Stockholm School of Economics
3350 Master Thesis in Accounting and Financial Management
Fall 2014

A Guide to the Ga(a)p in the Street

A Quantitative Analysis of Sell-side Analysts' Exclusion Decisions Regarding Special Item Subcomponents and the Impact of Management Guidance on Street Earnings

Thordis Lajewski (40649) Dovile Sniokaite (40651)

Submitted on December 8, 2014
Supervisor: Hanna Setterberg

Abstract:

Firms' performance is reported by means of up to three earnings measures: firms' mandatory GAAP, firms' complementary pro forma and sell-side analysts' street earnings. The latter two measures (non-GAAP) are derived through the exclusion of earnings components, special (i.e. non-recurring) and incremental (i.e. recurring) items, from GAAP earnings. Knowledge on the composition and interaction of both figures is little and mainly restricted to US settings. This thesis thus explores sell-side analysts' treatment of special items subcomponents in the derivation of street earnings and the impact of management guidance on sell-side analysts' exclusion decisions on Swedish data. It thereby enhances a US study by Christensen et al. (2011) to account for both, *management-centric* and *earnings components-centric* perspectives.

The findings are as follows: 1) Sell-side analysts to a large extent exclude special items in their street earnings. The treatment of subcomponents thereby does not differ significantly. 2) Management guidance increases sell-side analysts' exclusions but no effect of firm guidance on analysts' treatment of special items subcomponents can be determined. 3) Most US research findings on street earnings are confirmed for the Swedish setting, suggesting similarities between both jurisdictions despite different accounting regimes and capital market dynamics.

Keywords:

Street Earnings, Earnings Guidance, Special Items Subcomponents, Analyst Exclusions, non-GAAP Earnings

Acknowledgements

We hereby would like to thank our supervisor Hanna Setterberg, Assistant Professor at the Department of Accounting at Stockholm School of Economics, for her assistance in our thesis, especially her valuable support in the extraction of data from databases and discussions of the broad research literature.

Furthermore, we would like to express our gratitude to everyone else who contributed input to the thesis: Peter Malmqvist, Visiting Teacher at the Department of Accounting at Stockholm School of Economics, for an insightful interview on sell-side analysts' practices and the access to his current research; Per-Olov Edlund, Associate Professor at the Center for Economic Statistics at Stockholm School of Economics, for complex discussions on robustness testing and all proof-readers, we annoyed with several revised versions, for their endurance and obsession with detail.

As this thesis constitutes our last interaction with Stockholm School of Economics as students, we would also like to thank its Accounting Department for 1.5 years of rewarding, time-intensive studies.

Table of Contents

Exhibit List

1. Introduction

1.1 "Prologue"

"The problem of telling contemporary history is that your message gets outdated."
(Salam Rushdie)

Regulated under accounting regimes and scrutinized by auditors, GAAP earnings are commonly perceived to provide a (relatively) unbiased snapshot of firm performance in the past period. Yet, research indicates that modern capital markets attribute less and less importance to the concept of GAAP earnings. Instead of requiring a "complete" description of the past period, investors are found to focus on earnings measures that only capture the persistent part of past period's earnings, allowing for an extrapolation of the latter into future years (Bradshaw & Sloan 2002). With pro forma earnings (released by firm's management) and street earnings (derived by sell-side analysts), two alternative non-GAAP metrics responding to this idea of persistent core earnings have emerged – both of which are widely unregulated[1]. Studies by Bradshaw & Sloan (2002), Frankel & Roychowhury (2005) and Marques (2006) conclude that especially sell-side analysts' street earnings replace the traditional GAAP earnings as inputs for firms' stock market valuations and capture investors' attention.

This evident importance of non-GAAP measures has inspired various streams of research covering the derivation of single as well as the interdependence of both alternative earnings measures and underlying GAAP earnings. Matters of contention are numerous but can be subsumed under two primary research foci: *Are the different earnings metrics serving informative or manipulative purposes?* and *Do street earnings differ from pro forma earnings and if so, why?* Though both questions are partly interrelated, this thesis sees its origin in the latter, exploring the relationship between pro forma and street earnings reporting. The prevailing issue of concern of this focus area is the fact that sell-side analysts, as external parties, rely on firms' information in the determination of their street earnings and consequently, might simply constitute a second mouthpiece of firm communication. Yet, observations of deviations between analysts' and management's exclusion in their non-GAAP figures, such as by Bhattacharya et al. (2003), Jennings & Marques (2007) and Choi et al. (2007), provide first indications of sell-side analysts' unwillingness to follow management guidance. The sources of disagreement between both parties, i.e. what type of earnings components receive different treatment, so far remain widely unexplained, primarily due to "blank spots" in knowledge on sell-side analysts' practices. Moreover, research on the different earnings measures is strongly dominated by US studies as

[1] An exception are pro forma figures in the US which are regulated under Regulation G, released by the Securities and Exchange Commission (SEC), requiring a reconciliation between a firm's non-GAAP and underlying GAAP figures.

more standardized accounting practices as well as regulations on pro forma reporting facilitate the access to required research data.

1.2 Purpose

This thesis pursues an exploration of the relationship of GAAP earnings, management guidance and street earnings on Swedish data. Building on a US study by Christensen et al. (2011), it aims at determining sell-side analysts' treatment of different earnings components, primarily subcategories of special items, in the derivation of street earnings. Moreover, this thesis attempts to provide a closer assessment of the impact of management guidance on analysts' exclusion practices than has been accomplished by prior studies. It contributes to the existing research literature with regard to several aspects:

This paper is one of few which consider the decomposition of special items into different categories (i.e. Gu & Chen 2004, Black & Christensen 2009) and the first (known) to explore whether these components receive different treatment by sell-side analysts in their exclusion decisions. This analysis can be seen as a response to research's increasing interest in the nature, persistence and transparency (e.g .Gu & Chen 2004, Riedl & Srinivasan 2010) of firms' disclosed special items components, suggesting asymmetries in sell-side analysts' perceptions of the uncertainties integral to the recognition of single categories.

Moreover, this thesis' research considers itself an improvement to Christensen et al.'s (2011) research design, thereby extending the existing research literature on management's influence on sell-side analysts in the derivation of street earnings. Besides a disaggregation of special items into subcomponents, this thesis introduces a reconceptualization of the measure of management guidance to present a more direct linkage between firms' input and sell-side analysts' reaction. This modification addresses criticism raised against Christensen et al.'s (2011) model by Bradshaw (2011) and enables an analysis of the impact of guidance on different earnings components. Additionally, the study is extended to account for further variables which are believed to explain sell-side analysts' exclusions based on insights generated by other studies in the broad literature on earnings measures. Also, Christensen et al.'s (2011) basic models are tested, allowing for an assessment of the generalizability of the authors' findings across different data samples.

Last but not least, this thesis constitutes the first comprehensive analysis of firms' and sell-side analysts' reporting of special items and non-GAAP figures in Sweden and is one of very few such studies on European data (e.g. Gu & Chen 2004, Aubert 2009). Consequently, this research helps to provide a first indication in how far US observations hold in other accounting regimes and financial markets of varying dynamics.

1.3 Structure

The structure of this thesis is as follows: Section 2 provides an introduction to the practices of performance reporting by means of presenting different earnings metrics. It gives an overview of existing research literature on GAAP, street and pro forma earnings and there within identifies the most prevailing research foci and knowledge gaps. Section 3 presents the research design, covering the hypothesis and model development as well as the data collection and sample selection. Section 4 depicts and discusses the results, providing insight into management guidance and sell-side analysts' exclusion practices. In Section 5, the research findings are assessed for robustness. Research limitations are discussed in Section 6. The thesis concludes with a summary of the research findings in Section 7 and a consideration of future research opportunities in Section 8.

2. Backgrounds

2.1 Introduction to Terminologies

Research on firms' different earnings metrics – GAAP, pro forma and street earnings – is often perceived as rather complex and confusing. This perception is driven by inconsistencies in the application of terminologies across the earnings metrics. Research on pro forma earnings frequently uses street earnings data as a proxy for the former (e.g. Bradshaw & Sloan (2002), Doyle et al. 2003, Heflin & Hsu 2008) and has contributed to a dilution in the distinction of both terms (e.g. Hsu & Kross 2010). Additionally, either or both street and pro forma earnings are often summarized under the term non-GAAP (e.g. Berger 2005, Frankel et al. 2011, Choi & Young 2013). In order to facilitate the understanding of this thesis' research as well as the review of the existing literature, in a first step, the different terminologies will be defined and classified based on their interaction with and relation to different market participants (i.e. investors, firms, sell-side analysts, auditors/regulators).

2.1.1 GAAP figures

Among the three earnings metrics capturing firm performance, GAAP earnings constitute the fundamental measure. They are derived on a compulsory basis in compliance with standards set by accounting regimes such as IFRS, US GAAP or other local GAAPs. Reported figures fall under the scrutiny of auditors and therefore enjoy a reputation of (relative) objectiveness. GAAP earnings comprise core earnings and special items. Core earnings capture those earnings components which are considered "persistent". Special items on the contrary are of temporary nature, thus non-recurring. Christensen et al. (2011) see typical examples of such *"one-time"* items in asset write-downs and write-offs, gains or losses from asset sales and early retirement of debts, legal settlements, and restructuring charges. The recognition of special items in GAAP earnings is seen to have increased significantly in frequency and magnitude over recent years (Riedl & Srinivasan 2010, Bradshaw & Sloan 2002).

Despite the rigor of accounting regulations, companies still maintain considerable flexibility in financial reporting, and accounting standards require management to make numerous judgments that can profoundly impact reported GAAP earnings (Jackson & Pitman 2001). Empirical research, e.g. McVay (2006), indicates that the need for and opportunities of judgments enable managers to arrange the presentation of GAAP earnings for either informative or manipulative purposes (see Section 2.2.1.1). Particularly special items are strongly associated with management judgment, given that they are little regulated. Riedl & Srinivasan (2010) argue that classifications of special items depend on management's discretion and involve high levels of uncertainty as well as measurement issues. IFRS does not recognise the concept of extraordinary (unusual/exceptional/special) items and prohibits recognising similar items below operating profit; yet IAS 1 paragraph 98 states that material items, such as asset write-downs, restructuring charges, gains (losses) from disposals of assets, should be disclosed separately. A perfect setting would require any types of non-recurring items and only these to be separately reported from components of core earnings. Yet, real world observations indicate that firms' presentation practices are highly individualistic. Burgstahler et al. (2002) moreover find evidence that special items can significantly vary in persistence, questioning an adequate definition of the underlying concept of non-recurrence. Given their (allegedly) transitory nature, special items can be considered the main earnings components that are dropped in the derivation of non-GAAP figures, e.g. Abarbanell & Lehavy (2007). As a consequence, special items are exposed to earnings management activities by firms pursuing manipulative agendas (e.g. McVay 2006).

Knowledge on whether different subcomponents of special items as identified by Black & Christensen et al. (2009) are more or less likely to get excluded compared to their "peers" so far is scarce but will constitute one of the contributions this thesis can make. Other exclusions suspected to be (incorrectly) made to GAAP earnings in the derivation of non-GAAP figures are recurring *"non-cash items",* especially amortization, stock compensation expense or share in profits of associated companies as well as certain cash expenses such as R&D (Whipple 2014, Christensen et al. 2011, Bhattacharya et al. 2004, Lougee & Marquardt 2002, Doyle at al. 2003, Choi et al. 2007). Any exclusions beyond the scope of special items are named incremental exclusions.

Furthermore, research indicates that the concept of traditional GAAP accounting, primarily providing a snapshot of firm performance in the past period, must be considered (somewhat) outdated. Studies such as by Bradshaw & Sloan (2002) and Frankel & Roychowhury (2005), comparing investors' reliance on different earnings measures, conclude that investors have turned their attention away from traditional GAAP earnings. Marques (2006) argues that especially sell-side analysts' street earnings replace GAAP earnings as inputs for firms' stock market valuations. These insights constitute the underlying motivation of this thesis to contribute to research on non-GAAP measures. Andersson & Hellman (2007) additionally claim that increased "*complexity*" in accounting standards has driven the emergence of alternative non-GAAP figures and observe that sell-side analysts, the concern of this thesis, are responsive to firms' pro forma figures in the determination of their judgments. The authors consequently warn:

"If an alternative (non-GAAP) presentation of a company's performance draws attention away from GAAP numbers in such way as to make sophistic users change their judgment, as our results suggest, this represents a potential threat to the public's trust in accounting (…)."
(Andersson & Hellman 2007, p.278)

2.1.2 Non-GAAP figures

Non-GAAP figures subsume both pro forma and street earnings and describe earnings metrics that are derived outside the regulations of accounting regimes by excluding certain earnings components from GAAP figures. The underlying concept to both metrics can be seen in the idea to provide alternative earnings measures which better reflect the core performance of a firm and thus can be deemed better suitable for a projection of future performance than complex GAAP figures. If "derived correctly", they are thus the visualization of GAAP core earnings. Yet, the informative value of these metrics is not without controversy and numerous research endeavours have explored whether these figures are misused for manipulative purposes. A review of the respective research literature is provided in Section 2.2. With concerns of manipulative actions, regarding the GAAP as well as both non-GAAP metrics, the first prevailing focus in the broad research literature on earnings reporting can be identified:

Are the different earnings metrics serving informative or manipulative purposes? (Focus 1)

Pro forma figures emerge as a second form of earnings reported by firms' management and constitute a voluntary complement to compulsory GAAP figures. If providing such an alternative earnings measure, US firms are required to disclose information on the reconciliation between their pro forma and GAAP figures in accordance with Regulation G issued by the Securities and Exchange Commission (SEC). This practice allows for a (relatively) straight-forward determination of earnings components which got excluded from GAAP figures. Pro forma reporting outside the US however is usually not regulated, complicating an understanding of the earnings components excluded by management in their alternative measures. Additionally, pro forma earnings are normally less emphasized by European firms as compared to their American counterparts. An interview with a Swedish sell-side analyst[2] covering the Nordic region revealed that he only knows two companies to use pro forma statements in their financial reports. Yet, an analysis of firms' year-end reports proves the existence of pro forma figures[3] in many Swedish

[2] To ensure that its research design adequately reflects sell-side analysts' practices in the determination of street earnings, this thesis has performed an interview with a Swedish sell-side analyst. The interview was semi-structured, confronting the interviewee with a list of predefined open-end questions but allowing for follow-up questions regarding the given answers. As this thesis is of quantitative nature and the interview is only considered a supplement to this thesis' research, the non-scientific approach to the interview is considered acceptable.
[3] Importantly, this thesis applies a broader than the literal definition of pro forma earnings as the research had to be adapted to a non-US setting (for a detailed explanation, see Section 3.4).

companies. This thesis will only take into account the communication of pro forma earnings in year-end reports as these have been identified as the most important source of information for sell-side analysts by the Swedish interviewee. A similar perception is confirmed by Bence et al. (1995). Yet, pro forma communication can usually take various forms, e.g. press releases or conference calls and takes place both, prior to or at/post a firm's reporting date (Black et al. 2014).

Street earnings on the contrary are derived by sell-side analysts, covering a firm. Sell-side analysts are an external party to firms and thus often perceived as independent. However, as outsiders they suffer from noticeable information deficiencies regarding a firm's business and eventually have to build their assessment of firm performance on those inputs provided by management. Bradshaw (2011, p.536) reasons:

"[W]here else would analysts obtain information on amounts to exclude, if not from managers? (…) [I]t would be unreasonable to argue that analysts and managers act independently, because analysts must base the decision on what to exclude on some information (and it certainly originates with management, although not necessarily through earnings guidance)."

This intuitive interdependence between street and pro forma earnings is the basis to a second focus in the existing literature covering both alternative earnings metrics:

Are there any differences between pro forma and street earnings and if so why? (Focus 2)

As a last remark, it has to be outlined that data on street earnings as used in research (so far) always constitutes an aggregated consensus number of various sell-side analysts' earnings forecasts or actuals, compiled by tracking services, e.g. I/B/E/S[4]. This set-up entails two important downsides: First, knowledge on single sell-side analysts' practices as well as disagreement between sell-side analysts who cover the same firm is very little. Second, tracking services claim to process sell-side analysts' information by means of "The Majority Rule"[5] but allow for deviations from the latter if considered necessary. This practice is referred to as a

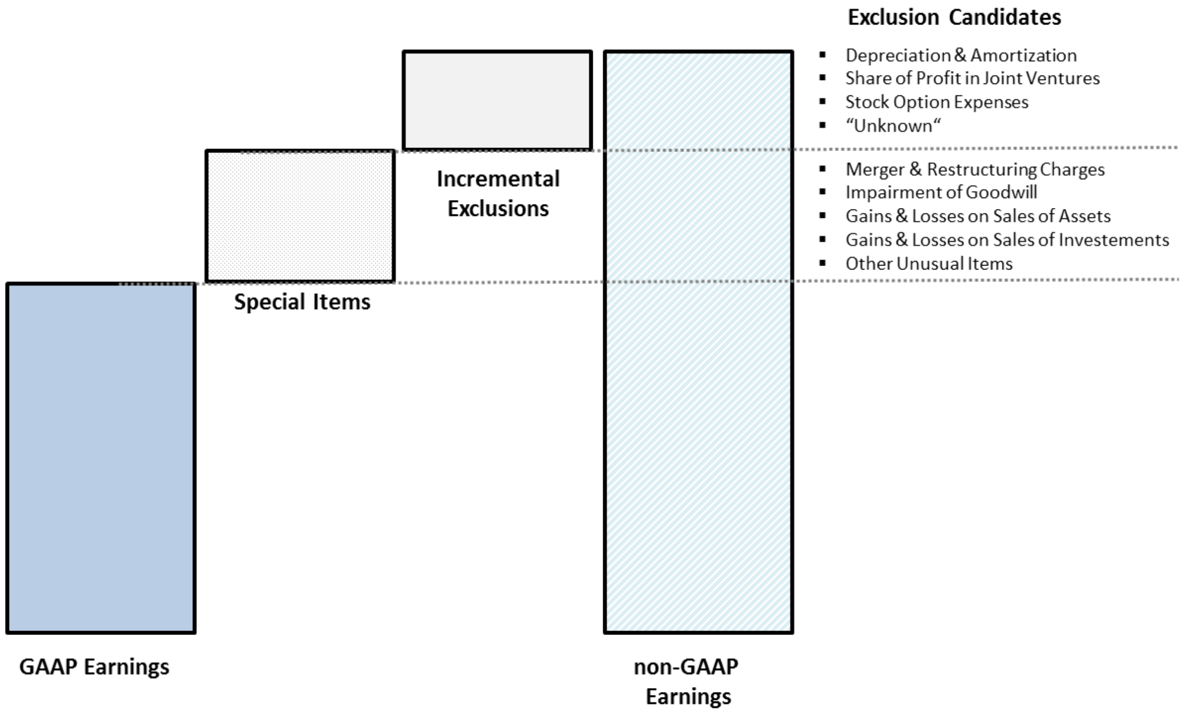
[4] "Individual analysts typically issue research reports immediately after an earnings announcement to provide their assessment of the firm's performance and to make new projections for future periods based on the most recent disclosure. In their assessment of the firm's performance during the period covered by the earnings press release, analysts generally provide their own version of actual earnings to compare ex post to their ex ante forecast (Whipple, 2012). The I/B/E/S actual EPS metric represents, in essence, a consensus of individual analysts' ex post actual earnings metrics." (Black & Christensen 2014, p.1)

[5] According to Black et al. (2014, p.5), Thomson Reuters describes the "majority rule" as follows: "[The] goal is to present [street earnings] on an operating basis, whereby a corporation's reported earnings are adjusted to reflect the basis that the majority of contributors use to value the stock. In many cases, the reported figure contains unusual or one-time items that the majority of analysts exclude from their actuals. The majority accounting basis is determined on a quarter-by-quarter basis ... [I/B/E/S] examines each reported item, and includes or excludes the item from the [street earnings number] based on how the majority of contributing analysts treat the item for that period."

"black-box" approach by research (Abarbanell & Lehavy 2007) and in the course of this thesis, I/B/E/S has been found unwilling to further clarify their practices[6]. The reliance on tracking service data as a proxy for sell-side analysts' exclusions ultimately introduces the uncertainty whether observed effects really model the relationship between management and sell-side analysts or rather tracking services (Bradshaw 2011).

To summarize, Exhibit 1 visualizes the relation between all three earnings measures.

Exhibit 1 ***From GAAP to Non-GAAP Earnings Figures***



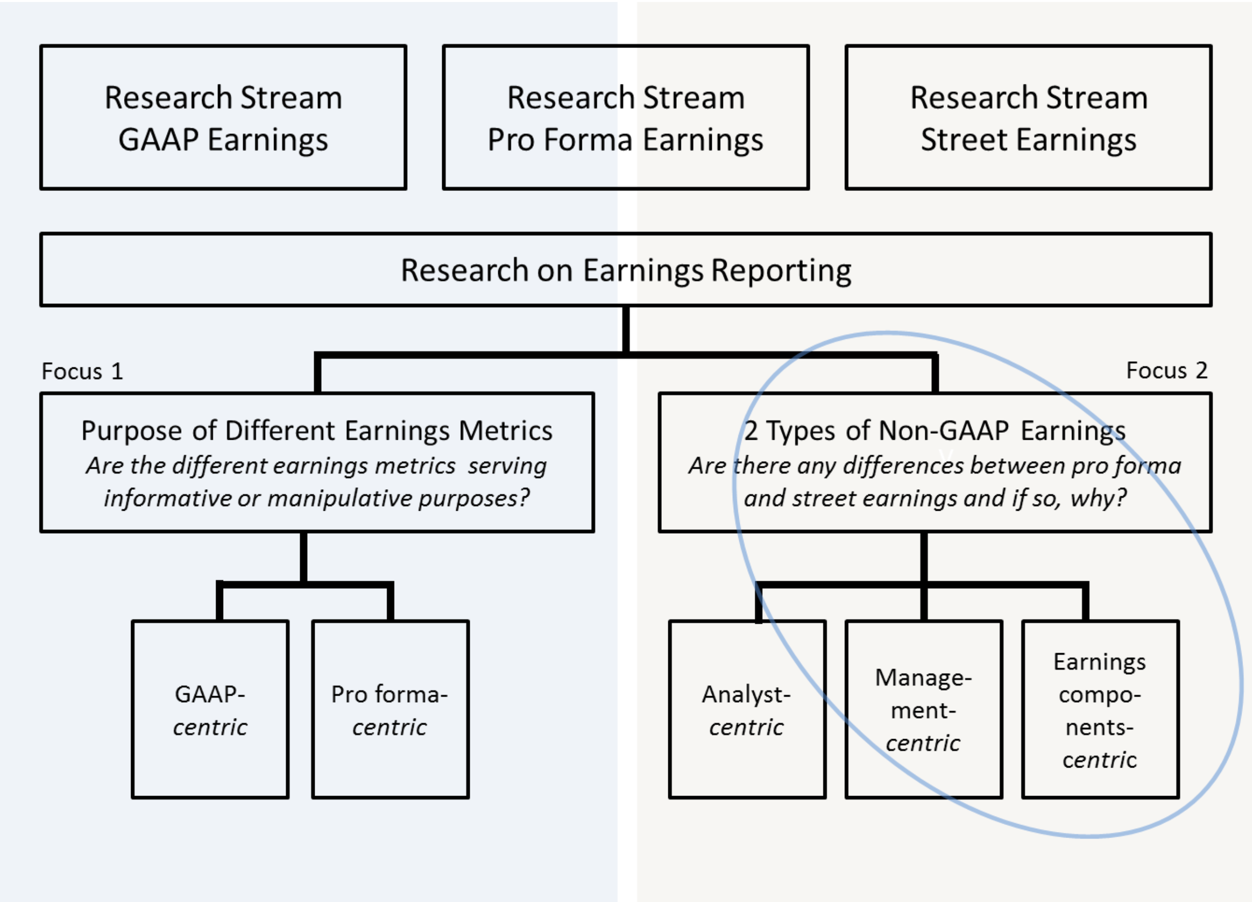
Note: Due to simplifications, only special items and incremental components with negative values are visualized. Effects for positive values are opposite. Additionally, only parts of special items or incremental components might be excluded in the actual derivation of non-GAAP earnings.

[6] I/B/E/S has been contacted various times by email but question-related replies were received.

2.2 Literature Review and Positioning of this Thesis' Research

Having provided an introduction to all earnings metrics and a brief first outline of the potential problems attached to the measures in the previous section, this thesis will continue with a discussion of the existing research literature. Given a plethora of studies on the broad topic of earnings reporting and the absence of any attempt to clearly structure these by any other researcher, this thesis will scrape through the existing literature with the help of a graphic (see Exhibit 2). Existing studies are split and structured in accordance with the two foci which were introduced in Section 2.1. The oval in the exhibit marks the research area of this thesis.

Exhibit 2 ***A Condensed Overview on Existing Literature and the Positioning of This Thesis' Research***



2.2.1 Research on the Purpose of Different Earnings Metrics (Focus 1)

Studies exploring the purpose of the different earnings metrics, being of either informative or manipulative nature, mostly originate from research streams on GAAP and pro forma earnings. This research focus is not the primary concern of this thesis but is included due to the fact that insights such as knowledge on the nature of special items components or firm characteristics that favour either behaviour will be referred to in the development of this thesis' research design. Moreover, this focus' underlying concern, the belief in manipulative actions by managers in their preparation of GAAP and pro forma numbers, constitutes a possible explanation for differences in the treatment of earnings components by managers and sell-side analysts, i.e. sell-side analysts could be perceived to correct street earnings figures for managements' misguidance or alternatively but unlikely, ignore management's input at all.

2.2.1.1 GAAP-centric Research

The determination of managers' potential manipulative behaviours cannot be restricted to an isolated consideration of pro forma figures (*pro forma-centric research*) but must start with the presentation of GAAP figures (*GAAP-centric research*) due to a high degree of management discretion involved in these numbers (see Section 2.1.1). Selectively presented GAAP earnings (i.e. classification of earnings as special items to convey the permanent or transitory nature of the earnings) might set wrong anchors for sell-side analysts in the derivation of their street earnings and could automatically reflect in a "biased" pro forma metrics. However, research is at strife on whether firms' GAAP presentation practices serve informative or manipulative purposes though a belief in opportunistic behaviour prevails.

Studies supporting an informative perspective (e.g. Holthausen and Leftwich 1983) on earnings classifications in GAAP accounting see management to signal their private expectations of firms' future cash flows by means of deliberate choices. Riedl & Srivinasan (2010), for example, suggest that managers deliberately employ the presentation of special items within financial statements with the intention to assist users in grasping the different properties and the informative value of certain earnings components. This argument is supported by Athanasakou et al. (2007), who conclude that firms make classification choices to better distinguish sustainable profits from transitory. Beneish (2001) ultimately argues that research too frequently narrowly assumes an opportunistic purpose, neglecting any consideration of an informative one. If GAAP statements are perceived to serve an informative purpose, these should be considered a (relative) reliable basis for sell-side analysts to build their judgments on.

The opportunistic perspective, on the contrary, claims that managers actively seek to mislead sell-side analysts and investors with special items as an integral part to the manipulations. McVay (2006), for example, presents evidence of managers opportunistically shifting expenses from core expenses (cost of goods sold and selling, general, and administrative expenses) to special items with the intention to inflate core earnings. In her US sample, she discovers an increase of nearly three cents per share for firms with income-decreasing special items of at least 5 percent of sales. Shirato & Nagata (2012) confirm these observations on Japanese GAAP, thereby providing first indications that opportunities for and intentions to manipulate special items span across accounting regimes. Fan et al. (2010) additionally find more evidence of classification shifting towards special items categories when the ability of managers to use alternative earnings management tools is constrained but earnings benchmarks are missed without manipulative behaviour. Considerations of manipulative GAAP practices might reflect in the level of uncertainty that sell-side analysts associate with certain earnings components as will be elaborated on in Section 3.1.3.

If GAAP earnings are seen to be of manipulative nature, sell-side analysts should in a "perfect world" approach these with caution and correct for the manipulations. Importantly, due to clear information deficiencies on the side of sell-side analysts, such ability is very unlikely.

2.2.1.2 Pro forma-centric Research

Pro forma-centric studies are directly related to firms' pro forma figures and importantly, consider management's exclusions from GAAP earnings after the latter are already fixed. (Not the presentation of income statements but the emphasis of "incomplete" earnings measures is their point of concern.) Similar to the discussions on GAAP earnings, disagreement exists on whether manipulative or informative practices prevail in firms' pro forma communication.

Under an informative perspective, managers are described to use pro forma guidance to better communicate the firm's true economic performance in cases where they believe that GAAP earnings are misleading and consequently could induce inappropriate interpretations of firm performance in the users. According to Harvey Pitt (2001), the former SEC chairman, increasing use of pro forma reporting is related to the growing complexity of financial reporting under GAAP. Pro forma measures exclude complex GAAP-required items and thus allow for a better communication of a firm's core earnings (Bhattacharya et al., 2004). Moreover, firms disclose supplementary earnings metrics which reflect management's professional expertise and private information (Johnson & Schwartz 2005). Alpert (2001) and Weil (2001) argue that companies announce pro forma earnings in response to demand from Wall Street for earnings information about core operations. Also, Healy & Wahlen (1999) document that managers have incentives to make financial reports informative and transparent for readers. Importantly, market-based accounting research documents investors' and sell-side analysts' sympathy for pro forma earnings, perceived as more informative than GAAP earnings (e.g. Bradshaw & Sloan 2002, Bhattacharya et al. 2003).

Support of an opportunistic perspective on pro forma earnings is presented by Doyle et al. (2003). The authors test pro forma exclusions' informative value for future cash flows and conclude that management frequently drops charges that are of recurring nature, thereby revealing manipulative intentions[7]. These wrong exclusions usually do not stem from special

[7] Importantly, Doyle et al. (2003) use sell-side analysts' street earnings consensus figures as a proxy for firms' pro forma earnings and thus actually conclude that sell-side analysts on average make cash-flow relevant exclusions.

items but incremental exclusions. The authors conclude: "*Special items are generally unrelated to future cash flows, but other exclusions are powerfully predictive of negative future cash flows" (p.146).* Curtis et al. (2011) on the contrary already determine manipulative practices with regard to special items components. The authors study the disclosure of transitory gains and determine that approximately 42 per cent of the US firms in their sample do not report or misleadingly design pro forma earnings in times of transitory gains. Hiding transitory gains in pro forma earnings allows these firms to maintain their non-GAAP measure at least equal to that of GAAP. Similar tendencies are likewise observed by Aubert (2009) for French firms. Bowen et al. (2005) conclude that firms usually emphasize the earnings metric that shows most optimistic results and Bhattacharya et al. (2004) observe that many firms inconsistently alter their definition of pro forma across years to best "polish" their non-GAAP measure.

Additionally, studies consider intrinsic and extrinsic drivers for management to engage in manipulative behaviours. A study by Barth et al. (2008, p.527) indicates that "*incentives to increase earnings, smooth earnings, and meet earnings benchmarks*" push management towards larger exclusions. Strategic reporting prevails when GAAP figures miss earnings targets (Dechow et al., 2003) or manipulations are needed to meet sell-side analysts' forecasts (DeGeorge et al., 1999) or to avoid losses (Jacob and Jorgensen, 2007).

A study by Black & Christensen (2009) indicates that managers' intentions might have to be interpreted as very case-specific. Doyle et al. (2003, p.148) agree:

> "*What gets excluded in a particular firm's definition of pro forma earnings varies greatly across companies, and the variation cuts across line items on the income statement and categories of accruals.*"

Studying managers' treatment of recurring vs. non-recurring items, Black & Christensen (2009) observe that some managers opportunistically exclude recurring items, e.g. research and development costs, from core earnings in pro forma reporting. At the same time, others are found to only exclude non-recurring items such as restructuring charges and even period-specific gains. The authors interpret the observation that some managers deliberately drop gains as clear evidence that these individuals aim to enhance the informative power of their pro forma earnings. Similar to above mentioned studies discussing incentives, managers' manipulative behaviour is moreover observed to be strongest in cases where GAAP results show operating losses or fall below sell-side analysts' forecasts. This observation suggests that organizational factors might provide sell-side analysts and investors with clues about management's intentions in pro forma reporting. Yet, the paper remains silent on whether or not sell-side analysts actually account for such indications. Though an investigation of whether sell-side analysts can and want to match pro forma exclusions to informative or manipulative management intentions is compelling, this problem merits separate treatment from this thesis. Insights of the presented papers are though integrated into its hypothesis development (see Section 3.1).

2.2.2 Research on the Different Types of Non-GAAP Earnings (Focus 2)

A second area of interest broadly covers the interdependence of pro forma and street earnings and constitutes the field of research this thesis positions itself in. Substantial deviations between pro forma and street earnings in research data (e.g. Bhattacharya et al. 2003, Jennings & Marques 2007, Choi et al. 2007) break with the assumption that sell-side analysts most likely adopt managements' pro forma figures. Existing research faces uncertainties in the assessment of sell-side analysts' behaviour as well as knowledge gaps on their derivation of street earnings. Christensen et al. (2011, p.523) summarize:

"[W]e know relatively little about how street earnings are determined."

Studies have so far considered *analyst*[8] and *management-centric* explanations in favour (or disfavour) of differences between both earnings figures. With Bradshaw (2011), another research focus, here referred to as *earnings-component centric*, has been mooted but not put into practice.

2.2.2.1 Analyst-centric Research

Analyst-centric research is concerned with the identification of potential explanatory variables in sell-side analysts' characteristics that might induce or slow those to deviate from managements' numbers. Studies address both, analysts' abilities as well as incentives. Research assessing analysts' abilities to add informative value to management's figures shows ambiguous results. Brown et al. (1987) compare sell-side analyst performance in the derivation of earnings forecasts with time-series models and see sell-side analysts as the better predictors of firm performance, implying that their derivations of street earnings from pro forma and GAAP might be appropriate. Additionally, Gu & Chen (2004) stress that sell-side analysts base their exclusion decisions of (allegedly) transitory items on the assessment of those items' persistence and correctly only dropping components of low persistence. Barber et al. (2001) equally accredit sell-side analysts the ability to adequately identify firm performance and communicate it in their recommendations. Philbrick & Ricks (1991) in contrast argue that sell-side analysts' exclusion decisions regarding earnings components must be interpreted as random when compared across companies and find support for their argument in Doyle et al. (2003) and Barth et al. (2009), stating that sell-side analysts show "*substantial discretion*" in street earnings. Hanna &

[8] The expressions „*analyst-centric*" and "*manager-centric*" have been adopted from Christensen et al. (2011). All other classifications are newly developed.

Orpurt (2006) conclude that the dispersion of analysts' earnings per share forecasts increases around quarters when firms recognize nonrecurring charges, indicating sell-side analysts' uncertainty in treating such items.

Other studies see reasons for sell-side analysts' exclusion in incentive systems and organizational settings. Jegadeesh et al. (2004) and Baik et al. (2009) conclude that sell-side analysts disclose higher street earnings (i.e. higher exclusions of negative items and lower exclusions of positive items) for glamour stocks than for value stocks. Gullapalli et al. (2005) make similar observations for firms with larger institutional ownership. Equally, higher street earnings are seen to secure investment banking business (Bradshaw et al. 2006) so that deliberate manipulations benefit sell-side analysts. These perceptions are however contradicted by Richardson et al. (2004). The authors conclude that organizational interests, e.g. securing investment banking business, are best served when pro forma and street earnings coincide. Insights from *analyst-centric* research will be integrated into this thesis' control variables (see Section 3.3).

2.2.2.2 Management-centric Research

Management-centric research explores the impact managers can exert on sell-side analysts through pro forma guidance. This question is a central concern of this thesis and has been addressed in several studies. Investigating firms' strategies to meet earnings expectations, Matsumoto (2002) for example confirms that managers can push sell-side analysts towards lower street earnings forecasts, thereby reducing the risk of negative earnings surprises. Cotter et al. (2006, p.601) equally show that managers counteract overly optimistic sell-side analyst forecasts by means of earnings guidance and are found to be especially active in issuing guidance *"when analysts' forecast dispersion is low"*. Housten et al. (2008) moreover conclude that firms' abolishment of earnings guidance increases sell-side analysts' forecast dispersion and error. These observations emphasize the impact guidance has in aligning sell-side analysts.

One of the most recent studies in the *management-centric* research stream on earnings guidance has been contributed by Christensen et al. (2011). This study serves as the underlying mind-set and model to this thesis but is intended to be enhanced based on newly developed ideas as well as criticism raised by Bradshaw (2011). Christensen et al. (2011) investigate the influence of management guidance first on the absolute amount of sell-side analysts' exclusions, second on incremental items (exclusions beyond those of special items). The authors thereby conceptualized guidance to represent *"at least one earnings forecast for the forthcoming year during the fiscal year (…)."* The study confirms that management guidance reflects in street earnings, finding that *"the extent to which analysts exclude the 'objective' amount of special items in current years is higher for firms that guide than those that do not guide" (p.511).* Equal effects are observed with regard to incremental exclusions. Together with a later study by Black et al. (2014), this research constitutes the closest matching of management guidance with sell-side analysts' reactions available in existing literature.

The research design by Christensen et al. (2011) has not remained without criticism. Bradshaw (2011) argues that the authors' measure of guidance has been strongly simplified so that it does not properly match earnings guidance with exclusions. Instead of comparing if certain items get excluded by management and sell-side analysts and additionally, correspond in amounts, Christensen et al. (2011) trivially establish a connection between sell-side analysts' exclusions and the sheer existence of earning guidance during the period. Additionally, for the definition of guidance, the authors rely on data retrieved by First Call's Company Issued Guidelines (CIG) database - a database proven to be incomplete in prior research. The existence of earnings guidance is measured as the release of at least one earnings forecast during a period. However these forecasts must not necessarily constitute actual information on exclusions but could equally be released for different purposes, e.g. *"maintaining visibility with investors, generating a culture of disclosure"* (Bradshaw 2011, p.533), ultimately irrelevant to analysts' exclusions: With possibly missing data on the one hand but additionally an inadequate counting of other releases than those for the purpose of providing guidance on specific exclusions on the other hand, the measure of guidance could either be over- or understated. Moreover, even if managers identify no exclusions in earnings guidance, significant results could still be obtained for positive correlations between total exclusions calculated by the researcher and guidance, due to intervening effect of special items that sell-side analysts exclude ex post. This thesis tackles these issues by means of redefining the measure of guidance (see Section 3.3.2). Further criticism is more technical in nature and mostly cannot be dissolved in this thesis. It will therefore be commented on in the research limitations (see Section 6).

On top of the concern whether management guidance is successful, Black et al. (2014) distinguish different forms of pro forma communication based on their time of occurrence in the accounting period – prior or at/post a firm's earnings announcement date, which they differentiate into "Channel A" (=prior) and "Channel B" communication (=at/post). Channel A constitutes management guidance during the period, thus representing what Christensen et al. (2011) captured in their definition of guidance. Channel B addresses firms' opportunity to influence sell-side analysts or tracking services in the derivation of their street actuals by means of conference calls and press releases at or immediately after the earnings reporting date. This approach assumes that sell-side analysts, supplied with more information on/after the reporting date, deviate from prior exclusions made in their street estimates to arrive at their street actuals[9]. This thesis conceptualization of earnings guidance shares the mind-set of "Channel B" – it looks at information in year-end reports at the earnings announcement date (see Section 3).

Importantly, all identified *management-centric* studies treat sell-side analyst exclusions on an aggregated level, at most differentiating between special and incremental exclusions as in Christensen et al. (2011). A consideration of earnings subcomponents has so far only been put into practice in research on the purpose of earnings metrics (e.g. Black & Christensen 2009).

2.2.2.3 Earnings component–centric Research

As indicated in Section 2.2.2.2, the research design by Christensen et al. (2011) has received criticism by Bradshaw (2011). The author's most disruptive offensive against Christensen et al. (2011) lies in the claim that Christensen et al.'s (2011) study fails to address the "real" area of concern in research comparing both non-GAAP earnings measures – the identification of sources of disagreement within the respective earnings metrics as opposed to external impact factors. Bradshaw (2011) can thereby be seen to extent the question of *Why do pro forma and street earnings differ?* to a new dimension. Whereas Christensen et al. (2011) mostly determine whether management guidance has the potential to narrow deviations between both earnings figures and thereby adopt a *management-centric* focus, Bradshaw (2011) advocates the analysis of exclusions in both metrics on an item by item basis and considers the question of guidance as a second step in such a model set-up. He conceptualizes an "*ideal research design*":

> *"The ideal research design for the authors' question of assessing whether managers influence the exclusions of analysts would be to specifically map individual exclusions by managers to individual exclusions by analysts." (Bradshaw 2011, p.532)*

This research design is visualized in Exhibit 3, inspired by Bradshaw et al. (2011).

Exhibit 3 ***Research Design Based on Matching of Management and Analyst Exclusions***

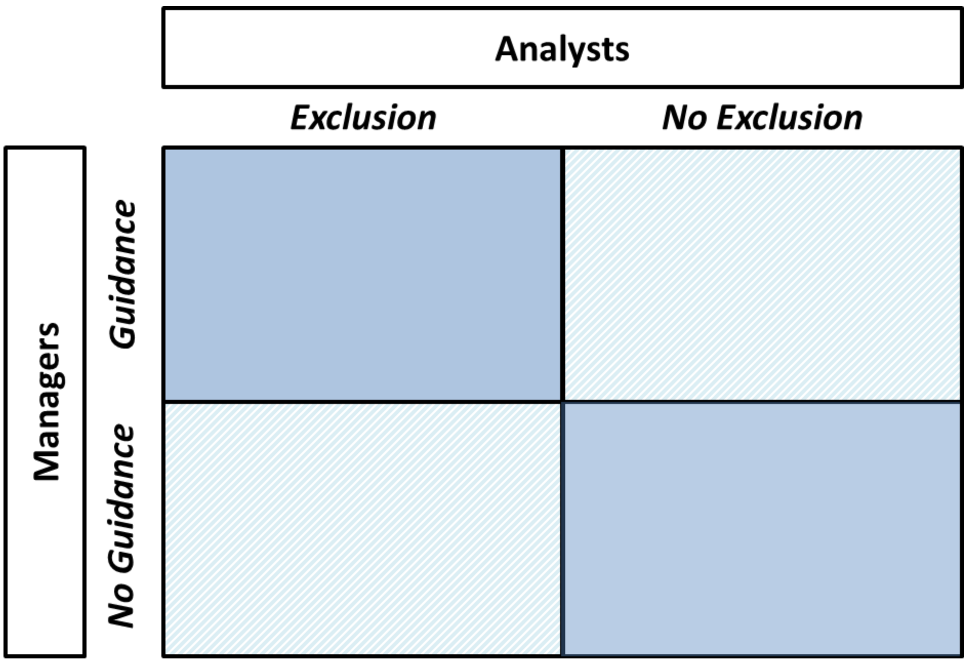
Management Exclusions		Analyst Exclusions
Special Items		**Special Items**
Restructuring	**(x)**	Restructuring
Amortization of Goodwill	**(x)**	Amortization of Goodwill
	( )	Gains on Sales of Assets
Incremental Exclusions		**Incremental Exclusions**
Employee Stock Option Expense	( )	

[9] Tracking services are consequently perceived to follow the exclusions of individual sell-side analysts' actuals instead of modifying actual GAAP earnings by those exclusions made in street estimates (Christensen et al. 2014)

To account for Christensen et al.'s (2011) concern of management guidance, Bradshaw (2011, p.532) moreover argues that *"if the sequence of the data showed that shortly after managers released earnings forecasts that identified specific excluded amounts, analysts revised the composition of their own forecasts to follow the composition of guidance"*, clear evidence of the effectiveness of guidance existed. Evidently, the consideration of guidance with regard to different earnings components in such a research design is a spin-off of major, yet more basic research interests that have so far been unattained: a better understanding of earnings components that get excluded by sell-side analysts and an identification of candidates of earnings components that managers and sell-side analysts disagree on. This thesis therefore classifies Bradshaw's (2011) research as separate from *management- centric* studies, labelling it *earnings-component centric*. The potential of Bradshaw's (2011) study design is visualized in Exhibit 4, as adapted from the author's paper. A study as intended by the author could serve an understanding of clashes between analysts' and management's practices (light blue quadrants). Enhanced knowledge on earnings components that serve as drivers for disagreement must be deemed more valuable than a further exploration of reasons for and situations of agreement (dark blue quadrants) – considerations Christensen et al.'s (2011) study (mainly) addresses.

Exhibit 4 ***Comparison of Christensen et al.'s (2011) and Bradshaw's (2011) research***

Note: graphic adopted from Bradshaw (2011)



Importantly, this thesis does not pursue a matching of analyst and management data as argued for by Bradshaw (2011) despite acknowledging the great contribution such an approach could make to existing literature. The reasons are two-fold: On the one hand, access to sufficiently detailed analyst data on exclusions was simply not obtained and a manual reconciliation of street earnings with GAAP figures revealed a too high degree of ambiguities. (Many numbers were untraceable.) On the other hand, the absence of any requirements for reconciliation of pro forma and GAAP earnings in Sweden equally reflected in the fact that some management exclusions could hardly be disaggregated into different subcomponents. *"Prior to the issuance of the Sarbanes-Oxley Act in 2002 and Regulation G (issued in January of 2003), some US managers were very cryptic in their descriptions and disclosures of pro forma adjustments in their quarterly press releases"* (Black & Christensen 2009, p.309). Apparently, the same can still be said about Swedish managers. Yet, Bradshaw's (2011) ideas are not completely dropped from this thesis by transferring an analysis of categories of earnings components to Christensen et al.'s (2011) research design (see Section 2.2.3).

2.2.3 Positioning of this Thesis

This thesis has been developed with the intention to enhance Christensen et al.'s (2011) research set-up with regard to three main dimensions: a disaggregation of special items into subcomponents, a reconceptualization of the measure of earnings guidance and a consideration of further control variables as potential explanations for analysts' exclusions. Though *management-centric* in its origin, this thesis should also be interpreted as a first step towards the integration of Bradshaw's (2011) *earnings component-centric* mind-set into existing research literature because of its ability to characterize analysts' exclusion decisions as either mechanistic or case-dependent for special items subcomponents as well as incremental items. Moreover, management guidance is matched to these exclusions in a more direct fashion. That is, guidance is only confirmed if management's and analysts' exclusions coincide in type and amounts as has been required by Bradshaw (2011). A detailed description of this reconceptualization is provided in Section 3. Insights on analysts, generated by a quantitative research approach, will be compared to qualitative insights on management's exclusions. Consequently, in accordance with the intentions by Bradshaw (2011), this thesis establishes closer links between both parties. Moreover, obtained results will continuously be benchmarked against findings on US studies across the broad literature on the different earnings metrics.

3. Research Design

3.1 Hypothesis Development

The development of hypotheses follows the logical progression comprised in the second research focus: *First, are there any differences between pro forma and street earnings and second, if so, why?*

3.1.1 Analysis 1: The Dependence of Street Earnings on Management's Total Exclusions & Special Items

The starting point to this thesis' research design is the assumption that sell-side analysts' street earnings and management's pro forma earnings figures can and actually do differ in a substantial amount of observations. This assumption is built on the belief that sell-side analysts do not simply mirror management's pro forma information in street earning figures but apply their individual judgment to firms' input. Section 2.2.2 has presented research findings in support of such an assumption, e.g. sell-side analysts' incentives to overstate numbers (Bradshaw et al. 2006, Michaely and Womack 1999, Weil 2001) and sell-side analysts' ability to add informative value to firm's earnings measures (Gu & Chen 2004). At the same time, arguments against deviations are manifold, e.g. reliance on management input (Bradshaw & Sloan 2001, Bradshaw 2011), effectiveness of management guidance (Matsumoto 2002, Cotter et al. 2006, Christensen et al. 2011) and ultimately the flipsides to supportive arguments: sell-side analysts' inability to identify firms' manipulative earnings figures (Burgstahler and Eames 2003) as well as incentives to confirm firms' numbers (Richardson et al. 2004). Substantial deviations in sell-side analysts' and management's earnings figures have nonetheless been uncovered in various studies, e.g. by Bhattacharya et al. (2003) and Choi et al. (2007). Both papers find differences in approximately one third of all their observations on US data and UK data respectively. Though Choi et al. (2007) interpret their findings as an indication of management's ability to influence sell-side analysts, these results unequivocally indicate that agreements between both parties are not as self-evident as analysts' reliance on management information might suggest.

Importantly, since this study is performed on Swedish market data - an economic setting that so far has not been explored with regard to differences in street and pro forma earnings – the first step will be to determine whether such an assumption equally holds on the data underlying this thesis. In order to do so, the following hypothesis is developed:

H_{1a}: Analysts do not fully follow management in their exclusions.

Prior research contains no concrete indications of asymmetries in sell-side analysts' practices in Sweden as compared to the US or UK. A study by Olbert (1994), exploring Swedish and US sell-side analysts' approach to equity valuations, accredits a high degree of similarities to both groups regarding dimensions such as sell-side analysts' interpretation of financial information, frequency of performing valuations and use of key ratios for the determination of firm performance. Additionally, qualitative research by Hjelström et al. (2014), investigating sell-side analysts' perception of financial reporting, does not place emphasis on variations in analyst behaviour based on nationalities though its selected group of interviewees is heterogeneous in this respect. These observations suggest that the data set underlying this thesis will show similar results as compared to Bhattacharya et al.'s (2003) and Choi et al.'s (2007) studies, implying that management's exclusions on average cannot fully explain analysts' exclusions. Potential deviations of this thesis' observations from the findings of the two prior studies could be caused by differences in the information environment. As described by the interviewed Swedish sell-side analyst, pro forma guidance is little emphasized in Sweden as compared to the US so that Swedish sell-side analysts', in contrast to the observations made by Olbert (1994), might receive less information input to anchor their judgment in. It is though undetermined whether differences in the information environment increase or decrease the likelihood of sell-side analysts to make exclusions to their street earnings.

Given that management's and analysts' total exclusions are expected to show substantial differences, it is furthermore considered interesting to benchmark whether management's total exclusions or special items constitute better explanations of analysts' total exclusions. This consideration implicitly supposes that management's total exclusions do not coincide with special items. Such an assumption finds support in *pro forma-centric* literature, observing that firms frequently drop expenses beyond those of special items (Black & Christensen 2009, Barth et al. 2012), thereby opportunistically excluding recurring items. Consequently, a comparison of explanatory power between special items and management's total exclusions for analysts' total exclusions should be seen as a first indication of whether analysts show trust towards management exclusions, thereby accepting the exclusion of non-recurring items or rather make their own judgment expressed in the elimination of special items, those earnings components for which a temporary nature is (relatively) certain[10]. Notably, it might also be the case that firms completely dispense with management guidance despite the existence of special items (or exclude only parts of special items in pro forma communication), so that relationship between management's total and analysts' total exclusions could potentially be weakened by such conservative firm practices.

[10] The issue of variances in the persistence of different subcomponents <u>within</u> special items and potential manipulations in these numbers is considered in H_{3a}, suggesting a different treatment of single subcomponents

In line with *management-centric* studies, emphasizing that firms have the ability to steer analysts' exclusions, e.g. (Christensen et al. 2011, Matsumoto 2002), this thesis expects to find higher explanatory power of analysts' total exclusions in pro forma guidance than special items. Importantly though, as explored by hypothesis 1a, this relationship is not expected to be perfect. The following hypothesis is developed:

H_{1b}: Analysts' total exclusions are better explained by management's total exclusions than special items.

If management's exclusions - special items (i.e. non-recurring items) plus incremental exclusions (i.e. recurring items) - can be accredited higher explanatory power in total analyst exclusions than special items, those findings could indicate that management guidance is picked up by sell-side analysts, either because it is actually perceived as informative – a perspective for example advocated by Brown & Sivakumar (2003) and Choi et al. (2007) - or because sell-side analysts follow management despite any concern of firms' motivations due to reasons such as inability (Burgstahler and Eames 2003) or incentives (Baik et al. 2009). If, on the contrary, special items beat management's total exclusions in explanatory power for analysts' total exclusions, such results, indicate sell-side analysts' unwillingness to follow management's incremental exclusions.

3.1.2 Analysis 2: The Dependence of Street Earnings on Special Items & Management Guidance

As outlined in Section 2.2.3, this thesis has the ambition to constitute an improvement to the research design by Christensen et al. (2011). Yet, before advancing to an extended model set up, it will closely replicate the authors' research. This intermediate step enables a better comparison of both studies' results, thereby providing an indication of which experimental and control variables behave similarly in the authors' American and the thesis' Swedish setting. Christensen et al. (2011)'s first hypothesis, as will be adopted in this paper, explores the impact of management guidance on analysts' exclusion of special items:

H_2: Analysts are more likely to exclude the full amount of special items when managers guide than when they do not guide.

The hypothesis is, first of all, built on the intuitive assumption that, driven by their information disadvantage as an external party, sell-side analysts consider both, GAAP earnings and pro forma communication, as input to their street earnings and thus are potentially influenced in their decisions by management's alternative accounting metric. Importantly, as outlined in H_{1a}, this reliance is not expected to translate into unconditional willingness to follow management (see Section 3.1.1). Indicated in Section 2.2.2, many prior studies have observed pro forma effects on sell-side analysts, yet usually on total exclusions, composed of special and incremental items. Christensen et al. (2011) exemplify the potential impact of pro forma by means of a real world comparison of street earnings in Amazon and Ebay, the latter of which publishes pro forma earnings together with its GAAP earnings. Though both companies operate in the same environmental setting and show similar earnings components on their income statement, street earnings exclusions vary. Ebay is seen to successfully influence sell-side analysts to exclude amortization of intangibles and stock compensation expense with the help of pro forma guidance.

Andersson and Hellman (2007) show that Swedish sell-side analysts can be influenced by firms' pro forma guidance. Consequently, expectations are that management guidance also matters in this thesis' data set.

3.1.3 Analysis 3: The Dependence of Street Earnings on Special Items Subcomponents, Management's Incremental Exclusions & Highlighting

In a next step, the focus is shifted to an assessment of whether sell-side analysts treat certain special items components with more or less care than others. The intention is to find indications of mechanic exclusion patterns with regard to certain subcomponents. Additionally, an understanding of whether guidance, expressed in management's highlighting of earnings components, can change sell-side analysts' exclusion decisions for none, some or all of the special items subcategories is aimed at. Last but not least, it is questioned whether management's incremental exclusions have an effect on analysts' total exclusions – a consideration that is not pursued by Christensen et al. (2011).

Different treatments of special items and other earnings components could be driven by variations in the degree of uncertainty which sell-side analysts associate with the nature and persistence of any of these items. Elliott and Hanna (1996) argue that special items can emerge from business reasons that are hardly verifiable from the firm-external perspective of sell-side analysts, hampering an evaluation of those items' persistence and size. As a consequence, analysts' willingness to make such exclusions might be low. Alternatively, it could be argued that evident obstacles in determining the appropriateness of firm's classifications, thus high uncertainty, might induce sell-side analyst to make "blind" judgments in favour of management's decisions. Importantly, this thesis suspects that sell-side analysts perceive substantial differences in the uncertainty attributable to single special items subcomponents. Therefore, special items will be split into the following subcategories and their level of uncertainty will be discussed: "Mergers & Restructuring Charges", "Gains and Losses on Sales of Assets", "Impairment of Goodwill", "Gains and Losses on Sales of Investments" and a broader collection category, "Other Unusual Items"[11]. The latter, for example, comprises impairments and write-downs of assets as well as legal and insurance settlements.

"Mergers & Restructuring Charges" must frequently be suspected to be misused for manipulative purposes and therefore presumably expose sell-side analysts to a high level of uncertainty in nature and persistence. Manipulations are commonly found to take place on a GAAP accounting-level. McVay (2006, p.560), analysing firms' classification shifting, outlines that firms show tendencies to incorrectly recognize any sorts of additional expenses within large special items categories, especially restructuring:

> *"For example, managers can classify normal severance charges as charges resulting from the restructuring or merger. A manager might also allocate a greater percentage of legal costs or other administrative expenses than were actually related to the restructuring or merger to the 'special' fees."*

Additionally, McVay (2006) references a study by Hwang (1994), providing a real world example of a company which has been accused to hide marketing expense within restructuring.

Sell-side analysts' response to such manipulations, if generally suspected, might be expressed in a lower likeliness of excluding such expenses. Additionally, restructuring charges might be argued to have become a "normal course of business" in increasingly complex organizations. If considered part of the normal "everyday business", they must be described as of recurring nature, leaving no reason for their exclusions.

"Impairment of Goodwill" and the broad category "Other Unusual Items" are more intuitively associated with a transitory nature, given "extraordinary", well-specified triggering events. As these items in most cases mirror negative news[12], management in general should have little incentives to artificially overstate the categories (McVay 2006). Uncertainty related to the dilemma of a recurring or non-recurring nature of these items can thus be deemed low and exclusions are very likely.

"Gains (Losses) on Sales of Assets" and "Gains (Losses) on Sales of Investments" constitute subcategories in which sell-side analysts can frequently encounter both, positive and negative figures.[13] Kinney and Trezevant (1997) observe firms to "*strategically frame*" financial

---

[11] Those categories are predetermined by the data source Bloomberg Businessweek.

[12] Possibly but less likely, "Other Unusual Items" might be positive and then signal positive news. Other unusual items usually constitute "extraordinary" expenses such as impairments of assets, disaster losses, legal fees and litigations costs. Positive items though could be insurance settlements or adjustments due to changes in accounting policies.

[13] Reversals of impairment of goodwill are prohibited under IAS 36.124 and reversals of restructuring are a still considered a rather rare phenomenon. Concerning "Other Unusual Items", see footnote 12.

statements. While cost components of special items are openly displayed - often even in the form of separate line items - transitory gains are hidden. Given the little time sell-side analysts spend on the assessment of each firm (e.g. Hjelström et al 2014), it might therefore be assumed that non-recurring gains remain unnoticed in any exclusion decisions. Such an observation would translate into the result that, even if loss components might be mechanically excluded due to a clearly defined “one-time” nature, undetected gains could distort such a pattern. Bradshaw and Sloan (2002) and Bowen et al. (2005) see similar strategies of hiding non-recurring gains to have spilled to pro forma communication, e.g. earnings press releases, increasing the likelihood that sell-side analysts overlook such items. Additionally, research suggests that managers and even sell-side analysts benefit from indicating strong firm performance in their non-GAAP metrics and therefore are less critical towards the inclusions of gains than losses, resulting in an asymmetric treatment of components, e.g. Elliot & Hanna (1996) (see Section 2.2.2.1).

Having elaborated on potential reasons for a different treatment of special items components due to their nature, this thesis additionally aims to provide a first assessment of whether guidance on single or several of such subcomponents can influence analyst practices to a noteworthy degree. It might for example be imaginable that those categories that are treated with more reluctance by sell-side analysts show a higher likelihood of getting excluded when addressed in management guidance. Such observations would imply that management has the ability to make sell-side analysts overcome their initial resistance.

Management’s incremental exclusions are considered to capture management guidance beyond the scope of special items, representing less justifiable exclusions of recurring items. Leaning onto that general belief that management guidance has an impact on sell-side analysts (e.g. Christensen et al. 2011), this thesis assumes that additional management exclusions on top of special items can induce sell-side analysts to drop further earnings components than special items. (Management input is perceived as the most powerful explanation for sell-side analysts making additional adjustments to street earnings). A more detailed discussion of management’s incremental exclusions is provided in Section 3.1.4.

These considerations cumulate in the testing of the following hypotheses:

H_{3a}: Analysts exclude individual subcomponents of special items to a different degree.
H_{3b}: Analysts are more likely to exclude subcomponents when they are highlighted.
H_{3c}: Analyst exclusions are higher when management guides.
H_{3d}: Analysts follow management exclusions beyond special items.

Given the reasons presented above, analysts are expected to show inconsistent treatments of “Mergers & Restructuring Charges”, “Gains (Losses) on Sales of Assets” and “Gains (Losses) on

Sales of Investments". "Impairment of Goodwill" and "Other Unusual Items" on the contrary are presumed to be excluded by sell-side analysts in close to all cases, implying a mechanic treatment. Additionally, it is believed that the existence of such costs is likely to evoke management guidance so that few cases can be observed in which the two categories exist but are not highlighted. An importance of highlighting is projected to be confirmed for special items that do not show any tendency of strongly mechanistic analyst exclusion decisions. Ex ante, these are foreseen to be "Restructuring", "Gains (Losses) on Sales of Assets" and "Gains (Losses) on Sales of Investments". Last but not least, management's incremental exclusions are expected to have an impact on analysts' exclusions.

3.1.4 Analysis 4: The Dependence of Analysts' Incremental Exclusions on Managements' Incremental Exclusions

Christensen et al. (2011) extend their research beyond the scope of special items to analyse the dependence of analysts' incremental exclusions on management's highlighting practices. An analysis of incremental exclusions can be deemed more compelling than that of special items as knowledge about the nature of excluded incremental items is little. Studies, e.g. Whipple (2014), commonly suggest that such exclusions cover "*non-cash items*". *Pro forma-centric* research claims that depreciation & amortization, stock-based compensation, and tax related charges are candidates for management exclusions (e.g. Black & Christensen 2009). If sell-side analysts followed management guidance, these exclusions could consequently reflect in analysts' exclusions.

Similar to H_{1a}, looking at the relation between analysts' and management's total exclusions, H_4 is dedicated to investigating whether there is a relationship between analysts' incremental and management's incremental exclusions. This test works with the implicit assumption that both parties have excluded all special items and only these in their total exclusions – an issue that will be discussed in detail in Section 6. The consideration of an association between management's and analysts' incremental exclusions constitutes an addition to Christensen et al. (2011).

The idea that management's incremental exclusions can provide an explanation of analysts' incremental exclusions would assume that sell-side analysts follow management guidance in cases beyond those of special items categories. This idea was already touched upon in H_{3d}. As outlined in Section 2.1.2, various studies such as by Doyle et al. (2003) have provided indications that analysts' exclusions frequently include recurring items, possibly because sell-side analysts are not aware of or in case of awareness show willingness to accept management's position. Burgstahler and Eames (2003) indicate that despite a general suspicion of manipulative practices by management, sell-side analysts are hardly able to adequately determine which firms engage in manipulations. Additionally, *analyst-centric* research partly provides indications of why sell-side analysts would not want to deviate from management practices, e.g. securing of investment management business (e.g. Bradshaw et al. 2006). These obstacles and motivations might cause sell-side analysts to eventually follow management on incremental exclusions. Counter-arguments are found in literature, accrediting sell-side analysts the ability to distinguish between recurring and non-recurring items, management's manipulative or informative intentions respectively (e.g. Skantz and Pierce 2000, Gu & Chen 2004). Arguably, it might be added that sell-side analysts potentially become suspicious if management's incremental exclusions "sky-rocket" to unfamiliar levels. With strong reasons for and against sell-side analysts' willingness to follow firms in the case of management's incremental exclusions, the following hypothesis is formulated:

H_4: There is an association between management's incremental exclusions and analysts' incremental exclusions.

Similar to the expectations in H_{1a}, it is believed that a certain degree of overlap between management's and analysts' incremental exclusions can be determined. Yet, a perfect correspondence of both exclusion figures is most unlikely. This thesis' interest therefore lies in the extent to which management's incremental exclusions can explain analysts' incremental exclusions. It is expected that agreements between both parties' incremental exclusions are low, implying an idea of sell-side analyst's conservatism concerning the judgment of management's incremental exclusions.

3.1.5 Analysis 5: The Dependence of Analysts' Incremental Exclusions on Highlighting and Managements' Incremental Exclusions

Similar to H_2, H_5 is adapted from Christensen et al. (2011, p.508). It is aimed at testing whether highlighting has an effect on analysts' incremental exclusions. The authors reason:

"While it is understandable that managers can persuade analysts to exclude special items on the grounds that they are transitory, this rationale does not apply to recurring items."

Outlined in Section 2.2.2, reasons for sell-side analysts to or not to follow management exclusions are numerous. With management's incremental exclusions, the focus is shifted to items, the exclusions of which cannot be justified by a transitory nature, e.g. amortization or stock option expense. Consequently, it is interesting to determine whether pro forma guidance has the ability to push analysts towards such exclusions. On the one hand, it might be argued that highlighting is the only way analysts can be induced to make additional exclusions to those of special items. On the other hand, it might likewise be considered that many of such additional management exclusions, when highlighted, are perceived as "too aggressive" by sell-side analysts and are therefore ignored. The following hypothesis is formulated:

H_5: Analyst incremental exclusions are higher for firms that guide than for those that do not.

In line with the expectations of H_4 and the results of Christensen et. al (2011), this thesis projects some impact of highlighting on analysts' incremental exclusions for the same reasons as presented in Section 3.1.4.

To summarize, Exhibit 5 provides an overview on all hypotheses.

Exhibit 5 ***Overview of Research Hypotheses***

H_{1a}: Analysts do not fully follow management in their exclusions.

H_{1b}: Analysts' total exclusions are better explained by management's total exclusions than special items.

H_2: Analysts are more likely to exclude the full amount of special items when managers guide than when they do not guide.

H_{3a}: Analysts exclude individual subcomponents of special items to a different degree.

H_{3b}: Analysts are more likely to exclude subcomponents when they are highlighted.

H_{3c}: Analyst exclusions are higher when management guides.

H_{3d}: Analysts follow management's exclusions beyond special items

H_4: There is an association between management's incremental exclusions and analysts' incremental exclusions.

H_5: Analysts' incremental exclusions are higher for firms that guide than for those that do not.

3.2 Variables Specification and Measurement

The variables used to test the research hypotheses will be introduced sequentially in the same step the models for the respective hypotheses are presented.

Following Christensen et al. (2011), all earnings-related amounts are adjusted to EPS measures and scaled by the beginning-of-the-year stock price to facilitate a cross-sectional analysis. It also enables this thesis to directly compare this paper's coefficients of the variables to those in Christensen et al.'s (2011) study. Bradshaw & Sloan (2002) likewise adopted stock prices as a scalar. According to Durtschi & Easton (2005), beginning-of-year market capitalization[14] is most often used to deflate net income.

Split-unadjusted data for EPS and stock prices are used. This makes the I/B/E/S figures directly comparable to the ones of Compustat, which records the historically reported amounts. This approach requires the elimination of certain observation from the sample population as will be outlined in Section 3.5.

3.3 Model Development

3.3.1 Analysis 1: The Dependence of Street Earnings on Management's Total Exclusions & Special Items

H_{1a} Analysts do not fully follow management in their exclusions.

H_{1b} Analysts' total exclusions are better explained by management's total exclusions than special items

H_{1a} and H_{1b} have been developed to provide a first feeling for the data underlying this thesis. H_{1a} determines whether there are differences between street and pro forma earnings, assuming no full overlap of management's and analysts' total exclusions in the data set. To test for this hypothesis, a univariate regression - see Equation (1a) – is introduced. $H_{1b,}$ comparing the explanatory power of management's total exclusions and special items for analysts' total exclusions, requires the performance of several regressions – see Equations (1a, 1b, 1c). To assess H_{1a}, an analysis of the coefficient of management exclusions is necessary: the coefficient would indicate the proportion of management's exclusions excluded by analysts. For H_{1b}'s assumption to be supported empirically, analysts' total exclusions would show a stronger association with management's total exclusions than special items. *Adjusted R^2* measures the association between analysts' total exclusions and management's total exclusions, and the

[14] By converting all earnings measures to EPS measures and scaling by beginning-of-the-year share price, "pseudo" market capitalization at the beginning of the year is used as a scalar in this thesis. It is called "pseudo" because, instead of the number of shares outstanding at the beginning of the year, the number of shares used to calculate EPS (which is weighted average number of shares) is applied.

association between analysts' total exclusions and special items respectively. Therefore, for the assumption to hold, a higher *Adjusted* R^2 is expected for the association between analysts' total exclusions and management's total exclusions than analysts' total exclusions and special items. The following univariate regression equations, where i indexes firm-years, are employed:

$$EXCLUDE\_TOTAL_i = \beta_0 + \beta_1 MNGMT\_EXCL_i + \varepsilon_i \qquad (1a)$$

$$EXCLUDE\_TOTAL_i = \beta_0 + \beta_1 SPECIAL\_TOTAL_i + \varepsilon_i \qquad (1b)$$

$$EXCLUDE\_TOTAL_i = \beta_0 + \beta_1 SPECIAL\_TOTAL\_Bloomberg_i + \varepsilon_i \qquad (1c)$$

Analysts' total exclusions (EXCLUDE_TOTAL)

The dependent variable, $EXCLUDE\_TOTAL$, represents analysts' total exclusions, measured as the difference between street earnings ($STREET$) and GAAP earnings ($GAAP$). $STREET$ is the basic (non-diluted) earnings per share (EPS) recorded by I/B/E/S[15]. $GAAP$ is the basic EPS before extraordinary items, obtained from Compustat. This definition of earnings excludes both extraordinary items and earnings from discontinued operations. Income before extraordinary items is adopted because I/B/E/S' definition also excludes extraordinary items and earnings from discontinued operations. For cross-sectional comparisons, all EPS variables are scaled by the beginning-of-year stock price. As a reference, when $STREET$ is higher than $GAAP$, $EXCLUDE\_TOTAL$ is positive.

Management's total exclusions (MNGMT_EXCL)

Management's total exclusions are operationalized with the variable $MNGMT\_EXCL$: management's total exclusions (pre-tax) calculated as the difference between GAAP earnings and non-GAAP (pro forma) earnings, as reported in firms' year-end reports.

To determine whether a firm uses a pro forma earnings measure in its year-end report, three types of disclosure have been considered, at least one of which must have been observed: (1) special items explicitly or pro forma figures implying special items are mentioned in a summary/ highlights section at the beginning of the year-end report, or (2) a firm provides non-GAAP earnings figure and/or an amount of special items in a pro forma earnings/key financials table, or (3) special items are reported as a separate line item on the income statement or within another line item but are supplemented with a footnote (not notes!) explanation. Importantly, the concept of pro forma was not limited to a search of explicit statements of pro forma in the year-end reports but has accounted for any presentation of alternative earnings, including cases

[15] For detailed definitions of the variables see Exhibit 7.

in which management talks about nonrecurring items without necessarily giving the earnings numbers after excluding them. A detailed description of the approach is provided in Section 3.4.

MNGMT_EXCL is measured as the difference between "GAAP-equivalent" earnings and pro forma earnings, both on a pre-tax basis. "GAAP-equivalent" earnings are GAAP-measured (i.e. free from management's exclusions) earnings measured at the same "earnings before" level (e.g. EBIT, EBITDA) as pro forma earnings[16].

When pro forma earnings are not presented, but non-recurring items are disclosed, *MNGMT_EXCL* equals the amount of these non-recurring items. When neither pro forma earnings nor non-recurring items are disclosed, *MNGMT_EXCL* is set to zero.

The measure is adjusted to a per share basis and scaled by the split-unadjusted stock price at the beginning of the fiscal year. The coefficient of management exclusions is expected to be between 0 and 0.75[17]: the more sell-side analysts mirror management's exclusions, the closer to 0.75 is the coefficient. The coefficient is expected to be negative, as management's exclusions of negative items should accompany a positive value for analysts' total exclusions.

Special items (SPECIAL_TOTAL and *SPECIAL_TOTAL_Bloomberg)*

Special items are operationalized with two variables, *SPECIAL_TOTAL* and *SPECIAL_TOTAL_Bloomberg*, which measure special items as identified by two alternative data sources.

SPECIAL_TOTAL is the amount of special items as identified by Compustat[18], stated on an adjusted per share basis, and scaled by the beginning-of-year stock price[19]. It represents significant non-recurring items other than extraordinary items and discontinued operations reported before taxes (such as restructuring charges, asset write-downs, or losses on the sale of assets) and should capture a major fraction of non-recurring items that are excluded from earnings by I/B/E/S.

---

[16] For example, if pro forma earnings are presented at EBIT level, then GAAP-equivalent earnings are GAAP-measured (i.e. before exclusions) EBIT. GAAP-measured "earnings before" measures (e.g. EBIT, EBITDA) represent standardized measures of GAAP earnings, adjusted e.g. for interest income/expense (I), taxes (T), depreciation (D) and amortization (A) expense.
[17] Management exclusions are pre-tax while the dependent variable, analysts' total exclusions, is post-tax. Thus, a tax rate of 25% is assumed. The assumed tax rate was calculated as the weighted average tax rate in 2010-2013: tax rate of 26.3% was in force 2010-2012, while a rate of 22% was introduced in 2013, implying an average tax rate of 25.2%.
[18] Compustat's "special items" variable represents an objective measure of transitory items because (1) Compustat has no known incentive to bias the amount (Christensen et al. 2011) and (2) Compustat combines special items that are both reported as a separate line item on the income statement and disclosed in accompanying notes (McVay 2006). Moreover, Compustat is not "mechanical" and does not classify items that occur several years in a row as non-recurring (Frankel 2009).
[19] To the contrary of Christensen et al. (2011), who use data for special items on a post-tax diluted EPS basis, this thesis uses a data variable for special items as an aggregated pre-tax amount due to the absence of any EPS measures for European companies in Compustat. Bradshaw & Sloan (2002) also use this variable in their paper. This measurement difference is relevant for comparisons of coefficients between the studies.

SPECIAL_TOTAL_Bloomberg is the amount of special items as reported by Bloomberg Businessweek[20]. Bloomberg Businessweek presents these special items on a disaggregated level (pre-tax), decomposed into the following categories: "Mergers & Restructuring Charges", "Gain (Loss) on Sales of Assets", "Impairment of Goodwill", "Gain (Loss) on Sales of Investments" and "Other Unusual Items". *SPECIAL_TOTAL_Bloomberg* consequently is calculated as the sum of these categories. An example is provided in Appendix VI.

If sell-side analysts are fully aware of the identity and amount of special items and exclude them accordingly, the coefficients on special items, *SPECIAL_TOTAL* and *SPECIAL_TOTAL_Bloomberg*, are expected to be 0.75 (i.e., total exclusions = special-item exclusions + other). Correspondingly, if sell-side analysts experience difficulties to identify or are unwilling to exclude special items the association will be less than 0.75. The predicted coefficient is negative as negative special items should accompany a positive value for analysts' total exclusions.

3.3.2 Analysis 2: The Dependence of Street Earnings on Special Items & Management Guidance

To test H_2, the following regression model is estimated, which is the baseline model to confirm and extend the results reported by Christensen et al. (2011):

$$EXCLUDE\_TOTAL_i = \beta_0 + \beta_1 SPECIAL\_TOTAL_i + \beta_2 SPECIAL\_TOTAL_i \times H\_at\_least\_1_i + \beta_3 H\_at\_least\_1_i + \Sigma\beta_{3+k}(Control\ variables)_{ki} + \varepsilon_i \quad (2)$$

Firstly, the amount of special items as identified by Compustat *(SPECIAL_TOTAL)* is included. Its coefficient represents the proportion of the "objective" amount of special items that is excluded by sell-side analysts (Christensen et al. 2011). The predicted coefficient is negative as negative special items should accompany a positive value for analysts' total exclusions.

Secondly, Christensen et al.'s (2011) variable of the issuance of earnings guidance is replaced with a new variable *H_at_least_1.* This reconceptualization of management guidance is introduced to reflect a more direct measure of management guidance on analyst exclusions, in line with criticism Christensen et al.'s (2011) study received from Bradshaw (2011) (see Section 2.2.2.3). *H_at_least_1* is coded as 1 if a firm highlights any items[21] as excluded by management in its year-end report and 0 otherwise. By "highlight" it is meant that (1) special items explicitly or

[20] As confirmed by Bloomberg Businessweek, data fed to its database originates from S&P Capital IQ (not Bloomberg!) - the same data provider Compustat belongs to. As S&P Capital IQ accumulates data based on firms' published financial reports for customers such as investment banks, it is assumed that these classifications are made independent of any sell-side analyst perspective but based on information from firms' published financial reports. A cross-check of special items figures reported in Bloomberg Businessweek as compared to Compustat's data, clearly collected from firms's financial reports, reveals no major deviations between both numbers (also see Section 4.1.3 for a comparison of data from both sources) so that similar sources for both are deemed very likely. S&P Capital IQ, though contacted several times, has been found unwilling or unable to clarify this issue and ignored most enquiries.

[21] It includes both, special items reported by Bloomberg Businessweek and beyond, as well as additional items.

pro forma figures implying special items are mentioned in a summary/highlights section at the beginning of the year-end report, or (2) a firm provides non-GAAP earnings figure and/or an amount of special items in a pro forma earnings/key financials table, or (3) special items are reported as a separate line item on the income statement or within another line item but are supplemented with a footnote (not notes!) explanation. A clarification of these different options is provided in Appendix VI. $H\_at\_least\_1$ is expected to have a positive coefficient since the hypotheses predict that both components of total exclusions (that is, special-item exclusions and incremental exclusions) are higher when firms highlight their exclusions, all else being equal. Moreover, it might be interesting to see whether this reconceptualization substantially impacts the importance that is attributable to management guidance. High deviations within this thesis' and Christensen et al.'s (2011) results most probably could not be explained by a difference in data sets but indicated an inappropriate design of either or both guidance variables.

The coefficient of the interaction variable $SPECIAL\_TOTAL \times H\_at\_least\_1$ represents an additional effect that special items have on analysts' total exclusions when special items are highlighted. A negative coefficient is predicted to the interaction variable $SPECIAL\_TOTAL \times H\_at\_least\_1$ as negative special items should accompany a positive value for analysts' total exclusions.

Following Christensen et al. (2011), volatility of special items is controlled for. Christensen et al. (2011) reason that the more volatile firm's special items have been in the past, the more uncertain the environment in which it operates and therefore sell-side analysts are likely to make exclusions of greater magnitude. Volatility of special items is measured as the average absolute change in special items in the previous three years, $V\_SPECIAL$, and is expected to have a positive coefficient.

Additionally, glamour stock status is controlled for. This thesis deviates from Christensen et al. (2011) in its design of the control variables for such glamour stock status. Based on a study by Baik et al. (2009), the authors define four characteristics of glamour stocks: P/E ratios, high sales growth, high stock turnover[22] and positive stock momentum[23]. To avoid issues in data availability and access, the latter two measures are dropped from this thesis but replaced by a third variable, book-to-market ratio (B/M) used in various studies such as by Desai et al. (2003), Jegadeesh et al. (2004) and Zhang (2013). Traditionally, glamour stocks are expected to have high P/E, low B/M ratios, and high past sales growth (Desai et al. 2004). To avoid a small scalar problem, E/P ratio rather than P/E ratio is calculated. E/P is the inverse of the trailing P/E ratio,

[22] measured as average monthly trading volume in the previous year

[23] measured as the buy-and-hold monthly return in the previous year minus the contemporaneous buy-and-hold monthly return of the value-weighted market index

where P is the price at the beginning of the fiscal year and E is the basic EPS number from Compustat for the previous year. A negative coefficient on E/P is expected. B/M is the book-to-market ratio, where B is the book value of equity and M is the market value equity, both measured at the beginning of the fiscal year. $\Delta SALES$ is the percentage sales growth in the previous year.

3.3.3 Analysis 3: The Dependence of Street Earnings on Special Items Subcomponents, Incremental Management Exclusions & Highlighting

To examine the differential impact of subcomponents of special items (H_{3A}), Equation (2) is modified by replacing aggregate figure of special items, *SPECIAL_TOTAL*, with subcomponents of special items - restructuring costs (*RESTRUCTURING*), gain (loss) on sale of assets (*GAIN_ASSETS*), other unusual items[24] (*OTHER*), impairment of goodwill (*IMP_GW*), and gain (loss) on sale of investments (*GAIN_INV*) - as reported by Bloomberg Businessweek. Equally, to test the effects of highlighting on subcategories of special items (H_{3B}), the interaction term in Equation (2) is replaced by those for each subcomponent by means of dichotomous variables – *H_RESTRUCTURING, H_GAINS_ASSETS, H_OTHER, H_GW_IMP,* and *H_GAINS_INV* – which indicate whether each subcomponent of special items is highlighted in firms' year-end reports. Furthermore, Equation (2) is supplemented with an additional variable measuring management's incremental exclusions (*INCR_Mngmt_Bl*) to test for H_{3D}.

$$EXCLUDE\_TOTAL_i = \beta_0 + \beta_1 RESTRUCTURING_i + \beta_2 GAIN\_ASSETS_i + \beta_3 OTHER_i + \beta_4 IMP\_GW_i + \beta_5 GAIN\_INV_i + \beta_6 RESTRUCTURING_i \times H\_RESTRUCTURING_i + \beta_7 GAIN\_ASSETS_i \times H\_GAIN\_ASSETS_i + \beta_8 OTHER_i \times H\_OTHER_i + \beta_9 GW\_IMP_i \times H\_GW\_IMP_i + \beta_{10} GAIN\_INV_i \times H\_GAIN\_INV_i + \beta_{11} INCR\_Mngmt\_Bl_i + \beta_{12} Highlight\_at\_least\_1_i + \Sigma\beta_{12+k}(Control\ variables)_{ki} + \varepsilon_i \qquad (3)$$[25]

Negative coefficients on all subcategories of special items are expected. If sell-side analysts are fully aware of the identity and amount of these subcategories and exclude them accordingly, the coefficients are expected to be 0.75. Correspondingly, if sell-side analysts experience difficulties to identify or are unwilling to exclude different categories of special items, the association will be less than 0.75. Moreover, individual subcomponents of special items are expected to have different coefficients as analysts' treatment is expected to vary.

---

[24] This subcategory includes items such as impairment losses (most frequent) and legal settlements, insurance settlements (both less frequent), and other unusual items.

[25] Note that for the sake of brevity interaction terms $RESTRUCTURING \times H\_RESTRUCTURING$, $GAIN\_ASSETS \times H\_GAIN\_ASSETS$, $OTHER \times H\_OTHER$, $GW\_IMP \times H\_GW\_IMP$, and $GAIN\_INV \times H\_GAIN\_INV$ are shortened to $RESTRUCTURING\_ \times \_H$, $GAIN\_ASSETS\_ \times \_H$, $OTHER\_ \times \_H$, $GW\_IMP\_ \times \_H$, $GAIN\_INV\_ \times \_H$ respectively in the tables presented later in the thesis. The specification of the shortened names of the variables is also presented in Exhibit 7.

H_RESTRUCTURING, H_GAINS_ASSETS, H_OTHER, H_GW_IMP, and *H_GAINS_INV* are coded as 1 if a firm highlights special items *RESTRUCTURING, GAINS_ASSETS, OTHER, GW_IMP,* and *GAINS_INV* respectively in its published year-end report. For special-item subcomponents to be treated as "highlighted" the same three criteria as for *H_at_least_1* apply. However, it is additionally necessary that the amounts of special item subcomponents mentioned by management coincide with those indicated in Bloomberg Businessweek. Occasionally, management exclusions are not stated on an item-by-item basis but only presented as a total figure (e.g. "non-recurring items", "items affecting comparability"). If these match one or alternatively, surpass the sum of all special items subcomponents, the single or in the latter case all categories are set to "highlighted" (see Appendix VI).

Variables *H_RESTRUCTURING, H_GAINS_ASSETS, H_OTHER, H_GW_IMP,* and *H_GAINS_INV* are deemed not necessary to be included as separate variables into the model since highlighting of special-item subcomponents alone is not expected to have an effect on analysts' total exclusions when those special item subcomponents are equal to 0. On the contrary, *H_at_least_1* is predicted to effect analysts' total exclusions as the variable reflects highlighting of both special items and incremental items. (Also, it is technically not feasible to test more than one dichotomous variable in one equation.)

Incremental management exclusions, *INCR_Mngmt_Bl*, measured as the difference between *MNGMT_EXCL* and *SPECIAL_TOTAL_Bl*, are hypothesized to explain analysts' exclusions beyond special items. A negative coefficient is predicted as management's exclusion of negative items should accompany a positive value for analysts' total exclusions.

Moreover, additional control variables are added to control for non-special-item (recurring items) exclusions and firm-specific factors that were not covered by Christensen et al. (2011):

Amortization of Intangibles (AMORT) and *Share in Profits of Associated Companies (ASSOCIATES)*

Prior studies (e.g. Bhattacharya et al. 2004, Lougee & Marquardt 2002, Doyle at al. 2003, Choi et al. 2007) document that recurring expenses such as amortization of intangibles or share in profits of associated companies are frequently excluded from pro forma and street earnings.

Profit Firms Versus Loss Firms (LOSS_FIRM)

Hsieh & Heninger (2013) note that firms that report GAAP losses benefit from street earnings which surpass reported earnings to conceal bad firm performance and beat forecasts. Therefore, in line with Hsieh & Heninger (2013), a positive association between the existence of a loss and analysts' total exclusions is anticipated. To control for systematic differences between profit and loss firms, a dichotomous variable *LOSS_FIRM* is included. *LOSS_FIRM* is coded 1 if the firm's

GAAP earnings (*GAAP)* are negative and 0 otherwise.

Number of Analysts Contributing to Street Earnings Measurement (No_ANALYSTS)

The number of analysts, *No_ANALYSTS*, measured by the number of estimates in the last consensus compiled by I/B/E/S, is a proxy for information environment and size. Firms with high analyst following are assumed to face higher transparency demands from the market and therefore are expected to report more special items.

Persistence of Special Items (PERSIST_TOTAL_SI_PY)

According to Christensen et al. (2011), prior research (e.g. Atiase, Platt, and Tse 2005; Fairfield, Kitching, and Tang 2009) has noted that for some firms, special items are in fact not so "special": these firms show charges repeatedly. Christensen et al. (2011) hypothesizes that for repeated chargers, management guidance for sell-side analysts is not necessary in order to make these exclude special items from current years' earnings estimates because sell-side analysts are "guided" by the previous year's number. To control for this "guidance", a dichotomous variable, *PERSIST_TOTAL_SI_PY,* indicating whether special items were reported in the previous year is included as a control variable. *PERSIST_TOTAL_SI_PY* is coded as 1 if the amount of special items *(SPECIAL_TOTAL)* in the previous year is non-zero and 0 otherwise.

Standard Deviation of the Consensus Estimate

Standard deviation of the consensus estimate, as reported by I/B/E/S, is a proxy for uncertainty in firms' environment and therefore the ability to accurately predict firms' performance. This thesis hypothesizes that higher standard deviation of the consensus estimate reflects higher uncertainty about firms' performance, which could potentially lead to higher analyst exclusions as sell-side analysts want to narrow their street earnings to earnings components that are perceived as stable[26].

Debt-Equity Ratio (D/E)

Following Hsieh & Heninger (2013), leverage is controlled for. As Hsieh & Heninger (2013) note that firms with higher leverage have greater incentives to manipulate GAAP earnings and an even greater motivation to influence sell-side analysts towards higher street earnings. Also, creditors may rely on street earnings in making decisions. Defond and Jiambalvo (1994) find that executives manage earnings to avoid the high cost of debt covenant violation. Therefore, debt-equity ratio (*D/E*), defined as debt divided by market value of equity (both year-end), is used as a proxy for leverage and a control for debt covenants.

[26] This assumption was confirmed in an interview with a Swedish sell-side analyst.

Given that fact that several dichotomous variables have been defined as control variables, which cannot be combined into one regression, this thesis intends to pursue an iterative approach, successively replacing those dichotomous variables found insignificant by others.

3.3.4 Analysis 4: The Dependence of Analysts' Incremental Exclusions on Managements' Incremental Exclusions

H_4 is tested by modifying Equation (1) to use analysts' incremental exclusions (exclusions beyond special items), *INCR_Analysts*, as the dependent variable, and management's incremental exclusions, *INCR_Mngmt*, as the independent variable. *INCR_Analysts* is measured as *EXCLUDE_TOTAL* plus *SPECIAL_TOTAL* (adjusted for taxes[27]) and *INCR_Mngmt* is measured as *MNGMT_EXCL* minus SPECIAL_TOTAL (i.e. *SPECIAL_TOTAL* is eliminated from both sides of the equation)[28].

$$INCR\_Analysts_i = \beta_0 + \beta_1 INCR\_Mngmt_i + \varepsilon_i \qquad (4a)$$

Alternatively, the same incremental measures can be derived using special items as reported by Bloomberg Businessweek (*SPECIAL_TOTAL_Bl*). The Equation (4a) converts to:

$$INCR\_Analysts\_Bl_i = \beta_0 + \beta_1 INCR\_Mngmt\_Bl_i + \varepsilon_i \qquad (4b)$$

where *INCR_Analysts_Bl* is measured as *EXCLUDE_TOTAL* plus *SPECIAL_TOTAL_Bloomberg* (adjusted for taxes) and *INCR_Mngmt_Bl* is measured as *MNGMT_EXCL* minus SPECIAL_TOTAL_ *Bloomberg.*

Negative coefficients for *INCR_Mngmt* and *INCR_Mngmt_Bl* are predicted, as management's exclusions of negative special items should accompany a positive value for analysts' total exclusions.

3.3.5 Analysis 5: The Dependence of Analysts' Incremental Exclusions on Highlighting and Managements' Incremental Exclusions

Following Christensen et al. (2011), H_5 is tested by modifying Equation (2) to use analysts' incremental exclusions, *INCR_Analysts*, as the dependent variable. Therefore, *SPECIAL_TOTAL* is eliminated from both sides of the equation. The interaction term $SPECIAL\_TOTAL \times H\_at\_least\_1$ is dropped because *SPECIAL_TOTAL* is removed from *EXCLUDE_TOTAL* in calculating the new dependent variable. The empirical model is summarized by Equation ($5a_1$):

[27] *SPECIAL_TOTAL* and *SPECIAL_TOTAL_Bloomberg* are pre-tax while *EXCLUDE_TOTAL* is post-tax, thus tax adjustment is necessary. See Footnote 17 for assumed tax rate calculation.
[28] The difference in sign in the calculation of incremental exclusions for sell-side analysts and management is due to the fact that *EXCLUDE_TOTAL* is defined as a positive value if street earnings are higher than GAAP earnings, whereas *MNGMT_EXCL* is defined as a negative value if management's figures are higher than *GAAP. SPECIAL_TOTAL* is equally a negative value if capturing cost components.

$$INCR\_Analysts_i = \beta_0 + \beta_1 H\_at\_least\_1_i + \Sigma\beta_{1+k}(Control\ variables)_{ki} + \varepsilon_i \qquad (5a_1)$$

Similarly, the model can be specified using special items as reported by Bloomberg Businessweek, *SPECIAL_TOTAL_Bloomberg,* to derive analysts' incremental exclusions, *INCR_Analysts_Bl*:

$$INCR\_Analysts\_Bl_i = \beta_0 + \beta_1 H\_at\_least\_1_i + \Sigma\beta_{1+k}(Control\ variables)_{ki} + \varepsilon_i \qquad (5a_2)$$

Yet, *H_at_least_1* measures both special-item and incremental-item highlights and therefore Equations ($5a_1$) and ($5a_2$) assume that analysts' incremental exclusions are higher for firms which highlight special items or/and incremental items. To test the effect of highlighting incremental items, a variable measuring only incremental-item highlights, *H_at_least_1_for_incremental,* is introduced. *H_at_least_1_for_incremental* is measured similarly to *H_at_least_1,* except for the fact that only cases are considered in which *INCR_Mngmt* is less than 0 [29]. By replacing *H_at_least_1* in Equations ($5a_1$) and ($5a_2$) with *H_at_least_1_for_incremental,* the following equations are derived:

$$INCR\_Analysts_i = \beta_0 + \beta_1 H\_at\_least\_1\_for\_incremental_i + \Sigma\beta_{1+k}(Control\ variables)_{ki} + \varepsilon_i \qquad (5b_1)$$

$$INCR\_Analysts\_Bl_i = \beta_0 + \beta_1 H\_at\_least\_1\_for\_incremental_i + \Sigma\beta_{1+k}(Control\ variables)_{ki} + \varepsilon_i \qquad (5b_2)$$

In addition, to test combined effects of management's incremental exclusions, *INCR_Mngmt* or *INCR_Mngmt_Bl*, and incremental-item highlighting, *H_at_least_1_for_incremental*, on analysts' incremental exclusions, *INCR_Analysts* or *INCR_Analysts_Bl*, the following models are specified:

$$INCR\_Analysts_i = \beta_0 + \beta_1 INCR\_Mngmt_i + \beta_2 H\_at\_least\_1\_for\_incremental_i + \Sigma\beta_{2+k}(Control\ variables)_{ki} + \varepsilon_i \qquad (5c_1)$$

$$INCR\_Analysts\_Bl_i = \beta_0 + \beta_1 INCR\_Mngmt\_Bl_i + \beta_2 H\_at\_least\_1\_for\_incremental_i + \Sigma\beta_{2+k}(Control\ variables)_{ki} + \varepsilon_i \qquad (5c_2)$$

Exhibit 6 summarises the models developed in this Section to test the hypotheses developed in Section 3.1.

[29] This approach excludes observations in which total management exclusions are lower than special items, thus resulting in positive values of *INCR_Mngmt.*

Exhibit 6 ***Summary of models for hypotheses testing***

Hypothesis	**Model**
H1a: Analysts do not fully follow management in their exclusions.	Equation (1a) $EXCLUDE\_TOTAL_i = \beta_0 + \beta_1 MNGMT\_EXCL_i + \varepsilon_i$
H_{1b}: Analysts' total exclusions are better explained by management's total exclusions than special items.	Comparison of AdjR² for univariate regression Equations (1a), (1b), (1c): $EXCLUDE\_TOTAL_i = \beta_0 + \beta_1 MNGMT\_EXCL_i + \varepsilon_i$ (1a) $EXCLUDE\_TOTAL_i = \beta_0 + \beta_1 SPECIAL\_TOTAL_i + \varepsilon_i$ (1b) $EXCLUDE\_TOTAL_i = \beta_0 + \beta_1 SPECIAL\_TOTAL\_Bloomberg_i + \varepsilon_i$ (1c)
H_2: Analysts are more likely to exclude the full amount of special items when managers guide than when they do not guide.	Equation (2) $EXCLUDE\_TOTAL_i = \beta_0 + \beta_1 SPECIAL\_TOTAL_i + \beta_2 SPECIAL\_TOTAL_i \times H\_at\_least\_1_i + \beta_3 H\_at\_least\_1_i + \Sigma\beta_{3+k}(Control\ variables)_{ki} + \varepsilon_i$
H_{3a}: Analysts exclude individual subcomponents of special items to a different degree. *H_{3b}: Analysts are more likely to exclude subcomponents when they are highlighted.* *H_{3c}: Analyst exclusions are higher when management guides.* *H_{3d}: Analysts follow management exclusions beyond special items*	Equation (3) $EXCLUDE\_TOTAL_i = \beta_0 + \beta_1 RESTRUCTURING_i + \beta_2 GAIN\_ASSETS_i + \beta_3 OTHER_i + \beta_4 IMP\_GW_i + \beta_5 GAIN\_INV_i + \beta_6 RESTRUCTURING_i \times H\_RESTRUCTURING_i + \beta_7 GAIN\_ASSETS_i \times H\_GAIN\_ASSETS_i + \beta_8 OTHER_i \times H\_OTHER_i + \beta_9 GW\_IMP_i \times H\_GW\_IMP_i + \beta_{10} GAIN\_INV_i \times H\_GAIN\_INV_i + \beta_{11} INCR\_Mngmt\_Bl_i + \beta_{12} Highlight\_at\_least\_1_i + \Sigma\beta_{12+k}(Control\ variables)_{ki} + \varepsilon_i$
H_4: There is an association between management's incremental exclusions	Equation (4a) $INCR\_Analysts_i = \beta_0 + \beta_1 INCR\_Mngmt_i + \varepsilon_i$

and analysts' incremental exclusions..	Equation (4b) $INCR\_Analysts\_Bl_i = \beta_0 + \beta_1 INCR\_Mngmt\_Bl_i + \varepsilon_i$
H_5: Analyst incremental exclusions are higher for firms that guide than for those that do not.	Equation ($5a_1$) $INCR\_Analysts_i = \beta_0 + \beta_1 H\_at\_least\_1_i + \Sigma\beta_{1+k}(Control\ variables)_{ki} + \varepsilon_i$ Equation ($5a_2$) $INCR\_Analysts\_Bl_i = \beta_0 + \beta_1 H\_at\_least\_1_i + \Sigma\beta_{1+k}(Control\ variables)_{ki} + \varepsilon_i$ Equation ($5b_1$) $INCR\_Analysts_i = \beta_0 + \beta_1 H\_at\_least\_1\_for\_incremental_i + \Sigma\beta_{1+k}(Control\ variables)_{ki} + \varepsilon_i$ Equation ($5b_2$) $INCR\_Analysts\_Bl_i = \beta_0 + \beta_1 H\_at\_least\_1\_for\_incremental_i + \Sigma\beta_{1+k}(Control\ variables)_{ki} + \varepsilon_i$ Equation ($5c_1$) $INCR\_Analysts_i = \beta_0 + \beta_1 INCR\_Mngmt_i + \beta_2 H\_at\_least\_1\_for\_incremental_i + \Sigma\beta_{2+k}(Control\ variables)_{ki} + \varepsilon_i$ Equation ($5c_2$) $INCR\_Analysts\_Bl_i = \beta_0 + \beta_1 INCR\_Mngmt\_Bl_i + \beta_2 H\_at\_least\_1\_for\_incremental_i + \Sigma\beta_{2+k}(Control\ variables)_{ki} + \varepsilon_i$

Exhibit 7 ***Variable definitions***

Variable		Definition
STREET	=	actual basic[30] earnings per share (EPS) for the fiscal year as recorded by I/B/E/S (Unadjusted Summary International File). It is scaled by the split-unadjusted stock price at the beginning of the fiscal year. In addition to exclusions of other non-recurring items, I/B/E/S' definition of earnings also excludes extraordinary items and earnings from discontinued operations (Bradshaw 2002).
GAAP	=	Basic (non-diluted) EPS before extraordinary items (Compustat data item EPSEXCON). It is scaled by the split-unadjusted stock price at the beginning of the fiscal year. EPS before extraordinary items in Compustat exclude items reported by the company as extraordinary or exceptional presented after net income from continuing operations (e.g. income (loss) from operations of a discontinued division and gain (loss) on disposal of a discontinued division).
EXCLUDE_TOTAL	=	*STREET* – *GAAP*. Total exclusions by sell-side analysts from street earnings.
MNGMT_EXCL	=	management exclusions measured as the difference between "GAAP-equivalent" earnings and pro forma earnings, both on a pre-tax basis. "GAAP-equivalent" earnings are GAAP-measured (i.e. free from management's exclusions) earnings measured at the same "earnings before" level (e.g. EBIT, EBITDA) as pro forma earnings. . GAAP-measured "earnings before" measures (e.g. EBIT, EBITDA) represent standardized measures of GAAP earnings, adjusted e.g. for interest income/expense (I), taxes (T), depreciation (D) and amortization (A) expense. The measure is adjusted to a per share basis and scaled by the split-unadjusted stock price at the beginning of the fiscal year.
SPECIAL_TOTAL	=	special items (Compustat data item SPI), adjusted to a per share basis and scaled by the split-unadjusted stock price at the beginning of the fiscal year.
SPECIAL_TOTAL_Bloomberg	=	total amount of special items as reported by Bloomberg Businessweek. It comprises five subcategories of special items: "Mergers & Restructuring Charges", "Gains and Losses on Sales of Assets", "Impairment of Goodwill", "Gains and Losses on Sales of Investments" and "Other Unusual Items".
RESTRUCTURING	=	a special-item subcategory "Merger & Restructuring Charges" as reported by Bloomberg Businessweek. When it is nonzero, it is typically negative.
GAIN_ASSETS	=	a special-item subcategory "Gain (Loss) On Sale Of Assets" as reported by Bloomberg Businessweek. It can be positive or negative.

[30] Basic (not diluted) EPS were used since Compustat Global provides only basic EPS for Swedish firms

OTHER	=	a special-item subcategory "Other Unusual Items, Total" as reported by Bloomberg Businessweek. The most common items included in this subcategory are impairments and write-offs of assets, litigation and insurance settlements, and others. It can be positive or negative.
IMP_GW	=	a special-item subcategory "Impairment of Goodwill" as reported by Bloomberg Businessweek. When it is nonzero, it is typically negative.
GAIN_INV	=	a special-item subcategory "Gain (Loss) On Sale Of Investments" as reported by Bloomberg Businessweek. It can be both, positive or negative.
H_RESTRUCTURING/ H_GAIN_ASSETS/ H_OTHER/ H_IMP_GW/ H_GAIN_INV	=	dichotomous variables equal to one if RESTRUCTURING/ GAIN_ASSETS/ OTHER/ IMP_GW/ GAIN_INV is highlighted as defined in Section 3.3.3.
RESTRUCTURING_x_H	=	RESTRUCTURING * H_RESTRUCTURING
GAIN_ASSETS_x_H	=	*GAIN_ASSETS * H_GAIN_ASSETS*
OTHER_x_H	=	*OTHER * H_OTHER*
IMP_GW_x_H	=	*IMP_GW * H_IMP_GW*
GAIN_INV_x_H	=	*GAIN_INV * H_GAIN_INV*
INCR_Mngmt	=	*MNGMT_EXCL – SPECIAL_TOTAL*. Incremental exclusions by management from non-GAAP earnings. Calculated using the total amount of special items as identified by Compustat.
INCR_Analysts	=	*EXCLUDE_TOTAL – SPECIAL_TOTAL * 0.75*. Incremental exclusions by sell-side analysts in street earnings. Calculated using the total amount of special items as identified by Compustat.
INCR_Mngmt_Bl	=	*MNGMT_EXCL – SPECIAL_TOTAL_Bloomberg*. Incremental exclusions by management in non-GAAP earnings. Calculated using the total amount of special items as reported by Bloomberg Businessweek.
INCR_Analysts_Bl	=	*EXCLUDE_TOTAL – SPECIAL_TOTAL_Bloomberg * 0.75*. Incremental exclusions by sell-side analysts from street earnings. Calculated using the total amount of special items as reported by Bloomberg Businessweek.
At_least_1_Highlight	=	an indicator variable equal to one if a firm uses pro forma guidance as defined in Section 3.3.2.
At_least_1_Highlight_for_incremental	=	An indicator variable equal to one if *At_least_1_Highlight* is equal to 1 and a firm has negative *INCR_Mngmt.*

***Control variables**:*

V_SPECIAL_TOTAL	=	the average absolute change in *SPECIAL_TOTAL* in the previous three years. It measures the volatility of special items.

E/P	=	the inverse of the trailing P/E ratio, where P is the price at the beginning of the fiscal year and E is the basic EPS before extraordinary items for the previous year.
B/M	=	the book-to-market ratio, defined as the book value of equity (Compustat data item SEQ) divided by the market value of equity, both measured at the beginning of the fiscal year. Market value of equity is calculated as the number of shares outstanding (CSHO) times the price per share.
ΔSALES	=	the percentage sales growth in the previous fiscal year.
AMORT	=	amortization of intangibles (Compustat data item AM).
ASSOCIATES	=	share in earnings of associated companies (Compustat data item EIEAC).
LOSS_FIRM	=	an indicator variable equal to one if *GAAP* is negative.
No_ANALYSTS	=	the number of estimates in I/B/E/S acting as a substitute for the number of sell-side analysts contributing to the calculation of street earnings.
PERSIST_TOTAL_SI_PY	=	an indicator variable equal to one if *SPECIAL_TOTAL* in the prior year is nonzero.
STD_Estimate	=	standard deviation of a consensus estimate in I/B/E/S.
D/E	=	debt-equity ratio, measured as total debt divided by market value of equity (both year-end). Total debt is the sum of long-term debt (Compustat data item DLTT), long-term debt due in one year (Compustat data item DD1), and notes payable/short-term borrowings (Compustat data item NP). Market value of equity is calculated as the number of shares outstanding (CSHO) times the price per share.

Note: All earnings data are basic EPS measures scaled by the stock price at the beginning of the fiscal year. Total earnings data is converted to basic EPS measures using the number of common shares utilized to calculate basic EPS as reported by Compustat (Compustat data item CSHPRIA). Split-unadjusted data for EPS and stock prices are used. This makes the I/B/E/S figures directly comparable to the ones of Compustat, which records the historically reported amounts. This approach requires the elimination of certain observations from the sample population as will be outlined in Section 3.5.

3.4 Data Collection

Data used in this study is obtained from I/B/E/S and Compustat databases and hand-collected from firms' published year-end reports, obtained from the respective company websites, and firms' income statements published in Bloomberg Businessweek.

Street earnings data (actual EPS, number of estimates, standard deviation of estimates) was collected from I/B/E/S Summary History file. The income statement and balance sheet data was extracted from Compustat Global Fundamentals Annual File, the stock price data was sourced from Compustat Securities Daily File. The additional information on special items was hand-collected from firms' published year-end reports (whether special-item subcomponents are highlighted in the report, forms of highlighting, and pro forma earnings) and Bloomberg Businessweek (disaggregation of special items, category amounts).

Split-unadjusted data for EPS and stock prices are used. This makes the I/B/E/S figures directly comparable to the ones of Compustat, which records the historically reported amounts.

As I/B/E/S and Compustat databases utilize different primary codes for company identification, the two sources of data were merged using SEDOL/CUSIP codes. Companies that could not be matched in this approach were matched manually.

Annual data was used in the analysis because prior research (e.g. Bradshaw and Sloan 2002) demonstrates that more accounting adjustments are made in the fourth fiscal quarter than in any other quarters, resulting in seasonality in the reporting of special items. Additionally, quarterly figures in Bloomberg Businessweek are available for the last four quarters only, so that the analysis would otherwise solely have covered one year.

Firms' pro forma measures have been collected from the respective companies' year-end reports in the period 2010 to 2013. The identification of pro forma guidance was inspired by prior studies. Bhattacharya et al. (2003), searching for the words 'pro forma' by means of software, conclude that only a small number of firms provide pro forma earnings. Bradshaw and Sloan (2002) however emphasize that the majority of firms discuss earnings other than GAAP earnings nowadays, which may serve as de facto pro forma earnings. Based on these insights, the definition of pro forma has been broadened and manual searches for alternative earnings figures, e.g. named "underlying", "adjusted", "operating" or "core earnings", have been performed. Equally, the explicit communication of special items and its subcomponents or the statement of earnings measures with the add-on "excluding…" have been taken into account. If exclusions were not stated as separate amounts, pro forma figures were deducted from corresponding GAAP-equivalent measures (see Section 3.3.1 for detailed definition of management exclusions). Moreover, the search for pro forma figures was limited to an <u>intentionally</u> "selective reading" of each year-end report. It can be referred to Appendix VI for a description and visualization of this process. Furthermore, amounts of management's exclusions were matched to the amounts of firm's special items subcategories as provided by Bloomberg Businessweek. This matching is equally specified in Appendix VI. A full reading of year-end reports to identify disclosures of pro forma earnings in narratives was not performed. The selective reading technique has been chosen to imitate sell-side analysts' time pressure in deriving street earnings. The issue of time pressure was confirmed in the interview with the Swedish sell-side analysts as well as a study by Hjelström et al. (2014) and is in line with research claiming that information can be hidden from sell-side analysts in financial reports by means of presentation choices (e.g. Riedl & Srinivasan 2010).

3.5 Sample Selection

This thesis uses financial data of 253 firm-years covering Swedish companies in the period 2010 – 2013. This time range has been determined by the absence of data in Bloomberg Businessweek for periods earlier than 2010.

In a first step, the sample selection has been pursued by identifying all firms listed on Nasdaq OMX Stockholm for which the following restrictions apply: (1) a company is not a financial services firm (based on Compustat "Industry format" classification) and (2) there are at least 3 analyst estimates in I/B/E/S in each of the years from 2010 – 2013 in I/B/E/S[31]. By means of the second condition, companies with low sell-side analyst following are excluded. Those eliminations are considered necessary to avoid cases with information environments of poor quality and possibly biased I/B/E/S estimates produced by only one or two sell-side analysts. In addition, firm-years that have a reporting currency different from SEK have been excluded. One company is eliminated due to absence of data in Bloomberg Businessweek. Consequently, an initial sample of 261 firm-years (66 companies) is obtained.

In the next step, firm-years with (reverse) stock splits have been eliminated to avoid inconsistencies between pre-split stock prices at the beginning of the year and post-split EPS measures at the year-end[32]. This elimination has narrowed the sample to 253 firm-years. The selected sample is presented in Appendix I. To identify firms that underwent stock splits or reversals of stock splits in a period, statements of changes in equity presented in year-end reports were examined.

3.6 Choosing the Regression Model

The research design implemented in this paper adopts pooled ordinary least squares (OLS) regressions. The pooled cross-section assumes that all period's observations are independent; i.e. analysts' exclusions and firms' practices with regard to recording and highlighting special items are independent of the prior period's practices. Although this assumption has potential to be violated, the value and type of special items in one period are not likely to be dependent on preceding or following years' ones. Analysts' treatment of special items can be argued to be to a

[31] The condition "in each of the years" eliminates firms that were delisted or newly listed during 2010-2013. However, delisted firms would have been eliminated anyway due to absence of data at Bloomberg Businessweek for delisted companies. Newly listed companies are excluded because of possibly "immature" analysts' elimination practices with newly listed companies.

[32] As split-unadjusted data is used

certain degree interrelated across years but it is predicted to rather depend on the amount and nature of special items than prior years' practices. Overall, serial correlation is not considered a major issue.

Moreover, by using a pooled OLS regression model, it is assumed that coefficients and intercepts are invariant amongst the firms. A violation of this assumption would require the selection of a panel data regression. Several considerations would affect the choice between a fixed effects and a random effects model. If no omitted variables are suspected or they are not expected to be correlated with the explanatory variables that are included in the model, then a random effects model would suit. Yet, most likely, omitted variables exist and thus they would bias the estimates. Fixed effects models may provide a means for controlling for omitted variable bias as firms serve as their own controls. It is assumed that whatever effects the omitted variables have on the subject at one time, they will also have the same effect at a later time; hence their effects will be constant. However, in order for this to be true, the omitted variables must have time-invariant values (the value of the variable does not change across time) with time-invariant effects (the variable has the same effect across time). This assumption is potentially violated, as analyst exclusions are likely to be determined by the variances in explanatory variables rather than invariant values. Also, the use of a fixed effects model would result in a loss of a substantial amount of degrees of freedom[33] and inflated standard errors, making it difficult to observe any significant results for the independent variables.

After the consideration of pros and cons, a pooled OLS regression has been selected for this thesis' analyses.

[33] A fixed effects model requires the estimation of a parameter for each company's coefficient and therefore 66 degrees of freedom would be lost as the sample contains 253 observations from 66 companies.

4. Results

4.1 Descriptive Evidence

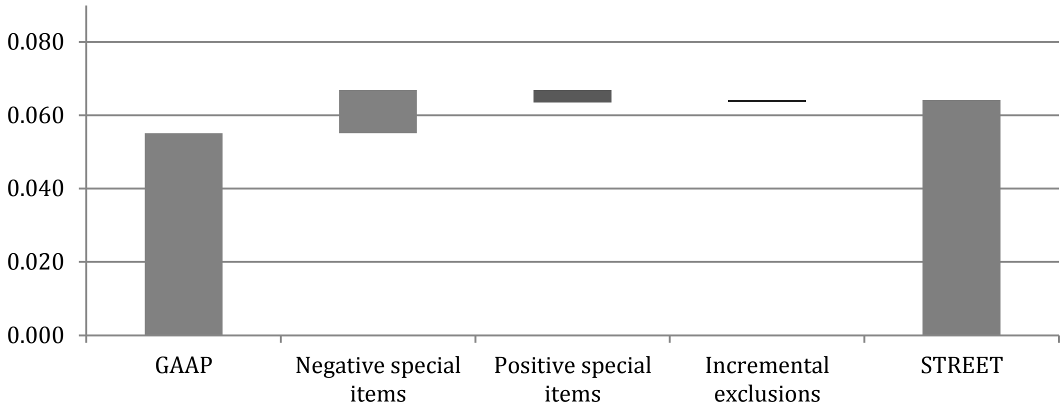
As a precursor to the regression analysis of analyst exclusions, this section documents descriptive evidence of the relation between street earnings and GAAP earnings as well as management guidance practices and presents preliminary suggestions on the characteristics of analyst exclusions.

4.1.1 Exclusions and Special Items

As presented in Exhibit 8 Panel B, when no or negative special items are reported, *STREET* is higher than *GAAP* resulting in positive analyst exclusions (*EXCLUDE_TOTAL*). Consistent with Christensen et al. (2011)'s results, *STREET* is higher than *GAAP* for the full sample as well. Firm-years with negative special items report the lowest *GAAP,* yet not the lowest *STREET*. The difference between *STREET* and GAAP, i.e. analysts' total exclusions, as well as management's total exclusions (*MNGMT_EXCL*) are the highest when negative special items are reported. Management's total exclusions are higher than analysts' when negative items are reported and lower when non-negative, indicating both, a disagreement between sell-side analysts and management in making exclusions and management's possibly aggressive practices in reporting pro forma earnings. Both analysts' and management's total exclusions are well above zero when no special items are reported and higher than special items (post-tax) when negative items are reported, indicating that sell-side analysts and management make exclusions beyond special items. This observation confirms US research findings that street earnings exclude more than special items from GAAP earnings (Doyle et al. 2003). Yet, when positive special items are reported, analysts' exclusions are lower than special items, suggesting that sell-side analysts might not identify and/or exclude all special items fully. Thus, an analysis of exclusion patterns of different special-item subcomponents, which is one of the main focus areas in this thesis, should have the ability to shed more light on the mechanics of analyst exclusions.

Exhibit 8 ***Mean street earnings, GAAP earnings, analysts' total exclusions, management total exclusions, and special items***

Panel A. *Graphical visualization of mean street earnings, GAAP earnings, special items (as reported by Bloomberg Businessweek) and incremental analysts' exclusions*



Panel B. *Mean street earnings, GAAP earnings, analysts' total exclusions, management's total exclusions, and special items conditional on the sign of aggregated special items*

Firm-years with:	Street earnings (*STREET*)	GAAP earnings (*GAAP*)	Analysts' total exclusions (*TOTAL_EXCLUDE = STREET - GAAP*)	Management's total exclusions (*MNGMT_EXCL*)	Special items by Compustat (*SPECIAL_TOTAL)*	Special items by Bloomberg Businessweek (*SPECIAL_TOTAL_Bloomberg)*
No SI	0.0660	0.0596	0.0064	-0.0023	0.0012	-
				(-0.0017)	*(0.0009)*	*(-)*
Negative SI	0.0646	0.0449	0.0197	-0.0306	-0.0222	-0.0243
				(-0.0229)	*(-0.0166)*	*(-0.0182)*
Positive SI	0.0622	0.0682	-0.0060	*0.0011*	0.0083	0.0107
				(0.0008)	*(0.0062)*	*(0.0080)*
Total	**0.0642**	**0.0551**	**0.0090**	**-0.0150**	**-0.0079**	**-0.0085**
				(-0.0112)	***(0.0060)***	***(-0.0063)***

Note: The classification of firm-years into categories (firm-years with no special items, with negative special items, and with positive special items) is based on data of special items as reported by Bloomberg Businessweek. All metrics are on a per share basis and scaled by the beginning-of-year share price. For *MNGMT_EXCL, SPECIAL_TOTAL,* and *SPECIAL_TOTAL_Bloomberg* post-tax[34] figures are provided in brackets.

[34] Tax rate of 25% is assumed. See Footnote 17 for calculation of the assumed tax rate.

4.1.2 Nature of Special Items

Exhibit 9 Panel D indicates that 75%[35] (80%) of firm-years have special items: 54% (49%) of firm-years reported negative special items, while positive special items were reported by only 21% (31%) of firm-years. The proportion of negative (72% - Compustat, 61% - Bloomberg Businessweek) and positive special items (28% and 39% respectively) reported (see Exhibit 9 Panel B) is consistent with the proportions of negative (63%) and positive (37%) special items documented by Burgstahler et al. (2002). In addition, negative special items are generally larger than positive ones (see Exhibit 9 Panel C), thus also confirming the findings of US research (e.g. Burgstahler et al., 2002; Elliott & Hanna, 1996). These observations provide preliminary evidence of asymmetries in the frequency and magnitude of positive and negative special items, consistent with the observations made by these US studies.

Exhibit 9 provides data on special items reported on an aggregated level. Yet, firms could report multiple special items, which could be either or both, negative and positive, causing offsetting effects on the firm level. Larger negative items might offset positive ones so that on an aggregated level, negative items will be reported. Similarly, positive special items might be reported on an aggregate level when those are larger than negative. Compustat provides data of special items on an aggregated level only. In order to explore the nature of special items on a subcomponent basis, an analysis of special items by category as reported by Bloomberg Businessweek is thus presented in Exhibit 10.

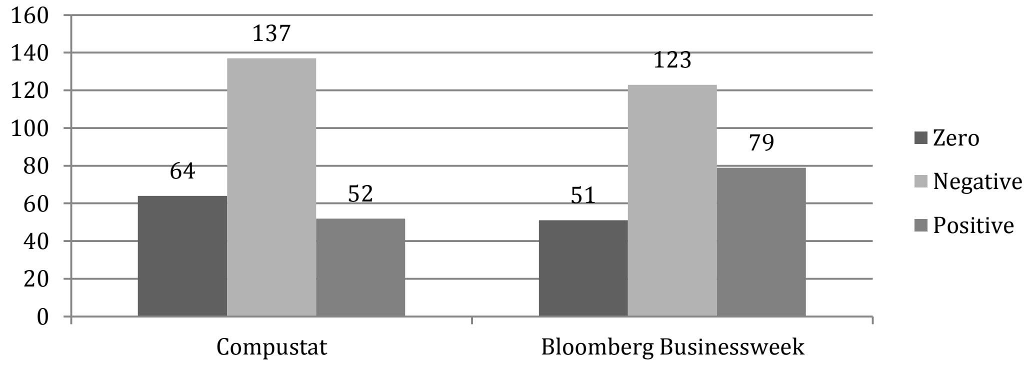
As shown in Panel A of Exhibit 10, gains (losses) on sale of assets (*GAIN_ASSETS*) are most common and account for 30.3% of a total of 432 individual special items reported, followed by other unusual items[36] (*OTHER*) (28.4%), restructuring charges (*RESTRUCTURING*) (21.5%), gains (losses) on investments (*GAIN_INV*) (15.0%), and impairment of goodwill (*IMP_GW)* (7.2%). Measured on a basis of the total number of firm-years instead of the amount of special items, 131 out of 253 firm-years (52%) reported GAIN_ASSETS, followed by 112 (44%) reporting *OTHER, 93 (*37%) reporting *RESTRUCTURING*, 65 (26%) reporting *GAIN_INV*, and 31 (12%) reporting *GW_IMP*.

With regard to the sign of special items (see Panel B and Panel C in Exhibit 10), 91 out of 131 (69%) reported *GAIN_ASSETS* were positive, followed by *GAIN_INV* being positive in 44 out of 65 cases (68%), and *OTHER* with 38 positive items out of 112 (34%). Overall, 59% of the 432 items were negative, consistent with the proportions of negative (63%) and positive (37%) special items documented by Burgstahler et al. (2002).

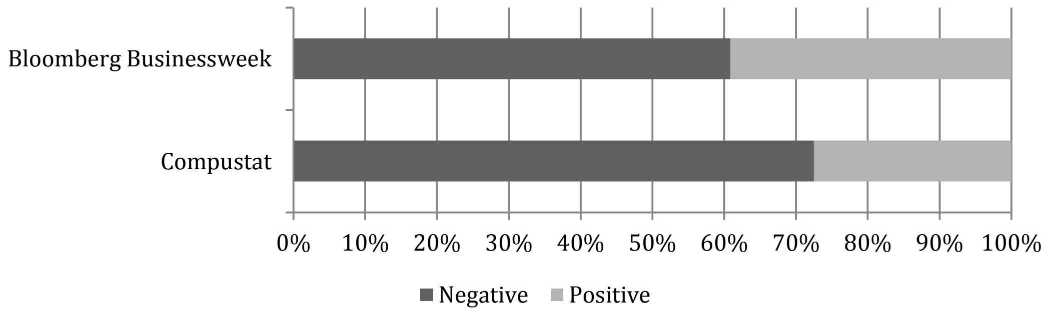
[35] as reported by Compustat (Bloomberg Businessweek figures are provided in the brackets)
[36] Such as impairments and write-offs of assets, legal and insurance settlements, and other unusual items

Exhibit 9 ***Characteristics of special items on an aggregated level as reported by Compustat and Bloomberg Businessweek***

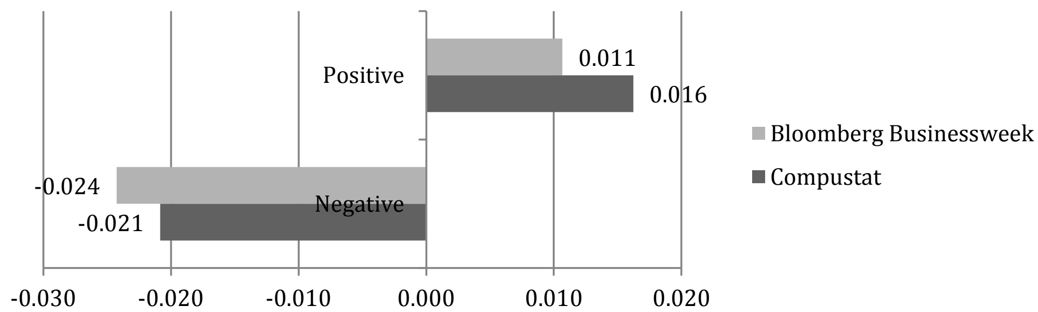
Panel A. *Frequency of zero, negative, and positive special items as reported by Compustat and Bloomberg Businessweek*



Panel B. *Distribution of negative versus positive special items*



Panel C. *Means of special items as reported by Compustat and Bloomberg Businessweek partitioned based on the sign of special items reported*

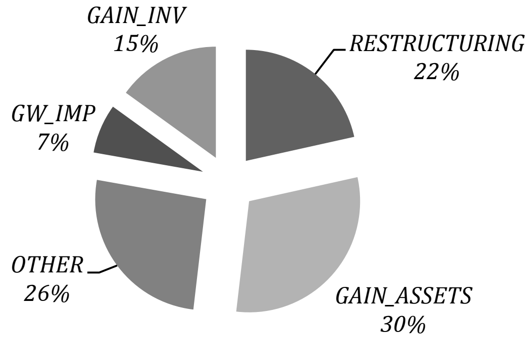


Panel D. *Frequency and means of special items as reported by Compustat and Bloomberg Businessweek*

	Number of firm-years		**Mean of special items**	
	Compustat	Bloomberg Businessweek	Compustat (*SPECIAL_TOTAL*)	Bloomberg Businessweek (*SPECIAL_TOTAL_Bloomberg*)
Zero SI	64 (25%)	51 (20%)	-	-
Negative SI	137 (54%)	123 (49%)	-0.0208	-0.0243
Positive SI	52 (21%)	79 (31%)	0.0162	0.0107
Total	**253 (100%)**	**253 (100%)**	**-0.0079**	**-0.0085**

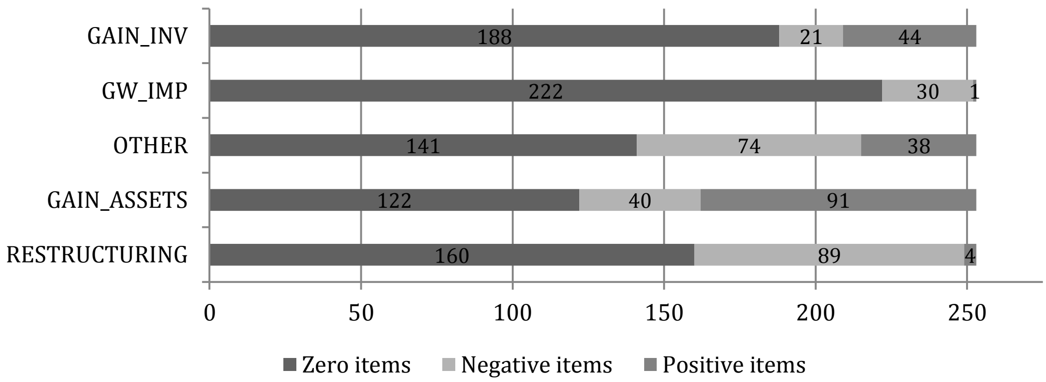
Exhibit 10 ***Characteristics of special item subcomponents***

Panel A. *Frequency of special items by category as reported by Bloomberg Businessweek*



Panel A presents the frequency of special items by category as reported by Bloomberg Businessweek. The frequency is measured as a percentage of a total of 432 individual special items reported in the sample of 253 firm-years.

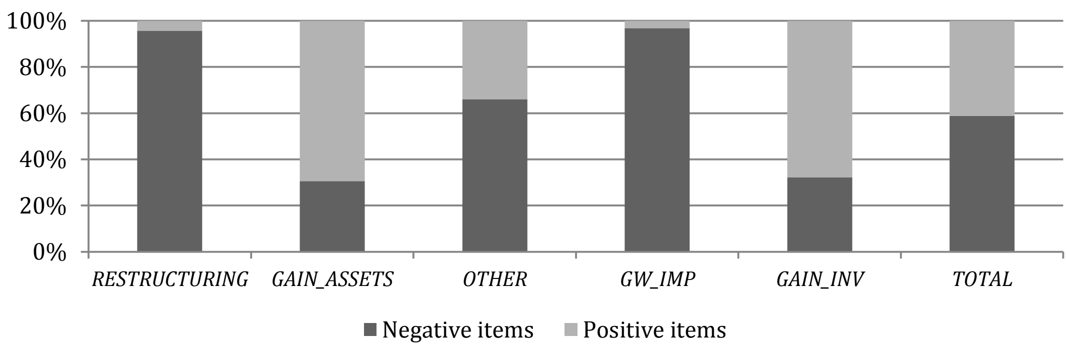
Panel B. *A distribution of firm-years reporting zero, negative, and positive special items by category as reported by Bloomberg Businessweek*



Panel B presents a distribution of firm-years reporting zero, negative, and positive special items by category as reported by Bloomberg Businessweek. The sample consists of 253 firm-years. The data in a tabular format is presented in Appendix III.

Note that there are 4 firm-year observations with positive restructuring charges, which could occur because of reversals of restructuring accruals. Also, 1 firm-year observation with positive goodwill impairment was noted, even though reversal of goodwill impairment is not allowed by IFRS. Yet, one observation is considered immaterial for further investigation.

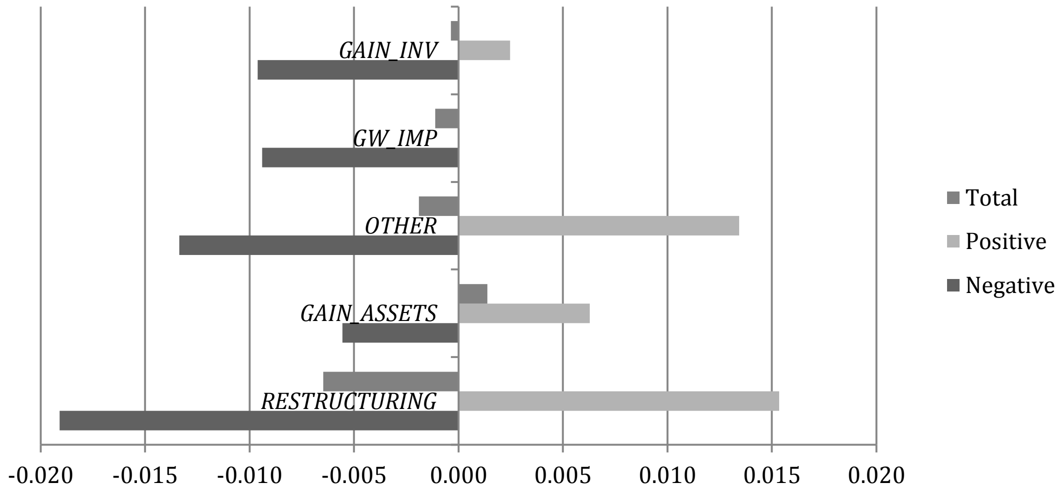
Panel C. *The proportions of negative and positive special items by category*



Panel C depicts the proportions of negative and positive items within each of the five special-item categories (as reported by Bloomberg Businessweek) as percentages of a total of non-zero items reported within the five categories of special items. The data in a tabular format is presented in Appendix III.

Exhibit 11, providing means of the five categories of special items, accompanies a further analysis of the magnitude of special items. The largest amounts are reported as restructuring charges (*RESTRUCTURING),* followed by other unusual items *(OTHER).* The means of positive and negative *OTHER* are of similar size, while the magnitude of positive and negative gains (losses) on both, sale of assets *(GAIN_ASSETS*) and investments *(GAIN_INV),* differs*.*

Exhibit 11 ***Means of special items by category and sign***



Sign of special items	*RESTRUCTURING*	*GAIN_ASSETS*	*OTHER*	*GW_IMP*	*GAIN_INV*
Zero	-	-	-	-	-
Negative	-0.0191	-0.0056	-0.0134	-0.0094	-0.0096
Positive	0.0154[37]	0.0063	0.0134	0.0001[38]	0.0025
Total	**-0.0065**	**0.0014**	**-0.0019**	**-0.0011**	**-0.0004**

4.1.3 Special items: Compustat vs Bloomberg Businessweek

When having two alternative measures of special items, according to Compustat (*SPECIAL_TOTAL*) and according to Bloomberg Businessweek (*SPECIAL_TOTAL_Bloomberg*), an analysis of potential differences between both measures is considered both, necessary and interesting. As presented in Exhibit 9 Panel C and D, means of special items on a total basis do not differ substantially while there are notable differences in means of negative and positive special items between the two metrics. To identify the possible special item components of disagreement in the two datasets, the correlations of the difference between the two metrics and the five subcomponents of special items as reported by Bloomberg Businessweek have been assessed. As indicated in Exhibit 12, the correlation with gains (losses) on investments

[37] Possibly reversals of restructuring accruals
[38] Although reversal of goodwill impairment is not allowed by IFRS, a positive effect was reported in one observation. Yet, one observation is considered immaterial for further investigation.

(*GAIN_INV*) is significant based on both, Pearson and Spearman ratios, suggesting that Compustat tends not to report gains (losses) on investments as special items.

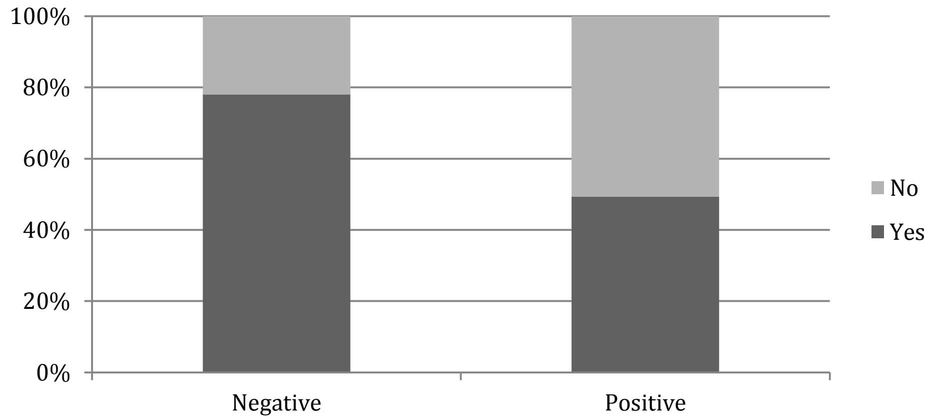
Exhibit 12 ***Correlations of (SPECIAL_TOTAL_Bloomberg – SPECIAL_TOTAL) and the subcomponents of special items***

	RESTRUCTURING	*GAIN_ASSETS*	*OTHER*	*IMP_GW*	*GAIN_INV*
Pearson	0.453	-0.125	0.024	-0.003	**0.755**
Sig. (2-tailed)	*0.000*	*0.047*	*0.708*	*0.966*	*0.000*
Spearman	0.021	-0.034	0.054	-0.079	**0.600**
Sig. (2-tailed)	*0.736*	*0.595*	*0.394*	*0.209*	*0.000*

4.1.4 Highlighting of Special Items

The analysis of special items is further extended to an exploration of management's highlighting practices. Exhibit 13 indicates that 78% of negative items are highlighted as opposed to only 49% of positive items, thus providing evidence of asymmetries in highlighting practices for positive and negative special items and suggesting that management might have opportunistic motivations when reporting special items.

Exhibit 13 ***Highlighting of special items***



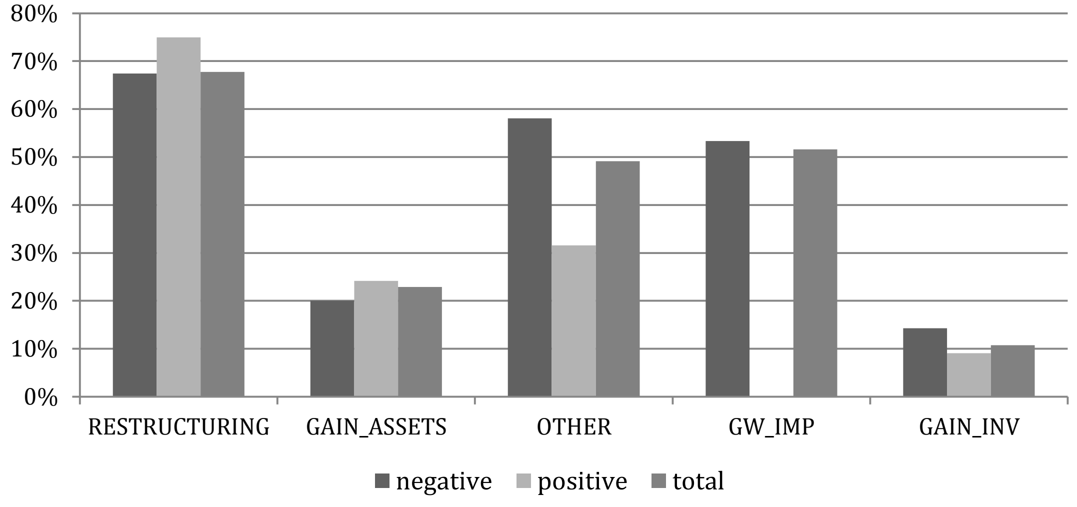
Sign of special items (Bloomberg Businessweek)	**Highlighted (*H_at_least_1*)** No	Yes	**Total**
Zero	39	12*	51
Negative	27 *(22%)*	96 *(78%)*	123 *(100%)*
Positive	40 *(51%)*	39 *(49%)*	79 *(100%)*
Total	106	147	253

* Note that although there are no special items reported, the number is non-zero because the dichotomous variable *H_at_least_1* measures highlighting of both special items reported by Bloomberg Businessweek and management's incremental items beyond those special items.

Exhibit 14 provides a further examination of management's highlighting practices for each of the five categories of special items. Restructuring charges *(RESTRUCTURING)* are highlighted most frequently – in 68% of cases, followed by impairment of goodwill (*GW_IMP)* with 52% of cases highlighted and other unusual items (*OTHER)* with 49% of cases highlighted*.*

A comparison of the percentages of highlighted negative versus positive items in the categories of *GAIN_ASSETS* and *GAIN_INV* does not show significant variations: 20% versus 24% for *GAIN_ASSETS* and 14% versus 9% for *GAIN_INV.* On the other hand, negative other unusual items *(OTHER*) tend to be highlighted more frequently than positive (58% versus 32%), again suggesting opportunistic firm behaviours.

Exhibit 14 ***Highlighting of special items by category partitioned based on the sign of special items***



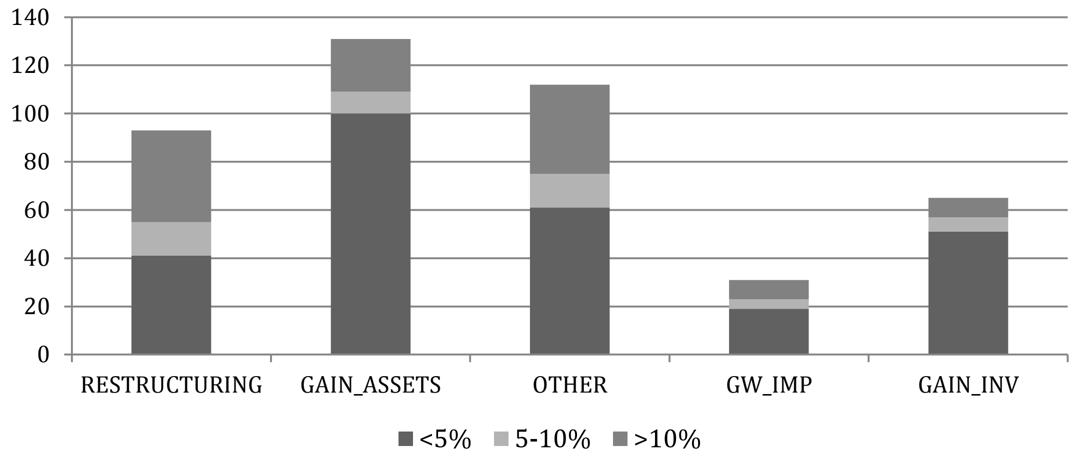
The exhibit depicts the percentage of special items highlighted within each of the five categories as reported by Bloomberg Businessweek partinioned based on the sign of special items. The data in a tabular format is presented in Appendix III.
Note that there are 4 firm-year observations with positive restructuring charges, which could occur because of reversals of restructuring accruals. Also, 1 firm-year observation with positive goodwill impairment was noted, even though reversal of goodwill impairment is not allowed by IFRS. Yet, one observation is considered immaterial for further investigation.

4.1.5 Highlighting and Materiality of Special Items

Exhibit 13 notes that negative items are highlighted more frequently than positive (78% versus 22%). Panel C of Exhibit 9 indicates that negative items are larger than positive. Thus, a larger proportion of negative items highlighted might also be associated with the fact that management tends to highlight more material items, consequently showing their informational motivations to assist users in better understanding the economic implications of the reported special items. To verify this hypothesis, the five categories of special items are further partitioned into materiality bands. The materiality bands are constructed as percentages measuring the proportion of a special item relative to total GAAP earnings. Panel B of Exhibit 15 presents a very clear trend towards a higher highlighting frequency for more material items. For example, 95% of *RESTRUCTURING* that exceed a 10% materiality threshold are highlighted as compared to only 37% of highlighted *RESTRUCTURING* below the 5% baseline. A similar trend can be observed for the other categories of special items: 78% versus 25% for *OTHER,* 75% versus 42% for *IMP_GW,* 50% versus 6% for *GAIN_INV*, and 41% versus 17% for *GAIN_ASSETS*. These results support the perspective of informative management practices.

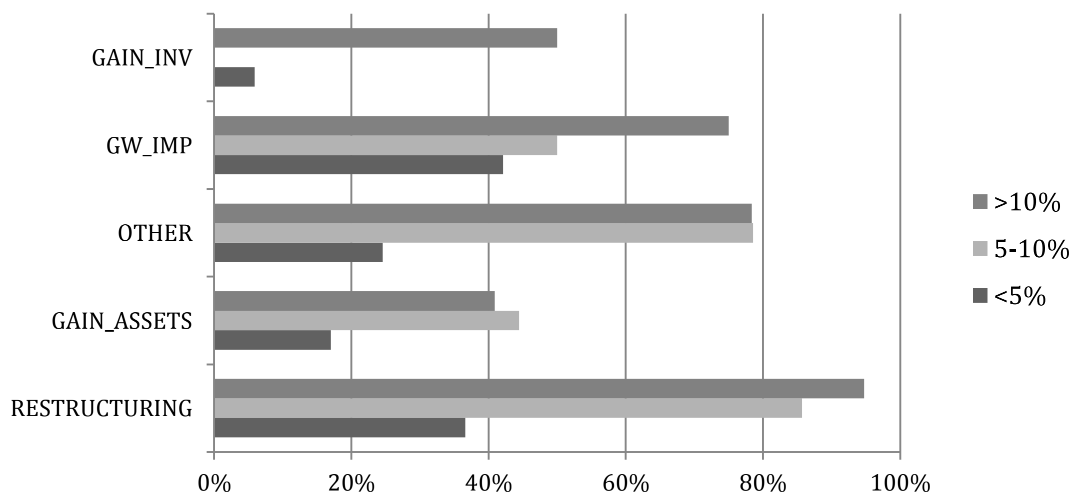
Exhibit 15 ***Highlighting and materiality of special items***

Panel A. *Composition of special items partitioned into categories and materiality bands*



Panel A depicts a composition of special items partinioned into materiality bands (below 5%, between 5% and 10%, and above 10%) within the five categories of special items. Materiality of special items is measured as a percentage of GAAP earnings. A total of 432 individual special items are reported in the sample of 253 firm-years. The data in a tabular format is presented in Appendix III.

Panel B. *Highlighting of special items conditional on the materiality of special items*

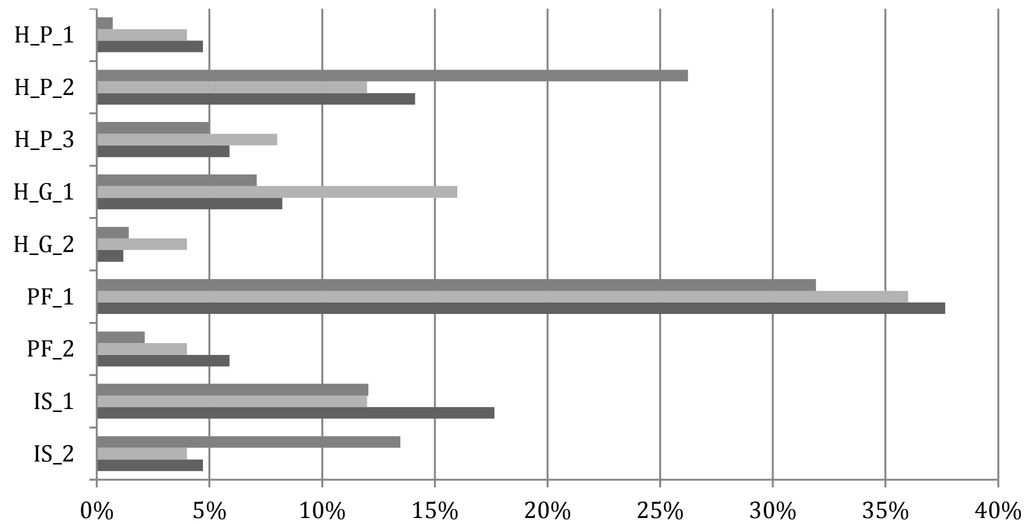


Panel B depicts the proportion of highlighted special items within each special-item category partinioned into three materiality bands (below 5%, between 5% and 10%, and above 10%). Materiality of special items is measured as a percentage of GAAP earnings. The data in a tabular format is presented in Appendix III.

Exhibit 16 is provided to further explore if management's presentation choices for highlighting special items in year-end reports differ conditional on the materiality of special items. A classification of the different highlighting options as described in Appendix VI is used to present the analyses.

The most popular choice for presenting special items independent of their materiality is PF_1 (32% of items above the 10% threshold, 36% of items in the 5-10% band, 38% of items below the 5% baseline). The second most popular presentation method differs across the materiality bands: H_P_2 is the most popular for items above the 10% materiality threshold (26% of the cases within the band), H_G_1 – for items in the 5-10% materiality band (16% of the cases within the band), and IS_1 – for items below the 5% baseline (18% of the cases within the band). Surprisingly, a relatively low proportion of items above the 10% materiality threshold (IS_1 – 12%, IS_2 – 13% of the cases within the band) and a rather high proportion of items below the 5% baseline (IS_1 – 18%, IS_2 – 5%) are presented on the income statement. Yet, in general, differences of presentation practices between most material (>10% band) and least material (<5% band) do not show any clear trends.

Exhibit 16 ***Management's presentation choices for highlighting special items conditional on the materiality of special items***



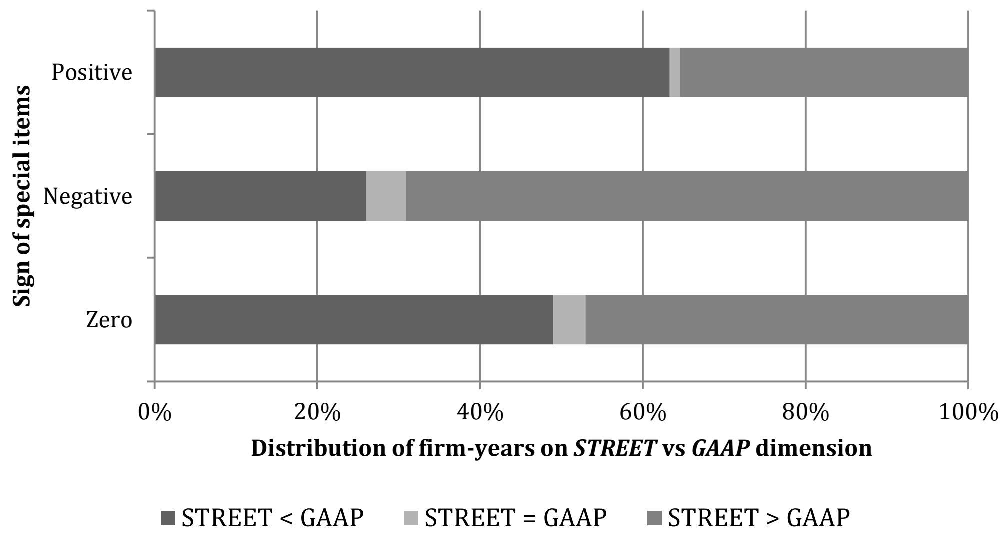
	IS_2	IS_1	PF_2	PF_1	H_G_2	H_G_1	H_P_3	H_P_2	H_P_1
>10%	13%	12%	2%	32%	1%	7%	5%	26%	1%
5-10%	4%	12%	4%	36%	4%	16%	8%	12%	4%
<5%	5%	18%	6%	38%	1%	8%	6%	14%	5%

Detailed descriptions of the different forms of highlighting (and coding) are provided in Appendix VI.

4.1.6 Analysis of *STREET* versus *GAAP* scenarios

This section provides a further analysis of *STREET* versus *GAAP* scenarios conditional on different dimensions.

Exhibit 17 ***STREET versus GAAP scenarios conditional on the sign of special items***



	Special items			
	Zero	**Negative**	**Positive**	**Total**
STREET < GAAP	25 (49%)	32 (26%)	50 (63%)	107 (42%)
STREET = GAAP	2 (4%)	6 (5%)	1 (2%)	9 (4%)
STREET > GAAP	24 (47%)	85 (69%)	28 (35%)	137 (54%)
Total	51 (100%)	123 (100%)	79 (100%)	253 (100%)

Exhibit 17 shows the distribution of cases in which street earnings (*STREET*) are lower, higher or matches GAAP earnings (*GAAP*) conditional on whether negative, positive, or no special items are reported. *STREET* is generally higher than *GAAP* in 54% of the 253 cases, lower in 42% and equal in 4% of the cases. The proportion of *STREET* < *GAAP* (42%) is relatively high, as literature (e.g. Christensen et al. 2011, Bradshaw & Sloan 2002) suggests that street earnings are mostly higher than GAAP earnings. When no special items are reported, the percentages of *STREET* < *GAAP* and *STREET* > *GAAP* cases are very similar (49% and 47%), while the existence of special items is seen to shift the proportions: negative items increase the percentage of *STREET* > *GAAP* to 69% (versus 26% of *STREET* < *GAAP*) and positive items raise the proportion of *STREET* < *GAAP* to 63% (versus 35% of *STREET* > *GAAP*).

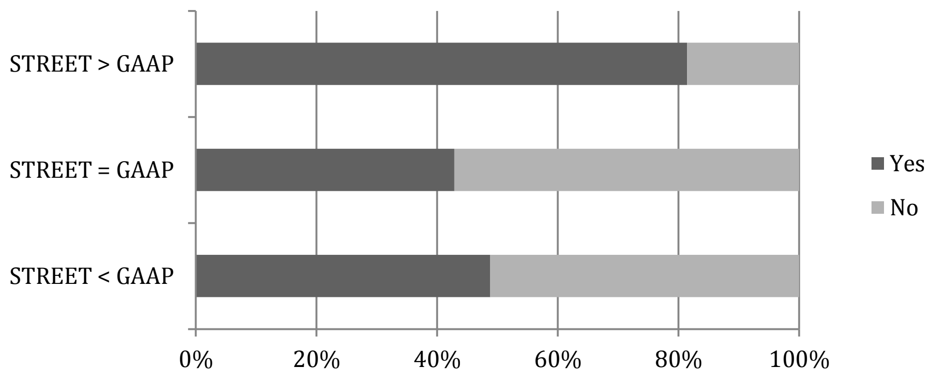
Exhibit 18 indicates that management's exclusions in general are higher than analysts' and when *STREET* matches *GAAP*. In line with expectations, special items are higher for cases when *STREET* does not match *GAAP*.

Exhibit 18 ***Average analysts' and management's exclusions and special items conditional on STREET versus GAAP scenarios***

	Analysts' total exclusions (*TOTAL_EXCLUDE = STREET - GAAP*)	Management's total exclusions, *MNGMT_EXCL*, adjusted for tax	Special items by Compustat, *SPECIAL_TOTAL, adjusted for tax*	Special items by Bloomberg Businessweek, *SPECIAL_TOTAL_Bloomberg, adjusted for tax*
STREET < GAAP	-0.0093	-0.0004	0.0026	0.0026
STREET = GAAP	0.0000	-0.0014	-0.0010	-0.0012
STREET > GAAP	0.0239	-0.0204	-0.0129	-0.0137
Total	0.0090	-0.0112	-0.0060	-0.0063

To explore if there is an association between the three *STREET* versus *GAAP* scenarios and highlighting, Exhibit 19 is presented. It is evident that highlighting is substantially more common in the subsample of *STREET > GAAP* (81% of firm-years with non-zero special items). However, this association could be partly related to a tendency of highlighting negative and more material items (as discussed in Section 4.1.5), as *STREET > GAAP* is associated with the existence of negative special items.

Exhibit 19 ***Street versus GAAP conditional on highlighting***



	Highlighting (*H_at_least_1*)			
	Full sample		**Firm-years with non-zero SIs**	
	No	**Yes**	**No**	**Yes**
STREET < GAAP	64 (60%)	43 (40%)	42 (51%)	40 (49%)
STREET = GAAP	6 (67%)	3 (33%)	4 (57%)	3 (43%)
STREET > GAAP	36 (26%)	101 (74%)	21 (19%)	92 (81%)
Total	106 (42%)	147 (58%)	67 (33%)	135 (67%)

Exhibit 20 presents the distribution of the three *STREET* versus *GAAP* scenarios conditional on the materiality of special items reported. As already noted in Exhibit 17, for firm-years in which negative items are reported, street earnings are higher than GAAP earnings (*STREET > GAAP)* in the majority (69%) of the cases. Exhibit 20 additionally proposes that the proportion of *STREET > GAAP* cases increases when the materiality of special items increases (54% for a subsample of firm-years with negative items below the 5% materiality baseline and 88% for a subsample with negative items above the 10% materiality threshold). When positive items are reported, there is a tendency towards *STREET < GAAP*. Yet, the proportion of *STREET < GAAP* cases does not increase when the materiality of special items increases. These observations provide preliminary evidence that sell-side analysts might show more trust in material negative special items; yet, no evidence for sell-side analysts' bias with regard to positive special items is observed in the data set.

Exhibit 20 ***Distribution of STREET versus GAAP conditional on the sign and materiality of special items (Bloomberg)***

		STREET < GAAP	STREET = GAAP	STREET > GAAP	Total
No special items		49%	4%	47%	100%
Negative					
	< 5%	38%	8%	54%	100%
	5-10%	34%	13%	53%	100%
	> 10%	12%	0%	88%	100%
Positive					
	< 5%	65%	2%	33%	100%
	5-10%	50%	0%	50%	100%
	> 10%	64%	0%	36%	100%

Exhibit 21 reports the difference between analysts' and management's exclusions conditional on the sign of special items and the *STREET* versus *GAAP* scenarios. Disagreement between sell-side analysts and management (i.e. the absolute difference between analysts' and management's exclusions) is higher when negative items are reported (-0.011) as compared to cases when positive (-0.005) or zero (0.004) special items are reported. Also, sell-side analysts and management disagree more when *STREET < GAAP* (-0.010) than when *STEET > GAAP* (-0.003) or *STREET = GAAP* (-0.002).

Exhibit 21 ***Difference between analysts' and managements' exclusions conditional on the sign of special items (Bloomberg) and STREET versus GAAP***

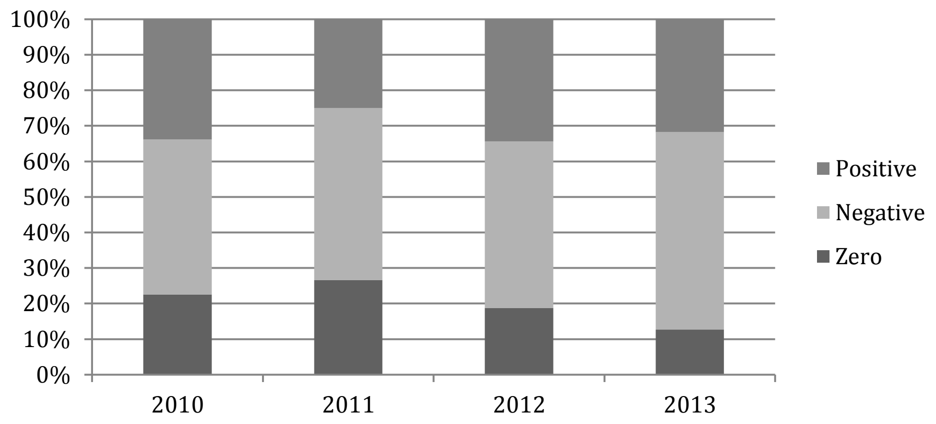
	STREET < GAAP	STREET = GAAP	STREET > GAAP	Total
No special items	-0,001	0,000	0,010	0,004
Negative	-0,016	-0,003	-0,010	-0,011
Positive	-0,010	0,000	0,005	-0,005
Total	-0,010	-0,002	-0,003	-0,006

Note: a negative number means that analysts' exclusions are lower than management's.

4.1.7 Time Dimension

Exhibit 22 reports the frequency distributions of special items over the years 2010 – 2013. There is a slight trend towards an increase in the reporting of special items over time as has been documented by Bradshaw & Sloan (2002) or Riedl & Srinivasan (2010); yet, the tested period must be considered too short to draw conclusions.

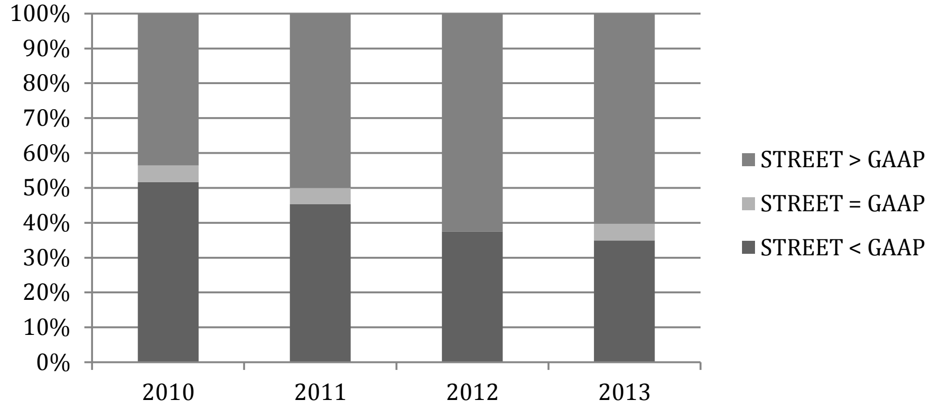
Exhibit 22 ***Reporting of special items (as reported by Bloomberg Businessweek) by year in the period 2010-2013***



	Zero	**Negative**	**Positive**	**Total**
2010	14	27	21	**62**
2011	17	31	16	**64**
2012	12	30	22	**64**
2013	8	35	20	**63**
Total	**51**	**123**	**79**	**253**

Exhibit 23 provides the frequency distributions of firm-year observations with *STREET* < *GAAP*, *STREET* = *GAAP* and *STREET* > *GAAP* on a year-by-year basis for the period 2010 – 2013. Similarly to the analysis above, a slight tendency of a higher frequency of *STREET* > *GAAP* in the tested periods could be observed.

Exhibit 23 *STREET versus GAAP by year in the period 2010-2013*

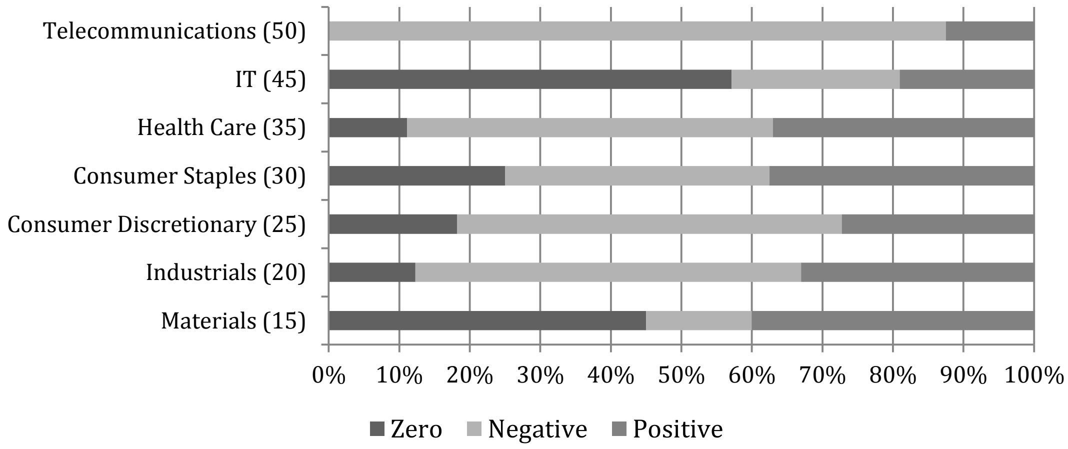


	STREET < GAAP	STREET = GAAP	STREET > GAAP	Total
2010	32	3	27	**62**
2011	29	3	32	**64**
2012	24	-	40	**64**
2013	22	3	38	**63**
Total	**107**	**9**	**137**	**253**

4.1.8 Special Items Across Sectors

Exhibit 24 reports frequency and percentage distributions of special items across different sectors. The highest frequency of negative special items is observed in the Telecommunications sector (88%), followed by Industrials (55%), Consumer Discretionary (55%), and Health Care (52%), while the lowest percentages are observed in Materials (15%) and IT (24%) sectors.

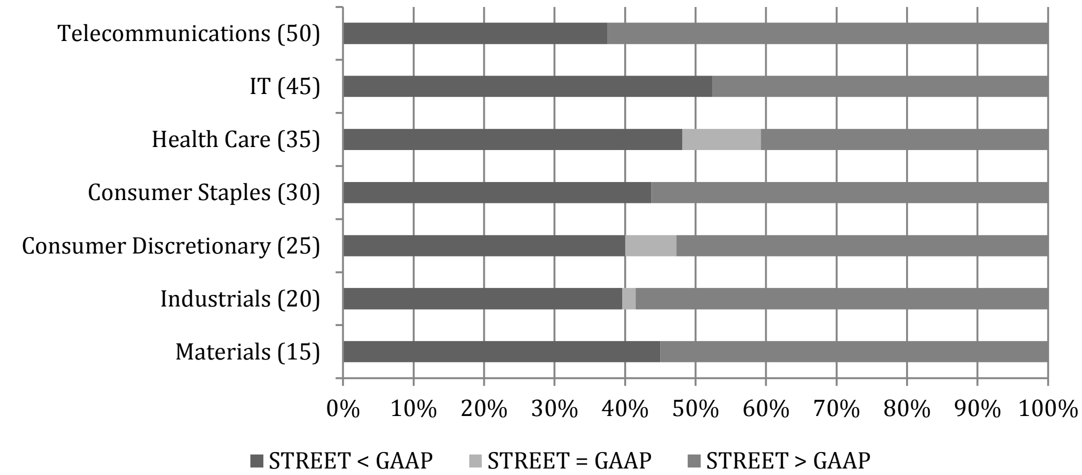
Exhibit 24 ***Distribution of special items (as reported by Bloomberg) by sector (GIC)***



Sector (GIC code)	**Special items**							
	No of firm-years				***% distribution***			
	Zero	**Negative**	**Positive**	**Total**	**Zero**	**Negative**	**Positive**	**Total**
Materials (15)	9	3	8	20	45%	15%	40%	100%
Industrials (20)	13	58	35	106	12%	55%	33%	100%
Consumer Discretionary (25)	10	30	15	55	18%	55%	27%	100%
Consumer Staples (30)	4	6	6	16	25%	37%	38%	100%
Health Care (35)	3	14	10	27	11%	52%	37%	100%
IT (45)	12	5	4	21	57%	24%	19%	100%
Telecommunications (50)		7	1	8	0%	88%	12%	100%
Total	51	123	79	253	20%	49%	31%	100%

While rather substantial differences in the distributions of zero/negative/positive special items across sectors were noted in Exhibit 24, no major variations in proportions of firm-year observations with *STREET* < *GAAP*, *STREET* = *GAAP* and *STREET* > *GAAP* could be identified in Exhibit 25.

Exhibit 25 *Distributions of STREET versus GAAP by sector (GIC classification)*

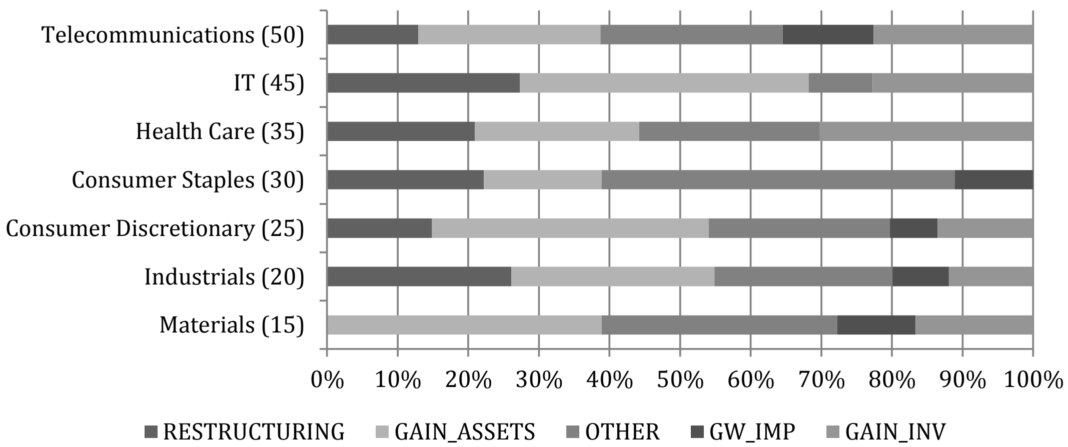


Sector (GIC code)	*No of cases*				*% distribution*			
	STREET < GAAP	STREET = GAAP	STREET > GAAP	Total	STREET < GAAP	STREET = GAAP	STREET > GAAP	Total
Materials (15)	9		11	20	45%	0%	55%	100%
Industrials (20)	42	2	62	106	40%	2%	58%	100%
Consumer Discretionary (25)	22	4	29	55	40%	7%	53%	100%
Consumer Staples (30)	7		9	16	44%	0%	56%	100%
Health Care (35)	13	3	11	27	48%	11%	41%	100%
IT (45)	11		10	21	52%	0%	48%	100%
Telecommunications (50)	3		5	8	38%	0%	63%	100%
Total	107	9	137	253	45%	0%	55%	100%

Exhibit 26 presents the distribution of special items by nature within each sector. Even though slight variations across the sectors might be seen, no obvious tendency could be documented.

Overall, it has to be accredited that a split of observations by industry has resulted in very few observations for some categories. Consequently, results should not be generalized.

Exhibit 26 *Distribution of special items by category within sectors (GIC classification)*



4.2 Data Distributions and General Descriptive Statistics

Exhibit 35 and Exhibit 36 (Appendix II) provide summary descriptive statistics for the experimental and control variables. An analysis of the statistics has not suggested any noteworthy observations in addition to those presented in Section 4.1.

The descriptive statistics for the variables have revealed that skewness and kurtosis (not presented) are significant for all variables. Yet, non-normality is not unusual for many financial ratios (Foster, 1986). Moreover, the sample size of 253 is above the sample size of 100 where the departure from zero kurtosis diminishes (Waternaux, 1976).

The sample was screened for extreme outliers, which may potentially bias the results. An examination of these observations has not shown any peculiarities that would indicate that these observations are not part of the sample population. Hence, a deletion of outliers was not considered necessary at this stage.

The correlation matrix presented in Exhibit 37 and Exhibit 38 (Appendix II) indicates generally high correlations between dependent and independent variables, providing preliminary evidence on the predicted relationships, and low correlations between independent variables, reducing the risk of multicollinearity.

4.3 Results of Regression Analyses

This Section reports the results of the regression analyses for the hypotheses developed in Section 3.1.

The significance of results is assessed using 1%, 5%, and 10% significance levels. The 10% level is considered appropriate as the relatively small sample size of 253 observations leads to larger standard errors and consequently deflated *t* statistics and inflated p-values. Significance levels are assessed based on two-tailed tests in accordance with Christensen et al. (2011).

4.3.1 Analysis 1: The Dependence of Street Earnings on Management's Total Exclusions & Special Items

H_{1a}: Analysts do not fully follow management in their exclusions.

H_{1a} foresees that sell-side analysts do not fully follow management in their exclusions. The results of the univariate regression performed to test H_{1a} are presented in Exhibit 42, column (1a) (Appendix IV). (*MNGMT_EXCL*) is seen to have a coefficient of -0.448, indicating that management's total exclusions (*MNGMT_EXCL*) only partly overlap with analysts' total exclusions ($EXCLUDE\_TOTAL$). As shown in Exhibit 27, column (1a), the coefficient of ($MNGMT\_EXCL$) significantly deviates from the benchmark value of 0.75, representing a substantial overlap of both figures. These observations confirm prior expectations of differences in management's total ($MNGMT\_EXCL$) and analysts' total exclusions ($EXCLUDE\_TOTAL$) and provide empirical evidence for disagreement between both parties on exclusions in the data sample. The null hypothesis, stating that sell-side analysts fully follow management in their exclusions, is rejected. Furthermore, *Adjusted* R^2 is 0.669, implying that other variables with explanatory power for analysts' total exclusions ($EXCLUDE\_TOTAL$) have been omitted in the model. These results are seen as a justification for the need of a further, more detailed analysis of the relation between pro forma and street earning exclusions, pursued in H_{1b} to H_5.

Exhibit 27 ***Coefficients and p-values for assessing the difference from the benchmark of 0.75***

Models	(1a)*	(1b)*	(1c)*	Coefficients (p-values) (2_{new})*	(3.1)*	(3.2-5)*
MNGMT_EXCL	**-0.448 (0.000)**					
SPECIAL_TOTAL		**-0.895 (0.000)**		-0.760 (0.820)		
SPECIAL_TOTAL_Bloomberg			**-0.825 (0.000)**			
RESTRUCTURING					-0.785 (0.405)	**-0,616 (0.020)**
GAIN_ASSETS					**-0.593 (0.066)**	-0,663 (0.296)
OTHER					-0.797 ((0.526)	-0,841 (0.207)
IMP_GW					-0.734 (0.934)	-0,819 (0.714)
GAIN_INV					-0.779 (0.849)	-0,907 (0.296)
INCR_Mngmt_Bl						**-0,208 (0.000)**

*For the sake of brevity, intercepts (applicable for all Equations) and coefficients of other variables (applicable for Equations (2_{new}), (3.1), and (3.2-5)) are not presented.
Coefficients that are significantly different from 0.75 at least at the 10% confidence level are highlighted. *p*-values are for 2-tailed t-statistics.

H_{1b}: Analysts' total exclusions are better explained by management's total exclusions than special items

Hypothesis H_{1b} predicts that analysts' total exclusions are better explained by management's total exclusions than special items. Descriptive statistics presented in Section 4.1.1 have provided preliminary evidence *against* this assumption: mean analysts' total exclusions are closer to the mean of special items than the mean management's exclusions. To further test this hypothesis, univariate regression tests of the association between analysts' total exclusions (*EXCLUDE_TOTAL*) and management's total exclusions (*MNGMT_EXCL*), and the association between analysts' total exclusions (*EXCLUDE_TOTAL*) and special items - both as identified by Compustat (*SPECIAL_TOTAL)* and as reported by Bloomberg Businessweek (*SPECIAL_TOTAL_Bl*) - have been conducted.

The results of the univariate regression tests are presented in Exhibit 28:

Exhibit 28 ***Univariate analysis of the association between analysts' total exclusions and management's total exclusions and special items***

Dependent Variable – Analysts' Total Exclusions (*EXCLUDE_TOTAL*)			
Independent Variable (univariate regressions)	**Coefficient**	**t-statistic (*p*-value)**	***Adjusted R²***
MNGMT_EXCL	-0.448	-22.611 (0.000)	0.669
SPECIAL_TOTAL	-0.895	-25.259 (0.000)	0.717
SPECIAL_TOTAL_Bl	-0.825	-29.023 (0.000)	0.770

Note: for the sake of brevity, intercepts are not presented.

For the hypothesis H_{1b} to be empirically supported, a higher *Adjusted* R^2 needs to be evident for the association between analysts' total exclusions (*EXCLUDE_TOTAL*) and management's total exclusions (*MNGMT_EXCL*) than for the association between analysts' total exclusions (*EXCLUDE_TOTAL*) and special items (*SPECIAL_TOTAL* or *SPECIAL_TOTAL_Bl*). The results presented indicate that *Adjusted* R^2 for management's total exclusions (*MNGMT_EXCL*) is 0.669 compared to 0.717 for special items as identified by Compustat (*SPECIAL_TOTAL)* and 0.770 for special items as reported by Bloomberg Businessweek (*SPECIAL_TOTAL_Bl*). Thus, all models are indicative of a good fit. To test whether *MNGMT_EXCL* is statistically better than *SPECIAL_TOTAL* and *SPECIAL_Total_Bloomberg* in explaining *EXCLUDE_TOTAL*, a F-test was performed: *p*-values for the hypothesis that the model with *MNGMT_EXCL* is statistically better than the ones with *SPECIAL_TOTAL* and *SPECIAL_Total_Bloomberg* are 0.116 and 0.003 respectively. These findings provide empirical evidence against the hypothesis that analysts' total exclusions are more closely aligned with management's total exclusions than special items (as reported by Bloomberg Businessweek - at the 1% level; as reported by Compustat - close to the 10% significance level).

These observations might be seen as an indication of sell-side analysts' reluctance to "blindly" follow management on exclusions, advocating professional judgment and scepticism towards possible opportunistic behaviour by management. This insight motivates a closer consideration of sell-side analysts' treatment of management's incremental exclusions as is addressed in H_{3d}, H_4 and H_5.

4.3.2 Analysis 2: The Dependence of Street Earnings on Special Items & Management Guidance

H_2: Analysts are more likely to exclude the full amount of special items when managers guide than when they do not guide.

H_2 predicts that sell-side analysts are more likely to exclude the full amount of special items when managers guide than when they do not guide. To test the hypothesis, this thesis has intended to perform the multivariate regressions of Equation (2) presented in Section 3.3.2 in two versions - one, which only considers the independent variables *SPECIAL_TOTAL* and *H_at_least_1* and the second, which additionally includes the interaction term $SPECIAL\_TOTAL \times H\_at\_least\_1$. Such an approach would have been in line with Christensen et al. (2011).

Yet, an analysis of correlations between *SPECIAL_TOTAL* and the interaction term $SPECIAL\_TOTAL \times H\_at\_least\_1$ reveals strong collinearity between both variables in the data sample (see Exhibit 29). Due to this issue, the interaction term $SPECIAL\_TOTAL \times H\_at\_least\_1$ has to be dropped and Christensen et al.'s (2011) second version of the regression cannot be replicated. These limitations render the thesis unable to provide a comprehensive answer to H_2. Nonetheless, Christensen et al.'s (2011) and this thesis' results can be compared for the simpler version of the regression. Equation (2) has thus been modified to:

$$EXCLUDE\_TOTAL_i =$$
$$\beta_0 + \beta_1 SPECIAL\_TOTAL_i + \beta_3 H\_at\_least\_1_i + \Sigma\beta_{3+k}(Control\ variables)_{ki} + \varepsilon_i \qquad (2_{new})$$

Notably, Christensen et al. (2011) conclude that their coefficient of the interaction term $SPECIAL\_TOTAL \times H\_at\_least\_1$ is not statistically different from 0, suggesting that the extent to which sell-side analysts exclude special items does not significantly vary from guiding to non-guiding firms and very little affects the other variables coefficients. Potentially, if American and Swedish settings are comparable, the limitations of this thesis' data set could thus be deemed negligible. However, any such argument is of speculative nature.

Exhibit 29 ***Correlation coefficients between SPECIAL_TOTAL and $SPECIAL\_TOTAL \times H\_at\_least\_1$ and SPECIAL_TOTAL_Bloomberg and $SPECIAL\_TOTAL \times H\_at\_least\_1$***

	SPECIAL_TOTAL	*SPECIAL_TOTAL_Bloomberg*	*SPECIAL_TOTAL_x_H_at_least_1*	*SPECIAL_TOTAL_Bloomberg_x_H_at_least_1*
SPECIAL_TOTAL	1	.843**	.904**	.816**
SPECIAL_TOTAL_Bloomberg	.967**	1	.832**	.902**
SPECIAL_TOTAL_x_H_at_least_1	.980**	.955**	1	.903**
SPECIAL_TOTAL_Bloomberg_x_H_at_least_1	.949**	.986**	.968**	1

** Correlation is significant at the 0.01 level (2-tailed).

The regression results for Equation (2_{new}), without interaction term $SPECIAL\_TOTAL \times H\_at\_least\_1$ but including the control variables $V\_SPECIAL$ and E/P are presented in Exhibit 42, column (2_{new}) (Appendix IV). B/M as another variable to control for glamour stock status, introduced in Section 3.3.2, has been dropped due to an unreasonable sign in the initial regression (not presented) and a contradicting bivariate relationship with E/P (as evidenced by an illogical negative correlation coefficient of -0.37 between B/M and E/P) which breaks with any common characterizations of glamour stocks vs. value stocks. $V\_SPECIAL$ though insignificant and with the sign surprisingly opposite to the expected, has been kept as it is also part of Christensen et al.'s (2011) regression and its exclusion has almost no impact on the coefficients of other variables.[39] $\Delta SALES$ has been dropped because of strongly insignificant results and because the equation nonetheless still contains one variable to control for glamour vs. value stock status (E/P).

In Regression (2_{new}), the coefficient of *SPECIAL_TOTAL,* significant at the 1% level, is 0.760[40] and therefore close to the theoretical coefficient of 0.750 – the benchmark value for full exclusions. In fact, as indicated in Exhibit 27, the hypothesis that the coefficient is not different from 0.750 cannot to be rejected. These observations provide empirical evidence for the assumption that special items (*SPECIAL_TOTAL)* to large extent get excluded from analysts' total exclusions ($EXCLUDE\_TOTAL$). As a reference, Christensen et al. (2011) determine a lower exclusion proportion. The coefficient for the authors' variable of special items is 0.817, assessable on a scale of 0 to 1 as all their variables are measured post-tax. Importantly, it has to be acknowledged that the authors' and this thesis study differ in the amount of control variables so that a comparison is (to a certain degree) distorted as coefficients might be biased. Nonetheless, almost full exclusions of special items are little surprising and confirm prior US research's findings for the Swedish setting.

H_at_least_1 is significant at the 5% level. The coefficient of *H_at_least_1* is 0.006 and must be deemed very high, given average analysts' total exclusions ($EXCLUDE\_TOTAL$) of 0.009. (The average difference of analysts' total exclusions between highlighting and non-highlighting firms is 0.006, which represents two thirds of the mean analysts' exclusions of 0.009.) As a benchmark, Christensen et al. (2011) determine a coefficient of 0.003 for their guide variable, which should be compared to average analysts' total exclusions of 0.011. (The average difference of analysts' total exclusions between highlighting and non-highlighting firms is 0.003,

[39] *V_SPECIAL*, although with the sign opposite to the expected, is kept in the following regressions as well, following Christensen et al. (2011). The presence of it has almost no impact on the coefficients of other variables in the regressions.

[40] The fact that the coefficient slightly surpasses the benchmark value of 0.75, signaling a full exclusion of the item, can be explained by the fact that coefficients are biased as is indicated by an *Adjusted* R^2 of less than 1. Also, simplifications in the assumed tax rates as discussed in 4.3.3 might bias the coefficient.

which represents slightly less than one third of the mean analysts' exclusions of 0.011.) The strong effect of highlighting as indicated in this thesis' results is surprising.

The fact that neither *B/M* nor *ΔSALES* constitute appropriate variables to control for glamour vs. value stocks might be interpreted as a first indication that Swedish sell-side analysts do not strictly differentiate between glamour and value stocks in deriving their street earnings. Alternatively, it could be argued that the chosen control variables are not the most suitable to capture the concept of glamour vs. value stock status in Sweden[41]. E/P with a coefficient of -0.106 and significance at the 1% level is similar to that of Christensen et al. (2011), having a coefficient of -0.084. Again, a slight distortion of the comparison must be acknowledged due to an inclusion of less control variables in this thesis.

Adjusted R^2 is 0.739 as compared to Christensen et al.'s (2011) study with *Adjusted* R^2 of 0.509. A potential explanation for a lower model fit in the US study might stem from two main reasons. First of all, in the US, the level of incremental exclusions is higher which is not fully captured in the model. Second, in their definition of guidance, the authors only account for Channel A communication, though a later study (Black et al 2014) stresses the importance of Channel B in influencing sell-side analysts' street actuals (see Section 2.2.2.2). As a consequence, it must be assumed that additional impact factors of guidance on sell-side analysts have been omitted in Christensen et al.'s (2011) study. This thesis on the contrary presents a definition of guidance, which is perceived to better connect sell-side analysts' derivation of street actuals with management guidance - the presentation of pro forma figures in year-end reports. It is believed that firms' pro forma communication at the reporting date is capable of making sell-side analysts (or tracking services) depart from exclusions applied in street estimates. This reasoning is supported by Black et al. (2014) and seems reasonable, given that more information is available to sell-side analysts at the reporting date as compared to the pre-reporting period (see Section 2.2.2.2).

[41] Several studies have identified further criteria for distinguishing between glamour and value stock status, e.g. Baik et al. (2009).

4.3.3 Analysis 3: The Dependence of Street Earnings on Special Items Subcomponents, Management's Incremental Exclusions & Highlighting

H_{3a}: Analysts exclude individual subcomponents of special items to a different degree.

H_{3b}: Analysts are more likely to exclude subcomponents when they are highlighted.

H_{3c}: Analyst exclusions are higher when management guides.

H_{3d}: Analysts follow management exclusions beyond special items.

H_{3a} to H_{3d} are tested by means of Equation (3), which is a stepwise modification of Equation (2). First, special items (*SPECIAL_TOTAL)* are replaced by special items subcomponents as identified in Bloomberg Businessweek: restructuring costs (*RESTRUCTURING*), gain (loss) on sale of assets (*GAIN_ASSETS*), other unusual items (*OTHER*), impairment of goodwill (*IMP_GW*), and gain (loss) on sale of investments (*GAIN_INV*). Similar to the issue of collinearity encountered between *SPECIAL_TOTAL* and the interaction term $SPECIAL\_TOTAL \times H\_at\_least$, all subcategories and their respective interaction terms show strong collinearity which makes a combined use of the variables within one equation impossible (see correlation matrix in Exhibit 30).

Exhibit 30 ***Correlation coefficients of special-item subcomponents and their corresponding interaction variables (Pearson coefficients in the lower left and Spearman coefficients in the upper right)***

	RESTRUCTURING	*GAIN_ASSETS*	*OTHER*	*IMP_GW*	*GAIN_INV*	*RESTRUCTURING_x_H*	*GAIN_ASSETS_x_H*	*OTHER_x_H*	*IMP_GW_x_H*	*GAIN_INV_x_H*
RESTRUCTURING	1	-.068	.014	.093	.026	.847**	.022	.066	.173**	.023
GAIN_ASSETS	-.280**	1	.007	-.022	-.141*	-.034	.500**	-.017	.070	-.178**
OTHER	.048	-.054	1	.038	.011	.026	-.072	.765**	.028	-.043
IMP_GW	-.011	-.029	.016	1	-.171**	.035	.079	.083	.717**	-.147*
GAIN_INV	.056	-.001	.002	-.010	1	.023	-.141*	.044	-.066	.340**
RESTRUCTURING_x_H	.998**	-.281**	.047	-.010	.056	1	-.010	.095	.179**	.019
GAIN_ASSETS_x_H	-.338**	.842**	-.073	-.042	.002	-.338**	1	-.099	.125*	-.142*
OTHER_x_H	.046	-.052	.938**	.022	.001	.045	-.077	1	.137*	-.054
IMP_GW_x_H	-.008	.004	.021	.985**	-.006	-.007	-.004	.025	1	-.195**
GAIN_INV_x_H	.055	-.002	.000	-.009	.994**	.055	.001	-.002	-.008	1

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

As a consequence, Equation (3) has been modified to:

$$EXCLUDE\_TOTAL_i = \beta_0 + \beta_1 RESTRUCTURING_i + \beta_2 GAIN\_ASSETS_i + \beta_3 OTHER_i + \beta_4 IMP\_GW_i + \beta_5 GAIN\_INV_i + \beta_6 Highlight\_at\_least\_1_i + \Sigma\beta_{6+k}(Control\ variables)_{ki} + \varepsilon_i \quad (3.1)$$

The results of this regression are presented in Exhibit 42, column (3.1).

In line with prior expectations, a comparison of coefficients of special items subcomponents amongst each other (-0.785 for $RESTRUCTURING$, -0.593 for $GAIN\_ASSETS$, -0.797 for $OTHER$, -0.734 for IMP_GW, 0.779 for $GAIN\_INV$) in Equation (3.1) as well as a benchmark with the coefficient of the aggregated figure of special items, *SPECIAL_TOTAL* (-0.760), in Equation (2_{new}) suggests a heterogeneous treatment of subcategories. Yet, those deviations are fewer than expected and most noticeably, emerge with $GAIN\_ASSETS$. All the coefficients are not statistically different from the benchmark of 0.750, except for $GAIN\_ASSETS$, which is significantly different from 0.750 at the 10% level, as presented in Exhibit 27.

As compared to Regression (2_{new}), *H_at_least_1* is insignificant. This observation is little surprising because *H_at_least_1* already constituted a marginal case of significance in Regression (2_{new}).

E/P is insignificant, too, thereby further strengthening the impression that Swedish sell-side analysts might not alter their exclusions decisions for glamour as opposed to value stocks or that the variable does not fully capture the glamour stock status for the sample.

The disaggregation of special items into its subcomponents is seen to better capture the explanatory power of special items for analysts' total exclusions ($EXCLUDE\_TOTAL$), expressed by a slight increase of *Adjusted* R^2 from 0.739 to 0.775.

While the results of Regression (3.1) discussed above provide a first indication that there might solely be few differences in the treatment of special item categories by sell-side analysts, the equation is perceived to give space for improvements (see Equation (3.2)), which is addressed by means of a further alteration of the regression.

H_{3d} predicts that sell-side analysts exclude management's incremental exclusions, i.e. those beyond special items. In order to test this hypothesis, Equation (3.1) has been modified to include management's incremental exclusions, *INCR_Mngmt_Bl.* Additionally, further control variables have been considered:

$$EXCLUDE\_TOTAL_i = \beta_0 + \beta_1 RESTRUCTURING_i + \beta_2 GAIN\_ASSETS_i + \beta_3 OTHER_i + \beta_4 IMP\_GW_i + \beta_5 GAIN\_INV_i + \beta_6 INCR\_Mngmt\_Bl_i + \beta_7 Highlight\_at\_least\_1_i + \Sigma\beta_{7+k}(Control\ variables)_{ki} + \varepsilon_i \qquad (3.2)$$

By means of introducing $INCR\_Mngmt\_Bl$ to the previous Equation (3.1), changes in the coefficients of the special items subcomponents can be perceived. These remain stable across an alteration of different control variables as pursued in Regressions (3.2-1), (3.2-2), and (3.2-3) (see Exhibit 42) and when all insignificant variables and those with the illogical sign are removed (Regression (3.2-4), see Exhibit 42). None of the additional control variables have been determined to be significant and gave thus excluded from the final regression. (The results for those intermediate regressions are not commented on.) The final regression (3.2-5) (see Exhibit 42) includes all special-item subcomponents, management's incremental exclusions ($INCR\_Mngmt\_Bl$) and variables to control for glamour stock status (*E/P)* and volatility of special items (*V_SPECIAL)*, as controlled by Christensen et al. (2011):

As compared to Regression (3.1), representing Christensen et al.'s (2011) model with a replacement of aggregated special items ($SPECIAL\_TOTAL$) by the subcomponents, the coefficient of $RESTRUCTURING$ drops from -0.785 to -0.616. This coefficient significantly differs from the value of 0.75 at the 5% level. This observation implies a non-mechanic treatment of this special item subcomponent by sell-side analysts and confirms prior expectations that strong scepticism towards potential classification shifting activities or the perception of restructuring as "ordinary business activities" incite sell-side analysts to show more reluctance in the exclusion of restructuring charges.

The coefficient of $GAIN\_ASSETS$ increases from -0.593 to -0.663 and is no longer significantly different from the benchmark value of full exclusions. The coefficient is higher than expected as an asymmetric treatment of negative and positive special items was supported by the descriptive evidence presented in Section 4.1.

The coefficient of $OTHER$ increases from -0.797 to -0.841, but does not deviate significantly from the reference value of 0.750. These findings are in line with prior expectations of a mechanistic treatment of this special item category due to the non-recurring nature of the items falling into this category. A slight exceedance of the benchmark of 0.75 could be explained by a deviation in tax rates as compared to the assumed rate of 25%. $OTHER$ includes charges and gains that address "extraordinary" incidents. Items within this category such as legal or insurance settlements are likely to receive different tax treatment than assumed by the standardized tax rate of 25%. Moreover, this category includes impairments of assets which give rise to deferred taxes only. (These are likely to be excluded by sell-side analysts in street earnings creating a tax mismatch between both sides of the regression equation.)

The coefficient of IMP_GW increases from -0.734 to -0.819, but does not deviate significantly from 0.750. This coefficient likewise is in line with prior expectations of generic sell-side analyst exclusions. The reasons for the coefficient to surpass 0.750 could equally be attributed to deferred taxes. Consequently, the observations can be seen to provide empirical evidence for a mechanic treatment of this category by sell-side analysts.

The coefficient of *GAIN_INV* increases from -0.779 to -0.907, but does not deviate significantly from 0.750. Distortions due to lower taxes on capital gains can be seen as an explanation for the coefficient surpassing 0.75. These observations contradict prior expectations of a non-generic treatment by sell-side analysts.

H_at_least_1 is only significant at the 10% level but the coefficient is stable at 0.005, thus again constituting a marginal, yet for a relatively small sample appropriate case of significance. Thus, the hypothesis that analysts' exclusions are higher when management guides (H_{3c}) is empirically supported.

INCR_Mngmt_Bl is significant at the 1% level and has a coefficient of -0.208 (which significantly deviates from 0.750), providing empirical evidence for the expectation that management is able to influence sell-side analysts to make exclusions beyond special items.

Adjusted R^2 is 0.790 as compared to 0.775 for the model without *INCR_Mngmt_Bl*, so a slight improvement of the model is perceived. A test of the additional control variables *No_ANALYSTS, STD_Estimate, AMORT, D/E* has indicated insignificance for all of these variables. *PERSIST_TOTAL_SI_PY* and *LOSS_FIRM,* two dichotomous variables, have additionally been tested by successively replacing *H_at_least_1.* Yet, none of the two variables is significant (see Regressions (3.2-1), (3.2-2), and (3.2-3)). Consequently, this thesis has not identified any significant control variables in addition to those of Christensen et al. (2011), so only the authors' variables are kept in the final model.

Furthermore, given that no interaction terms could be included in the regressions at the same time as the underlying variables due to collinearity issues, F-tests have been performed to assess the importance of highlighting on a subcomponent level (H_{3b}). These tests have compared the Regression (3.2-5) with alternative models in which subcomponents were one-by-one replaced by their respective interaction terms. The results of all F-tests are presented in Exhibit 46. All *p*-values indicate insignificance. As a consequence, this thesis fails to provide empirical evidence for the prediction that highlighting matters on a subcomponent level. Given a large amount of observations in which the recorded special items are equally highlighted by management, insignificant results might be a cause of too little variations. Possibly, a larger sample size could reveal an effect of highlighting on a subcomponent level.

Moreover, to assess if the coefficients of the special-item subcomponents and management's incremental exclusions (statistically) significantly differ from each other, a t-Test has been performed[42].

Presented in Exhibit 31, the results suggest a statistically significant difference between $INCR\_Mngmt\_Bl$ (0.208) and all special-item subcomponents as well as between $RESTRUCTURING$ (0.616) and $OTHER$ (0.841) and between $RESTRUCTURING$ and $GAIN\_INV$ (0.907). Consequently, the hypothesis that special items are excluded to a varying degree (H_{3a}) is only partially supported.

Exhibit 31 ***p-values of a t-Test for equality of the coefficients in regression (3.2-5)***

	RESTRUCTURING	*GAIN_ASSETS*	*OTHER*	*IMP_GW*	*GAIN_INV*	*INCR_Mngmt_Bl*
RESTRUCTURING		0,641	**0,015**	0,302	**0,071**	**0,000**
GAIN_ASSETS	0,641		0,107	0,449	0,156	**0,000**
OTHER	**0,015**	0,107		0,913	0,692	**0,000**
IMP_GW	0,302	0,449	0,913		0,715	**0,002**
GAIN_INV	**0,071**	0,156	0,692	0,715		**0,000**
INCR_Mngmt_Bl	**0,000**	**0,000**	**0,000**	**0,002**	**0,000**	

Note: p-values below 0.1 are in bold.

4.3.4 Analysis 4: The Dependence of Analysts' Incremental Exclusions on Managements' Incremental Exclusions

H_4: There is an association between management's incremental exclusions and analysts' incremental exclusions.

H_4 predicts the association between management's incremental exclusions, measured as $INCR\_Mngmt$ if based on Compustat figures or $INCR\_Mngmt\_Bl$ if based on Bloomberg Businessweek, and analysts' incremental exclusions measured as $INCR\_Analysts$ or $INCR\_Analysts\_Bl$ respectively. This hypothesis is tested by means of univariate regressions, the results of which are presented in Exhibit 43.

When $INCR\_Analysts$ is regressed on *INCR_Mngmt, Adjusted* R^2 is only 0.043, indicating a negligible association between *INCR_Mngmt* and *INCR_Analysts. Furthermore,* the coefficient of *INCR_Mngmt* is -0.102, thereby clearly deviating for the reference value for a full overlap of 0.750. When both variables are replaced by the alternative measures based on Bloomberg Businessweek (*INCR_Analysts_Bl* and *INCR_Mngmt_Bl*), *Adjusted* R^2 falls to -0.004, suggesting no relationship. Given the observation that special items in Bloomberg Businessweek and

[42] Where t-statistics are given by: $t = \frac{\hat{\beta}_i - \hat{\beta}_j}{s.e.(\hat{\beta}_i - \hat{\beta}_j)}$ with $(n - m - 1)$ degrees of freedom.

Compustat differ mainly due to the negligence of *GAIN_INV* by the latter (see Section 4.1.3), it has to be assumed that any association between both parties' incremental exclusions as presented by the Compustat figures is most likely caused by *GAIN_INV*. This impression is likewise supported by a large coefficient of *GAIN_INV* in Regression (3.2-5), indicating mechanistic exclusions. Hence, it must be concluded that this thesis fails to establish an association between managements' incremental exclusions and analysts' incremental exclusions. This observation is not in line with prior expectations, assuming at least some relationship.

These insights can be seen as an indication that sell-side analysts do not blindly follow management in their additional exclusions on top of special items. However, any such statement has to be treated with caution. As the calculations for both parties' incremental figures assume that special items are fully excluded by each side, evidence of no overlap between both figures could likewise stem from deviations in the treatment of special items, e.g. only a partial exclusion, by either of the two actors. A detailed discussion of that measurement issue is provided in Section 6.

4.3.5 Analysis 5: The Dependence of Analysts' Incremental Exclusions on Highlighting and Management's Incremental Exclusions

H_5: Analyst incremental exclusions are higher for firms that guide than for those that do not.

H_5 predicts that analysts' incremental exclusions are higher for firms that issue earnings guidance than for those that do not. This assumption has been tested by means of three different conceptualizations of the measure of management guidance. In a first step, in accordance with Christensen et al.'s (2011) approach, highlighting has been maintained as the variable *H_at_least_1*. As provided in Exhibit 43, *H_at_least_1* has a coefficient of 0.004 in regression ($5a_1$) and 0.003 in regression ($5a_2$) but both are found to be insignificant. As a benchmark, Christensen et al. (2011) determine a coefficient of 0.003 for their guidance variable, significant at the 1% level[43]. The insignificant observation on *H_at_least_1* in this thesis supports the notion that guidance if decoded as *H_at_least_1* inadequately considers any case of management guidance (on special and incremental items), not only those in which guidance is directly addressed towards management's incremental exclusions (see Section 3.3.5).

Consequently, in a second step, *H_at_least_1* has been replaced by $H\_at\_least\_1\_for\_incremental$. This adjustment results in a coefficient of 0.010 for $H\_at\_least\_1\_for\_incremental$ in ($5b_1$) and 0.007 in ($5b_2$), significant at the 5% and 1% levels

[43] It should again be noted that comparisons of coefficients might be distorted given a different amount of control variables included into the two models.

respectively. Importantly, average analysts' total exclusions are only 0.001 so that a coefficient of 0.010 for the dichotomous variable is surprisingly high. This high value is believed to originate from a bias in the coefficients due omitted variables. The bias can be seen in an *Adjusted* R^2 of 0.030, indicating low model fit. Christensen et al. (2011) equally determine a counterintuitively high coefficient of guidance[44] in a model with a low *Adjusted* R^2 of 0.071.

As a consequence of the perceived bias, this thesis only interprets the results as evidence for the importance of $H\_at\_least\_1\_for\_incremental$ on analysts' incremental exclusions but cannot reliably determine the size of the effect.

The last multivariate regression models ($5c_1$) and ($5c_2$) combine the measure of highlighting of management's incremental exclusions ($H\_at\_least\_1\_for\_incremental$) as a dichotomous variable with a measure of the actual amount of management's incremental exclusions, *INCR_Mngmt* and *INCR_Mngmt_Bl* respectively (see H_4).

The results are presented in Exhibit 43. Both, $H\_at\_least\_1\_for\_incremental$ and *INCR_Mngmt* are significant when combined in one model (Regression ($5c_1$)). $H\_at\_least\_1\_for\_incremental$ has a coefficient of 0.007 as compared to 0.010 in the previous regression ($5b_1$). *INCR_Mngmt* shows a coefficient of -0.093, as compared to -0.102 in regression (4a). When *INCR_Mngmt* is replaced by *INCR_Mngmt_Bl* and analysts' incremental exclusions *INCR_Analysts* by *INCR_Analysts_Bl* (regression ($5c_2$)), the independent variable of management's incremental exclusions becomes insignificant, confirming the observations made in H_4. Based on the reasoning of H_4, the Bloomberg figures are relied on to determine no obvious connection between management's incremental exclusions and analysts' incremental exclusions. Again, it must be referred to the discussion of distortions in the measurement of incremental exclusions (see Section 6).

Furthermore, the inclusion of additional control variables, amortization *AMORT* and share in earnings of associated companies *ASSOCIATES,* (not presented) has resulted in insignificant coefficients for these variables, implying that these are no prime candidate for additional analysts' exclusions beyond special items as opposed to suggestions made in US literature.

The summary of results for all hypotheses is presented in Appendix V.

[44] The authors' coefficient for highlighting is 0.003 as compared to average analysts' incremental exclusions of 0.003. The authors' regression furthermore includes several other positive terms, most of all an intercept coefficient of 0.003, so that the observations are similar to those of this thesis.

5. Diagnostics of Results

Only the main multivariate models - (2_{new}), (3.2–5), ($5c_1$) and ($5c_2$) - are examined for robustness. The univariate regressions - (1a), (1b), (1c), (4a), and (4b) are not the main interest of this thesis and rely on fewer assumptions. They are thus considered more robust. Regressions (3.2-1), (3.2-2), (3.2-3), and (3.2-4) are not expected to provide significantly different inspection results from the final regression (3.2–5); also, regressions ($5a_1$), ($5a_2$), ($5b_1$), and ($5b_2$) are considered inferior to regressions ($5c_1$) and ($5c_2$) when drawing the conclusions so that an omission of these equations in the assessment of robustness is deemed justifiable.

5.1 Influence of Outliers

The presence of outliers and influential observations that may have undue influence on the results has been tested for using Mahalanobis distance and Cook's distance measures. Since small samples are especially vulnerable to outliers, the regressions have been reassessed after removing identified outliers.

Regression (2_{new})

An analysis of the data for Model (2_{new}) showed 8 observations exceeding Mahalanobis distance limits ($\chi^2(4) = 18.47, \mathrm{p} < 0.001$), which are potential outliers. Since outliers are not necessarily influential in affecting the regression coefficients, Cook's distance measure was taken into consideration. 15 observations exceeding Cook's distance critical value of 0.016[45] were identified. All observations exceeding Mahalanobis distance also belong to the group of observations identified by Cook's distance. Thus, Model (2_{new}) was reassessed excluding these 15 observations. The results are presented in Exhibit 42, column (2_{new}-excl. outliers).

The coefficient for $SPECIAL\_TOTAL$ has increased from 0.760 to 0.809, providing even stronger evidence of a mechanical exclusion pattern regarding special items. The coefficient exceeds the theoretical benchmark of 0.750 (but the difference is not statistically significant) – possibly due to tax effects or the variable omission bias.

The coefficient for $H\_at\_least\_1$ has remained stable at 0.006 and for the first time has become significant at a higher level of 1%. This observation strengthens the perception that there can be a substantial difference between firms that do guide and those that do not guide.

---

[45] Calculated as: 4/(n-k-1) = 4/(253-4-1) = 0.016, where n denotes the number of observations and k – the number of independent variables.

The *Adjusted* R^2 has only slightly increased from 0.739 to 0.767 and hence requires no additional consideration.

Thus, it can be concluded that the results for Model (2_{new}) are not sensitive to outliers. Moreover, the significance of $H\_at\_least\_1$ has increased, suggesting, as expected, a stronger association between analysts' total exclusions and highlighting of special items.

Regression (3.2-5)

An analysis of the data for the regression (3.2–5) has revealed 14 observations exceeding Mahalanobis distance limits ($\chi^2(9) = 27.88, \mathrm{p} < 0.001$) and 19 observations exceeding Cook's distance of 0.016[46]. As the 19 observations identified by Cook's distance include all 14 observations identified by Mahalanobis distance, the regression (3.2–5) was reestimated excluding the 19 observations. The results are presented in Exhibit 42, column (3.2-5-excl. outliers).

The coefficient of $RESTRUCTURING$ has increased from -0.616 (significantly different from 0.750 at the 5% level) to -0.796 (not significantly different from 0.750), suggesting a higher level of exclusion, i.e. a more mechanic treatment by sell-side analysts than previously documented. These observations contradict prior expectations.

$GAIN\_ASSETS$ shows a coefficient of -0.504 compared to -0.663 (both not significantly different from 0.750) in the original regression (3.2-5). The coefficient is higher than expected as an asymmetric treatment of negative and positive special items was supported by the descriptive evidence in Section 4.1.

The coefficient of $OTHER$ has changed from -0.841 to -0.620 (both not significantly different from 0.750). The same conclusions as documented in Section 4.3.3 apply. The new – slightly lower - coefficient suggests that some of the items under this category might not be excluded by default as previously documented.

IMP_GW has a stable coefficient of -0.843 compared with the previous -0.819 (both not significantly different from 0.750). Thus, the same conclusions as documented in Section 4.3.3 hold.

[46] 4/(n-k-1) = 4/(253-9-1) = 0.016

GAIN_INV now has an insignificant coefficient of -0.336 compared with the previous significant coefficient of -0.907 (both not significantly different from 0.750). This proposes that sell-side analysts might not exclude all gains (losses) on investments mechanically. Attempts to replace *GAIN_INV* with the interaction variable *GAIN_INV*H* do not provide significant results either.

Coefficient of *INCR_Mngmt_Bl* has dropped from -0.208 (significant at the 1% level) to -0.077 (insignificant), suggesting that sell-side analysts do not blindly follow management in their exclusions and leading to a failure to empirically support the hypothesis that sell-side analysts follow management exclusions beyond special items (H_{3d}).

Similarly to Section 4.3.3, a *t*-Test has been performed to test the equality of coefficients for the special-item subcomponents and management's incremental exclusions. As presented in Exhibit 32, the results indicate that the coefficients are not significantly different, suggesting uniform analysts' exclusion patterns and leading to a failure to empirically support a varying treatment of special-item subcomponents (H_{3a}).

Exhibit 32 ***p-values of the t-Test to assess the pairwise equality of the coefficients in Regression (3.2-5-excl. outliers)***

	RESTRUCTURING	*GAIN_ASSETS*	*OTHER*	*IMP_GW*	*GAIN_INV*	*INCR_Mngmt_Bl*
RESTRUCTURING		0,117	0,194	0,791	0,284	**0,000**
GAIN_ASSETS	0,117		0,529	0,119	0,707	**0,011**
OTHER	0,194	0,529		0,205	0,507	**0,000**
IMP_GW	0,791	0,119	0,205		0,253	**0,000**
GAIN_INV	0,284	0,707	0,507	0,253		0,539
INCR_Mngmt_Bl	**0,000**	**0,011**	**0,000**	**0,000**	0,539	

Notes: *p*-values below 10% are highlighted.

The coefficient for *H_at_least_1* has decreased from 0.005 (significant at the 10% level) to 0.004 (significant at the 5% level), thus decreasing the average difference of analysts' total exclusions between highlighting and non-highlighting firms by 0.001.

Surprisingly, the *Adjusted* R^2 has dropped from 0.790 to 0.484, leaving more space for other explanatory variables. This observation shows the overall sensitiveness of the model fit to outliers. Yet, attempts to include other variables that were dropped as insignificant in progressing to (3.2-5) have not resulted in the identification of any additional significant variables that should be added to the final regression (these intermediate regressions are not presented).

Regression ($5c_1$)

An analysis of the data for the regression ($5c_1$) revealed 5 observations exceeding Mahalanobis distance limits ($\chi^2(4) = 18.47, p < 0.001$) and 13 observations exceeding Cook's distance of 0.016[47]. As the 13 observations identified by Cook's distance include all 5 observations identified by Mahalanobis distance, the regression ($5c_1$) has been reestimated excluding the 13 observations. The results are presented in Exhibit 43, column ($5c_1$-excl. outliers).

$H\_at\_least\_1\_for\_incremental$ shows a drop in coefficient from 0.007 to a more reasonable 0.004 (both significant at the 5% level). To compare, Christensen et al.'s (2010) coefficient for the analogous variable is 0.003.

INCR_Mngmt shows a coefficient of -0.181, as compared to the previous -0.093 (both significant at the 1% level). Yet, the result should be considered with caution as significance might stem from the measurement of special items in Compustat, which most likely does not record gains (losses) on investments (*GAIN_INV)* as special items (Section 4.1.3). Consequently, those items appear as incremental exclusions, which might partially explain variation in the dependent variable (analysts' incremental exclusions) and thus determine the significance in the model (the same issue was already presented in Section 4.3.5).

Regression ($5c_2$)

Similarly, the regression ($5c_2$) was diagnosed with 5 observations exceeding Mahalanobis distance limits ($\chi^2(4) = 18.47, p < 0.001$) and 13 observations exceeding Cook's distance (0.016). Due to an overlap in the identified observations, the 13 observations have been excluded. The results are presented in Exhibit 43, column ($5c_2$-excl. outliers).

The coefficient for $H\_at\_least\_1\_for\_incremental$ has decreased from 0.006 (the same as in *($5c_1$))* to 0.004 (both significant at the 10% level).

INCR_Mngmt_Bl shows a coefficient of -0.096 compared to the previous -0.012 (both insignificant). The insignificance of the variable measured using Bloomberg Businessweek data provides support for the reasoning that no clear relation between analysts' and management's incremental exclusions can be established and that *INCR_Mngmt* only shows significant results because the amount of *GAIN_INV* is still included on both sides of the regression (see regression ($5c_1$)).

[47] 4/(n-k-1) = 4/(253-4-1) = 0.016

All in all, the exclusion of outliers strengthens the significance of highlighting *(H_at_least_1)* in the total exclusions regressions (2_{new}) and (3.2-5) without altering the coefficients and thus provides additional support for the hypothesis (H_{3c}). Highlighting of incremental exclusions (for $H\_at\_least\_1\_for\_incremental$) in the incremental exclusions regressions ($5c_1$) and ($5c_2$) maintains similar significance levels (thus supports H_5), but has lower (and more reasonable) coefficients. The hypothesis of a non-uniform treatment of special item subcomponents (H_{3a}), which was partially supported in the full sample, is not empirically supported in the sample without outliers. Also, the prediction that sell-side analysts follow management exclusions beyond special items (H_{3d}) has not been supported in the reduced sample.

A summary of the results is presented in Appendix V.

5.2 Assessment of Multicollinearity

Multicollinearity has been tested using measures of Variance Inflation Factors (VIF) and Tolerance. VIF higher than 10 indicates a high degree of multicollinearity among the independent variables while Tolerance values approaching zero indicate multicollinearity and values approaching one indicate no multicollinearity. The results of both tests, as presented in Exhibit 33, show no multicollinearity problems.

Exhibit 33 ***Collinearity statistics***

	(2_{new})		*(3.2–5)*		*($5c_1$)*		*($5c_2$)*	
Variable	**Tolerance**	**VIF**	**Tolerance**	**VIF**	**Tolerance**	**VIF**	**Tolerance**	**VIF**
SPECIAL_TOTAL	.589	1.697						
RESTRUCTURING			.333	3.000				
GAIN_ASSETS			.859	1.164				
OTHER			.596	1.677				
IMP_GW			.961	1.040				
GAIN_INV			.565	1.771				
H_at_least_1	.973	1.028	.954	1.048				
INCR_Mngmt_Bl			.332	3.011			.808	1.238
V_SPECIAL_TOTAL	.997	1.003	.917	1.090	.961	1.041	.961	1.041
E/P	.599	1.669	.347	2.883	.822	1.216	.890	1.123
At_least_1_highligh t_for_incremental					.917	1.091	.922	1.085
INCR_Mngmt					.746	1.341		

5.3 Assessment of Heteroskedasticity

To test if heteroskedasticity is present, the Breusch-Pagan test[48] has been performed. Only the main regressions (2_{new}), (3.2-5), ($5c_1$), and ($5c_2$) and their corresponding versions excluding

[48] The squared residuals of the regression are regressed on the independent variables, and extracted the R-square value is multiplied by the number of observations to obtain a LM-statistic.

outliers as identified in Section 5.1 are tested. The Breusch-Pagan statistic suggests heteroskedasticity for the regressions (2_{new}), (3.2-E), ($5c_1$), and ($5c_2$). Thus, *t*-tests, *F*-tests, and confidence intervals for these regressions are not reliable (but the estimated coefficients are unbiased). In order to alleviate the problem of heteroskedasticity, the heteroskedasticity-robust standard errors could be used to calculate the heteroskedasticity-robust statistics. On the other hand, no heteroskedasticity was detected for these regressions after excluding the influential outliers as identified in Section 5.1 (regressions (2_{new}–excl. outliers), (3.2-5–excl. outliers), ($5c_1$–excl. outliers), ($5c_2$–excl. outliers)). As the conclusions of this thesis will be drawn based on the regressions without influential outliers, heteroskedasticity-robust standard errors for the initial regressions are not calculated.

Exhibit 34 ***The Breusch-Pagan heteroskedasticity statistics***

	Regressions							
	(2_{new})	*(2_{new}–excl. outliers)*	*(3.2-5)*	*(3.2-5–excl. outliers)*	*$5c_1$*	*($5c_1$–excl. outliers)*	*($5c_2$)*	*($5c_2$–excl. outliers)*
Breusch-Pagan	*31.88*	*3.09*	*35.67*	*12.64*	*44.78*	*2.16*	*28.08*	*1.20*
	(0.000)	*(0.542)*	*(0.000)*	*(0.180)*	*(0.000)*	*(0.706)*	*(0.000)*	*(0.879)*

The table provides test statistics and p-values in brackets. For Breusch-Pagan test, the null hypothesis of homoskedasticity applies.

5.4 Assessment of Autocorrelation

Since the data underlying this thesis includes a time dimension, there is a risk of autocorrelation. Autocorrelation does not cause biasness of coefficients but may lead to biased variances and therefore unreliable *t*- and *F*-statistics. Yet, including data with a time dimension of only four years and a large cross-sectional dimension, this thesis considers the problem of autocorrelation remote and therefore does not test for it[49].

5.5 Use of Assets for Scaling

The main multivariate models - (2_{new}), (3.2–5), ($5c_1$) and ($5c_2$) - are examined for robustness by using total assets (Compustat data item AT) as an alternative scalar, which has also been used by a number of other studies (e.g. Hsu & Kross 2011, Baik et al. 2009). Yet, when this alternative scalar is chosen, the coefficients of the variables which are no earnings measures (i.e. variables that are not scaled, e.g. *H_at_least_1*, *E/P*) are not directly comparable to those coefficients obtained in the equity-scaled model because the dependent variable is measured differently.

[49] Testing for autocorrelation was also technically not feasible as SPSS does not have such function and Stata requires more than five different values in the time dimension to perform the test.

As the regressions are sensitive to outliers, those identified to surpass Mahalanobis and Cook's distance critical values[50] are removed[51]. The results are presented in Exhibit 44 and Exhibit 45. The regressions are heteroskedasticity-robust.

Regression (2_{new}–A)

The coefficient of $SPECIAL\_TOTAL\_A$[52] has slightly changed from -0.809 in the equity-scaled regression (2_{new}-excl. outliers) to -0.717 in the asset-scaled regression (both are not significantly different from 0.750), confirming robust results.

The coefficient for $H\_at\_least\_1$ has decreased from 0.006 (significant at the 1% level) to 0.003 (significant at 5%). Yet, the values of the coefficients cannot be directly compared for dichotomous variables when the dependent variable is scaled differently. Decreased significance might be an indication of a weaker association between highlighting and analysts' exclusions.

Regression (3.2–5–A)

$RESTRUCTURING\_A$ shows a coefficient of -0.647 compared to -0.796 in the equity-scaled regression (3.2-5-excl. outliers) (both are not significantly different from 0.750), further strengthening the impression of mechanistic sell-side analyst exclusions.

$GAIN\_ASSETS\_A$ now has a coefficient of -0.835 compared to the previous -0.504. (Both are not significantly different from 0.750.) The coefficient is higher than expected as an asymmetric treatment of negative and positive special items was supported by the descriptive evidence in Section 4.1.

Coefficient of $OTHER\_A$ has changed from -0.620 to -0.724 (both are not significantly different from 0.750), proposing a slightly higher level of analysts' exclusion.

IMP_GW_A has a slightly lower coefficient of -0.748 compared to the previous -0.843. (Both are not significantly different from 0.750.)

$GAIN\_INV\_A$ has now a significant (at the 10% level) coefficient of -0.707 (not significantly different from 0.750) compared with the previous insignificant coefficient of -0.336.

[50] See critical values documented in Section 5.1

[51] 11 observations were removed for regression (2_{new}), 17 observations - for (3.2–E), 16 observations – for ($5c_1$), and 17 observations – for ($5c_2$). The removed outliers mostly overlap for all regressions.

[52] "A" at the end of name of the variables denotes that variables are asset-scaled.

Coefficient of *INCR_Mngmt_Bl_A* has increased from -0.077 (insignificant), to -0.252 (significant at 1%), suggesting controversial conclusions for equity- and assets-scaled regressions (see Section 6).

Overall, all the subcomponent coefficients, except $GAIN\_INV\_A$, maintains insignificance from the benchmark of 0.750. Moreover, $H\_at\_least\_1$ remains significant, yet at a lower 5% level. These observations thus suggest robust results. However, management's incremental exclusions have been found to shift from insignificant to significant at the 1% level, alerting to consider the results for this variable with caution.

Regression (5c_1–A)

$H\_at\_least\_1\_for\_incremental$, which is significant at the 5% level in equity-scaled regression (5c_1-excl. outliers), is insignificant now.

INCR_Mngmt_A shows a coefficient of -0.397, as compared to -0.181 in the equity-scaled regression (both significant at the 1% confidence level).

Regression (5c_2–A)

The coefficient for $H\_at\_least\_1\_for\_incremental$ has become insignificant compared to the one in the equity-scaled regression that was significant at 10%.

INCR_Mngmt_Bl_A shows a coefficient of -0.244 (significant at 1%) instead of -0.096 (insignificant) in the equity-scaled regression.

To summarise, the incremental exclusions models ((5c_1–A) and (5c_2–A) as compared to (5c_1–excl. outliers) and (5c_1–excl. outliers)) show unstable results for highlighting ($H\_at\_least\_1\_for\_incremental$) and management's incremental exclusions.

In general, more material differences between asset-scaled and equity-scaled regressions might be an indication of weaker associations between the dependent and independent variables. Also, differences in coefficients for special item subcomponents might result from a small sample, in which observations might have different "weights" based on the scalar chosen and therefore "bias" the coefficients in different directions. To be more specific, firms coming from different industries might have varying asset intensities and thus different relative (scaled) earnings measures. Therefore, differences in coefficients should not be immediately seen as an indication of impaired results obtained in equity-scaled models. Rather, the overall picture and relative comparisons can be employed to assess the validity of the results.

6. Research limitations

All conclusions drawn in this study have been derived in the context of conceptual and technical limitations, integral to the research design. Encountered obstacles will be assessed in the following.

Sample Size

As outlined in Section 3.4, the data set underlying this thesis contains 253 firm-year observations for Swedish firms listed on the NASDAQ OMX Stockholm, covering the period 2010-2013. Corrected for outliers, the sample size decreases by another 13 to 19 observations dependent which regression is considered. This data sample must be deemed very small, especially when benchmarked to Christensen et al.'s (2011) reference study with 15,209 firm-year observations on US companies in the period 2003-2007[53]. As stressed before, this thesis' small sample stems form limitations in the availability of data on special items subcomponents in Bloomberg Businessweek. Yet; it should be noted that both studies constitute a coverage of the large and midsize capital market of their country of studies for four or five years respectively so that different capital market sizes to a certain degree justify different sample sizes. Nonetheless, it has to be accredited that an extension of this thesis' sample could improve the generalizability of results. It is considered likely that such an increase in observations especially has the potential to overcome the issues of collinearity between special items (and subcategories) and interaction terms as encountered in Analyses 2 and 3, therefore potentially revealing an effect of highlighting on special items. At the same time, it should be pointed to the fact that very large sample sizes as in the case of Christensen et al. (2011) benefit significant results as they likely decrease standard errors and consequently boost t-statistics. Arguably, Christensen et al.'s (2011) thus overstate significance for some variables and only results at the 1% confidence interval should be considered sufficiently reliable.

Sample Selection

Firms have not randomly been selected but on the basis of the number of estimates available in I/B/E/S. Due to these data requirements, the sample primarily includes larger firms, resulting in a selection and size bias. Consequently, the results may be especially hard to generalize with regard to rather small firms.

[53] This thesis thus constitutes approximately 1.7% of the amount of observations included by Christensen et al. (2011).

Data Availability and Quality

This study relies on data from Compustat's Global file and I/B/E/S, thereby differing from Christensen et al. (2011) who resort to Compustat's US file and First Call data. In the case of Christensen et al.'s (2011) study, Bradshaw (2011) voices complaints concerning incomplete data records. This study has perceived European data as published by the service providers to be of worse quality than US data, expressed in less available and/or incomplete data, e.g. no record of core earnings, post-tax or EPS measures for special items, and missing entries for financial statement line items that could potentially have been used by this study in the Compustat Global File.

Third Party Bias

Emphasized by Bradshaw (2011), Christensen et al.'s (2011) research design and likewise this thesis' suffer from a third-party bias, meaning that the interaction between managers and sell-side analysts is only depicted by relying on data from service providers (see *Data Availability and Quality*). Outlined in Section 2.1.2, it is undetermined to what degree and with what pattern I/B/E/S processes sell-side analysts' information as its data collection and aggregation practices are concealed. Bradshaw (2011) reasons that such studies might thus rather model the relationship between management and tracking services than sell-side analysts. Black et al. (2014) furthermore are the first to point at firms' potential ability to influence tracking services. Such bias could only be overcome if Bradshaw's (2011) alternative mapping approach was adopted based on the collection of single sell-side analysts' reports but comes at the cost of time-consuming data collection and aggregation efforts. For the sake of simplicity and in line with prior research, this thesis ignores any concerns of the third party bias.

Identification of Special Items by Compustat

The identification of special items by Compustat is achieved by means of searches of earnings announcements, financial statements, management discussion and analysis, and footnotes (Bradshaw 2011) but shows inconsistencies across firms (Jiambalvo, and Shevlin 2002). Inconsistencies are seen to distort the results. More importantly, Bradshaw (2011, p.533) emphasizes that the identification of special items by Compustat is already at least partly dependent on management inputs, *"including those made outside of what [Christensen et al. (2011)] measure as guidance"*, implying that the amounts of special items are less objective and an unclean measurement of the effect of highlighting. Similar comments, though to a smaller degree, are valid for this study as well.

Additionally, no official explanation on the classification of special items subcategories has been obtained from Capital IQ. High reconciliation ratios between Compustat and Bloomberg

Businessweek though strongly suggest a similar approach so that the limitations of Compustat figures should likewise apply to Bloomberg Businessweek.

Guidance within the Reporting Period

Guidance as conceptualized in this thesis only measures management communication at the reporting date, thereby ignoring management guidance in different quarters or through different channels than year-end reports. Though it is imaginable that companies only release earnings guidance related to certain components in prior quarters than the fourth, the interview with the Swedish sell-side analyst emphasizes the perception that special items are mostly recognized in the fourth quarter. Moreover, the interviewee confirmed that year-end reports are the most valuable source of information to sell-side analysts. Consequently, this thesis' simplification of earnings guidance seems acceptable and able to cover a major amount of firms' guidance towards sell-side analysts.

Equity Scalar

In line with Christensen et al. (2011), this thesis has scaled the variables based on equity. Though most often used in research (see Section 3.2), it has to be acknowledged that equity values fluctuate driven by the overall economic situation of a country, i.e. in crisis years equity values are commonly seen to drop. As this thesis covers the post-crisis period 2010-2013, it might be argued that the observations of 2010-2011 are still affected by the repercussions of the financial crisis (2008-2009).

Omitted Variable Bias

Although having relatively high *Adjusted* R^2 for the total exclusions models, the coefficient estimates might be biased because of omitted factors that are not adequately controlled for. For example, Black et al. (2014) find that managers are able to influence the calculation of street earnings through the discussion of pro forma earnings exclusions in press releases and conference calls. Thus, the effect of highlighting in year-end reports might also "accumulate" the influence of press releases and conference calls as all these forms of communication are assumed to be derived from the same information base. Also, the possibility that some firm specific effects exist cannot be ruled out. These effects could be controlled for using fixed effects models; yet, the use of panel data was restricted/deemed inappropriate due to reasons presented in Section 3.6.

Imprecise Measurement of Variables

The first variable measurement issue, which is not addressed by Christensen et al. (2011), relates to the calculation of the incremental exclusion variables (both analysts' and management's incremental exclusions). As incremental exclusions are calculated as a residual, by deducting special items from total exclusions, it is assumed that all special items (as labelled by Compustat and Bloomberg Businessweek) are excluded (by sell-side analysts and by management respectively). For instance, when total exclusions are less than special items, incremental exclusions are positive figures; yet it could equally mean that special items were only partially excluded.

Second, with special items only available on a pre-tax basis, this thesis used the average statutory tax rate to interpret the coefficients (see Footnote 17). Yet, actual tax rates differ from the approximation and therefore accurate interpretations of the coefficients could not be made. In the calculation of incremental exclusions the average tax rate has also been used and thus has created a simplified measure of the variables which impairs an accurate interpretation of the coefficients.

Third, it can be questioned if all the variables fully capture the information this thesis is interested in. For instance, the use of a single variable (E/P ratio) to capture glamour stock status might not be sufficient. Also, the number of analysts might for example be a too simple measure of the quality of the information environment. Ultimately, the literature review has provided indications of further variables that could be controlled for, e.g. sell-side analysts' characteristics (affiliation with management, incentives).

Causality Bias

As Christensen et al. (2011) note, although management guidance is associated with both components of analysts' exclusions, it is possible that managers are simply responding to sell-side analysts' demands, i.e. managers may be the followers and not the initiators of these exclusions. Such a reverse relationship is equally supported by Matsumoto et al. (2006).

External Validity

Due to a relatively short period and focus on companies listed on Nasdaq OMX Stockholm with high analyst following as discussed above, the results might not be generalizable to other settings (e.g. other periods, smaller firms, other countries).

Though the limitations are numerous, they are not substantially different form prior studies (except for the small sample size), so that this thesis shares the common weaknesses of most research on earnings metrics.

7. Conclusions

This thesis has provided a comprehensive assessment of management's use of pro forma and sell-side analysts' derivation of street earnings as alternative measures to GAAP earnings on a Swedish data set. It thereby has further developed a *management-centric* US study by Christensen et al. (2011), matching management guidance to sell-side analysts' exclusion decisions. The extension introduced in this thesis has enabled an analysis of the treatment of different earning components - primarily special items subcomponents – by sell-side analysts and a consideration of the impact of management guidance on an earnings component level (*earnings component-centric* research). Furthermore, incremental exclusion decisions by both parties were explored. The main results obtained in this thesis are summarized according to contribution areas:

The Recognition of Special Items in Swedish Firms

Concerning the frequency, magnitude, and composition of special items recognized by Swedish firms, this thesis' results confirm the findings of prior US studies. Special items regularly occur as elements of firms' earnings metrics. They are observed in approximately 75% of all firm-years. Negative special items prevail over positive special items and are larger in size, thereby supporting observations made by Burgstahler et al. (2002) and Eliot & Hanna (1996), who arguing for asymmetries in the recognition of positive and negative components. While the bias towards reporting negative special items could be interpreted as opportunistic behaviour, this asymmetry could also be explained by a convention of conservatism[54] or alternatively a more frequent occurrence of negative items. The most frequent categories of special items are gains (losses) on sale of assets (52% of firm-years) as well as the collection category "other unusual items" (44% of firm-years). Restructuring and "other unusual items" moreover constitute the largest charges by amount.

The Composition of Street Earnings

In line with insights by Doyle et al. (2003), reported street earnings in Sweden are on average higher than GAAP earnings, implying the exclusion of negative earnings components. In contrast to prior US studies, this thesis however has identified a large number of observations in which street earnings actually fall below GAAP earnings (42%), implying that analysts have excluded positive (non-recurring) earnings components. Such practices indicate that sell-side analysts might be able to add informative value to firms' reported GAAP earnings.

Special items are almost fully excluded by sell-side analysts in the derivation of street earnings, (Analysis 2). Tendencies to exclude special items on an aggregated level in Sweden surpass

[54] Gu and Chen (2004) suggested that conservative reporting is often achieved by firms using special or other non-recurring items.

those observed in the US. A consideration of sell-side analysts' exclusion patterns for special items subcomponents has indicated dissimilarities in their treatment for the full sample, yet uniform exclusion patterns for the sample excluding influential outliers. Thus, no strong empirical evidence supporting the prior expectations about a varying treatment of special items is provided (H_{3a}).

Furthermore, sell-side analysts make additional exclusions beyond those of special items. Yet, no association of shares of profit in associates and amortization, suggested as typical candidates for exclusion by US research, with analysts' total exclusions have been identified in this thesis.

Management Exclusions and the Effect of Management Guidance

Management's exclusions are seen to surpass analysts' exclusions, confirming observations of disagreement between both parties made by US and UK studies (e.g. Bhattacharya et al. 2003 and Choi et al. 2007) for this thesis' data set. In line with observations made by US studies, management exclusions are frequently larger than special items, implying firms' opportunistic behaviour expressed in excluding recurring items. Importantly, management practices are identified to be more aggressive than those of sell-side analysts.

Consistent with opportunistic management motivations, asymmetry in the presentation choices (highlighting) of negative and positive special items, with a bias towards highlighting negative items, is acknowledged. Interestingly, management's highlighting choices can also be associated with the materiality of special items – an idea widely ignored by existing research. Larger items, which are also mainly negative, are more likely to be highlighted by firms. A consideration of materiality might thus partly determine asymmetries in the treatment of positive and negative special items in pro forma figures, constituting an alternative explanation to the assumption of manipulative firm actions.

Management guidance through presentation choices in year-end reports, measured as a dichotomous variable and developed to constitute a more direct measure of highlighting than applied by Christensen et al. (2011), is found to incite sell-side analysts to make larger exclusions in the derivation of street earnings (H_{3c}, H_5). Yet the effect of highlighting on the proportion of special items excluded both on a total (H_2) and the special-item subcomponents level (H_{3b}) could not be determined due to multicollinearity issues stemming from the small underlying sample size. Replacements of the subcomponent variables with their respective interaction terms have not resulted in any improved model fit (Analysis 3).

Management guidance measured in amounts (management's total and incremental exclusions respectively) shows a strong association with analysts' total exclusions for the regressions including outliers (H_{1a}, H_{3d}). Though, in the sample without outliers, no significant results have been obtained for management's incremental exclusions (H_{3d}).

Management's incremental exclusions moreover show a weak (and dependent on the data source for special items) association with analysts' incremental exclusions (H_4) (Analysis 4 & Analysis 5). These findings provide a first indication that disagreement between analysts' and management's exclusions might especially stem for incremental items but might also be caused by conceptual limitations in the design of the variable.

Linking the Thesis to Christensen et al. (2011) and Bradshaw (2011)

Christensen et al. (2011) have found that earnings guidance *during* the year is relevant to analysts' total and incremental exclusions in a *US setting*. Having reconceptualised the measure of earnings guidance, this thesis provides indications of the importance of earnings guidance *at* a firm's earnings announcement date for a *Swedish setting*. Both studies thus support the perceptions that management is able to influence analysts' in their exclusion decisions but demonstrate the need for a further exploration of potential channels of influence on analysts and means to distinguish between those channels.

The disaggregation of special items into subcomponents in this thesis' Swedish model has allowed to slightly better capture the effects of positive versus negative special items on analysts' exclusions. Those observations suggest that Christensen et al.'s (2011) model could likewise be improved through a disaggregation of special items into components.

No additional control variables to those of Christensen et al. (2011) have been identified.

Bradshaw (2011) is interested in scenarios of disagreement between management's and analysts' exclusion decision (*"Under what scenarios would analysts ignore guidance by managers or create their own exclusions in the absence of guidance?"*). Unable to pursue a mapping approach, this thesis can only provide a rough (and intuitive) classification of such scenarios based on its empirical knowledge on management's exclusions and analysts' exclusions for the Swedish setting. In cases in which management does not provide any guidance or does not highlight special items subcomponents, sell-side analysts are nonetheless likely to make such exclusions. These results are confirmed by Christensen et al. (2011). Moreover, disagreement between both parties is very likely for incremental exclusions as analysts have been found more conservative in their derivation of non-GAAP earnings than firms. The effect of guidance, conceptualized by Bradshaw (2011) as a change of the composition of street earnings based on management's disclosure of pro forma components, could not be modelled due to data unavailability.

8. Future Research Potential

Existing literature on GAAP and non-GAAP earnings is broad and further research opportunities can be determined with regard to both research foci identified in section 2.

Concerning research focus 1 (the identification of the purpose of different earnings metrics), this thesis sees the most compelling challenges in a further identification of indicators of the motives underlying firms' released GAAP and pro forma earnings. Linked to this endeavour should be the research interest of whether or not sell-side analysts and investors are able (and willing) to spot such indicators and potentially adjust their reactions to earnings releases in accordance with these observations.

Research focus 2, the determination of differences in firms' and analysts' non-GAAP measures (the focus of this thesis), still requires an illumination of various knowledge gaps. As emphasized in this thesis, existing research designs commonly explore analysts' street earnings on an aggregated consensus level to avoid a manual collection of analyst-specific data. Integral to this simplified approach are uncertainties about tracking services' influence on/ex-post adjustments of analysts' figures. Given that those services are still considered a "black box" by research, an improved understanding of their practices seems necessary to enable an adequate assessment of sell-side analysts' practices. Bradshaw (2011) for example emphasizes scepticism on whether existing research designs reflect analysts' or tracking services' actions. Equally, because of researches' reliance on consensus figures, knowledge on disagreement between individual sell-side analysts in the derivation of street earnings is very little. A comparison of individual sell-side analysts' street earnings accommodates opportunities to identify more analyst- or brokerage –specific drivers of exclusions decisions.

Also, ideas on the conceptualization of earnings guidance should be further explored. Black et al.'s (2014) analysis of Channel B has only been published very recently and so far misses verification by other studies. As indicated in this thesis, it is especially interesting to investigate in how far Channel B communication, i.e. press releases and conference calls, can be distinguished from communication in year-end reports as they occur at similar times and should be based on similar information. Moreover, it should be further considered how to adequately measure earnings guidance within the reporting period, e.g. repetitive highlighting across different quarters or only in quarters prior to the fourth.

Ultimately, the realization of Bradshaw's (2011) ideal research design could substantially contribute to a deeper understanding of the composition of street and pro forma earnings as well as a better grasp on the interdependence of both non-GAAP figures. This approach seems most suitable to assess differences in street and pro forma figures on an earnings component level.

Overall, it must likewise be emphasized that existing literature for both foci is strongly concentrated on US settings. Though first non-US studies have indicated a transferability of US findings to other accounting regimes and capital markets (as is also supported by this thesis), a broader assessment of different environments, especially large economies enabling sufficiently large sample sizes, is desirable.

Last but not least, it should likewise be considered to increase the amount of qualitative studies on analysts' practices in the derivation of street earnings. A qualitative approach could help to answer such questions as *why* and *how,* contributing to a better understanding of phenomena that are difficult to grasp through quantitative studies. Once a sound knowledge base is created, it should be easier to define adequate quantitative models and identify relevant variables.

References

Abarbanell, J.S. & Lehavy, R. 2007, "Letting the Tail Wag the Dog: The Debate over GAAP versus Street Earnings Revisited*", *Contemporary Accounting Research,* vol. 24, no. 3, pp. 675-723.

Ajinkya, B.B. & Gift, M.J. 1984, "Corporate Managers' Earnings Forecasts and Symmetrical Adjustments of Market Expectations", *Journal of Accounting Research,* vol. 22, no. 2, pp. 425-444.

Andersson, P. & Hellman, N. 2007, "Does Pro Forma Reporting Bias Analyst Forecasts?", *European Accounting Review,* vol. 16, no. 2, pp. 277-298.

Athanasakou, V., Strong, N. & Walker, M. 2007, "Classificatory Income Smoothing: the Impact of A Change in Regime of Reporting Financial Performance", *Journal of Accounting and Public Policy*, vol. 26, pp. 387–435.

Aubert, F. 2009, "The Relative Informativeness of GAAP and Pro Forma Earnings Announcements in France", *Working Paper*, University of Auvergne Clermont-Ferrand 1

Baik, B., Farber, D.B. & Petroni, K. 2009, "Analysts' Incentives and Street Earnings", *Journal of Accounting Research,* vol. 47, no. 1, pp. 45-69.

Barth, M. E., Gow, I. D. & Taylor, D. J. 2012, "Why Do Pro Forma and Street Earnings Not Reflect Changes in GAAP? Evidence from SFAS 123R", *Review of Accounting Studies*, 17, no. 3, pp. 526-562.

Beneish, M. 2001, "Earnings Management: A Perspective", *Managerial Finance,* vol. 27, pp. 3–17.

Berger, P.G. 2005, "Discussion of 'Are Investors Misled by 'Pro Forma' Earnings?'", *Contemporary Accounting Research/Recherche Comptable Contemporaine,* vol. 22, no. 4, pp. 965-976.

Bhattacharya, N. 2003, "Assessing the Relative Informativeness and Permanence of Pro Forma Earnings and GAAP Operating Earnings", *Journal of Accounting and Economics,* vol. 36, no. 1-3, pp. 285-319.

Bhattacharya, N., Black, E.L., Christensen, T.E. & Mergenthaler, R.D. 2004, "Empirical evidence on recent trends in pro forma reporting", *Accounting Horizons,* vol. 18, no. 1, pp. 27-43.

Black, D., Christensen, T.E., Kiosse, P. & Steffen, T. 2013, "Does Management Discussion of Pro Forma Earnings in Press Releases and Conference Calls Influence Street Earnings Exclusions?", *Working Paper*, Brigham Young University.

Black, D.E. & Christensen, T.E. 2009, "US Managers' Use of 'Pro Forma' Adjustments to Meet Strategic Earnings Targets", *Journal of Business Finance and Accounting,* vol. 36, no. 3-4, pp. 297-326.

Bowen, R.M., Davis, A.K. & Matsumoto, D.A. 2005, "Emphasis on Pro Forma versus GAAP Earnings in Quarterly Press Releases: Determinants, SEC Intervention, and Market Reactions", *Accounting Review,* vol. 80, no. 4, pp. 1011-1038.

Bowen, R.M., Davis, A.K. & Matsumoto, D.A. 2005, "Emphasis on pro forma versus GAAP earnings in quarterly press releases: Determinants, SEC intervention, and market reactions", *The Accounting Review,* vol. 80, no. 4, pp. 1011-1038.

Bradshaw, M. T. & Sloan, R. G. 2002, "GAAP versus the Street: An Empirical Assessment of Two Alternative Definitions of Earnings", *Journal of Accounting Research,* vol. 40, no. 1, pp. 41-66.

Bradshaw, M.T. 2011, "Do Managers Use Earnings Guidance to Influence Street Earnings Exclusions?: Discussion", *Review of Accounting Studies,* vol. 16, no. 3, pp. 528-538.

Bradshaw, M.T., Richardson, S.A. & Sloan, R.G. 2006, "The Relation between Corporate Financing Activities, Analysts' Forecasts and Stock Returns", *Journal of Accounting and Economics,* vol. 42, no. 1-2, pp. 53-85.

Brown, L.D. & Sivakumar, K. 2003, "Comparing the Value Relevance of Two Operating Income Measures", *Review of Accounting Studies,* vol. 8, no. 4, pp. 561-572.

Burgstahler, D.C. & Eames, M.J. 2003, "Earnings Management to Avoid Losses and Earnings Decreases: Are Analysts Fooled?", *Contemporary Accounting Research/Recherche Comptable Contemporaine,* vol. 20, no. 2, pp. 253-294.

Choi, Y. & Young, S. 2013, "Transitory earnings components and the two faces of non-generally accepted accounting principles earnings", *Accounting & Finance.*

Choi, Y., Lin, S., Walker, M. & Young, S. 2007, "Disagreement over the Persistence of Earnings Components: Evidence on the Properties of Management-Specific Adjustments to GAAP Earnings", *Review of Accounting Studies,* vol. 12, no. 4, pp. 595-622.

Christensen, T.E., Merkley, K.J., Tucker, J.W. & Venkataraman, S. 2011, "Do Managers Use Earnings Guidance to Influence Street Earnings Exclusions?", *Review of Accounting Studies,* vol. 16, no. 3, pp. 501-527.

Cotter, J., Tuna, I. & Wysocki, P.D. 2006, "Expectations Management and Beatable Targets: How Do Analysts React to Explicit Earnings Guidance?*", *Contemporary Accounting Research,* vol. 23, no. 3, pp. 593-624.

Curtis, A.B., McVay, S.E. & Whipple, B.C. 2014, "The Disclosure of Non-GAAP Earnings Information in the Presence of Transitory Gains", *Accounting Review,* vol. 89, no. 3, pp. 933-958.

Dechow, P.M., Richardson, S.A. & Tuna, I. 2003, "Why are earnings kinky? An examination of the earnings management explanation", *Review of Accounting Studies,* vol. 8, no. 2-3, pp. 355-384.

Degeorge, F., Patel, J. & Zeckhauser, R. 1999, "Earnings Management to Exceed Thresholds*", *The Journal of Business,* vol. 72, no. 1, pp. 1-33.

Desai, H., Rajgopal, S. & Venkatachalam M. 2004, "Value-Glamour and Accruals Mispricing: One Anomaly or Two?", *The Accounting Review*, vol. 79, no. 2, pp. 355-385.

Doyle, J.T., Lundholm, R.J. & Soliman, M.T. 2003, "The Predictive Value of Expenses Excluded from Pro Forma Earnings", *Review of Accounting Studies,* vol. 8, no. 2-3, pp. 145-174.

Elliott, J.A. & Hanna, J.D. 1996, "Repeated Accounting Write-Offs and the Information Content of Earnings", *Journal of Accounting Research,* vol. 34, pp. 135-155.

Fan, Y., Barua, A., Cready, W.M. & Thomas, W.B. 2010, "Managing Earnings Using Classification Shifting: Evidence from Quarterly Special Items", *Accounting Review,* vol. 85, no. 4, pp. 1303-1323.

Frankel, R. & Roychowdhury, S. 2005, "Testing the Clientele Effect: An Explanation for Non-GAAP Earnings Adjustments Used to Compute I/B/E/S Earnings", *Working Paper*, MIT.

Frankel, R., McVay, S. & Soliman, M. 2011, "Non-GAAP Earnings and Board Independence", *Review of Accounting Studies,* vol. 16, no. 4, pp. 719-744.

Gu, Z. & Chen, T. 2004, "Analysts' Treatment of Nonrecurring Items in Street Earnings", *Journal of Accounting and Economics,* vol. 38, no. 1-3, pp. 129-170.

Gullapalli, D. 2005. “Wall Street Turns Blind Eye to Results of Option Expensing”, *The Wall Street Journal*, July 12, 2005.

Healy, P.M. & Wahlen, J.M. 1999, "A review of the earnings management literature and its implications for standard setting", *Accounting horizons,* vol. 13, no. 4, pp. 365-383.

Heflin, F. & Hsu, C. 2008, "The Impact of the SEC's Regulation of Non-GAAP Disclosures", *Journal of Accounting and Economics,* vol. 46, no. 2-3, pp. 349-365.

Hitz, J. 2010, "Information versus strategic reporting: Determinants of the disclosure of pro forma earnings by large German corporations", *Working Paper*, Georg-August University Göttingen

Hjelström, A., Hjelström, T. & Sjögren, E. 2014. “Decision Usefulness Explored - An Investigation of Capital Market Actors´ Use of Financial Reports.” *Stockholm: Confederation of Swedish Enterprise/Svenskt näringsliv*.

Holthausen, R.W. & Leftwich, R.W. 1983, "The Economic Consequences of Accounting Choice: Implications of Costly Contracting and Monitoring", *Journal of Accounting and Economics,* vol. 5, no. 2, pp. 77-117.

Houston, J.F., Lev, B. & Tucker, J.W. 2010, "To Guide or Not to Guide? Causes and Consequences of Stopping Quarterly Earnings Guidance", *Contemporary Accounting Research/Recherche Comptable Contemporaine,* vol. 27, no. 1, pp. 143-185.

Hsu, C. & Kross, W. 2011, "The Market Pricing of Special Items That Are Included in versus Excluded from Street Earnings", *Contemporary Accounting Research/Recherche Comptable Contemporaine,* vol. 28, no. 3, pp. 990-1017.

Hutton, A.P. 2005, "Determinants of Managerial Earnings Guidance Prior to Regulation Fair Disclosure and Bias in Analysts' Earnings Forecasts", *Contemporary Accounting Research/Recherche Comptable Contemporaine,* vol. 22, no. 4, pp. 867-914.

Hwang, S. 1994. “Borden to Reverse, Reclassify 40% of 1992 Charge”. *The Wall Street Journal,* March 22, 1994.

Jackson, S. & Pitman, M. 2001, “Auditors and Earnings Management”, *The CPA Journal*, vol. 71, no. 7, pp. 39-44.

Jacob, J. & Jorgensen, B.N. 2007, "Earnings management and accounting income aggregation", *Journal of Accounting and Economics,* vol. 43, no. 2, pp. 369-390.

Jegadeesh, N. 2004, "Analyzing the Analysts: When Do Recommendations Add Value?", *Journal of Finance,* vol. 59, no. 3, pp. 1083-1124.

Jennings, R. & Marques, A. 2011, “The Impact of Corporate Governance on the Disclosure of Manager-adjusted Non-GAAP Earnings”, *Journal of Business Finance & Accounting*, vol. 48, no. 3-4, pp. 364-394.

Kinney, M. & Trezevant, R. 1997, "The Use of Special Items to Manage Earnings and Perceptions", *Journal of Financial Statement Analysis,* vol. 3, pp. 45-54.

Marques, A. 2006, “SEC Interventions and the Frequency and Usefulness of Non-GAAP Financial Measures”, *Review of Accounting Studies,* vol. 11, no. 4, pp. 549-574.

Matsumoto, D.A. 2002, "Management's Incentives to Avoid Negative Earnings Surprises", *Accounting Review,* vol. 77, no. 3, pp. 483-514.

McVay, S.E. 2006, "Earnings Management Using Classification Shifting: An Examination of Core Earnings and Special Items", *Accounting Review,* vol. 81, no. 3, pp. 501-531.

Olbert, L. 1994, “Stock valuation methods of financial analysts in a thin stock market in Sweden, with comparisons to the United Kingdom and the United States”, *International Journal of Accounting*, vol. 29, no. 2, pp. 123–135.

Philbrick, D. & Ricks, W. 1991, “Using Value Line and IBES analyst forecasts in accounting Research”, *Journal of Accounting Research,* vol. 29, pp. 397-417.

Richardson, S., Teoh, S.H. & Wysocki, P.D. 2004, "The Walk-Down to Beatable Analyst Forecasts: The Role of Equity Issuance and Insider Trading Incentives", *Contemporary Accounting Research/Recherche Comptable Contemporaine,* vol. 21, no. 4, pp. 885-924.

Riedl, E.J. & Srinivasan, S. 2010, "Signaling Firm Performance through Financial Statement Presentation: An Analysis Using Special Items", *Contemporary Accounting Research/Recherche Comptable Contemporaine,* vol. 27, no. 1, pp. 289-332.

Shirato, K. & Nagata, K. (2012), “Earnings Management Through Classification Shifting Under Japanese GAAP”, *Working Paper,* Tokyo Institute of Technology

Wang, I.Y. 2007, "Private Earnings Guidance and Its Implications for Disclosure Regulation", *Accounting Review,* vol. 82, no. 5, pp. 1299-1332.

Appendices

Appendix I Selected Sample

		Number of analysts contributing to IBES estimates in year			
	Company name	**2010**	**2011**	**2012**	**2013**
1	AARHUSKARLSHAMN	6	7	8	7
2	ACTIVE BIOTECH	3	8	7	4
3	ADDTECH	6	4	4	4*
4	ALFA LAVAL	22	23	22	21
5	AF	5	5	5	7
6	ASSA ABLOY	20	23	27	24
7	ATLAS COPCO	28	28	32	26
8	AXFOOD	9	8	8	6
9	AXIS COMMUNICATIONS	9	7	9	8
10	BE GROUP	6	5	4	3
11	B&B TOOLS	4	3	3	4
12	BETSSON	10	10	8	6
13	BILIA	4	4	5	3
14	BILLERUD	7	6	7	7
15	BIOVITRUM	8	5	6	7
16	BJÖRN BORG	6	6	3	3
17	BOLIDEN GROUP	17	17	17	15
18	BYGGMAX GROUP	4*	4	5	3
19	CLAS OHLSON	10	8	7	6
20	ELECTROLUX	24	23	26	21
21	ELEKTA	11	12*	16	15
22	ENIRO	5*	7*	4	4
23	ERICSSON.	31	35	27	30
24	GETINGE	12	19	19	17
25	GUNNEBO	4	5	4	3
26	HALDEX	10	6	8	6
27	HENNES & MAURITZ	30*	30	32	32
28	HEXAGON[55]	10			
29	HEXPOL	4	5	5	5
30	HOLMEN	14	16	11	12
31	HUSQVARNA	17	16	15	13
32	INDUTRADE	5	4	5	3
33	INTRUM JUSTITIA	6	6	7	6
34	JM	12	10	12	8
35	KAPPAHL	11	9	7	3*
36	LAGERCRANTZ	3	3	3	3
37	LINDAB	9	8	7	7
38	LOOMIS	9	10	8	7
39	MEDA	9	9	9	6
40	MEDIVIR	6	8	8	5
41	MEKONOMEN	9	7	7	7
42	MTG	17	17	17	15
43	NCC	12	10	11	8
44	NET ENTERTAINMENT	5	5	6	5
45	NEW WAVE	8	4	3	6
46	NIBE INDUSTRIER	8	6	9	6
47	NOBIA	6	8	8	6
48	OREXO	5	4	4	5
49	PEAB	9	8	8	3
50	PROFFICE	4	4	3	3
51	SAAB	7	4	5	6
52	SANDVIK	29	28	30	23
53	SAS	13*	10	7	6
54	SCANIA	24	25	25	23
55	SECURITAS	20	18	18	17
56	SKANSKA	16	9	15	11
57	SKF	28	27	24	24
58	SVENSKT STAL	22	20	19	18
59	SVENSKA CELLULOSA AKTIEBOLAGET	19	17	19	20
60	SWECO	3	3	4	4
61	SWEDISH MATCH	22	23	20	19
62	TELE2	26	28	26	22
63	TELIA	29	31	30	23
64	TRADEDOUBLER	10	9	6	4
65	TRELLEBORG	11	11	14	11
66	VOLVO	29	28	31	26

Note: The table presents the selected sample of firm-years and the number of analysts contributing to I/B/E/S estimates for each firm-year. "*" denotes firm-years with stock splits, which are eliminated from the sample (8 firm-years in total). Final sample – 253 firm-years.

[55] 2011-2013 years of Hexagon are eliminated due to reporting currency of Euro.

Appendix II Descriptive statistics

Exhibit 35 *Summary Statistics*

Variable	Mean	Std. Dev.	25%	Median	75%
STREET	.064	.0520	.046	.068	.088
GAAP	.055	.0653	.041	.064	.083
EXCLUDE_TOTAL	.009	.0455	.000	.000	.010
MNGMT_EXCL	-.015	.0831	-.011	.000	.000
SPECIAL_TOTAL	-.008	.0430	-.006	.000	.000
SPECIAL_TOTAL_Bloomberg	-.008	.0484	-.006	.000	.000
RESTRUCTURING	-.006	.0401	-.001	.000	.000
GAIN_ASSETS	.001	.0170	.000	.000	.000
OTHER	-.002	.0234	.000	.000	.000
IMP_GW	-.001	.0071	.000	.000	.000
GAIN_INV	.000	.0116	.000	.000	.000
H_RESTRUCTURING	.253	.4356	.000	.000	1.000
H_GAIN_ASSETS	.119	.3239	.000	.000	.000
H_OTHER	.221	.4160	.000	.000	.000
H_IMP_GW	.071	.2576	.000	.000	.000
H_GAIN_INV	.028	.1643	.000	.000	.000
INCR_Analysts	.001	.0246	-.002	.000	.003
INCR_Mngmt	-.007	.0523	-.002	.000	.001
INCR_Analysts_Bl	.001	.0234	-.002	.000	.003
INCR_Mngmt_Bl	-.007	.0468	-.002	.000	.001
AMORT	.000	.0304	-.006	-.002	.001
ASSOCIATES	.000	.0049	.000	.000	.000
H_at_least_1	.581	.4944	.000	1.000	1.000
At_least_1_highlight_for_incremental	.292	.4558	.000	.000	1.000
V_SPECIAL_TOTAL	.034	.1981	.001	.004	.016
E/P	.048	.0785	.037	.058	.076
B/M	.515	.5024	.270	.402	.640
ΔSALES	.171	1.422	-.026	.035	.116
LOSS_FIRM	.095	.2936	.000	.000	.000
No_ANALYSTS	11.862	8.424	5.000	8.000	17.500
PERSIST_TOTAL_SI_PY	.688	.4643	.000	1.000	1.000
STD_Estimate	.614	.5434	.250	.450	.855
D/E	.354	.5709	.093	.224	.406

Variable definitions are provided in Exhibit 7. The sample consists of 253 firm-years for all variables.

Exhibit 36 *Frequencies of Dichotomous Variables*

Variable	0	1
H_RESTRUCTURING	189	64
H_GAIN_ASSETS	223	30
H_OTHER	197	56
H_IMP_GW	235	18
H_GAIN_INV	246	7
H_at_least_1	106	147
At_least_1_highlight_for_incremental	179	74
LOSS_FIRM	229	24
PERSIST_TOTAL_SI_PY	79	174

Variable definitions are provided in Exhibit 7. The sample consists of 253 firm-years for all variables.

Exhibit 37 *Pearson correlations*

	STREET	*GAAP*	*EXCLUDE_TOTAL*	*MNGMT_EXCL*	*SPECIAL_TOTAL*	*SPECIAL_TOTAL_Bloomberg*	*RESTRUCTURING*	*GAIN_ASSETS*	*OTHER*	*IMP_GW*	*GAIN_INV*	*H_RESTRUCTURING*	*H_GAIN_ASSETS*	*H_OTHER*	*H_IMP_GW*	*H_GAIN_INV*	*INCR_Analysts*	*INCR_Mngmt*
STREET	1	.722**	.106	.011	.049	.037	-.014	-.089	.132*	.003	.061	.060	.126*	-.040	.044	-.048	.282**	-.023
GAAP	.722**	1	-.611**	.579**	.628**	.640**	.468**	-.074	.433**	.082	.234**	-.123	.035	-.130*	-.017	-.140*	-.031	.402**
EXCLUDE_TOTAL	.106	-.611**	1	-.819**	-.847**	-.878**	-.688**	.004	-.471**	-.114	-.267**	.246**	.094	.141*	.075	.147*	.367**	-.604**
MNGMT_EXCL	.011	.579**	-.819**	1	.842**	.878**	.889**	-.123	.290**	.047	.151*	-.189**	-.155*	-.175**	-.010	-.078	-.042	.896**
SPECIAL_TOTAL	.049	.628**	-.847**	.842**	1	.967**	.725**	.137*	.564**	.150*	.094	-.288**	-.130*	-.181**	-.090	-.114	.183**	.515**
SPECIAL_TOTAL_Bloomberg	.037	.640**	-.878**	.878**	.967**	1	.766**	.088	.508**	.133*	.285**	-.293**	-.138*	-.194**	-.077	-.146*	.068	.599**
RESTRUCTURING	-.014	.468**	-.688**	.889**	.725**	.766**	1	-.280**	.048	-.011	.056	-.261**	-.141*	-.093	.004	-.018	-.004	.816**
GAIN_ASSETS	-.089	-.074	.004	-.123	.137*	.088	-.280**	1	-.054	-.029	-.001	-.079	.044	.071	-.008	-.010	.247**	-.308**
OTHER	.132*	.433**	-.471**	.290**	.564**	.508**	.048	-.054	1	.016	.002	-.031	-.057	-.218**	-.020	-.056	.115	-.003
IMP_GW	.003	.082	-.114	.047	.150*	.133*	-.011	-.029	.016	1	-.010	-.086	-.080	-.051	-.473**	-.271**	.053	-.049
GAIN_INV	.061	.234**	-.267**	.151*	.094	.285**	.056	-.001	.002	-.010	1	-.090	.013	-.119	.009	-.251**	-.329**	.163**
H_RESTRUCTURING	.060	-.123	.246**	-.189**	-.288**	-.293**	-.261**	-.079	-.031	-.086	-.090	1	.237**	.128*	.228**	.124*	-.049	-.063
H_GAIN_ASSETS	.126*	.035	.094	-.155*	-.130*	-.138*	-.141*	.044	-.057	-.080	.013	.237**	1	.276**	.231**	.087	-.054	-.139*
H_OTHER	-.040	-.130*	.141*	-.175**	-.181**	-.194**	-.093	.071	-.218**	-.051	-.119	.128*	.276**	1	.149*	.200**	-.056	-.130*
H_IMP_GW	.044	-.017	.075	-.010	-.090	-.077	.004	-.008	-.020	-.473**	.009	.228**	.231**	.149*	1	.141*	-.019	.058
H_GAIN_INV	-.048	-.140*	.147*	-.078	-.114	-.146*	-.018	-.010	-.056	-.271**	-.251**	.124*	.087	.200**	.141*	1	.073	-.031
INCR_Analysts	.282**	-.031	.367**	-.042	.183**	.068	-.004	.247**	.115	.053	-.329**	-.049	-.054	-.056	-.019	.073	1	-.217**
INCR_Mngmt	-.023	.402**	-.604**	.896**	.515**	.599**	.816**	-.308**	-.003	-.049	.163**	-.063	-.139*	-.130*	.058	-.031	-.217**	1
INCR_Analysts_Bl	.283**	.135*	.129*	.223**	.352**	.362**	.247**	.190**	.134*	.054	.072	-.129*	-.103	-.127*	-.013	-.016	.855**	.064
INCR_Mngmt_Bl	-.018	.366**	-.547**	.869**	.496**	.525**	.787**	-.310**	-.010	-.054	-.026	-.032	-.132*	-.111	.062	.012	-.145*	.972**
AMORT	.069	.162**	-.154*	.011	.129*	.119	.047	-.079	.217**	.014	.000	-.062	-.083	-.004	-.038	-.011	-.059	-.088
ASSOCIATES	-.053	-.020	-.032	.097	.096	.125*	.052	.054	.026	.077	.163**	-.054	-.241**	-.166**	-.194**	.137*	.109	.075
H_at_least_1	.094	-.069	.206**	-.154*	-.165**	-.176**	-.135*	.049	-.112	-.112	-.044	.439**	.311**	.395**	.235**	.143*	.092	-.108
At_least_1_highlight_for_incremental	.069	-.053	.156*	-.212**	-.061	-.094	-.170**	.185**	-.002	.066	-.112	.146*	.194**	.201**	.059	.050	.181**	-.286**
V_SPECIAL_TOTAL	.087	.117	-.068	-.076	.041	.029	-.029	-.037	.147*	-.014	-.015	-.036	-.021	.062	-.013	.005	-.054	-.155*
E/P	.528**	.870**	-.646**	.582**	.633**	.696**	.414**	-.036	.478**	.062	.519**	-.156*	.016	-.192**	.005	-.222**	-.088	.405**
BV/MV	-.010	-.284**	.397**	-.545**	-.314**	-.435**	-.476**	.033	.130*	.009	-.481**	.145*	.088	.171**	-.014	.206**	.185**	-.608**
Sales growth	-.093	-.053	-.030	.024	.021	.025	.026	-.017	.010	.025	.005	-.065	-.042	-.060	-.032	-.025	-.019	.021
LOSS_FIRM	-.590**	-.716**	.354**	-.310**	-.347**	-.376**	-.270**	.106	-.229**	-.225**	-.185**	.029	-.035	.087	.015	.110	.048	-.208**
No_ANALYSTS	.064	.066	-.021	.083	.031	.043	.032	-.042	.076	-.090	.031	.310**	.143*	-.020	.231**	.097	.016	.106
PERSIST_TOTAL_SI_PY	.114	.048	.062	-.051	-.071	-.084	-.083	.033	-.013	-.093	-.030	.274**	.089	.133*	.120	.062	-.010	-.023
STD_Estimate	.021	-.056	.105	-.080	-.058	-.056	-.052	.065	-.043	-.025	-.049	-.090	.038	.078	-.075	.001	.092	-.080
D/E	-.059	-.311**	.379**	-.491**	-.313**	-.419**	-.403**	-.023	.069	.010	-.465**	.162**	.114	.118	.010	.176**	.155*	-.522**

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Exhibit 37 (cont'd) ***Pearson correlations***

	INCR_Analysts_Bl	*INCR_Mngmt_Bl*	*AMORT*	*ASSOCIATES*	*H_at_least_1*	*At_least_1_highlight_for_incremental*	*V_SPECIAL_TOTAL*	*E/P*	*BV/MV*	*Sales growth*	*LOSS_FIRM*	*No_ANALYSTS*	*PERSIST_TOTAL_SI_PY*	*STD_Estimate*	*D/E*
STREET	.283**	-.018	.069	-.053	.094	.069	.087	.528**	-.010	-.093	-.590**	.064	.114	.021	-.059
GAAP	.135*	.366**	.162**	-.020	-.069	-.053	.117	.870**	-.284**	-.053	-.716**	.066	.048	-.056	-.311**
EXCLUDE_TOTAL	.129*	-.547**	-.154*	-.032	.206**	.156*	-.068	-.646**	.397**	-.030	.354**	-.021	.062	.105	.379**
MNGMT_EXCL	.223**	.869**	.011	.097	-.154*	-.212**	-.076	.582**	-.545**	.024	-.310**	.083	-.051	-.080	-.491**
SPECIAL_TOTAL	.352**	.496**	.129*	.096	-.165**	-.061	.041	.633**	-.314**	.021	-.347**	.031	-.071	-.058	-.313**
SPECIAL_TOTAL_Bloomberg	.362**	.525**	.119	.125*	-.176**	-.094	.029	.696**	-.435**	.025	-.376**	.043	-.084	-.056	-.419**
RESTRUCTURING	.247**	.787**	.047	.052	-.135*	-.170**	-.029	.414**	-.476**	.026	-.270**	.032	-.083	-.052	-.403**
GAIN_ASSETS	.190**	-.310**	-.079	.054	.049	.185**	-.037	-.036	.033	-.017	.106	-.042	.033	.065	-.023
OTHER	.134*	-.010	.217**	.026	-.112	-.002	.147*	.478**	.130*	.010	-.229**	.076	-.013	-.043	.069
IMP_GW	.054	-.054	.014	.077	-.112	.066	-.014	.062	.009	.025	-.225**	-.090	-.093	-.025	.010
GAIN_INV	.072	-.026	.000	.163**	-.044	-.112	-.015	.519**	-.481**	.005	-.185**	.031	-.030	-.049	-.465**
H_RESTRUCTURING	-.129*	-.032	-.062	-.054	.439**	.146*	-.036	-.156*	.145*	-.065	.029	.310**	.274**	-.090	.162**
H_GAIN_ASSETS	-.103	-.132*	-.083	-.241**	.311**	.194**	-.021	.016	.088	-.042	-.035	.143*	.089	.038	.114
H_OTHER	-.127*	-.111	-.004	-.166**	.395**	.201**	.062	-.192**	.171**	-.060	.087	-.020	.133*	.078	.118
H_IMP_GW	-.013	.062	-.038	-.194**	.235**	.059	-.013	.005	-.014	-.032	.015	.231**	.120	-.075	.010
H_GAIN_INV	-.016	.012	-.011	.137*	.143*	.050	.005	-.222**	.206**	-.025	.110	.097	.062	.001	.176**
INCR_Analysts	.855**	-.145*	-.059	.109	.092	.181**	-.054	-.088	.185**	-.019	.048	.016	-.010	.092	.155*
INCR_Mngmt	.064	.972**	-.088	.075	-.108	-.286**	-.155*	.405**	-.608**	.021	-.208**	.106	-.023	-.080	-.522**
INCR_Analysts_Bl	1	.022	-.054	.197**	.037	.108	-.073	.183**	-.127*	-.005	-.088	.049	-.055	.088	-.129*
INCR_Mngmt_Bl	.022	1	-.102	.042	-.091	-.280**	-.166**	.315**	-.519**	.017	-.163**	.102	-.004	-.084	-.438**
AMORT	-.054	-.102	1	-.032	-.102	-.058	.860**	.090	.249**	-.011	-.048	-.112	.002	-.053	.195**
ASSOCIATES	.197**	.042	-.032	1	-.066	-.026	-.014	.016	-.037	.009	-.021	-.006	-.040	-.039	-.064
H_at_least_1	.037	-.091	-.102	-.066	1	.546**	.002	-.100	.169**	-.127*	.029	.185**	.258**	.135*	.113
At_least_1_highlight_for_incremental	.108	-.280**	-.058	-.026	.546**	1	.035	-.089	.251**	-.066	.029	.003	.096	.123*	.169**
V_SPECIAL_TOTAL	-.073	-.166**	.860**	-.014	.002	.035	1	.049	.361**	-.022	.018	-.102	.097	.012	.263**
E/P	.183**	.315**	.090	.016	-.100	-.089	.049	1	-.368**	-.062	-.656**	.077	.009	-.044	-.362**
BV/MV	-.127*	-.519**	.249**	-.037	.169**	.251**	.361**	-.368**	1	-.041	.202**	-.130*	.114	.149*	.801**
Sales growth	-.005	.017	-.011	.009	-.127*	-.066	-.022	-.062	-.041	1	.153*	-.047	-.126*	.019	-.048
LOSS_FIRM	-.088	-.163**	-.048	-.021	.029	.029	.018	-.656**	.202**	.153*	1	-.171**	-.015	.102	.185**
No_ANALYSTS	.049	.102	-.112	-.006	.185**	.003	-.102	.077	-.130*	-.047	-.171**	1	.064	-.049	-.064
PERSIST_TOTAL_SI_PY	-.055	-.004	.002	-.040	.258**	.096	.097	.009	.114	-.126*	-.015	.064	1	.070	.044
STD_Estimate	.088	-.084	-.053	-.039	.135*	.123*	.012	-.044	.149*	.019	.102	-.049	.070	1	.109
D/E	-.129*	-.438**	.195**	-.064	.113	.169**	.263**	-.362**	.801**	-.048	.185**	-.064	.044	.109	1

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Exhibit 38 *Spearman correlations*

	STREET	*GAAP*	*EXCLUDE_TOTAL*	*MNGMT_EXCL*	*SPECIAL_TOTAL*	*SPECIAL_TOTAL_Bloomberg*	*RESTRUCTURING*	*GAIN_ASSETS*	*OTHER*	*IMP_GW*	*GAIN_INV*	*H_RESTRUCTURING*	*H_GAIN_ASSETS*	*H_OTHER*	*H_IMP_GW*	*H_GAIN_INV*	*INCR_Analysts*	*INCR_Mngmt*
STREET	1.000	.795**	.056	.004	-.003	-.041	-.019	.047	.001	-.103	-.040	.073	.131*	.008	.062	-.087	.090	.009
GAAP	.795**	1.000	-.371**	.308**	.268**	.211**	.139*	.085	.114	-.047	-.063	-.109	.081	-.043	-.048	-.112	-.138*	.070
EXCLUDE_TOTAL	.056	-.371**	1.000	-.504**	-.509**	-.492**	-.377**	-.188**	-.154*	-.102	.015	.393**	.046	.162**	.231**	.133*	.433**	-.048
MNGMT_EXCL	.004	.308**	-.504**	1.000	.555**	.569**	.358**	.043	.234**	.093	-.019	-.399**	-.089	-.249**	-.189**	-.094	.013	.448**
SPECIAL_TOTAL	-.003	.268**	-.509**	.555**	1.000	.843**	.548**	.269**	.429**	.132*	.034	-.507**	-.020	-.221**	-.243**	-.221**	.318**	-.286**
SPECIAL_TOTAL_Bloomberg	-.041	.211**	-.492**	.569**	.843**	1.000	.518**	.257**	.480**	.126*	.253**	-.476**	-.051	-.195**	-.265**	-.099	.223**	-.181**
RESTRUCTURING	-.019	.139*	-.377**	.358**	.548**	.518**	1.000	-.068	.014	.093	.026	-.737**	-.111	-.080	-.215**	-.110	.035	-.121
GAIN_ASSETS	.047	.085	-.188**	.043	.269**	.257**	-.068	1.000	.007	-.022	-.141*	.009	.199**	.130*	-.056	-.063	.140*	-.280**
OTHER	.001	.114	-.154*	.234**	.429**	.480**	.014	.007	1.000	.038	.011	-.030	-.113	-.426**	-.074	-.179**	.180**	-.100
IMP_GW	-.103	-.047	-.102	.093	.132*	.126*	.093	-.022	.038	1.000	-.171**	-.028	-.140*	-.017	-.667**	-.099	.026	-.073
GAIN_INV	-.040	-.063	.015	-.019	.034	.253**	.026	-.141*	.011	-.171**	1.000	-.030	.022	-.022	.057	.033	.025	.008
H_RESTRUCTURING	.073	-.109	.393**	-.399**	-.507**	-.476**	-.737**	.009	-.030	-.028	-.030	1.000	.237**	.128*	.228**	.124*	.002	.023
H_GAIN_ASSETS	.131*	.081	.046	-.089	-.020	-.051	-.111	.199**	-.113	-.140*	.022	.237**	1.000	.276**	.231**	.087	.016	-.022
H_OTHER	.008	-.043	.162**	-.249**	-.221**	-.195**	-.080	.130*	-.426**	-.017	-.022	.128*	.276**	1.000	.149*	.200**	.006	-.075
H_IMP_GW	.062	-.048	.231**	-.189**	-.243**	-.265**	-.215**	-.056	-.074	-.667**	.057	.228**	.231**	.149*	1.000	.141*	.024	.054
H_GAIN_INV	-.087	-.112	.133*	-.094	-.221**	-.099	-.110	-.063	-.179**	-.099	.033	.124*	.087	.200**	.141*	1.000	-.041	.036
INCR_Analysts	.090	-.138*	.433**	.013	.318**	.223**	.035	.140*	.180**	.026	.025	.002	.016	.006	.024	-.041	1.000	-.357**
INCR_Mngmt	.009	.070	-.048	.448**	-.286**	-.181**	-.121	-.280**	-.100	-.073	.008	.023	-.022	-.075	.054	.036	-.357**	1.000
INCR_Analysts_Bl	.073	-.116	.398**	.057	.260**	.381**	.093	.139*	.257**	-.006	.204**	-.060	-.044	-.046	.014	-.094	.826**	-.216**
INCR_Mngmt_Bl	-.025	.054	-.031	.394**	-.212**	-.335**	-.130*	-.268**	-.185**	-.080	-.243**	.064	.043	-.025	.079	.091	-.227**	.797**
AMORT	-.027	.062	-.066	.077	.105	.070	.182**	-.060	.026	.011	.018	-.138*	-.087	-.021	-.066	-.024	-.079	.012
ASSOCIATES	-.091	-.053	-.033	.022	.100	.130*	-.027	-.114	.178**	.162**	.044	-.066	-.141*	-.090	-.128*	-.041	.024	-.074
H_at_least_1	.113	-.054	.379**	-.457**	-.322**	-.351**	-.332**	.031	-.123	-.154*	-.038	.439**	.311**	.395**	.235**	.143*	.180**	-.132*
At_least_1_highlight_for_incremental	.081	-.057	.206**	-.524**	-.017	-.046	-.055	.227**	-.004	-.034	.001	.146*	.194**	.201**	.059	.050	.328**	-.754**
V_SPECIAL_TOTAL	.079	-.031	.171**	-.256**	-.296**	-.260**	-.211**	.157*	-.140*	-.063	-.057	.275**	.135*	.307**	.116	.146*	-.030	.009
E/P	.562**	.782**	-.359**	.353**	.323**	.249**	.178**	.042	.133*	-.079	-.039	-.183**	.071	-.084	-.022	-.085	-.030	.064
BV/MV	.104	.013	.116	-.303**	-.100	-.120	-.090	.138*	-.016	-.106	-.053	.144*	.079	.154*	.042	.105	.039	-.257**
Sales growth	.067	.162**	-.177**	.128*	.077	.056	.073	-.063	.011	.079	-.132*	-.183**	-.125*	-.149*	-.063	-.135*	-.104	.055
LOSS_FIRM	-.403**	-.508**	.202**	-.184**	-.157*	-.136*	-.070	.054	-.175**	.022	.114	.029	-.035	.087	.015	.110	.093	-.031
No_ANALYSTS	.025	-.005	.168**	-.007	-.101	-.114	-.194**	-.077	-.012	-.094	.025	.298**	.132*	-.004	.220**	.076	.141*	.051
PERSIST_TOTAL_SI_PY	.132*	.126*	.037	-.069	-.109	-.115	-.300**	.123	-.028	-.181**	.016	.274**	.089	.133*	.120	.062	.002	.043
STD_Estimate	.099	.057	.092	-.043	-.040	.018	.040	.110	-.077	.012	.011	-.018	.073	.115	-.051	.031	.103	-.027
D/E	.174**	.059	.211**	-.283**	-.134*	-.185**	-.219**	.178**	-.002	-.126*	-.119	.245**	.166**	.134*	.097	.082	.103	-.194**

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Exhibit 38 (cont'd) ***Spearman correlations***

	INCR_Analysts_Bl	*INCR_Mngmt_Bl*	*AMORT*	*ASSOCIATES*	*H_at_least_1*	*At_least_1_highlight_for_incremental*	*V_SPECIAL_TOTAL*	*E/P*	*BV/MV*	*Sales growth*	*LOSS_FIRM*	*No_ANALYSTS*	*PERSIST_TOTAL_SI_PY*	*STD_Estimate*	*D/E*
STREET	.073	-.025	-.027	-.091	.113	.081	.079	.562**	.104	.067	-.403**	.025	.132*	.099	.174**
GAAP	-.116	.054	.062	-.053	-.054	-.057	-.031	.782**	.013	.162**	-.508**	-.005	.126*	.057	.059
EXCLUDE_TOTAL	.398**	-.031	-.066	-.033	.379**	.206**	.171**	-.359**	.116	-.177**	.202**	.168**	.037	.092	.211**
MNGMT_EXCL	.057	.394**	.077	.022	-.457**	-.524**	-.256**	.353**	-.303**	.128*	-.184**	-.007	-.069	-.043	-.283**
SPECIAL_TOTAL	.260**	-.212**	.105	.100	-.322**	-.017	-.296**	.323**	-.100	.077	-.157*	-.101	-.109	-.040	-.134*
SPECIAL_TOTAL_Bloomberg	.381**	-.335**	.070	.130*	-.351**	-.046	-.260**	.249**	-.120	.056	-.136*	-.114	-.115	.018	-.185**
RESTRUCTURING	.093	-.130*	.182**	-.027	-.332**	-.055	-.211**	.178**	-.090	.073	-.070	-.194**	-.300**	.040	-.219**
GAIN_ASSETS	.139*	-.268**	-.060	-.114	.031	.227**	.157*	.042	.138*	-.063	.054	-.077	.123	.110	.178**
OTHER	.257**	-.185**	.026	.178**	-.123	-.004	-.140*	.133*	-.016	.011	-.175**	-.012	-.028	-.077	-.002
IMP_GW	-.006	-.080	.011	.162**	-.154*	-.034	-.063	-.079	-.106	.079	.022	-.094	-.181**	.012	-.126*
GAIN_INV	.204**	-.243**	.018	.044	-.038	.001	-.057	-.039	-.053	-.132*	.114	.025	.016	.011	-.119
H_RESTRUCTURING	-.060	.064	-.138*	-.066	.439**	.146*	.275**	-.183**	.144*	-.183**	.029	.298**	.274**	-.018	.245**
H_GAIN_ASSETS	-.044	.043	-.087	-.141*	.311**	.194**	.135*	.071	.079	-.125*	-.035	.132*	.089	.073	.166**
H_OTHER	-.046	-.025	-.021	-.090	.395**	.201**	.307**	-.084	.154*	-.149*	.087	-.004	.133*	.115	.134*
H_IMP_GW	.014	.079	-.066	-.128*	.235**	.059	.116	-.022	.042	-.063	.015	.220**	.120	-.051	.097
H_GAIN_INV	-.094	.091	-.024	-.041	.143*	.050	.146*	-.085	.105	-.135*	.110	.076	.062	.031	.082
INCR_Analysts	.826**	-.227**	-.079	.024	.180**	.328**	-.030	-.030	.039	-.104	.093	.141*	.002	.103	.103
INCR_Mngmt	-.216**	.797**	.012	-.074	-.132*	-.754**	.009	.064	-.257**	.055	-.031	.051	.043	-.027	-.194**
INCR_Analysts_Bl	1.000	-.376**	-.051	.034	.081	.227**	-.084	-.041	-.036	-.058	.017	.117	-.032	.123	.020
INCR_Mngmt_Bl	-.376**	1.000	.028	-.116	-.040	-.612**	.045	.086	-.193**	.032	.003	.074	.076	-.047	-.117
AMORT	-.051	.028	1.000	-.043	-.132*	-.080	-.120	-.094	-.147*	-.032	-.046	-.174**	-.171**	-.104	-.102
ASSOCIATES	.034	-.116	-.043	1.000	-.102	-.045	-.132*	-.009	-.001	.070	-.060	-.068	-.103	-.114	-.093
H_at_least_1	.081	-.040	-.132*	-.102	1.000	.546**	.450**	-.085	.322**	-.357**	.029	.193**	.258**	.188**	.320**
At_least_1_highlight_for_incremental	.227**	-.612**	-.080	-.045	.546**	1.000	.234**	-.078	.357**	-.196**	.029	.034	.096	.143*	.298**
V_SPECIAL_TOTAL	-.084	.045	-.120	-.132*	.450**	.234**	1.000	-.111	.429**	-.333**	.181**	-.093	.412**	.220**	.253**
E/P	-.041	.086	-.094	-.009	-.085	-.078	-.111	1.000	.177**	.139*	-.508**	.028	.069	.080	.145*
BV/MV	-.036	-.193**	-.147*	-.001	.322**	.357**	.429**	.177**	1.000	-.327**	.030	-.116	.119	.204**	.648**
Sales growth	-.058	.032	-.032	.070	-.357**	-.196**	-.333**	.139*	-.327**	1.000	-.147*	-.029	-.092	-.028	-.199**
LOSS_FIRM	.017	.003	-.046	-.060	.029	.029	.181**	-.508**	.030	-.147*	1.000	-.163**	-.015	.132*	-.065
No_ANALYSTS	.117	.074	-.174**	-.068	.193**	.034	-.093	.028	-.116	-.029	-.163**	1.000	.044	.088	.047
PERSIST_TOTAL_SI_PY	-.032	.076	-.171**	-.103	.258**	.096	.412**	.069	.119	-.092	-.015	.044	1.000	.095	.173**
STD_Estimate	.123	-.047	-.104	-.114	.188**	.143*	.220**	.080	.204**	-.028	.132*	.088	.095	1.000	.149*
D/E	.020	-.117	-.102	-.093	.320**	.298**	.253**	.145*	.648**	-.199**	-.065	.047	.173**	.149*	1.000

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Appendix III Characteristics of Special Items by Category

Exhibit 39 ***Frequency of zero, negative, and positive special items within the five categories as reported by Bloomberg Businessweek***

	Number and percentage of firm-years reporting											
Sign of special items	***RESTRUCTURING***		***GAIN_ASSETS***		***OTHER***		***GW_IMP***		***GAIN_INV***		***Total***	
Zero	160	*63%*	122	*48%*	141	*56%*	222	*88%*	188	74%		
Non-zero	93	*37%*	131	*52%*	112	*44%*	31	*12%*	65	26%	432	*100%*
Negative	*89*	*35%*	*40*	*16%*	*74*	*29%*	*30*	*12%*	*21*	*8%*	*254*	*59%*
Positive	*4**	*2%*	*91*	*36%*	*38*	*15%*	*1***	*0%*	*44*	*17%*	*178*	*41%*
Total	**253**	***100%***	**253**	***100%***	**253**	***100%***	**253**	*100%*	**253**	***100%***		
Frequency as % of total reported special items		**21,5%**		**30,3%**		**25,9%**		**7,2%**		**15,0%**		**100%**

* Possibly reversals of restructuring accruals
** Although reversals of goodwill impairment are not allowed by IFRS, a positive effect was reported in one firm-year observation. Yet, one observation is considered immaterial for further investigation.

Exhibit 40 ***Highlighting of special items by category and sign***

	Highlighted (Yes/No)																	
	RESTRUCTURING			***GAIN_ASSETS***			***OTHER***			***GW_IMP***			***GAIN_INV***			***TOTAL***		
Sign of special items	No	Yes	% of Yes	No	Yes	% of Yes	No	Yes	% of Yes	No	Yes	% of Yes	No	Yes	% of Yes	No	Yes	% of Yes
Zero	160	-		122	-		141	0		222	0		188	-				
Non-zero	30	63	68%	101	30	23%	57	55	49%	15	16	52%	58	7	11%	261	171	40%
Negative	*29*	*60*	*67%*	*32*	*8*	*20%*	*31*	*43*	*58%*	*14*	*16*	*53%*	*18*	*3*	*14%*	*124*	*130*	*51%*
Positive	*1**	*3**	*75%*	*69*	*22*	*24%*	*26*	*12*	*32%*	*1***	*-*	*0%*	*40*	*4*	*9%*	*137*	*41*	*23%*
Total	**190**	**63**		**223**	**30**		**198**	**55**		**237**	**16**		**246**	**7**				

* Possibly reversals of restructuring accruals
** Although reversals of goodwill impairment are not allowed by IFRS, a positive effect was reported in one observation. Yet, one observation is considered immaterial for further investigation.

Exhibit 41 ***Highlighting of special items conditional on the materiality of special items***

Materiality of SI subcomponents, as % of *GAAP*	***Highlighting***														
	RESTRUCTURING			***GAIN_ASSETS***			***OTHER***			***GW_IMP***			***GAIN_INV***		
	No	Yes	% of Yes	No	Yes	% of Yes	No	Yes	% of Yes	No	Yes	% of Yes	No	Yes	% of Yes
Zero	160	-	-	122	-	-	141	-	-	222	-		188	-	-
< 5%	26	15	37%	83	17	17%	46	15	25%	11	8	42%	48	3	6%
5-10%	2	12	86%	5	4	44%	3	11	79%	2	2	50%	6		0%
> 10%	2	36	95%	13	9	41%	8	29	78%	2	6	75%	4	4	50%
Total	**190**	**63**		**83**	**17**		**198**	**55**		**237**	**16**		**246**	**7**	

Appendix IV Results of the Regression Analyses

Exhibit 42 *Results of total exclusions regressions*

Panel A *Results of total exclusions regressions*

	Dependent Variable – Total Exclusions (*EXCLUDE_TOTAL*)									
Equation	**(1a)**	**(2_{new})**	**(2_{new}-excl. outliers)**	**(3.1)**	**(3.2-1)**	**(3.2-2)**	**(3.2-3)**	**(3.2-4)**	**(3.2-5)**	**(3.2-5-excl. outliers)**
Intercept	0.002 (1.38)	0.005* (1.76)	0.002 (1.46)	0.00 (0.47)	-0.003 (-0.98)	-.002 (-0.54)	-0.005 (-1.16)	0.001	0.000 (0.05)	0.002 (0.35)
Experimental variables:										
MNGMT_EXCL	-0.448*** (-22.61)									
SPECIAL_TOTAL		-0.760*** (-17.15)	-0.809*** (-17.56)							
RESTRUCTURING				-0.785*** (-18.60)	-0.629*** (-11.06)	-.0634*** (-11.01)	-0.633*** (-11.12)	-0.642*** (-11.80)	-0.616*** (-10.87)	-0.796*** (-8.17)
GAIN_ASSETS				-0.593*** (-7.00)	-0.710*** (-8.33)	-0.708*** (-8.28)	-0.731*** (-8.35)	-0.654*** (-7.95)	-0.663*** (-7.95)	-.0.504*** (-3.197)
OTHER				-0.797*** (-10.74)	-0.869*** (-11.80)	-0.879*** (-11.92)	-0.910*** (-11.62)	-0.876*** (-15.36)	-0.841*** (-11.60)	-0.620*** (-6.58)
IMP_GW				-0.734*** (-3.79)	-0.865*** (-4.61)	-0.888*** (-4.72)	-0.841*** (-4.39)	-0.812*** (-4.32)	-0.819*** (-4.35)	-0.843*** (-5.68)
GAIN_INV				-0.779*** (-5.11)	-1.074*** (-6.23)	-1.075*** (-6.20)	-1.163*** (-6.16)	-0.934*** (-8.14)	-0.907*** (-6.04)	-0.336 (-0.81)
H_at_least_1		0.006** (2.12)	0.006*** (3.50)	0.005* (1.66)	0.004 (1.46)			0.005* (1.65)	0.005* (1.71)	0.004** (2.41)
INCR_Mngmt_Bl					-0.23*** (-4.54)	-0.230*** (-4.49)	-0.246*** (-4.67)	-0.185*** (-3.95)	-0.208*** (-4.28)	-0.077 (-1.37)
Control variables:										
AMORT					-0.017 (-0.19)	-0.036 (-0.41)	-0.022 (-0.25)			
ASSOCIATES					0.83*** (3.00)	0.810*** (2.92)	0.854*** (3.06)			
V_SPECIAL_TOTAL		-0.007 (-0.92)	-0.060** (-2.34)	-0.009 (-1.24)	-0.012 (-0.89)	-0.009 (-0.68)	-0.012 (-0.87)		-0.016** (-2.29)	-0.034 (-1.17)
E/P		-0.106*** (-4.41)	-0.073*** (-4.04)	-0.031 (-1.08)	0.005 (0.16)	0.005 (0.19)	0.037 (0.94)		-0.011 (-0.39)	-0.053** (-2.54)
No_ANALYSTS					0.000 (0.87)	0.000 (1.17)	0.000 (1.42)			
STD_Estimate					0.003 (1.38)	0.004 (1.55)	0.003 (1.41)			
D/E					-0.003 (0.82)	-0.002 (-0.73)	-0.003 (-0.83)			
PERSIST_TOTAL_SI_PY						0.000 (-0.03)				
LOSS_FIRM							0.008 (1.16)			
Adjusted R^2	**0.669**	**0.739**	**0.767**	**0.775**	**0.796**	**0.794**	**0.795**	**0.787**	**0.790**	**0.484**

See Exhibit 7 for variable definitions. "***," "**", and "*" denote statistical significance at 1%, 5%, and 10% in a two-tailed test, respectively. *t* statistics in parentheses. Short descriptions of the regressions are presented in Panel B on the next page.

Panel B ***Descriptions for total exclusions regressions***

Regression	Description
(1a)	Analysts' total exclusions *(EXCLUDE_TOTAL*) regressed against management's total exclusions (*MNGMT_EXCL).*
(2_{new})	Christensen et al.'s (2011) model without interaction term
(2_{new}-excl. outliers)	Regression (2_{new}) reassessed excluding influential outliers as identified in Section 5.1.
(3.1)	Adjusted Christensen et al.'s (2011) model: replacing the aggregated amount of special items (SPECIAL_TOTAL) with subcomponents of special items
(3.2-1)	Adjusted (3.1) regression: supplementing with additional variables: management's incremental exclusions (*INCR_Mngmt_BI*), amortization (*AMORT*), share in profits of associates (ASSOCIATES), number of analysts (*No_ANALYSTS*), standard deviation of estimate (*STD_Estimate*), debt/equity ratio (*D/E*), existence of SI in prior year (*PERSIST_TOTAL_SI_PY*), loss firm (*LOSS_FIRM*)
(3.2-2)	Adjusted (3.2-1) regression: replacing *H_at_least_1* with *PERSIST_TOTAL_SI_PY*
(3.2-3)	Adjusted (3.2-1) regression: replacing *H_at_least_1* with *LOSS_FIRM*
(3.2-4)	Adjusted (3.2-1) regression: significant variables only and variables with logical sign only
(3.2-5)	Adjusted (3.2-4) regression: adding control variables to control for volatility of special items and glamour stock status, as controlled by Christensen et al. (2011)
(3.2-5- excl. outliers)	Regression (3.2-5) reassessed excluding influential outliers as identified in Section 5.1.

Exhibit 43 ***Results of incremental exclusions models***

Regression	**(4a)**	**(4b)**	**($5a_1$)**	**($5a_2$)**	**($5b_1$)**	**($5b_2$)**	**($5c_1$)**	**($5c_1$-excl. outliers)**	**($5c_2$)**	**($5c_2$-excl. outliers)**
Dependent Variable:	*INCR_Analysts*	*INCR_Analysts_Bl*	*INCR_Analysts*	*INCR_Analysts_Bl*	*INCR_Analysts*	*INCR_Analysts_Bl*	*INCR_Analysts*		*INCR_Analysts_Bl*	
Intercept	0.000 (0.23)	0.001 (0.42)	0.000 (0.01)	-0.003 (-1.38)	0.000 (-0.20)	-0.004** (-1.97)	-0.001 (-0.64)	-0.001 (-1.01)	-0.004** (-2.00)	0.000 (-0.05)
Experimental variables:										
At_least_1_highlight			0.004 (1.34)	0.003 (0.90)						
At_least_1_highlight_for_incremental					0.010*** (2.83)	0.007** (2.09)	0.007** (2.00)	0.004** (2.11)	0.006* (1.92)	0.004* (1.74)
INCR_Mngmt	-0.102*** (-3.52)						-0.093*** (-2.79)	-0.181*** (-2.84)		
INCR_Mngmt_Bl		0.011 (0.34)							-0.012 (-0.35)	-0.096 (-1.56)
Control variables:										
V_SPECIAL_TOTAL			-0.006 (-0.80)	-0.010 (-1.32)	-0.007 (-0.92)	-0.010 (-1.41)	-0.011 (-1.44)	-0.015** (-2.01)	-0.011 (-1.45)	-0.014* (-1.92)
E/P			-0.024 (-1.22)	0.057*** (3.09)	-0.022 (-1.12)	0.059*** (3.22)	0.002 (0.11)	-0.012 (-0.86)	0.061*** (3.16)	-0.019 (-1.03)
Adjusted R^2	**0.043**	**-0.004**	**0.005**	**0.032**	**0.030**	**0.045**	**0.055**	**0.095**	**0.042**	**0.041**

See Exhibit 7 for variable definitions. "***," "**", and "*" denote statistical significance at 1%, 5%, and 10% in a two-tailed test, respectively. *t*- statistics in parentheses.

Exhibit 44 ***Results of total exclusions models (asset-scaled)***

Dependent Variable:	Total Exclusions (*EXCLUDE_TOTAL_A*)	
Regression	**(2new)**	**(3.1-E)**
Intercept	0.002 (1.53)	0.001 (0.70)
Main variables:		
SPECIAL_TOTAL_A	-0.717*** (-14.73)	
RESTRUCTURING_A		-0.647*** (-5.72)
GAIN_ASSETS_A		-0.835*** (-4.75)
OTHER_A		-0.724*** (-9.84)
IMP_GW_A		-0.748*** (-3.63)
GAIN_INV_A		-0.707* (-1.88)
H_at_least_1	0.003** (2.24)	0.002 (1.63)
INCR_Mngmt_Bl_A		
Control variables:		
V_SPECIAL_TOTAL_A	0.003 (0.15)	0.039* (1.74)
E/P	-0.046*** (-2.87)	-0.027 (-1.64)
Adjusted R^2	0.602	0.501

See Exhibit 7 for variable definitions. "***," "**", and "*" denote statistical significance at 1%, 5%, and 10% in a two-tailed test, respectively. *t*- statistics in parentheses.

Exhibit 45 ***Results of incremental exclusions models (asset-scaled)***

Dependent Variable:	Incremental Exclusions (*INCR_Analysts_A*)	Incremental Exclusions (*INCR_Analysts_Bl_A*)
	(5c1)	**(5c2)**
Intercept	-0.002 (-1.40)	-0.001 (-0.49)
Main variables:		
At_least_1_highlight		
At_least_1_highlight_for_incremental	0.000 (0.25)	0.001 (0.52)
INCR_Mngmt_A	-0.397*** (-4.99)	
INCR_Mngmt_Bl_A		-0.244*** (-3.11)
Control variables:		
V_SPECIAL_TOTAL_A	0.036 (1.45)	0.026 (1.22)
E/P	0.019 (1.41)	0.011 (0.80)
Adjusted R^2	0.136	0.052

See Exhibit 7 for variable definitions. "***," "**", and "*" denote statistical significance at 1%, 5%, and 10% in a two-tailed test, respectively. *t*- statistics in parentheses.

Exhibit 46 ***The alternative regressions with interaction terms for subcomponents and the results of the F-test to compare the alternative models with model (3.2-5)***

Dependent Variable – Total Exclusions (*EXCLUDE_TOTAL*)						
	Benchmark model **(3.2-5)**	Alternative models replacing subcomponent variables with interaction terms				
		(1)	(2)	(3)	(4)	(5)
Intercept	0.000 (0.05)	0.000 (0.15)	-0.000 (0.13)	0.001 (0.20)	0.000 (0.06)	0.000 (-0.11)
RESTRUCTURING	-0.616*** (-10.87)		-0.683*** (-11.81)	-0.637*** (-10.80)	-0.615*** (-10.89)	-0.622*** (-10.98)
GAIN_ASSETS	-0.663*** (-7.95)	-0.663*** (-7.90)		-0.665*** (-7.69)	-0.652*** (-7.86)	-0.665*** (-7.98)
OTHER	-0.841*** (-11.60)	-0.837*** (-11.49)	-0.835*** (-11.57)		-0.843*** (-11.67)	-0.848*** (-11.67)
IMP_GW	-0.819*** (-4.35)	-0.812*** (-4.29)	-0.825*** (-4.39)	-0.796*** (-4.09)		-0.818*** (-4.35)
GAIN_INV	-0.907*** (-6.04)	-0.896*** (-5.94)	-0.858*** (-5.75)	-0.876*** (-5.62)	-0.913*** (-6.10)	
H_at_least_1	0.005* (1.71)	0.005* (1.77)	0.004 (1.40)	0.005* (1.93)	0.005* (1.69)	0.005* (1.77)
INCR_Mngmt_Bl	-0.208*** (-4.28)	-0.209*** (-4.25)	-0.150*** (-3.15)	-0.184** (-3.67)	-0.209*** (-4.33)	-0.205*** (-4.23)
RESTRUCTURING_x_H		-0.611*** (10.70)				
GAIN_ASSETS_x_H			-0.796*** (-8.05)			
OTHER_x_H				-0.846*** (-10.50)		
IMP_GW_x_H					0.867*** (-4.56)	
GAIN_INV_x_H						-0.930*** (-6.12)
Control variables						
V_SPECIAL_TOTAL	-0.016** (-2.29)	-0.016** (-2.28)	-0.014** (-2.09)	-0.043*** (-5.77)	-0.016** (-2.31)	-0.016** (-2.26)
E/P	-0.011 (-0.39)	-0.014 (-0.49)	-0.019 (-0.67)	-0.020 (-0.67)	-0009 (-0.31)	-0.007 (-0.25)
Adjusted R^2	0.790	0.788	0.791	0.776	0.792	0.791
RSS	0.105	0.106	0.105	0.113	0.104	0.105
p-value for F-test of comparing models to the benchmark model (3.2-5)		**0.53**	**0.50**	**0.72**	**0.47**	**0.50**

The table presents the alternative regressions, in which the subcomponent variables (*RESTRUCTURING, GAIN_ASSETS, OTHER, IMP_GW,* and *GAIN_INV)* are replaced with their respective interaction terms (*RESTRUCTURING_x_H, GAIN_ASSETS_x_H, OTHER_x_H, IMP_GW_x_H,* and *GAIN_INV_xH).* The table also presents *p*-values for the results of F-tests to compare the alternative regressions with the benchmark model (3.2-5).

See Exhibit 7 for variable definitions. "***," "**", and "*" denote statistical significance at 1%, 5%, and 10% in a two-tailed test, respectively. *t*- statistics in parentheses.

Appendix V Summary of Results for Hypotheses

	Results	
Hypotheses	**Full sample**	**Sample without outliers**
H_{1a}: Analysts do not fully follow management in their exclusions	Supported.	No assessment performed.
H_{1b}: Analysts' total exclusions are better explained by management's total exclusions than special items	**Not** supported.	No assessment performed.
H_2: Analysts are more likely to exclude the full amount of special items when managers guide than when they do not guide.	Unable to determine due to high collinearity between special items variable and its interaction term with the highlighting variable (Equation (2)).	Unable to determine due to high collinearity between special items variable and its interaction term with the highlighting variable (Equation (2)).
H_{3a}: Analysts exclude individual subcomponents of special items to a different degree.	*GAIN_ASSETS*, *OTHER*, *IMP_GW*, and *GAIN_INV* have been found to be not significantly different from the benchmark of 0.750. *RESTRUCTURING* has been found to be significantly different from 0.750 at the 10% confidence level.	*RESTRUCTURING*, *GAIN_ASSETS*, *OTHER*, and *IMP_GW* have been found to be not significantly different from the benchmark of 0.750. *GAIN_INV* has been found insignificant.
H_{3b}: Analysts are more likely to exclude subcomponents when they are highlighted.	Unable to determine due to high collinearity between subcomponent variables and their interaction terms with the highlighting variables (Equation (3)). Yet, F-tests did not show improvements in the model (3.2-5) when variables of special items subcomponents were replaced with their interaction terms with their respective highlighting variables.	Unable to determine due to high collinearity between subcomponent variables and their interaction terms with the highlighting variables (Equation (3)).
H_{3c}: Analyst exclusions are higher when management guides.	Supported (Regression (2_{new}) – at the 5% level, Regression (3.2-5) - 10**%**).	Supported (at the 5% level). (Regression (2_{new}) – at the 1% level, Regression (3.2-5) - 5**%**).
H_{3d}: : Analysts follow management exclusions beyond special items	Supported. Yet, the coefficient significantly deviates from the benchmark of 0.750.	**Not** supported.
H_4: There is an association between management's incremental exclusions and analysts' incremental exclusions.	*Incremental exclusions measured using special items as reported by Compustat* Supported in both univariate (4a) and multivariate ($5c_1$) regressions. Yet, the coefficient is significantly different from 0.750. *Incremental exclusions measured using special items as reported by Bloomberg Businessweek* Not supported in both univariate (4b) and multivariate ($5c_2$) regressions .	*Incremental exclusions measured using special items as reported by Compustat* Supported in multivariate regression ($5c_1$) (univariate regression (4a) was not assessed). Yet, the coefficient is significantly different from 0.750. *Incremental exclusions measured using special items as reported by Bloomberg Businessweek* Not supported in multivariate regression ($5c_2$) (univariate regression (4a) was not assessed).

H_5: Analyst incremental exclusions are higher for firms that guide than for those that do not.	When highlighting is measured with *H_at_least_1*, the assumption is **not** empirically **supported**, independent of whether analysts' incremental exclusions are measured using special items reported by Compustat ($5a_1$) or Bloomberg Businessweek ($5a_2$). When highlighting is measured with $H\_at\_least\_1\_for\_incremental$, the assumption is empirically **supported** (at 5%), independent of whether analysts' incremental exclusions are measured using special items reported by Compustat ($5b_1$) or Bloomberg Businessweek ($5b_2$). Moreover, the significant relationship is also empirically **supported** when the combined effects of $H\_at\_least\_1\_for\_incremental$ and incremental management's exclusions (*INCR_MNGMT or INCR_MNGMT_Bl*) are tested (($5c_1$) and ($5c_2$)), but with lower confidence level (5% in ($5c_1$) and 10% in ($5c_2$)).	The regressions ($5a_1$) and ($5a_2$) were not assessed for the sample without outliers. The regressions ($5b_1$) and ($5b_2$) were not assessed for the sample without outliers. The significant relationship is empirically **supported** when the combined effects of $H\_at\_least\_1\_for\_incremental$ and incremental management's exclusions (*INCR_MNGMT or INCR_MNGMT_Bl*) are tested (($5c_1$) and ($5c_2$)). The significance remains at the same level as in the full sample.

Appendix VI Identification of Pro Forma Guidance in Year-End Reports and Matching of Highlighting to Special Item Subcomponents

In this thesis, a total of 253 Swedish year-end reports covering the period 2010 – 2013 have been reviewed in order to determine firms' pro forma communication and highlighting practices. Pro forma has been defined broadly to account for any emphasis of special items or non-GAAP based earnings measures, e.g. "adjusted earnings" or "underlying earnings", in the year-end reports. In the following, the manual collection process is described in detail:

A. Intentional Selective Reading

By intention, all year-end reports were only read selectively. This approach has been chosen to simulate limited time that is available to sell-side analysts in their determination of street earnings as has been confirmed in an interview with a Swedish sell-side analyst and a study by Hjelström et al. (2014). "Selective reading" is defined as follows: No narratives of year-end reports were reviewed. Instead, three alternative forms of presentation within the year-end reports were consulted as these were considered to catch sell-side analysts' immediate attention when screening the reports:

(1) Summary or highlighting Sections at the beginning of the report
Summary and highlighting Section describe bullet –point summaries of key financial figures and main events on the first (seldom second) page of the report.

Example Beijer Alma Year-End - Report 2013

Press release – February 14, 2014

BEIJER • ALMA

Year-end report 2013

Improved demand

- Net revenues amounted to MSEK 773 (679) for the fourth quarter and MSEK 3,066 (2,780) for the full year.
- Profit after net financial items totaled MSEK 96.4 (95.0) for the fourth quarter and MSEK 384.7 (361.8) for the full year.
- Earnings per share amounted to SEK 2.27 (2.45) for the fourth quarter and SEK 9.59 (8.91) for the full year.
- Cash flow excluding corporate acquisitions totaled MSEK 68 (42) for the fourth quarter and MSEK 277 (264) for the full year.
- The balance sheet remained strong and the net debt/equity ratio was 5.7 percent (3.7).
- The Board proposes an increased dividend of SEK 8 (7).

CEO's comments

Invoicing volumes continued to improve compared with the year-earlier period and rose 14 percent during the fourth quarter to MSEK 773. The increase in comparable units was 7 percent. While Lesjöfors continued to report the most significant improvement, with Chassis Springs performing particularly well, Habia's sales of cables for base-station antennas also displayed favorable growth. Beijer Tech, on the other hand, experienced declining volumes, albeit at a lower rate than in the past. Order bookings rose faster than invoicing and the stock of orders increased during the quarter. Profit after net financial items totaled MSEK 96, a slight improvement compared with the year-earlier period. The operating margin fell from 14.2 percent to 12.7 percent.

The cash flow during the fourth quarter was strong and amounted to MSEK 68 (42), resulting in net debt of MSEK 92 (57). The balance sheet remained strong and will provide excellent scope for the expansion of the Group.

(2) Pro forma tables or key financials tables

Pro forma tables describe financial overviews on the first (seldom second) page of the year-end report. Key financials tables on the contrary are often included close to the (unaudited) GAAP financial statements.

Example Alfa Laval Year-End - Report 2011

Fourth quarter and full year 2011

"Order intake during the fourth quarter was SEK 6.8 billion, an increase with 6 percent compared to the corresponding quarter 2010. Compared to the third quarter order intake decreased with 15 percent, influenced by a lower demand from the shipbuilding industry and an awaiting attitude to making decisions concerning projects by certain customers. Order intake for the aftermarket and the base business – excluding marine – was unchanged sequentially.

Sales increased by 14 percent to SEK 8.1 billion compared to the fourth quarter 2010 at the same time as the operating result was SEK 1.4 billion, corresponding to an operating margin of 17.0 percent. The operating margin was influenced by an adaptation to a lower production pace, higher share of project deliveries and continued investments in increased presence in BRIC countries.

2011 was a successful year where order intake grew by 20 percent and invoicing by 16 percent at the same time as the operating result increased 13 percent to SEK 5.3 billion."

Lars Renström, President and CEO

Summary

	Fourth quarter				Full year			
SEK millions	2011	2010	%	% *	2011	2010	%	% *
Order intake	6,774	6,379	6	9	28,671	23,869	20	28
Net sales	8,149	7,169	14	17	28,652	24,720	16	24
Adjusted EBITA	1,387	1,337	4		5,287	4,682	13	
- adjusted EBITA margin (%)	17.0	18.6			18.5	18.9		
Result after financial items	1,381	1,273	8		4,676	4,364	7	
Net income for the period	934	905	3		3,251	3,116	4	
Earnings per share (SEK)	2.21	2.14	3		7.68	7.34	5	
Cash flow**	1,291	1,081	19		3,429	4,098	-16	
Impact on EBITA of:								
- foreign exchange effects	-80	32			-468	356		
Impact on result after financial items of:								
- Aalborg integration costs	-	-			-80	-		
- restructuring costs/reversals	-90	-			-90	80		

* excluding exchange rate variations ** from operating activities

(3) Income Statements

(Unaudited) GAAP income statements are provided in the year-end reports. Within these, special items can sometimes be identified as separate line items or included within another line item with provided footnote (not notes!) disclosure below the income statement.

Example Atlas Copco Year-End - Report 2010

Atlas Copco

9 (20)

Consolidated Income Statement

	3 months ended		12 months ended	
MSEK	Dec. 31 2010	Dec. 31 2009	Dec. 31 2010	Dec. 31 2009
Revenues	19 401	15 942	69 875	63 762
Cost of sales	-11 993	-10 593	-43 468	-42 631
Gross profit	**7 408**	**5 349**	**26 407**	**21 131**
Marketing expenses	-1 838	-1 624	-6 914	-6 806
Administrative expenses	-1 208	-963	-4 173	-3 845
Research and development costs	-423	-373	-1 517	-1 410
Other operating income and expenses	68	61	112	20
Operating profit	**4 007**	**2 450**	**13 915**	**9 090**
- as a percentage of revenues	*20.7*	*15.4*	*19.9*	*14.3*
Net financial items	-87	-126	-420	-819
Profit before tax	**3 920**	**2 324**	**13 495**	**8 271**
- as a percentage of revenues	*20.2*	*14.6*	*19.3*	*13.0*
Income tax expense	-1 004	-624	-3 551	-1 995
Profit for the period	**2 916**	**1 700**	**9 944**	**6 276**
Profit attributable to				
- owners of the parent	2 906	1 690	9 921	6 244
- non-controlling interests	10	10	23	32
Basic earnings per share, SEK	**2.39**	**1.39**	**8.16**	**5.14**
Diluted earnings per share, SEK	**2.38**	**1.38**	**8.15**	**5.13**
Basic weighted average number of shares outstanding, millions	1 216.9	1 215.9	1 215.9	1 215.9
Diluted weighted average number of shares outstanding, millions	1 219.5	1 216.4	1 217.3	1 216.3

Key ratios		
Equity per share, period end, SEK	24	21
Return on capital employed before tax, 12 month values, %	29	18
Return on equity after tax, 12 month values, %	38	26
Debt/equity ratio, period end, %	19	42
Equity/assets ratio, period end, %	41	38
Number of employees, period end	32 790	29 802

B Data Collection

In the review of year-end reports, the following data was collected:

1) Amount of Management Exclusions

The amount of management exclusions was either explicitly stated or has been calculated as the difference between "GAAP-equivalent" earnings and pro forma earnings, both on pre-tax basis. "GAAP-equivalent" earnings are GAAP-measured (i.e. free from management's exclusions) earnings measured at the same "earnings before" level (e.g. EBIT, EBITDA) as pro forma earnings[56]. In case, firms communicated no pro forma figures, these were set to the same values as the "GAAP-equivalent", resulting in management exclusions of 0.

[56] For example, if pro forma earnings are presented at EBIT level, then GAAP-equivalent earnings are GAAP-measured (i.e. before exclusions) EBIT. GAAP-measured "earnings before" measures (e.g. EBIT, EBITDA) represent standardized measures of GAAP earnings, adjusted e.g. for interest income/expense (I), taxes (T), depreciation (D) and amortization (A) expense.

2) Location of Highlighting

The above introduced locations of highlighting were noted, decoded into nine subcategories as will be described under C. In case a firm highlighted by means of a category identified by Bloomberg Businessweek, this category was set to 1, otherwise 0. These nine categories were used in the descriptive analysis provided in Section 4.1.4 with the intention to determine differences in frequency and presentation choices for special items partitioned into materiality bands.

3) Nature of Excluded Items

The nature of excluded items was collected in order to be able to match these to the special item subcomponents disclosed by Bloomberg Businessweek.

C. Coding of Highlighting Categories

The above mentioned versions of providing information on pro forma or special items were decoded into nine different forms of highlighting, each of which will be exemplified in the following.

Section of Year-End Report	Highlighting Version
1. Pro Forma in Summary/ Highlights Section at the Beginning of the Year-End Report	1.1 Summary/ Highlights Section Includes Pro Forma Figure without Indication **(H_P_1)** 1.2 Summary/ Highlights Section Includes Pro Forma Figure with Indication and Amount **(H_P_2)** 1.3 Summary/ Highlights Section Includes Pro Forma Figure with Indication but without Amount **(H_P_3)** 1.4 GAAP Figure with Indication and Amount **(H_G_1)** 1.5 GAAP Figure with Indication but without Amount **(H_G_2)**
2. Non-GAAP Earnings Figure and/or an Amount of Special Items in a Pro Forma Earnings/Key Financials Table	2.1 Pro Forma Figure in a Pro Forma Earnings/Key Financials Table **(PF_1)** 2.2 GAAP with Footnote in a Pro Forma Earnings/Key Financials Table **(PF_2)**
3. Special Items are Reported as a Separate Line Item on the Income Statement or within Another Line Item but are Supplemented with a Footnote (Not Notes!) Explanation.	3.1 Special Items as Separate Financial Statement Line Item **(IS_1)** 3.2 Special Items as Footnote in the Financial Statement **(IS_2)**

1 Pro Forma in Summary/ Highlights Section at the Beginning of the Year-End Report

1.1 Summary/ Highlights Section Includes Pro Forma Figure without Indication (H_P_1)

Example Skanska Year-End - Report 2010

The communicated operating income in the summary/ highlights Section at the beginning of the year-end report deviates from the GAAP figure released in the attached (non-audited) group income statement without indicating that it is a non-GAAP measure.

January–December 2010 compared to January–December 2009

Accounting principles, segment and IFRS reporting, see page 4

- Revenue amounted to SEK 121.7 (135.8) billion.
- Revenue in Construction decreased by 13 percent in Swedish kronor, and by 9 percent adjusted for currency rate effects.
- Operating income for the Group amounted to SEK 5,339 M (5,172), an improvement of 3 percent.
- Operating income in Construction decreased by 10 percent and totaled SEK 4,338 M (4,870). Operating margin improved and amounted to 3.9 (3.7) percent.

The Skanska Group

Summary income statement

SEK M	Jan-Dec 2010
Revenue	122,224
Cost of sales	-109,774
Gross income	**12,450**
Selling and administrative expenses	-7,533
Income from joint ventures and associated companies	541
Operating income	**5,458**
Financial income	342
Financial expenses	-377
Net financial items [1]	-35
Income after financial items	**5,423**
Taxes	-1,395
Profit for the period	**4,028**
1 of which	
Interest income	218
Financial net pension costs	59
Interest expenses	-261
Capitalized interest expenses	46
Net interest	62
Change in fair value	-36
Other net financial items	-61
Net financial items	-35

1.2 Summary/ Highlights Section Includes Pro Forma Figure with Indication and Amount (H_P_2)

Example Haldex Year-End - Report 2011

The company explicitly communicates a pro forma figure and provides the "GAAP-equivalent" figure as a reference so that the amount of exclusions can easily be calculated. Alternatively to such a calculation, the amount of exclusions could be explicitly stated.

Haldex Group, January – December 2012

- Sales for Haldex Group totaled SEK 3,933 m (4,030). Adjusted for exchange rate fluctuations, sales decreased 3% compared with the same period prior year.
- Operating income and operating margin for Haldex Group excluding restructuring costs amounted to SEK 210 m (235) and 5.3% (5.8) respectively. Operating income and operating margin for Haldex Group including restructuring cost amounted to SEK 150 m and 3.8% respectively.
- Earnings after tax for Haldex Group amounted to SEK 49 m (142). Earnings per share were SEK 1.02 (3.08).

1.3 Summary/ Highlights Section Includes Pro Forma Figure with Indication but without Amount (H_P_3)

Example Cision Year-End - Report 2012

The company explicitly communicates a pro forma figure but does not give the amount of exclusions. No calculation is possible.

January–December

- Total revenue SEK 987 million (969)
- Organic growth 4% (0.4%)
- Subscription growth 7%
- Operating profit excluding non-recurring items SEK 137 million (132)
- Operating margin excluding non-recurring items 13.9% (13.6%)

1.4 GAAP Figure with Indication and Amount (H_G_1)

Example Poolia Year- End - Report 2012

The company provides GAAP figures but states the amount of special items so that calculations of pro forma figures are possible.

Full year 2012

- Poolia's revenues totalled MSEK 981.4 (1,122.6), a drop of 12.6% corresponding to -12.4% in local currency.
- The operating profit was MSEK -29.9 (17.2) and the operating margin -3.0% (1.5%). The operating profit includes restructuring expenses and an amended assessment of the useful life of investments to the order of MSEK 20.9.

1.5 GAAP Figure with Indication but without Amount (H_G_2)

Example Swedish Match Year-End - Report 2012

The company provides GAAP figures with an indication of special items (here as a footnote) but does not provide an amount.

- Operating profit[2)] amounted to 4,062 MSEK (3,702) for the full year and to 986 MSEK (1,022) for the fourth quarter
- EPS (basic) for the full year increased by 18 percent to 14.33 SEK (12.14) and for the fourth quarter by 15 percent to 3.93 SEK (3.42)
- The Board proposes an increased dividend to 7.30 SEK (6.50)

1) Operating profit for Swedish Match product areas, which excludes share of net profit in STG and larger one time items.
2) Operating profit for the Group includes share of net profit in STG and larger one time items.

2 Non-GAAP Earnings Figure and/or an Amount of Special Items in a Pro Forma Earnings/Key Financials Table

2.1 "Pro Forma" Figure in a Pro Forma Earnings/Key Financials Table (PF_1)

Example Trelleborg Year- End - Report 2010

The company visualizes pro forma figures in a table, either attached to or as a replacement to a highlight Section at the beginning of the year-end report or as an overview on key financials at a later stage of the report.

SEK M	Oct - Dec 2010	Oct - Dec 2009	Jan - Dec 2010
Continuing operations			
Net sales	6,852	6,185	27,196
Operating profit	400	166	2,036
Profit for the period	234	19	1,284
Earnings per share, SEK	0.85	0.05	4.65
Operating profit, excl. items affecting comparability	518	384	2,286
Earnings per share, SEK, excl. items affecting comparability	1.15	0.65	5.35

2.2 GAAP with Footnote in a Pro Forma Earnings/Key Financials Table (PF_2)

Example JM Year-End - Report 2012

The company shows GAAP figures in a table, either attached to or as a replacement to a highlight Section at the beginning of the year-end report or as an overview on key financials at a later stage of the report but indicates pro forma figures by means of footnotes.

SEK m	January–December 2012	2011	October–December 2012	2011
Revenue (segment reporting)	*13,134*	*12,217*	*3,800*	*3,670*
Operating profit (segment reporting) [1]	*1,398*	*1,544*	*379*	*497*
Operating margin (segment reporting) (%)	*10.6*	*12.6*	*10.0*	*13.5*
Revenue [2]	12,480	12,001	3,439	3,702
Operating profit [1] [2]	1,374	1,513	364	500
Profit before tax [2]	1,318	1,463	350	489
Operating margin [2] (%)	11.0	12.6	10.6	13.5
Cash flow from operating activities	979	733	675	560
Return on equity [2] (%)	20.7	24.5		
Equity/assets ratio [2] (%)	40	41	40	41
Earnings per share [2] (SEK)	11.70	12.50	3.20	4.20
Number of residential units sold	2,952	3,112	1,060	746
Number of housing starts	3,163	3,629	998	773
[1] Of which impairment loss on project property	*–95*	*-*	*–95*	*-*
[2] According to IFRIC 15				

3 Special Items are Reported as a Separate Line Item on the Income Statement or within Another Line Item but are Supplemented with a Footnote (Not Notes!) Explanation.

3.1 Special Items as Separate Financial Statement Line Item (IS_1)

Example SCA Year-End - Report 2010

The company shows the special items as a separate financial statement line item in the (unaudited) income statement in the year-end report.

CONSOLIDATED INCOME STATEMENT

SEKm	2010:4	2009:4	2010:3	1012	0912
Net sales	**27 564**	27 507	27 204	**109 142**	110 857
Cost of goods sold[1]	-21 502	-20 966	-21 093	-84 524	-84 744
Gross profit	**6 062**	6 541	6 111	**24 618**	26 113
Sales, general and administration[1]	-3 527	-3 976	-3 578	-15 121	-16 500
Items affecting comparability[2]	0	-632	-480	-931	-1 458
Share in profits of associates	32	3	41	111	35
Operating profit	**2 567**	1 936	2 094	**8 677**	8 190

3.2 Special Items as Footnote in the Financial Statement (IS_2)

Example Hexagon Year-End - Report 2013

The company indicates special items as a footnote in the (unaudited) income statement in the year-end report.

Condensed Income Statement

MEUR	Q4 2013	Q4 2012	2013	2012
Net sales	631.7	629.0	2 429.7	2 380.0
Cost of goods sold	-281.8	-285.8	-1 081.8	-1 078.9
Gross earnings	349.9	343.2	1 347.9	1 301.1
Sales and administration costs, etc.	-213.2	-209.1	-847.9	-815.7
Earnings from shares in associated companies	-	-0.5	-2.0	-0.5
Capital loss from sale of shares in Group companies	-	-	-5.2	-
Operating earnings 1)	136.7	133.6	492.8	484.9
Interest income and expenses, net	-7.3	-11.2	-33.9	-50.7
Earnings before taxes	129.4	122.4	458.9	434.2
Taxes	-24.5	-23.4	-87.7	-83.1
Net earnings	104.9	99.0	371.2	351.1
Attributable to:				
Parent company shareholders	104.1	98.2	367.9	348.2
Non-controlling interest	0.8	0.8	3.3	2.9
1) of which non-recurring items	-	-	-14.9	-

D Reconciliation of Management Guidance with Bloomberg Special Items

Special items subcategories communicated by management in their year-end reports have been mapped to the special items subcategories published by Bloomberg Businessweek. Mapping was only pursued if amounts and types coincided. Importantly though, if management communicated a higher amount of a certain special items category, guidance on the Bloomberg Businessweek amount was equally confirmed. Similarly, if management only communicated an aggregated measure of special items but this figure could be matched to the sum of special items in Bloomberg Businessweek, all special items subcomponents were considered to have received management guidance.

Example Cybercom 2012

According to Bloomberg Businessweek, the company has two categories of special items: "Mergers and Restructuring Charges" and "Gains and Losses on Sales of Assets". The amounts can be reconciled with management's exclusions as shown in the following[57]:

1. Extract from Highlight Section of Year-End Report2012

January – December

- Sales were SEK 1,339.2 million (1,481.0).
- EBITDA was SEK 30.2 million (65.4) and the EBITDA margin was 2.3% (4.4)
- EBIT was SEK -11.4 million (-125.4) and the EBIT margin was -0.9% (-8.5).
- EBITDA from operating activities was SEK 63.6 million (93.4) and the EBITDA margin was 4.7% (6.3).
- EBIT from operating activities was SEK 33.8 million (53.6) and the EBIT margin was 2.5% (3.6).
- Earnings per share were SEK -0.67 (-2.58).
- The board proposes no dividend.

Δ -45.2

[57] The total amount of special items in 2012 reported by Bloomberg Businessweek is SEK -45.2 million, which matches the difference between reported EBIT of SEK -11.4 million and EBIT from operating activities of SEK -33.8 million.

2. Extract from Bloomberg Businessweek

Currency in Millions of Swedish Kronas — As of:	Dec 31 2010 Reclassified SEK	Dec 31 2011 Reclassified SEK	Dec 31 2012 SEK	Dec 31 2013 SEK	4 Year Trend
Revenues	1,501.8	1,455.6	1,318.2	1,172.8	
TOTAL REVENUES	**1,501.8**	**1,455.6**	**1,318.2**	**1,172.8**	
Cost Of Goods Sold	989.7	950.8	892.4	793.9	
GROSS PROFIT	**512.2**	**504.8**	**425.7**	**378.8**	
Selling General & Admin Expenses, Total	419.9	460.8	383.1	314.8	
Depreciation & Amortization, Total	50.7	39.8	29.9	26.2	
Other Operating Expenses	-22.2	-20.5	-20.7	-21.9	
OTHER OPERATING EXPENSES, TOTAL	**448.4**	**480.2**	**392.3**	**319.1**	
OPERATING INCOME	**63.8**	**24.7**	**33.5**	**59.7**	
Interest Expense	-21.9	-19.8	-16.7	-8.1	
Interest And Investment Income	1.6	1.8	1.9	1.1	
NET INTEREST EXPENSE	**-20.4**	**-18.0**	**-14.8**	**-7.1**	
Currency Exchange Gains (Loss)	-4.9	1.4	-1.5	-0.1	
Other Non-Operating Income (Expenses)	1.9	-1.5	0.3	0.8	
EBT, EXCLUDING UNUSUAL ITEMS	**40.4**	**6.6**	**17.4**	**53.3**	
Merger & Restructuring Charges	--	--	-33.4	--	
Impairment Of Goodwill	--	-125.0	--	--	
Gain (Loss) On Sale Of Assets	--	--	-11.8	--	
Other Unusual Items, Total	--	-26.0	--	--	
EBT, INCLUDING UNUSUAL ITEMS	**40.4**	**-144.4**	**-27.8**	**53.3**	
Income Tax Expense	-2.2	-0.2	25.3	11.8	
Earnings From Continuing Operations	42.7	-144.2	-53.1	41.5	
EARNINGS FROM DISCOUNTINUED OPERATIONS	**0.9**	**--**	**--**	**--**	
NET INCOME	**43.6**	**-144.2**	**-53.1**	**41.5**	