



## Article

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# A review of earnings management in private firms in response to tax rate changes<sup>1</sup>

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**Abstract:** In this paper, I present a review of tax accounting research with a specific focus on earnings management in response to changes in the corporate tax rate. While prior surveys of the tax accounting literature have a broad scope and focus primarily on publicly listed firms, I concentrate on studies examining private firms. These firms have stronger incentives to engage in tax-induced earnings management and recent evidence shows that firms in general defer earnings from high to low tax periods around tax reforms. I summarize contemporary studies, questions examined, and learnings. In addition, I discuss practical implications and outline future research possibilities.

**Keywords:** Accounting, Corporate taxation, Earnings management, Private firms, Tax reform

## 1 Introduction

Since the beginning of the 21st century, there has been significant changes in national corporate income tax rates worldwide. The underlying reason for these changes is that countries aspired to attract investment and stimulate business growth, which has resulted in a major trend toward decreasing the tax rates that firms pay for their profits (Dobbins and Jacob 2016). For example, the average corporate tax rate (CTR) was 30.42 percent in 2000 and 22.43 percent in 2017 for the Organisation for Economic Co-

operation and Development (OECD) member countries.<sup>1</sup> Over the same time period, the average CTR similarly declined in the Nordic countries, from 29.40 to 21.60 percent. The future also seems to hold more CTR cuts, as both countries such as Sweden and the United States (US) are planning reforms to boost business activity.

As a consequence of tax reforms, a number of research studies examining the events have been produced within different fields. In this paper, I specifically review such research in accounting. In contrast to related literature reviews of Shackelford and Shevlin (2001) and Hanlon and Heitzman (2010) that have a broad focus and examine tax research in accounting in a general sense, I concentrate on what is known and unknown about tax-induced earnings management and shed light on CTR changes from a tax accounting perspective. One reason for this is that an increasing number of studies are being published on this topic and considering the tax nature of these studies, they should be of interest to researchers outside the accounting community. With a narrower scope, it is also possible to review these studies in greater detail, and outline clearer practical implications and opportunities for future research. Furthermore, this paper extends older literature reviews in the sense that earnings management in response to CTR changes is not only discussed in the context of public firms (*i.e.*, listed firms with publicly traded securities), but also in private firms (*i.e.*, non-listed private limited liability firms), which are considered as the backbone of most economies. This paper is different on another dimension as well, since it is not merely focused on reviewing research evidence from the United States.

Several studies provide evidence that firms manage their earnings around events when there is a change in the CTR (*e.g.*, Guenther 1994; Lopez *et al.* 1998; Roubi and Richardson 1998). In these studies, firms are observed to defer earnings from high to low tax rate periods. After a call by Hanlon and Heitzman (2010) for more work to help understand the reporting behavior of privately held firms overall and especially with respect to taxation, more re-

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<sup>1</sup> Source: OECD Tax Database, available at <http://www.oecd.org/tax/tax-policy/tax-database.htm> (accessed 12 October 2017).



cent studies observe that private firms act according to the proposed incentive around tax reforms, even more than publicly listed firms (Lin *et al.* 2014; Watrin *et al.* 2012). Hanlon and Heitzman (2010) also encourage the use of private firms in research where they are used not just as a comparison group for publicly held firms. As a response to this call, four current studies, which are reviewed in this paper, examine situations where the statutory CTR in a country is decreased. The events of investigation are recognized as strong incentives for earnings management and reforms both in a single-country context and with an international perspective are analyzed. These studies are mostly based on the recent results of Dennis Sundvik's doctoral thesis (Sundvik 2016a).

The current studies surveyed in this paper differentiate themselves from prior research and contribute to the literature in four major ways. First, studies focusing on private firms in isolation are rare. Second, earlier studies have a solitary application of broad-based measures of earnings management such as total discretionary accruals that do not provide much insight into how the earnings are managed. Third, prior earnings management studies with a focus on CTR changes have neither undertaken cross-jurisdictional investigations nor examined alternatives to earnings management to any larger degree. Fourth, previous studies on intertemporal income shifting also do not throw light on joint evaluations of tax reforms that create conflicting incentives (Shackelford and Shevlin 2001). The current studies also generate potential research topics for the future by showing that a CTR change can be used as a clean incentive setting in other tests of earnings management.

To understand what is driving firms and managers to engage in earnings management and how earnings are managed is of great importance and interest not only to academics, but also to a number of other stakeholders. The findings of the studies reviewed in this paper may interest various stakeholders when evaluating financial statements. These stakeholders include, but are not limited to, customers, suppliers, employees, investors, creditors, independent auditors, and tax authorities. For example, creditors such as banks are important stakeholders in the context of private firms because loans from banks are the main source of external finance for private firms (Santikian 2014). The evidence put forth that firms present lower profits before a CTR change and subsequently higher profits is something that could have an effect on creditors in their interpretation of financial statements. Independent auditors could also apply the findings of the surveyed studies in practice in the auditing process. Additionally, the tax authorities could use some of the results in the identifi-

cation process of likely tax avoiders. Furthermore, the research findings may have policy implications for reforming accounting and tax reporting systems around the world because the level of book-tax conformity is highlighted. The individual tax reforms analyzed in the reviewed papers and the subsequent examination of firm responses also provide an interesting lesson for future tax policy and structuring of future corporate tax reforms that aim to change the CTR.

The paper proceeds as follows. I begin by reviewing the topic of earnings management in general, by discussing the background of the phenomena, reviewing prior research and documenting differences in earnings management between types of firms. In Section 3, I review tax research in accounting with a specific focus on tax-induced earnings management. In Section 4, I discuss current studies on earnings management in response to CTR changes in private firms. The last section concludes and discusses future research opportunities.

## 2 A review of earnings management

### 2.1 Definition of earnings management

The concept of earnings management stems from the trade-off between relevance and reliability in financial reporting. Highly reliable financial reports solely include realized cash flows, whereas highly relevant reports are concerned with the current value of expected future cash flows. Since accounting rules and legislation demand both relevance and reliability in proportion, financial reporting is therefore associated with certain elements of discretion and managerial judgment. Academic accounting literature provides many definitions of the term earnings management. Derived from the opportunistic use of discretion in financial reporting, early literature defined the notion of earnings management as “a purposeful intervention in the external financial reporting process, with the intent of obtaining some private gain” (Schipper 1989:92). Here, earnings management is viewed through an opportunistic lens. This is also something that is done in the popular definition of Healy and Wahlen (1999). They discuss the concept as a firm's alteration in its financial reports or reported economic performance with the ultimate goal of either misleading stakeholders or influencing the outcomes of contracts that are based on accounting numbers. In this study, earnings management is restricted to the management of accounting accruals even though Walker (2013) recognizes

that real economic decisions can also be used to alter earnings.

Empirical accounting research has commonly relied on various proxies to measure earnings management. Here, the so-called aggregate accruals approach has been the dominant strategy. This approach relies on the fact that accounting earnings consist of cash flows (e.g., actual cash receipts and payments) and accruals (e.g., accounts receivable and depreciation). The latter component is influenced by business operations but also by certain managerial decisions and subjective assessments of different assets and liabilities, which can be a breeding ground for earnings management.

Following commonly used approaches of Jones (1991) and Kothari *et al.* (2005), the first step in estimating a proxy for accruals-based earnings management is to calculate the total accruals of a firm. These accruals are assumed to include both discretionary and non-discretionary components. The discretionary accruals are accruals that the management has control over whereas the non-discretionary accruals constitute the expected level of accruals or accruals that the management has no or little control over (e.g., accruals mandated by different accounting rules). The second step is to apply a linear regression approach to separate the two accrual forms from each other by modelling non-discretionary accruals as a function of change in sales, tangible assets and performance by industry. The residuals of the regressions are then considered to be the discretionary part and used as a proxy for earnings management. Other approaches in the literature incorporate studying specific accruals or distributions of earnings.

## 2.2 Earnings management in private and public firms

For several decades, earnings management among public firms have been studied extensively in accounting literature. For instance, public firms and their managers have been known to manipulate earnings in order to influence the way that the firms' stock prices and managers' bonus-related compensation evolve (Healy 1985). Similarly, Hope *et al.* (2013) show how capital market forces cause public firms to manage earnings and reduce the financial reporting quality because the firms want to avoid reporting losses or failing to meet or beat analyst forecasts. Researchers also document that firms engage in earnings management to avoid the violation of debt covenants (DeFond and Jiambalvo 1994) and to reduce political costs (Jones 1991).

Meanwhile, the number of studies incorporating private firms has remained quite small. One major reason for this lagged second wave of private firm research likely relates to data availability from private firms. Another potential reason is that public firms are often portrayed as having greater incentives for earnings management and therefore pose as more lucrative objects for research. More recently, studies on private firms have started to emerge not only as a comparison with public firms, but also independently to test specific hypotheses in the particular context of these firms. In a discussion about earnings management regarding private and public firms, it is however of primary importance to remember the intrinsic similarities and differences between the two firm types.

Both private and public firms are required to engage in external financial reporting in many countries.<sup>2</sup> However, capital market forces largely affect the latter while the effect on the former is significantly smaller. This is one of the major factors that drive differences in earnings management in private versus public firms. Private firms also differentiate from public firms in terms of several other related features (Van Tendeloo and Vanstraelen 2008; Hope *et al.* 2013). For example, in terms of ownership, financing, governance, and compensation, executive and organizational structures, private firms differ from public firms. To begin with, private firms are more closely held than public firms and they are often family-owned, family-governed, or owner-managed whereas public firms have external managers with their own incentives. Thus, public firm managers having an information advantage over owners might engage in earnings management to maximize their own wealth since these managers generally get compensated based on the firm's stock performance. In contrast, private firm managerial ownership creates information asymmetries between owner-managers and the tax authorities, which means that private firm managers can maximize their own wealth by tax planning via earnings management. Another classic characteristic of private firms is that major capital providers often have insider access to internal information and take a more active role in management (Chen *et al.* 2011). This insider access could have a constraining effect on earnings management. In addition, private firms do not distribute their fi-

<sup>2</sup> Financial disclosure requirements for private firms, however, differ largely around the world (Minnis and Shroff 2017). For example, private firms in the United States and Canada are generally neither required to disclose their financial statements or have their financial statements audited. In contrast, private firms in most other countries (e.g., Finland) are required to file at least some financial information publicly and only the smallest of firms can opt out of auditing.

financial statements to the wide public and cannot attract capital from public capital markets nor are their shares publicly traded as in the case of public firms. In a recent working paper, Bonacchi *et al.* (2017) note that the general organizational structure of public firms is business groups while private firms take forms of stand-alone entities or business groups. They argue that tax-motivated earnings management is more likely in stand-alone private firms than in business groups, since individual financial statements are used both for financial reporting and tax purposes whereas consolidated reports are not used for tax purposes.

Another primary difference between public and private firms lies in the size of the firms (Hope *et al.* 2013). This factor can account for a variety of reporting incentives. While there of course are many enormous private corporations, the fact remains that 99 percent of all firms in the European Union (EU) are micro, small and medium-sized enterprises. Furthermore, an interesting characteristic of smaller private firms is that they do not always prepare their financial statements themselves. Since many small businesses do not have the know-how or resources needed to produce the financial statements internally, the accounting tasks are instead commonly outsourced to an external service provider (Everaert *et al.* 2007; Niemi *et al.* 2012). In a firm that uses external help in the financial reporting process, the actual preparer role of the financial statements is shifted from within the firm to the outside. Whether the accounting is done completely externally or without external intervention may also be considered as a crucial factor with respect to the earnings management of a firm. This is because the external party might act as an additional monitoring mechanism to the firm, in addition to the independent auditors.

Private firms make up the foundation of the global economy and play an important part in economic growth, since they are major contributors to employment, entrepreneurship, and innovation in countries worldwide. Based on the characteristics of private firms, the major objective of financial reporting is not to inform financial statement users such as investors about the financial performance of the firm. Rather, the financial reporting objectives of private firms are more likely to be influenced by issues of taxation and dividend distribution (Ball and Shivakumar 2005). Based on this, it is important to discuss evidence of tax-induced earnings management in private firms.

### 3 Tax research in accounting and tax-induced earnings management

For long, the purpose of tax research in accounting has been to investigate whether taxes matter (Shackelford and Shevlin 2001). There are also natural follow-up questions, such as: How much do taxes matter? Or, why doesn't taxes matter? A main conclusion in the literature has been that taxes are complex but they do matter and firms engage in tax planning simply because they distribute a large part of their profits to a subordinate shareholder called the tax-man almost every year, via corporate taxes.

Research questions related to tax planning have commonly been investigated using the conceptual framework of Scholes and Wolfson (1992), which is developed around three themes. The first theme suggests that effective tax planning procedures of firms need to consider all parties when planning ahead. The second theme is concerned with all taxes. Namely, both explicit and implicit taxes need to be considered in tax planning. The third theme states that taxes must be seen as only one source of cost, among many other sources. Shackelford and Shevlin (2001) note three main areas of interest within the discipline: the trade-off literature focusing on the all costs theme, the literature considering asset pricing relations with taxes, and the literature on multijurisdictional tax planning. The 'all costs' theme has generated the largest stream of research among the themes. This literature examines the trade-off between financial accounting objectives and tax reporting objectives, because most (public) firms want and must balance between high book income and low tax income. In other words, many tax-minimizing strategies involve decision making where financial reporting incentives must be weighed against tax incentives. Most of the prior research is conducted in a public firm setting and capital market forces clearly cause higher pressure to report increased book income. On the contrary, this is not the case with private firms where non-tax costs of tax planning are not that high. Nevertheless, heterogeneity exists within the private firm sphere as well, which generates alternative hypotheses about tax-minimization in these firms.

### 3.1 Earnings management with tax incentives

Agency theory portrays a firm as a nexus of contracts. This means that almost any contract between a firm and its stakeholders could provide a basis for earnings management incentives. For instance, corporate taxation may be considered as an explicit contract between the owners of a firm and the government of a country. As such, tax incentives for earnings management can be generated. Accordingly, Goncharov and Zimmermann (2006) show that firms manage earnings downward to reduce income taxes.

Changes in the statutory CTR in a country may also give rise to significant tax accounting incentives for earnings management. Similar events provide researchers with powerful settings to assess firms' willingness to obtain tax savings by engaging in income-shifting behavior. The passing of the US Tax Reform Act of 1986, which decreased the US statutory maximum CTR from 46 percent to 34 percent, has generated a whole stream of research that investigates responses to such events. Shackelford and Shevlin (2001) discuss this phenomenon under the topic of intertemporal income shifting. The quintessence in this stream of research is that CTR changes provide an excellent window of opportunity to save taxes by shifting income from high tax rate periods to periods with lower tax rates. For example, deferring \$1.00 of taxable income from a 46 percent tax year to a 34 percent tax year would be equivalent to earning 22 percent.<sup>3</sup>

The US evidence highlights that firms act according to the incentive and manage book and tax income downward before tax reduction even though there are substantial impediments to do so because of a host of non-tax costs. In detail, Scholes *et al.* (1992) observe changes in fourth quarter gross profit and selling, general, and administrative expenses around the tax cut and find larger firms to be more active income shifters than smaller firms. They also report that the public firms in their sample saved approximately \$500,000 in taxes by deferring sales. Furthermore, Guenther (1994) focuses on current accounting accruals and also notes that larger firms had negative current accrual shifts before the CTR cut. He continues to document that firms with higher leverage ratios and therefore higher financial reporting costs avoid reporting lower book income. He does, however, not find any relation between accruals and managerial ownership. Lopez *et al.* (1998) build on Guenther (1994) and focus on discretionary accruals and prior tax aggressiveness. Using a measure of prior tax

aggressiveness based on the level of explicit tax subsidies, they find that prior tax aggressiveness generates more current income shifting.

There are also a number of studies that are performed outside the United States. For instance, Wong *et al.* (2015) predict and find that Chinese firms also react with earnings management when tax rates increase. These firms are noted to manage their taxable income upwards in a book-tax non-conforming manner rather than in a book-tax conforming manner before the CTR increase. This finding suggests that firms primarily boost taxable income, which reduces the detection risk of aggressive financial reporting. Roubi and Richardson (1998) provide evidence of intertemporal income-shifting around CTR changes in Canada and Singapore. Only weaker results are observed for Malaysia, which the authors attribute to cultural factors.

The uniqueness of earnings management around changes in tax legislation relative to regular tax-minimization through the management of accounting accruals, which are doomed to reverse in the future and generate higher taxes, is that permanent economic gains can be obtained when the CTR is changed. Such permanent economic gains are possible when higher taxable income is presented in a period with a lower CTR, and lower taxable income is presented in a period with a higher CTR. Even with a longer time horizon, the grand total of this tax-saving equation is a positive figure. In the next section, responses to CTR changes in private firms will be further discussed.

## 4 Earnings management in response to tax rate changes among private firms

Tax incentives for earnings management can generally be expected to be stronger in private firms than in public firms, since tax determination is one of the main objectives of financial reporting in private firms (Bonacchi *et al.* 2017). The incentives to report high book income due to capital market pressure is also absent in private firms. Consistent with this notion, Goncharov and Zimmermann (2006) compare tax management in public versus private firms in Russia. The authors examine broad tax management by not distinguishing between accrual choices or incomplete reporting. Their first finding is that firms with high marginal tax rates, and thus high tax incentives, engage in more tax management than low tax incentive firms.

<sup>3</sup>  $1.00 \times (1 - 0.34) = 1.22 \times (1 - 0.46)$ .

Second, Goncharov and Zimmermann (2006) recognize that private firms manage taxes to a larger degree than public firms. The underlying explanation is that incentives to provide high-quality financial information in public firms constrain the extent of tax management. In a similar vein, Coppens and Peek (2005) and Kosi and Valentincic (2013) show that private firms often choose accounting policies that lead to lower earnings, because these choices allow them to minimize the present value of their tax payments and gain tax benefits. Specifically, Coppens and Peek (2005) study the distributional properties of net profit levels and net profit changes of large private firms in eight European countries. The shapes of the earnings distributions suggest that private firms have incentives to manage earnings in the absence of capital market pressure since there is a clear discontinuity around zero. Namely, a discontinuity around zero (*i.e.*, significantly more small profits than small losses) indicates that private firms avoid reporting losses for various reasons. A second finding is that private firms in countries with strong ties between tax and financial accounting do not avoid reporting small losses. The latter finding is consistent with the notion that tax incentives reduce the benefits of managing earnings upward. Kosi and Valentincic (2013) investigate the specific accrual of asset write-offs in two separate write-off regimes, one that generates tax savings and one that does not. The authors note that private firms react to the regime change and significantly decrease to use write-offs after the change in tax treatment.

CTR changes are receiving increasing attention in private firm research as well. The literature started moving toward private firms by documenting that these firms have stronger incentives than public firms to shift income between periods around tax reforms because of the degree of non-tax costs. Consistent with the expectations, Watrin *et al.* (2012) provide evidence that private firms have more income-shifting in their unconsolidated financial statements in response to the 2001 German CTR reduction than public firms. These results suggest that different ownership structures and different agency costs offset the benefits of paying lower taxes. The authors focus on a third group of firms as well, by defining accounting strategy balancers as firms that use exceptional accounting items as earnings management tools. The prediction is that such firms are able to generate high book income and low tax income without affecting the association between financial and tax accounting. They find that these firms engage in less earnings management via standard accounting items than other firms in the event of a CTR cut.

In a related paper, Lin *et al.* (2014) examine the private and public firm response to a CTR reduction from 33

percent to 25 percent in China. The results indicate that the characteristics of private firms, including weak capital market constraints and low tax enforcement, generate more intertemporal income-shifting. The authors' results suggest that private firms save approximately 8.58 percent of their total tax expenses based on their tax planning actions. Recently, an increasing number of studies investigate private firms in isolation from different perspectives. I discuss this stream of current research in the following sub-sections.

#### 4.1 The impact of book-tax conformity

An important factor in tax accounting research is the level of book-tax conformity (*i.e.*, the association between financial accounting income and taxable income). High book-tax conformity is consistent with a common system for both accounting and taxation purposes, where financial accounting is directly used to calculate taxable income. On the other hand, with low book-tax conformity, the two systems of financial and tax accounting are separated (Goncharov and Zimmermann 2006). Presently, the United States has a low level of book-tax conformity, as noted by Hung (2001) and Atwood *et al.* (2010). Levels of conformity vary within Europe, and several studies examine the effects of different conformity levels on various variables. The United Kingdom, the Netherlands, and Denmark are, for instance, commonly regarded as having lower book-tax conformity, whereas conformity is high in countries such as Finland, France, and Sweden (Hung 2001).

The potential benefits and costs associated with conformity between reported earnings and taxable income have been debated in the United States. Politicians and academics have asked whether it would be wise to eliminate the book-tax gap and move to a high-conformity system in which book earnings are more equal to taxable income. The debate includes both pro and con arguments. For instance, Desai (2005) proposes high book-tax conformity since it reduces aggressive financial reporting and improves earnings quality. Opponents argue that financial statement users and tax authorities require different kinds of information and that increased conformity will lead to a significant loss of information (Hanlon and Shevlin 2005). Empirical tax accounting research provides mixed evidence. Leuz *et al.* (2003) find no earnings management effect of book-tax conformity in a study across countries. More recently, Blaylock *et al.* (2015) and Watrin *et al.* (2014) connect strong book-tax conformity with more earnings management. Simultaneously, Tang (2015) provides con-

flicting evidence that high conformity is associated with lower levels of earnings management and tax avoidance.

In a recent study, Sundvik (2017a) further informs this debate by studying whether private firms in high book-tax conformity jurisdictions manage earnings more around CTR reductions than in low book-tax conformity jurisdictions. Sundvik (2017a) hypothesizes that there will be more income-decreasing earnings management before an upcoming CTR reduction if book-tax conformity is higher, since stronger book-tax conformity in this context should be associated with higher actual tax savings. The study uses financial statement data from the Orbis database of Bureau van Dijk for over 30,000 private firms distributed throughout 12 jurisdictions of the European region, including Russia. A common denominator in all of the jurisdictions is that they had reformed the corporate taxation during the period 2007–2014 by decreasing the CTR. The period of analysis comprises two fiscal periods immediately preceding the CTR cut. Even though the expectation is clear, the small variation in book-tax conformity among European private firms could lead to insignificant results. However, panel regressions provide robust results consistent with the hypothesis. These results are consistent with Tang (2015) in a general (absolute) manner and with Blaylock *et al.* (2015) and Watrin *et al.* (2014) when taking the tax incentive and direction into account. Future research on public firms could also focus on a specific incentive for earnings management when testing the association with book-tax conformity. Based on the results in Sundvik (2017a), various stakeholders such as banks and investors in different book-tax conformity jurisdictions can also assess how earnings management influences the financial statements of private firms.

## 4.2 How do private firms manage earnings in response to CTR changes?

Most research in the area of tax-induced earnings management focus on broad earnings management metrics such as aggregate discretionary accruals (*e.g.*, Lopez *et al.* 1998; Lin *et al.* 2014). In this context, Sundvik (2016b) is an exception because he studies the specific earnings management vehicles or specific accruals used to manage earnings with an underlying tax incentive. As suggested by McNichols (2000), this decomposition approach provides greater insight into how the earnings are managed. As discussed in Marquardt and Wiedman (2004), it is not likely that all specific accruals are used simultaneously and this study sheds lights on this aspect.

Sundvik (2016b) uses a sample of Swedish unconsolidated private limited firms with total assets of more than 500,000 EUR and available financial statement data in the Bureau van Dijk's Orbis database around the tax reforms in 2009 and 2013 where the CTR was lowered from 28.0 to 26.3 and finally to 22.0 percent. The empirical results are based on regression models in which the levels and changes between years in the earnings management measures are calculated. With an aggregate measure of earnings management as the dependent variable, statistically significant income-decreasing earnings management before both of the reforms are documented. This effect is also observed to be economically significant considering the average levels. When specific accruals are studied in isolation, the regression results reveal that unexpected changes in accounts receivable are the main reason behind the extent of earnings management in the aggregate. Weaker evidence is provided that the inventory and depreciation accruals are used to manage earnings around the CTR changes. However, accounts payable is not at all found to be utilized for tax-saving purposes in this context, potentially since this accrual involves suppliers. Taken together, accrual-based earnings management is observed around both reforms. Thus, the tax reducing actions are also noted to be persistent over time.

The results of Sundvik (2016b) may be useful for independent auditors and tax authorities when assessing private firms' financial statements and identifying potential tax avoiders, both in Sweden and internationally. Researchers are also encouraged to investigate the specific accrual movements to gain further insight into future analyses of earnings management. A limitation of the study is the absence of an analysis of conflicting incentives for earnings management. Such analyses could generate a more complete picture of earnings management in private firms. Another limitation of the study is that the domicile of the firms under investigation is limited to one country. This may pose a potential challenge in terms of generalizability, even though the private firm setting is rather similar in many countries. Future studies could compare the results with findings from other countries in order to confirm this point. Meanwhile, it is important to remember that a single-country examination provides a natural control for the legislative environment.

## 4.3 Alternative tax management tools

Tax reforms introducing CTR adjustments usually introduce many changes. Sundvik (2017b) recognizes this fact and investigates the 2005 Finnish tax reform, which de-

creased the CTR from 29.0 to 26.0 percent and simultaneously increased the dividend tax by introducing a system of partial double taxation of dividends (Lindgren 2014). Such a multifaceted reform generates multiple and potentially conflicting incentives for earnings management, which adds tension to the study. For instance, income-decreasing earnings management could be used to shift income from high to low CTR years. Alternatively, income-increasing earnings management could be used to facilitate dividend payments. As a third response, Sundvik (2017b) also observes fiscal year extensions. Namely, the transition rules created an incentive to postpone the 2004 fiscal year-end into 2005 since such an action led to earlier application of the lowered CTR. While prior work such as Kari *et al.* (2008) only show that private firms increased their dividend payments before the dividend tax increase, Sundvik (2017b) performs a joint analysis of three different responses to the tax reform.

Logistic regression results for the Finnish sample of private firms that either extended or did not extend the 2004 fiscal year into 2005 show that firms postponing the fiscal year-end were mainly influenced by the expected taxable profit in the last period with the higher tax rate. For the firms that did not change their fiscal year-end, earnings management was noted as an alternative response to the reform. The earnings management was primarily used to lower taxable income and not to increase income to facilitate dividend payments. An explanation for this finding could be that firms have cash reserves for dividend distribution purposes. Moreover, the decision to change the fiscal year-end is found to be more economically significant than the earnings management response. All in all, this research shows how important it is to investigate alternative methods in analyses of earnings management. Future research is encouraged to further examine the potential impact of conflicting incentives to manage earnings. Future studies could also study the impact of loss carry-forward firms, which Sundvik (2017b) does not focus on.

In 2014, the Finnish CTR was further reduced and a number of firms prepared to extend their fiscal years similarly as in the 2005 case. In this latter reform, however, a restriction was retroactively implemented in order to prevent fiscal benefiting. The findings in the current study provide evidence that such restrictions may be purposive for future legislative adjustments.

#### 4.4 Outsourcing of accounting tasks and tax management

One of the inherent differences between private and public firms is size, and smaller private firms have been shown to hire an external accountant to perform the accounting tasks due to limited accounting knowledge or resources within the firm. The external service provider could act as a gatekeeper in the private firm, with a similar role as the independent auditors. In fact, Höglund and Sundvik (2016a) provide evidence that outsourcing of accounting tasks in private firms is positively associated with financial reporting quality. In the context of earnings management in response to a reduced CTR, the gatekeeper could serve a mitigating role. Simultaneously, however, the external service provider could inform the firm about tax planning possibilities, which would lead to more earnings management. This argument is based on the finding that tax advice is commonly purchased from external parties (Seow 2001). Höglund and Sundvik (2016b) investigate the matter in their study with a sample of Finnish private firms before the Finnish 2014 CTR cut.

The authors collect information on accounting outsourcing from a survey and combine this information with tax return data. They first find that firms engage in income-decreasing earnings management as taxable income increases. Second, they show that firms outsourcing accounting tasks to an external service provider engage in significantly less income-decreasing earnings management than firms performing these tasks internally. In other words, the results suggest that the minority of smaller private firms who perform these tasks in-house, and have the knowledge and resources needed, are also able to manage taxes to a larger extent. Taken together, a conclusion of the study is that external accounting service providers may reduce small firm tax management. Thus, future research could investigate the role of these external service providers further and empirical research on private firms in general should control for this external party in their regression models. As a practical implication for the future, it is suggested that tax returns could demand firms to disclose whether they use an external accounting service provider, since this information could be useful for the tax authorities.



## 5 Conclusions and suggestions for future research

The objective of this paper is to review studies on earnings management in private firms with a special focus on tax incentives. The topic of earnings management is generally understood as the utilization of managerial discretion over accounting and reporting choices with an ultimate goal of influencing how economic events are presented in some measure of earnings. Driven by agency theory and conflicts of interest between public firm owners and managers, research evidence has for instance been provided that earnings are managed in order to achieve a higher executive compensation. However, prior research shows that earnings management exists in private firms as well. In a private firm context, the purpose is often centered around minimizing taxes. Several studies find that private firms in particular use earnings management as a response to an upcoming change in the corporate income tax rate.

The recent studies reviewed in this paper answer the call by Hanlon and Heitzman (2010) for more research on the reporting behavior of private firms in general and with respect to taxation in particular. The studies also look at private firms in isolation and not only as a control group for public firms. More specifically, these papers examine how the jurisdictional level of book-tax conformity impacts the earnings management of private firms around tax reforms, how the earnings are managed, what alternative tax-minimization tools other than earnings management may be used when tax rates change, and what effect outsourcing of accounting tasks have on the magnitude of the earnings management reaction to a tax reform. Taken together, these papers stress that financial accounting choices are driven by tax and dividend considerations. These studies also shed light on non-US settings, which provide a rich data environment that allow for in-depth analyses and more complete investigations. For example, the Finnish Tax Administration grants access to the tax returns of firms that is not available in many other settings. Shackelford and Shevlin (2001) encourage the use of such data since it provides an extra layer to the analysis, the results, and the conclusions. Furthermore, and as outlined in this paper, several potential future research possibilities and practical implications arise from the current studies reviewed.

One previously unmentioned research implication emerges from these studies. This implication is derived from the strong incentive setting for earnings management that a tax reform provides. As discussed in Hribar and Nichols (2007), investigations of directional earnings man-

agement is dependent on a specific incentive that allow for hypothesis testing. Public firm studies generally apply strong capital market incentives in their tests, by for instance testing for earnings management in a target beating setting (Hope *et al.* 2013). Private firm studies have, however, not been able to use such incentives and therefore tested for earnings management overall or in its absolute form. This practice is deemed to bias tests in favor of rejecting the null hypothesis of no earnings management (Hribar and Nichols 2007). Considering the frequent changes in the national corporate income tax rates and following the evidence provided in the surveyed papers, this tax incentive could be further utilized in studies of private firm earnings management. For example, the impact of the independent auditor on earnings management could be investigated further by studying private firms eligible for an audit exemption in the EU (voluntarily audited firms versus firms opting out of auditing). To date, such investigations have predominantly been performed with absolute measures of discretionary accruals (Dedman and Kausar 2012).

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