-structure data used to construct INF is based on voluntary information provided in annual reports. After having contacted all the firms with insufficient data to estimate INF, we are still forced to leave out 30 of the 161 cases. We have no reason to suspect that the firms with missing ownership data differ systematically from the others in their tendency to comply with the N GAAP.

<sup>16</sup> Multicollinearity does not seem to inflate the *P* values. First, pairwise correlations are moderate, except for the pair ( $\gamma$ , INF), where the Pearson product-moment correlation is .5. Still, this is well below the rule-of-thumb critical limit of 0.8 (see, for instance, Greene, 1993). Second, the inverse correlation measures how well a regressor *i* can be represented as a linear combination of the remaining regressors. It is defined as  $(1 - R_i^2)^{-1}$ , where  $R_i^2$  is the coefficient of determination from said regression. DUR is the variable that can best be represented in this fashion, with an inverse correlation of 2, that is,  $R_{DUR}^2 = .5$ . This is also comfortably below the critical limit.

<sup>17</sup> We inferred from Tables 3 and 4 that an investment's duration is negatively associated with the propensity to consolidate. The multivariate test in Table 6 reveals that this relationship is neither robust nor significant once we control for the impact of the remaining determinants.

<sup>18</sup> One possible explanation is that when firms make strategic investments in other firms, they primarily build conglomerates. This means investing in firms that are outside the investor's core industry.



Table 6

Estimation of the N GAAP compliance Model (2) on a subsample of intercorporate investors listed on the Oslo Stock Exchange, 1986–1994

<i>(A) Likelihood ratio</i>			
Model	-Log likelihood	$\chi^2(P > \chi^2_{12})$	<i>N</i>
Unrestricted	54.65	65.14 (0.00)	131
Restricted, $(\beta_1, \dots, \beta_{12}) \equiv 0$	87.57		131

*(B) Parameter estimates*

Source	Predicted sign	Coefficient	Likelihood ratio	<i>P</i> value
Intercept		- 1.80		
INF	+	- 0.07	0.34	0.56
DUR	+	0.05	0.19	0.66
$\gamma$	+	1.98	0.28	0.60
$\Delta\gamma$	+	2.14	1.15	0.28
$\chi(\mathbf{IND})$	+	- 1.17	4.80	0.03
$\chi(E_{t-1})$	+	3.41	23.90	0.00
$\delta$	+	- 0.83	3.22	0.07
IND <sup>1</sup>		1.05	0.72	0.39
IND <sup>2</sup>		0.15	0.01	0.91
IND <sup>4</sup>		- 1.37	0.78	0.38
IND <sup>3,5</sup>		- 6.87	0.38	0.54
<i>S</i> ( <i>t</i> )	+	0.66	1.75	0.19

*(C) Hits of predicted consolidation policy*

CHO	Number of actual CHO	Number of hits	Fraction hits
<i>E</i> (equity method)	51	34	0.67
<i>C</i> (cost method)	80	73	0.91
<i>EUC</i> (all)	131	107	0.82

Based on a subsample of 131 investments between 19% and 50%, the table shows statistics of the logit regression evaluated at

$$\beta^T \mathbf{x}_{ijt} = \beta_0 + \beta_1 \text{INF}_{ijt} + \beta_2 \text{DUR}_{ijt} + \beta_3 \gamma_{ijt} + \beta_4 \Delta\gamma_{ijt} + \beta_5 \chi(\mathbf{IND}_{ij}) + \beta_6 \chi(E_{t-1}) + \beta_7 \delta_{ijt} + \beta_{8-11}(\mathbf{IND}_i) + \beta_{12} S(t)$$

The log-likelihood ratio is reported in Panel A, the parameter estimates of the unrestricted model are in Panel B, and the actual versus predicted accounting-method choice is shown in Panel C.

INF is the voting equity held in an investee relative to the holdings of the largest of the remaining owners. DUR is the number of consecutive years up to and including the current year that the investment is at least 19%.  $\gamma$  is the fraction of voting equity held by the investor in the investee.  $\Delta\gamma$  is the difference between the fraction held this year and last year.  $\chi(\mathbf{IND})$  equals one if the investor and the investee are in the same industry, and zero otherwise.  $\chi(E_{t-1})$  equals one if the equity method was used last year, and zero otherwise.  $\delta$  is the absolute percentage change in the investor's reported earnings if the equity method had been used instead of the cost method. *S*(*t*) equals one if the current year is 1990 or later, and zero otherwise.

Likelihood ratios are  $\chi^2_1$  distributed. Critical values at the .10 and .01 levels are 2.71 and 6.63, respectively. Degrees of freedom in the log-likelihood ratio equals the number of restricted parameters, which is  $1 \times 12$ . The  $\chi^2$  statistic is computed as  $-2(\ln L_{\text{restr.}} - L_{\text{unrestr.}})$ , where *L* is the log-likelihood function.

prediction that simply assigns the same probability to both methods. Such a model would be correct in half of the cases, which is clearly inferior to our model. A more demanding alternative is a prediction rule based on the actual fraction of investments accounted for by the equity method in our sample, which is 39% (from column 2 of Panel C). If one knows this ratio, but has no firm-specific information about each individual investment's score on the GAAP criteria, such a model would predict that the cost method is the most likely alternative and, hence, the best prediction for each of the 131 cases. This rule would be correct 61% of the time, which, again, is less than the 82% hit ratio of our estimated prediction model. This finding is consistent with what we learned from the significant parameters in Panel B. Knowing the industry of the investee and whether it was accounted for by the equity method last year helps predict the accounting-method choice in the current year.<sup>19</sup>

## **7. Summary and conclusion**

Compared with the United States and the E.U. countries, Norwegian GAAP give firms considerably more discretion on whether to account for intercorporate investments by the partially consolidating equity method or the simpler, nonconsolidating cost method. Once the investment satisfies the GAAP criteria of significant influence, strategic importance, and long-term commitment, adoption of the equity method is still voluntary by corporate law, although strongly recommended by regulators and enforceable by the OSE. Under such a flexible accounting standard, we ask to what extent the firm's accounting-policy decision produces the information intended by the regulators. We answer this question by analyzing whether intercorporate investors using the equity method are more influential, strategic, and long-term owners than investors using the cost method.

Our major finding is that a firm's score on the GAAP criteria is not systematically related to the firm's choice of accounting method. This means we do not find support for the hypothesis that the regulators' intent is reflected in the observed accounting practice. This noncompliance implies that a firm's external analysts cannot use the observed choice between the cost method and the equity method to infer the underlying characteristics of the investment as specified by the standard (influential, strategic, long term). In this respect, the flexible GAAP does not produce informative accounting statements.

Still, the observed reporting behavior may reveal valuable information of a different kind. First, under a flexible regime, rational owners will only use the reporting alternative with the highest preparation costs (the equity method) if it also produces an offsetting benefit. For most of our sample firms with high scores on the GAAP consolidation criteria (i.e., strong influence, strategic importance, and lasting commitment), the consolidation benefits are too small to justify the extra reporting costs. This means the firm's perceived net benefit of the equity method does not increase with increasing scores on the GAAP

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<sup>19</sup> To check for robustness, we tested a reduced regression model by removing any variable whose coefficient is insignificantly different from zero at the 10% level. The two significant coefficients of the full model retain their signs, and there are only minor changes in their absolute values.

consolidation criteria. Second, as noted in the Introduction, a natural extension of this paper's focus on compliance per se is earnings management, which asks whether other determinants than the GAAP are driving the accounting-policy decision. For instance, when exploiting the inherent flexibility of the standard, managers may choose the accounting method that maximizes reported earnings to extract private benefits from bonus contracts or choose the earnings minimizing alternative to reduce the firm's political costs. Therefore, the full story of how flexible accounting standards influence information production cannot be told until one also understands the link to earnings management. Considering the complexity of the earnings management problem and the opportunity offered by the regulatory framework to study compliance *per se* in a detailed way, we have chosen to ignore earnings management in this paper.<sup>20</sup>

In a survey paper on the relationship between financial disclosure and stock prices, Healy and Palepu (1993) ask for more research on what type of accounting principles will facilitate the communication between the firm and the stock market. "For example, is communication more effective when standards are detailed but rigid, as in the United States, or is it more effective to have broad guidelines, leaving managers considerable reporting discretion?" (Healy & Palepu, 1993, pp. 8–9). Our findings suggest that flexible accounting standards may create noisy and confusing communication. This problem is further illustrated by the fact that Norwegian regulators are currently considering making the equity method mandatory for every firm that satisfies the formal consolidation criteria explored in this paper. Our analysis suggests that because these criteria will still be open to interpretation and judgment by the information provider, making the equity method compulsory once the flexible criteria are met will not solve the inherent communication problem of the GAAP.

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<sup>20</sup> Böhren and Haug (2003) study how firms use the cost/equity choice to manage earnings. They find that managers of firms do not use the flexibility of the GAAP to reap personal benefits or to signal revised expectations about the firm's future prospects. However, highly levered firms choose between the equity method and the cost method in a way that maximizes reported earnings, possibly to reduce political costs or the renegotiation costs of debt covenants.

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