It ain't over till the fat lady sings

The need for enforcement – outcomes of the mandatory adoption of K3 in terms of label adoption, disclosure practices and conservatism

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Abstract

Globalisation has created a need for harmonised financial reporting, and adoption of international standards for public firms, IFRS, has been extensive. The same cannot be said about the private counterpart, IFRS for SMEs. This standard has instead been used as a blueprint in the development of national GAAPs. In Sweden, the K3-standard has been developed with point of departure in IFRS for SMEs, and it became mandatory for private firms to adopt the standard for fiscal years beginning in 2014. This thesis analyses the outcome of this mandatory adoption in terms of disclosure, label adoption, and conservatism. 200 private standalone firms are studied, of which 77% increased disclosures, 79% are considered as label adopters and only 21% considered as serious adopters of the standard. The serious adopters increased their shareholders' equity and net profit following the adoption, which indicates that Swedish financial reporting practice has become less conservative following the adoption of K3. The findings in this thesis are that previous research on label adoption can be applied also in a private setting, and that enforcement is needed to ensure serious adoption of K3. The conclusions provide guidance for countries planning on developing their national GAAP towards international harmonisation, and add to the existing research on financial reporting for private firms, an area where more research has been requested.

Key words: K3, financial reporting disclosures, label adoption, conservatism, enforcement

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Table of Contents

LIST OF TERMS AND ABBREVIATIONS

Term	Definition
Big 4	The four largest professional services firms: PwC, KPMG, EY and Deloitte
BFN	Bokföringsnämnden, The Swedish Accounting Standards Board
Comparative year	The year preceding the first K3 year, presented as a yardstick in the financial report of 2014
Conservatism	*"anticipate no profits but anticipate all losses"* (Bliss, 1924, p.110).
Depreciation by parts	Depreciation of each component, depending on the individual longevity of the component instead of applying the same depreciation pace for the asset as a whole
Disclosure	The act of releasing all relevant firm information that may influence a decision, presented in the financial report
Harmonisation	Converge of international financial reporting practice
IASB	International Accounting Standards Board
IFRS	International Financial Reporting Standards
Label adoption	Adoption of an accounting standard only by name
K3	Standard issued by BFN for Swedish SMEs
Restatement	A recalculation of the originally financial report numbers prepared in accordance with previous Swedish GAAP to numbers prepared in accordance with K3
Serious adoption	Adoption of an accounting standard as intended by standard-setters
SMEs	Small and Medium-sized enterprises (firms)

1. INTRODUCTION

When a governmental authority spends seven years and a significant amount of resources on developing new accounting standards, and there is a possibility to find out whether this has improved financial reporting, would it not be interesting to do so?

Globalisation has created a need for investors and analysts to be able to evaluate financial reports and the financial status of foreign firms, which makes integration of financial reporting standards necessary (Ball, 2006). The International Financial Reporting Standards (IFRS) has therefore been developed by the International Accounting Standards Board (IASB) to harmonise standards and to reach comparability across countries (Ball, 2006). It was decided in 2002 that the standard should become mandatory on the 1st of January 2005 for all public firms within the European Union when preparing consolidated accounts (The European Parliament and the Council of the European Union, 2002).

The increased globalisation also affects the need for global comparability of private firms, for users such as investors, banks and credit rating agencies (André, 2017). Despite the vast number of private firms, there is limited research undertaken on financial reporting for these firms (Chen, Hope, Li & Wang, 2011; Hope & Vyas, 2017). International standard setters have recently begun to focus on private firms, exemplified by the publishing of IFRS for Small and Medium Sized Entities (SMEs) by the IASB in 2009. Kaya and Koch (2015) found that in contrast to full IFRS, whose adoption is high within the EU, IFRS for SMEs is primarily adopted in developing non-EU countries. Gassen (2017) found that IFRS for SMEs mainly serve as a blueprint for national regulatory reforms of financial reporting for private firms. Sweden is one of the countries that chose not to adopt IFRS for SMEs but instead developed the K3-standard, based on IFRS for SMEs (IASB, 2016; Marton, 2017). The K3-standard was introduced in 2012 and became mandatory for fiscal years beginning in 2014 (Bokföringsnämnden, 2013, 2017a). The development of the K3-standard took seven years and the total cost for the development to date exceeds 20 MSEK (Bokföringsnämnden, 2006, 2018).

The quality of financial reports has improved considerably since the adoption of IFRS and disclosure quality has enhanced for firms regardless if the adoption was voluntary or mandatory (Daske & Gebhardt, 2006). Since the K3-standard requires more disclosure than previous Swedish GAAP, it can therefore be expected that disclosure has been improved also

for SMEs, even though the standard is mandatory rather than voluntary adopted (KPMG, 2013).

The difference between mandatory and voluntary adopters of financial reporting standards have also been examined by Daske, Hail, Leuz and Verdi (2008), who stated that new accounting regulations do not automatically mean that firms will fully comply with them. Previous studies have emphasised that standalone reporting standards are no guarantee for high quality financial reporting and stressed the importance of enforcement (Byard, Li & Yu, 2011; Daske et al., 2008; Li, 2010). When firms consider their reporting strategy to be optimal prior to the introduction of new accounting standards, firms may make limited changes to the actual reporting and only adopt the standard by name (Byard et al., 2011). Adopting a standard by name only is the definition of "label adopters" presented by Daske, Hail, Leuz and Verdi (2013), with the opposite being "serious adopters", firms that make a serious change in their reporting strategy. Label adopters are the result of both low reporting incentives and lack of enforcement (Daske et al., 2013).

While enforcement is important to ensure serious adoption, global enforcement is considered weak according to Ball (2006, p. 18): *"Worldwide regulatory bodies generally are regarded as toothless watchdogs, despite recent attempts to strengthen them."* Although Swedish enforcement is strong for public firms, the same cannot be said for private firms (Marton, 2017). Adding to the complication, the incentives for private firms to supply high quality financial reporting are lower than for public firms (Ball & Shivakumar, 2005). This would imply that the mandatory introduction of the K3-standard for private firms in Sweden has led to certain extents of label adoption. In Sweden, SMEs must file publicly available audited financial reports (Paananen, Renders & Blomkvist, 2016) and the mandatory adoption of K3 in 2014 makes it possible to investigate whether the theories on label adoption is applicable in a private firm setting.

The mandatory adoption of K3 also opens for the possibility to investigate if the application of the standard leads to better global comparability. Considering the low adoption of IFRS for SMEs in developed countries, as well as the extensive use of the standard as a blueprint in development of national financial reporting regulation, the findings in this study can be of interest when evaluating financial reporting convergence for private firms.

The aforementioned need for harmonisation is due to the presence of differences between countries. Several studies have investigated financial reporting practice dissimilarities between countries and found systems to classify them, for example based on the strength of outsider-equity, on the legal system or on cultural differences (Ball, 2006; Gray, 1988; Hellman, Gray, Morris & Haller, 2015; Nobes, 1998). The Swedish accounting practice has consistently been classified differently than IFRS, regardless of system applied (Ball, 2006; Gray, 1988; Hellman et al., 2015; Nobes, 1998). One dimension commonly studied when classifying countries according to accounting practice is conservatism, which Swedish firms traditionally are found to be practicing to a higher degree than the IFRS standard prescribes (André, 2017; Hellman et al., 2015; Nobes, 1998, 2008). Considering K3 is developed with the point of departure in IFRS for SMEs, it can be expected that adoption of K3 has led to a change in financial reporting in the direction of IFRS and to a less conservative practice.

Against this background, the thesis seeks to answer the following research question:

What are the outcomes of the mandatory adoption of the accounting standard K3 in terms of disclosure, label adoption, and conservatism?

2. DELIMITATIONS

In this study, only standalone firms are included. Firms that are part of a group are thus not part of either the study or the sample. This is mainly due to two reasons. First, a comparison between standalone firms and firms that are part of a group becomes less relevant due to internal pricing and internal transactions. Second, these firms can choose between K3 and RFR 2[1] (Bokföringsnämnden, 2017a). Consequently, the mandatory aspect becomes less relevant. Therefore, firms that chose to voluntary adopt the standard prior to 2014 are also excluded from the study.

This study is not analysing the details of the proposed changes in K3 nor comparing them to the actual outcome. Instead a quantitative comparison of the 2013 financial report prepared according to the previous Swedish GAAP, and the 2014 financial report prepared according to K3, is undertaken. The analysis is made on both the financials as well as the disclosures in the two reports. Thus, it neither investigates nor comments upon similarities or differences between K3 and IFRS for SMEs, but uses classifications of Sweden's financial reporting practice from previous research and the possible changes in conservatism levels as a proxy to investigate if the outcome of K3 has increased convergence with international practices.

[1] A firm that is not an IFRS-firm, but is part of a group's consolidated accounts where IFRS is applied, can choose to apply the standard RFR 2, a standard developed by the Council for Financial Reporting (Rådet för Finansiell Rapportering (RFR)) (Bokföringsnämnden, 2017a).

3. EMPIRICAL CONTEXT

The IASB board, part of the IFRS Foundation, is an independent group of experts responsible for the development and publication of IFRS Standards. The objective is to develop a single set of high quality, understandable and enforceable global accounting standards. The aim of the standards is to lay the foundation for financial reports with high quality, transparency and comparable information, which in turn facilitate economic decisions for users of financial reports (IASB, 2017a, 2017b). IFRS for SMEs is based on the principles of the full IFRS but is a standalone standard that is less complex, adapted to private firms where the costs to prepare financial information have been considered (IASB 2017a, 2017c; Kaya & Koch, 2015; Litjens, Bissessur, Langendijk & Vergoossen, 2012). Kaya and Koch (2015) found that in contrast to full IFRS, there is low adoption of IFRS for SMEs among EU-countries and the standard is primarily adopted in developing non-EU countries. The adoption of IFRS for SMEs is low in countries where the income from taxation is high, and where the quality of the governance institutions is high (Kaya & Koch, 2015). Quagli and Paoloni (2012) found that the adoption cost is one of the primary disadvantages with IFRS for SMEs. In a similar vein, Perera and Chand (2015) presented that cost-benefit analysis may make SME firms hesitant to choose IFRS for SMEs and that one reason for the resistance to adopting IFRS for SMEs in certain countries is the perceived administrative burden for SMEs. Kaya and Koch (2015) concluded that the lower adoption of IFRS for SMEs in more developed countries means that the IASB's objective to develop and promote globally accepted accounting standards is not completely met. This indicates that each country has a considerable responsibility when developing local GAAP if global harmonisation is to be reached.

While the legitimacy of IFRS is strong in Sweden, adoption of the standard is only allowed for consolidated financial reports and not for the individual financial reports, due to the strong link between accounting and taxation. The reason is that in Sweden, the reported accounting income is the basis for the taxable income (André, 2017; Marton, 2017). Therefore, there are two main standard setters in Sweden developing GAAP for firms' individual financial reporting. Bokföringsnämnden (BFN, Swedish Accounting Standards Board) is responsible for developing the Swedish GAAP for private firms, while Rådet för Finansiell Rapportering (RFR, Council for Financial Reporting) issues standards for public firms (Marton, 2017; Monsen & Wallace, 1995). BFN was established by the Swedish Government in 1976 and is a government authority that issues guidance for firms not following IFRS (Marton, 2017; Walton, Haller, & Raffournier, 2003). The members are appointed by the government and

include auditors, academics, tax-officials, industrialists, and stock exchange members (as experts and not as representatives) (Walton et al., 2003). The accounting regulation in Sweden is characterised by an interaction between legislation, the Annual Accounts Act and the Book-keeping act, and general guidelines and information on accounting matters and practices issued by standard setters such as BFN. This concept is what in Sweden constitutes "god redovisningssed", with the literal English translation "good accounting practice" relating to the term "generally accepted accounting principles" (Marton, 2017; Bokföringsnämnden, 2018a).

The enforcement of these standards and the financial reporting in Sweden is considerably different between public and private firms (Marton, 2017). There is a systematic enforcement in place for the public firms, exercised by the stock exchange, while enforcement for private firms is not done systematically, but instead carried out by courts on a case-by-case basis (Marton, 2017). The accounting cases handled in court are primarily tax related or financial reporting crimes (Marton, 2017). The outcome of the tax related cases, where there is disagreement regarding the taxable income, can be important for the financial reporting due to the strong link between tax and accounting in Sweden, as the outcome provides an understanding for courts' interpretation of accounting regulation (Marton, 2017).

In 2004, BFN began the work on the so-called K-standards, four comprehensive standards adapted to four different categories of firms, based primarily on size (Bokföringsnämnden, 2005). Prior to the introduction of the K-standards, preparers had a variety of ways to construct their financial reports, with the possibility to choose to follow different standards in its entirety or pick and choose guidelines from different standards (Bokföringsnämnden, 2011). The purpose of the development of the K-standards was to gather all principles in one document to make it easier for preparers to find and interpret the principles (Bokföringsnämnden, 2011). The four different standards are called K1, K2, K3 and K4, and K3 is the main standard for private firms (Bokföringsnämnden, 2013). The development of the standard began in 2005, and BFN based the standard on IFRS for SMEs while simultaneously considering Swedish taxation law (Bokföringsnämnden, 2006; IASB, 2016; Marton, 2017). The total cost for the project to date is exceeding 62 MSEK and the cost for K3 alone constitute more than 20 MSEK (Bokföringsnämnden, 2018b). The effect K3 has on the financial reporting of a firm depends on the standard applied prior to adoption, either

according to the recommendations of RFR, according to BFN's earlier norms, or a combination of both.

The K3-standard was introduced in 2012, and became mandatory for fiscal years beginning in 2014, for standalone firms that had fulfilled two of the three criteria: revenue of at least 80 MSEK, total assets of at least 40 MSEK and at least 50 full time employees, during the two most recent fiscal years (Bokföringsnämnden, 2013, 2017b). Firms could choose to adopt the standard prior to the mandatory adoption date and firms not fulfilling the size criteria can adopt it voluntarily. The year a firm applies K3 for the first time, they must in their financial report present how the standard has affected their accounting numbers from the previous fiscal year, called the comparative year, and restate the numbers if necessary (Bokföringsnämnden, 2017a, KPMG, 2013). This means that the numbers for the year 2013 are available under two different accounting standards, previous Swedish GAAP (in the 2013 financial report) and K3 (as comparative numbers in the 2014 financial report). The same rules apply for firms using a broken fiscal year.

The most material changes in K3 compared to the previous Swedish GAAP are presented in a report from KPMG (2013). One change is the increased disclosure requirement, for example related to leasing contracts and pension reporting (KPMG, 2013). Another change worth highlighting is the depreciation of parts method, a mandatory depreciation method for all firms adopting K3. The benefits of the depreciation of parts method are emphasised by Hellman, Nordlund and Pramhäll (2011) as an important part of making sure financial reports contain relevant information. According to K3, a fixed asset that has parts with material differences in their respective useful life must be recognised separately and depreciated over the individual useful life of each part. Parts that have been added sequentially or retrospectively are added to the accumulated acquisition cost while potential residual values are written down. Continuous maintenance shall be carried as an expense (KPMG, 2013). Depending on the longevity of the parts in relation to the whole asset, this can lead to either higher or lower depreciation when initially adopting K3. If the depreciation by parts method leads to faster depreciation rates, book value of the comparative year's assets will be lower than under previous Swedish GAAP. If depreciation rates decrease, the opposite would occur and would indicate less conservatism.

Criticism has been expressed towards this method, arguing that it will be costly and cumbersome for firms to apply, with low perceived benefits for the preparers (Hellman et al., 2011). The critics have also argued that it is likely that industrial firms will benefit from this method, but that the method will not be as beneficial for all industries (Hellman et al., 2011). The counter argument is that financial reports that are not presented using the depreciation by parts method is deceptive to the user (Hellman et al., 2011). In order to facilitate for the preparers, trade associations was encouraged to take part in developing praxis in regards to the depreciation by part method (Hellman et al., 2011).

4. LITERATURE REVIEW

4.1 Financial reporting for decision-making

"The main objective of accounting is that accounting information should be decision relevant *to a wide range of users"* (Hellman, 1993, p. 495)

Financial reports are used by a wide range of users, among others, shareholders, financial analysts, customers, employees, suppliers and bondholders, as a basis for economic decision-making. In line with the above quote, accounting should lead to information that is decision relevant to a vast array of users (Benjamin & Stanga, 1977; Hellman, 1993). The diverse set of accounting systems in Europe, as well as country differences, has led to difficulties when comparing financial reports between countries (Jaafar & McLeay, 2007; Soderstrom & Jialin Sun, 2007). As early as 1980, Gray (1980) stressed the importance of widening the perspective of reporting from a purely national orientation, as globalisation put pressure on the ability to access information from foreign firms and investors. In a globalised world, having similar definitions of profit, assets and liabilities facilitates collaboration and aids most parts of business (Ball, 2006). Currently, more than 100 countries have chosen to adopt IFRS since its introduction (Alexander & Alon, 2017). And although Asbaugh and Pincus (2001) found that the adoption of international financial reporting standards leads to less divergence between countries in measurement and disclosure practices, concerns have been expressed arguing that consistent standards do not automatically lead to consistent financial reporting: *"[…] convergence in actual financial reporting practice is a different thing than convergence in financial reporting standards."* (Ball, 2006, p. 11)

4.2 Regulations for improved disclosures

An aspect to take into consideration when trying to harmonise accounting is that accounting choices are affected by the user of accounting information and the purpose of reporting (Burgstahler, Hail & Leuz, 2006). An informative picture of firm performance through a more accurate earnings presentation can be contrasted to a situation when other means than earnings are used to communicate performance to outsiders. When accurate earnings are of less use to external users of financial reports, other factors will affect accounting choice, such as trying to minimise tax, or trying not to violate covenant agreements (Burgstahler et al., 2006).

Two groups with different needs of financial reports are investors in private and public firms. In public firms, where there are external investors that need to be able to evaluate and monitor the firm, the need for public information is high, considering their lack of insider information (Ball & Shivakumar, 2005). The information asymmetry is usually higher for investors in public than in private firms, therefore, these investors demand high quality financial reporting (Ball & Shivakumar, 2008). Without high quality information, investors would not be able to evaluate and monitor the firm and its performance, which can make them reluctant to invest (Burgstahler et al., 2006). Consequently, public firms have more incentives to provide financial information that are of help when assessing performance. Privately held firms on the other hand often have a more concentrated ownership structure, thus making it easier for investors to get access to information through private channels (Burgstahler et al., 2006). One study however found that there is heterogeneity among private investors that leads to different needs for financial reporting among these firms as well (Hope & Vyas, 2017).

To close the information asymmetry gap between managers and investors, regulating disclosure has been suggested as a solution (Healy & Palepu, 2001), where IFRS requires more disclosure than most national standards (Ashbaugh & Pincus, 2001). In terms of disclosure quality, Daske and Gebhardt (2006) found that disclosure quality increases for all firms that have adopted IFRS, regardless if the adoption was mandatory or voluntary. As K3 requires more disclosures than previous Swedish GAAP and considering that K3 is based on IFRS for SMEs, it is likely that the standard will lead to improved disclosures (KPMG 2013).

H1: The adoption of K3 improves the disclosures in financial reports.

4.3 Label and serious adopters and the importance of enforcement

While the IASB has developed new standards with the aim to increase harmonisation and the introduction of IFRS has led to increased disclosure, the IASB do not enforce implementation of the standards. Instead, countries themselves are responsible for the implementation, meaning that country specific political and economic factors can impact the financial reporting (Ball, 2006). This in turn means that the uniformity introduced with the purpose of increasing comparability will instead conceal the differences that previously hindered comparability (Ball, 2006). Further, Ball et al. (2003) argued that only by changing to the same accounting standards in different countries, convergence cannot be expected. Auditor and manager incentives are more important than the standard itself, when trying to reach

higher accounting quality. Mandating IFRS without joint efforts in implementation is thus not considered enough when the institutional influences on the incentives of preparers are the primary determining factors of the outcome of accounting (Ball et al., 2003). The possibility to achieve convergence through introducing international standards alone is thus hindered by international differences. Ball et al. (2003) pointed out that the IASB do not have any enforcement mechanism that can be used worldwide and Ball (2006, p. 22) stated that: *"Implementation is the Achilles heel of IFRS"*.

As stated previously, while the introduction of IFRS and IFRS for SMEs has been a way to try to achieve convergence, concerns have been raised whether this is the case: *"The notion that uniform standards alone will produce uniform financial reporting seems naive."* (Ball, 2006, p. 5). Daske et al. (2008) also expressed scepticism about the belief that the introduction of IFRS will improve financial reporting, questioning if the mandating of IFRS can be believed to lead to increased quality of financial reporting. Standalone reporting standards do not guarantee high quality financial reporting as standards leave room for discretion and judgements, impacted by reporting incentives (Daske et al., 2008). These incentives are in turn affected by the operating characteristics of the firm, the legal institutions in a country and other market forces (Daske et al., 2008). Burgstahler et al. (2006) found that earnings management is more common in private than in public firms, but also that the existence of earnings management is affected by enforcement and is more common in countries with weaker legal systems. In countries where legal enforcement is stricter and reporting incentives are given by institutional structures, it is less likely that firms will be able to adopt IFRS without making significant modifications to their financial reporting practice (Daske et al., 2008). Daske et al. (2013) define "label adopters" as firms that do not make material changes to their financial reporting practice, but adopt a standard in name, and "serious adopters" as firms that are serious about changing their reporting strategy.

Label adoption is possible due to weak enforcement, which is exploited by firms that consider their reporting strategy to be optimal under their previous local GAAP, lacking incentives to make comprehensive changes to their financial reporting practices and therefore choose to adopt IFRS only by name, adhering to the previous way of reporting (Byard et al., 2011). Similarly, Li (2010) found that the institutional context is important in achieving reporting convergence and emphasises the importance of strong enforcement.

Countries with strong enforcement and reporting incentives are less likely to allow label adoption (Daske et al., 2008), which means that label adoption is likely when introducing a new standard mandatorily in countries with low enforcement and reporting incentives. The low enforcement for private firms in Sweden, as well as the low information asymmetry for private firms, indicating low reporting incentives, suggests that the mandatory adoption of K3 could lead to a certain extent of label adoption (Daske et al., 2013; Marton, 2017).

H2: Firms that mandatorily adopt K3 consist of both label and serious adopters.

4.3.1 Firm factors affecting adoption

When trying to reach harmonisation, it is important to take into consideration that firm-specific factors influence accounting choices (Stadler & Nobes, 2014). For example, if a firm has high gearing, it might be less inclined to choose proportional consolidation of joint ventures, which would increase gearing further (Jones, 2015). Watts and Zimmerman (1990) also found a relation between leverage and accounting choice and Burgstahler et al. (2006) pointed out how high leverage can lead private firms to try to obscure true performance to prevent loss of control and creditor interference. Size has also been seen to affect accounting choice (Kvaal & Nobes, 2012; Watts & Zimmerman, 1990), exemplified by Jones (2015) who found that larger firms in Germany are more likely to choose a reporting practice in line with the dominating practice for the firms on the New York and London stock exchanges, whereas smaller firms were found to be less interested in international comparability and would therefore practice a more country-related pattern of policy choice (Jones, 2015).

When evaluating whether firms have chosen to make a serious or label adoption of K3 it is also interesting to analyse whether certain factors impact this choice, and if similarities can be found among the firms who have made a similar choice. The presented firm factors are likely to have an impact on whether a firm makes a serious adoption of K3. If a firm had found a way to obfuscate their true performance to avoid creditor interference through an accounting strategy that they considered to be optimal, prior to the mandatory adoption of K3, it is likely that they will belong to the category of label adopters, in line with Byard et al. (2011) and Burgstahler et al. (2006). Debt level could thus be expected to indicate whether a firm will choose to make a serious or label adoption of K3. And while size was taken into consideration when designing the K-standard and the fact that previous studies have found that size affects accounting choice, it is not unlikely that the choice between label and serious adoption of K3

will be affected by the firm size (Bokföringsnämnden, 2005; Kvaal & Nobes, 2012; Watts & Zimmerman, 1990). Lastly, a firm-specific factor that can be expected to impact whether a firm makes a serious adoption of K3 is the amount of property plant and equipment (PPE) the firm has in relation to total assets. Since one of the most material changes in K3 is the mandating of depreciation by parts (KPMG, 2013), and arguments have been presented that this will be costly for firms with large assets bases, it is likely that these firms will refrain from making a serious adoption. Consequently, it is thus hypothesised that firm factors influence whether the firms are label or serious adopters of K3.

H2a: Firm factors influence whether firms are label or serious adopters of K3.

4.3.2 Industry factors important when trying to reach harmonisation

Another important aspect to take into consideration when discussing global harmonisation of financial reporting practice is the evidence that firms within different industries adopt dissimilar practices (e.g. Hellman et al., 2015; Watts & Zimmerman, 1990; Watts, 1992). One example is the issue of when to recognise profits. In most firms, revenue is recognised when the goods or services are sold, while in some industries, like the mining and construction industry, it might be the case that profits are recognised when the goods or services are produced (Watts, 1992). Another example is the preference for inventory accounting where sectors may prefer First-In-First-Out inventory accounting over Last-In-First-Out, or that manufacturing firms are found to disclose more information than non-manufacturing firms (Cooke, 1992; Kvaal & Nobes, 2010).

When designing the K3-standard, consideration was taken primarily to size (Bokföringsnämnden, 2005), rather than making adaptions to different industries. As the literature suggests, accounting preferences varies between industries and it can thus be expected that some industries are more likely to be label adopters than others (Hellman et al., 2015; Watts & Zimmerman, 1990; Watts, 1992).

H2b: Industry belonging influences whether firms are label or serious adopters of K3.

4.3.3 Big 4 auditor importance for adoption of K3

As enforcement have been shown to be an important factor when implementing standards to avoid label adoption, it is interesting to note that a high-quality auditor can play an important

role in securing earnings quality. Francis and Wang (2008) found differences in audit quality between Big 4 auditors and other firms. They further stressed that the quality of earnings is higher in countries with strong legal systems and where investors are protected (Francis & Wang, 2008). When investor protection is high, it gives incentives for Big 4 auditors to secure quality earnings while the same is not true for other audit firms (Francis & Wang, 2008). In Sweden, strong protection of creditors would indicate that a difference between a Big 4 auditor and another audit firm should be visible (La Porta, Lopez-de-Silanes, Shleifer & Vishny, 2000). Daske et al. (2008) stated that voluntary adoption can be part of a broader strategy to improve transparency, where the hiring of a high-quality auditor can be seen as one means to reach this goal. These studies thus imply that the type of auditor a firm have will have an impact on whether a firm is a label adopter or not.

H2c: Having a Big 4 auditor influences whether firms are label or serious adopters of K3.

4.4 Financial reporting regulations and the conservatism arising due to different users

Due to the implementation weakness of the IASB, it is no surprise that previous literature has found that differences prevail between countries following the introduction and adoption of IFRS (Ball, 2006; Hellman et al., 2015; Kvaal & Nobes, 2010; Stadler & Nobes, 2014). The introduction of IFRS has facilitated the comparison of the previously used national GAAP with IFRS to study the level of national conservatism prior to IFRS introduction (Hellman, 2011). Kvaal and Nobes (2010) found evidence that national practices kept some country differences intact even after the adoption of IFRS, when this was allowed within the standards. In support of Ball (2006), they pointed at the fact that global comparability of financial reports has not yet been achieved, and how this can be misleading for investors, where perceived uniformity of reporting in fact comprise concealed national differences (Kvaal & Nobes, 2010).

One difference between countries' accounting practice is conservatism (Hellman et al., 2015). Traditionally, conservatism has been expressed by accountants as *"anticipate no profits but anticipate all losses"* (Bliss, 1924, p.110). In line with this, Basu (1997) defined it as a tendency by accountants to require a higher degree of verification to recognise good news as gains than to recognise bad news as losses. The Financial Accounting Concepts states: *"... if two estimates of amounts to be received or paid in the future are about equally likely, conservatism dictates using the less optimistic estimate; however, if two amounts are not*

equally likely, conservatism does not necessarily dictate using the more pessimistic amount rather than the more likely one" (FASB, 1980, p. 24). Ball and Shivakumar (2005) included shareholders' equity in their definition, meaning that conservatism leads to an accounting bias towards reporting low book values of equity, which naturally is linked to low net income if clean surplus accounting is followed. Watts and Zimmerman (1986) took the other elements of the balance sheet's perspective, and stated that conservatism means that the accountant should report the lowest value among possible alternatives for assets and the highest for liabilities.

Different levels of conservatism are said to be the consequence of the various needs of different kind of users and type of financiers, and the users' ability to influence the firm managers as well as the accountants (Gray, 1980). For example, differences have been found between creditors and equity investors when it comes to the amount and type of information requested in financial reports as well as the preferred level of conservatism. One explanation has been the more short-term orientation among equity investors, whereas banks have induced more of a long-term view (Gray, 1980). According to Gray (1980), varying levels of conservatism between countries can also be explained by differences in tax law, which may impose conservatism in the accounts due to the need for alignment with reported accounts.

The financial development in a country is said to be shaped by investor protection (La Porta et al., 2000). Opposite financial reporting practices have traditionally been seen in the UK and Germany, Hellman et al. (2015) placed the two countries on opposite sides of their classification map where conservative accounting has been preferred in Germany to protect creditors (Haller & Eierle, 2004). In contrast, accounting standards in the UK have been formed in the context of strong equity markets, with the private sector largely setting the standards (Hellman et al., 2015).

Previous studies have classified broader types of financial reporting practices, in which Swedish accounting has been classified dissimilar from IFRS in most, and consequently more conservative (André, 2017; Hellman et al., 2015; Nobes 2008). Considering K3 being developed with the point of departure in IFRS for SMEs, it can be expected that adoption of K3 will lead to a change in the financial reporting practice, moving away from the Swedish conservatism. However, it is important to note that one of the explanations as to why Sweden has decided not to adopt IFRS for SMEs but rather develop its own standard, K3, is the strong

link between taxation and accounting in Sweden (Marton, 2017). A strong link between taxation and accounting has further been used as an explanation to the high levels of conservatism in Germany (Haller & Eierle, 2004; Nobes, 2008). It can therefore be argued that despite the efforts to converge with international standards, some conservatism will prevail. Hellman (2011) however drew the conclusion that the low scores on earnings management for Swedish firms in the study by Burgstahler et al. (2006) indicates that Sweden is less influenced by tax alignment and has moved towards more capital market orientation. This would therefore imply that K3 can be expected to lead to a decrease in conservatism levels, and consequently, changes in shareholder's equity as well as in the profits can be expected (Ball & Shivakumar, 2005; Bliss, 1924). The depreciation by parts method is expected to have led to changes in the depreciation on the income statement as well as for the assets on the balance sheet. Whether it will be an increase or decrease in depreciation is however dependent upon the longevity of the parts in the total asset. Consequently, it is hypothesised that the mandatory adoption of K3 will lead to an increase in shareholders' equity and net profit and a change in depreciation and amortisation:

H3a: The mandatory adoption of K3 has led to an increase in shareholders' equity compared to previous Swedish GAAP.
H3b: The mandatory adoption of K3 has led to an increase in net profit compared to previous Swedish GAAP.
H3c: The mandatory adoption of K3 has led to a change in depreciation compared to previous Swedish GAAP.

(See table A1 in appendix for a summary of all hypotheses.)

5. METHOD

5.1 Sample and data

5.1.1 Firm selection

The first step was to determine which firms to include in the study. The thesis aims to study firms that did not voluntarily adopt K3 but those who made the transition when it became mandatory. Private firms that fulfilled two out of the three criteria *40 MSEK in assets*, *50 full time employees* or *80 MSEK in revenues* during the two most recent fiscal years prior to the mandating of K3 were mandatorily required to apply the standard.

Using the database Serrano, the sample selection took its departure in all private firms in Sweden that filed a financial report in either 2014 or 2015. 2014 was the year when it became mandatory for firms fulfilling the criteria to adopt K3, earlier financial reports are thus not of interest as those firms would have been voluntary adopters. Financial reports after 2015 were not included as these would already have applied K3 for at least a year and no restatements of previous numbers would be made, as the comparative year would have already been prepared in accordance with K3. The financial reports of 2015 were included as firms applying a broken fiscal year published their reports with the first-time adoption in 2015.

Subsequently, firms that had fulfilled two of the three previously presented criteria within the last two years were kept while the rest were dropped. This yielded a preliminary sample of 5,877 firms. Lastly, all observations of firms that were part of a group and thus part of a consolidated statement were dropped, resulting in 366 firms. From these 366 firms, 200 firms were randomly sampled. The size of the sample is considered large enough to ensure statistical validity as a large share of the population is represented (Newbold, Carlson & Thorne, 2013).

5.1.2 Industry groups

The final sample of 200 firms was divided into six industries to be able to test H2b. As seen in Table 1, most firms in the sample belong to the *Industrials* or *Consumer Services* industries, which constitute 81% of the whole sample. The firms in the *Industrials* industry are, for example, manufacturing, transport and storage, and construction firms. The *Consumer Services* consists of wholesale, accommodation and food services, education and arts, entertainment and recreation firms. The largest industry both in terms of average and median total assets is the *Financial* firms, followed by *Utilities*. The classification of industries is

based on the International Classification Benchmark (ICB), originally issued by Dow Jones (American publisher of business news and financial information) and FTSE (British index firm). The system is built around ten industries; however, the sample of this study does not contain firms in all the categories, hence only six of the ten industries are used. As no database that could provide the ICB codes for private firms was found, the categorisation was done manually by finding the equivalent ICB code to the firms' Swedish Standard Industrial Classification code (SNI) which was retrieved from Serrano. The reason for choosing ICB over SNI is the number of industries in their respective systems. SNI has 21 categories, which was considered too extensive for a sample of 200 firms.

TABLE 1

Ind #	Industry	N	%	Total Assets Average (MSEK)	Total Assets Median (MSEK)
2	*Industrials*	86	43%	105.774	76.379
3	*Consumer Goods*	5	3%	80.998	59.629
4	*Health Care*	6	3%	44.136	45.706
5	*Consumer Services*	75	38%	79.448	59.166
7	*Utilities*	13	7%	280.439	122.485
8	*Financials*	15	8%	1,439.170	239.239
Total sample		**200**	**100%**	**206.649**	**73.722**

Table 1 reports the observations in the sample, divided into industries according to the ICB system (six out of ten industries represented in the sample). Number of firms in each industry group and the mean and median value of total assets (under previous Swedish GAAP) of each industry are also reported.
Ind # = Industry code number according to the ICB system

5.1.3 Data collection

Data was gathered both by hand and from the database Serrano. The data in Serrano is from firms' original financial reports while the restated accounts for the comparative year at the time of adoption is not reported to any database, but was gathered by hand.

To be able to test H1, data on total number of pages, number of pages containing notes and number of notes was gathered by hand for the financial report prepared in accordance with previous Swedish GAAP and K3. To test H2c, information regarding type of auditor was retrieved, specifically whether the auditor was from a Big 4 firm or not. Lastly, to test H2a and H3a-c, several accounting data points were gathered, both from the income statement and the balance sheet: EBIT, earnings before tax, net sales, depreciation and amortisation, appropriations, tax for the year, deferred tax, total assets, total shareholders' equity, property, plant and equipment, intangible assets and long-term debt.

5.2 Data analysis

5.2.1 Disclosure levels, serious and label adopter classification

The first hypothesis tested is H1. To measure improved disclosure, increased disclosure in quantitative measures is used as a proxy in line with previous studies (Daske & Gebhardt, 2006). For a firm to be considered to have increased disclosures and thus to be assigned to the Increased Disclosures (*ID*) group, inspiration from Li (2008) and Daske and Gebhardt (2006) has been taken. The firm is required to have at least one of either difference in number of pages (Δ*P)*, difference in number of pages containing notes (Δ*NP)* or difference in number of notes (Δ*N)* in the K3 financial report compared to previous Swedish GAAP financial report, in combination with a total positive net increase when all variables are summed (sum of Δ*)* to be considered to belong to the *ID* group. If the firm fails to meet the criteria, it is assigned to the Decreased or Unchanged Disclosures (*DUD)* group. It is expected that this evaluation will provide enough insight into the possible effects on disclosure following the introduction of K3, even though the disclosure from two different fiscal years are compared. While a few firms might make extensive changes in their financial reports from one year to another regardless of accounting standard, it is however assumed that most firms keep their reports intact, with the exception for changes due to K3 adoption.

The second hypothesis tested is H2 and to test it, a set of rules was established. For a firm to belong to the serious adopters group, it was required to both belong to the *ID* and the Changed Accounting (*CA*) groups. It was assumed that for a firm to adopt K3 seriously, being an extensive standard, it would be highly unlikely that the firm would not increase its disclosures or have its accounting affected in some way. To be considered to the *CA* group, the firm must have changed accounting numbers from adopting K3, either when measuring shareholders' equity, net profit or depreciation and amortisation i.e. the difference between the values comparing financial numbers prepared under K3 to previous Swedish GAAP cannot be 0 for all three measures. If it was, the firm was assigned to the Unchanged Accounting (*UA*) group and thus also the label adopter group.

5.2.2 Factors affecting serious and label adoption

To test hypotheses H2a-c, it is investigated whether there is a relation between being a serious adopter and the factors that have been highlighted in theory: leverage, amount of PPE, size, industry, and auditor choice. Leverage is measured as long-term debt as a share of total assets (*LTD/A)*, the amount of PPE as total property, plant and equipment and intangible assets as a

share of total assets (*PPE/A)* and size is the natural logarithm of total assets (*Size)*, all retrieved from the previous Swedish GAAP financial reports. Intangible assets are included in the *PPE/A* variable as the asset class is depreciated or amortised together with PPE and firms do not separate depreciation and amortisation for the two asset classes. Industry classification is done, as previously explained, by the ICB system and auditor choice (*Big4)* is a binary variable that takes the value 1 if the firm was audited by a Big 4 firm in the year of K3 adoption and 0 if it was audited by another firm. As reasoned in the literature review and the arguments presented by Burgstahler et al. (2006) regarding leverage, it is expected that higher *LTD/A* will increase the likelihood of becoming a label adopter. *PPE/A* is also expected to affect the likelihood but it is not clear in previous literature in which direction. *Size* is also expected to have an impact, however also unclear in which direction. Lastly, *Big4* is, as discussed in the literature review, expected to be higher for the serious adopters due to auditor incentives to secure quality earnings.

5.2.3 Index of Comparability and the level of conservatism

To test hypothesis H3a-c and to investigate the possible changes in the level of conservatism resulting from the introduction of K3, the conservatism index developed by Gray (1980) is used. The index has since its inception been refined to also include metrics which makes the name Index of Comparability more appropriate (Hellman et al., 2015). This is predominantly the case for income statement conservatism as it, in contrast to balance sheet conservatism, means that conservatism does not necessarily lead to lower income but could also lead to higher income in bad years (Hellman et al., 2015). Caution must therefore be taken when interpreting index values of income statement metrics, and comparability is therefore a better word than conservatism when comparing income statement metrics.

The index developed by Gray (1980) has the purpose of comparing the same year and the same firm under two accounting regimes. With the intent to make quantitative analyses of differences in financial reporting practices, the comparability index is a tool to measure the extent to which for example disclosed profit or amount of shareholder's equity in a country or firm is lower or higher, for the same firm using a different accounting standard. This index has been widely used in previous studies (Adams, Weetman, Jones & Gray, 1999; Gray, 1980; Gray, Linthicum & Street, 2009; Hellman et al., 2015). The index in this study is calculated as:

$$IC_{EQUITY} = 1 - \left(\frac{EQUITY_{OLDGAAP} - EQUITY_{K3}}{|EQUITY_{OLDGAAP}|}\right)$$

$$IC_{NETPROFIT} = 1 - \left(\frac{NETPROFIT_{OLDGAAP} - NETPROFIT_{K3}}{|NETPROFIT_{OLDGAAP}|}\right)$$

$$IC_{D\&A} = 1 - \left(\frac{D\&A_{OLDGAAP} - D\&A_{K3}}{|D\&A_{OLDGAAP}|}\right)$$

Previous Swedish GAAP numbers i.e. the standard applicable before the introduction of K3 is denoted *OLDGAAP*, net profit *NETPROFIT*, shareholders' equity *EQUITY* and depreciation and amortisation *D&A*.

To interpret this index, a value less than 1 means that shareholders' equity, net profit, or depreciation and amortisation under previous Swedish GAAP is higher. In reverse, a value greater than 1 indicates that previous Swedish GAAP numbers are lower, suggesting that K3 is less conservative. An index value of exactly 1 means that there is no difference between the accounting standards in terms of conservatism (Hellman, 1993; Hellman et al., 2015).

5.2.4 Net profit adjustment

In line with Hellman (1993), net profit must be adjusted to become meaningful, as virtually all balance sheets in Sweden contain allocations to untaxed reserves. In this study, the net profit is measured as profit after full tax, which is calculated as follows:

$$\begin{aligned} &Profit\ after\ financial\ items \\ &+ (1 - standard\ tax\ rate) * Allocations\ to\ untaxed\ reserved \\ &- difference\ in\ deferred\ taxes \\ &- tax\ on\ profit\ for\ the\ year \\ &= \boldsymbol{Profit\ after\ full\ tax}\ (\boldsymbol{Net\ profit}) \end{aligned}$$

Table 2 summarises the variables used in the study: potential calculations, explanations and decision rules, sources, data collection method and potential notes.

TABLE 2

Variable/ Group	Calculation/explanation/decision rule	Source	Collection method	Note
LTD/A	$\frac{Long-term\ debt_{OLDGAAP}}{Total\ assets_{OLDGAAP}}$	Serrano	Database	
PPE/A	$\frac{PPE_{OLDGAAP}+IA_{OLDGAAP}}{Total\ assets_{OLDGAAP}}$	Serrano	Database	
Big4	Takes the value of 1 if the firm's K3 financial report was audited by a Big 4 auditor (EY, PwC, KPMG or Deloitte) and 0 if it was another firm	Financial report	By hand	If several auditors, it was coded Big4 if more than 50% of the audit fee pertained to the Big4 firm, in line with Hellman (2011)
Size	Natural logarithm of $Total\ assets_{OLDGAAP}$	Serrano	Database	
Industry	Classification as per the ICB system	Serrano/ ICB	Database	6 of 10 industries represented in the sample
EBIT	$EBIT\ margin=\frac{EBIT_{OLDGAAP}}{Net\ sales_{OLDGAAP}}$	Serrano	Database	Control variable
ΔP	Difference in total number of pages the financial report contains (K3 – previous Swedish GAAP)	Financial reports	By hand	Excluding board meeting minutes
ΔNP	Difference in total number of pages containing notes (K3 – previous Swedish GAAP)	Financial reports	By hand	
ΔN	Difference in total number of notes (K3 – previous Swedish GAAP)	Financial reports	By hand	
Net profit	$Profit\ after\ financial\ items + (1-standard\ tax\ rate) * Allocations\ to\ untaxed\ reserved - difference\ in\ deferred\ taxes - tax\ on\ profit\ for\ the\ year = \boldsymbol{Profit\ after\ full\ tax}\ (\boldsymbol{Net\ profit})$	Financial reports	By hand	In line with Hellman (1993)
Shareholders' equity	Total shareholders' equity	Serrano/ Financial reports	Database/ By hand	
ID group	Positive ΔP, ΔNP or ΔN, in combination with sum of Δ being positive	N/A	N/A	
DUD group	Criteria of *ID* not fulfilled	N/A	N/A	

CA group	$(EQUITY_{OLDGAAP} \neq EQUITY_{K3})$ or $(NETPROFIT_{OLDGAAP} \neq NETPROFIT_{K3})$ or $(D\&A_{OLDGAAP} \neq D\&A_{K3})$	Serrano/ Financial reports	Database/ By hand
UA group	Criteria of *CA* not fulfilled	Serrano/ Financial report	Database/ By hand
Serious adopter	Both *ID* and *CA* belonging	N/A	N/A
Label adopter	Criteria of serious adopter not fulfilled	N/A	N/A

Table 2: summary of variables and groups used in the study.
EQUITY = Shareholders' equity
NETPROFIT = Net profit
OLDGAAP = Previous Swedish GAAP, applicable before K3
D&A = Depreciation and amortisation
PPE = Property, plant and equipment
IA = Intangible assets

5.3 Statistical methods

The formulated hypotheses are tested using univariate tests and a multiple logistic regression analysis. The univariate tests aim to answer H1, H2a, H2b and H2c. To analyse H2a-c further, a multiple logistic regression analysis is performed as the univariate tests only yield a hint of explanation as to why firms are serious adopters, since the variables are tested independently of other potential explanatory factors. The multiple logistic regression tests the variables in relation to each other and the aim is to determine if the results from the univariate analysis still are valid, and to deepen the analysis. When testing H3a-c, only univariate tests are performed.

5.3.1 Descriptive statistics of variables in univariate tests and logistic regression

Table 3 reports summary statistics for the explanatory variables and the control variable used in the univariate test and the multiple logistic regression, to answer hypothesis H2a and H2c. All variables are continuous except *Big4*, which is categorical and takes the value 1 if the firm was audited by a Big 4 audit firm and 0 if the firm was audited by another firm. The average of *Big4* is 0.54 which indicates that little more than half of the firms in the sample had a Big 4 auditor. *LTD/A* is on average 0.128, however the variable consists of a wide range of values, from 0 to 0.952. Nevertheless, the Q1 value of 0.000 and the Q3 value of 0.165 indicate that most firms in the sample had little or no debt at all and that the firm with 0.952 debt is quite unique. *PPE/A* is on average 0.299 and the median value 0.273. The Q1 and Q3 values indicate that most firms have a *PPE/A* ratio between 0.048 and 0.506. *EBIT* is used as a

control variable and mean values vary from -0.143 to 0.574, with most firms having between 0.009 and 0.064.

TABLE 3

Variables	N	Data	Mean	Std. Dev.	Min	Q1	Median	Q3	Max
LTD/A	200	Cont.	0.128	0.202	0.000	0.000	0.001	0.165	0.952
PPE/A	200	Cont.	0.299	0.273	0.000	0.048	0.242	0.506	0.974
Size	200	Cont.	11.353	0.861	9.608	10.780	11.199	11.749	16.549
Big4	200	Cat.	0.540	0.500	0.000	0.000	1.000	1.000	1.000
Control variable									
EBIT	200	Cont.	0.046	0.070	-0.143	0.009	0.032	0.064	0.574

Table 3 reports descriptive statistics for the variables used in the univariate and the multiple analysis.
LTD/A = Long-term debt/total assets under previous Swedish GAAP
PPE/A = (Property, plant and equipment + intangible assets)/total assets under previous Swedish GAAP
Big4 = Takes the value 1 if the firm's K3 financial report is audited by a Big 4 firm
Size = The natural logarithm of total assets under previous Swedish GAAP
EBIT = EBIT/net sales under previous Swedish GAAP
Cont. = Continuous
Cat. = Categorical

Table 4 reports the Pearson correlations between the variables used in the univariate and regression analyses. All correlations are under 0.5 except one, and thus no problem with multicollinearity seems to be present. Around a third of the correlations are significant and the highest correlations are between *Ind2* and *Ind5* of –0.67*,* between *Size* and *Ind8* of 0.45 and between *LTD/A* and *PPE/A* of 0.37.

TABLE 4

	LTD/A	*PPE/A*	*Big4*	*Size*	*Ind2*	*Ind5*	*Ind7*	*Ind8*	*EBIT*
LTD/A	1.00								
PPE/A	**0.37**	1.00							
Big4	–0.03	**0.15**	1.00						
Size	0.10	0.05	0.12	1.00					
Ind2	0.06	**0.16**	–0.05	–0.03	1.00				
Ind5	–0.10	–0.08	0.01	**–0.24**	**–0.67**	1.00			
Ind7	0.11	0.07	**0.20**	**0.18**	**–0.23**	**–0.20**	1.00		
Ind8	–0.04	**–0.17**	0.00	**0.45**	**–0.25**	**–0.22**	–0.08	1.00	
EBIT	–0.02	**0.18**	–0.13	**0.14**	0.06	–0.07	–0.09	0.13	1.00

Table 4 reports Pearson correlations coefficients for the variables used in the logistic regression. Numbers in bold indicate a statistical significance at the 5% level. Ind3 and Ind4 are not reported since they are removed from the logistical regression due to not containing any serious adopters.

Ind2 = *Industrials*
Ind5 = *Consumer Services*
Ind7 = *Utilities*
Ind8 = *Financials*
LTD/A = *Long–term debt/total assets under previous Swedish GAAP*
PPE/A = *(Property, plant and equipment + intangible assets)/total assets under previous Swedish GAAP*
Big4 = *Takes the value 1 if the firm's K3 financial report is audited by a Big 4 firm*
Size = *The natural logarithm of total assets under previous Swedish GAAP*
EBIT = *EBIT/net sales under previous Swedish GAAP*

5.3.2 Univariate analyses

To test H1, differences in disclosures between the *ID* and *DUD* groups, and between serious and label adopters are tested. To examine H2a and H2c, each variable is tested to evaluate mean and median differences between the serious and label adopters. The aim is to determine the differences between the groups in terms of firm characteristics. H2b can only be tested for two of the industries, *Industrials* and *Consumer Services* due to the small sample size in the other industry groups. Both Z-tests and Wilcoxon's signed-rank tests are used to test H3a-c.

5.3.2.1 Z-test and Student's t-test – mean comparison

To test H1, H2a, H2b and H2c, Z-tests are performed. Since the sample size in this study is 200 observations, it is assumed that the mean values are normally distributed (Newbold et al., 2013). The Z-test can then be used to compare two independent proportions by testing if the mean of one group is equal to the mean of the second group (Newbold et al., 2013). In this case, the mean values for different firm factors for serious and label adopters are tested against each other and the null hypothesis is thus that the mean for serious adopters is equal to the mean of label adopters for each firm factor. The *Z* statistic for the test is computed as

$$z = \frac{\bar{x} - \bar{y}}{\sqrt{\frac{\sigma_x^2}{n_x} + \frac{\sigma_y^2}{n_y}}}$$

where $\bar{x}$ and $\bar{y}$ are the mean value of the variable tested for the serious and label adopters, n is the sample size for each group and σ^2 is the sample variance which replaces the population variance.

The null hypothesis is rejected, in a two-tailed test, if the Z-value is

$$< -z_{\alpha/2}$$

or

$$> z_{\alpha/2}$$

(Newbold et al., 2013)

To test if the adoption of K3 has led to a significant change in accounting numbers (H3a-c) for the serious adopters, t-tests are performed. Only the serious adopters are tested as they are the ones considered to have adopted K3 fully, while label adopters are not representative of the financial reporting that K3 has led to. Using the t-statistic is justified when population standard deviation is unknown and the sample size is above 30 (Weetman & Gray, 1991). However, the sample size for serious adopter is not large enough to assume normal distribution and use the Z-test. As stated in the hypotheses H3a-c, the null hypotheses are that the mean value are 1 and are, using one-tailed tests (except for H3c for which a two-sided test is used), rejected if

$$\frac{\bar{x} - \mu_0}{s/\sqrt{n}} < -t_{n-1,\alpha}$$

or

$$\frac{\bar{x} - \mu_0}{s/\sqrt{n}} > t_{n-1,\alpha}$$

where $\bar{x}$ is the mean of the sample, μ_0 is the hypothesised mean, 1 in this case, s is the sample standard deviation and n is the sample size.

5.3.2.2 Non-parametric test – Mann-Whitney *U* and Wilcoxon's signed rank

To further test H2a and complement the Z-tests performed to test equality between the mean values of the serious and label adopters, Mann-Whitney *U* tests are performed. The distribution of the test reaches normality rapidly as the sample size grows beyond 10 observations for each group tested (Newbold et al., 2013). Therefore, it is assumed with this

study's sample of 200 firms that the distribution is normal when performing this test. The test statistic *U* is calculated as follows:

$$U = n_1 n_2 + \frac{n_1(n_1 + 1)}{2} - R_1$$

where *U* is the statistic, n is the sample size for each group tested and $R_1$is the sum of the ranks of the observations from the first population. The Mann-Whitney *U* test has the following mean and variance:

$$E(U) = \mu_U = \frac{n_1 n_2}{2}$$

$$Var(U) = \sigma_U^2 = \frac{n_1 n_2 (n_1 + n_2 + 1)}{12}$$

And for large samples, as in this case, the distribution of the random variable

$$Z = \frac{U - \mu_U}{\sigma_U}$$

is approximately normally distributed (Newbold et al., 2013).

To test H3a-c and whether the Index of Comparability values are equal to 1, Wilcoxon's signed rank tests are also performed as a complement to the t-test. When the sample size is large, over 20, the normal distribution provides a good approximation to the distribution of the Wilcoxon statistic *T* (Newbold et al., 2013). As in the t-test, the null hypothesis is that the population differences are centred on 0, i.e. the index value is 1. However, when performing a non-parametric test, they are performed as a two-sided test. The Wilcoxon signed rank test has mean and variance given by

$$E(T) = \mu_T = \frac{n(n + 1)}{4}$$

$$Var(T) = \sigma_T^2 = \frac{n(n + 1)(2n + 1)}{24}$$

and for large sample sizes, Z is approximately normally distributed where

$$Z = \frac{T - \mu_T}{\sigma_T}$$

where *T* is the observed value of the Wilcoxon statistic (the sum of ranks), μ_T is the mean and σ_T^2 the variance (Newbold et al., 2013).

5.3.3 Multiple regression analysis

Since the univariate tests do not test how the firm factors and industry classifications affect the likelihood of being a serious adopter when put in relation to other variables, a multiple regression is performed to further analyse H2a-c. Since the outcome is binary, serious or label, a logistic regression model is used. *Serious* is the dependent variable, and it is a dummy for being a serious or a label adopter of K3. The variable takes the value of 1 if the firm is a serious adopter. As independent variables, the same are used as in the univariate tests: *LTD/A*, *PPE/A*, *Big4, Size* and *Industry* as explanatory variables. As a control variable, *EBIT* is used to control for the firms' profitability before adopting K3. The logistic model is thus as follows:

$$Prob(Serious) = \beta_0 + \beta_1(LTD/A)_i + \beta_2(PPE/A)_i + \beta_3(Big4)_i + \beta_4(Size)_i + \beta_5 Ind2_i + \beta_6 Ind7_i + \beta_7 Ind8_i + \beta_8(EBIT)_i + \varepsilon_i$$

Model (1)

The coefficients β_x in the logistic regression model are log-odds and become odds ratios when made exponential, the equation being e^{β_x}. The odds ratio is a measure of association as it approximates how much more likely or unlikely, in terms of odds, it is for the outcome to take the value 1 or 0, in this case being a serious (1) or a label (0) adopter. To illustrate, if the odds ratio is 3 for *Big4*, it is interpreted as the odds of being a serious adopter is three times greater among firms with a Big 4 auditor than for firms with a non-Big 4 auditor. Negative log-odds have odds ratios that are < 1, indicating that the odds of being a serious adopter decreases (Hosmer, Lemeshow & Sturdivant, 2013).

As explained in 5.2.2, *LTD/A* (β_1) is expected to have a negative impact on the likelihood of being a serious adopter, *Big4* (β_3) is expected to have a positive impact while it is unclear which direction *PPE/A* (β_2) and *Size* (β_4) will have. Thus, the null hypotheses for the explanatory variables are:

$$H_0 = \beta_1 < 0;\ \beta_2 = 0; \beta_3 > 0; \beta_4 = 0$$

against the alternative hypotheses

$$H_1 = \beta_1 \geq 0;\ \beta_2 \neq 0; \beta_3 \leq 0; \beta_3 \neq 0$$

The variable *Industry* can take values from 0 to 10 (however, as stated previously, only 6 industries are represented in the sample), using *Ind5* (*Consumer Services*) as the baseline, which is therefore excluded from the regression, due to the multicollinearity it causes. Excluded from the model is also *Ind3* (*Consumer Goods*) and *Ind4* (*Health Care*) since they do not contain any serious adopters. Thus, when interpreting the model, the other industries are to be compared to the baseline industry *Ind5* (*Consumer Services)*.

6. RESULTS

6.1 Disclosures and serious adoption

Table 5 reports how the disclosure practice was affected by the adoption of K3, to test H1 that disclosures have improved from adopting K3. Out of the 200 firms in the sample, 154 increased disclosures and are thus assigned to the *ID* group. This thereby supports H1 that the mandatory adoption of K3 leads to improved disclosures, through the proxy of increased disclosures. In the *DUD* group, Δ*P***,** Δ*NP* and Δ*NP* is on average –0.37, –0.09 and –0.85, respectively. Among the *ID* firms, the mean values are 2.37, 1.84 and 3.32, which are all significantly higher than firms in the *DUD* group at the 1% level.

TABLE 5

			Mean		
	Hypothesis	**N**	**Δ*P***	**Δ*NP***	**Δ*N***
DUD	H1	46	–0.37	–0.09	–0.85
ID	H1	154	2.37***	1.84***	3.32***
Total sample		**200**	**1.74**	**1.40**	**2.36**

*Table 5 reports mean values of the sample divided into groups depending on changed disclosure practice due to adopting K3. The stars indicate a significant mean difference between the groups, using Z-tests, and represent the level of a two-tailed test: * p<0.1; ** p<0.05; *** p<0.01.*

ΔP = Difference in number of pages between the K3 financial report and the previous year
ΔNP = Difference in number of pages containing notes between the K3 financial report and the previous year
ΔN = Difference in number of notes between the K3 financial report and the previous year
DUD = Decreased or unchanged disclosures group (criteria of ID not fulfilled)
ID = Increased disclosures group (positive ΔP, ΔNP or ΔN in combination with sum of Δ being positive)

Table 6 presents the results from testing H2. It can be concluded that 41 firms out of the sample of 200 firms (21%) are considered as serious adopters, which supports the hypothesis that the mandatory adoption of K3 leads to both serious and label adopters. As seen in table 6, the serious adopters have higher increases in their disclosure practices: ΔP is 3.05, ΔP is 2.88 and ΔP is 4.76, which are all significantly higher than the label adoption group at the 1% level.

TABLE 6

			Mean		
Adoption	**Hypothesis**	**N**	**Δ*P***	**Δ*NP***	**Δ*N***
Label	H2	159	1.40	1.01	1.74
Serious	H2	41	3.05***	2.88***	4.76***
Total sample		**200**	**1.74**	**1.40**	**2.36**

*Table 6 reports disclosure practice mean differences depending on adoption style, if firms are serious or label adopters of K3. The stars indicate a significant mean difference between the groups, using Z-tests, and represent the level of a two-tailed test: * p<0.1; ** p<0.05; *** p<0.01.*

ΔP = Difference in number of pages between the K3 financial report and the previous year
ΔNP = Difference in number of pages containing notes between the K3 financial report and the previous year
ΔN = Difference in number of notes between the K3 financial report and the previous year
Label = Criteria of serious adopter not fulfilled
Serious = Both ID and CA group belonging

6.2 Descriptive statistics and univariate test – Industry

Table 7 summarises the sample divided into industries. It presents the proportion of firms in each industry that were assigned to the *ID* group, to the *CA* group and those who are in both and thus are considered serious adopters. As seen in the table, most industries have a high proportion of firms in the *ID* group, however, when it comes to being a serious adopter, the results vary. The *Industrials* have the highest proportion of firms of serious adopters, 35% and 31%, respectively. Behind are *Financials, Consumer Services* and *Utilities* that contain between 7% and 15% serious adopters. Attempts were made to test H2b using univariate tests, however, due to the small sample size in many of the industries, a test of serious adopter proportion was only possible between *Industrials* and *Consumer Services.* The test was significant at the 1% level, implying that firms in the *Industrials* category have significantly more serious adopters than the *Consumer Services* category. This supports H2b partly, that industry belonging affects whether a firm becomes a label adopter after the adoption of K3. As a result of the small number of observations in the other industries, H2b is further tested in the logistic regression.

TABLE 7

Industry	Hypothesis	N	*ID*	*CA*	*Serious*
Industrials	H2b	86	77%	35%	31%
Consumer Goods	H2b	5	80%	0%	0%
Health Care	H2b	6	83%	0%	0%
Consumer Services	H2b	75	73%	19%	15%***
Utilities	H2b	13	100%	15%	15%
Financials	H2b	15	73%	13%	7%
Total		**200**	**77%**	**24%**	**21%**

*Table 7 reports the sample divided into industries. Reported is the proportion of firms in each industry and the proportions in each group. The stars represent significance of a two-tailed test, testing difference in serious adopting proportions: * p<0.1; ** p<0.05; *** p<0.01. The test has only been performed between Industrials and Consumer Services.*

ID = *Increased disclosures group (positive ΔP, ΔNP or ΔN in combination with sum of Δ being positive)*

CA = $(EQUITY_{OLDGAAP} \neq EQUITY_{K3})$ *or* $(NETPROFIT_{OLDGAAP} \neq NETPROFIT_{K3})$ *or* $(D\&A_{OLDGAAP} \neq D\&A_{K3})$ *i.e. changed accounting numbers when adopting K3*

Serious = *Both ID and CA group belonging*

6.3 Results from univariate analysis – firm factors and auditor choice

To test H2a and determine if the firm factors are influencing whether firms are serious or label adopters of K3, tests were performed to investigate mean and median differences between the groups for each variable. Table 8 presents the results where both mean and average values are displayed as well as significance level to indicate a statistically significant difference between the groups. As seen in the table, *LTD/A*, *PPE/A* and *Size* have a significantly lower value in the label group compared to the serious group, being significant at the 5%, 1% and 10% level, respectively. This indicates that firms with high debt, a large part of their assets consisting of property, plant and equipment and intangible assets, and that are larger, are more prone to be serious adopters of K3, supporting H2a that firm factors influence the adoption. The choice of auditor does not seem to have an impact on whether a firm is a label or a serious adopter as around half of the firms in both groups have Big 4 auditors and the difference is not significant.

When measuring median values, the same variables are significantly lower among the label adopters, with the addition that *Size* also is significantly lower at the 5% level and *LTD/A* is significant at the 1% level. The interpretation of the *Big4* variable's median should be taken with caution since the variable is categorical and can only take two values.

TABLE 8

Variable	Hypothesis	Mean			Median		
		Label	***Serious***	**Total**	***Label***	***Serious***	**Total**
LTD/A	H2a	0.114**	0.186	0.128	0.000***	0.075	0.014
PPE/A	H2a	0.205***	0.393	0.262	0.081***	0.343	0.143
Size	H2a	11.299*	11.562	11.353	11.108**	11.459	11.199
Big4	H2c	0.547	0.512	0.540	1.000	1.000	1.000

In table 8, the stars indicate a significant mean or median difference between the label and serious groups, using Z-tests and Mann-Whitney U *tests, and represent the level of a two-tailed test: * p<0.1; ** p<0.05; *** p<0.01.*
LTD/A = Long-term debt/total assets under previous Swedish GAAP
PPE/A = (Property, plant and equipment + intangible assets)/total assets under previous Swedish GAAP
Size = The natural logarithm of total assets under previous Swedish GAAP
Big4 = Takes the value 1 if the firm's K3 financial report is audited by a Big 4 firm

6.4 Results from multiple logistic regression

To further test H2a, H2b and H2c and to mitigate some of the shortcomings of the univariate tests, a logistic regression analysis was performed. Table 9 shows the result where both the coefficients and the odds ratios are displayed. Among the explanatory variables, *PPE/A* and *Size* are significant at the 1% and 5% level, respectively. Both variables have an odds ratio > 1, indicating that the larger share of assets constituting property, plant and equipment and intangible assets a firm has, and the larger a firm is, the more likely they are to be a serious adopter of K3, supporting H2a. *Big4* has an odds ratio of 0.703, meaning that a firm is less likely to be a serious adopter if they have a Big 4 auditor, however the variable is not significant. Contradictory to the expectations, *LTD/A* have no significant impact on the likelihood of being a serious adopter. An explanation that the variable is significant in the univariate test but not in the logistic regression might be that *LTD/A* and *PPE/A* are quite correlated, as presented in table 4.

In line with hypothesis H2b regarding industries, two industries had a significant impact on the likelihood of being a serious adopter compared to the baseline, *Industrials* and *Financials*. The odds ratio is > 1 for *Industrials*, interpreted as the likelihood of being a serious adopter increases when belonging to this industry, when comparing with the baseline industry *Consumer Services*. For *Utilities* and *Financials,* the odds ratio is < 1, indicating that these have a lower likelihood of being serious adopters compared to the baseline. The results yield some indication that type of industry has an impact on the adoption classification, however due to few observations in the industries, a conclusion regarding the remaining industries is not possible. The control variable *EBIT* is significant at the 1% level, indicating that a firm's past profitability strongly influences the likelihood of being considered a serious adopter.

TABLE 9

Variables	Model (1) Serious adopter (Serious=1)	
	Coefficients	**Odds Ratios**
LTD/A	–0.002	0.998
	–0.18	–0.18
PPE/A	0.028	1.028
	3.22***	3.22***
Big4	–0.244	0.783
	–0.59	–0.59
Size	0.609	1.838
	2.05**	2.05**
Ind. Industrials	0.846	2.330
	1.93*	1.93*
Ind. Utilities	–0.484	0.616
	–0.49	–0.49
Ind. Financials	–2.811	0.060
	–1.65*	–1.65*
EBIT	0.093	1.097
	2.72***	2.72***
Intercept	–9.764	0.000
	–2.93***	–2.93***
No. of observations	200	
LR chi2(9)	42.26	
Prob > chi2	0.000	
Pseudo R2	0.208	
Correctly classified	79%	

*Results from the multiple logistic regression analysis for Model (1). Coefficients are shown in the first row of each variable and below the z-value. Odds ratios are also reported and displays constant effect on the likelihood of being appointed a serious adopter. The stars represent significance level of a two-tailed test: * p<0.1; ** p<0.05; *** p<0.01 except for LTD/A and Big4 where the significance levels are for a one-tailed test.*

LTD/A = Long-term debt/total assets under previous Swedish GAAP
PPE/A = (Property, plant and equipment + intangible assets)/total assets under previous Swedish GAAP
Big4 = Takes the value 1 if the firm's K3 financial report is audited by a Big 4 firm
Size = The natural logarithm of total assets under previous Swedish GAAP
EBIT = EBIT/net sales under previous Swedish GAAP

Further, added in Table 9 is the correctly classified level, and the pseudo R2, which in Model 1 is 79% and 0.208, respectively. These values are considered sufficiently high to conclude that the variables in the model have a high explanatory power. The classification measures the fit of the model by counting correct predictions.

6.5 Results from testing Index of Comparability

Table 10 reports the results from testing H3a-c. The index values when comparing shareholders' equity, net profit and depreciation and amortisation are reported for the serious adopters group. The mean values for IC_{EQUITY} and $IC_{NETPROFIT}$ are 1.032 and 1.109, respectively, indicating that by adopting K3, shareholders' equity has increased with 3.2% and net income with 10.9% for the serious adopters. $IC_{D\&A}$ was on average 0.983, indicating that depreciation and amortisation has decreased on average by 1.7%, however not being

significant using a two-sided t-test. The result when measuring $IC_{NETPROFIT}$ is significant at the 1% level while the standard deviation is high for IC_{EQUITY}, making it significant only at the 10% level.

Similar conclusions can be drawn from the non-parametric tests. Median values for IC_{EQUITY} and $IC_{NETPROFIT}$ are 1.012 and 1.031, respectively, both being significantly higher than 1 at the 1% level. However, $IC_{D\&A}$ has a median value of 0.988 and is significantly different from 1 at the 1% level. The reason for $IC_{D\&A}$ not being significant in the t-test in contrast to the Wilcoxon's signed rank test is the mean value. It is very close to 1 and the variable have a quite high standard deviation. When using a non-parametric test such as Wilcoxon's signed rank test, it becomes evident that the value for $IC_{D\&A}$ indeed is not equal to 1, as the test ignores outliers and instead uses ranks.

The results from the tests imply that conservatism has decreased for Swedish private firms, supporting H3a-c.

TABLE 10

Variable	Hypothesis	N	Mean	Std. Dev.	t-stat.	*p*	Median	Wilcoxon stat.	*p*
IC_{EQUITY}	H3a	41	1.032	0.151	1.350	0.092	1.012	726[a]	0.000
$IC_{NETPROFIT}$	H3b	41	1.109	0.232	2.995	0.002	1.031	725[a]	0.000
$IC_{D\&A}$	H3c	41	0.983	0.286	–0.381	0.705	0.988	610[b]	0.001

Table 10 reports Index of Comparability (IC) statistics measuring shareholders' equity, net profit and depreciation and amortisation for the serious adopters group. The null hypothesis is that the index value is 1 and the alternative hypothesis is that it is more than 1 (measuring shareholders' equity and net profit) and not equal to 1 (measuring depreciation and amortisation).

IC_{EQUITY} = *Index of Comparability measuring shareholders' equity:* $1 - \left(\frac{EQUITY_{OLDGAAP} - EQUITY_{K3}}{|EQUITY_{OLDGAAP}|}\right)$

$IC_{NETPROFIT}$ = *Index of Comparability measuring net profit:* $1 - \left(\frac{NETPROFIT_{OLDGAAP} - NETPROFIT_{K3}}{|NETPROFIT_{OLDGAAP}|}\right)$

$IC_{D\&A}$ = *Index of Comparability measuring depreciation and amortisation:* $1 - \left(\frac{D\&A_{OLDGAAP} - D\&A_{K3}}{|D\&A_{OLDGAAP}|}\right)$

EQUITY = *Shareholders' equity*

NETPROFIT = *Net profit*

D&A = *Depreciation and amortisation*

[a] *Based on positive ranks.*

[b] *Based on negative ranks.*

6.6 Summary of hypotheses and tests

Table 11 is a summary of the hypotheses tested and the outcomes of the tests performed.

TABLE 11

Hypothesis /Variable	**Univariate analyses – parametric**	**Univariate analyses– nonparametric**	**Regression analysis**
H1	Significant	–	–
H2a			
– *LTD/A*	Significant	Significant	Not significant
– *PPE/A*	Significant	Significant	Significant
– *Size*	Significant	Significant	Significant
H2b		–	
– *Industry*	*Industrials* contains significantly more serious adopters than *Consumer Services*		*Industrials* significantly more likely to be serious adopter of K3 compared to *Consumer Services*. *Financials* significantly less likely to be serious adopters compared to *Consumer Services*
H2c			
– *Big4*	Not significant	Not significant	Not significant
H3a	Significant	Significant	–
H3b	Significant	Significant	–
H3c	Not significant	Significant	–
Control variable	–	–	
– *EBIT*			Controlled for

Table 11 summarises the hypotheses in the study, their significance, and the variables used in the analyses.
LTD/A = Long-term debt/total assets under previous Swedish GAAP
PPE/A = (Property, plant and equipment + intangible assets)/total assets under previous Swedish GAAP
Size = The natural logarithm of total assets under previous Swedish GAAP
Big4 = Takes the value 1 if the firm's K3 financial report is audited by a Big 4 firm
EBIT = EBIT/net sales under previous Swedish GAAP

7. DISCUSSION

7.1 Improved disclosure resulting from mandatory adoption of K3

The results reveal that the disclosure improved for the observed firms after having mandatorily adopted K3, in line with H1. Caution should be taken when interpreting these results as the disclosure quality has been analysed by using a proxy of increased disclosure. While this method is based on previous studies, it neglects the discussion of whether more disclosure necessarily indicates improvement. In this case, it is however argued that increased disclosure is a valid proxy for improvement, as it goes in line with what K3 requires. It can therefore be assumed that the BFN intended for the standard to lead to increased disclosure and consider the result to be an improvement. This however raises the question whether users of financial reports consider the increase useful. Linking back to Burgstahler et al. (2006), the question can be raised whether the low information asymmetry existing between private firms and their investor is benefited from this increased disclosure. While the result in this study indicates that the adoption of K3 has led to the BFN's intended increase, it does not give an answer to if this result is preferred by the users, compared to the previous Swedish GAAP.

The finding that mandatory adoption of K3 leads to increased disclosure is an addition to the study of Daske and Gebhardt (2006), but in a private setting, where mandatory adoption of a reporting standard leads to improved disclosures. Consideration must however be taken to the limitation that the increased disclosure not necessarily is equivalent to improved disclosure.

7.2 Label adoption indicates that the work is not yet done

The result of H2 reveal that the mandatory adoption of K3 has led to more label adopters than serious adopters, indicating that the standard alone does not lead to comprehensive changes in private firms' financial reporting, in line with Byard et al. (2011), Daske et al. (2008) and Li (2010). Label adoption has previously been investigated from a public firm perspective, and the introduction of K3 presented an empirical context in which it was possible to investigate label adoption in a private setting. The results in this thesis thus imply that the mandatory introduction of a standard can lead to label adoption for private firms as well. The low enforcement as well as the low information asymmetry for private firms, as Daske et al. (2008) suggested is the reason for label adoption among public firms, could be an explanation to the extensive number of label adopters of K3. This implies two things: first, there is a need for strengthened enforcement for private firms if there is a desire to see higher proportions of

serious adoption of the standard. Second, it can imply that the benefit of the standard is not obvious to the private firms and thereby lead to low reporting incentives.

If private firms believe the cost of making a serious adoption of K3 exceeds the benefits with this adoption it can serve as an explanation to why serious adopters are relatively few. If K3, similarly to IFRS for SMEs, is perceived to be burdensome for firms, it could make them reluctant to undertake rigorous changes (Perera & Chand, 2015; Quagli & Paoloni, 2012). Even though size was taken into consideration when developing the K-standards, and smaller firms can choose the K2-standard for smaller firms (Bokföringsnämnden, 2005), it can still be the case that the adoption of K3 is perceived to be burdensome and preventing serious adoption of the standard, as was seen in the criticism towards the depreciation by parts method (Hellman et al., 2011). It is however not apparent that label adoption necessarily mean that the costs exceeds the benefits for adopters of K3, but the results could instead be an indication that the firms have not yet understood the benefits of a serious adoption of the standard and that there is a need for information efforts to educate the firms.

Studying if similarities in firm factors could be found for the firms that chose to make a serious adoption, it was found that there is support for H2a, which thus supports previous research of e.g. Hellman (2011), Jones (2015), Kvaal and Nobes (2012), Stadler and Nobes (2014), Watts (1992) and Watts and Zimmerman (1990), but in a private setting. The results reveal that for the adoption of K3, the amount of PPE as well as firm size affect the outcome of the adoption, while the tests presented insignificant results for debt level effect. Firms with higher amounts of PPE are thus more likely to become serious adopters, a result that is likely to be explained by the importance of the depreciation by parts method (KPMG, 2013). And the result that firm size has a significant effect on the level of serious adoption strengthens previous studies such as Kvaal and Nobes (2012) and Watts and Zimmerman, (1990), in a private setting of a mandatory adoption.

While the sample size puts limitations on the number of industries that could be analysed, H2b can still be supported by the results, implying that industry factors affects whether a firm becomes a serious adopter or not. This can arguably be explained by the firm factors shared by the firms in the industry, but also demonstrates the importance of taking industry belonging into consideration when designing standards, also in the private setting. This stands in contrast to the BFN that took consideration primarily to size when designing the K3-

standard (Bokföringsnämnden, 2005), which consequently has led to label adoption being more common in some industries than in others. This result can be interpreted in two ways, either the *Industrial* firms benefitted more from making a serious adoption of K3 than other industries, as was suggested in the criticism towards the depreciation by parts method (Hellman et al., 2011). Or, the *Industrial* firms have understood the benefits of making a serious adoption in a way that other industries have not. If the first explanation is valid, this would further stress the importance of taking industries into consideration when designing standards, a result important to other countries developing their accounting standards. If the latter explanation is valid however, it indicates that educational efforts primarily should be focused on industries other than the *Industrials,* where the awareness and understanding of K3's benefits is not as high.

An interesting finding in this study is that no significant result was found for H2c, firms with another auditor than a Big 4 auditor do not show a significant difference in the likelihood of being a serious adopter. If the mandatory introduction of K3 has led to high levels of label adoption and the previously expressed arguments, low enforcement and a low understanding of the benefits with the standards, are valid, it implies that the auditors have an important role in continuing the work to ensure serious adoption of the standard. Even if the result for the auditors' effect on label adoption is not significant, the low adoption of the standard, as well as the auditors' importance as enforcers in the Swedish setting, implies that they to some extent are responsible for the low adoption. It can therefore be argued that further efforts should be expected from the auditors' side to ensure serious adoption.

7.3 Decreased conservatism indicates success in the move towards convergence

The need for global convergence of international reporting makes it interesting to analyse whether the adoption of the K3-standard leads to less conservatism, thus making Swedish accounting more harmonised with international reporting (Ball, 2006; Hellman et al., 2015). The finding in this aspect can serve as a guideline for other countries having conservative financial reporting practices wishing to harmonise their financial reporting practice with international reporting. When analysing the level of conservatism, only the firms that have been regarded in this thesis to be serious adopters have been studied. The results reveal that there has been a significant increase in shareholders' equity when comparing the restated numbers to the originally presented numbers, supporting H3a, which thus indicates that the K3 adoption has led to less conservatism (Ball & Shivakumar, 2005; Bliss, 1924).

The study also find that there has been a significant increase in net profit for the serious adopters of K3, supporting H3b. Whether conservatism leads to higher or lower net profit has been discussed in previous studies, where an increase in net profit not necessarily indicates lower level of conservatism (Hellman, 2011). In this study, however, the increase in net profit seems to be closely linked to a change in depreciation and amortisation, in support of H3c. It is likely that the result for both H3b and primarily H3c can be explained by the introduction of the depreciation by parts method. This result probably means that too high depreciation rates has been undertaken in the past and that the depreciation has now been reversed, affecting the depreciation and amortisation for K3 positively. While the direction of the depreciation could not be supported by the tests, the increase in shareholders' equity as well as in net profit, indicates that this is the case.

Coupling these results with the discussion of the awareness of the benefits as well as the auditors' importance in creating awareness for the benefits with K3, it can be expected that this method has gained the most attention among auditors when working with their clients, as well as among the firms, where it could be expected that the *Industrials* have seen this change as one that would benefit them. If other changes have received less attention this could explain the low level of serious adopters. This would also mean that disclosure is one change that has been highlighted, as the whole sample showed a significant increase in their disclosures.

Another interesting aspect of the increase in both shareholders' equity as well as net profit is that this could be an incentive for firms to adopt the standard if they have a need or a wish to show better result. The user aspect of the financial reports thereby once again becomes important to highlight. Although private firms have been expressed to have lower information asymmetry between management and investors than their public counterparts, there might be firms that benefit from communicating a more favourable result to the users of their financial reports. This result also indicates that in future educational efforts it could be highlighted that serious adoption of K3 may lead to more positive results. However, this finding could also be the explanation to the high level of label adoption. As previously explained, there is a strong connection between accounting and taxation in Sweden, where the net income in the financial reports are also used as the taxable income (Marton, 2017). This would thus indicate that by making a serious adoption of K3, firms could be subject to higher taxes, and thus avoid

making a serious adoption for this reason. Connecting this further to the result that larger firms are more prone to make a serious adoption of the standard, it could be suggested that large firms benefit from reporting favourable results to their investors, while smaller firms do not have the same need and rather want to avoid having to pay more taxes.

To contribute to the international research regarding harmonisation, it is found that the serious adoption of K3 leads to less conservatism and this implies convergence towards international reporting. As has been expressed in previous research, Swedish accounting has been classified differently from IFRS in many ways, with conservatism being one of the differing factors (André, 2017; Hellman et al., 2015; Nobes, 1998, 2008). This consequently means that using IFRS for SMEs as a blueprint when developing the national accounting regulations can lead toward convergence, and this finding can serve as guidance for other firms who want to do the same. It also means that to reach convergence it is not enough to just introduce a standard, even if the introduction is mandatory. To ensure harmonisation, there is also a need for enforcement as well as reporting incentives.

7.4 Improved financial reporting as a consequence of the new standard?

The results indicate that the disclosures have increased as a consequence of the introduction of K3, that there are high levels of label adoption preventing K3 from having its intended impact but that it has been successful in decreasing the level of conservative accounting for serious adopters of the standard. Using this study to evaluate whether the work of the BFN has been successful can thus be answered differently depending on what the measure of success is. Considering that the serious adoption leads to decreased conservatism and that the adoption has led to a general increase in disclosure, also for label adopters, it indicates that the standard is a step in the right direction towards improved financial reporting for Swedish private firms, as well as a way in the direction of international harmonisation of accounting standards for private firms. However, what is also apparent from the results is that the work to achieve improved financial reporting for Swedish firms is not yet done and that measures need to be taken to make sure that firms make a serious adoption of the standard. There is therefore still evaluation work that needs to be done, but also more education to be undertaken, where trade associations as well as the auditors could play an important role.

7.5 Limitations and future research

The reliability of the study can be considered high in the sense that there is no subjectivity involved in the number of pages, notes, page notes, or original numbers compared to restated numbers. The database Serrano provided the data originally reported, while the restated numbers have been collected by hand, where some minor human error might have occurred, but is not expected to have had a significant negative effect on the outcomes. Some subjectivity has been involved when making the industry categorisation, however the translation between the two systems ICB and SNI was relatively simple and did not require extensive judgement. This subjective element does have an impact on the reliability of the study, but is considered to be limited. The main focus has been the level of disclosure and the possible change in the actual numbers, where data for both analyses was possible to gather without the involvement of subjectivity.

The validity of the study is dependent on whether it is possible to draw conclusions from the results obtained. One factor to highlight in this aspect is that the analyses to a large extent are built upon theory for public firms. Caution should be taken to draw conclusions from the analyses, even though this study has been a possibility to extend the existing research to the private setting. Another important aspect is that it was hard to distinguish the firms that had already adjusted their accounting to prepare for the adoption of K3, firms that can be considered as very serious adopters, from label adopters. This can be investigated in future research both through qualitative studies, talking to firms classified as label adopters, as well as audit firms, to get a better understanding of if and how firms prepared for the mandatory adoption of K3.

Another limitation is the fact that only the year at the time of the mandatory adoption is studied. It is likely that firms got a better understanding after the first-time adoption and have developed their financial reporting in line with this. As the restatement of the comparative year only had to be made at the first-time adoption, this type of study thus limits the possibility to examine consequent years and the possible changes. A more detailed investigation is necessary to get a better understanding of this, both by studying financial reports, but also by talking to preparers and auditors. It is encouraged for future research to undertake these types of studies.

Lastly, it is hard to draw a general conclusion considering the limited population of private firms this thesis is studying. As explained in the delimitation section, all private firms in a group has been excluded from this study to eliminate the impact of group transactions on the outcome of the study and the voluntary aspect. Considering the vast number of private firms that belong to this category in Sweden, compared to the standalone firms, similar studies could be undertaken on these firms to find out whether these findings can be generalised to all private firms in Sweden, or only to the standalone firms. Caution should thus be taken when trying to generalise the findings in this study and future research is needed to further validate the results. It is however expected that other countries with similar characteristics could get insights from the study to aid in the development of their local GAAP, in regards to the need for enforcement when it comes to changes in actual numbers and the positive effect on the level of disclosure even without strong enforcement. While country differences may impact the effect of a similar standard the result cannot be generalised to other countries, but only serve as a guidance.

The study is constructed as a quantitative study and the possibility to understand if the mandatory adoption of K3 has led to improvements is thus based on the quantitative outcome, with comparisons of numbers, rather than a qualitative understanding of the intended outcome and whether users of financial reports perceive the intended, as well as the actual, outcome as improved financial reporting. Further research is needed to analyse whether the users perceive the resulting reporting after the adoption of K3 to be decision relevant.

The thesis is also expected to be of interest to the BFN as well as to the Swedish Government to get a better understanding of the results of the time and resources put into developing K3, and possibly aids in what is left to be done in the work with K3. The results in the thesis highlight the need for educational efforts, increased awareness for benefits with the standard, analysis of the usefulness of the standards for small firms, and for enforcement.

8. CONCLUSION

In this thesis, 200 private standalone firms are studied to analyse the outcomes of the mandatory adoption of the accounting standard K3 in terms of disclosure, label adoption, and conservatism. 2013 financial reports prepared in accordance with the previous Swedish GAAP are compared to 2014 financial reports prepared in accordance with K3. Increased disclosures are used as a proxy to analyse if the introduction of K3 has led to improved disclosures, and the results reveal that 77% of the firms in the sample made improvements. The results further indicate high level of label adoption, the opposite to serious adopters i.e. firms that improved their disclosures, as well as made restatements of their comparative year's numbers, measuring shareholders' equity, net profit and depreciation and amortisation. Only 21% of the firms in the sample are considered as serious adopters. From the results, it is concluded that industry belonging, as well as the firm factors higher amounts of PPE and firm size significantly impacts the likelihood of a firm being a serious adopter of the K3-standard. Furthermore, firms classified as *Industrials* are most likely to be serious adopters. A decrease in the level of conservatism is further observed, as the serious adopters have significantly increased shareholders' equity and net profit and decreased depreciation and amortisation. Lower conservatism indicates that Sweden is harmonising with international accounting practice, especially in regards to IFRS (Hellman et al., 2015).

This thesis contributes to the field of accounting research on private firms and harmonisation, with the findings that using IFRS for SMEs as a blueprint can indeed lead to improved disclosures as well as less conservative financial reports, if the previous GAAP was classified as more conservative than IFRS. The finding that mandatory adoption leads to improved disclosures also for private firms, despite low enforcement, is contributing to previous research that has studied disclosure improvements following mandatory as well as voluntary adoption (Daske & Gebhardt, 2006).

The possibility to use previous research on label adoption in a private setting to explain the outcomes of mandatory introduction of a standard is another finding with which this thesis contributes, as the results imply that standards alone do not necessarily lead to improved financial reporting, and high levels of label adoption can be observed. This result thus extends the finding by Daske et al. (2008, 2013).

The finding that industry belonging affects the likelihood of becoming a serious adopter is an important contribution to the research on financial reporting harmonisation for private firms, as it is assumed that the intention of the BFN was not to benefit certain industries over others. This discovery might be of interest for other countries that are planning on developing their local GAAP with IFRS for SMEs as a blueprint. It is also an important finding for the future work with ensuring serious adoption of K3, as educational efforts can be directed towards the industries where label adoption is higher and less efforts thus needs to be directed towards the *Industrial* firms.

Another finding of the study is that firm factors affect the likelihood of being a serious adopter and that the probability is higher for larger firms and firms with high amounts of PPE. The PPE level can likely be explained by the connection to the change in depreciation and amortisation following K3 adoption and the depreciation by parts method. The impact of firm size implies that the information asymmetry factor that has been expressed as an argument for public firms' higher demand and need for high quality financial reporting can be extended also to large private firms. For those firms, the benefits of improved financial reporting likely exceed the possible drawbacks of higher taxes and costs of making a serious adoption of K3, in contrast to smaller firms. The user of the financial report thus seems to be important when analysing the perceived need for improved financial reporting from the preparer's point of view. This finding needs to be taken into consideration in the continued work to ensure serious adoption of the standard, both to understand the incentives of the preparers of financial reports and to direct the educational effort to the smaller firms.

While the results did not support the hypothesis that firms having a Big 4 auditor would be more likely to be serious adopters, the high level of label adoption still point at the need for educational efforts directed towards auditors, as well as higher enforcement of audit firms. For private firms in Sweden, auditors play an important role in ensuring adoption of K3, and efforts should be directed to ensure they take on this responsibility.

Lastly, the work of the BFN can be said to have been successful in terms of developing a standard harmonising Swedish accounting with international financial reporting, especially IFRS. The results also indicate that the work with K3 is not complete and that educational efforts as well as improved enforcement are required to ensure serious adoption of the standard. It ain't over till the fat lady sings.

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APPENDIX

TABLE A1

Hypothesis		Variables used to test hypotheses
H1	The adoption of K3 improves the disclosures in financial reports	ΔP ΔNP ΔN
H2a	Firm factors influence whether firms are label or serious adopters of K3	*LTD/A* *PPE/A* *Size*
H2b	Industry belonging influences whether firms are label or serious adopters of K3	*Industry* *– Industrials* *– Consumer Goods* *– Health Care* *– Consumer Services* *– Utilities* *– Financials*
H2c	Having a Big 4 auditor influences whether firms are label or serious adopters of K3	*Big4*
H3a	The mandatory adoption of K3 has led to an increase in shareholders' equity compared to previous Swedish GAAP	IC_{EQUITY}
H3b	The mandatory adoption of K3 has led to an increase in net profit compared to previous Swedish GAAP	$IC_{NETPROFIT}$
H3c	The mandatory adoption of K3 has led to a change in depreciation compared to previous Swedish GAAP	$IC_{D\&A}$