

**Erasmus School of Economics**

**MSc Accounting & Auditing**



**Master Thesis**

**Evidence on the relation between income statement presentation  
and earnings management: An IFRS setting**

**Abstract**

Following the IASB concerns with regard to line item presentation in a firm's financial statements, this thesis examines the relation between income statement presentation and earnings management. Specifically, the relation between the 'Operating Income' line item in firms' income statements and accrual-based earnings management is explored. I find that (1) firms that do not provide the 'Operating Income' line item on the face of their income statements engage in earnings management through accruals to a greater extent, and that (2) firms providing the 'Operating Income' line item on the face of their income statements engage to a lesser extent in earnings management through income-decreasing accruals. These results reveal that firms are currently able to use certain flexibility in the IFRS standards in order to hide earnings management. My findings contribute to the ongoing debate whether the IASB and FASB should adjust regulations with regard to financial statement presentation.

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## 1. Introduction

Since the adoption of IFRS as required financial reporting standards, line item presentation in firm's financial statements remains an issue of interest. In 2008, the IASB expressed its concerns about the little specific guidance that IFRS offered with respect to line item presentation in firms' financial statements (IASCF, 2008). According to the IASB, existing requirements would yield too many forms of financial statement presentation. As a reaction, the IASB and FASB jointly launched a project called "Financial Statement Presentation", aimed to improve the usefulness and transparency of financial statement information. One of the projects' proposed requirements was that entities should disaggregate line items in their income statements when such presentation is useful in understanding a business' activities. Ultimately, the IASB and FASB boards issued a staff draft, setting out overall requirements for financial statement structure and principles for classification and disaggregation of information in the statements. This draft, however, only represents tentative decisions made by the IASB and FASB boards, and therefore does not change current accounting and reporting requirements. Firms therefore still have the freedom to vary in their income statement formats. According to studies approaching earnings management from an opportunistic point of view (e.g. Healy & Wahlen 1999, Healy & Palepu 1993, Holthausen 1990), this can create incentives for firms to manage earnings, as the income numbers is generally seen as firms' key performance measure. In order to shed some light on whether firms have certain motives to vary in their presented income statement format, I study whether a relation exists between income statement presentation and earnings management. Specifically, I examine whether an association exists between firms that do not provide the 'Operating Income' line item on the face of their income statements and accrual-based earnings management. The research question of this study therefore is:

*RQ: "Do firms tend to hide the 'Operating Income' line item in their income statements when they engage in accrual-based earnings management?"*

Prior studies (e.g. Hirst and Hopkins 1998, Lin et al. 2012, Kim et al. 2012) have found associations between financial statement presentation and earnings management. For instance,

Hirst and Hopkins (1998) find that more transparent disclosures of comprehensive income facilitates detection of earnings management by financial analysts. Lin et al. (2012) compare single-step and multiple-step income statements, where the latter one is considered to be more transparent and disaggregated. They find that the multiple-step income statement is associated with less earnings management than the single-step income statement format. Kim et al. (2012) find that corporate social responsibility (CSR) firms, which are considered to report accounting numbers in a more transparent way, engage to a lesser extent in earnings management. For the purpose of this study, a sample consisting of European listed firms was obtained from the Bloomberg database. The time window of this study spans from 2010 to 2014, as 2014 is the most recent year for which all needed data was available. The starting point of 2010 was chosen to avoid 2007, 2008, and 2009, as these years are likely to be influenced by the effects of the financial crisis. Earnings management in this study is operationalized by discretionary accruals, for which I both take into account absolute and signed values.

I find associations between income statement formats and earnings management. Specifically, I find that firms hiding the ‘*Operating Income*’ line item engage in earnings management through accruals to a greater extent. I also find evidence that firms providing the ‘*Operating Income*’ line item engage to a lesser extent in earnings management through income-decreasing accruals. These findings are consistent with firms’ motives to vary in their presented income statements formats. To isolate the effects of other factors, which could cause spurious relations between my variables of interest, I control for firm size, firm leverage, book-to-market ratio, return on assets, and year and industry fixed effects.

The findings of this study are relevant for several reasons. They are of interest to policymakers aiming to improve the usefulness and transparency of financial statement information. In particular, the study is relevant for the IASB and FASB, following their concerns that financial statement users currently face difficulties to understand the relation between firms’ financial statements and their financial results. Furthermore, my evidence has important implications to investors and other stakeholders. If different income statement formats imply different levels of earnings management, my findings can be useful to these investors and other stakeholders in differentiating firms participating in earnings management from firms that do not. This study thereby contributes to the existing literature by being the first one (to my best

knowledge) exploring the relation between a very specific part of the income statement (the ‘Operating Income’ line item) and earnings management in an IFRS setting.

Despite addressing several interpretation and measurement errors, this study consists of at least three limitations which I take into account. First, I ignore the effects of possible measurement errors of my earnings management model. Currently, no single model to detect earnings management is considered to be perfect. Prior research indicated measurement errors with respect to the Modified-Jones model as well, leading to potential misspecification in my earnings management model. A suggestion for future research would be to incorporate other earnings management proxies, or use multiple proxies for measuring earnings management.

Second, only a small percentage of the firms in my sample did not provide the ‘Operating Income’ line item (or an equivalent of it) on the face of their income statements. One can therefore question whether the part of firms that did not provide this line item yields a representative sample. I am therefore very careful with generalizing these results to other settings. A suggestion for future research would be to include more firms or years to obtain a larger sample, thereby countering this problem.

Third, this study only investigates the ‘Operating Income’ line item as an indicator for transparency in income statements. When evaluating whether the efforts of the IASB and FASB are on point, one should also take into account many other aspects of the income statement (e.g. number of line items, degree of disaggregation, and presentation on the face of the income statement versus presentation in the notes) in order to make more reliable judgments. Therefore, I suggest evaluating other aspects of income statements for future research.

## **2. Literature review**

### *2.1 Earnings management*

The earnings number is generally recognized as the key measure of a firms’ performance, used by a broad range of users (Dechow P. M., 1994). For example, earnings numbers are used by investors and creditors, but also in executive compensation plans and in debt covenants. As the earnings number is generally seen as a firms’ key performance measure, firms can have incentives

to 'manage earnings'. From an informative point of view, an incentive for firms to engage in earnings management could be to better reflect the true value of its earnings number. In line with this, Subramanyam (1996) and Jiraporn et al. (2008) argue that earnings management may be beneficial because it potentially improves the ability of earnings to reflect economic value. Contrary to the informative point of view, studies approaching earnings management from an opportunistic point of view argue that firms manage earnings for their own instance by misreporting earnings rather than providing more information (e.g. Healy & Wahlen 1999, Healy & Palepu 1993, Holthausen 1990). In line with the opportunistic point of view, Healy and Wahlen (1999) state "earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting practices." Scott (2012) defines earnings management as "the choice by a manager of accounting policies or real actions, affecting earnings so as to achieve some specific reported earnings objective".

Concentrating on the opportunistic point of view, Healy and Wahlen (1999) provide three basic motivations why firms engage in earnings management: capital market motivations, contracting motivations, and regulatory motivations. Regarding capital market motivations, firms can have incentives to manage earnings in order to influence short-term stock price performance. These incentives are driven by firms' attempts to understate earnings prior to management buyouts (Perry & Williams, 1994), to overstate earnings prior to seasoned equity offers (Teoh, Welch, & Wong, 1998), and to manage earnings to meet analysts' forecasts (Burgstahler & Eames, 2006). Contracting motivations are driven by the fact that earnings numbers are used in many contracts. Watts and Zimmerman (1978) state that debt contracts, which are written to ensure that a firm does not take certain actions at the expense of the firms' debtholders, create incentives for firms to manage earnings as it is costly for creditors to discover whether firms manage earnings. In addition, Dichev and Skinner (2002) find strong evidence that firms close to violations of debt covenants appear to manage earnings. Healy (1985) examines whether compensation contracts create incentives for firms to manage earnings. He finds that bonus schemes create incentives for managers to select accounting procedures to maximize the value of their bonus awards. Regulatory motivations typically comprise industry regulations and anti-trust and other regulations. Some

industries, like the banking industry, face regulatory monitoring explicitly based on accounting data (Healy & Wahlen, 1999). Banking regulations generally require banks to meet certain capital requirements, based on accounting numbers. Moyer (1990) finds evidence that commercial banks adjust certain accounting ratios in order to reduce regulatory costs. Kanagaretnam et al. (2013) find that earnings quality of banks is higher in counties with stronger (extra-)legal and political institutional structures. Other forms of regulation can also provide firms with incentives to manage earnings. For example, firms that are more likely to be under anti-trust investigation tend to manage earnings downward in order to appear less profitable (Watts & Zimmerman, 1978).

According to Fields et al. (2001), accounting choices made by firms are structured around market imperfections that make accounting important in a given setting. The classification of accounting choices around market imperfections stems from the hypothesis that accounting is important for three reasons. First, accounting plays an important role in mitigating agency costs. In contracting settings, ex-post accounting choices may be made to increase compensation or to avoid violating debt covenants. In this case, accounting choices are made to achieve one or more of these goals, thereby creating potential conflicts between contract parties (Fields, Lys, & Vincent, 2001). Second, accounting plays a significant role with regard to information asymmetries. Here, accounting choice can provide a useful tool for communication between well-informed and less well-informed market parties. For example, by making certain accounting choices, a firm presenting financial statements can provide less well-informed financial statement users with information about the timing and risk of future cash flows. However, firms can also use this mechanism to make self-serving accounting choices (Levitt, 1998). An example of this is that managers make certain accounting choices to increase the earnings number because they believe that this will lead to a higher stock price. Third, accounting plays a role in influencing external parties other than the owners of a firm. Examples of external parties are suppliers, competitors and regulators. By making certain accounting choices, firms try to influence the decisions made by these external parties. Although accounting choice is not the same concept as earnings management, Fields et al. indirectly provide explanations why firms manage earnings, as accounting choices made by firms to achieve certain objectives are in line with the idea of earnings management.

Burgstahler and Dichev (1997) state that firms have incentives to manage earnings in order to avoid earnings losses and decreases, which is in line with anecdotal evidence. Managers frequently mention the importance of earnings increases in annual reports, which explains their deliberate efforts to maintain an earnings-increasing figure. Examining firms' earnings data in the 1976-1994 period, Burgstahler and Dichev find that eight to twelve percent of firms manage earnings to avoid earnings decreases. In addition, they find that 30-44 percent of firms manage earnings in order to avoid small losses, leading to a positive earnings figure. With these findings, Burgstahler and Dichev support evidence of earlier studies stating that firms have incentives to maintain an increasing earnings pattern (e.g. Barth et al. 1995, DeAngelo et al. 1996, Hayn 1995).

Another well-known incentive for firms to manage earnings relates to meeting or just beating analysts' forecasts of earnings. For instance, Bartov et al. (2002) document that manager's emphasis is largely placed on whether a firm meets analysts' forecasted earnings. The importance that firms assign to meeting earnings forecasts is not unforeseen, as the earnings number is generally seen as the key measure of a firms' performance. Together with McGee (1997) and Vickers (1999), Bartov et al. however argue that firms do not only rely on observing whether analysts' expectations are met. Rather, firms engage actively in earnings management in order to meet earnings forecasts. The primary reason for firms to meet its earnings forecasts relates to the reward that it receives from investors. If a firm is able to present a quarter ending with a positive earnings surprise instead of a negative earnings surprise, its average return is significantly higher. These findings explain why Hayn (1995) finds a point of discontinuity around zero in the earnings-to-price distribution, suggesting that firms whose earnings are expected to fall below the forecasted earnings benchmark deliberately make efforts to still meet its forecasted earnings.

## *2.2 Accrual-based earnings management*

Together with cash flows, accruals make up the earnings of a firm (Sloan, 1996). Dechow (1994) has investigated both cash flows and accruals as measures to reflect firm performance. This study highlights the importance of a measure to report firm performance over a finite interval, as such a measure enables firms to (re)contract and to reward and evaluate management. Over the whole lifetime of a firm, earnings equal cash flows, which suggests that cash flows best reflects long-term firm performance. However, from a short-term viewpoint, cash flows generally suffer



from timing and matching problems, as the benefits and costs of a firms' businesses are often measured in the wrong period (*timing* problem) or are not matched with each other in the same period (*matching* problem). Therefore, cash flows are not considered to be a proper measure for firm performance over finite intervals. To mitigate the timing and matching problems of cash flows, firms frequently adjust accruals to better reflect (short-term) firm performance. This phenomenon is also recognized by generally accepted accounting principles (FASB, Elements of Financial Statements, 1985). For example, a firm can use deferred revenue as an accrual if the cash flow from a sale precedes the recording of it.

A potential problem of adjusting accruals, however, is that firms largely adjust accruals to mislead stakeholders and misreport earnings rather than better reflecting its true performance. Firms participating in accrual-based earnings management try to manage earnings by manipulating accruals, in which the part of accruals that is 'being managed' are called discretionary accruals (Schipper, 1989). To provide a more general definition of accrual-based earnings management, Zang (2012) states "accrual-based earnings management is achieved by changing the accounting methods or estimates used when presenting a given transaction in the financial statements." The author refers to changing the depreciation method for fixed assets and changing estimates for provision for doubtful accounts as examples. By doing so, firms are able to manage earnings in a certain direction without changing the underlying transactions. As Roychowdhury (2006) states, accrual-based earnings management is a way of managing earnings with no direct cash flow consequences. In addition to the studies of Schipper (1989) and Zang (2011), literature regarding earnings management generally focused on accrual-based earnings management. Bergstresser and Philippon (2006) assess the relation between earnings manipulation and the power of CEO equity-based incentives, where they find evidence that firms tend to manipulate discretionary accruals if the CEO's compensation is linked to the value of stocks and options held. Klein (2002) examines whether firms with independent audit committees manipulate discretionary accruals to a lesser extent. As expected, she finds a negative relation between earnings management and firms with independent audit committees, where a significant relation is only found when the audit committee comprises a majority of dependent directors. Pope et al. (2005) conducted two studies regarding accrual-based earnings management, both in a United Kingdom setting. They document that firms' outside board members negatively influence the use of income-increasing abnormal accruals by

managers (Peasnell, Pope, & Young, 2005). They thereby provide evidence that the chance of abnormal accruals being sufficiently large to turn losses into profits is significantly lower for firms with a greater portion of outside board members. These findings are in line with the general prediction that outside board members have a positive effect on the integrity of a firms' accounting numbers. In a seemingly comparable study, published in 2000, Pope et al. examine whether the relation between board compositions and accrual-based earnings management differs in the period before and after the Cadbury Report (Peasnell, Pope, & Young, 2000). According to this study, accrual-based earnings management is used in both periods by UK firms to meet earnings targets. Furthermore, in the period after the Cadbury Report, the study provides evidence of less earnings management if a firms' board consists of relatively more non-executive directors.

### *2.3 Income statement presentation*

In 2002, the European Union adopted IFRS as the required financial reporting standards for the consolidated financial statements of all European companies whose debt or equity securities trade in a regulated market in Europe, effective in 2005 (IFRS Foundation, IFRS application around the world. Jurisdictional profile: European Union, 2015). This means that since 2005, all EU listed firms are required to prepare their financial statements using IFRS. Financial statement preparers under IFRS should follow the overall requirements for financial statement presentation, which are set out in IAS 1 *Presentation of Financial Statements* (Deloitte, IAS 1 - Presentation of Financial Statements, sd). IAS 1 includes prescriptions how financial statements should be structured as well as minimal requirements for financial statement contents. IAS 1 was issued in 2003 and should be applied for annual periods beginning on or after 1 January 2005. The IASB however issued a revised IAS 1 in 2007, effective for annual periods beginning on or after 1 January 2009. This revised version contains some major changes when compared to the previous version. According to the revised version, an entity should either present a single income statement, with profit or loss and other comprehensive income presented in two sections, or present two statements, consisting of a separate statement of profit or loss and a separate statement of comprehensive income. These statements must present four sections: profit or loss, total other comprehensive income, comprehensive income for the period, and an allocation of profit or loss and comprehensive income for the period between non-controlling interests and owners of the parent (IAS 1.81A). With regard

to the profit or loss section, entities should disaggregate line items when such presentation will enhance the usefulness of the information in predicting future cash flows.

After the issuance of the revised version of IAS 1 in 2007, financial statement presentation remained a heavily debated topic. In 2008, the IASB expressed its concerns about the little specific guidance that IFRS offered with respect to line item presentation in a firms' financial statements (IASCF, 2008). According to the IASB, existing requirements would yield too many forms of financial statement presentation. This resulted in highly aggregated information and inconsistently presented financial statements, leaving users with difficulties to understand the relation between a firms' financial statements and its financial results. For example, no specific guidance was offered with respect to the level of detail or to the number of line items that should be presented. According to the IASB, absent guidance on these matters results in inconsistency in the level of (dis)aggregation among firms. As one of the missions of IFRS is to bring transparency by enhancing the international comparability of financial information, highly aggregated and inconsistently presented financial statements are not desirable (Christensen, Hail, & Leuz, 2013). The IASB stated that such aggregation would hinder financial statement users to examine the relation between revenue and costs with regard to a firms' main business activities as well as analyzing those activities across an industry. Furthermore, insufficient disaggregation would create difficulties for users to assess how certain line items relate to other information as provided in the financial statements. The IASB therefore concluded that IFRS' regulation regarding line item presentation until 2008 hindered financial statement users to understand and analyze a firms' activities to an unacceptable extent. As a result, the IASB and the FASB launched a project called 'Financial Statement Presentation' (Deloitte, sd). The IASB's and FASB's joint viewpoint that information in financial statements was too highly aggregated and inconsistently presented ultimately led to a staff draft, issued on the first of July, 2010, and named 'Staff Draft of Exposure Draft IFRS X *Financial Statement Presentation*' (IFRS Foundation, 2010). This staff draft, constructed to develop a standard on financial statement presentation, sets out overall requirements for financial statement structure and principles for classification and disaggregation of information in the statements. The staff draft, however, only represents tentative decisions made by the IASB and FASB boards, and therefore does not change current accounting and reporting requirements. Decisions made by the board will only become effective after extensive due process (FASB, sd).

On June 24 2010, the boards decided to participate in additional outreach activities before finalizing and publishing a final draft (Deloitte, sd). The IASB and FASB therefore discontinued the project at that date. The staff draft was issued to seek informal comment on the decisions made until that date in the project.

The IASB's actions to prevent highly aggregated financial statement information are in line with Demski's model of accounting choice. According to Demski, any degree of disaggregation provides users with some extra information (Demski, 1973). On the other hand, standard setters have argued that a high degree of disaggregation would burden financial statement preparers and users. According to the FASB in 1984, financial statements involved needs to simplify, condense, and aggregate information (FASB, 1984). Beside the discussion whether and to which extent to (dis)aggregate financial statement information, location of information also plays an important role. According to Libby and Brown, financial statement users' perception of information relevance decreases when disaggregated information is presented in the notes instead of on the face of the income statement (Libby & Brown, 2013). More specifically, Libby and Brown examine whether line items are relevant materiality benchmarks for auditors, concluding that switching disaggregated information from the face of the income statement into the notes eliminates their relevance as materiality benchmarks. Bonner et al. (2013) argue that managers' disaggregation preferences are in line with the assumptions of the mental accounting theory. The mental accounting theory implies that disaggregation or aggregation will be preferred depending on whether items are gains or losses and on their magnitudes (Thaler, 1999). Managers prefer to disaggregate gains and losses when such disaggregation portrays the accounting numbers in a more favorable way for the firm (Bonner, Clor-Proell, & Koonce, 2013).

Whereas many prior research has focused on the relation between certain forms of financial statement presentation and earnings management (e.g. Hirst and Hopkins 1998, Hunton et al. 2006, Kim et al. 2012), only a few have explored the relation between income statement presentation and earnings management. McVay (2006) examines the classification of items within the income statement as an earnings management tool. She finds evidence that managers opportunistically shift expenses from core expenses to special items. This method overstates core earnings, but does not change bottom-line earnings. McVay thus provides evidence that managers use certain flexibility in their income statement presentation when engaging in earnings management.

Lin et al. (2012) compare single-step and multiple-step income statements, where the latter one provides a more transparent and informative presentation of financial information than the single-step income statement. They explore the association between the income statement format and earnings management through classification shifting and accruals management, finding that the multiple-step income statement format is associated with less classification shifting and accruals manipulation than the single-step or other income statement formats. These findings provide direct evidence of how income statement presentation may affect the level of earnings management (Lin et al., 2012).

### **3. Hypotheses development**

The findings of studies like Libby and Brown (2012) and Bonner et al. (2013) are of great importance for standard setters, as questions have arisen whether to implement regulation regarding to (dis)aggregation of income statement numbers and to the location of income statement information. Despite the IASB and FASB efforts, little reporting guidance exists regarding income statement disaggregation, which yields a large extent to which managers have the flexibility to (dis)aggregate and locate income statement numbers. An example of this freedom is that a firm can decide whether or not to incorporate the ‘Operating income’ line item in its income statement. Operating income is the amount of profit realized from a firm’s operations minus the firm’s operating expenses and depreciation (McVay, 2006):

$$\text{Operating Income} = \text{Gross Income} - \text{Operating Expenses} - \text{Depreciation \& Amortization}$$

In this equation, gross income is calculated as the difference between revenues and cost of goods sold. Operating expenses involve expenditures incurred by a firm as a result of performing its business operations, such as R&D expenditures and wages. Operating Income is also commonly referred to as ‘Operating profit’ or ‘Recurring profit’.

Multiple ways to manage earnings exist for firms. In line with the studies of Healy and Wahlen (1999), Fields et al. (2001) and Schipper (1989), one way for firms to manage earnings is

by manipulating accruals. By doing so, firms largely adjust accruals to mislead stakeholders and misreport earnings rather than better reflecting its true performance. Dechow, Sloan and Sweeney (1996) find that an important motivation for firms to manage earnings is the desire to achieve a lower cost of capital. Firms try to do so by attracting external financing at low cost. Burgstahler and Dichev (1997) state that firms tend to manage earnings in order to avoid earnings losses and decreases. Bartov et al. (2002) document that firms tend to manage earnings in order to meet or just beat analysts' forecasts of earnings.

Beside the benefits, costs related to exercising earnings management also exist for firms. These costs generally arise when earnings management within firms is detected by stakeholders or outside parties. Dechow et al. (1996) find that capital markets impose large costs on firms revealed to have managed earnings. Firms' stock prices drop, on average, by nine percent when the alleged earnings manipulations are made public. Identifying earnings management by capital markets is also associated with an increasing gap in the bid-ask spread, a decrease in analysts following the firm, an increase in short-term interest, and a higher degree of divergence in analysts' forecasted earnings (Dechow, Sloan, & Sweeney, 1996). Firms also face higher costs of capital when their earnings manipulation is announced. Accounting scandals such as the ones of Enron and Worldcom have also made clear the potential costs of earnings management. Revelation of such large-scale earnings manipulation usually results in a quick and abrupt failure of the corporation, often in a span of just weeks or months (Dharan, 2003). The earnings manipulation exercised largely by the once-admired and powerful firms Enron and WorldCom have ultimately led to bankruptcy and enormous shareholder value destruction.

Although many benefits for firms managing earnings exist, the costs of revealed earnings manipulation are high for firms. In order to avoid such losses, I predict that firms will make efforts to hide earnings management if they engage in it. A logical move for firms engaging in earnings management is not to provide a high degree of insight in its accounting numbers. In other words, firms that engage in earnings management will have incentives to maintain a certain degree of information asymmetry between itself and its stakeholders, thereby minimizing the chance that stakeholders (or outside parties) will detect exercised earnings management. According to Richardson (2000), information asymmetry between firms and investors must be in place for earnings management to exist. This finding is in line with the study of Schipper (1989), stating that

a high degree of information asymmetry causes firms to engage in earnings management. In addition, Leuz (2000) finds that a higher level of disclosure reduces information asymmetries between firms and shareholders.

Hirshleifer and Teoh (2003) specifically address the effects of different ways of presenting information on investors. According to their study, the form in which information is made public to investors plays an important role, as investors are generally seen as imperfect processors of such information. Salient presented information is processed more easily by investors than less salient presented information (Hirshleifer & Teoh, 2003). Besides, investors do not adequately see through strategic incentives of firms to manipulate investors' perceptions about information disclosures. Furthermore, Libby and Brown (2013) find that financial statement users' perception of information relevance decreases when disaggregated information is presented in the notes instead of on the face of the income statement. They thereby conclude that switching disaggregated information from the face of the income statement into the notes eliminates their relevance as materiality benchmarks. These findings indicate that the location of information plays a crucial role.

Kieso et al. (2010) provide evidence for alternative means of presentation of income statements, discussing presentation of operating income and non-operating income items. According to their study, distinguishing between operating income and non-operating income yields a more transparent income statement for users, as revenues and expenses are linked to their categories. This finding creates incentives for firms that engage in earnings management to not provide the 'Operating income' line item in their income statements. The findings of Kieso et al. imply that stakeholders or outside parties can more easily detect earnings management for firms that provide the 'Operating income' line item. Furthermore, stakeholders or outside parties could more easily detect accrual-based earnings management in this case, as providing the 'Operating income' line item allows operating accruals to be easily calculated by subtracting cash flows from operating activities from the operating income.

To summarize, I predict that firms that engage in accruals-based earnings management have incentives to hide the 'Operating income' line item on the face of their income statements. By doing so, firms are able to maintain a certain degree of information asymmetry between themselves and their stakeholders. This leads to the following hypothesis:

*H1: Firms that do not provide the 'Operating Income' line item on the face of their income statements engage in accrual-based earnings management to a greater extent.*

Kim et al. (2012) examine whether socially responsible firms behave differently from other firms in their financial reporting. Specifically, they study whether corporate social responsibility (CSR) firms stay away from participating in earnings management by offering more transparent financial reports to users, compared to firms who cannot be considered to be socially responsible. They find that transparently financial reporting firms engage to a lesser extent in earnings management through both income-increasing and income-decreasing accruals. In line with the study of Kim et al. (2012), I predict that firms providing the 'Operating Income' line item (or an equivalent of it) engage to a lesser extent in earnings management through both income-increasing and income-decreasing accruals. The rationale behind this expectation is that firms providing the 'Operating Income' line item (or an equivalent of it) can be considered as more transparently financial reporting firms (Kieso, Weygandt, & Warfield, 2010). This leads to the following two hypotheses:

*H2a: Firms that provide the 'Operating Income' line item on the face of their income statements engage to a lesser extent in earnings management through income-increasing accruals.*

*H2b: Firms that provide the 'Operating Income' line item on the face of their income statements engage to a lesser extent in earnings management through income-decreasing accruals.*

## **4. Research design**

### *4.1 Econometrical model*

To capture the relation between earnings management and the 'Operating Income' line item, I estimate the following models:



$$H1: \text{abs\_DA}_t = \alpha_0 + \alpha_1 \text{OILI}_t + \alpha_2 \text{FS\_CV}_{t-1} + \alpha_3 \text{FL\_CV}_{t-1} + \alpha_4 \text{BTM\_CV}_{t-1} + \alpha_5 \text{ROA\_CV}_{t-1} + \text{Year\_dum} + \text{Industry\_dum} + \varepsilon_t$$

$$H2a: \text{DA}>0_t = \alpha_0 + \alpha_1 \text{OILI}_t + \alpha_2 \text{FS\_CV}_{t-1} + \alpha_3 \text{FL\_CV}_{t-1} + \alpha_4 \text{BTM\_CV}_{t-1} + \alpha_5 \text{ROA\_CV}_{t-1} + \text{Year\_dum} + \text{Industry\_dum} + \varepsilon_t$$

$$H2b: \text{DA}<0_t = \alpha_0 + \alpha_1 \text{OILI}_t + \alpha_2 \text{FS\_CV}_{t-1} + \alpha_3 \text{FL\_CV}_{t-1} + \alpha_4 \text{BTM\_CV}_{t-1} + \alpha_5 \text{ROA\_CV}_{t-1} + \text{Year\_dum} + \text{Industry\_dum} + \varepsilon_t$$

Where:

abs\_DA = the absolute value of discretionary accruals;

DA>0 = the signed (positive) value of discretionary accruals;

DA<0 = the signed (negative) value of discretionary accruals;

OILI = “Operating Income” line item variable;

FS\_CV = firm size control variable, measured as the natural logarithm of total assets;

FL\_CV = firm leverage control variable, measured as total liabilities scaled by total assets;

BTM\_CV = book-to-market ratio control variable, measured as the book value of a firm scaled by its market value;

ROA\_CV = return on assets control variable, measured as income before extraordinary items scaled by total assets;

Year\_dum and Industry\_dum = year and industry fixed effects.

I will use the ordinary least squares (OLS) estimation method with regard to the above regression models. As suggested by White (1980), I use robust standard errors in order to achieve a more consistent OLS estimator. The regression models seek to explore the relation between accrual-based earnings management (operationalized by discretionary accruals) and different income statement formats, based on the ‘Operating income’ line item. The coefficient  $\beta_1 \times \text{OILI}$  can therefore be considered as crucial. As this study hypothesizes a negative correlation between accrual-based earnings management and the presence of the ‘Operating income’ line item, I expect that higher levels of accrual-based earnings management are consistent with firms not providing

the ‘Operating income’ line item, and vice versa. I therefore expect a negatively signed  $\beta_1 \times \text{OILI}$  coefficient.

#### 4.2 Accrual-based earnings management model

Earnings management can be defined as the choice by a manager of accounting policies or real actions, affecting earnings so as to achieve some specific reported earnings objective (Scott, 2012). These earnings objectives are driven by several incentives. Examples are avoiding earnings losses and decreases, meeting or just beating analysts’ forecasts of earnings, and avoiding violation of debt covenants.

Firms participating in accrual-based earnings management try to manage earnings by manipulating accruals, in which the part of accruals that is ‘being managed’ are called discretionary accruals (Schipper, 1989). Many prior studies on earnings management (e.g., Klein 2002; Kothari et al. 2005; Bergstresser and Philippon 2006; Kim et al. 2012) focused on discretionary accruals to operationalize earnings management. In line with these studies, I use discretionary accruals to measure earnings management. Dechow et al. (1995) stated that among all discretionary accrual models, the Modified-Jones model is considered to be most powerful for detecting earnings management. Based on this finding, I use this model to estimate discretionary accruals.

Following the studies of Kothari et al. (2005) and Kim et al. (2012), I use residuals from the annual Modified-Jones regression model as estimates of a firm’s discretionary accruals.

Specifically, I estimate the following regression:

$$TA_t = \alpha_1(1/A_{t-1}) + \alpha_2(\Delta REV - \Delta REC)_t + \alpha_3(PPE_t) + \epsilon_t$$

Where:

$TA_t$  = total accruals scaled by total assets at  $t-1$ . As suggested by Collins and Hribar (1999), total accruals are calculated as  $EBXI_t$  (earnings before extraordinary items at  $t$ ) less  $CFO_t$  (Cash flow from Operations at  $t$ );

$A_{t-1}$  = total assets at  $t-1$ ;

$\Delta REV_t$  = revenues at  $t$  less revenues at  $t-1$ , scaled by total assets at  $t-1$ ;

$\Delta REC_t$  = Net receivables at  $t$  less net receivables at  $t-1$ , scaled by total assets at  $t-1$ ;

$PPE_t$  = Gross Property, Plant and Equipment at  $t$ , scaled by total assets at  $t-1$ .

In this study, I take into account both absolute and signed values of discretionary accruals. By doing so, I can both determine whether earnings management through accruals is in place, and whether it is earnings management through income-increasing or through income-decreasing accruals. Positive values of discretionary accruals are recognized as income-increasing accruals, negative values as income-decreasing accruals.

#### *4.3 Independent variable*

Although both IAS 1 and the released staff draft by the FASB and IASB set out general requirements and guidelines for financial statement presentation, firms applying IFRS currently have a certain degree of freedom how to shape their income statements. This degree of freedom leads to variation in income statement presentation between firms. An example is that a firm can decide whether or not to incorporate the ‘Operating income’ line item in its income statement.

Based on the high costs of revealed earnings manipulation for firms, I predict that firms will make efforts to hide earnings management if they do engage in it. A logical move for firms that engage in earnings management is not to provide a high degree of insight in its accounting numbers. As Kieso et al. (2010) argue that distinguishing between operating income and non-operating income yields a more transparent income statement for users, I predict that firms that engage in earnings management tend to not provide the ‘Operating income’ line item in their income statements. Based on this, the ‘Operating income’ line item is the independent variable that takes a value of 1 for firms that provide this line item on the face of their income statements, and 0 otherwise.

#### *4.4 Control variables*

To study the relation between accrual-based earnings management and income statement presentation, it is important to control for other effects that could influence this relation. I therefore incorporate several control variables in this study to avoid a compromised relation between my variables of interest.

According to Watts and Zimmerman (1978), larger firms would face higher political costs compared to small firms, as larger firms would have a higher degree of analyst following and investor scrutiny. As these political costs could create an incentive for firms to manage earnings, I include *firm size* (*FS\_CV*) as a control variable, measured as the natural logarithm of total assets. Fung and Goodwin (2013) find that a higher level of leverage is positively associated with accrual-based earnings management. I therefore include *firm leverage* (*FL\_CV*) as a control variable in this study, measured as total liabilities scaled by total assets. Teoh et al. (1998) argue that firms with a higher book-to-market ratio are more inclined to manage earnings, stemming from the idea that firms with an expected growth in market value tend to participate in earnings management. I therefore include the *book-to-market ratio* (*BTM\_CV*) as a control variable in this study, measured as the book value of a firm scaled by its market value. In line with the study of Cohen and Zarowin (2010), I thereby incorporate a return on assets variable to control for firm profitability. I therefore include *return on assets* (*ROA\_CV*) as a control variable in this study, measured as income before extraordinary items scaled by total assets. Krishnan (2003) describes the use of dummy variables to control for industries. In line with his study, I control for industry fixed effects.

#### *4.5 Data and sample*

As previously mentioned, little reporting guidance exists regarding income statement disaggregation, which yields a large extent to which managers have the flexibility to (dis)aggregate and locate income statement numbers. Therefore, the time window taken in this thesis spans from 2010 to 2014, as 2014 is the most recent year for which all needed data is available. Furthermore, I want to avoid 2007, 2008, and 2009, as these years are likely to be influenced by the effects of the financial crisis. I therefore start from 2010 to reach a representative, five-year sample.

The sample will be taken from the STOXX Europe 600 Index, which is a subset of the STOXX Global 1800 Index. With an amount of 600 European small, mid, and large-sized companies, this index represents a relevant sample for my study. I use this European index as it allows me to obtain a sufficient large sample of IFRS firms. Sample data will be taken from the Bloomberg database for the 2010-2014 period. The advantage of using the Bloomberg database is that it allows the 'Operating Income' line item to be extracted as an 'as-reported' amount. This

allows for a larger amount of firm-year observations, as hand-picking data by screening each income statement of companies becomes unnecessary.

As stated in Table 1, the initial sample of the Bloomberg-database consisted of 3,600 firm-year observations. This is the result from taking the STOXX-600 sample for a six-year period, 2009-2014. I also incorporated 2009 in my sample as I needed some one-year lagged data as well. As Bloomberg just takes the most recent STOXX-600 list available, the initial sample ends up containing the same unique firms for each year. As some firms were not listed during the full period of 2010-2014, I was forced to drop these unlisted firms, leading to a subsample of 564 unique firms and 3,384 firm-year observations. After that, I also dropped missing values and excluded financial institutions, as the characteristics of accruals differ in these firms (Peasnell, Pope, & Young, 2000). This leads to the final sample of 2,052 firm-year observations for 416 unique firms.

I will split up the final sample in two groups. Firms that incorporate the ‘Operating income’ line item in their income statements are classified in the first group, whereas firms that do not are classified in the second group. In Appendix A, I provide two examples of income statement presentation: one income statement which shows the ‘Operating Income’ line item, and one that does not.

**TABLE 1 – Sample selection procedure**

Initial Sample (firm-year observations)	3,600
Initial Sample (unique firms)	600
Dropped unlisted firms	<u>- 36</u>
Subsample (unique firms)	564
Subsample (firm-year observations)	3,384
Missing <i>Total_Assets</i> observations	- 3
Missing <i>Total_Accruals</i> observations	- 564
Missing <i>Delta_REV_minus_REC</i> observations	- 533
Missing <i>Gross_PPE</i> observations	- 113
Missing <i>Total_Market_Value</i> observations	- 17
Excluded financial institutions	<u>- 102</u>
Final sample (firm-year observations)	2,052
Final sample (unique firms)	416

## 5. Results

### 5.1 Descriptive statistics

Table 2 presents the sample distribution according to industry, showing that the largest industry group is represented by Industrials (26.80%), followed by Consumer Discretionary (19.01%) and Materials (12.72%).

Table 3 provides descriptive statistics of the sample variables and correlations between these variables. All continuous variables are winsorized at the top and bottom one percent of their distributions. Table 4 shows a mean value of 3.3% for the absolute value of discretionary accruals. It also shows a low standard deviation of 3.5% for this variable, indicating that its values are concentrated around the mean. The signed value of discretionary accruals shows a mean which is very close to zero (-0.000), indicating that the firms in the sample both show positive and negative values of discretionary accruals. This can also be seen in the values of the minimum (-0.197) and the maximum (0.175).

The *Operating\_Income\_Line\_Item* variable is a dummy variable, which automatically means that the values of the minimum and maximum are 0 and 1, respectively. It shows a mean value which is close to zero (0.016), indicating that most of its observations have a value of 0. In this case, this indicates that most firms show the “Operating Income” line item or an equivalent of it in their income statements, which is in line with the findings of Table 3.

The remaining four variables (*Firm\_Size\_CV*, *Firm\_Leverage\_CV*, *BTM\_Ratio\_CV* and *ROA\_CV*) are control variables, implemented in the regression models to isolate the true relation between the dependent variable(s) and the variable of interest. All of these control variables except for *Firm\_Size\_CV* show a standard deviation of less than 0.3, indicating that their respective values are concentrated around the mean.

**TABLE 2 – Sample distribution by industry**

Industry classification benchmark	# of observations	% of sample	cumulative %
Consumer Discretionary	390	19.01%	19.01%
Consumer Staples	224	10.92%	29.92%
Energy	95	4.63%	34.55%
Health Care	190	9.26%	43.81%
Industrials	550	26.80%	70.61%
Information Technology	142	6.92%	77.53%
Materials	261	12.72%	90.25%
Telecommunication Services	95	4.63%	94.88%
Utilities	105	5.12%	100.00%
Total	2,052	100.00%	

**TABLE 3 – Descriptive statistics of the entire sample: main descriptive statistics**

Variable	Observations	Mean	St. Dev.	Minimum	Maximum
<i>Abs_DA</i> *	2,052	.033	.035	.000	.197
<i>DA</i> *	2,052	-.000	.048	-.197	.175
<i>OILI</i>	2,052	.016	.126	0	1
<i>FS_CV</i> *	2,052	22.838	1.561	19.350	26.330
<i>FL_CV</i> *	2,052	.593	.170	.173	1.034
<i>BTM_CV</i> *	2,052	.332	.209	-.027	1.209
<i>ROA_CV</i> *	2,052	.072	.065	-.063	.338

**Notes:** \*Variables are winsorized at the 5<sup>th</sup> and 95<sup>th</sup> percentiles to avoid the effects of outliers.

## 5.2 Correlation statistics

Table 4 shows Pearson correlation coefficients for the dependent, independent, and control variables. Correlation statistics provide insight whether and how strongly pairs of variables are related. A perfect positive (negative) correlation is achieved if the correlation coefficient between two variables reaches a value of 1 (-1), whereas a correlation coefficient of zero implies no relation

at all. As high correlation coefficients could imply biased results, it is important to interpret these coefficients between my regression model variables. Contrary to my hypothesis, both the absolute value of discretionary accruals (*abs\_Discretionary\_Accruals*) and the signed discretionary accruals variable (*Discretionary\_Accruals*) are not significantly correlated to the “Operating Income” line item variable (*Operating\_Income\_Line\_Item*).

The firm size and firm leverage control variables (*Firm\_Size\_CV* and *Firm\_Leverage\_CV*) are significantly and negatively correlated with the absolute value of discretionary accruals (*abs\_Discretionary\_Accruals*), contrary to prior research showing a positive relation between earnings management and the four control variables that I use. In line with this prior research is the positive and significant correlation between the return on assets control variable (*ROA\_CV*) and the absolute value of discretionary accruals (*abs\_Discretionary\_Accruals*). Regarding the discretionary accruals variable (*Discretionary\_Accruals*), only the firm leverage control variable is negatively and significantly correlated to it. The book-to-market ratio control variable (*BTM\_Ratio\_CV*) and the return on assets control variable (*ROA\_CV*) are both positively and significantly correlated with the signed discretionary accruals variable (*Discretionary\_Accruals*).

The correlation coefficients between all variables are relatively low, indicating that the results in my research will probably not be biased. I therefore conclude that the levels of correlation between my variables will not significantly affect the reliability of my regression model outcomes.

**TABLE 4 – Pearson correlation coefficients**

	1	2	3	4	5	6	7
1. <i>abs_DA</i>	1.0000						
2. <i>DA</i>	-0.2410***	1.0000					
3. <i>OILI</i>	-0.0372	0.0268	1.0000				
4. <i>FS_CV</i>	-0.2204***	0.0262	0.1211***	1.0000			
5. <i>FL_CV</i>	-0.0619***	-0.0477**	-0.0414	0.2144***	1.0000		
6. <i>BTM_CV</i>	0.0035	0.0433**	0.0307	0.1502***	-0.3850***	1.0000	
7. <i>ROA_CV</i>	0.1066***	0.1904***	-0.0071	-0.3063***	-0.3258***	-0.3475***	1.0000

**Notes:** \*\*, \*\*\* Indicate statistical significance at the 0.05 and 0.01 levels, respectively, based on a two-tailed test.



### 5.3 The relation between the ‘Operating Income’ line item variable and accrual-based EM

Table 5 presents the results of multivariate regression analyses of accrual-based earnings management, operationalized by discretionary accruals. I calculate discretionary accruals, which form the proxy for earnings management, by estimating the residuals from the annual Modified-Jones regression model. Following Kim et al. (2012), I take into account absolute and signed values of discretionary accruals. By doing so, I can both determine whether earnings management through accruals is in place, and whether it is earnings management through income-increasing or through income-decreasing accruals. In line with Kieso et al. (2010), I expect to find a negative relation between firms providing the ‘Operating Income’ line item (or an equivalent of it) and the magnitude of earnings management. The rationale behind this expectation is that providing the ‘Operating Income’ line item (or an equivalent of it) yields a more transparent income statement for users, enabling them to more easily detect earnings management. This creates an incentive for firms to not provide the ‘Operating Income’ line item (or an equivalent of it) if it engages in earnings management.

Kim et al. (2012) find that transparently financial reporting firms engage less in earnings management through both income-increasing and income-decreasing accruals. In line with this finding, I expect a negative relation between firms providing the ‘Operating Income’ line item (or an equivalent of it) and earnings management through income-increasing accruals. Besides, I expect a positive relation between firms providing the ‘Operating Income’ line item (or an equivalent of it) and earnings management through income-decreasing accruals.

I construct six regression models, divided in two groups. Both groups consist of the same three dependent variables: the absolute value of discretionary accruals ( $abs\_DA$ ), positive discretionary accruals ( $DA > 0$ ), and negative discretionary accruals ( $DA < 0$ ). The difference between both groups is that the second group (regression models 4, 5, and 6) controls for industry effects, whereas the first group (regression models 1, 2, and 3) does not.

In column 1 of Table 5, the results show a negative relation between the ‘Operating Income’ line item variable ( $OILI$ ) and the magnitude of earnings management ( $abs\_DA$ ). Although this positive relation was expected, the coefficient is not significant. In column 2, the results show a positive relation between  $OILI$  and the positive discretionary accruals variable ( $DA > 0$ ). This unexpected positive relation also yields a coefficient which is not significant. The results show a

positive and significant coefficient of 0.009 ( $p < 0.10$ ) in column 3, implying a significant relation between the ‘Operating Income’ line item variable (*OILI*) and the negative discretionary accruals variable ( $DA < 0$ ). This result also applies for column 6, where *OILI* and  $DA < 0$  are also positively and significantly related, showing a coefficient of 0.022 ( $p < 0.01$ ). Both findings suggest that firms that provide the ‘Operating Income’ line item (or an equivalent of it) engage to a lesser extent in earnings management through income-decreasing accruals. For column 4, a negative and significant coefficient of -0.010 ( $p < 0.05$ ) is found between *OILI* and *abs\_DA*, indicating that firms not providing the ‘Operating Income’ line item (or an equivalent of it) engage in earnings management through accruals to a greater extent. For column 5, a negative relation is found between *OILI* and  $DA > 0$ . Although this negative relation was expected, the coefficient is not significant.

For the first regression model (*abs\_DA*), I find that firm size (*FS\_CV*) is significantly and negatively related with *abs\_DA*, suggesting that larger firms are, in general, less likely to engage in earnings management through accruals. This finding is not in line with the study of Watts and Zimmerman (1978), which predicts that larger firms would engage in earnings management to a greater extent. However, other research provides explanations for a negative relation between firm size and earnings management. For instance, Kim et al. (2003) state that small-sized firms tend to engage in earnings management to a greater extent than large- or medium-sized companies in order to avoid reporting losses. My results also reveal that the book-to-market ratio (*BTM\_CV*) is significantly and positively related with *abs\_DA*, indicating that firms with a higher book-to-market ratio, in general, are more inclined to engage in earnings management through accruals. For the second regression model ( $DA > 0$ ), I find that firm size (negatively), firm leverage (positively), the book-to-market ratio (positively) and return on assets (positively) are all significantly related with  $DA > 0$ . This implies that, in general, firms that are smaller, more leveraged, have a higher book-to-market ratio, and have a higher return on assets ratio, are more inclined to engage in earnings management through income-increasing accruals. For the third regression model, I find that firm size and return on assets are both significant and positive related with  $DA < 0$ . This suggests that larger firms and firms with a higher book-to-market ratio, in general, are less inclined to engage in earnings management through income-decreasing accruals. For the second group (regression models 4, 5, and 6), I find the same results for the relations between the dependent variables and

the control variables, except for one variable. In regression model 4, the book-to-market ratio is, as opposed to regression model 1, not significantly related with *abs\_DA*. Overall, these results are only partly in line with prior research indicating positive relations between these four control variables and earnings management (e.g. Watts and Zimmerman 1978, Fung and Goodwin 2013, Teoh et al. 1998, Cohen and Zarowin 2010). I control for year effects by implementing year dummies in the regression models. Table 5 displays the coefficients for each of the five years for each regression model, showing no significant year effects on the regression models. Furthermore, including industry dummies into the three regression models (*abs\_DA*,  $DA > 0$ , and  $DA < 0$ ) slightly improves the reliability of these models by improving the adjusted  $R^2$ 's: The adjusted  $R^2$  of regression model 1 increases from 0.050 to 0.100, the adjusted  $R^2$  of regression model 2 increases from 0.147 to 0.158, and the adjusted  $R^2$  of regression model 3 increases from 0.058 to 0.138.

The regression results partly support my stated hypotheses. The negative and significant relation between *OILI* and *abs\_DA* (column 4 of Table 5) validates my first hypothesis (H1), implying that firms not providing the 'Operating Income' line item engage in earnings management through accruals to a greater extent. Columns 2 and 5 of Table 5 show insignificant relations between *OILI* and  $DA > 0$ . This does not validate my second hypothesis (H2a), stating that firms providing the 'Operating Income' line item in their income statements engage to a lesser extent in earnings management through income-increasing accruals. Columns 3 and 6 of Table 5 show positive and significant relations between *OILI* and  $DA < 0$ . This validates my third hypothesis (H2b), stating that firms providing the 'Operating Income' line item in their income statements engage to a lesser extent in earnings management through income-decreasing accruals.

**TABLE 5 - Multiple Regression of Accruals-Based Earnings Management on the “Operating Income”  
Line Item variable**

		<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>	<i>Column 5</i>	<i>Column 6</i>
		<i>ABS_DA</i>	<i>DA&gt;0</i>	<i>DA&lt;0</i>	<i>ABS_DA</i>	<i>DA&gt;0</i>	<i>DA&lt;0</i>
<i>OILI</i>	$\beta_1$	-0.003 (-0.81)	0.002 (0.35)	0.009* (1.93)	-0.010** (-2.05)	-0.001 (-0.24)	0.022*** (3.03)
<i>FS_CV<sup>a</sup></i>	$\beta_2$	-0.005*** (-8.75)	-0.003*** (-4.78)	0.006*** (6.95)	-0.005*** (-8.68)	-0.003*** (-4.88)	0.006*** (6.56)
<i>FL_CV<sup>a</sup></i>	$\beta_3$	0.008 (0.95)	0.032*** (2.89)	0.009 (0.83)	0.009 (1.18)	0.032*** (2.92)	0.010 (0.93)
<i>BTM_CV<sup>a</sup></i>	$\beta_4$	0.012* (1.82)	0.029*** (3.61)	-0.006 (-0.53)	0.009 (1.28)	0.028*** (3.37)	0.001 (0.04)
<i>ROA_CV<sup>a</sup></i>	$\beta_5$	0.041 (1.70)	0.193*** (5.76)	0.067* (1.95)	0.036 (1.53)	0.193*** (5.72)	0.081* (2.47)
Year FE		Yes	Yes	Yes	Yes	Yes	Yes
Industry FE		No	No	No	Yes	Yes	Yes
<i>Intercept</i>		0.130*** (8.73)	0.054*** (2.67)	-0.187*** (-8.64)	0.129*** (8.65)	0.063*** (3.16)	-0.176*** (-7.69)
<i>Obs.</i>		2,052	1,110	942	2,052	1,110	942
<i>Adj. R<sup>2</sup></i>		0.050	0.147	0.058	0.100	0.158	0.138
<i>F</i>		12.29	12.14	7.65	10.74	7.46	9.82

**Notes:** The table presents the results of regression models 1 to 3; all models are estimated through the OLS estimation method with year and industry effects, with robust standard errors corrected with following the White (1980) method; accounting data are from Bloomberg; the dependent variables are the absolute and signed values of DA, which are calculated by using residuals from the annual Modified-Jones regression model as estimates, at current time; independent variables are calculated as follows: *OILI* is a dummy variable which takes a value of 1 for firms providing the ‘Operating Income’ line item in their income statements, and 0 otherwise, at current time, *FS\_CV* is the natural logarithm of total assets, *FL\_CV* is the ratio between total liabilities and total assets, *BTM\_CV* is the ratio between the book value of a firm and its market value, *ROA\_CV* is the ratio between income before extraordinary items and total assets; <sup>a</sup> all continuous variables are winsorized at 5<sup>th</sup> and 95<sup>th</sup> percentiles to avoid the effect of outliers; \* p < 0.10, \*\* p < 0.05 and \*\*\* p < 0.01; t-statistics are reported in parentheses.

## 6. Conclusion

### 6.1 Summary

In order to shed some light on whether firms have certain motives to vary in their presented income statement format, I studied whether a relation exists between income statement presentation and earnings management. Specifically, I examined whether an association exists between firms that do not provide the ‘Operating Income’ line item in their income statements and accrual-based earnings management, which resulted in the following research question:

*RQ: “Do firms tend to hide the ‘Operating Income’ line item in their income statements when they engage in accrual-based earnings management?”*

Prior research (e.g. Kieso et al. 2010, Kim et al. 2012) provide theoretical foundations for expecting associations between financial statement presentation and earnings management. For instance, Kieso et al. (2010) provide evidence for alternative means of presentation of income statements, concluding that distinguishing between operating income and non-operating income yields a more transparent income statement for users. This finding creates incentives for firms that engage in earnings management to not provide the ‘Operating income’ line item in their income statements, which resulted in the first hypothesis:

*“H1: Firms that do not provide the ‘Operating Income’ line item on the face of their income statements engage in accrual-based earnings management to a greater extent.”*

My results show, after controlling for industry effects, a negative relation between the ‘Operating Income’ line item variable and the magnitude of earnings management, which supports my first hypothesis (H1).

Kim et al. (2012) examine whether corporate social responsibility (CSR) firms stay away from participating in earnings management by offering more transparent financial reports to users, compared to firms who cannot be considered to be socially responsible. They find that transparently financial reporting firms engage to a lesser extent in earnings management through both income-

increasing and income-decreasing accruals. As providing the ‘Operating Income’ line item can be considered as more transparently reporting, I developed the following two hypotheses:

*“H2a: Firms that provide the ‘Operating Income’ line item on the face of their income statements engage to a lesser extent in earnings management through income-increasing accruals.”*

*“H2b: Firms that provide the ‘Operating Income’ line item on the face of their income statements engage to a lesser extent in earnings management through income-decreasing accruals.”*

My results do not show a significant relation between the ‘Operating Income’ line item variable and the positive discretionary accruals variable. My second hypothesis (H2a) is therefore not supported. However, I find a positive relation between the ‘Operating Income’ line item variable and the negative discretionary accruals variable, which supports my third hypothesis (H2b).

## 6.2 Discussion

The IASB and FASB boards jointly made efforts by launching a project to set out overall requirements for financial statement structure and principles for classification and disaggregation of information in the statements. One of the proposed requirements of the boards was that entities should disaggregate line items when such presentation will enhance the usefulness and transparency of information. This study contributes by providing evidence whether the IASB and FASB should continue their aims to improve income statement presentation by adjusting its requirements.

The significant relation between the variables of interest in this study imply an association between the ‘Operating Income’ line item variable and earnings management. In line with prior research (e.g. Kieso et al., 2010), the results of this study show, after controlling for industry effects, a negative relation between the ‘Operating Income’ line item variable and the magnitude of earnings management, implying that firms not providing the ‘Operating Income’ line item (or an equivalent of it) engage in earnings management through accruals to a greater extent. The relations between the ‘Operating Income’ line item variable and the signed values of discretionary accruals

are partly in line with prior research (e.g. Kim et al., 2012). The relation between the ‘Operating Income’ line item variable and the positive discretionary accruals variable does not yield a significant coefficient. However, I find a positive relation between the ‘Operating Income’ line item variable and the negative discretionary accruals variable, implying that firms providing the ‘Operating Income’ line item (or an equivalent of it) engage to a lesser extent in earnings management through income-decreasing accruals.

The studies of Watts and Zimmerman (1978), Fung and Goodwin (2013), Teoh et al. (1998), and Cohen and Zarowin (2010) examine the effects of different firm characteristics on earnings management. They find that firms that are larger (Watts and Zimmerman), higher leveraged (Fung and Goodwin), have a higher book-to-market ratio (Teoh et al.), and have a higher return on assets ratio (Cohen and Zarowin), are more inclined to engage in earnings management. My results partly support these findings by showing a positive relation between the book-to-market ratio control variable and the magnitude of earnings management. Furthermore, my results show positive relations between three of these control variables (firm leverage, book-to-market ratio, and return on assets) and earnings management through income-increasing accruals. However, I also find some negative relations between the control variables and earnings management proxies, which are contrary to the findings of prior research.

Based on my results, I can state that firms are still able to use certain flexibility in the IFRS standards in order to hide earnings management. For this sake, the IASB and FASB therefore seemed to be on the right track by making efforts to improve the usefulness and transparency of income statement presentation. I therefore suggest continued efforts from the IASB and FASB boards to adjust certain income statement presentation requirements in order to minimize the extent to which firms engage in earnings management. My main proposal would be to oblige IFRS firms to provide the ‘Operating Income’ line item (or an equivalent of it) in their income statements to improve transparency and constrain earnings management. However, I am aware of the fact that other factors or limitations should be taken into account when making such practical recommendations. I therefore state these recommendations with reservations.

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## Appendix A: Examples of different income statement presentations

### Example 1: Firm providing the “Operating Income” line item

KONE Corporation  
Consolidated Statement of income  
Annual report, page 12

MEUR	Note	Jan 1–Dec 31, 2014	%	Jan 1–Dec 31, 2013	%
<b>Sales</b>	4, 26	7,334.5		6,932.6	
Costs, expenses, depreciation and amortization	5, 6	-6,298.8		-5,979.1	
<b>Operating income</b>		1,035.7	14.1	953.4	13.8
Share of associated companies' net income	14	-0.3		1.1	
Financing income	7	43.5		42.7	
Financing expenses	7	-62.6		-36.8	
<b>Income before taxes</b>		1,016.4	13.9	960.5	13.9
Taxes	8	-242.4		-247.3	
<b>Net income</b>		773.9	10.6	713.1	10.3
<b>Net income attributable to:</b>					
Shareholders of the parent company		755.6		701.8	
Non-controlling interests		18.4		11.3	
<b>Total</b>		773.9		713.1	

**Note:** KONE Corporation displays its income statements by providing the “Operating Income” line item on its face, allowing users to easily identify operating and non-operating categories of the income statement. Revenues and expenses are linked to their respective categories, yielding a more transparent income statement. Furthermore, users should also be able to easily calculate operating accruals by subtracting cash flows from operating activities.

## Example 2: Firm not providing the “Operating Income” line item

Siemens

Consolidated Statements of Income

Annual report, page 248

For the fiscal years ended September 30, 2014 and 2013			
(in millions of €, per share amounts in €)	Note	2014	2013
Revenue		71,920	73,445
Cost of sales		(51,165)	(53,309)
Gross profit		20,755	20,135
Research and development expenses		(4,065)	(4,048)
Selling and general administrative expenses		(10,424)	(10,869)
Other operating income	6	656	500
Other operating expenses	7	(194)	(424)
Income from investments accounted for using the equity method, net	5	582	510
Interest income	8	1,058	947
Interest expenses	8	(764)	(784)
Other financial income (expenses), net	8	(177)	(154)
<b>Income from continuing operations before income taxes</b>		<b>7,427</b>	<b>5,813</b>
Income tax expenses	9	(2,028)	(1,634)
<b>Income from continuing operations</b>		<b>5,400</b>	<b>4,179</b>
Income from discontinued operations, net of income taxes	4	108	231
<b>Net income</b>		<b>5,507</b>	<b>4,409</b>
Attributable to:			
Non-controlling interests		134	126
Shareholders of Siemens AG		5,373	4,284

**Note:** Siemens does not provide the “Operating Income” line item or an equivalent of it on the face of its income statements. In this case, operating and non-operating categories are not distinguished from each other, leaving a less transparent income statement.