

**THE PRICING OF REPORTING CONSERVATISM IN PRIVATE
FIRM LOAN CONTRACTS**

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Abstract

First, I examine whether reporting conservatism exists in private firms using asymmetric timeliness measure that is widely accepted method in prior financial accounting research. Second, I examine whether reporting conservatism is priced in private firm loan contracts. The data consists of private firms collected from the database of one major bank in Finland. I find that reporting conservatism exists in private firms. Further, I provide evidence that reporting conservatism affects the loan pricing significantly, and the firms that are committed to conservative reporting are compensated with decreased loan margin. Therefore, the financial reporting quality within the banking context should be considered precisely and systematically in order to understand the pricing of corporate loans.

Keywords: Loan pricing, reporting conservatism, loan contracts

1 INTRODUCTION

1.1 Motivation of the Study

A firm can be defined as a “nexus of contract”¹ between different interest parties. Contracts are formulated to bind the parties to predetermined goals and restrict them from opportunistic behavior. Contractual mechanisms are constructed using accounting numbers to root the goals and restrictions into a measurable form. This leads to measurement and valuation decisions by firm managers, who are responsible for the accuracy and correctness of financial reporting. In this study the content of a firm’s contractual obligations are analyzed as the interplay between firms and a bank to investigate whether the benefits of conservative reporting are emphasized in a banking relationship. Conservative reporting is defined in this study as a differential timeliness in financial statement recognition of economic losses.

Financial reporting quality is interpreted as the usefulness of financial statement to investors, creditors, managers and other stakeholders contracting with the firm. Sterling (1970) rated conservatism as the most influential principle of valuation. There is wide academic discussion in the field of conservatism, and the valuation principles in accounting are a topical issue within the financial reporting standards. Financial reporting quality² is generally analyzed as earnings and its attributes³. Zhang (2004) investigated the efficiency gains from reporting conservatism in the loan contracting process and found benefits of conservative reporting to both lenders and borrowers. In their study the reporting conservatism benefits lenders through a timely signal of default risk in the form of accelerated covenant violations and borrowers benefit through lower initial interest rates. Further, Zhang (2004) found that out of seven earnings attributes only conservatism, persistency and smoothness incrementally reduced the cost of loan⁴.

Ahmed et al. (2002) find that firms that choose reporting conservatism have a lower cost loan suggesting that conservatism plays an important role in efficient

¹ See further Coase (1937).

² See further a commentary of empirical measures to assess earnings quality (Schipper and Vincent 2003).

³ Earnings attributes: quality, persistence, predictability, smoothness, timeliness, relevance and conservatism (Francis et al. 2004).

⁴ The loan examined is restricted to bank loans, rather than public loan or private placements.

contracting. Wittenberg-Moerman (2006) find that high quality of financial reporting reduces the information costs associated with loan agreements.

The examination of the demand for asymmetrically timely earnings is important. It would be expected that contracting parties have a greater demand for timely loss recognition than timely gain recognition (Quay 2006). For example, holders of loan in a financially healthy firm are more likely to find significant bad news relevant to valuing their claims, and less likely to find good news important in valuing their claims. So, contracting-based demand for timely gains and losses is not symmetric.

The reason for proceeding studies in this field is lack of understanding of *private firm's* financial reporting quality. Especially, this study examines the effect of financial reporting quality for bank's loan pricing purposes. Asymmetric information is more prevalent in private firms than listed firms (Ball and Shivakumar, 2005). Academic literature lacks of evidence on financial reporting quality in private firms. Prior studies have found that the problem of asymmetric information is mitigated by reporting conservatism in listed firms (La Fond and Watts 2008). La Fond and Watts (2008) find that changes in information asymmetry between *equity investors* lead to changes in conservatism. The pricing components of bank's private firm loan has not been studied from reporting quality perspective, and this study contributes prior literature with private firm sample and an examination of *loanholders* perspective on financial reporting quality.

1.2 Definition of Reporting Conservatism

The "official" definition is that offered in the glossary of Statement of Concepts No. 2 of the FASB, namely, that conservatism is a "prudent reaction to uncertainty to try to ensure that uncertainty and risks inherent in business situations are adequately considered". The Finnish Accounting Act refers prudence in its overall disclosure policies stating that financial statement should be presented prudent independent of earnings (FAA, 3:3:3).

Maltby (2000) analyses the meaning of prudence as a historical survey. The characteristics of accounting information has long been identified with the idea that understatement is a virtue. It explains the bias in terms of the historical need of lenders to have a margin of safety on which to base lending decisions.

Conservatism has influenced the accounting practice significantly and it has been considered as the most influential principle on valuation in accounting (Sterling 1970). The benefits of reporting conservatism have been studied (Zhang 2004; Ahmed et al. 2002⁵), but still there are different opinions about the benefits of conservatism among regulators, standard setters and academics.

The meaning of conservatism has changed and developed during the last century. Originally conservatism was considered as a reflection of honesty and competence in business. In the course of time, the concept of conservatism has been coupled with prudence principle and indeed the difference is not that significant; the slight difference between the terms conservatism and prudence is that prudence can be used to avoid the meaning of secret reserves and other practices that are associated with conservatism. (Evans and Nobes 1996).

Reporting conservatism is defined in Watts (2003 A) as a “*differential verifiability required for recognition of profit versus losses*”. The outcome is that earnings reflect bad news more quickly than good news. The asymmetrical verification requirement for gains and losses makes it possible to define the degree of conservatism (Basu 1997). The greater the difference in the degree of verification for gains and losses, the greater is the conservatism.

The literature posits two kinds of earnings conservatism. The first kind is ex-ante conservatism, also called news-independent conservatism and unconditional conservatism. Ex-ante conservatism stems from the application of generally accepted accounting principles or policies that reduce earnings independent of current economics news. Typical examples of ex-ante conservatism are the immediate expensing of advertising expenditures and the immediate expensing of research and development expenditures. The second kind of earnings conservatism is ex-post conservatism, also called news-dependent conservatism, conditional conservatism and asymmetric income timeliness. Examples include the write-downs of goodwill following impairment testing and the asymmetric recognition of contingent losses and contingent gains. I refer to these two kinds of conservatism henceforth as ex-ante conservatism and ex-post conservatism, and the research method in this study is based on ex-post conservatism.

⁵ See further detailed information of loan ratings and conservatism.

1.3 Purpose of the Study

The purpose of this study is twofold. First, I examine whether reporting conservatism exists in private firms using asymmetric timeliness measure that is widely accepted method in prior financial accounting research. Second, I examine the pricing of reporting conservatism in private firm loan contracts. The first purpose of my paper is a necessity of examining reporting conservatism in private firm context, because the main evidence of reporting conservatism in prior literature uses public firm samples. The second purpose of my study relates closer to my dissertation project entitled "Reporting conservatism and intensity in bank-firm relationships: the effects on loan pricing".

1.4 Contribution to the Literature

The contribution of the study is to shed light on the financial reporting quality of private companies as such. There is evidence that suggest lower reporting quality among private firms (Ball and Shivakumar 2005). However, private firms represent a major role in many societies and their financial reporting quality should be also take into consideration. As there has been a lot of debate on firm's corporate responsibility, this research path on financial reporting quality is incrementally augmenting the prevalent discussion. There is also on-going debate whether conservatism should be intended or not (LaFond and Watts 2008).

Further, the contribution of this study is to provide evidence on the pricing of reporting conservatism in private loan contracts. According to my dissertation interviews with bank's personnel (several anonymous interviews), the financial reporting quality is important element of firm evaluation, but the related definitions, methods and processes are not well-established. This study provides evidence that reporting conservatism affects the loan pricing significantly, and therefore it should be considered precisely and systematically in order to understand the pricing of corporate loans. In extreme cases, this line of research would even pre-empt credit losses on non-conservative borrowers.

2 THEORY AND EMPIRICAL LITERATURE

2.1 Theoretical Aspects of Conservatism in Loan Contracts

Watts and Zimmerman (1986) formulated three hypotheses of accounting's role in contracts: bonus plan hypothesis, loan covenant hypothesis and political cost hypothesis. The opportunistic form of the loan covenant hypothesis asserts that the closer a firm is to violation of accounting-based loan covenants, the more likely the manager is to select accounting procedures that shift reported earnings from future periods to the current period (Scott 2003, 277). These hypotheses of accounting's role in contracting involve continuous financial information. Loan agreements basically use reported accounting numbers and require them to be consistent with generally accepted accounting principles (GAAP). GAAP leaves firm managers with discretion in the choice of accounting procedures. Moral hazard problems will exist in financial reports as long as the reports' accounting measures inform investors about managerial performance and affect investors' asset allocation decisions and managers' welfare. Conservative accounting is a means of addressing moral hazard caused by parties to the firm having asymmetric information. Watts (2003 A) examines also alternative explanations for conservatism in accounting and their implications for accounting regulators. Alternative explanations are contracting, shareholder litigation, taxation and accounting regulation. In this study the contracting role of reporting conservatism with external parties is the main focus and other explanations for reporting conservatism are solely discussed.

2.1.1 Information Asymmetry in Loan Contracts

Management has incentives to use their private information to manipulate earnings and other financial information and transfer wealth to themselves. As a result, this effect provides incentives for all contracting parties to the firm to find ways to reduce management's private information relative to public information.⁶

⁶Lambert et al. (2006) show that information quality directly influences firm's cost of capital and that improvements in information quality unambiguously reduce non-diversifiable risks.

The level of information asymmetry between firm manager and bank's lending officer is mainly due to different proportion of private and public information. Let's assume that there are two different managers in two firms of same internal risk classification. The first manager_{FV} (fair value) reports fair values in firm's financial information and the second manager_{CONS} (conservative values) reports conservative financial information. Manager_{FV}'s presentations of future investments and past financial performance is based on fair value financial reporting. In theory, this means that the proportion of public financial information is larger than the proportion of private information. On the other hand, the manager_{CONS}'s presentations of future investments and past financial performance is based on conservative financial reporting, which means that the proportion of private information is bigger than the proportion of public information. This creates difference in information asymmetry between firm managers and bank's lending officer.

The essential source of financial information for lending decision is financial statement information. In this sense, the manager_{FV} provides financial statement information that reflects the firm's positive and negative changes in a timely manner. On the other hand, the manager_{CONS} is committed to conservative financial reporting and reports the firm's negative earnings changes sooner than positive changes (asymmetric timeliness). From the lending officer's perspective the manager_{FV}'s financial reporting is theoretically useful for lending decisions and the pricing of loan is set to normal level of risk adjusted margin. In this sense, the accounting information reflects the firm's economic information. However, in practice the estimation of fair values includes several measurement problems that are difficult to solve⁷, especially in the context of private firms. The manager_{CONS}'s accounting information is more conservative than the firm's economic information. This is reflected in decreased risk adjusted loan margin as a compensation of mitigated agency cost. The incremental level of information asymmetry between manager_{FV} and bank's lending officer is higher than the information asymmetry between manager_{CONS} and bank's lending officer, because of the caveats in measurement of fair values.

⁷ See caveats in measurement of fair values in the banking industry (Nissim and Penman 2007).

2.1.2 Accounting's Role in Mitigating Asymmetric Information in Loan Contracts

Basu (1997) article on the conservatism principle and the asymmetric timeliness of earnings started up new path in reporting conservatism research. He found systematic differences between bad news and good news periods in the timeliness and persistence of earnings. He calls this differential response the asymmetric timeliness of earnings and uses it as a measure of conservatism. In this sense reporting conservatism means that bad news is reported in a more timely fashion than good news in financial reports. If a firm has a reputation for conservative reporting policy, the benefits should be allocated to the firm in efficient markets. Otherwise the firm has no incentive to release bad news in a timely manner. Institutional demand⁸ for reporting conservatism set out in legal framework, capital structure and taxation. Bushman and Piotroski (forthcoming) explore how reported accounting numbers are sharpened by the institutional structure of the country in which firms are domiciled. They find that firms in countries with high quality juridical systems reflect bad news in reported earnings faster than firms in countries with low quality juridical systems.

Wittenberg-Moerman (2006) studied how information asymmetry and the quality of financial reporting affect the trading spreads of private loan securities. First, she finds that the bid-ask spread in secondary loan trading is positively related to firm- and loan characteristics associated with a high information asymmetry environment. Second, timely incorporation of economics losses into borrower's financial statements reduces the bid-ask spread at which their loans are traded. Brown and Hillegeist (forthcoming) further studied the effect of disclosure quality on the level of information asymmetry. They find that the negative relation between disclosure quality and information asymmetry is primarily caused by reducing the likelihood that investors discover and trade in private information.

⁸ See further Peek et al. (2006).

2.2 Empirical Literature on Conservatism in Loan Contracts

Watts (2003 B) reviews the empirical literature of reporting conservatism. Previous literature uses several measurement approaches to conservatism: net asset measures, earnings and accrual measures, and earnings/stock return relation measures. Feltham-Ohlson (1995) valuation model is, among other purposes, used to estimate the extent of the undervaluation of net assets. Earnings and accrual measures have been studied in Basu (1997) and Givoly & Hayn (2000).

Basu (1997) studied the conservatism principle and the asymmetric timeliness of earnings and found that negative earnings changes are less persistent than positive earnings changes. Givoly and Hayn (2000) studied the changing time-series properties of earnings, cash flows and accruals and found that the patterns of earnings, cash flows and accruals were consistent with an increase in conservative financial reporting over time.⁹

In the next subsection I examine the prior empirical findings on loan pricing and reporting conservatism and in the second subsection I further review the findings on measurement issues in reporting conservatism.

2.2.1 Loan Pricing and Reporting Conservatism

Quay and Verrecchia (2006) acknowledges that a large literature supports the asymmetric recognition of gains and losses, and that the efficiency of contracts is improved by implementing conservative reporting conventions. One of the more straightforward contracting setting that could create a demand for conservative reporting is loan contracts. Loanholders have a relatively greater demand for bad news, and if firms fail to provide such information, loanholders will price protect and impose a higher cost of capital on the firm.

Zhang (2004) analyze the *ex post* and *ex ante* benefits of conservatism to lenders and borrowers. First argument is that conservatism benefits lenders *ex post* through a timely signal of default risk in the form of accelerated covenant violations by more conservative borrowers. Second argument is that conservatism benefits borrowers *ex ante* through lower initial interest rates to those bor-

⁹ Lara and Mora (2004) extended prior research on the international analysis of accounting conservatism comparing balance sheet and earnings conservatism in Europe.

rowers who commit to or have a reputation for more conservative reporting. Conservative reports enable lenders to receive a timelier signal of deteriorating financial performance through a tightening of covenants or a triggering of covenant violations. The timely signal of deteriorating financial performance allows lenders to take protective action, thereby reducing their risk.

Ahmed et al. (2002) provided empirical test of efficient contractings within reporting conservatism and cost of loan. They document that firms that face more severe conflicts over dividend policy tend to use more conservative reporting. They find that firms that choose more conservative reporting have a lower cost of loan. Specifically, they used Standard & Poor's senior loan rating as a proxy for the cost of loan, and found negative relation between conservatism and loan after controlling for profitability, leverage, firm size, equity risk and different industries.

Bharath et. al (2006) studied reporting quality and loan contracting. They find that bank loan borrowers with lower reporting quality face substantially higher interest spread. Sengupta (1998) provided similar evidence that firms with high disclosure quality ratings from financial analysts enjoy a lower effective interest cost of issuing loan.

Ball and Shivakumar (2005) studied recently earnings quality in U.K. private firms and found that within private-companies the quality of financial reporting is lower due to different market demand. They hypothesize that earnings quality is determined primarily by the economic uses of financial statements. When audit requirements, accounting standards and tax laws are the same for public and private companies, the financial reporting of private companies is nevertheless lower in quality, because of the demands of market. They find that timely recognition of economic losses is reflected in different earnings skewness between public and private companies, despite of similar skewness in revenues. The interpretation is that the difference in average earnings quality between public and private companies is an equilibrium outcome in the market for corporate financial reporting reflecting differences in demand for financial reporting. The findings were tested comparing the private and public companies reporting using Basu's (1997) time-series measure of timely cost recognition and their own accrual-based method.

Overall, there is a demand for conservative reporting in loan contracts. Listed and non-listed companies have differential demand for financial reporting. Ball and Shivakumar (2005) find a lower financial reporting quality in private firms. Several prior studies (Zhang 2004; Ahmed et al. 2002; Bharath et al. 2006) have

studied the path of financial reporting quality in listed firms, where the demand for reporting conservatism is high. They find that higher financial reporting quality decreases the cost of loan in listed firms. Demand for conservative reporting in private firms is more focused to major stakeholders. Financial system in Finland is referred as bank-based system and bank is one of the firm's major stakeholders.

2.2.2 Measurement Issues in Reporting Conservatism

Research on reporting conservatism represents a vast area of current financial accounting research. The phenomenon "conservatism" is a understandable concept, but its detection and measurement brings up many challenges. The measurement of conservatism as an asymmetric timeliness of earnings has developed during the last decade exceedingly (Ryan 2006). However, empirical research on reporting conservatism lacks a firm-year measure that would detect reporting conservatism. This measure would have many practical implications. A couple of new approaches toward this direction have been taken (Khan and Watts 2007). Meanwhile, it is reasonable to lean on established research methods on reporting conservatism. In this section, I review further several measurement issues in reporting conservatism.

Ball et al. (2005) state that contracting theory predicts conditional conservatism. Contracting theory also predicts that the degree of asymmetry increases in the importance of country's loan markets, but not the importance of equity markets. In contrast, value relevance theory suggest a symmetric and strong relation between earnings and returns, regardless the signs of returns.

Gassen et al. (2006) show that conditional conservatism, unconditional conservatism and income smoothing are theoretically separable concepts yielding different earnings distributions. First, they investigate whether unconditional conservatism and income smoothing affect conditional conservatism and its international differences. They find that these attributes are predictably correlated with conditional conservatism. They also verified that income smoothing explains international differences in conditional conservatism. Conditional conservatism appears to be driven more by firm-specific factors than by institutional factors.

Ball and Shivakumar (2006) studied the role of accruals mitigating of noise in operating cash flows. The role of accrual accounting help explain why stock returns are more highly correlated with earnings than cash flows. They compared linear and non-linear accrual models and find that non-linear accrual models incorporating the asymmetry in gain and loss recognition offer a substantial specification improvement explaining variation in accruals than equivalent linear specifications. They concluded that conditional conservatism is important property of accrual accounting. Their non-linear model states that accruals are a piece-wise linear function of current period operating cash flows. Incorporating the asymmetric gain and loss recognition role increases our understanding of accounting accruals and improves the specification of non-discretionary accruals that are central to studies of earnings management and earnings quality.

Dietrich et al. (2006) critically evaluate conservatism in reported accounting earnings using an asymmetric timeliness measure within stock market data. They demonstrate that the asymmetric timeliness research design induces biases that lead to empirical results that are interpreted as evidence of conservatism even in the absence of asymmetric timeliness in reported earnings. They also demonstrated that in certain conditions related to the sample formation procedure and the distributional properties of the scaled price-earnings relation are met, but these conditions are rarely met in typical empirical settings.

Ryan (2006) provided guidance in measuring conditional conservatism and in interpreting associations of those measures with variable of interest. He documents the current state of conditional conservatism and suggest ideas to develop understanding of conservatism. His two most promising routes towards improving the estimation and interpretability of asymmetric timeliness involve exploiting the context of the firm's industry and the stage of the business cycle as fully as possible. Further, he suggest conducting analysis at the industry level using industry-specific non-financial information to apply this approach.

Overall, Gassen et al. (2006) state that conservatism is driven more by firm-specific factors than institutional factors. The importance of country's loan market have an impact on the degree of information asymmetry (Ball et al. 2005) and changes in information asymmetry leads to changes in conservatism (La Fond and Watts 2008). Ball and Shivakumar (2006) offered a substantial specification improvement in measuring reporting conservatism. The criticism of Dietrich et al. (2006) is pointed on stock market data, and thereby research setting in private firms is important contribution to prior literature.

2.3 Research Hypotheses

Healy and Palepu (2001) argue that demand for financial reporting and disclosure arises from information asymmetry and agency conflicts between managers and outside investors. Quay (2006) has recently studied demand for timely loss recognition in loan contracting. He argues that loanholders have greater demand for timely loss recognition due to valuation of their claims. Ball and Shivakumar (2005) find differences in financial reporting quality of public and private firms, although these firms comply with same accounting regulation. There is scarce evidence in academic literature on reporting conservatism in private firms, because of lack of accounting-based conservatism measures and the data requirements. Finland is defined as code-law country and the tradition on prudent accounting policy has been emphasized during the sample period. My first hypothesis tests whether reporting conservatism exists in this regime.

Hypothesis 1: Reporting conservatism exists in private firms.

Prior literature documents that reporting conservatism decreases the price of the loan (Wittenberg-Moerman 2006, Beatty et al. 2006, Zhang 2004, Bharath et al. 2006, Sengupta 1998). However, these findings are based on publicly listed companies that have different demand for conservatism. In Finnish accounting legislation the prudence principle has been emphasized for several years. This principle has directed the financial reporting policies towards conservative reporting. In this context, it is important to study whether the demand for conservative reporting is also priced in private loan contracts. This study hypothesizes that reporting conservatism decreases the price of the loan in private companies due to mitigation of agency cost.

Hypothesis 2: Conservatism affects loan pricing in private firms so that higher conservatism links with lower interest premium.

3 EMPIRICAL IMPLEMENTATION

3.1 Sample Selection

I obtain loan data from one major bank in Finland. The database includes both financial statement information and firm-specific loan information. The loan database incorporates 3.863 firm-year observations for the period December 2002 to December 2005 (Table 1). All firms have reporting period ending in December and firm-specific loan information is captured in the end of December. Connecting these two sources of information allows for the identification of their characteristics, such as the loan amount, loan service coverage and other key ratios (see further table 2). All firms are required to have bank's internal rating and either short- or long-term loan margin.

Table 1: Sample Selection

Sample Selection	Firm- years	(%)
Sample of Non-financial Firms	3 863	100 %
Non-existence of Bank's Internal Rating	-416	-11 %
Non-existence of Loan From the Subject Bank	-1 150	-30 %
Final Sample	2 297	59 %

The sample consists of small and medium-sized private firms in Finland. Consistent with prior literature, the sample includes only non-financial firms. After merging the loan-specific data with financial statement data, the final sample is reduced to 2.297 firm-year observations. The reason for missing observations is due to non-existence of bank's internal rating and loan from subject bank. Therefore there is no need for further exploration of systematic bias due to missing observations in this sample.

3.2 Variable Measurement

This section provides details on the variable measurement. The first subsection presents variables for the loan data. The second subsection presents the variables and empirical models for the reporting conservatism. The last subsection discusses the control variables used in tests and finally summarizes the descriptive statistics in Table 2.

3.2.1 Loan Data

The loan data in this study contains information on borrower, terms of the loan and firm characteristics in a single specified form. The loan data consists of long-term and short-term bank loans. In the firm-year period the median size of long-term loan is 872 thousand euros. The median firm size is 433 thousand euros based on total assets.

I use loan interest margin as a proxy for the loan pricing. Originally, the loan margin is determined separately for short-term and long-term loans. I calculated the loan margin as average margin weighted with proportion of long-term and short-term loan. The margin is presented as percentage unit over the underlying basis interest. The distribution of loan margin is normally distributed and key assumptions for regression analysis is fulfilled. Performance pricing¹⁰ and revolving credits are excluded from the loan data.

Bank's internal rating variable is used to account for the information content of bank's firm-specific credit risk. These ratings collect information about financial position and credit risk and they are automatically determined by firm-specific information. A lower credit quality as reflected in ratings is likely to be associated with higher loan margin. I transform the eleven letter group ratings into numbers such that loan ratings are set from 1 (highest rating) to 6 (lowest rating).

The loan margin premium is defined as subtraction of the firm-specific loan margin and the loan margin of equivalent internal rating group mean. The negative loan margin premium means that the firm is paying lower loan margin than the firms in the same internal rating group on average. Respectively, the

¹⁰ Performance pricing means that the interest rate is dependent of firm's performance.

positive loan margin premium firms are paying higher loan margins than their equivalent internal rating group mean. The negative premium firms incorporates 1.142 firm-year observations, and the positive premium firms 1.155 firm-year observations.

3.2.2 Reporting Conservatism Variables

Measuring the reporting conservatism can be accomplished with models utilized in earlier studies (Jones 1991; Basu 1997; Ball and Shivakumar 2005). Guay, Kothari and Watts (1996) scrutinized further the five discretionary accrual models¹¹ earlier evaluated by Dechow, Sloan and Sweeney (1995). Guay, Kothari and Watts (1996) found that only the Jones and modified Jones models appeared to have the potential to provide reliable estimates of discretionary accruals.

Ball and Shivakumar (2005) hypothesized that private company financial reporting is lower in quality because that is what market demands. They modeled the reporting conservatism using the Basu (1997) regression and also accruals-based test of loss recognition. This accrual-based model employed was an adaptation of Dechow (1994) and Quay, Kothari and Watts (1996) model. The role of accruals is both mitigating noise in operating cash flows and more particular expressing the timely recognition of economic gains and losses. They hypothesized that timely recognition of economic gains and losses is a source of positive but asymmetric correlation between accruals and contemporaneous cash flows. The asymmetry in this accruals model arises because economic losses are more likely to be recognized on a timely basis, as unrealized accrued charges against income. Economic gains are more likely to be recognized when realized, and hence accounted for on a cash basis. This asymmetry implies that the positive correlation between cash flows and accruals is greater in the case of losses. Both accruals and cash from operations are standardized by the beginning of period total assets.

In this study I model the reporting conservatism adapting the Ball and Shivakumar (2005) accrual-based model. A solid justification of choosing this

¹¹ The five discretionary accrual model were Healy (1985), DeAngelo (1986), Jones (1991), Jones as modified in Dechow Sloan and Sweeney (1995) and Dechow and Sloan (1991).

model is based on prior literature evaluating the accrual models (Dechow et al. 1995; Guay et al. 1996). In selecting the appropriate model into this research design, it has been highlighted that the sample of this study is non-listed companies.

3.2.2.1 Accrual Model

In the Ball and Shivakumar (2005) accrual-based model the relation between cash flows and accruals is estimated from the following equation:

$$ACC_t = \beta_0 + \beta_1 * DCFO_t + \beta_2 * CFO_t + \beta_3 * DCFO_t * CFO_t + v_t \quad (2)$$

Cash flow from operations (CFO_t) is measured as earnings before exceptional and extra-ordinary items less accruals. Accruals (ACC_t) initially is measured as:

$$ACC_t = \Delta \text{Inventory} + \Delta \text{Debtors} + \Delta \text{Other current assets} - \Delta \text{Creditors} - \Delta \text{Other current liabilities} - \text{Depreciation} \quad (3)$$

$DCFO_t$ is a dummy variable taking the value of 1 if CFO is negative, and 0 otherwise.

3.2.3 Control Variables

The results are further evaluated controlling for firm size and industry in section 4. The sample consists of small and medium-sized private firms with turnover on average 1.637 thousand euros (median 620 thousand). The industry classification is based on seven main industries: agriculture and forestry, industry, construction, wholesale and retail sale, transportation and telecommunications, professional services, health care and social services. Table 2 presents the descriptive statistics of the sample. The average loan margin is 1,5 % and average return on equity is 18,2 %. Loan service coverage median is 2,3 that represents a good loan repayment ability.

Table 2: Descriptive Statistics.

	TA	LT	LM-%	ROE-%	LSC	ACC	CFO
Number	2 299	2 104	2 299	1 886	2 295	2 297	2 297
Mean	1 341,9	9 048,2	1,5	18,2	5,4	-0,2	0,3
Std	12 505,6	19 209,0	0,6	102,9	28,9	0,4	0,6
1st decile	38,1	0,8	0,0	-443,4	-31,8	-1,9	-0,5
Median	433,3	872,3	1,5	18,1	2,3	-0,1	0,1
99th decile	8 986,2	8 402,8	3,0	306,3	70,3	0,3	3,4

Variable definitions:

TA is Total Assets in thousand euros; LT is Long-term Loans in thousand euros; LM-% Loan Margin in percentage; ROE-% is return on equity -%; LSC is Loan Service Coverage as a ratio of income before extra-ordinary items to loan repayments. ACC, accruals scaled by beginning of total assets, where accruals are change in inventory + change in debtors + change in other current assets - change in creditors - change in other current liabilities - depreciation; CFO, earnings before extra-ordinary items less accruals, scaled by beginning of total assets.

3.3 Main Results

This section examines whether reporting conservatism is exists in private firms, and the impact of reporting quality characteristics, as timely loss recognition, on the loan pricing.

3.3.1 Test of the First Hypothesis

First, I examine the asymmetric timeliness using Ball & Shivakumar (2005) accrual-based model. In table 3 the regression shows that on average 52 % of cash flow is offset by accruals in years it is positive (β_2). As predicted, β_3 is positive (0,62) and significant, consistently with asymmetrically more unrealized loss recognition via accruals than gain recognition. This notion is consistent with my first hypothesis.

Table 3: Regression of accruals on cash from operations.

	Predict	Coeff	t-stat
INTERCEPT β_0	?	-0,016	-2,27
DCFO _t (β_1)	?	0,010	0,60
CFO _t (β_2)	-	-0,524 ***	-54,32
DCFO _t x CFO _t (β_3)	+	0,618 ***	14,38
Adj-R ² (%)		57,54	
No. of obs.		2297	

Variables:

Dependent variable: ACC_t, accruals in year t, standardized by beginning total assets. Accruals are defined as earnings before exceptional items and extra-ordinary items minus cash from operations. Independent variables: CFO, cash from operations in year t, defined as earnings before exceptional items and extra-ordinary items in period t + Depreciation – Δ (Working capital), standardized by total assets at end of t-1. Δ (Working capital), = Δ Debtors + Δ Other current assets – Δ Creditors – Δ Other current liabilities. DCFO_t = 1 if CFO_t < 0; = 0 otherwise. The regressions exclude extreme 1 % on each side for ACC_t and CFO_t. ***, ** and * denote significance at the 1%, 5% and 10% levels, respectively.

3.3.2 Test of the Second Hypothesis

The table 4 presents the results from estimating the following version of the regression (2), modified to allow differences between negative and positive loan margin premiums:

$$ACC_t = \beta_0 + \beta_1 * DCFO_t + \beta_2 * CFO_t + \beta_3 * DCFO_t * CFO_t + \beta_4 * DPP + \beta_5 * DPP * DCFO_t + \beta_6 * DPP * CFO_t + \beta_7 * DPP * DCFO_t * CFO_t + v_t$$

where DPP is dummy variable taking value of 1 when loan margin premium is positive. Other variables are as defined earlier. I predict a negative coefficient for cash flows β_2 , and positive coefficient β_3 to authenticate that the accrued losses are more likely in periods of negative cash flows. My second hypothesis states that higher conservatism links with lower loan margin premium, and therefore coefficient β_7 is predicted to be negative. I offer no prediction for intercepts and other coefficients.

The results are presented in table 4. The coefficients β_2 and β_3 are qualitatively similar than in the first regression (table 3). Positive premium firm pays higher loan margin compared to equivalent internal rating group mean. For positive premium firms, β_7 is -0,31 and statistically significant. This means that positive premium firms appear to accrue less unrealized losses in cash-loss years compared to negative premium firms that tend to recognize their losses more timely.

The interpretation is that the level of conservatism is higher in firms that have lower loan margin, consistent with predictions of contracting theory (Watts 2003 a,b). In this sense, the firms that are committed to conservative reporting are compensated in loan margin. This finding is consistent with my second hypothesis, and implicates that conservative reporting is priced in firm's loan contracts. The pricing effect is consistent with the notion that conservative reporting decreases the bank's agency cost.

The coefficient β_{11} is positive and significant indicating that conservatism increases with firm size. This coefficient is a measure of asymmetric income statement conservatism. When comparing the regression coefficients in table 4 I find that the coefficients are qualitatively similar in magnitude. All coefficients are a little bit smaller in regression that controls for size. Since a bigger firm may have better access to other financing than bank loan it may be easier to obtain low-priced loan. It is possible that the results are a size effect, but the significantly negative coefficient β_7 in regression II suggests that even after controlling for firm size positive premium firms have a significantly greater negative relation between accruals and negative cash flows. Results remain qualitatively similar when I control for industry variables (not reported). Overall, I find that the bank tends to require higher loan margin when firm's financial statement reporting is not reflecting the negative cash flows in a timely manner.

Table 4: Regression of accruals on cash from operations.

	Predict	REGN I		REGN II	
		Coeff	t-stat	Coeff	t-stat
INTERCEPT $t(\beta_0)$?	0,003	0,31	0,002	0,21
DCFO $_t$ (β_1)	?	-0,017	-0,70	-0,016	-0,65
CFO $_t$ (β_2)	-	-0,584 ***	-46,36	-0,580 ***	-45,57
DCFO $_t$ x CFO $_t$ (β_3)	+	0,706 ***	15,12	0,661 ***	14,06
DPP (β_4)	?	-0,040 ***	-2,86	-0,039 ***	-2,77
DPP x DCFO $_t$ (β_5)	?	0,036	1,05	0,035	1,05
DPP x CFO $_t$ (β_6)	?	0,141 ***	7,30	0,137 ***	7,12
DPP x DCFO $_t$ x CFO $_t$ (β_7)	-	-0,389 ***	-3,17	-0,312 **	-2,56
SIZE $_t$ (β_8)	?			-0,010	-0,34
SIZE $_t$ x DCFO $_t$ (β_9)	?			0,013	0,44
SIZE $_t$ x CFO $_t$ (β_{10})	?			-0,021	-0,75
SIZE $_t$ x DCFO $_t$ x CFO $_t$ (β_{11})	?			0,418 ***	6,09
Industry dummies	?			not reported	
Adj-R ² (%)		58,53		59,19	
No. of obs.		2297		2297	

Variables:

Dependent variable: ACC $_t$, accruals in year t , standardized by beginning total assets. Accruals are defined as earnings before exceptional items and extra-ordinary items minus cash from operations. Independent variables: CFO, cash from operations in year t , defined as earnings before exceptional items and extra-ordinary items in period t + Depreciation - Δ (Working capital), standardized by total assets at end of $t-1$. Δ (Working capital), = Δ Debtors + Δ Other current assets - Δ Creditors - Δ Other current liabilities. DCFO $_t$ = 1 if CFO $_t$ < 0; = 0 otherwise. The regressions exclude extreme 1 % on each side for ACC $_t$ and CFO $_t$. DPP, dummy for loan interest premium. = 1 if positive premium firm; else 0; SIZE $_t$, total assets at end of year t , standardized to the interval (0,1). ***, ** and * denote significance at the 1%, 5% and 10% levels, respectively.

3.4 Robustness Checks

The endogeneity problem has to be considered in measuring the level of conservatism and the loan variables. These variables may be affected by the same firm characteristics simultaneously. The borrower specific risk, its evaluation process

and the initial risk rating affect the pricing of the loan. The pricing of the loan is also influenced by collateral value and other loan conditions. In this study the firm's risk rating is treated as a control variable based on bank's internal rating. Table 5 presents the classification of loan margins based on bank's internal ratings. The highest internal rating 1 represents the lowest risk, and the loan margin mean is 1,08%. Loan margin increases gradually when the internal rating weakens, and finally the group of firms with the highest risk categorization pay 1,69% loan margin on average. It seems that the pricing of firm-specific credit risk follows the bank's internal rating classification. Loan collateralization is controlled using dummy variable on high and low asset tangibility. I formulated tangibility variable as a division of current assets and total assets. The estimation results show that asset tangibility is significant, but the main results remain unchanged (results are not reported).

Table 5: Internal rating and loan margin

Internal Rating	Loan Margin			
	Mean	Std	N	Median
1	1,08	0,54	52	0,85
2	1,32	0,53	423	1,30
3	1,49	0,60	737	1,50
4	1,54	0,62	651	1,50
5	1,66	0,53	310	1,70
6	1,69	0,69	126	1,76
			2 299	

Variables:

All variables are defined earlier. Table shows loan margins classified by bank's internal ratings for 2.299 firm-years between 2002 and 2005. Rating 1 denotes the highest rating and rating 6 the lowest rating, respectively.

Further, Pae (2004) studies whether the level of reporting conservatism differs between Big 5 auditors and non-Big 5 clients and find that the empirical results do not support this hypothesis. In this sense, there is no need for controlling the impact of different auditor.

Watts (2003a) discusses other demands for conservatism than contracting explanation. Watts (2003a) presents that shareholder litigation, taxation and accounting regulation affects the reporting conservatism. Shareholders litigation is not relevant explanation in Finnish context, because the number litigation

cases. Taxation and accounting regulation has traditionally influenced the Finnish financial reporting practice for a long time towards more conservative reporting. However, these other explanations for reporting conservatism does not demarcate the contracting explanation for reporting conservatism and loan margin considerations, as such, are not associated with shareholder litigation, taxation or accounting regulation.

As earlier mentioned, the financial reporting quality consists of seven attributes of earnings: quality, persistence, predictability, smoothness, timeliness, relevance and conservatism (Francis et al. 2004). I address notions on earnings quality, timeliness and conservatism, because these attributes are close to each other conceptually. Earnings quality captures the mapping of current accruals into last-period, current period and next period cash flows. This is usually measured using Dechow-Dichev (2002) model. Timeliness and conservatism of earnings as concepts have similarities, but they differ from each other on their ability to reflect economic losses and gains. Conservatism allows for asymmetric timeliness of negative and positive earnings focusing on the negative side. Francis et al (2004) find that the most favorable values of each earnings attribute individually decreases the cost of capital, but they do not perform any empirical testing on cost of loan. I find that higher conservatism links with lower loan margin and the empirical testing of other earnings attributes is left for further research.

4 SUMMARY AND CONCLUSIONS

Public and private firms have differential demand for financial reporting. Several prior studies have examined the financial reporting quality in public firms, but academic literature lacks of evidence on financial reporting quality in private firms. However, private firms constitute the major part of business operations in many societies. Prior studies have identified several attributes of financial reporting quality. Quality in financial reporting should be defined in firm context that a priori would be relevant on firms reporting incentives.

There is a demand for conservative reporting in loan contracts. Loanholders possibilities to obtain private information on firm's reporting quality is restricted, and therefore banks would favour conservative reporting instead of fair value or fraudulent reporting. Loanholders have a relatively greater demand for bad news, and if firms fail to provide such information, loanholders will price protect and impose a higher cost of capital on the firm.

First, I examined whether reporting conservatism exists in private firms using asymmetric timeliness measure that is widely accepted method in prior financial accounting research. Second, I examined the pricing of reporting conservatism in private firm loan contracts. I found that reporting conservatism exists in private firms. Further, I found that the level of conservatism is higher in firms that have lower loan margin, consistent with predictions of contracting theory. In this sense, the firms that are committed to conservative reporting are compensated in loan margin.

Financial system in Finland is referred as bank-based system and bank is one of the firm's major stakeholders. Demand for conservative reporting in private firms could be also found from other sources than loan contracts, for example taxation. Overall, the initial reason for conservative reporting could be also found from institutional factors. This area is left for further research.

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