OULU 2010
G 44

ACTA
UNIVERSITATIS OULUENSIS

Henry Jarva

ESSAYS ON ACCOUNTING CONSERVATISM AND GOODWILL WRITE-OFFS

*FACULTY OF ECONOMICS AND BUSINESS ADMINISTRATION,
DEPARTMENT OF ACCOUNTING,
UNIVERSITY OF OULU*

ACTA UNIVERSITATIS OULUENSIS
G Oeconomica 44

HENRY JARVA

ESSAYS ON ACCOUNTING CONSERVATISM AND GOODWILL WRITE-OFFS

Academic dissertation to be presented with the assent of the Faculty of Economics and Business Administration of the University of Oulu for public defence in Arina-sali (Auditorium TA105), Linnanmaa, on 10 September 2010, at 12 noon

UNIVERSITY OF OULU, OULU 2010

Acta Univ. Oul. G 44, 2010

Supervised by
Professor Juha-Pekka Kallunki

Reviewed by
Professor Seppo Ikäheimo
Professor Richard G. Sloan

ISBN 978-951-42-6258-6 (Paperback)
ISBN 978-951-42-6259-3 (PDF)
http://herkules.oulu.fi/isbn9789514262593/
ISSN 1455-2647 (Printed)
ISSN 1796-2269 (Online)
http://herkules.oulu.fi/issn14552647/

Cover design
Raimo Ahonen

JUVENES PRINT
TAMPERE 2010

Jarva, Henry, Essays on accounting conservatism and goodwill write-offs
Faculty of Economics and Business Administration, Department of Accounting, University of Oulu, P.O.Box 4600, FI-90014 University of Oulu, Finland
Acta Univ. Oul. G 44, 2010
Oulu, Finland

Abstract

One of the major features of financial reporting is conservatism. Accounting conservatism is traditionally defined by the adage "anticipate no profit, but anticipate all losses." Accounting conservatism is manifested in two general but distinct ways. First, conservatism can be unconditional, meaning that the book value of net assets is understated due to predetermined accounting practices (e.g. immediate expensing of research and development expenditures as incurred). Second, conservatism can be conditional, meaning that the book value of assets is written down under sufficiently adverse circumstances, but not up under favorable circumstances (e.g. goodwill impairment rules). This dissertation focuses only on conditional conservatism.

The purpose of this dissertation is to increase our understanding of conditional conservatism through three inter-related essays. These essays seek to answer the following research questions: (1) Are standard measures of conditional conservatism affected by the asymmetry in cash flows? (2) How does "bad news" contribute to the persistence of accruals and cash flows? (3) Do firms manage fair value based goodwill write-offs under Statement of Financial Accounting Standards No. 142 (SFAS 142)? (4) What are the economic consequences of SFAS 142 goodwill write-offs?

Collectively, the empirical results of this dissertation further our understanding of the determinants and implications of conditional conservatism. The first essay demonstrates that the asymmetry in cash flows biases standard measures of conditional conservatism. The second and third essays are one of the first to assess conservatism using an individual accrual account, namely, SFAS 142 goodwill write-offs. The second essay examines the reliability of goodwill write-offs, while the third essay provides evidence on the economic consequences of goodwill write-offs. The findings of these two essays are important for the debate on whether fair value measurements in financial statements are appropriate.

Keywords: accruals, conditional conservatism, fair value accounting, impairments

Acknowledgements

This dissertation was written at the University of Oulu under the supervision of Professor Juha-Pekka Kallunki, to whom I owe my most profound gratitude. He has allowed me to grow as a researcher and to learn from my mistakes. I am also grateful to the official dissertation pre-examiners, Professor Richard Sloan and Professor Seppo Ikäheimo, for their valuable comments and careful reviewing of this thesis.

I am indebted to many people who made this dissertation possible. I owed a special debt to Professor Markku Vieru, who fired my enthusiasm for research. I thank Professor Petri Sahlström for his positive attitude towards my work. I have benefited from many fruitful conversations with Dr. Mikko Zerni. I sincerely thank my fellow Ph.D. students, especially Elina Pyykkö and Anna-Maija Lantto, for being such good company. Special thanks go to Humus-kuppila café for providing me with a great cup of coffee every morning.

I gratefully acknowledge the financial support from the following foundations: the Tauno Tönning Foundation, the Foundation for Economic Education, the Academy of Finland, the Finnish Cultural Foundation, the Savings Bank Research Foundation, the Foundation for Promoting Equity Markets in Finland, the Jenny and Antti Wihuri Foundation, the KAUTE Foundation, and the OP-Pohjola Foundation.

Finally, I would like to thank my family—Mom, Dad, and sisters—who have always supported me. Last, but certainly not least, I would like to thank my beautiful wife Heidi for her love, encouragement, and patience, and our wonderful son, Teemu.

Oulu, June 2010 Henry Jarva

List of original essays

The dissertation is based on the introductory chapter and the following three essays:

I Jarva H (2010) Asymmetry in cash flows and accounting conservatism. Manuscript.

II Jarva H (2009) Do firms manage fair value estimates? An examination of SFAS 142 goodwill impairments. Journal of Business Finance and Accounting 36(9–10): 1059–1086.

III Jarva H (2010) Economic consequences of SFAS 142 goodwill write-offs. Manuscript.

Table of contents

1 Introduction

1.1 Background

Double entry accounting is over 500 years old and still forms the backbone of the structure of financial statements (Beaver 1998). The influence of the principle of conservatism on accounting practice has evolved ever since. Accounting conservatism is traditionally defined by the adage "anticipate no profit, but anticipate all losses" (Watts 2003a).[1] In the empirical literature, conservatism is interpreted as representing "the accountants' tendency to require a higher degree of verification for recognizing good news than bad news in financial statements", and it is known as "conditional conservatism" (Basu 1997, Ball & Shivakumar 2005).

Financial reporting and disclosure are complementary means of ameliorating information asymmetry between managers and parties contracting their firm, including shareholders, lenders, suppliers, customers, and employees (Ball 2001). Consequently, published financial statements are supplied to meet heterogeneous demand (Ball 2001). Healy & Palepu (2001) argue that demand for financial reporting and disclosure arises from information asymmetry and agency conflicts between managers and outside investors. Agency costs arise when managers and other parties to the firm maximize their own welfare instead of firm value (Watts 2003a). In a broader sense, the firm is a "nexus" of contracts (see, Coase 1937). Since all parties contracting with the firm have a specific investment in it, it follows that these parties demand information about the firm's ability to meet its contractual obligations. On the one hand, role of accounting is to provide timely accounting information that may be used by investors in setting security prices. On the other hand, and perhaps more importantly, role of accounting is to provide a summary of the events that have affected the firm over the accounting reporting period.

Ball (2001) outlines a framework for assessing the efficiency of accounting reporting and non-accounting disclosure. The first criterion for an economically efficient disclosure system is that published financial information is based on independently observable outcomes, not on the stated beliefs of managers. The audited published financial statements supply users with reliable and contractible

---

[1] Conservatism can be unconditional (or *ex ante* or news independent) or conditional (or *ex post* or news dependent) (see, Section 2.2). This dissertation only focuses on conditional conservatism.

variables. Truthful information disclosure is beneficial because it reduces the risk of lenders, stockholders, and other parties contracting with the firm. Also, auditing makes the manager's employment contract more valuable. The second criterion for an economically efficient disclosure system is timely incorporation of economic losses in the published financial statements. Timely incorporation of economic losses (that is, conditional conservatism) increases the effectiveness of corporate governance, compensation systems, and debt agreements in motivating and monitoring managers. For example, Zhang (2008) argues that conservatism benefits lenders *ex post* through the timely signaling of default risk, while conservatism benefits borrowers *ex ante* through lower initial interest rates. On the other hand, published financial statements tend to ignore economic gains when they occur and to wait for independently observable cash flow outcomes.[2] (Ball 2001.)

Research in the accounting literature convincingly concludes that accounting standards alone do not determine financial reporting outcomes (Holthausen 2009). It is well known that financial reporting quality is determined by the interaction between accounting standards, preparers' incentives, regulation, enforcement, and other institutional features of the economy. The accounting infrastructure complements the overall economic, legal, and political infrastructure in all countries (Ball 2001). However, arm's length public disclosure plays a considerably more important economic role in common law countries than elsewhere, so information asymmetry is to be resolved by public rather than private communication in common law countries such as the United States and the United Kingdom (Ball 2001). Hence, the asymmetric accounting treatment of positive and negative information about future cash flows is most pronounced in common law countries (Ball *et al.* 2000). There is also evidence that the degree of reporting conservatism has increased over time (Givoly & Hayn 2000).

As described above, accounting conservatism is the asymmetrical verification requirements for gains and losses. The very definition of conservatism implies that its goal is not to provide timely information to capital markets under all circumstances (Roychowdhury 2010). Watts (2003a) proposes that explanations for conservative reporting are contracting, shareholder litigation, taxation, and accounting regulation. All of these suggest that conservatism benefits users of the firm's accounting reports (see, Watts 2003a). For example, conservatism

---

[2] In cases where economic gains can be independently observed, such as when an investment is traded in a liquid market, the accounting rules typically allow them to be incorporated in income (Ball 2001).

constrains managerial opportunistic behavior and offsets managerial biases with its asymmetrical verifiability requirement (Watts 2003a). In summary, the primary purpose of conservatism is to facilitate accounting's role in firm monitoring and governance by external parties, such as shareholders and debt-holders (Roychowdhury 2010).

1.2 Purpose of the dissertation

The purpose of this dissertation is to increase our understanding of conditional conservatism through three inter-related essays. These essays seek to answer the following research questions:

- Are standard measures of conditional conservatism affected by the asymmetry in cash flows?
- How does "bad news" contribute to the persistence of accruals and cash flows?
- Do firms manage fair value based goodwill write-offs under Statement of Financial Accounting Standards No. 142 (SFAS 142)?
- What are the economic consequences of SFAS 142 goodwill write-offs?

The above list of research questions is not meant to be exhaustive. The first and second research questions relate to the simple fact that conservatism is reflected in accruals and not in cash flows (Basu 1997, Ball & Shivakumar 2006). The standard measures of conditional conservatism include the Basu asymmetric timeliness/persistence measures and non-price proxies for economic loss. Sloan (1996) shows that the accrual component of earnings is less persistent than the cash flow component of earnings while Basu (1997) predicts and finds that conditional conservatism is expected to manifest itself as asymmetric persistence in earnings. Earnings are equal to the sum of accruals and cash flows. The second research question attempts to ascertain whether the lower persistence of earnings in bad news periods relative to good news periods is due to accounting conservatism (accruals) or some other reason (cash flows). The third and fourth research questions relate the determinants and implications of unverifiable fair value estimates. The third research question seeks to answer the question whether SFAS 142 goodwill write-off estimates provide reliable information for market participants. The fourth research question addresses whether investors appear to fixate on earnings via goodwill write-offs. In addition, this research question is concerned with whether analysts and auditors identify and incorporate information about SFAS 142 goodwill write-offs. Each essay makes its unique contributions which are described in more detail in Sections 1.3 and 3 below.

1.3 Contribution and structure of the dissertation

This dissertation contributes to the accounting conservatism literature through three inter-related essays. The first essay contributes to the understanding and modeling of conditional conservatism. A significant number of studies have investigated the extent of conservatism depending on the empirical models developed by Basu (1997) and Ball & Shivakumar (2005, 2006). The essay, using simple and intuitive specifications, shows that the asymmetry in cash flows affects and biases these well-known conditional conservatism measures. Specifically, the magnitude of the asymmetric timeliness coefficient decreases substantially when the dependent variable is accruals in the Basu (1997) model. The results also show that the Basu (1997) asymmetric earnings change specification cannot distinguish whether the lower persistence of earnings in bad news periods is due to accounting conservatism or a result of real activities. Moreover, the essay shows that existing non-price proxies for economic loss are very poor at identifying the sign of economic income. Finally, replication of a recent study demonstrates that inferences change after controlling for variables that are the determinants of nondiscretionary accruals.

Despite the large body of research on accounting conservatism, only a handful of studies have investigated specific accruals in which one would expect to find conditional conservatism. The second and third essays attempt to fill this gap by providing a comprehensive analysis of SFAS 142 goodwill write-offs. For example, Basu (1997) notes that accruals incorporating write-offs and write-downs are more likely to reflect conservatism than others. The second essay contributes to the value-relevance literature by providing insights for standard-setters on the reliability of unverifiable fair value estimates. Opponents of fair value accounting argue that allowing unverifiable estimates into accounting numbers can seriously compromise their usefulness and increase the likelihood of opportunistic disclosures. Proponents of fair value accounting believe that asset and liability measures reflecting current economic conditions and up-to-date expectations of the future will result in more useful information for economic decision-making. The question whether fair value measurements in financial statements are appropriate is therefore an important accounting issue.

The third essay contributes to the accounting choice literature by examining the economic consequences of goodwill write-offs. As noted above, there has been a debate about the appropriateness of including unverifiable estimates in accounting numbers. For example, Watts (2003) expresses concern that SFAS 142 may represent an error in judgment by the Financial Accounting Standards Board (FASB) and may prove extremely costly. The findingss of the third essay suggest that SFAS 142 goodwill write-offs have not yielded adverse capital market consequences. For example, I fail to find evidence that investors and analysts do not incorporate information in goodwill write-offs. However, I cannot claim that the economic consequences examined would have been the same, for example, if goodwill were instead amortized over some minimum period.

Collectively, the empirical results of this dissertation further our understanding of conditional conservatism. The analyses of the first essay suggest that accounting researchers state more explicitly how conditional conservatism is expected to occur and take cash flow asymmetry into account in their research designs. A potentially more powerful method for detecting accounting conservatism and its implications is exploiting information about specific accruals. The second and third essays one of the first to assess conservatism using an individual accrual account, namely goodwill write-offs. The second essay examines the reliability of SFAS 142 goodwill write-offs, while the third essay provides evidence on the economic consequences of SFAS 142 goodwill write-offs. The findings of these two essays are important for the debate on whether fair value measurements in financial statements are appropriate.

Although the results of this dissertation are based on US data, the results have potentially wide implications. The widespread acceptance of International Financial Reporting Standards (IFRS) for financial reporting purposes means that many firms around the world have the opportunity to use unverifiable estimates in their financial reports. For example, the International Accounting Standard (IAS) 36, *Impairment of Assets*, is nearly identical to SFAS 142. The methodology employed in the second and third essays can be used to measure reliability and effects of asset write-offs under the IFRS regime. Moreover, the results in the first essay can also be generalized to other financial reporting regimes besides U.S. GAAP and IFRS.

This dissertation is subject to several limitations. First, in the second essay one cannot observe the underlying data at the reporting unit level. Sloan (1999) discusses the Aboody *et al.* (1999) study that is somewhat similar to the second essay of this dissertation.[3] Sloan (1999) points out that the study's research design only enables to rule out the null hypothesis that the revaluations are completely unrelated to changes in the underlying current values of the fixed assets. In the case of the second essay of this dissertation, Sloan's argument means that the essay only makes it possible to reject the null hypothesis that the goodwill write-offs are 100% noise. The tests say little about whether the size of the write-downs is appropriate. For example, they could be too large (as a part of a "big bath" strategy).[4] Such evidence is unlikely to provide much guidance to standard setters trying to establish the reliability of the write-offs.

Second, although the results of the third essay suggest that "SFAS 142 goodwill write-offs have not yielded adverse capital market consequences" it is difficult to draw conclusions of general applicability to other unverifiable estimates, other countries, or even other time periods. Relatedly, it is difficult to draw conclusions on the net benefits of SFAS 142. For example, the cost of potential opportunism is borne by all firms (Ramanna 2008). The measurement of the benefits of improved financial reporting under SFAS 142 is difficult if not impossible. For example, I cannot rule out the possibility that the market would have anticipated the economic consequences sooner if write-offs had been reported on a timelier basis.

Third, the results of the third essay imply that the market is efficient in incorporating SFAS 142 goodwill write-off information into prices. However, this result does not state that all investors should stop analyzing firms' financial statements and searching for private information from asset write-offs. As Ball (2009) puts it: "Hair salons operate in a fiercely competitive market, and the average salon is not expected to make abnormal returns. That does not say all salons should stop cutting hair".

Fourth, accounting for business combinations has been one of the most controversial financial reporting issues. Prior to SFAS 141 and 142, GAAP had two methods to account for business combinations: purchase and pooling.[5] Purchase required capitalizing and then amortizing acquired goodwill; pooling required neither (Ramanna 2008). Conventional wisdom holds that managers favored pooling over purchase because it allowed them to avoid the additional

---

[3] Aboody *et al.* (1999) evaluate the reliability of fixed asset revaluations by estimating the relation between fixed asset revaluations and observable financial measures (e.g., future cash from operations) that should reflect changes in the underlying fixed asset values.

[4] The phrase "Big Bath" is a generic label which highlights the magnitude of write-offs.

[5] Established in 1970 by Accounting Principles Board Opinion (APBO) No. 16.

depreciation and amortization expense arising from the asset write-up under the purchase method (Aboody *et al.* 2000). The second and third essays do not examine how the results are affected by the potential discretion arosing from the initial recognition of goodwill.

The rest of the dissertation is organized as follows. Section 2.1 explains the basic features of the accrual accounting system. Section 2.2 describes the nature and importance of conditional conservatism more thoroughly. Section 2.3 briefly describes some features of the regulation of financial reporting and its stated objectives. Section 2.4 characterizes goodwill accounting which has undergone significant change in recent years. Section 3 briefly reviews the empirical essays. Finally, the original essays are presented at the end of the dissertation.

2 Financial reporting and conservatism

2.1 Accrual accounting system

The accrual process is central to accounting and financial reporting. Without accrual accounting, the only asset or liability is cash, so accruals distinguish accounting from the mere counting of cash (Richardson *et al.* 2005). Accruals adjust cash flows to reported earnings and form the building blocks for the balance sheet (Guay 2006). Accruals inherently involve estimation, discretion, and judgment (Beaver 1998). However, the FASB concludes that accrual accounting with its attendant net income is superior to cash flow accounting. According to the FASB's Concepts Statement No. 1, paragraph 44:

> *Information about enterprise earnings based on accrual accounting generally provides a better indication of an enterprise's present and continuing ability to generate favorable cash flows than information limited to the financial effects of cash receipts and payments.*

Generally accruals reflect management's expectations regarding future cash flows and are based on an information system potentially more comprehensive than past and current cash flows (Beaver 1998). For example, information on the aging of receivables may be reflected in the allowance for estimated uncollectible accounts (Beaver 1998). Accruals require accountants to anticipate the future and to make subjective estimates about uncertain events. If financial reports are to convey managers' information on their firms' performance, standards must permit managers to exercise judgment in financial reporting (Healy & Wahlen 1999). Managers can then use their knowledge about the business and its opportunities to select reporting methods, estimates, and disclosures that match the firms' business economics, potentially increasing the value of accounting as a form of communication (Healy & Wahlen 1999).[6] However, because auditing is imperfect, management's use of judgment also creates opportunities for "earnings management" (Healy & Wahlen 1999).[7] As a result, the efficacy of accrual accounting has continued to be debated.

---

[6] It is often asserted that "accounting is the language of business."

[7] Healy & Wahlen (1999) define earnings management as follows: "Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers."

Accrual accounting can be viewed to have two separate roles. The first role of accruals is to mitigate noise in operating cash flows (Dechow 1994, Dechow *et al.* 1998). Working capital accruals adjust operating cash flow to produce an earnings variable that is less noisy in measuring periodic performance and more efficient for contracting with lenders, managers, and others (Ball & Shivakumar 2006). Relatedly, depreciation and amortization accruals ameliorate transitory variation in free cash flow (Ball & Shivakumar 2006). The second role of accruals involves the timely recognition of economic gains and losses (Basu 1997, Ball & Shivakumar 2006), which is discussed at greater lenght in the next section.

2.2 Conditional conservatism

Accounting conservatism is manifested in two general but distinct ways. First, conservatism can be unconditional (or *ex ante* or news independent), meaning that the book value of net assets is understated due to predetermined accounting practices. Unconditional conservatism arises from accountants' tendency to require a higher degree of verification for the establishment of assets as compared with liabilities. Examples of unconditional conservatism include the immediate expensing of advertising and research and development expenditures, accelerated depreciation, and historical cost accounting for positive-net present value projects. Second, conservatism can be conditional, meaning that book values are written down under sufficiently adverse circumstances but not written up under favorable circumstances. Conditional conservatism arises from accountants' tendency to require a higher degree of verification to recognize good news as gains than to recognize bad news as losses. Examples of conditional conservatism include lower of cost or market accounting for inventory and impairment accounting for long-lived tangible and intangible assets. Moreover, there is general consensus that a consequence of conservative accounting is the systematic undervaluation of an entity's net assets relative to their economic value (Watts 2003a). (Beaver & Ryan 2005.)

The Figures 1 and 2 present the same figures as those in the Basu (1997) study. The purpose of the figures is to illustrate the main reporting features of conservative accounting. Consider a firm receiving news that changes its estimate of the productive life of a fixed asset (Basu 1997). Figure 1 shows the effects of the news on the reported book value of the asset, while Figure 2 illustrates the associated effect on the firm's earnings.

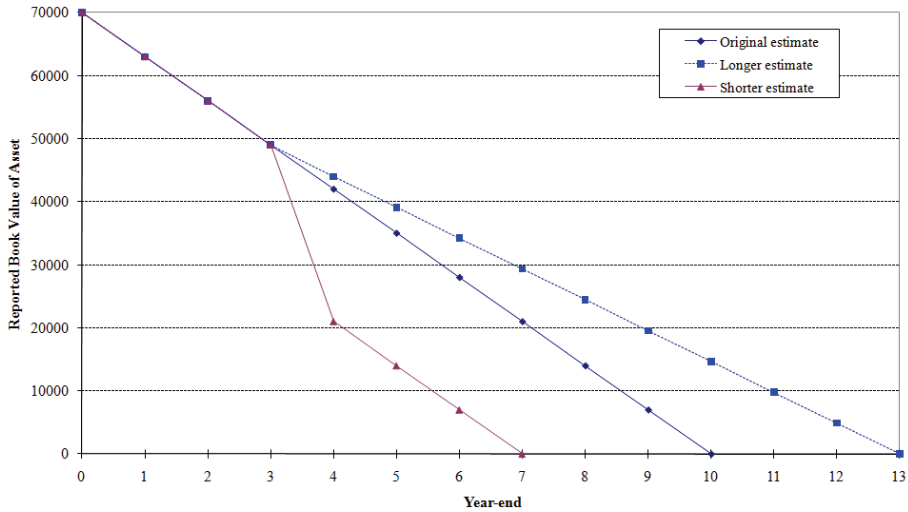

Fig. 1. Example of book values of a fixed asset under conservative accounting when estimates of remaining useful life change (Basu 1997).

An asset with a book value of $70,000 (with zero salvage) is depreciated over ten years originally using straight line depreciation. If the new estimated life is longer (say three years), the firm is economically better off, but under historical cost accounting no gain is recorded currently. Instead, the depreciation charges that would have been taken in the current and future periods are spread out over the new remaining life, resulting in lower depreciation charges in Figure 1, and higher income in Figure 2, each year. If the expected life decreases, a symmetric treatment would increase depreciation charges over the entire shorter remaining life. In practice, however, the accountant records an asset impairment (Figure 1), which results in (often sharply) reduced current income, but no effect on future in Figure 2. In this example write-off is assumed to be three years' depreciation. (Basu 1997.)

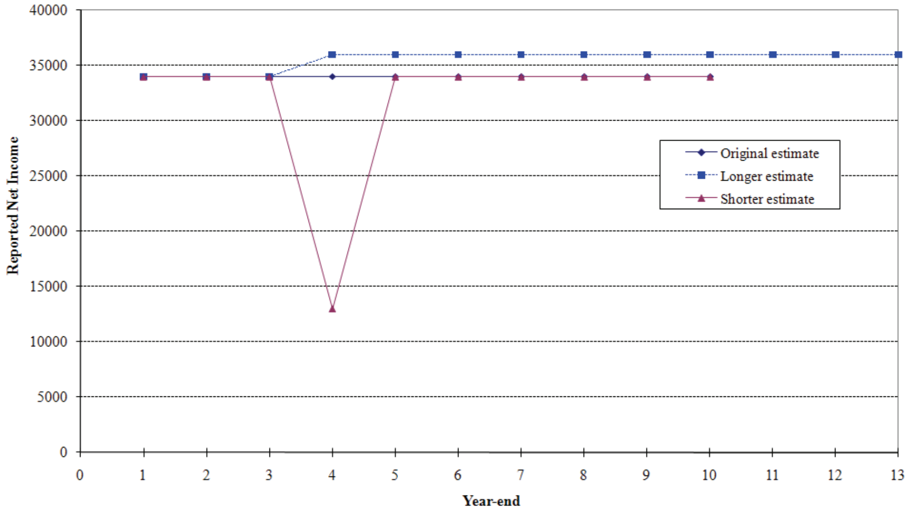

Fig. 2. Example of reported net income under conservative accounting when estimates of remaining useful life of a fixed asset change (Basu 1997).

In a regression of annual earnings on returns, Basu (1997) shows that earnings respond more to negative returns (bad news) than to positive returns (good news). The incremental coefficient on negative returns, referred to as the asymmetric timeliness coefficient or differential timeliness measure, has been widely used by accounting researchers to assess the extent of accounting conservatism (see, Watts 2003a, b). The extent of conditional conservatism is captured by β_1 in the following regression:

$$E_{it} = \alpha_0 + \alpha_1 DR_{it} + \beta_0 R_{it} + \beta_1 R_{it} \times DR_{it} + \varepsilon_{it} \tag{1}$$

where i and t denote the firm and year respectively. E is annual earnings scaled by market capitalization at the fiscal year-end of the previous year, R is contemporaneous annual returns, and DR is an indicator variable set equal to one if R is negative and set equal to zero otherwise. When $\beta_1 > 0$, accounting is considered to be conservative.[8]

[8] The literature also uses the sensitivity of negative returns relative to the sensitivity of returns in general as a measure of conservatism: $(\beta_1+\beta_0)/\beta_0$. Greater values of this ratio are interpreted as indicating greater conservatism. Guay & Verrecchia (2006) point out that although β_0 is interpreted as good news sensitivity, this labeling is misleading because when β_0 is smaller, both good news and bad news are less timely.

Figure 3 depicts Basu's (1997) original finding of asymmetry with respect to current returns. The slope coefficient for negative returns is higher than the slope coefficient for positive returns. This follows because unrealized losses (bad news) are more likely to be recognized immediately under conservative accounting than unrealized gains (good news) (Basu 1997). That is, gains are more likely to await recognition until they are realized in cash.

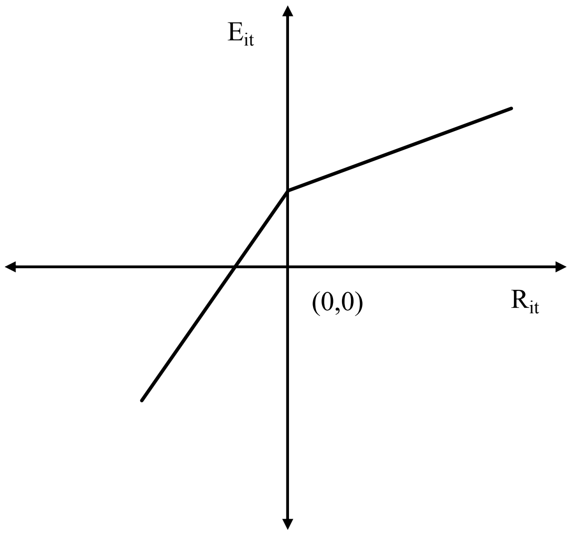

Fig. 3. Asymmetry with respect to current returns (R_{it}) (Basu 1997).

By definition, timely gain and loss recognition must occur around the time of revisions in expectations of future cash flows, which are likely to occur prior to the actual realization of the cash flows and thus to require accounting accruals (Ball & Shivakumar 2006). As noted earlier, conservatism consists of asymmetrical verification requirements for gains and losses (Basu 1997, Watts 2003a). News are uncorrelated through time, again by definition, so current unrealized gain will be uncorrelated with the recognition period news and returns (Basu 1997). This means that reported earnings respond more completely or quickly to bad news than good news as illustrated in Figure 3. Timely loss recognition is a fundamental property of accounting standards and practice (e.g. the asset impairment rules of SFAS 142 and 144), and is designed to improve reporting quality (Ball & Shivakumar 2006). The next section discusses the regulation of financial reporting and its stated objectives in more detail.

2.3 Financial reporting regulation

The FASB's Conceptual Framework states that the purpose of financial reporting is to provide information that is useful for business decisions (FASB 1978). Decision usefulness thus presumably captures the intent of financial reporting standards (Schipper & Vincent 2003). The FASB's *Statement of Financial Accounting Concepts No. 2* (1980) concludes that relevance and reliability are the two primary qualities that make accounting information useful for decision-making.[9] Information may possess both characteristics to varying degrees and if either of these qualities is completely missing, the information will not be useful. The FASB's Concepts Statement No. 2 defines verifiability as follows:

> *The ability through consensus among measures to ensure that information represents what it purports to represent or that the chosen method of measurement has been used without error or bias.*

The FASB acknowledges that it may be necessary to sacrifice some of one quality for a gain in another (FASB 1980). Standards that over-emphasize credibility in accounting data are likely to lead to financial statements that provide less relevant and less timely information on a firm's performance (Healy & Wahlen 1999). Alternatively, standards that stress relevance and timeliness without appropriate consideration for credibility will generate accounting information that is viewed skeptically by financial report users (Healy & Wahlen 1999). Holthausen & Watts (2001) argue that if accounting numbers are not *verifiable* they could become useless for decision-making and unrelated to stock prices because such numbers are affected by management incentives. Watts (2003a) argues that contracts written on unverifiable accounting numbers are not enforceable. Thus, one of the major accounting issues the FASB discusses are the trade-offs between relevance and reliability. The challenge to researchers is to make these attributes empirically operational (Schipper & Vincent 2003).

It should be noted that conservatism is not a qualitative characteristic of financial reporting information as specified in the conceptual framework (Barth 2008). Paragraph 92 of Statement No. 2 states: "There is a place for a convention such as conservatism—meaning prudence—in financial accounting and reporting, because business and economic activities are surrounded by uncertainty, but it needs to be applied with care" (FASB 1980). The conceptual framework specifies

[9] The British common law model requires that accounting information give a "true and fair" view.

that accounting information should be unbiased and conservatism in financial reporting should no longer connote deliberate, consistent understatement of net assets and profits. It is also evident that understated assets frequently lead to overstated income in later periods. Consequently, critics of conservatism claim that it facilitates earnings management.[10] Conservatism tends to conflict with significant qualitative characteristics, such as representational faithfulness, neutrality, and comparability (including consistency). Rather, the FASB concluded that conservatism is a prudent reaction to uncertainty to try to ensure that uncertainties and risks in business situations are adequately considered. (FASB 1980.) Watts (2003a) argues that the long survival of conservatism and its apparent resilience to criticism strongly suggests that conservatism's critics overlook its significant benefits.

As can be expected, a prominent feature of the financial reporting environment is the regulation of the flow of financial information to investors (Beaver 1998). In the United States the primary regulators are the FASB and the Securities and Exchange Commission (SEC).[11] Congress can involve itself in accounting standard-setting and overrule both the SEC and the FASB, although congressional hearings on accounting standards are relatively infrequent. Interestingly, however, Congress held hearings on the FASB's project to revise business combinations accounting (see Ramanna 2008), which is discussed in detail in the next section.

2.4 Accounting for goodwill

The FASB cited "flaws," "deficiencies," and "abuses" of pooling accounting among its reasons for revising business combinations accounting. In June 2001, the FASB issued its final business combinations standards—SFAS 141 and 142. Prior to SFAS 141 and 142, GAAP had two methods to account for business combinations: purchase and pooling. Purchase required capitalizing and then amortizing acquired goodwill while pooling required neither. SFAS 141 abolished pooling in favor of purchase. SFAS 142 eliminated goodwill amortization,

[10] For example, former SEC Chairman Arthur Levitt expressed his concern over big bath restructuring charges (Levitt 1998).

[11] The SEC is an independent agency of the federal government created by the Securities Acts of 1933 and 1934. The SEC has informally delegated much rule-making power to the FASB. The FASB is a private-sector organization that determines the financial accounting standards to be used in preparing annual reports to shareholders. Consequently, a distinctive feature of the regulatory system is its dual structure. (Beaver 1998.)

requiring instead that goodwill be evaluated annually for possible impairment. (Ramanna 2008.)

Under SFAS 142, firms are required to test goodwill for impairment at the reporting unit level rather than the asset groupings required by the prior standard SFAS 121 (FASB 2001). A reporting unit is an operating segment or one level below an operating segment. If the firm does not disclose segment information, then SFAS 131 is used to determine its operating segments for purposes of determining the firm's reporting units. There is an important distinction between the impairment requirement of SFAS 121 and that contained in SFAS 142. SFAS 121 required a reassessment of the carrying amount of a long-lived asset whenever events or changes in circumstances indicate that "the carrying amount of an asset may not be recoverable."[12] SFAS 142, by contrast, requires an annual assessment independent of any triggering events, thus imposing a more stringent revaluation requirement and appears to result in more conservative accounting (Hayn & Hughes 2006). In addition, SFAS 142 requires a fair value rather than an undiscounted cash flow threshold. Specifically, SFAS 142 provides a framework for testing goodwill for impairment using a two-step process. The first step is a screen for potential impairment that begins with an estimation of the fair value of a reporting unit. If the carrying amount exceeds the estimated fair value then the second step measures the amount of impairment. The impaired amount is the difference between the carrying amount of reporting unit goodwill and its implied fair value. The standard prohibits the loss recognized from exceeding the carrying amount of goodwill. Also, the subsequent reversal of a previously recognized impairment loss is prohibited. Under SFAS 142, goodwill write-offs are to be presented in line items on the income statement, within continuing operations.

Watts (2003) articulated that allowing less verifiable and hence less reliable estimates into accounting numbers can seriously compromise their usefulness. He goes as far to say that "SFAS No. 142 may be an error judgment by the FASB." Barth (2008) argues that reliability is not precision or verifiability, rather it turns on faithful representation, not precision. A precise amount is not necessarily a faithful representation of the real-world economic phenomenon it purports to

[12] Examples of such events or changes in circumstances are: a significant decrease in the market value of an asset; a significant adverse change in legal factors or in the business climate that could affect the value of an asset or an adverse action or assessment by a regulator; a current period operating or cash flow loss combined with a history of operating or cash flow losses on a projection or forecast that demonstrates continuing losses associated with an asset used for the purpose of producing revenue (FASB 1995, paragraph 5).

represent (Barth 2008). Conditional conservatism occurs with impairment accounting for many types of assets and one of these is goodwill. Whether the attempt to increase the relevance of asset measures comes at the expense of reduced reliability of accounting numbers is an open empirical question. The second and third essays are trying to shed light on these issues. The next section briefly reviews the empirical findings of the essays.

3 Review of the essays

3.1 Essay 1: Asymmetry in cash flows and accounting conservatism

Basu (1997) is the first to document that both cash flows and earnings respond more strongly to bad news than to good news. The fact that the Basu asymmetric timeliness coefficient is reliably positive when operating cash flow is the dependent variable raises the question of whether there is a misspecification in the Basu model. A natural question to ask here is how cash flows can reflect conditional conservatism.

The first essay contributes to the literature on accounting conservatism by demonstrating that the asymmetry in cash flows biases standard measures of conditional conservatism. A significant number of studies have investigated the extent of conservatism depending on the empirical models developed by Basu (1997) and Ball & Shivakumar (2005, 2006). Using simple and intuitive specifications, I show that cash flow asymmetry affects and biases these well-known conditional conservatism measures. In light of these results, I suggest that accounting researchers should be more explicit about how conditional conservatism is expected to occur and take cash flow asymmetry into account in their research designs.

The main empirical findings can be summarized as follows. First, I show that the magnitude of the asymmetric timeliness coefficient decreases substantially when the dependent variable is accruals in the Basu (1997) model. This upward bias is especially severe in the pooled regression (about 58%), while the average bias in industry-specific regressions is smaller (about 28%). Second, I present evidence that both accruals and cash flows are less persistent for firms with negative returns. This test is simple, but I believe it casts doubt on the validity of Basu's (1997) changes specification. Third, I show that extant non-price (book) proxies are very poor at identifying the sign of economic income. Proxies examined are the level of cash flows, the change in cash flows, the industry-adjusted cash flows, and the change in earnings. Although the change in earnings proxy performs best according to the likelihood ratio statistic (deviance), all non-price proxies perform very poorly and falsely classify the sign of the stock returns for over one-third of the cases. Finally, I replicate and extend a recent study by Lobo & Zhou (2006) to demonstrate the potential biases may arise when the research design uses earnings as the dependent variable and fails to incorporate controls into the Basu (1997) model. While the original study finds that conservatism increased after the Sarbanes-Oxley Act, I show that this relation becomes insignificant when controls are introduced.

3.2 Essay 2: Do firms manage fair value estimates? An examination of SFAS 142 goodwill impairments

The Financial Accounting Standards Board (FASB) has sought to improve the relevance of financial reporting by moving towards the broad-based adoption of fair value accounting. When assets' book values exceed their recoverable amounts, accounting rules focus on correcting the balance sheet, and assets are written down at their fair values.[13] However, fair value standards allow the reporting entity to use its own data to develop unobservable inputs, if no observable prices from an active market are available. Holthausen & Watts (2001) point out that if there are management incentives to bias and introduce measurement error, then the lack of verifiability will tend to affect the reliability and the value relevance of the accounting numbers. Consequently, there is a continuing debate about whether fair value measurements in financial statements are appropriate.

The SFAS 142 eliminated goodwill amortization, requiring instead that firms use fair value estimates to determine goodwill impairments. The purpose of the second essay is to shed light on whether firms distort fair value based impairment write-offs. Specifically, the essay shows that goodwill write-offs under SFAS 142 are associated with future expected cash flows as mandated by the standard. However, there are indications that goodwill write-offs lag behind the economic impairment of goodwill. Additional analysis reveals that the association between goodwill write-offs and future cash flows is insignificant for firms with contemporaneous restructuring. I hypothesize that this finding is due to agency-based motives. Finally, I examine a sample of non-impairment firms in which there are indications that goodwill is impaired. I fail to find convincing evidence that these firms are opportunistically avoiding impairments.

[13] I note that current accounting standards are asymmetric in the sense that they generally require timely loss recognition but prohibit timely gain recognition.

3.3 Essay 3: Economic consequences of SFAS 142 goodwill write-offs

The third essay extends prior research by examining the economic consequences of SFAS 142 goodwill write-offs. Material goodwill write-offs are infrequent in occurrence but have a significant negative effect on earnings. Earnings are the summary measure of firm performance produced under the accrual basis of accounting (Dechow 1994). It is used by a wide range of users, including managers, shareholders, investors, analysts, and creditors. Thus, not surprisingly, earnings are the most widely used accounting variable. The large dollar amounts involved and potential managerial discretion in these write-offs motivates a careful analysis of their economic consequences.

The results show that write-off firms have poor stock price performance, high book-to-market ratios, and low earnings (even in the absence of the write-off). The main empirical findings regarding the effects of SFAS 142 goodwill write-offs can be summarized as follows. First, write-off firms do *not* earn higher future stock returns than control (non-write-off) firms. In addition, write-off firms do *not* have a more negative change in the future cost of equity, which supports the previous finding. I also show that analysts' forecast accuracy with respect to future earnings forecasts is *not* lower for write-off firms. Finally, I find evidence that write-off firms pay higher future audit fees, suggesting that auditors charge higher fees in response to the extra audit effort. The results are consistent with market efficiency, analyst-forecast rationality, and efficient audit pricing.

References

Aboody D, Barth ME & Kasznik R (1999) Revaluations of fixed assets and future firm performance: Evidence from the UK. Journal of Accounting and Economics 26(1–3): 149–178.

Aboody D, Kasznik R & Williams M (2000) Purchase versus pooling in stock-for-stock acquisitions: Why do firms care? Journal of Accounting and Economics 29(3): 261–286.

Ball R, Kothari SP & Robin A (2000) The effect of international institutional factors on properties of accounting earnings. Journal of Accounting and Economics 29(1): 1–51.

Ball R (2001) Infrastructure requirements for an economically efficient system of public financial reporting and disclosure. Brookings-Wharton Papers in Financial Services: 127–169.

Ball R & Shivakumar L (2005) Earnings quality in UK private firms: Comparative loss recognition timeliness. Journal of Accounting and Economics 39(1): 83–128.

Ball R & Shivakumar L (2006) The role of accruals in asymmetrically timely gain and loss recognition. Journal of Accounting Research 44(2): 207–242.

Ball R (2009) The global financial crisis and the efficient market hypothesis: What have we learned? Journal of Applied Corporate Finance 21(4): 8–16.

Basu S (1997) The conservatism principle and the asymmetric timeliness of earnings. Journal of Accounting and Economics 24(1): 3–37.

Barth ME (2008) Global financial reporting: Implications for U.S. academics. The Accounting Review 83(5): 1159–1179.

Beaver WH (1998) Financial Reporting: An Accounting Revolution, 3rd ed., Prentice Hall.

Beaver WH & Ryan SG (2005) Conditional and unconditional conservatism: Concepts and modeling. Review of Accounting Studies 10: 269–309.

Coase RH (1937) The nature of the firm. Economica 4(16): 386–405.

Dechow PM (1994) Accounting earnings and cash flows as measures of firm performance: The role of accounting accruals. Journal of Accounting and Economics 18(1): 3–42.

Dechow PM, Kothari SP & Watts RL (1998) The relation between earnings and cash flows. Journal of Accounting and Economics 25(2): 133–168.

Financial Accounting Standards Board (1978) Statement of Financial Accounting Concepts No. 1. Norwalk, CT: FASB.

Financial Accounting Standards Board (1980) Statement of Financial Accounting Concepts No. 2. Norwalk, CT: FASB.

Financial Accounting Standards Board (1995) Statement of Financial Accounting Standards No. 121: Accounting for the Impairment of Long-lived Assets and for Long-lived Assets to Be Disposed Of. Norwalk, CT: FASB.

Financial Accounting Standards Board (2001) Statement of Financial Accounting Standards No. 142: Goodwill and Other Intangible Assets. Norwalk, CT: FASB.

Givoly D & Hayn C (2000) The changing time-series properties of earnings, cash flows and accruals: Has financial reporting become more conservatism? Journal of Accounting and Economics 29(3): 287–320.

Guay W (2006) Discussion of the role of accruals in asymmetrically timely gain and loss recognition. Journal of Accounting Research 44(2): 243–255.
Guay W & Verrecchia R (2006) Discussion of an economic framework for conservative accounting and Bushman and Piotroski (2006). Journal of Accounting and Economics 42(1–2): 149–165.
Hayn C & Hughes PJ (2006) Leading indicators of goodwill impairment. Journal of Accounting, Auditing and Finance 21(3): 223–265.
Healy PM & Wahlen JM (1999) A review of the earnings management literature and its implications for standard setting. Accounting Horizons 13(4): 365–383.
Healy PM & Palepu KG (2001) Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. Journal of Accounting and Economics 31(1–3): 405–440.
Holthausen RW & Watts RL (2001) The relevance of the value-relevance literature for financial accounting standard setting. Journal of Accounting and Economics 31(1–3): 3–75.
Holthausen RW (2009) Accounting standards, financial reporting outcomes, and enforcement. Journal of Accounting Research 47(2): 447–458.
Levitt A (1998) 'The Numbers Game', remarks delivered at the NYU Center for Law and Business (New York, NY, September 28).
Ramanna K (2008) The implications of unverifiable fair-value accounting: Evidence from the political economy of goodwill accounting. Journal of Accounting and Economics 45(2–3): 253–281.
Richardson SA, Sloan RG, Soliman MT & Tuna I (2005) Accrual reliability, earnings persistence and stock prices. Journal of Accounting and Economics 39(3): 437–485.
Roychowdhury S (2010) Discussion of: "Acquisition profitability and timely loss recognition" by J. Francis and X. Martin. Journal of Accounting and Economics 49(1–2): 179–183.
Schipper K & Vincent L (2003) Earnings quality. Accounting Horizons 17(supplement): 97–110.
Sloan RG (1996) Do stock prices fully reflect information in accruals and cash flows? The Accounting Review 71(3): 289–315.
Sloan RG (1999) Evaluating the reliability of current value estimates. Journal of Accounting and Economics 26(1–3): 193–200.
Watts RL (2003a) Conservatism in accounting Part I: Explanations and implications. Accounting Horizons 17(3): 207–221.
Watts RL (2003b) Conservatism in accounting Part II: Evidence and research opportunities. Accounting Horizons 17(3): 287–301.
Zhang J (2008) The contracting benefits of accounting conservatism to lenders and borrowers. Journal of Accounting and Economics 45(1): 27–54.

Original articles

I Jarva H (2010) Asymmetry in cash flows and accounting conservatism. Manuscript.

II Jarva H (2009) Do firms manage fair value estimates? An examination of SFAS 142 goodwill impairments. Journal of Business Finance and Accounting 36(9–10): 1059–1086.

III Jarva H (2010) Economic consequences of SFAS 142 goodwill write-offs. Manuscript.

Original publications are not included in the electronic version of the dissertation.

27. Simonen, Jaakko (2007) The effects of R&D cooperation and labour mobility on innovation
28. Kyröläinen, Petri (2007) Essays on investor behavior and trading activity
29. Karjalainen, Pasi (2007) Valuation of intangible assets in different financial environments
30. Jänkälä, Sinikka (2007) Management control systems (MCS) in the small business context. Linking effects of contextual factors with MCS and financial performance of small firms
31. Hyvönen, Johanna (2008) Linking management accounting and control systems, strategy, information technology, manufacturing technology and organizational performance of the firm in contingency framework
32. Lämsä, Tuija (2008) Knowledge creation and organizational learning in communities of practice: an empirical analysis of a healthcare organization
33. Leppäniemi, Matti (2008) Mobile marketing communications in consumer markets
34. Moilanen, Sinikka (2008) The role of accounting in management control systems of firms having subsidiaries in the former Soviet Union
35. Kuusipalo, Jaana T. (2008) Identities at work—narratives from a post-bureaucratic ICT organization
36. Sippola, Kari (2008) Two case studies on real time quality cost measurement in software business
37. Lehenkari, Mirjam (2009) Essays on the effects of gains and losses on the trading behavior of individual investors in the Finnish stock market
38. Heikkinen, Maarit (2009) Estonianism in a Finnish organization. Essays on culture, identity and otherness
39. Zerni, Mikko (2009) Essays on audit quality
40. Isokangas, Jouko (2009) Partneriperustainen harjoitusyritys. Opiskelijat luomassa uutta toimintakokonaisuutta yrittäjyyskoulutuksessa
41. Komulainen, Hanna (2010) Customer perceived value of emerging technology-intensive business service
42. Bagaeva, Alexandra (2010) The quality of published accounting information in Russia
43. Juntunen, Jouni (2010) Logistics outsourcing for economies in business networks

Book orders:
Granum: Virtual book store
http://granum.uta.fi/granum/

UNIVERSITY OF OULU P.O.B. 7500 FI-90014 UNIVERSITY OF OULU FINLAND

ACTA UNIVERSITATIS OULUENSIS

ISBN 978-951-42-6258-6 (Paperback)
ISBN 978-951-42-6259-3 (PDF)
ISSN 1455-2647 (Print)
ISSN 1796-2269 (Online)

UNIVERSITY of OULU
OULUN YLIOPISTO