Classification shifting as an earnings management tool among European firms

Master's thesis, August 2016

Abstract

This master's thesis examines the use of classification shifting among European firms. Classification shifting is an earnings management tool used to misclassify income statement items in order to manipulate core earnings while net earnings remain equal (McVay, 2006). To examine classification shifting, the relation between unexpected core earnings and non-recurring items is inspected. Non-recurring items by definition are not expected to recur and are often excluded in the calculation of core earnings. The sample consists of the largest European listed firms on the I/B/E/S database in the period of 2005-2015. The results provide strong evidence that European firms use classification shifting to include or exclude non-recurring items in the calculation of core earnings, in order to inflate core earnings. Finally, the evidence also shows that managers use classification shifting to avoid reporting losses and to meet or beat analysts' forecast earnings.

Keywords: Classification shifting, non-recurring items, earnings management; meet or beat earnings benchmarks

Author: Emely Wu (353263)
Subject: Master's thesis
Supervisor: Dr. C. D. Knoops
Co-reader: Drs. R. van der Wal RA
Date: August 2nd, 2016

MSc: Accounting, Auditing & Control
Track: Accounting & Audit
Faculty School of Economics
Erasmus University of Rotterdam

Contents

1. Introduction

Accounting rules allow managers with great discretion on the classification choices that affect the presentation, and disclosure of items on the financial statements. Cameron & Gallery (2012) argue that managers can achieve higher "normal earnings" by classifying normal expenses as unusual, special, significant, exceptional, abnormal, or extraordinary items. These items are transitory, not persistent and not expected to recur. This master's thesis will focus on the misclassification of non-recurring items for earnings management purposes. Classification shifting of income statement items is used as an earnings management tool to shift items with a recurring nature to items with a non-recurring nature in order to increase core earnings while net earnings remain equal. Even though the magnitude of net earnings is unaffected, misclassification of expenses is misleading to financial statement users because different income statement components have different information content that are informative to assess profitability or to predict future earnings.

The purpose of this master's thesis is to examine classification shifting in firms reporting their financial statements in accordance with the International Financial Reporting Standards (IFRS) in Europe, and the incentives that influence the pervasiveness of classification shifting. First, this master's thesis examines the relation between unexpected core earnings and the non-recurring items to identify classification shifting. Then, the relations between classification shifting and the incentives to meet earnings benchmarks are examined. Hence, the empirical question:

Does management's incentives to meet or beat earnings benchmarks influence the pervasiveness of classification shifting in IFRS firms?

It has been evidenced in international studies that classification shifting occurs under different local General Accepted Accounting Principles (GAAPs). Most prior researches are based on the US GAAP, and there lacks researches based on IFRS. A European sample is used in this master's thesis for the examination of classification shifting because IFRS are mandatory for the preparation of financial statements of listed companies in the European Union. IFRS are accounting standards that provide general guidance for the preparation of financial statements, with the objective to improve comparability and understandability. However, due to the principle-based characteristic of these standards, managers have much more flexibility in making accounting choices which may create opportunity for earnings management.

It is expected that classification shifting is used in European firms to overstate core earnings because non-recurring items are lightly regulated according to the IFRS. Furthermore, it is also assumed that managers misclassify expenses more pervasively when the misclassification allows managers to meet earnings benchmarks.

This master's thesis has several contributions. Firstly, it contributes to the literature by providing evidence of classification shifting in companies that are reporting in a specific accounting regulation: IFRS. This is important to local regulators and to the International Accounting Standards Board. IFRS is speculated to be a more superior and more useful accounting standard that is being adopted or emerged globally. However, the adoption of IFRS leads to lower persistence of operating earnings, and more persistent evidence of classification shifting (Doukakis, 2010; Behn, Gotti, Herrmann & Kang, 2013). The standards do not deter classification shifting activities, but in fact allow more room for this type of earnings management. Misclassified income statement components indicate that the financial statements do not provide a true and fair view of the financial statement, which is a violation of an objective of the Conceptual Framework[1]. This has important implication to take into consideration for European standard setters, and the IASB to improve reporting requirements.

Secondly, the results are important for investors because they might misprice earnings benchmark that include misclassified items. Non-recurring items are less persistent than recurring items, and should be treated differently. However, if investors do not detect these items that are included in the analysts' forecast earnings or core earnings, they will inappropriately valuate these accounting information and cause negative economic consequences.

Thirdly, the results are also important to external auditors who give assurance to the public that the financial statements are true and fairly stated in all material respects. Classification shifting is not likely to be detected by auditors because they are more focused on the recognition of expenses rather than the correct classification of expenses. External auditors should consider the negative economic consequences caused to the financial statement users if materially misclassified expenses are undetected.

[1] The IFRS Framework states that financial information must be relevant to financial statement users and it must also be presented faithfully in all material aspect. Retrieved from http://www.ifrs.org.

This master's thesis is organized as follows; in Chapter 2 the theoretical background is discussed including all relevant concepts, institutional setting, and theories. Chapter 3 concerns with prior empirical literature, followed by the hypothesis development. Subsequently, the research design is developed in Chapter 4, and the empirical results is discussed in Chapter 5. Finally, Chapter 6 presents the conclusion, limitation and contribution.

After the introduction of the topic of this master's thesis, the purpose, the main research question and the contributions, the theoretical background is then discussed in three parts; concepts, institutional setting, and relevant theories. First, the relevant concepts regarding earnings management tools and items used in classification shifting studies are explained to provide a foundation for the understanding of the practice and the differences in various items with non-recurring nature. Then, the institutional setting, including the specific accounting standards applicable to the sample in this master's thesis, is analysed. The sample consist of all EU countries that must comply with the IFRS, and the chapter discusses the implication of IFRS to the sample, the research design and its relevance to classification shifting practices. The third part of chapter 2 focuses on theories relevant to classification shifting and earnings management; the role of financial reporting and auditing is introduced, then theories regarding accounting choices managers have, and different incentives to manage earnings are analysed. This further expands the understanding of how managers have to discretion in financial reporting, which leads to the possibility of earnings management under certain incentives. These theories explains the incentives of managers to employ earnings management, and more specifically, to employ classification shifting.

Having understood the theories of earnings management practices, chapter 3 continues to discuss prior empirical literature regarding classification shifting. The chapter proceeds with the discussion of managers using classification shifting as a substitute earnings management tools when other means are constrained, the evidence of the practice itself, the incentives to do so, the evidence of classification shifting among firms in compliance with the IFRS, and finally the consequences. These literature leads to the development of the hypotheses. The first hypothesis responds to the first part of the main research question of whether or not there are classification shifting practices among European firms. The second hypothesis, in three different forms, responds to the second part of the research question of whether managers use classification shifting to meet and/or beat earnings benchmarks.

Chapter 4 presents the research design; including the predictive validity framework of how the concepts are operationalized, thorough explanation of the methodology used to test the hypotheses, the data collection and sample selection process. This master's thesis uses McVay's (2006) two-stages regression to arrive at the main independent variable, unexpected core earnings, that is regressed on the second independent variable, non-recurring items. The methodology, calculation and definition of the variables are further elaborated in the chapter. The data collection concerns data from two different databases that results in a rather small population of which several conditions must be met. The chapter finishes with country specific aspects and the translation of different currencies.

Chapter 5 starts with discussing the descriptive statistics of the main variables, the correlations, and finally the test results of the main regressions analyses. In the test results, the coefficients are explained, and the results are compared to prior literature to explore the differenes and similarities. This master's thesis closes with the conclusion, recommendation and references. In the final part, conclusion and recommendation, the main concepts and test results are summarized, the contributions and limitation are discussed, and recommendation for future studies are made.

2. Theoretical background

2.1 Concepts

This chapter first introduces the important concept of earnings management and the different earnings management tools managers can use. These tools include: accrual-based earnings management, real earnings management and classification shifting. When choosing certain earnings management techniques, managers must consider the costs and benefits associated to it. Prior literature shows that these tools are used as substitutes and describes the circumstances when classification shifting is preferred. Classification shifting is an earnings management tool to increase core earnings by shifting core expenses to non-core expenses, while bottom-line earnings remains equal. The possibility and use of classification shifting is explained, followed by definitions of the expenses/items used to manipulate core earnings.

2.1.2 Earnings management tools

Earnings management is an important topic in the accounting literature. Earnings management is defined as a practice *"when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers"* (Healy & Wahlen, 1999, p.365). Accounting standards within the regulatory framework allow managers with great discretion in their judgement of accounting for financial reporting and for structuring corporate transactions. Therefore, managers can use their reporting discretion to mislead stakeholders about the true performance[2] of the firm or to provide more informative financial reports. Three types of earnings management are discussed: accrual-based earnings management (AEM), real transaction-based earnings management (REM), and income classification shifting[3].

The practice of AEM is viable when management has room for interpretation or application of accounting choices. Managers can use specific accruals that are related to certain industry or accounting standard to manage earnings that are important enough to increase earnings to a specific level. They can transfer future (current) accruals to current

[2] A "true and fair" view in auditing context means that the financial statements are free from material misstatement and are presented fairly reflecting the underlying economic performance.

[3] The term "classification shifting" used through-out this master's thesis refers to classification shifting of income statement items only.

(future) periods in order to increase (decrease) current (future) earnings. Current earnings can be accelerated by recognizing future revenue or by deferring current expenses to future periods. This type of earnings management is very costly, since future earnings are borrowed in order to increase current earnings, future earnings are reduced by the same amount when the accruals are reversed.

Next to managing accruals, managers can use restructuring of real transactions or activities to increase or decrease current period earnings (REM). Roychowdhury (2006) states that "*Real activities manipulation is defined as management actions that deviate from normal business practices, undertaken with the primary objective of meeting certain thresholds*". Some examples are the delay of research and development expenses to increase earnings, delay investing in selling, general and administration expenses to increase earnings, alter the timing of income recognition from the disposal of long-lived assets and investments, cutting prices to boost sales in the current period and overproducing to decrease cost of goods sold expense.

These real earnings management activities have negative impact on the future performance of the firm and the identification of these activities is informative about the cash flows and future earnings (Gunny, 2005). AEM and REM techniques alter current earnings, affect future earnings, and raise current expectations of future earnings. However, classification shifting does not affect future earnings but does affect the expectations of it. Classification shifting is "*the deliberate misclassification of items within the income statement*" (McVay, 2006) and since managers are shifting items between categories, the net earnings number will not be affected and thus no accruals will be reversed in the future.

2.1.3 Classificatory choices

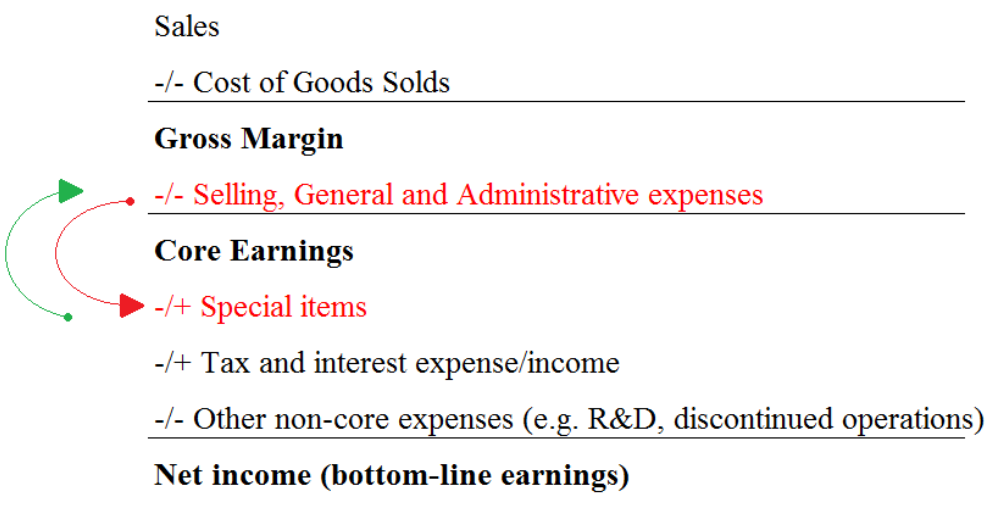
Classification shifting refers to the opportunistic practice of misclassifying income statement items as an earnings management tool. Accounting rules allow managers to use their judgement and discretion to determine where to report and how to classify these items. Classification choices affect the presentation and disclosure of financial statement items which can influence the perspective of financial statement users. This is a form of intra-period earnings management which has no effect on the net earnings and is less likely to be detected by auditors. Auditors are more focused on the recognition of revenue and expenses than the classification or disclosure of revenue and expenses.

Furthermore, identifying the correct classification of items is too exhaustive because details about the correct classification of expenses is usually in documentation that might be too disaggregated or immaterial. Haw, Ho and Li (2011) argued that in the presence of a qualified external auditor managers are less likely to employ classification shifting to manage earnings. However, these auditors only play an effective monitoring role in countries with strong investor protection suggesting that in the absence of a quality auditor or in countries with weak investor protection, classification shifting is likely to be undetected. Given the discretion and low chance that it will be detected (low detection costs), managers have the opportunity and possibility to misclassify income statement components.

2.1.4 Operating vs. Core

Following McVay (2006), core expenses are cost of goods sold, and general and administrative expenses. Core earnings is calculated by deducting these core expenses from net sales, which is a synonym for earnings or income produced by operations in a business. Thus, core earnings and operating earnings are used interchangeably. However, core expenses (as defined above) are not necessarily equal to operating expenses. Operating expenses are related to the daily operations of a business, e.g. accounting expenses, license fees, advertising expenses, office expenses, legal fees, insurance expenses, etc. Lastly, the bottom-line income, or the net income, or net earnings are income after deducting all expenses in a period that are attributable to shareholders. See illustration 1 for a simplified presentation of income statement and income statement line items.

Illustration 1: Simple income statement presentation



2.1.5 Shifting core expenses to special items

McVay (2006) posits that managers who wish to increase core earnings will misclassify a portion of core expenses as special items. Special items can be positive or negative, thus income-increasing or income-decreasing. In illustration 1, the red arrow illustrates the misclassification of SG&A expenses to special items (income-decreasing), thereby increasing core earnings. The green arrow illustrates the possibility of shifting income-increasing (positive) special items to be included in the calculation of core earnings. Special items are events that result from a firm's normal course of business but are unusual or infrequent in occurrence and must be separately disclosed in the income statement or in the notes of the financial statements. Examples of items include: "(1) write-downs or write-offs of receivables, inventories, equipment, or intangibles, (2) gains or losses from the sale of equipment or investments, and (3) special one-time charges resulting from corporate restructurings" (McVay, 2006, p. 506).

Special items in accordance with the Japanese GAAP, that has similar requirements for the presentation of core earnings and special items on the income statement, include (1) gain or loss on sale of assets, (2) gain or loss on sale of investment securities, (3) loss from disaster, or (4) prior period adjustment (Shirato & Nagata, 2009). This indicates that even though recognition requirements for special items might differ across accounting regime, the characteristics of these items are comparable. The nature of core expenses and special items are clearly distinct; core expenses are more stable and persistent, while special items should be transitory and infrequent. However, the subjectivity in the classification of expenses gives managers the opportunity to misclassify core expenses. Large charges, for instance, have ample room for discretion. Managers can allocate a portion of administration expenses or legal expenses resulting from normal course of business to special items such as one-time charges resulting from corporate restructurings. Hence, the misclassification of income statement items is misleading to financial statement users because different items have different information content that are useful to assess future earnings or profitability.

2.1.6 Extraordinary items, exceptional items, abnormal items, and non-recurring items

Given the flexibility and subjectivity of income statement items classification, core expenses can be misclassified to various expense accounts. Cameron & Gallery (2012) argue that if management has the objective to achieve higher "normal earnings" (i.e. core earnings),

they can classify normal expenses as “unusual, special, significant, exceptional, abnormal, or extraordinary” items (p. 161). Terminologies vary between different accounting jurisdictions; see table 1 for comparison. All previously mentioned items have common characteristics such as infrequent, unusual, outside of normal operations, and/or material in size. Regardless the different terminologies, the most important characteristic of these items is the non-recurring nature. E.g. extraordinary items reported in current year is not expected to recur in future periods because these items are unusual, infrequent, and/or outside of normal operations. Despite the prohibition of extraordinary items in the IFRS, firms are still required to determine the nature of income statement components. This creates room for discretion and classification shifting. Non-recurring items can be positive (income-increasing) or negative (income-decreasing), and are by definition not expected to recur. Under minimum regulation of international accounting standards, *non-recurring items* can be defined as gains or losses not related to the operations, transitory, and infrequent in nature (Zalata & Roberts, 2015). This master’s thesis will focus on the use of non-recurring items due its characteristics (that are comparable to other previously presented items) and the selection of a European sample.

2.1.7 Summary

In summary, earnings management misleads stakeholders about the true performance of the firm. Accrual-based earnings management (AEM), real transaction-based earnings management (REM), and income classification shifting are the different techniques used as substitutes to manage earnings. AEM refers to deferring or accelerating accruals, and REM refers to real transactions to alter current and future earnings. Classification shifting refers to management misclassifying income statement items to achieve certain objectives. This practice only affects subtotals within the income statement and does not alter the bottom-line income. McVay (2006) shows that managers misclassify core expenses to special items to increase core earnings. Prior literature describes the use of other income statement items (e.g. extraordinary items, abnormal items) with a non-recurring nature as common characteristic to increase subtotals. This master’s thesis will focus on the use of non-recurring items due its characteristics (that are comparable to other previously presented items) and the selection of a European sample. The accounting regulations regarding companies in Europe are discussed in the next section.

	Item of interest	Definition	Presentation
IFRS	Extraordinary items	IAS 1 Presentation of Financial Statements (paragraph 87) states that 'extraordinary items' are prohibited from disclosure on the statement of profit or loss.	
US	Special items[4]	Transactions or events that are unusual in nature *or* infrequent in occurrence (McVay, 2006).	These items must be separately disclosed on the income statement. See examples on page 9 of this master's thesis.
	Extraordinary items	Transactions or events that are both unusual in nature *and* infrequent in occurrence, defined in FASB Accounting Standards Update 2015-01, subtopic 225-20.	The concept of extraordinary items is eliminated[5].
UK	Exceptional items	FRS 3[6] defines exceptional items as material items that derive from ordinary activities that needs to be disclosed (individually or aggregate) due to their size or incidence in order to give a true and fair view.	FRS 3 requires that all exceptional items must be separately disclosed in the income statement or in the notes.
	Extraordinary items	These are material items that are abnormal, occur outside of ordinary activities and are not expected to recur as defined in FRS 3.	FRS 3 requires disclosure of all extraordinary items but does not specify further.

[4] Special items are not formally defined by the FASB. However, researchers that examine classification shifting using special items, use Special items (#17) from the Compustat database that are a combination of different items on the income statement and footnotes that are either unusual or infrequent (McVay, 2006).

[5] The concept of extraordinary items are eliminated following the FASB Accounting Standards Update No. 2015-01; Income Statement—Extraordinary and Unusual Items (Subtopic 225-20), Simplifying Income Statement Presentation by Eliminating the Concept of Extraordinary Items. Retrieved from: http://www.fasb.org.

[6] Financial Reporting Standard No. 3 (FRS 3) – 'Reporting Financial Performance' is issued by the Accounting Standards Board in 1992 applicable to companies in the United Kingdom and the Republic of Ireland. This standard is amended in 2007 but the changes do not relate to the definitions in question. Retrieved from: https://frc.org.uk/.

	Item of interest	Definition	Presentation
AUS	Extraordinary items	"Extraordinary items means items of revenue and expense that are attributable to transactions or other events of a type that are outside the ordinary activities of the entity and are not of a recurring nature" (AASB 1018[7], paragraph 8.1). Examples include "the expropriation of assets" or "an earthquake or other natural disaster" (paragraph 5.5.3).	The nature and amount of these items and the income tax expense attributable to them must be disclosed (paragraph 5.5).
	Abnormal items	"Items of revenue and expense, and other gains and losses, brought into account in the period, which although attributable to the ordinary operations of the business entity are considered abnormal by reason of their size and effect on the results for the period" (AAS 1[8], paragraph 4(c)).	Abnormal items are eliminated when AASB 1018 is reissued in 1999. However important for researchers to note that before this amendment, Australian companies reported these items on the income statement (Cameron & Gallery, 2008)

[7] Accounting standard AASB 1018 "Statement of Financial performance" is issued by the Australian Accounting Standards Board (AASB) in 2002 applicable to those entities described in paragraph 1.1. Retrieved from: http://www.aasb.gov.au/.

[8] Australian Accounting Standard 1 (AAS 1) "Profit and Loss Statements" is initially issued in 1973 by the AASB (Cameron & Gallery, 2008).

2.2 Institutional setting

This master's thesis mainly concerns with the international financial reporting standards (IFRS) that are adapted by the European Union. Since listed multinationals must comply with local regulations and rules, the comparison of their financial statements can be complicated. The IASB provides a global framework to prepare financial statements that enhance the comparability and understandability. The EU has adopted the IFRS in 2005, and made IFRS a requirement for listed companies in the EU for financial reporting purposes. Lastly in this section, the presentation of financial statement components, income statement (and possibility of classification shifting) and components of other comprehensive income are discussed.

2.2.1 International Financial Reporting Standards

This master's thesis focuses on a set of international accounting standards endorsed by the European Union (EU). These standards include the International Accounting Standards (IASs) and International Financial Reporting Standards (IFRS). IASs are issued by the International Accounting Standards Committee (IASC) and is subsequently replaced by the International Accounting Standards Board[9] (IASB). While IASs are still in use, standards developed by the IASB are called IFRS. For simplicity, these international standards are referred to as IFRS throughout this master's thesis unless otherwise stated. IFRS are a consequence of growing international shareholding and trade, and are particularly important for multinationals that operate globally. IFRS provide a global framework for how public companies prepare and disclose their financial statements and general guidance for the preparation of financial statements. These principle-based standards allow managers to use greater discretion and flexibility when preparing the company's financial statements. These standards are aimed to bring transparency, accountability and efficiency to financial markets around the world and to serve the public interest. Although some criticize that IFRS might not be as advantageous due to country-based factors that distort the adoption and that principle-based accounting standards allow room for accounting distortions and earnings management (Ding, Hope, Jeanjean and Stolowy, 2007; Athanasakou, Strong and Walker, 2009), IFRS still has promising benefits to financial statement users globally.

[9] The IASB is an independent standard setting body of the IFRS Foundation that is responsible for the development and publication of IFRS and for approving the interpretations of IFRS. Retrieved from www.ifrs.org/.

2.2.2 Global adoption of IFRS

Every country or nation has its own generally accepted accounting principles, also known as local GAAP. These allow firms to report their financial statements in accordance to the GAAP that applies to them. However, complications arise when a firm operates in multiple countries which results in different versions of financial statements. It can be complicated for financial statement users to consider the different standards, local regulations, and more importantly how to compare financial information. IFRS are designed to provide a common global language for business affairs so that financial statements are understandable and comparable internationally. Comparability is one of the key qualities of accounting information. Accounting information is comparable when accounting standards and policies are applied consistently from one period to another and from one region to another. This characteristic is important because it allows financial statement users to compare a set of financial statements with those of prior periods and those of other companies. The concept of understandability refers to the quality of financial information which makes it understandable by people with reasonable background knowledge of business and economic activities. Therefore, adopting a single set of standards provides to the financial statement users the ability to compare and understand financial performance of listed companies and is particularly beneficial to large companies that have subsidiaries in different countries.

IFRS are progressively replacing many different national accounting standards because IFRS are considered as high-quality standard that are better than many domestic standards (Barth, Landsman and Lang, 2008). Financial statements with higher quality can help users make better and more informed decisions. The quality of financial reporting depends on the enforcement and consistent application of these standards, which ensures the comparability of financial information. Ironically, a major drawback of IFRS is that the application and enforcement vary per country, making the global adoption of these standards incomplete (Barth *et al.*, 2008). This variation is in turn due to country-specific requirements that are necessary to reflect country-specific characteristics and economic environment, and not including these factors can also impair the comparability of financial information (Barth, 2015). However, to which extent these country-specific factors are necessary depends on how the standards are constructed because economic environment may vary but economic principles are universal; the more these standards focus on economic principles, the more effective the application of these standards.

Barth (2015) argues that when familiarity for IFRS increases in the future and the practice become more global, the application of IFRS will also become more uniform. Moreover, involvement of the global community in the development of IFRS also facilitates the consistent application of the standards.

2.2.3 IFRS in Europe

Listed companies, and sometimes unlisted companies, are required to use the IFRS in their financial statements in those countries which have adopted them. More than 100 jurisdictions have adopted the IFRS, e.g. Japan and China. The shift to IFRS began in 2005 when countries in EU, Australia and South Africa are required to apply the IFRS to their financial statements. The EU regulation 1606/2002 on the application of international accounting standards made the IFRS a requirement for listed companies in the European Union and European Economic Area (EEA). Listed companies[10] have to prepare their consolidated financial statements for external financial reporting in compliance with the IFRS, as adopted by the EU, and state this explicitly in the basis of presentation note and the auditor's report. Hence, the IFRS must go through due process of endorsement by the EU before becoming law. Same as the global adoption of IFRS, there are similar benefits and drawbacks for the adoption of IFRS in the EU. Overall, the mandatory adoption of IFRS leads to enhanced financial statement comparability, transparency, and capital market benefits (ICAEW, 2015).

2.2.4 IAS 1 – Presentation of income statement

International Accounting Standard 1 *Presentation of Financial Statements* (IAS 1) requires a complete set of financial statements to comprise a statement of financial position, a statement of profit or loss and other comprehensive income, a statement of changes in equity, statement of cash flows, and notes to financial statements. A statement of comprehensive income can consist of a single statement or divided in two statements: profit or loss, and statement of other comprehensive income. IAS 1[11] requires firms to present a statement of

[10] These companies are referred to as "IFRS firms" throughout this master's thesis for simplicity.

[11] The IASB issued a Disclosure Initiative (Amendments to IAS 1) on 18 December 2014. The objective of the initiative was to explore opportunities to see how those applying IFRS can improve and simplify disclosures within existing disclosure requirements. The amendments made to a number of aspects of IAS 1 include: Materiality, line items in primary financial statements, notes to the financial statements, accounting policies, and equity accounting investments. The amendments do not affect discussed concepts and is outside the scope of this master's thesis.

profit or loss (income statement) and a statement of other comprehensive income (IASB, 2001).

The standard requires that all income and expense items recognized in a period must be included in the income statement. Recall that classification shifting concerns with shifting income statement items to increase or decrease line items within the income statement (e.g. increasing core earnings while bottom-line remains equal). IAS 1 provides much more flexibility and variety in the presentation of line items in the income statement. Firms are allowed to disclose various subtotals in the income statement and other types of GAAP income in their financial reports.

For example, E.ON[12] reported the following earnings numbers in their consolidated financial statements and management report: EBIT (earnings before interest and tax expenses), EBITDA (earnings before interest, tax, depreciation and amortization expenses), income from continuing operations, net income, underlying net income, other comprehensive income and total comprehensive income. The company adjusted their EBIT and EBITDA numbers by extraordinary effects, defined as "certain extraordinary items, mainly other income and expenses of a non-recurring or rare nature" (E.ON, 2014, p. 225). They also presented an "underlying net income" that subtracted any non-recurring and non-operating items from the net income figure presented in the income statement. Even though IAS 1 prohibits the reporting of extraordinary items[13] in the income statement, it does not stop managers from excluding extraordinary or non-recurring items from their presented (GAAP and non-GAAP) financial figures. Therefore, the classification of recurring and non-recurring items still has influence on earnings numbers presented in the financial information of IFRS firms. Related empirical studies are discussed in the next chapter.

[12] E.ON is one of the world's largest electric utility company listed on the German stock exchange market. Thus, this is a listed company in the EU that has to report their consolidated financial statements in accordance with the IFRS, adopted by the EU. E.ON's financial statements and information is retrieved from www.eon.com/.

[13] IAS 1 in paragraph 87 states that an entity shall not present any items of income or expense as extraordinary items, in the statement of comprehensive income, the separate income statement, or in the notes. The objective of this is to reduce the cost and complexity of income statement presentation by eliminating the concept of extraordinary items while maintaining or improving the usefulness of the information provided to the users of financial statements.

2.2.5 IAS 1 – Other comprehensive income

IAS 1 paragraph 88 states that "an entity shall recognize all items of income and expense in a period in profit or loss unless an IFRS requires or permits otherwise". Some IFRS require or permit certain components to be excluded from profit or loss and instead to be included in other comprehensive income (OCI). The components of OCI include:

- *"Changes in revaluation surplus (see IAS 16 Property, Plant and Equipment and IAS 38 Intangible Assets);*
- *Actuarial gains and losses on defined benefit plans recognized in accordance with paragraph 93A of IAS 19 Employee Benefits;*
- *Gains and losses arising from translating the financial statements of a foreign operation (see IAS 21 The Effect of Changes in Foreign Exchange Rates);*
- *Gains and losses on remeasuring available-for-sale financial assets (see IAS 39 Financial Instruments: Recognition and Measurement);*
- *The effective portion of gains and losses on hedging instruments in a cash flow hedge (see IAS 39)." (IAS1.7)*

Even though these items are not directly related to the normal operations of the company, it is not the same as previously discussed extraordinary items, abnormal items, and special items.

For example, according to 'gains and losses on remeasuring available-for-sale financial assets' financial instruments are initially recognized when an entity becomes a party to the contractual provisions of the instrument, and are classified into various categories depending upon the type of instrument, which then determines the subsequent measurement of the instrument (amortized cost or fair value). A company recognizes a financial instrument, e.g. a cash flow hedge (a hedge of the exposure to variability in cash flows) which falls into categories of hedges. IAS 39 in paragraph 95 state that a company must recognize the portion of the gain or loss on the hedging instrument that is determined to be an effective hedge in OCI. Subsequently, when cash flow hedge relationship ceases, gains and losses deferred in OCI must be taken to profit or loss immediately (IAS 39.101).

Items shifting between profit or loss and OCI may create opportunity for classification shifting, as the timing and magnitude of recognized items is under management's discretion. The components of OCI are not unusual in nature or infrequent in occurrence. These items are thus not non-recurring and is not included in the research of this master's thesis. Furthermore, considering the items in OCI will eventually be recycled through the profit or loss statement, and the recurring nature of OCI items, it is difficult to determine the misclassified portion of

OCI items. This might require hand-collected data and judgment to determine the appropriateness of the classifications. Given the uncertainty of obtaining representative amount of accurate data for testing, this master's thesis will not examine classification shifting through OCI, and is rather suggested for future research.

2.2.6 Summary

IFRS provide global guidance for the preparation of financial statements. These standards are principle-based, which allow managers to use greater discretion and flexibility when preparing a company's financial statements. Adopting the IFRS leads to enhanced financial statement comparability, transparency, and capital market benefits (ICAEW, 2015). Listed companies in the EU are required to prepare their consolidated financial statements in compliance with the IFRS. IAS 1 requires firms to present a statement of profit or loss (income statement) and a statement of other comprehensive income (IASB, 2001). Despite the requirement to present all income and expenses in the profit or loss statement (IAS1.88), and the prohibition of 'extraordinary items' (IAS1.87), managers are allowed to disclose various subtotals in the income statement and other types of GAAP income in the financial reports. Therefore, the classification of recurring and non-recurring items still has influence on earnings numbers presented in the financial reports of IFRS firms. Income statement items are sometimes required to recognize in the other comprehensive income, which create opportunity for classification shifting. However, due to the recurring nature of these items and the uncertainty to collect sufficient and appropriate data for testing, this topic is not examined in this master's thesis. The next section discusses relevant theories to financial reporting, accounting choices, and earnings management incentives.

2.3 Relevant theories

2.3.1 The role of financial reporting and auditing

Standard setters define accounting standards that management uses to prepare financial information to communicate with their external stakeholders. “Financial reporting and disclosure are potentially important means to communicate firm performance and governance to outside directors” (Healy & Palepu, 2001). Financial reporting standards only add value if they enable financial statements to effectively portray differences in the firm’s performances in a credible and timely manner. In order for financial reports to reflect the true performance of the firm, standards must permit managers to exercise judgment, otherwise financial information will lose its relevance and timeliness. Managers can use their knowledge about the business to portray the true performance that is in line with the firm’s business economics. Financial statements of listed companies are usually audited by certified public auditors. The objective of auditing is to provide reasonable assurance that the financial statements are fairly stated in all material respects. Reasonable assurance is not absolute assurance simply because auditors cannot review and audit everything in the financial reports. Hence, reporting discretion and audit imperfection create opportunity for earnings management.

2.3.2 Accounting choice theories

Accounting standards often require management to exercise judgment when preparing the financial statements. Judgments can be e.g. choosing inventory accounting method, depreciation method, etc. These judgments can provide information to external parties when information asymmetries exist, which refer to when one party (management) has more or superior information compared to the other party (investors). Specific choices can make financial information more informative, and this information is lost when the accounting system does not provide room for judgment (Fields, Lys & Vincent, 2001). However, unconstrained judgment in accounting choice will likely incur costs on financial statement users because management can have self-serving incentives. Hence, judgment can provide useful information but it can also be self-serving, and several theories related to accounting choice are discussed as follows.

2.3.2.1 Watts and Zimmerman's Positive accounting theory

Watts and Zimmerman (1986) developed the positive accounting theory that aims to explain and predict accounting practice. It is concerned with actions such as which accounting policies management chooses and how management responds to proposed new accounting standards. The positive accounting theory introduce three hypotheses; bonus plan hypothesis, debt-equity hypothesis, and political cost hypothesis. Each of these hypotheses are used to explain management's motives in making accounting choices. These hypotheses are explained briefly in the next paragraphs. Moreover, the aim of this theory is to understand and predict the choice of accounting policies across different firms, recognizing that economic consequences exist. Economic consequences refer to "*the impact of accounting reports on the decision making behavior of business, government and creditors*" (Zeff, 1978, p. 56). This implies that accounting information can affect real decisions made by managers and other stakeholders rather than only reflecting the results of these decisions.

Accounting information is also used in contracts between the firm and its stakeholders, and firms are viewed as the nexus of these contracts. Management compensation contracts are used to align the incentives of the managers and the stakeholders, and lending contracts are written to protect the wealth of the creditors (Healy & Wahlen, 1999). Contracting costs arise in market transactions (selling new debt), transactions internal to the firm (e.g. transfer pricing scheme), and transactions in the political process (e.g. avoid government regulation requires lobbying costs). Consequently, management's choice of accounting policies is motivated by minimizing these contract costs (e.g. transaction costs, agency costs, information costs, renegotiation costs, and bankruptcy costs). Contracts do not effectively align the interests of the management and contracting parties if management has complete discretion over the reported numbers. Watts and Zimmerman (1990) argue that while management's discretion is somewhat restricted, some discretion remains. Management has discretion on accounting policies, and accounting policies have an impact on accounting numbers that are used in contracts. Managers can either use their discretion to increase the wealth of all contracting parties, or to achieve own benefits at the cost of contracting parties. These motives relate to two distinctive views – opportunistic view and efficiency view – of the positive accounting theory.

In the *efficient contracting view*, managers choose accounting policies to maximize contract efficiency; managers choose accounting methods that present the true performance of the firm and result in firm value maximization (Watts & Zimmerman, 1990; Beattie, Brown, Ewers, John, Manson, Thomas & Turner, 1994). Recognizing that managers must have

flexibility in their reporting choices to reflect the true economic circumstances of the firm, the problem of opportunistic behaviour arises. In the *opportunistic view*, managers choose accounting policies to maximize their own personal interests, and not in the best interests of the shareholders. They choose accounting methods that is in their benefit, even if it's at the expense of the contractors.

The positive accounting theory does not provide any prescription or state what should happen, and only explains and predicts what would happen. In contrast, normative accounting theory tend to recommend how an accounting process should be done. Researchers believe this theory utilizes several different approaches to end up with one correct accounting opinion. However, this master's thesis is not concerned with how managers should act in certain situations as described by the normative theory, and will apply the positive accounting theory as the fundamental theory. The three hypotheses are discussed briefly in the next paragraphs.

Management compensation hypothesis (Bonus plan hypothesis)

In the opportunistic view, managers are assumed to maximize their own remuneration, which depends on performance-related cash bonuses, employment risk arising from the possibility of company failure or takeover, and the firm's share value (Beattie *et al.*, 1994). The bonus plan hypothesis states that when manager's compensation (e.g. salary, bonuses) is linked to the firm's accounting performance, they will tend to manipulate earnings numbers by choosing accounting methods to achieve a better performance than it actually is. For example, managers can choose a depreciation method that accelerates depreciation expenses in the early years, and lower in the later years. As a result, higher expenses recognized in current periods lead to lower current earnings and lower expenses recognized in future periods lead to higher future earnings. This illustrates that by choosing certain accounting methods (accelerated depreciation expense), managers can understate current earnings and thereby overstating future earnings. As the share value reflects the wealth of management in holdings of shares and share options, managers have incentives to make choices in order to maximize the firm's value. Managers with compensation plans are likely to choose accounting methods that shift earnings from future periods to the current period in order to increase firm value and hence their bonuses for the current year. Older managers tend to refrain from discretionary expenses (e.g. research and development) to report higher earnings, and thereby increasing their compensation. Thus, this hypothesis presumes that managers with a bonus plan (tied to accounting information) are likely to use accounting methods that increase current period

earnings. It predicts that if a manager's compensations is in terms of a measure of performance (i.e. net income), then the manager will attempt to increase profits.

Debt-equity hypothesis

The closer a firm is to breaching accounting-based debt covenants, the more likely the firm's management will choose accounting methods that shift earnings from future periods to the current period. The company is less likely to violate debt covenants by increasing current earnings, and hereby management minimizes their constraints in running the company. Hence, the debt-equity hypothesis states that managers will tend to show better performance and liquidity position, and use accounting methods that increase accounting profit when the debt/equity level is higher (Salah, 2010).

Political cost hypothesis

The political cost hypothesis assumes that managers are likely to choose accounting methods to lower current earnings to not attract the attention of the media, public, and government. High profit industries or high earnings firms can lead to increased political "heat", which refer to placing higher regulations or taxes on certain firms/industries. Hence, the higher political cost the firm faces, the more likely managers are to choose accounting methods to lower earnings.

2.3.2.2 Holthausen's perspectives on accounting choices

Holthausen (1990) identifies three contrasting perspectives on accounting method choice: the opportunistic behaviour, efficient contracting and information perspective. Opportunistic behaviour and efficient contracting are based on the contracting perspective of contracts relying on accounting numbers. *Efficient contracting* concerns with the incentives for choosing accounting methods of the implicit and explicit contracts that are based on accounting numbers. In this view, managers are likely to choose accounting methods that minimize agency costs among the regarding parties, and maximize the firm value. According to the agency theory, the principal (shareholders) hire the agent (management) to represent the principals, and delegate decision making authority to the agents. Agency costs arise when conflicts of interest exist between the agent and principal, then costs are usually incurred to align the interests of both parties.

In contrast to the efficient contracting view, incentives to choose accounting method can also be driven by *opportunistic behaviour* where managers prefer accounting standards that maximize their own wealth. This view is similar to Watts and Zimmerman's (1986) bonus

plan hypothesis where manager's compensation depends on the firm's performance. Holthausen (1990) concludes that under the opportunistic behaviour view, accounting choices result in wealth transfer between shareholders, bondholders, and management which increases management's wealth because of their compensation plans, stock holdings or stock options. Lastly, the information perspective suggests that accounting methods are chosen to provide more information that is useful to predict future performance of the firm. Note that information perspective refer to methods chosen to reveal prospective cash flow information, and do not affect them directly, while contracting perspectives refer to methods chosen to affect the firm's cash flows.

2.3.2.3 Accounting choices and market imperfection

Information perspective introduced by Holthausen is also used on decision usefulness studies, and measurement perspective[14] being the alternative view is not discussed. In the information approach, the securities market is assumed to be efficient. That is, a rational investor uses all publicly available information from various sources when predicting future earnings. The investor is assumed to be rational, and the rationality holds on average but not for each individual. To the extent investors are not fully rational and securities markets not fully efficient, the role of financial reporting increases. New information that becomes available will be incorporated in the share prices, and in revision of expectations on future earnings / cash flows. The accounting information has impact on share prices when the information is useful. Since investors are responsible for predicting future firm performance, the role of financial reporting is to provide useful information for this purpose.

In a review article on accounting choice, Fields, Lys and Vincent (2001) organize the accounting choice literature into three categories based on market imperfections: agency costs, information asymmetries and externalities affecting non-contracting parties. These theories also relate to Watts and Zimmerman's (1986) positive accounting theory and Holthausen's (1990) perspectives of accounting choices. The first category of market imperfections arises from agency problems and market inefficiency; the accounting choice is aimed to influence contractual agreements, such as compensation contracts and debt covenants. Agency costs incur to align incentives of the involved parties, to increase compensation or to avoid covenant violation (Fields *et al.*, 2001). The second category, by

[14] "The measurement perspective on decision usefulness is an approach to financial reporting under which accountants undertake a responsibility to incorporate fair values into the financial statements proper, providing that this can be done with reasonable reliability, thereby recognizing an increased obligation to assist investors to predict fundamental firm value" (Scott, 2002, p. 174).

information asymmetry, refers to making accounting choices to influence asset prices. External parties (e.g. investors) can only access public information, while insiders have much more and superior information of the firm, and that results in information asymmetry. Management can choose accounting policies that provide more informative financial information to less well-informed parties about the timing, magnitude, and risk of future cash flows (Fields *et al.*, 2001). The third category of accounting choice is to influence decisions of external parties, such as government, suppliers, competitors, etc.

Despite that Fields *et al.*'s (2001) study is based on US and do not cover international standards, their conclusion is rather generalizable. They conclude that the progress of researchers gaining knowledge on the role and importance of accounting choice is rather slow, and that instead of identifying different settings for research, researchers should focus on the fundamental issues. "Although not all accounting choices involve earnings management, and the term earnings management extends beyond accounting choice, the implications of accounting choice to achieve a goal are consistent with the idea of earnings management" (Fields *et al.*, 2001, p. 260). The different incentives on choices of accounting methods are overlapping and consistent in prior researches, and these are relevant for explaining earnings management practices.

2.3.3 Earnings management incentives

Despite the fact that earnings management exists, it is difficult to detect and to document it. A common approach is to identify conditions in which manager's incentives are strong to manage earnings, then test whether accounting choices are consistent with these incentives. It is important to understand the incentives of earnings management because earnings management distorts firm performance, and misleads investors by increasing information asymmetry. Healy and Wahlen (1999) describe three categories of earnings management incentives: (1) capital market incentives, (2) contracting motivations, and (3) regulatory motivations. These incentives are relative to the previously discussed positive accounting theory and different perspectives on accounting choices (Watts & Zimmerman, 1986; Holthausen, 1990). Note that in the definition of earnings management defined by Healy and Wahlen (1999), the objective of earnings management is to "mislead stakeholders", rather than making financial reports more informative. This is consistent with the opportunistic behaviour/view, contrasting to the efficient contracting view as described in accounting choices theories (Watts & Zimmerman, 1986; Holthausen, 1990). Hence, in this master's thesis it is assumed that earnings management practices is for opportunistic motivations aiming to mislead stakeholders of the firm.

Three categories of earnings management incentives are described as follows:

(1) Capital market expectations and valuation

Firms manage earnings for capital market purposes such as; understate earnings before management buyouts, overstate earnings prior to equity offers, meet the expectations of financial analysts and management benchmarks, and finally to influence expectations of specific types of investors. The stock market effect of earnings numbers indicates that investors view earnings as value-relevant data that is more informative than cash flow data. This also suggests that investors do not view earnings management as so pervasive that it makes earnings numbers unreliable.

(2) Contracts written in terms of accounting numbers

Healy and Wahlen (1999) research prior literature on contracting incentives and voluntary changes in accounting methods, estimates, or accruals, and conclude that compensation and lending contracts create at least some incentive for earnings management in order to improve job security, increase management's compensation, and avoid violation of debt covenants.

(3) Antitrust or other government regulation

Prior earnings management literatures explore industry-specific regulation and anti-trust regulation. Healy and Wahlen (1999) conclude that industry-specific regulations create incentives for earnings management to achieve accounting data required by regulators, e.g. banks must satisfy capital requirements, insurance companies must meet certain conditions for financial health, and utilities companies must earn a normal rate of return. The anti-trust regulation incentive is based on previously mentioned political cost hypothesis of the positive accounting theory (Watts & Zimmerman, 1986). Examples from Healy and Wahlen's (1999) review include, firms seeking government subsidy or protection, or firms under investigation for anti-trust violations have this earnings management incentive. They conclude that prior earnings management studies strongly suggest regulatory motivations lead to earnings management.

2.3.4 Summary

Accounting standards often require management to exercise judgment when preparing the financial statements, where judgment can provide useful information or be self-serving. Watts and Zimmerman (1986) developed the positive accounting theory that aims to explain and predict accounting choices with three hypotheses; bonus plan hypothesis, debt-equity hypothesis, and political cost hypothesis. These hypotheses presume that managers choose accounting methods to show better performance when their compensation is linked to accounting information (bonus plan hypothesis), to show better liquidity position (debt-equity hypothesis), and to lower current earnings to avoid public attention (political cost hypothesis).

Holthausen (1990) identifies three contrasting perspectives on accounting method choice. (1) In efficient contracting view, managers are likely to choose accounting methods that minimize agency costs among the regarding parties, and maximize the firm value. (2) Accounting choices driven by opportunistic behaviour maximize management's own wealth. (3) Information perspective suggests that accounting methods are chosen to provide more information that is useful to predict future performance of the firm.

Lastly, Healy and Wahlen (1999) describe three categories of earnings management incentives: (1) capital market incentives, (2) contracting motivations, and (3) regulatory motivations. These incentives are similar to previously discussed views on accounting choices. Furthermore, in contrast the efficient contracting view, this master's thesis assumes earnings management practices is to mislead stakeholders. The next chapter presents empirical evidence of classification shifting of income statement components under different scenarios.

3. Prior empirical literature & Hypothesis development

3.1 Prior empirical literature

Prior empirical literature regarding financial reporting, capital market, and classification studies are discussed in this chapter. A range of classification shifting studies is presented in the following order: substitute earnings management tool, the technique itself, the incentives to employ classification shifting, international aspect, and the consequences. Finally, the hypotheses are developed near the end of this chapter.

3.1.1 Financial reporting and capital market

Following the economic consequences theory, accounting numbers have an impact on the real decisions made by financial statement users. The role of financial reporting is to inform the financial statements users, and to improve their value estimates. New information that is useful will lead to revision of future earnings expectations, and that leads to changes in share prices. Stock returns are significantly related to the sign of annual earnings changes, and the magnitudes of earnings changes (Ball & Brown, 1968; Nichols & Wahlen, 2004). To the extent that investors are not fully rational and the securities markets are not fully efficient, then the role of financial reporting increases.

Value relevance studies that investigate the usefulness of financial statement information measure the association between financial statement information and stock returns or prices. Lev and Zarowin (1999) find that the association of stock returns and reported earnings has declined over the past 20 years, implying that there is a systematic decline in the usefulness of financial information over time. The major reason for the decline is the increasing rate and impact of business change, and the inadequate accounting treatment of business change and its consequences. Nevertheless, earnings number is still a key performance measure. Two comprehensive survey studies with financial executives in the last decade conclude that CFOs consider earnings to be the most important reported financial measure to outsiders (Graham, Harvey & Rajgopal, 2005; Dichev, Graham, Harvey and Rajgopal, 2013). Financial executives believe that meeting earnings benchmarks, and having smooth earnings are important. The surveys further reveal that the market hates unpleasant surprises, and that missing earnings benchmarks will lead to uncertainty about the future prospects of the firm. Therefore, managers will try to meet earnings benchmarks even if it means engaging in earnings management.

3.1.2 Classification shifting – Substitute earnings management tool

Prior studies examine three main forms of previously mentioned earnings management techniques; AEM, REM, and classification shifting. Usually managers can use all three alternatives of earnings management to manage earnings numbers but they may decide to use different methods based on the costs, constraints and timing of each strategy. They must trade-off the costs and benefits of using certain earnings management methods and make sure the benefits exceed the costs and limitations. Managers use classification shifting as substitute form of earnings management for both AEM and REM (Abernathy, Beyer & Rapley, 2014; Fan, Barua, Cready & Thomas, 2010). Abernathy *et al.* (2014) find that managers are more likely to employ classification shifting when REM is constrained by low market share, high levels of institutional ownership and poor financial condition, or when AEM is constrained by low accounting system flexibility and provision of cash flow forecasts. High levels of institutional ownership refer to the more sophisticated and informed investors that leads to more effective monitoring and mitigating REM. Furthermore, companies with low market share or in financial distress face higher costs of earnings management that manipulates activities or transactions deviating from their normal business. Therefore, companies in either of these settings have a greater likelihood of using classification shifting instead of REM to manage earnings.

Consistent with this finding, Haw *et al.* (2011) argue that managers are more likely to increase core earnings by shifting core expenses than by managing discretionary accruals, indicating that classification shifting is a low-cost alternative to manage earnings. Managers are less able to employ AEM when there is low accounting system flexibility and would rather use an earnings management technique that is outside the limitation of the accounting system. Furthermore, the presence of cash flow forecasts (along with earnings and accruals forecasts) increases the costs and transparency of AEM (Abernathy *et al.*, 2014). In these settings, classification shifting is a better alternative and a less costly option for managers. With regard to the timing; Fan *et al.* (2010) find that classification shifting is more pervasive in the last quarter than in interim quarters due to difficulty to achieve earnings threshold using accrual manipulation and that manager's ability to manipulate current-period accruals are constrained. Hence, classification shifting is a viable opportunity for managers to manage earnings numbers when the other earnings management tools are constraint.

3.1.3 Classification shifting

Managers have discretion in accounting choices, and also in the classification of income statement items. The essence of classification shifting is to shift income statement items between categories, while not affecting the magnitude of bottom-line earnings (i.e. net earnings). Since the market is becoming more focused on core earnings that excludes non-recurring expenses (Bradshaw & Sloan, 2002), managers can use classification shifting to increase core earnings without tampering with net earnings.

Managers opportunistically misclassify core expenses to special items in order to increase core earnings while net earnings remains equal (McVay, 2006; Shirato & Nagata, 2009; Fan *et al.*, 2010; Hsu & Kross, 2011; Siu & Faff, 2013; Behn *et al.*, 2013). Core expenses (or revenues) can also be misclassified to (or from) other items such as research and development expenses (Skaife, Swenson & Wangerin, 2013), discontinued operations (Barua, Lin & Sbaraglia, 2010), and non-recurring items (Athanasakou *et al.*, 2009; Zalata & Roberts, 2015). Furthermore, abnormal items (Cameron & Gallery, 2012), which are similar to special items in the US context, are used to increase pre-abnormal earnings. A common characteristic of the income statement items used for classification shifting is that these items have a non-recurring nature, and that managers will misclassify items associated with future benefits of the firm to non-recurring items, in order to manipulate core earnings. Hence, income classification shifting is an important type of earnings management that refers to the intentional misclassification of core expenses as non-recurring items to boost core earnings.

3.1.4 Classification shifting – Incentives

Meeting analysts' forecast

Prior researches find that managers use classification shifting to increase core earnings in order to meet analysts' forecast. Consensus analysts' forecast is one of the most important earnings benchmarks according to financial executives because meeting earnings benchmarks helps the firm to build credibility with the capital market, and to maintain or increase stock price (Graham *et al.*, 2005). Classification shifting is measured by the association between unexpected core earnings and special items[15], and firms engage in classification shifting to meet analysts' forecast (McVay, 2006; Fan *et al.* 2010). Firms may misclassify core expenses

[15] Special items tend to be excluded from both pro forma and analysts' earnings definitions. Pro forma earnings are earnings benchmarks estimated by managers.

or operating expenses to items that are excluded from core earnings to increase core earnings, and firms misclassify these expenses more pervasively when they need to meet or beat analysts' forecasts (Athanasakou *et al.*, 2009; Fan *et al.*, 2010; Barua *et al.*, 2010; Skaife *et al.*, 2010). Similar evidence is also found in Asian firms (Haw *et al.*, 2011; Shirato & Nagata, 2012).

Using an alternative approach, Lin, Radhakrishnan and Su (2006) identify firms engaging in classification shifting (CS) if the street earnings[16] is higher than GAAP earnings, and abnormal street earnings[17] is positive. They used a modified version of McVay's (2006) core earnings expectation model to estimate the expected street earnings (instead of core earnings), and define abnormal street earnings as the difference between the estimated and actual street earnings. Furthermore, in combination with various earnings management tools (CS, AEM and REM), the authors examine forecast guidance tools to meet or beat analysts' earnings forecasts. Firms are allowed to provide analysts with guidance (i.e. clues) to predict earnings, and the guidance number is expected to align with the consensus estimate among analysts. The authors conclude that firms use downward forecast guidance, when the consensus earnings forecast is equal to or less than the expected earnings forecast[18], and classification shifting to meet or beat analysts' forecast.

Similarly, Fan & Liu (2015) identify misclassification of cost of goods sold, and selling, general, and administrative expenses separately, and conclude that both expenses are misclassified when firms' actual earnings just meet or beat analysts' forecast earnings, or when the firm report small positive (changes in) core earnings. Hence, firms that would miss analysts' forecast earnings benchmark prior to any misclassification of expenses will engage in classification shifting to meet or beat analysts' forecast.

[16] Street earnings are (consensus) forecasts by financial analysts.

[17] Lin *et al.* (2006) used a modified version of McVay's (2006) core earnings expectation model to estimate the expected street earnings (instead of core earnings). The abnormal street earnings is the difference between the estimated and actual street earnings.

[18] Measurement of the expected earnings forecast is rather out of scope, however it is quoted for better understanding of the study: "The parameter estimates … to obtain the expected change in EPS (E[ΔEPS]). E[ΔEPS] is then added to the earnings from the same quarter in the prior year to obtain the expected forecast (E[F]) of the current quarter's earnings." (Lin *et al.*, 2006, p.13).

Meeting earnings benchmarks & income smoothing

Firms are motivated to report earnings that misrepresent economic performance when there's pressure to meet earnings benchmarks, to influence the stock price and management's compensation, and to smooth earnings (Dichev *et al.*, 2013). Managers may include or exclude any non-recurring items in a strategic manner to meet pro forma earnings. Pro-forma earnings are earnings benchmarks calculated by managers that are not recognized by the GAAP, and are intended to be a better performance measure for investors. These benchmarks may exclude non-recurring items because it does not provide relevant information for future performance.

Hsu & Kross (2011) find that the inclusion or exclusion of special items in the street earnings depends on whether the inclusion or exclusion increases street earnings, allows management to meet earnings benchmarks, or to smooths earnings. Income smoothing can be defined as the reduction of earnings variability over time, or within a single period, while moving towards the expected level of earnings. Financial executives indicate that they prefer a smooth earnings path because smoother earnings appear to be less risky, it helps analysts/investors to predict future earnings, and it creates public perception that the business is stable (Graham *et al.*, 2005).

3.1.5 Classification shifting – IFRS

Recall that, according to US GAAP, some items[19] are unusual in nature and/or infrequent in occurrence, and firms are required to separately disclose these items, net of tax, in the income statement after income from continuing operations. The Financial Accounting Standards Board (FASB, 2015) recently issued an amendment[20] to eliminate the extraordinary items concept which aligns with the IFRS. US GAAP is rules-based and IFRS on the other hand is principle-based. Managers have much more discretion in choosing accounting methods or standards in their financial reporting when complying to the IFRS. As the IFRS is being adopted or emerged with local GAAPs internationally, accounting standards applied on

[19] Special items are unusual *or* infrequent in nature, and extraordinary items are unusual *and* infrequent in nature.

[20] The FASB issued an Accounting Standards Update (ASU) 2015-01 – Simplifying Income Statement Presentation by Eliminating the Concept of Extraordinary Items, that eliminates the need for entities to evaluate whether transactions or events are both unusual in nature and infrequent in occurrence. Companies will continue to evaluate regarding items for separate presentation and disclosure purposes. Retrieved from www.fasb.org/.

international basis is expected to be more flexible. The adoption of the IFRS seems to decrease the persistence of operating and non-operating earnings, implying that earnings components lose explanatory power and become less informative for prediction of future performance after the adoption of IFRS (Doukakis, 2010). Hence, IFRS adoption may lead to more discretion in financial reporting which provides opportunity for earnings management.

3.1.6 Classification shifting – Consequences

Non-recurring items (e.g. special items, extraordinary items or abnormal items) are required to be separately presented, and managers can choose *how* to present these. Riedl and Srinivasan (2010) examine management's choice in the presentation of special items: (1) disaggregated special items as a separate line item on the income statement and (2) aggregated special items as a footnote disclosure. They find that managers use their flexibility to present special items for informational purposes with the intention to assist financial statement users to understand the underlying economics of the reported special items. Furthermore, Doukakis (2010) disaggregates current earnings components into operating income, non-operating income, extraordinary charge and extraordinary credit (i.e. items with infrequent or unusual in nature)[21], and find that these components are individually or aggregated informative for the prediction of future profitability. Hence, classification shifting can alter the perceptions of financial statement users because different income statement classifications have different information content for future earnings.

Classification shifting has negative economic consequences to shareholders; classification tactics are not easily detected, and resource allocation is ineffective (Alfonso, Cheng & Pan, 2015). Correct classification of items is necessary for appropriate valuation because different income statement items have different information content. Core earnings after classification shifting, and special items included in street earnings are overpriced because the market overestimates the persistence of core earnings and special items (Hsu & Kross, 2011; Alfonso *et al.*, 2015). The market overvalues the core earnings of firms that boost their core earnings using classification shifting, and investors do not seem to detect management's opportunistic behaviour (Alfonso *et al.*, 2015). Since core earnings are a better indicator for future performance, mispricing would cause investors to incorrectly valuate these earnings and lose excess return.

[21] "For Greece, those items include extraordinary revenues and expenses, extraordinary gains and losses, prior periods' revenues and expenses, provisions for extraordinary losses, gains and losses on sales of fixed assets, results from major casualties, restructuring charges, etc." (Doukakis, 2010)

Special items that are included in street earnings are expected to be more persistent than those excluded from earnings benchmarks, thus the market should treat these items differently from other income statement components. However, the market seems to overprice street earnings when managers include special items that increases street earnings (Hsu & Kross, 2011). Hence, classification shifting is misleading to investors, and causes negative economic consequences to shareholders.

3.1.7 Classification shifting – Summary

This chapter started by introducing the role and relation between financial reporting and capital market. Firms communicates with their (external) stakeholders through their financial reports, whereas investors can assess and revise the value of the firm using this information. Financial executives consider earnings to be the most important financial measures to outsiders, and that meeting or beating earnings benchmark is crucial (Graham *et al.*, 2005; Dichev *et al.*, 2013). That creates incentives for management to manipulate earnings. Classification shifting is evidenced to be a substitute earnings management tool when other means are constrained or costly. Prior literature has found that management misclassify normal (i.e. recurring, core) income statement items to increase core earnings (McVay, 2006), to meet analysts' forecast (Athanasakou *et al.*, 2009; Fan *et al.*, 2010; Barua *et al.*, 2010; Skaife *et al.*, 2010; Fan & Liu, 2015), to meet other earnings benchmarks, and/or to smooth earnings (Godfrey & Jones, 1999; Hsu & Kross, 2011). Lastly, since different income statement components have different information contents, misclassifying these components can mislead investors (Doukakis, 2010). Since the market does not seem to detect classification shifting activity (Alfonso *et al.*, 2015), it will cause negative economic consequences to investors that use misleading financial information. Having summarized the empirical evidence, incentives, scenarios, and consequences, this chapter closes with the hypothesis development and a summary table of the most relevant empirical literature.

3.2 Hypothesis development

Many classification shifting studies are based in the US but classification shifting is not just a phenomenon in the US, it is also receiving much attention from international researchers. Behn *et al.* (2013) are the first to examine classification shifting in an international setting (not based on US GAAP or any specific local GAAP) using a sample consisting of 40 countries worldwide. They find evidence of classification shifting in both countries with low and high level of investor protection, and that classification shifting practice is more pervasive in low investor protection countries. However, they ignore the differences in financial reporting standards which mainly determines the discretion managers have in financial reporting. Moreover, there might be a bias in their results due to strong concentration of US data[22]. Despite possible biased, incomplete and overly generalized results, they still provide strong evidence of classification shifting in an international setting. Other international studies (non-US) find evidence of classification shifting implying that it is a global phenomenon that occurs under different kinds of financial reporting standards; countries including Australia, UK and Japan (Godfrey & Jones, 1999; Athanasakou *et al.*, 2009; Shirato & Nagata, 2009; Cameron & Gallery, 2012; Zalata & Roberts, 2015).

This master's thesis aims to examine classification shifting, specifically using non-recurring items, based on a specific reporting regime: IFRS. Prior studies find evidence among UK firms that reports in accordance with UK GAAP (Athanasakou *et al.*, 2009), and UK firms that reports in accordance with IFRS (Zalata & Roberts, 2015). This master's thesis extends these studies by examining classification shifting with non-recurring items in a broader setting by examining European firms in EU countries, and thereby examining financial data reported in compliance with the IFRS, and by measuring the relation between classification shifting and the incentives to meet or beat various earnings benchmarks. Non-recurring items are not strictly regulated under the IFRS, or specifically the IAS 1. Managers have much more flexibility and variety in the presentation of income statement items compared to the US GAAP. It is not allowed to present extraordinary items on the income statement but managers still need to identify the recurring and non-recurring nature of items.

[22] From a total of 6558 observations, 2775 are from US (about one-third of total) and observations for all other countries are widely dispersed. This might cause a bias in the results due to strong concentration of US data that are based on US GAAP.

Zalata and Roberts (2015) find that under light regulation of non-recurring items, UK[23] firms opportunistically misclassify recurring expenses as non-recurring expenses to overstate core earnings. Managers may misclassify core expenses or operating expenses to items with a non-recurring nature, to increase (core) earnings that exclude these items. Prior studies find that reported non-recurring expenses are becoming persistent over time (Riedl & Srinivasan, 2010; Cready, Lopez & Sisneros, 2010), and that the magnitude of reported special items increases significantly (Riedl & Srinivasan, 2010). Recurring expenses, operating expenses or core expenses are those incurred repeatedly in each reporting period and tend to be relatively persistent. In contrast, non-recurring expenses refer to the unusual charges, expenses, or losses that is highly transitory and unlikely to occur again in the normal course of a business. Financial executives consider earnings quality to be high when earnings are recurring and "free from special or one-time items" (Dichev *et al.*, 2013, p. 12). A positive relationship between unexpected core earnings and non-recurring items suggests that firms shift recurring expenses to non-recurring items to inflate core earnings, thus evidence for classification shifting (Athanasakou *et al.*, 2009; Zalata & Roberts, 2015). This relation is similar to prior classification shifting literature that examines other items; special items (McVay, 2006; Hsu & Kross, 2011; Siu & Faff, 2013; Behn *et al.*, 2013), R&D expenditures (Skaife *et al.*, 2013), discontinued operations (Barua *et al.*, 2010), abnormal items (Cameron & Gallery, 2012), and non-recurring items (Athanasakou *et al.*, 2009; Zalata & Robert, 2015). These studies provide a basis for the assumption that (1) due to the transitory nature of non-recurring items, the inclusion of these items in reported earnings results in lower persistence of current earnings, and (2) since IFRS does not seem to improve earnings persistence, it is reasonable to assume that non-recurring items are included in current earnings in firms reporting in accordance with the IFRS. A positive correlation is predicted between non-recurring items and unexpected core earnings, hence the first hypothesis:

Hypothesis 1: Managers misclassify non-recurring items to inflate core earnings.

Classification shifting can have significant impact on the expectation of investors and other financial statement users. Prior studies have concluded that managers use classification shifting to meet analysts' forecast earnings benchmark because special items tend to be excluded from street earnings. Moreover, analysts' forecast earnings benchmarks (also referred to as street earnings) can exclude any non-recurring items, which creates opportunity

[23] The United Kingdom, being part of the European Union, must comply with IFRS for financial reporting purposes.

for classification shifting of recurring items to non-recurring items. Managers are thus more likely to misclassify items when it enables a company to meet or beat analysts' forecast (McVay, 2006; Lin *et al.*, 2006; Athanasakou *et al.*, 2009; Fan *et al.*, 2010; Barua *et al.*, 2010; Skaife *et al.*, 2010; Haw *et al.*, 2011; Shirato & Nagata, 2012). Hsu & Kross (2011) find that firms are more likely to include income increasing special items when the inclusion helps firms report positive earnings, meet last year's earnings, and that managers may opportunistically include or exclude special items to smooth earnings, or to mask lower income. Consistent with this evidence, Australian firms are found to misclassify recurring gains and losses outside of the firm's normal operations to operating or extraordinary items to smooth net operating profit (Godfrey & Jones, 1999). A viable explanation for this is that earnings numbers are very important to management. Nearly 95% of financial executives think that earnings number is important for the use of investor's valuation, while most agree its importance for the use by management, in executive compensation contracts, and outsider's evaluation of the company (Dichev *et al.*, 2013).

Following Barua *et al.* (2010), this master's thesis predicts that managers are more likely to misclassify non-recurring items, if hereby enables the firm to meet the following earnings benchmarks: zero earnings, prior year-end earnings, and the consensus analysts' forecast. Hence, hypothesis two is presented in the following forms:

Hypothesis 2a: Managers engage in classification shifting in order to avoid reporting negative core earnings.

Hypothesis 2b: Managers engage in classification shifting in order to meet or beat last year's core earnings.

Hypothesis 2c: Managers engage in classification shifting in order to meet or beat consensus analysts' forecast.

There is little evidence in prior research regarding management's incentives to meet or beat last year's earnings or to avoid reporting losses in their core earnings figures by employing classification shifting. This master's thesis predicts a significant positive relation between classification shifting and meeting or beating earnings benchmarks, indicating that managers manipulate core earnings to meet or beat last year's earnings, to avoid reporting losses, and/or to meet or beat analysts' forecast earnings. The next chapter continues with the research design, sample selection, and data processing procedures.

Table 2 - Summary table of empirical literature

Author(s)	Region	Item of interest	Objective	Research method	Findings
Empirical evidence of classification shifting and meeting or beating earnings benchmarks					
McVay, 2006	US	Special items	The author examines the classification of income statement items as an earnings management tool.	The author develops a model to calculate core earnings, unexpected core earnings, and examine the relation between unexpected core earnings and special items. McVay posits that firms use classification shifting have higher than expected level of core earnings in year t, and lower than expected change in core earnings in year t+1.	McVay finds that managers opportunistically shift core expenses to special items to increase core earnings. She finds that managers use this tool to meet analysts' forecast benchmark.
Athanasakou, Strong & Walker, 2009	UK	Non-recurring items	The authors undertake an archive-based examination of accruals earnings management, classification shifting and earnings forecast guidance to meet analyst expectations in the post-FRS 3 period.	They use McVay's (2006) classification shifting research models, and define total non-recurring items as I/B/E/S actual earnings - Net income/sales, to examine classification shifting.	They find evidence of opportunistic classification of small other non-recurring items, and earnings forecast guidance to meet analysts' forecast. They also suggest that managers are less likely to use accrual earnings management.

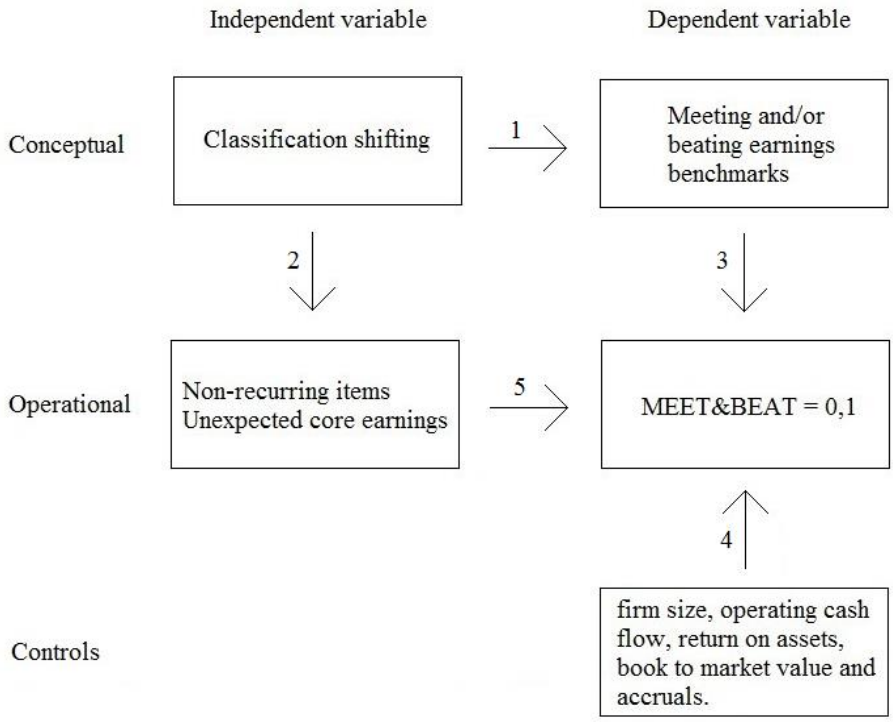
Author(s)	Region	Item of interest	Objective	Research method	Findings
Empirical evidence of classification shifting and meeting or beating earnings benchmarks (continued)					
Barua, Lin & Sbaraglia, 2010	US	Discontinued operations	The authors examine classification shifting using discontinued operations.	They use McVay's (2006) classification shifting research models, substitute special items with discontinued operations, and add control variables (size, MTB ratio, accruals, operating cash flow, ROA ratio).	They find that firms reporting income-decreasing discontinued operations use classification shifting to meet or beat analysts' forecast, and that this activity declined after the introduction of SFAS No. 144.
Empirical evidence of classification shifting and other settings					
Zalata & Roberts	UK	Non-recurring items	The authors examine whether corporate governance (board and audit committee) mitigate classification shifting.	They use McVay's (2006) classification shifting research model to estimate core earnings, and Athanasakou's definition of non-recurring expenses to examine classification shifting. They also included control variables similar to	They find that classification shifting is a viable earnings management tool, and that strong boards and audit committees help mitigate it.
Behn, Gotti, Hermann & Kang, 2013	Intern-ational	Special items	The authors examine how level of investor protection and financial analysts coverage affect the pervasiveness of classification shifting.	They modify McVay's (2006) core earnings model by dropping current year accrual, and added year and country fixed variables in examination of unexpected core earnings and negative special items.	They find evidence of classification shifting in a broad setting, and that higher financial analyst following mitigates classification shifting.

4. Research Design

4.1 Methodology

The objective of this master's thesis is to examine whether European firms engage in classification shifting, and if managers' incentives to meet earnings benchmarks influence the pervasiveness of classification shifting. To examine whether firms employ classification shifting to meet earnings benchmarks, the association between the probability of hitting an earnings benchmark and a classification shifting proxy is tested. This section continues to describe the models in the research design, the independent variables, the dependent variable, and the control variables. The following Libby boxes illustrates how the theoretical relations are operationalized:

Illustration 2 – Libby Boxes



To examine classification shifting, the relation between unexpected core earnings and non-recurring items is inspected. If non-recurring items are misclassified into line items excluded from core earnings calculation, then the core earnings are overstated in the year these items are recognized. The overstated part in normal level of core earnings is the unexpected core earnings. The level of unexpected core earnings and the misclassified non-recurring items must be estimated, which are the main independent variables in the research design.

Furthermore, it is hypothesized that managers are likely to engage in classification shifting if it allows them to meet certain earnings benchmarks that excludes the misclassified items. To test this relation, a dummy variable of meeting three different earnings benchmarks is introduced along with the control variables. Hence, the main concepts being classification shifting and meeting and/or beating earnings benchmarks are operationalized and measured using non-recurring items and unexpected core earnings, and dummy variable MEET&BEAT. Researchers examine the first link in different countries (i.e. different settings) and find strong evidence of classification shifting, and it's relation to incentives to meeting and/or beating earnings benchmarks using similar research designs. These prior researches (also mentioned in section 3) show that the results from link 1 are generalizable, and indicate strong external validity of the concepts.

McVay's Model

To examine whether firms engage in classification shifting, the basic two-stage regression procedure of McVay's (2006) research design is used. First, core earnings is estimated with McVay's (2006) model, which is then subtracted from reported core earnings to determine unexpected core earnings. The main concern regarding the validity of McVay's (2006) model, which is used in link 2, is that the expected core earnings comprises non-recurring items accruals, and non-recurring items is regressed on unexpected core earnings (determined by expected and actual core earnings). This introduces a bias between the two main variables that results in a natural positive relation, causing evidence on classification shifting as a result of the model bias. Total accruals are used in McVay's (2006) model to estimate core earnings, this variable is replaced by operating accruals to mitigate the model bias and thereby improving the construct validity of the research design. This model is widely used in empirical papers that examine and find sound evidence of classification shifting in a country-specific or global setting. It is therefore appropriate and applicable for this master's thesis, and the inclusion of each variable in the model is explained further in this section. Hence, the models to estimate core earnings and unexpected core earnings are as follows:

$$CE_{i,t} = \beta_0 + \beta_1 CE_{i,t-1} + \beta_2 ATO_{i,t} + \beta_3 Accruals_{i,t-1} + \beta_4 Accruals_{i,t} + \beta_5 \Delta Sales_{i,t} + \beta_6 NEG\Delta Sales_{i,t} + \mathcal{E}_{i,t} \quad (1)$$

$$UCE_{i,t} = CE_{i,t} - E(CE)_{i,t} \quad (2)$$

Equation 1 includes lagged core earnings ($CE_{i,t-1}$) to capture core earnings persistence over time, asset turnover (ATO) to control for the relation with the profit margin, lagged accruals ($Accruals_{i,t-1}$) to capture information content of past accruals, current period accruals ($Accruals_{i,t}$) to control for extreme performance. Finally, change in sales ($\Delta Sales_{i,t}$) controls for the impact of sales growth on fixed costs, and negative sales ($NEG\Delta Sales_{i,t}$) to allow for different slopes for sales increase and decrease. Despite using McVay's (2006) research model, the calculation of variables are different according to the financial statement items of IFRS (note that McVay examined financial statement items reported according to US GAAP which differs from those prepared complying with IFRS). All variables presented in the research design are defined and explained in Table 3.

Calculating unexpected core earnings

Following Athanasakou *et al.* (2009), a proxy for core earnings (CE) is calculated as I/B/E/S actual EPS multiplied by the weighted average of number of shares. This proxy is used in both the first and second equation. Using this proxy allows for more data to run tests (instead of using hand collected data), the proxy is closer to analysts' definitions of earnings, and it's a more accurate proxy of the firm's core earnings. The first equation is regressed, using data from the databases, to obtain the coefficients β_0, β_1, β_2, β_3, β_4, β_5 and β_6. Subsequently, these coefficients are plugged into equation 1 (excluding CE this time) to generate the expected core earnings [E(CE)] as follows:

$$E(CE) = (0.6997178 * CE_{i,t-1}) + (-0.0084852 * ATO_{i,t}) + (0.1023007 * Accruals_{i,t-1}) + (-0.0628697 * Accruals_{i,t}) + (0.0102596 * \Delta Sales_{i,t}) + (0.007984 * NEG\Delta Sales_{i,t}) + 0.020799.$$

E(CE) is generated by using predetermined coefficients derived from equation 1 by regression, then multiplying these coefficients with the independent variables in the equation. Then, unexpected core earnings (UCE) is calculated illustrated in equation 2 by subtracting the predetermined CE from the estimated E(CE).

Testing for classification shifting

UCE is the main variable, accompanied by NRI, to operationalize classification shifting and is testing in the next equation:

$$UCE_{i,t} = b_0 + b_1 NRI_{i,t} + b_2 SIZE_{i,t} + b_3 Accruals_{i,t} + b_4 CFO_{i,t} + b_5 ROA_{i,t} + b_6 BMV_{i,t} + \mathcal{E}_{i,t} \quad (3)$$

Non-recurring items are estimated to test its association with unexpected core earnings using equation 3. Athanasakou *et al.* (2009) define non-recurring items as I/B/E/S actual earnings minus reported net income, scaled by sales. It is impossible to estimate the non-intentional part of misclassification from non-recurring items because these items are unexpected and unpredictable. Therefore, total non-recurring items is used in equation 3 to test for classification shifting activity. According to Athanasakou *et al.* (2009), these items can be either income-increasing or income-decreasing, or in contrast, Zalata & Roberts (2015) only find income-decreasing non-recurring items. This matter is further addressed in the next section. Finally, the following control variables are added to control for performance: firm size (SIZE), operating cash flow (CFO), return on assets (ROA), book to market value (BMV) and accruals. Barua *et al.* (2010) find significant differences in all these variables when comparing observations with and without discontinued operations, which also has a non-recurring nature. Barua *et al.* (2010) provide basic evidence that including these control variables improves the internal validity, comparing with those classification shifting studies that exclude any control variable in equation 3, such as McVay (2006), Fan *et al.* (2009), and more. Hence, these variables are used to control for performance in the empirical tests, and no prediction to the sign of these control variables are made. Model 1 and 3 are used to examine whether European firms have misclassified recurring items to non-recurring items in order to overstate core earnings. Consistent with hypothesis 1, this master's thesis predicts a positive relation between unexpected core earnings and non-recurring items if managers employ classification shifting, and thus positive coefficient b_1.

Meeting and/or beating earnings benchmark

$$UCE_{i,t} = c_0 + c_1 NRI_{i,t} + c_2 MEET\&BEAT_{i,t} + c_3 NRI_{i,t} * MEET\&BEAT_{i,t} + c_4 SIZE_{i,t} + c_5 Accruals_{i,t} + c_6 CFO_{i,t} + c_7 ROA_{i,t} + c_8 BMV_{i,t} + \mathcal{E}_{i,t} \quad (4)$$

Equation 4 tests whether firms misclassify non-recurring items (as a percentage of sales) to meet and/or beat earnings benchmarks. Coefficient c_3 is predicted to be positive and significant if managers use classification shifting to overstate core earnings in order to meet earnings benchmarks. UCE, NRI, and all control variables are consistent with equation 3. MEET&BEAT is a dummy variable that equals to 1 when the firm-year observation meets or beats one of the following three earnings benchmarks, and 0 otherwise (Barua *et al.*, 2010).

1. EPS ≥ 0; management avoids to report losses.
2. ΔEPS ≥ 0; management avoids to report a decline in earnings.
3. Analysts' forecast error > 0; this tests whether management use classification shifting to meet analysts' forecast. Analysts' forecast error is calculated as actual earnings minus median consensus forecast.

When the dummy variable, MEET&BEAT, has the value of 0, it signifies that the dependent variable has no influence on the independent variable. Hence, there is no relation between classification shifting and meeting and/or beating earnings benchmarks when the value is 0. The intention is to test whether or not there is a relation between the independent variable and the dependent variable, and not the magnitude of the relation. Furthermore, the other variables are continuous numerical values, whereas the absolute value of the three forms of MEET&BEAT do not have any intrinsic meaning on their own. Therefore, the dummy variables are appropriate in the regression (equation 4) for the analysis of attribute variables.

Table 3 – Variables description

Variable	Description
Accruals	Operating accruals is the difference between net income before extraordinary items and operating cash flows, scaled by sales.
ATO	Asset turnover is measured as sales over total assets.
BMV	Book to market value is measured as total stockholder's equity divided by reported EPS multiplied by the weighted average number of shares.
CE	Core earnings is measured as actual EPS on I/B/E/S multiplied by weighted average number of shares as a proxy, both unadjusted for splits to derive the historical figures, and scaled by sales.
CFO	Operating cash flow from cash flow statement, scaled by sales.
EPS	Reported actual earnings-per-share (EPS) from I/B/E/S.
ΔEPS	Change in EPS from I/B/E/S calculated as EPS_t - EPS_{t-1}.
M&B1	Meet&beat1 equals 1 if EPS is equal to or greater than 0, otherwise 0.
M&B2	Meet&beat2 equals 1 if the change in EPS is equal to or greater than 0, otherwise 0.
M&B3	Meet&beat3 equals 1 if forecast error is positive, otherwise 0. Forecast error is the difference between actual EPS and analysts' forecast EPS on I/B/E/S.
NRI	Non-recurring items is measured as core earnings minus net income, scaled by sales. If I/B/E/S actual earnings is greater than net income, then total non-recurring items are income-increasing.
ROA	Return on assets is measured as net income divided by average total assets.
ΔSales	Change in sales in percentage, measured as ($sales_t$ - $sales_{t-1}$)/$sales_{t-1}$.
NEGΔSales	Negative change in sales equals 1 if ΔSALES is negative, and 0 otherwise.
SIZE	Size is measured as the natural logarithm of total assets.
UCE	Unexpected core earnings is the difference between I/B/E/S actual core earnings and predicted core earnings (derived from equation 1), scaled by sales.

Data to calculate the above listed variables are obtained from I/B/E/S and Compustat Global databases. Calculation and definition of all variables are similar to those described in McVay (2006), Athanasakou *et al.* (2009), Barua *et al.* (2010), and Zalata & Roberts (2015).

4.2 Sample & Data collection

The sample selection starts by determining European listed firms on the Institutional Brokers Estimate System (I/B/E/S). European companies are required to comply with the IFRS in 2005 for their consolidated financial statements. Generally, companies must comply with the IFRS starting on or after January 1, 2005, thus companies with 12-month accounting period first publish IFRS (annual) financial information over the year 2005. Hence, the sample period runs from 2005 till 2015, including only complete fiscal year data. Data from countries that are not part of the European Union[24] are excluded, as well as Bulgaria, Croatia, and Romania because these countries join the EU after 2005 that might introduce distorted data[25].

Full population consists of 1.648 observations, from EU countries with different currencies. All observations without sufficient data to test hypothesis 1 are eliminated, and observations with less than 0,5 million euros in total sales are eliminated to avoid outliers. Financial companies are eliminated because those companies have different reporting environment and there must be at least 15 observations per country. The consolidated annual financial information is extracted from Compustat Global database and analysts' forecast data is retrieved from the I/B/E/S Summary files. The final sample consists of 1.125 firm-year observations.

	Number of observations	
Data selected EU countries from Compustat Global	53.925	
Data selected EU countries from I/B/E/S summary files	10.013	
Complete EU countries population (combined data)		1.648
Elimination		
Missing values to test hypothesis 1		-205
Financial companies		-250
Sales less than 0,5 million euros		-24
Less than 15 observations per country		-44
Final sample		1.125

[24] European Union: Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the UK.

[25] Prior to EU membership, those countries are not obliged to comply with IFRS.

Table 4 – Number of observations per country

Austria	10	France	267	Norway	3
Belgium	37	UK	26	Poland	75
Czech republic	8	Greece	33	Portugal	3
Cyprus	1	Ireland	35	Sweden	122
Germany	244	Italy	137		
Denmark	18	Lithuania	1		
Spain	50	Luxembourg	9		
Estonia	7	Latvia	2		
Finland	23	Netherlands	58		

Table 4 summarizes firm-year observations per country. All countries with less than 15 observations are eliminated. The number of observations per country are not equally divided, and there might be possible bias in the results due to strong concentration of data from Germany, France, Italy, and Sweden. However, due to limitation of data obtained from both I/B/E/S and Compustat databases, countries with comparatively low numbers of observations are not eliminated.

Country-level variables & Currencies

Despite the possible effects of country-level characteristics, this master's thesis does not include country-level variables in the analyses. A comparable study examines classification shifting with the use of special items using a European sample which consists of 11 different countries, acknowledges that the differences between industries, countries, and periods introduce severe heteroscedasticity (Kotlarek, 2015). However, after a partition of samples to test for country-level, industry, and size variables, the author concludes that due to data constraints[26] it is impossible to divide the data into more than one dimension and to run robust regressions. Hence, the inclusion of country-level variables and the partitions of samples into different sub-samples add little value to the analyses and results. These variables are thus disregarded. The final sample consists of data from 11 different countries.

[26] Kotlarek's (2015) final sample consists of 6,315 firm-year observations from 11 countries, which is much more than the final sample in this master's thesis.

All countries use the Euro currency during my sample period, except for Czech Republic, Denmark, Hungary, Poland, and Sweden. Due to lack of data to test hypothesis 1 and the minimum requirement of 15 firm-year observations per country, all data from Austria, Cyprus, Czech Republic, Estonia, Lithuania, Luxembourg, Latvia, Hungary, and the UK are eliminated. Data from other countries that reports in their national currency; Polish Zloty, Swedish Krona, and Danish Krone, are translated to Euros based on period-end exchange rate[27].

[27] Historic exchange rates are obtained from: *https://www.ecb.europa.eu/stats/exchange/.*

5. Empirical results & Analysis

This chapter starts with the descriptive statistics of the main variables of interest. The mean and median are discussed and compared to prior literatures. Then, the results of the Pearson correlations between variables are analysed and discussed, including the magnitude and sign of the coefficients of interest. The second part of this chapter concerns with the test results and discussion regarding the hypotheses, which is concluded in the next chapter.

5.1 Descriptive statistics

Table 4 provides the descriptive statistics of the main variables, which are winsorized at 1 percent and 99 percent to eliminate outliers. The mean (median) core earnings of all firms, as a percentage of sales, is 7,4% (4,5%). The mean (median) unexpected core earnings is 0% (0%) which is similar to prior studies (McVay, 2006; Athanasakou *et al.*, 2009; Zalata & Roberts, 2015) and has a standard deviation of 0,2%. Dummy variable MEET&BEAT 1 shows a mean of 0,99, indicating that almost all firm reported a positive EPS. Unexpectedly, analyst forecast is mostly negative, with a mean (median) of -0,118 (-0,001), hence forecast EPS is mostly higher than actual EPS.

Non-recurring items (NRI) estimated in this master's thesis are 59% income-increasing and 41% income decreasing, similar to Athanasakou *et al.* (2009) who also report both income-increasing and income-decreasing NRI, and unlike Zalata & Robert (2009) who only find income-increasing NRI. The mean total NRI, as a percentage of sales, is 8,3% which is larger than the 6.1% and 2.1% as reported by Athanasakou *et al.* (2009) and Zalata & Roberts (2015). The annual analysis (untabulated) shows that the yearly average of NRI fluctuates between 6,1% to 11% of sales over time, and is increased to 11% in 2015. These results indicates that the NRI are reported more pervasively and significantly, consistent with the results of Riedl and Srinivasan (2010) that special items[28] are increasing in magnitude and are becoming persistent over time.

[28] Here, special items is compared with non-recurring items because both items have a common nature that is not persistent and not expected to recur in the future.

Table 4

Descriptive statistics

Variable	Mean	Median	Standard deviation	25%	75%
Accruals	-0,016	-0,029	0,133	-0,064	0,001
Assets Turnover	1,124	0,959	0,782	0,627	1,403
Book-to-Market Value	16,000	8,806	29,938	5,445	15,065
Change in Earnings-per-Share	-0,345	0,016	8,532	-0,240	0,225
Core Earnings	0,074	0,045	0,112	0,014	0,082
Earnings-per-Share	2,274	0,720	12,502	0,148	1,800
Forecast error	-0,118	-0,001	0,641	-0,090	0,050
Meet&Beat 1 (1 if EPS => 0, 0 otherwise) *(dummy)*	0,991	1	0,094	1	1
Meet&Beat 2 (1 if change in EPS => 0, 0 otherwise) *(dummy)*	0,650	1	0,477	0	1
Meet&Beat 3 (1 if forecast error is positive, 0 otherwise) *(dummy)*	0,460	0	0,499	0	1
Non-recurring items (positive)	0,012	0,000	0,059	0	0,001
Non-recurring items (negative)	-0,026	-0,001	0,112	-0,006	0
Operating Cash Flow	0,100	0,081	0,093	0,037	0,139
Return on Assets	0,061	0,048	0,051	0,024	0,088
Change in Sales	0,122	0,065	0,348	-0,125	0,175
Negative change in Sales *(dummy)*	0,715	1	0,452	0	1
Size	6,730	6,709	2,168	5,048	8,280
Unexpected core earnings	0,000	0,000	0,002	0,000	0,000

There are a maximum of 1125 observations during the period of 2005-2015 from 450 European companies. All data is obtained from I/B/E/S and Compustat Global databases and the variables are as defined in Table 3. The 25% quartile is the value of the first quarter in the frequency distribution, and the 75% quartile is the value of the third quarter of the frequency distribution. Core earnings is calculated as the actual EPS recorded on I/B/E/B multiplied by the weighted average number of shares, scaled by sales. Unexpected core earnings are the difference between core earnings and the predicted value of core earnings. The estimated core earnings are calculated using the coefficients from equation 1: $CEi,t = \beta0 + \beta1CEi,t-1 + \beta2ATOi,t + B3Accrualsi,t-1 + \beta4Accrualsi,t + \beta5\Delta Salesi,t + \beta6NEG\Delta Salesi,t + Ei,t$. Simiar to NRI in Athanasakou *et al.* (2009), the estimated NRI in this master's thesis are either positive or negative, hence income-increasing or income-decreasing. NRI is split into two variables NRIpos (postitive) and NRIneg (negative). All negative values in NRIpos are assigned with *zero*, and vice versa for NRIneg.

Table 5

Pearson correlation of the main variables with 10% significance level

	Core earnings	Lag core earnings	Unexpected core earnings	Income-increasing NRI	Income-decreasing NRI	Total NRI
Core earnings	1					
Lag core earnings	0,805*	1				
	(0,000)					
Unexpected core earnings	**0,303***	-0,082*	1			
	(0,000)	(0,017)				
Income-increasing NRI	0,695*	0,629*	**0,160***	1		
	(0,000)	(0,000)	(0,040)			
Income-decreasing NRI	0,040	-0,133*	**0,229***	0,049	1	
	(0,185)	(0,000)	(0,000)	0,104		
Total NRI	0,433*	0,288	**0,256***	0,621*	0,746*	1
	(0,000)	(0,000)	(0,000)	(0,000)	(0,000)	

* indicates a significance level of 5% in a two-tailed t-test. There are a maximum of 1125 observations during the period of 2005-2015 from 450 European companies. All data is obtained from I/B/E/S and Compustat Global databases and the variables are as defined in Table 3. Simiar to NRI in Athanasakou *et al.* (2009), the estimated NRI in this master's thesis are either positive or negative, hence income-increasing or income-decreasing. NRI is split into two variables NRIpos (postitive) and NRIneg (negative).

Table 5 shows the Pearson correlations of the main variables, where significant coefficients are starred. Core earnings are positively correlated (0.303) to unexpected core earnings, and both of these variables are expected to be correlated with NRI in the same direction. Both income-increasing NRI (0,160) and income-decreasing NRI (0,229) show a positive correlations with unexpected core earnings. Consistently, total NRI is positively correlated (0,256) with unexpected core earnings, which collectively shows basic evidence of firms engaging in classification shifting to achieve higher core earnings. All three variables show statistical significant relation with unexpected core earnings.

5.2 Test results

Prior to running regressions, a several checks for assumptions are made. There are at least 2 continuous variables for the regressions (see equation 3), and all extreme values are eliminated by winsorizing the main variables at 1% and 99%. Also, there is independence of observations, confirmed with the Durbin-Watson statistic (untabulated). There is a linear relationship between unexpected core earnings and non-recurring items, shows a scatterplot (untabulated). Finally, there is insufficient data discrimination due to small sample size but this is an unavoidable limitation, which cause slightly abnormal distribution in residuals. However, this limitation does not have significant impact on the results rendered with current set of data.

5.2.1 Classification shifting

The first hypothesis predicts that firms engage in classification shifting by misclassifying income statement items, included in the calculation of core earnings, to non-recurring items, which result in higher core earnings. Recall the hypothesis as follows:

Hypothesis 1: Managers misclassify non-recurring items to inflate core earnings.

To test the main hypothesis, equation 3 was then developed based on Athanasakou *et al.* (2009), and Barua *et al.* (2013):

$$UCE_{i,t} = b_0 + b_1 NRI_{i,t} + b_2 SIZE_{i,t} + b_3\, Accruals_{i,t} + b_4 CFO_{i,t} + b_5 ROA_{i,t} + b_6 BMV_{i,t} + \mathcal{E}_{i,t} \quad (3)$$

A multiple regression is run to predict unexpected core earnings from income-decreasing non-recurring items, size, accruals, operating cash flows, return on assets and book-to-market value. The variables of interest are UCE and NRI, the former being the dependent variable

and the latter the independent variable. UCE is the unexpected core earnings calculated by subtracting the actual core earnings from expected core earnings derived from equation 1.

NRI is the non-recurring items, which are in this master's thesis income-decreasing or income-increasing, consistent with the non-recurring items in the study of Athanasakou *et al.* (2009). NRI is split into two variables: NRIpos (postitive) and NRIneg (negative) to examine whether managers use these items differently for classification shifting purposes. Following McVay (2006), all negative values in NRIpos are assigned with zero, and vice versa for NRIneg to include all observations in the tests. These variables are tested individually in equation 3 in order to assess whether NRI are used for classification shifting. The coefficient b_1 (for total NRI) is predicted to be positive, indicating a positive relation between unexpected core earnings and non-recurring items.

Table 6 presents the results of the regression from equation 3 explained previously, where the same regression is run individually with each main independent variable: total NRI, income-increasing NRI, and income-decreasing NRI. Panel A presents the result of equation 3 with total NRI, including the coefficient of each independent variable and the t-stat. The independent variables statistically predict UCE, with $F(6; 1125) = 21{,}02$; $p < 0{,}0000$ (untabulate); $R^2 = 0{,}1299$. The *F*-ratio shows that the independent variables helps to statistically and significantly predict the UCE. The (adjusted) R-squared is 0,1299 (12,31), indicating that 13% of the variability of the dependent variable is explained by the independent variables. This R^2 is much higher than those reported by comparable previous studies: McVay (2006), Zalata & Roberts (2015), and Athanasakou *et al.* (2009), who report the R-squared (full sample): 3%, 3%, and 0,1%, respectively. The coefficient for total NRI is 0,0245, indicating that with every increase of 1 euro in total NRI, UCE increases with 0,0245 euros/sales.

In panel B, the results of equation (3) on the income-increasing NRI and income-decreasing NRI are reported. In contrast to Athanasakou *et al.* (2009) who have not found any significant relation between total NRI and UCE, and in line with the evidence of Zalata and Roberts (2015) who find significant positive relation between non-recurring expenses and UCE, the results in panel B show a positive and significant relation between both income-increasing NRI (0,0031) and income-decreasing NRI (0,0019) and UCE. This relation is the strongest when correlated to the total NRI, and weakest to the income-decreasing NRI. Nevertheless, the results provide evidence that firms use the classification of non-recurring items and recurring times to manipulate core earnings. Hence, European firms

might use classification shifting to include or exclude non-recurring items in the calculation of core earnings, in order to inflate core earnings.

Overall, the control variables are mostly statistically significantly correlated to UCE, and the predicted signs of the coefficients are in line with the predictions based on previous studies.

Table 6

Regression of unexpected core earnings on total, income-increasing, and income-decreasing non-recurring items

Dependent variable = UCE		**Panel A**	**Panel B**	
Independent variables	**Predicted sign**	**Total NRI**	**Income-increasing NRI**	**Income-decreasing NRI**
NRI	+	0,0245	0,0031	0,0019
		9,49*	8,39*	5,50*
Size	-	-0,0000	-0,0000	-0,0000
		-2,23	-3,17*	-2,61
Accruals	-	0,0017	0,0006	0,0018
		7,22*	2,87	6,53*
Operating cash flow	-	0,0026	0,0019	0,0027
		8,03*	6,00*	7,91*
Return on Assets	+	0,0023	0,0029	0,0016
		4,47*	4,22*	3,14*
Book-to-Market value	-	-0,0000	0,0000	0,0000
		1,11	0,35	0,21
Intercept		-0,0001	-0,0000	0,0000
		-1,14	-0,21	-0,03
Adjusted R^2		0,2102	0,1918	0,1580
No. of Observations		997	997	997

* indicates a significance level of 0,01 in a two-tailed t-test. There are a maximum of 1125 observations during the period of 2005-2015 from 450 European companies. All data is obtained from I/B/E/S and Compustat Global databases and the variables are as defined in Table 1.

5.2.2 Meeting earnings benchmarks

The second hypothesis tests the relation between classification shifting and the incentives of meeting various earnings benchmarks; zero earnings, prior year-end earnings, and the consensus analysts' forecast. Hypothesis 2 is presented in the following forms:

Hypothesis 2a: Managers engage in classification shifting in order to avoid reporting negative core earnings.

Hypothesis 2b: Managers engage in classification shifting in order to meet or beat last year's core earnings.

Hypothesis 2c: Managers engage in classification shifting in order to meet or beat consensus analysts' forecast.

The hypotheses predict that managers are likely to employ classification shifting if by doing so allows them to meet earnings benchmarks, hence a stronger correlation between UCE and NRIxMEET&BEAT comparing to UCE and NRI. Total NRI is used to test all three forms of hypothesis 2 given the coefficient is highest for total NRI (see table 6). Hence, equation 4 is developed to test hypothesis 2, including all control variables presented in equation 3.

$$UCE_{i,t} = c_0 + c_1 NRI_{i,t} + c_2 MEET\&BEAT_{i,t} + c_3 NRI_{i,t} * MEET\&BEAT_{i,t} + b_2 SIZE_{i,t} + b_3 Accruals_{i,t} + b_4 CFO_{i,t} + b_5 ROA_{i,t} + b_6 BMV_{i,t} + \mathcal{E}_{i,t} \quad (4)$$

The regression is run to predict the relation between unexpected core earnings with total non-recurring items, dummy variable MEET&BEAT, and the control variables. The variables of interest are UCE, NRI, MEET&BEAT, and NRI x MEET&BEAT. MEET & BEAT is structured into three different dummy variable that is equal to 1 if one of the following conditions is true, and 0 otherwise: EPS $\geq$ 0, ΔEPS $\geq$ 0, or forecast error > 0. The main coefficient of interest in equation 4, c_3, is predicted to be positive, consistent with hypothesis 1.

Table 7 presents the regression results for equation 4. Overall, the independent variables explain at least 22% of the variability of UCE (see F-ratio). This ratio is higher than the *F*-ratio (0,1299) from equation 3, hence this model better explains UCE in comparison to the former. Similar to Barua *et al.* (2009), the coefficients of total NRI are positive and statistically significant for benchmarks 1 (0,0065) and 2 (0,0022), and is positive but not significant for benchmark 3 (0,0028). The coefficients of interest, on the variable NRI interacting with MEAT&BEAT, is negative and significant for benchmark 1 (-0,0043) and 3 (-0,0011), and is positive but insignificant for benchmark 2 (0,0005). This implies that managers are likely to employ classification shifting in order to meet earnings benchmarks, and more pervasively if it allows them to achieve positive earnings, and to meet and/or beat analysts' forecast earnings.

Table 7

Regressions of unexpected core earnings on earnings benchmarks analyses

Dependent variable = UCE

	Benchmark 1		Benchmark 2		Benchmark 3	
	Zero Earnings		Prior Period Earnings		Analyst Forecast	
Independent variables	**Coefficient**	**t-stat**	**Coefficient**	**t-stat**	**Coefficient**	**t-stat**
Total non-recurring items	**0,0065**	5,54*	**0,0022**	6,11*	**0,0028**	8,65*
MEET&BEAT	-0,0004	-1,06	0,0002	4,34*	0,0000	0,79
NRIxMEET&BEAT	**-0,0043**	-3,59*	**0,0005**	1,04	**-0,0011**	-1,78*
Size	-0,0000	-2,56	-0,0000	-2,51	-0,0000	-2,13
Accruals	-0,0018	7,68	0,0017	7,15*	0,0017	7,35*
Operating cash flow	0,0027	8,37*	0,0026	8,18*	0,0026	8,04*
Return on Assets	0,0021	3,98*	0,0018	3,37*	0,0023	4,55*
Book-to-Market value	0,0000	0,88*	0,0000	1,49	0,0000	1,17
Intercept	0,0003	0,83	-0,0002	-1,84	-0,0001	-1,36
F(8, 986)	28,77		29,75		27,18	
Prob > F	0,0000		0,0000		0,0000	
R-squared	0,2301		0,2361		0,2202	
No. of Observations	997		997		997	

* indicates a significance level of 0,01 in a two-tailed t-test. There are a maximum of 1125 observations during the period of 2005-2015 from 450 European companies. Benchmark 1 is a dummy variable that is equal to 1 if EPS > 0, and 0 otherwise. Benchmark 2 is also a dummy variable that is equal to 1 if $\Delta EPS \geq 0$. Finally, benchmark 3 is a dummy variable that is equal to 1 if forecast error > 0. All data is obtained from I/B/E/S and Compustat Global databases and the variables are as defined in Table 1.

Conclusions

Earnings management is a practice when managers use their discretion to mispresent financial reports with the intention to mislead stakeholders. There are various means of earnings management, including accruals-based earnings management, using real activities or transactions, and by manipulation classifications of income statement components. This master's thesis examines the use of classification shifting among European firms, and the incentives to manipulate earnings numbers. Classification shifting refers to the use of classifications within the income statement aiming to overstate or understate subtotal(s) while net earnings remain equal. Prior literature examines the use of income statement items (e.g. special items, R&D expenses, discontinued operations, abnormal items) with a non-recurring nature as common characteristic to increase subtotals (McVay, 2006; Barua *et al.*, 2010; Cameron & Gallery, 2012; Skaife *et al.*, 2013). This master's thesis will focus on the use of non-recurring items (NRI), as defined by Athanasakou *et al.* (2009). Prior literature finds the incentives to use classification shifting is to meet or beat analysts' forecast (McVay, 2006; Fan *et al.*, 2010), management's earnings benchmarks, and/or to smooth earnings (Hsu & Kross, 2011). Hence, the first hypothesis predicts that managers misclassify NRI to inflate core earnings, and the second hypothesis predicts that managers employ classification shifting to meet various earnings benchmarks. To examine whether firms employ classification shifting to meet earnings benchmarks, the association between the probability of hitting an earnings benchmark and a classification shifting proxy is tested. To examine classification shifting, the relation between unexpected core earnings and NRI is inspected. The sample consists of European listed firms in the period of 2005-2015 and the data is retrieved from I/B/E/S Summary files and Compustat Global databases.

The results show a significant and positive relation between NRI and unexpected core earnings, showing strong evidence that managers use classification shifting to inflate core earnings. Then, total NRI is split into income-increasing NRI and income-decreasing NRI where both variables show a significant and positive relation with unexpected core earnings. The relation with unexpected core earnings is the strongest with total NRI, and the weakest with income-decreasing NRI. This suggests that mangers are less likely to use the income-decreasing items to manipulate core earnings, hence less likely that recurring expenses are misclassified to non-recurring expenses that is excluded from the calculation of core earnings. Furthermore, managers are somewhat more likely to include non-recurring gains into the calculation of core earnings.

Earnings number is a key performance measure and financial executives believe that meeting earnings benchmarks, and having smooth earnings are important because the failure to do so might lead to uncertainty about the future prospects of the firm (Graham *et al.*, 2005; Dichev *et al.*, 2013). Next, the interaction of NRI and a proxy of meeting or beating earnings benchmark is examined to test management's incentives to use classification shifting. The results provide strong evidence that managers use classification shifting to avoid reporting zero or negative earnings, to meet and/or beat analysts' forecast, and weak evidence to support managers' incentive to use classification shifting to meet last year's earnings. In conclusion, managers use non-recurring items in a strategic manner to inflate core earnings with the incentives to meet earnings benchmarks.

This master's thesis contributes to the existing literature of earnings management and classification shifting by examining European firms that report their consolidated financial statements in accordance with the IFRS. Prior literature provides minor evidence in an European setting or in an IFRS setting as the major literature on classification shifting is conducted in the US and the UK. The results of this master's thesis is important to financial statement users, European standard setters and to auditors because due to the flexibility provided by the accounting regime, classification shifting is more viable as a mean of earnings management (Doukakis, 2010).

The major limitation of this master's thesis is the lack of combined data obtained from I/B/E/S and Compustat Global databases. I/B/E/S database provides data identifiers that are not (entirely) compatible with those obtained from Compustat Global, and as a result, the combined data is very limited. This is a fundamental problem of the compatibility of merging data from these specific databases. Advanced researchers may try to convert or adapt existing identifiers from one database to match those of another. Additionally, future researches should develop another proxy for core earnings that yields more data in another database (i.e. not I/B/E/S), or use a broader sample by taking a full population of worldwide firms that report in accordance to the same accounting regulation. When this limitation is overcome, researchers can examine the data better by partitioning into sub-samples to include country-specific variables or to examine the different industries or sizes of the firms.

References

Abernathy, J. L., B. Beyer, & E. T. Rapley. 2014. Earnings Management Constraints and Classification Shifting. Journal of Business Finance & Accounting 41 (5-6): 600-626.

Accounting Standards Board. 1992. Financial Reporting Standard No. 3 – 'Reporting Financial Performance'. Retrieved from: https://frc.org.uk/.

Alfonso, E., C. S. A. Cheng & S. Pan. 2015. Income Classification Shifting and Mispricing of Core Earnings. Journal of Accounting, Auditing & Finance 1-32.

Athanasakou, V. E., N. C. Strong & M. Walker. 2009. Earnings Management or Forecast Guidance to Meet Analyst Expectations? Accounting and Business Research 49 (1): 3-35.

Australian Accounting Standards Board. 2002. Australian Accounting Standard 1018 – 'Statement of Financial performance'. Retrieved from: http://www.aasb.gov.au/.

Australian Accounting Standards Board. 1973. Australian Accounting Standard 1 – 'Profit and Loss Statements'. Retrieved from: http://www.aasb.gov.au/.

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

Barth, M. E., W. R. Landsman & M. H. Lang. 2008. International Accounting Standards and Accounting Quality. Journal of Accounting Research 46 (3): 467-498.

Barth, M. E. 2015. Commentary on Prospects for Global Financial Reporting. Stanford University Graduate School of Business Research Paper No. 15-22.

Barua, A., S. Lin & A. M. Sbaraglia. 2010. Earnings Management Using Discontinued Operations. The Accounting Review 85 (5): 1485-1509.

Beattie, V., Brown, S., Ewers, D., John, B., Manson, S., D. Thomas & M. Turner. 1994. Extraordinary Items and Income Smoothing: A Positive Accounting Approach. Journal of Business Finance & Accounting 21 (6): 791-811.

Behn, B. K., G. Gotti, D. Herrmann & T. Kang. 2013. Classification Shifting in an International Setting: Investor Protection and Financial Analysts Monitoring. Journal of International Accounting Research 12 (2): 27-50.

Bradshaw, M. T. & R. G. Sloan. 2002. GAAP versus The Street: An Empirical Assessment of Two Alternative Definitions of Earnings. Journal of Accounting Research 40 (1): 41-66.

Cameron, R. & N. Gallery. 2008. The Rise and Demise of Abnormal Items. Australian Accounting Review 18 (44): 63-70.

Cameron, R. & N. Gallery. 2012. Were Regulatory Changes in Reporting "Abnormal Items" Justified? Journal of Accounting & Organizational Change 8 (2): 160-185.

Conceptual Framework for Financial Reporting. 2010. Retrieved from http://www.ifrs.org/

Cready, W., T. J. Lopez & C. A. Sisneros. 2010. The Persistence and Market Valuation of Recurring Nonrecurring Items. 2010. The Accounting Review 85 (5): 1577-1615.

Dichev, I. D., Graham, J. R., C. R. Harvey & S. Rajgopal. 2013. Earnings Quality: Evidence From The Field. Journal of Accounting and Economics 56: 1-33.

Ding, Y., Hope, O. K., T. Jeanjean & H. Stolowy, 2007. Differences Between Domestic Accounting Standards and IAS: Measurement, Determinants and Implications. Journal of Accounting and Public Policy, 26 (1): 1-38.

Doukakis, L. C. 2010. The Persistence of Earnings and Earnings Components After the Adoption of IFRS. Managerial Finance 36 (11): 969-980.

E.ON. 2014. 2014 Annual Report. Hamburg: Jung Produktion. Retrieved from www.eon.com/

Gunny, K. 2005. What Are the Consequences of Real Earnings Management. University of California Haas School of Business research paper.

Fan, Y. & X. K. Liu. 2015. Misclassifying Core Expenses as Special Items: Cost of Goods Sold or Selling, General, and Administrative Expenses? SSRN Electronic Journal 07/2015.

Fan, Y., Barua, A., W. M. Cready & W. B. Thomas. 2010. Managing Earnings Using Classification Shifting: Evidence from Quarterly Special Items. The Accounting Review 85 (4): 1303-1323.

Fields, T., T. Lys & L. Vincent. 2001. Empirical Research on Accounting Choice. Journal of Accounting and Economics 31: 255-307.

Financial Accounting Standards Board. 2015. Simplifying Income Statement Presentation by Eliminating the Concept of Extraordinary Items. The FASB Accounting Standards Codification. Norwalk: Financial Accounting Foundation.

Godfrey, J. M., & K. L. Jones. 1999. Political Cost Influences on Income Smoothing via Extraordinary Item Classification. Accounting and Finance 39: 229-254.

Graham, J. R., C. R. Harvey & S. Rajgopal. 2005. The economic implications of Corporate Financial Reporting. Journal of Accounting and Economics 40: 3-73.

Haw, I. M., S. S. M. Ho & A. Y. Li. 2011. Corporate Governance and Earnings Management by Classification Shifting. Contemporary Accounting Research 28 (2): 517-553.

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

Healy, P. M. & K. G. Palepu. 2001. Information Asymmetry, Corporate Disclosure, and The Capital Markets: A Review of The Empirical Disclosure Literature. Journal of Accounting and Economics 31: 405-440.

Holthausen, R. 1990. Accounting Method Choice: Opportunistic Behavior, Efficient Contracting and Information Perspectives. Journal of Accounting and Economics, 12: 207–218.

Hsu, C. & W. Kross. 2011. The Market Pricing of Special Items that Are Included in Versus Excluded from Street Earnings. Contemporary Accounting Research 28 (3): 990-1017.

ICAEW. 2015. The Effects of Mandatory IFRS Adoption in The EU: A Review of Empirical Research. Retrieved from: http://www.icaew.com.

International Accounting Standards Board. 2001. IAS 1 Presentation of Financial Statements. Retrieved from: http://www.ifrs.org.

International Accounting Standards Board. 2014. IFRS 9 Financial Instruments (replacement of IAS 39). Retrieved from http://www.ifrs.org.

Kotlarek, E. 2015. European Debt Crisis and Special Items: Evidence from European Countries. Erasmus University Rotterdam Erasmus School of Economics master's thesis.

Lev, B. & P. Zarowin. 1999. The Boundaries of Financial Reporting and How to Extend Them. Journal of Accounting Research 37 (2): 353-385.

Lin, S., S. Radhakrishnan & L. N. Su. 2006. Earnings Management and Guidance for Meeting or Beating Analysts' Earnings Forecasts. Available at SSRN 928182.

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

Nichols, D. C. & J. M. Wahlen. 2004. How Do Earnings Numbers Relate to Stock Returns? A Review of Classic Accounting Research with Updated Evidence. Accounting Horizons 18 (4): 263-286.

Regulation (EC) No 1606/2002 of the European Parliament and of the Council of 19 July 2002 on The Application of International Accounting Standards. Retrieved from: http://eur-lex.europa.eu.

Riedl, E. J. & S. Srinivasan. 2010. Signaling Firm Performance through Financial Statement Presentation: An Analysis Using Special Items. Contemporary Accounting Research 27 (1): 289-332.

Roychowdhury, S., 2006. Earnings Management through Real Activities Manipulation. Journal of Accounting and Economics 42: 335–370.

Salah, A. 2010. Earnings Management in the Years Following the Integrated Corporate Income Tax within Dutch Housing Associations. Erasmus University Rotterdam Erasmus School of Economics master's thesis.

Scott, W. R. 2003. Financial Accounting Theory third edition. Toronto: Prentice Hall.

Shirato, K., & K. Nagata. 2012. Earnings Management through Classification Shifting under Japanese GAAP. Tokyo Institute of Technology research paper.

Siu, D. T. L. & R. W. Faff. 2013. Management of Core Earnings Using Classification Shifting around Seasoned Equity Offerings. Available at SSRN 1928578.

Skaife, H. A., L. A. Swenson & D. D. Wangerin. 2013. Classification Shifting of R&D Expense. Working paper.

Watts, R. L. & J. L. Zimmerman. 1990. Positive Accounting Theory: A Ten Year Perspective. The Accounting Review 65 (1): 131-156.

Zalata, A., & C. Roberts. 2015. Internal Corporate Governance and Classification Shifting Practices: An Analysis of U.K. Corporate Behavior. Journal of Accounting, Auditing & Finance 1-28.

Zeff, S. A. 1978. The Rise of "Economic Consequences". The Journal of Accountancy: 56-63.