The Relation between Accounting Conservatism and Bondholder-Shareholder Conflicts over Dividend Policy in the Emerging Markets: The Evidence of Thailand

Praparat Tangpanyatorn[*]
Pimpana Peetathawatchai[**]

Abstract

Testing the notion that accounting conservatism plays an important role in mitigating bondholder-shareholder conflicts over dividend policy, and in reducing firms' debt costs in an environment of emerging stock and bond markets in Thailand, this paper provide weak evidence that the accounting conservatism helps to mitigate bondholder-shareholder conflicts over dividend policy. Only the market-based measure of conservatism is significantly positively associated with one proxy of bondholder-shareholder conflicts (dividend-to-asset ratio). In contrast to Ahmed et al. (2002), we document that Thai firms using more conservative accounting do not have favorable debt ratings which proxies for firms' cost of debts. Inconsistent with findings in the developed market such as the U.S., our results suggest that accounting conservatism does not have an important role in efficient debt contracting in Thai emerging markets. One plausible explanation is that in emerging stock markets, listed firms might focus on increasing firm values through return-earnings relation rather than mitigation of bondholder-shareholder conflicts over dividend policy.

Keywords : Accounting conservatism, dividend policy conflicts, cost of debt.

[*] Assistant Auditor, PricewaterhouseCoopers ABAS Ltd. Bangkok.

[**] Assistance Professor, Department of Accountancy, Faculty of Commerce and Accountancy, Chulalongkorn University.

บทคัดย่อ

ในการทดสอบบทบาทของความระมัดระวังทางบัญชีว่ามีความสำคัญในการช่วยลดความขัดแย้งระหว่างผู้ถือหุ้นกู้กับผู้ถือหุ้นทุนเกี่ยวกับนโยบายการจ่ายเงินปันผลซึ่งจะมีผลต่อการลดต้นทุนการกู้ยืมของกิจการในประเทศเศรษฐกิจใหม่ (emerging markets) เช่น ตลาดในประเทศไทยนั้น ผลการศึกษาไม่ได้แสดงหลักฐานอย่างชัดเจนที่สนับสนุนว่าความระมัดระวังทางบัญชีได้ช่วยลดความขัดแย้งดังกล่าว โดยมีเพียงตัวแปรที่ใช้วัดความระวัดระวังในมุมมองของตลาดเพียงตัวเดียวที่มีความสัมพันธ์กับตัวแปรที่ใช้วัดความขัดแย้งระหว่างผู้ถือหุ้นกู้กับผู้ถือหุ้นทุนดังกล่าว (ซึ่งวัดด้วย อัตราส่วนเงินปันผลต่อสินทรัพย์รวม) ผลการศึกษาในงานวิจัยนี้ขัดแย้งกับผลการศึกษาของ Ahmed et al. (2002) โดยผล

จากการศึกษานี้แสดงว่าการที่กิจการมีความระวัดระวังทางบัญชีมากขึ้นไม่ได้มีผลทำให้กิจการได้รับการจัดอันดับหนี้ที่ดีขึ้น ซึ่งการจัดอันดับหนี้นั้นเป็นตัวแปรที่ใช้วัดต้นทุนการกู้ยืมของกิจการ ผลการศึกษาของงานวิจัยนี้ขัดแย้งกับผลจากงานวิจัยที่ทำกับข้อมูลของตลาดที่พัฒนาแล้ว เช่น ตลาดในประเทศสหรัฐอเมริกา โดยผลการศึกษาในงานวิจัยนี้แสดงว่าความระวัดระวังทางบัญชีไม่ได้มีบทบาทสำคัญต่อประสิทธิภาพของสัญญาการกู้ยืมเงินในประเทศเศรษฐกิจใหม่ ซึ่งสาเหตุอาจเกิดจากการที่กิจการที่มีการซื้อขายหุ้นในตลาดหลักทรัพย์ในประเทศเศรษฐกิจใหม่ต้องการเพิ่มมูลค่าของกิจการโดยเพิ่มกำไรมากกว่าจากการลดความขัดแย้งระหว่างผู้ถือหุ้นกู้กับผู้ถือหุ้นทุน

คำสำคัญ : ความระมัดระวังทางบัญชี ความขัดแย้งระหว่างผู้ถือหุ้นกู้กับผู้ถือหุ้นทุนเกี่ยวกับนโยบายการจ่ายเงินปันผล ต้นทุนการกู้ยืม

1. Introduction

Bondholders bear downside risk but have limited upside gain in the debt contract. As a result, bondholders prefer mechanisms that reduce their downside risk. Watts and Zimmerman (1986) suggest that accounting conservatism is one such mechanism. More specifically, overpayment of dividends can transfer wealth from bondholders to shareholders by reducing the assets available for bondholders' fixed claims, and thus increasing the default risk for bondholders. To reduce this bondholder-shareholder conflict, bondholders typically include dividend restrictions in debt contracts (e.g., Black, 1976; Smith and Warner, 1979; Kalay, 1982; Leftwich, 1983; Healy and Palepu, 1990; El-Gazzar and Pasena, 1990, 1991). Dividend restrictions generally place an upper bound on dividend payment in terms of maintaining the amount of retained earnings or certain balance sheet ratios (Kalay, 1982). Accounting conservatism results in lower earnings and retained earnings amounts considered in specifying dividend restrictions. Conservative accounting also reduces the value of assets in various balance sheet ratios and consequently tightens dividend restrictions. Thus, firms facing more severe bondholder-shareholder conflicts are expected to use more conservative accounting in order to tighten restrictions on dividend policy, thus decreasing the likelihood of excessive dividend payments. Ahmed et al. (2002) provide evidence consistent with this conjecture. They also show the benefits of conservatism in reducing cost of debts.

We test this expectation in a different environment, emerging stock and bond markets in Thailand. The results provide weak evidence that the accounting conservatism helps to mitigate bondholder-shareholder conflicts over dividend. Only the market-based measure of conservatism is significantly positively associated with dividend-to-asset ratio (as the proxy of bondholder-shareholder conflict). In contrast to Ahmed et al.'s (2002) finding that conservatism reduces cost of debts, the evidence in this paper shows that Thai firms using more conservative accounting do not have favorable debt ratings which proxies for firms' cost of debts. These results suggest that accounting conservatism does not play an important role in efficient debt contracting in Thai emerging stock and bond markets. A plausible explanation is that in the emerging stock market environment, listed firms might focus on increasing their earnings and thereby increasing value of firms. Since much of prior studies have evidenced the positive relation between returns and earnings (e.g., Ball and Brown,1968; Beaver, 1968; Collins, Maydew, and Weiss, 1997), firms in the growing stock market might have intention to overstate earnings and assets by not adopting conservative accounting choices. Thus, these firms might focus on increasing firm values through return-earnings relation rather than mitigation of bondholder-shareholder conflicts over dividend policy.

The rest of the paper proceeds as follows. Section 2 provides a background on the Thai bond market and related prior research. Section 3 presents

the development of hypotheses and research design. Section 4 provides details about the sample and data characteristics. The empirical results are described in Section 5. Finally, Section 6 concludes this paper.

2. Background

2.1 The bond market in Thailand

The first stage of Thai bond market started in November 1994 when 'the Bond Dealers Club (BDC)' was set up as the secondary market for bonds. The BDC was upgraded to 'The Thai Dealing Center (Thai BDC)' in April 1998 after it was granted the 'Bond Exchange' license from the Securities and Exchange Commission of Thailand (SEC). The Thai BDC functions as a self-regulatory organization and has implemented a number of standards and conventions for bond trading. The Thai BDC goals are to provide an environment for fair and secure trading, to monitor trade and to disseminate information on the secondary bond market. There was a major reform of the Thai bond market when the trading platform was set up at the Stock Exchange of Thailand (SET) as 'The Bond Electronic Exchange (BEX)' in November 2003. As a result, Thai BDC expands its functions as the self-regulatory organization and information center for the bond market. To reiterate its functions, Thai BDC changed its status under the SEC Act and was granted the license of a securities related association named as 'The Thai Bond Market Association (ThaiBMA)' in September 2005.

Most corporate bonds are registered with 'The Thai Bond Market Association (Thai BMA).' Trading of bonds is mainly over-the-counter rather than on an exchange. Dealers are required to report all bond transactions in both the primary and secondary markets to Thai BMA. Thai BMA monitors, complies, and disseminates information to the public through its website (www.thaibma.or.th and www.thaibond.com). Prices disseminated by Thai BMA are used as market references.

The size of Thai financial markets is presented in Table 1. The Thai bond market has grown rapidly after the 1997's economic crisis in both market size and trading volume. The outstanding value of total bonds increases from 547 billion Thai baht in 1997 (48.2% compared to equity market capitalization) to 941 billion Thai baht at the end of 2000 (74.2% compared to equity market capitalization).

Table 1 Size of Thai Financial Markets (in billion Thai baht)

Year	Bank loans	Equity market (SET mkt. cap)	Domestic bonds (at par)	Domestic bond/Equity market	GDP growth rate (at 1988 prices)
1993	2,669.10	3,325.40	262	7.90%	-
1994	3,430.50	3,300.80	339	10.30%	9.00%
1995	4,230.50	3,564.60	424.4	11.90%	9.30%
1996	4,825.10	2,559.60	519.3	20.30%	5.90%
1997	6,037.50	1,133.30	546.8	48.20%	-1.40%
1998	5,372.30	1,268.20	941.3	74.20%	-10.50%
1999	5,119.00	2,193.10	1,388.60	63.30%	4.40%
2000	4,585.90	1,279.20	1,634.80	127.80%	4.80%
2001	4,298.90	1,607.31	1,882.90	117.10%	2.10%
2002	4,602.70	1,986.24	2,300.00	115.80%	5.40%
2003	4,701.50	4,789.90	2,518.00	52.60%	6.90%
2004	5,081.35	4,521.89	2,740.39	60.60%	6.10%
2005	5,488.43	5,105.11	3,366.84	66.00%	4.50%
2006	5,706.75	5,078.71	4,085.26	80.40%	4.20%

Source: Bank of Thailand (www.bot.or.th)

2.2 Prior research

While prior research provides evidence on the use of conservatism in debt contracts (Leftwich 1983; El-Gazzar and Pastena 1990; Leuz et al. 1998), there is very limited evidence on the benefits of conservatism in debt contracts. In this section, I briefly review the prior studies that are closely related to my study.

Watts (2003a, b) summarizes the existing theory and evidence on accounting conservatism. He highlights that debt holders concern with downside risk and tend to concentrate on the lower ends of earnings and net assets distributions. Debt holders want to assure that the minimum amount of liquidation value of net assets will be greater than their contracted amount. In addition, conservative reporting allows debt holders to monitor the borrower's ability to pay.

Ahmed et al. (2002) provide evidence that firms facing more severe conflicts over dividend policy tend to use more conservative accounting. Moreover, they also show that conservatism reduces cost of debts, though they measure cost of debts indirectly using debt ratings. They conclude that accounting conservatism has an important role in mitigating bondholder-shareholder conflicts over dividend policy, and in reducing the cost of debts. In another related paper, Moerman (2006) shows that the bid-ask spread in the secondary loan market is lower for more conservative borrowers.

Zhang (2008) investigates the benefits of conservatism to both lenders and borrowers. She finds that conservatism benefits lenders ex post through the timely signaling of default risk. In other words, more conservative borrowers are more likely to violate covenants after a negative price shock, ceteris paribus. She further shows that conservatism benefits borrowers ex ante through lower interest rates imposed on conservative borrowers.

To conclude, the existing literature suggests that accounting conservatism enhances efficiency in the debt contracting (Watts and Zimmerman, 1986; Watts, 2003a, b). There is limited empirical evidence that conservatism benefits lenders (Zhang, 2008) and borrowers (Ahmed et al., 2002 and Zhang, 2008).

3. Hypotheses development and research design

3.1 Hypotheses development

Agency theory suggests that bondholders' and shareholders' claims in a firm have conflicting interests over dividend policy (Jensen and Meckling, 1976). Specifically, overpayment of dividends can transfer wealth from bondholders to shareholders by reducing the assets available for meeting bondholders' fixed claims and thus increasing the default risk for bondholders. To reduce this bondholder-shareholder conflict, bondholders typically include dividend policy restrictions in debt contracts (e.g., Black, 1976; Smith and Warner, 1979; Kalay, 1982; Leftwich, 1983; Healy and Palepu, 1990; El-Gazzar and Pasena, 1990, 1991).

Firms typically specify an upper bound on dividend payments in terms of maintaining retained earnings amount and certain balance sheet ratios (Kalay, 1982). Conservative accounting methods result in lower earnings and retained earnings amounts used in consideration of dividend distribution. Conservative accounting also reduces the value of assets in various balance sheet ratios, tightening restrictions on dividend distribution.

Thus, we expect that firms facing more severe bondholder-shareholder conflicts use more conservative accounting in order to tighten restrictions on dividend policy, thus decrease the likelihood of excessive dividend payments. This leads to the first hypothesis (stated in alternative form):

> H1: Firms facing more bondholder-shareholder conflicts over dividend policy use more conservative accounting.

If firms facing more severe bondholder-shareholder conflicts use more conservative accounting to tighten restrictions on dividend policy, the risk of paying excessive dividends reduces. This reduced risk results in a lower rate of return required by bondholders. Thus, we expect that accounting conservatism helps to lower the borrower's cost of debt. This leads to the following hypothesis (stated in alternate form):

> H2: Firms using more conservative accounting incur lower debt costs.

3.2 Research design

3.2.1 Measures of conservatism

Followed Ahmed et al. (2002), two measures of conservatism, the market-value-based measure following Beaver and Ryan (2000) and the accrual-based measure following Givoly and Hayn (2000) are employed in this study.

Beaver and Ryan (2000) measure conservatism using firms' book-to-market ratios based on the notion that firms using conservative accounting report lower net assets and lower book-to-market ratios. Using pooled time-series and cross-sectional data, we regress book-to-market ratios on individual year and firm dummy variables and on individual firm stock returns for the current and previous four years in the following model of Beaver and Ryan (2000):

$$BMT_{it} = \alpha + \alpha_i + \alpha_t + \sum_{j=0}^{4} \beta_j RET_{it-j} + \varepsilon_{it} \qquad (1)$$

where:

BMT_{it} = the book-to-market ratio for firm i at fiscal year-end t;

α = the intercept across all firms and years;

α_i = the persistent firm-specific bias component of book-to-market ratio over the study period;

α_t = the year-specific component of book-to-market ratio across all firms; and

RET_{it} = the stock return (with dividends) for firm i in year t.

The estimated coefficient of an individual firm's dummy, α_i, captures the persistent portion of the difference between the firm's book and market values of equity. The lower the coefficient, the more the book value of net assets is biased downward and the more conservative the firm's accounting. However, for ease of presentation, α_i is multiplied by -1 and refer to this market-based proxy as CONMKT. Thus, the more conservative accounting is, the higher the value of CONMKT.

For the accrual-based measure of conservatism, Givoly and Hayn (2000) argue that conservative accounting leads to persistently negative accruals, in contrast to the expected pattern of accrual reversals. Thus, a firm's mean accrual over a reasonably long period is used to measure conservatism. We estimate total accruals as the difference between net income and cash flows from operations, deflated by total assets average over the study period. Consistent with Ahmed et al. (2002), we multiply this measure by -1 and refer to this accrual-based proxy as CONACC. Thus, the more conservative accounting is, the higher the value of CONACC.

3.2.2   Test of H1

Similarly to Ahmed et al. (2002), the model used to test the cross-sectional variation in conservatism includes three proxies for bondholder-shareholder dividend policy conflicts: operating uncertainty, level of dividends, and leverage. Four other proxies for alternative motivations for and

costs of conservatism are used as control variables. Except for the measure of conservatism previously discussed in Section 3.2.1, the measurements of other variables are discussed below. The regression model used to test H1 is as follows:

$$
\begin{aligned}
CON_i ={}& \beta_0 + \beta_1 STDROA_i + \beta_2 DIV_i + \beta_3 LEV_i + \\
& \beta_4 ROA_i + \beta_5 SIZE_i + \beta_6 SALESGRO_i + \\
& \beta_7 TAX_i + \varepsilon_i \qquad\qquad (2)
\end{aligned}
$$

where:

CON_i = one of two measures of conservatism of firm i:

CONMKT = the market-value-based conservatism proxy, defined as $-\alpha_i$ in model (1), or

CONACC = the accrual-based conservatism proxy, defined as mean of total accruals multiplied by -1 and deflated by total assets;

$STDROA_i$ = the standard deviation of firm i's return on assets (a proxy for operating uncertainty);

DIV_i = firm i's common dividends divided by its total assets (a proxy for dividend policy);

LEV_i = firm i's long-term debt divided by its total assets (a proxy for leverage);

ROA_i = firm i's net income before extraordinary items divided by its total assets (a control for profitability);

SIZE$_i$ = the natural log of firm i's total assets;

SALESGRO$_i$ = the annual percentage change in firm i's sales (a control for growth opportunities);

TAX$_i$ = firm i's income tax expenses deflated by total assets.

Bondholder-shareholder dividend policy conflicts

Followed Ahmed et al. (2002), three proxies for bondholder-shareholder conflicts over dividend policy are used: operating uncertainty, level of dividends, and leverage. For operating uncertainty, Ahmed et al. (2002) state that when firms have high operating uncertainty, they are more likely to have large shocks in earnings and asset values. Large positive shocks that are unsustainable tend to increase retained earnings, and possibly resulting in overpayment of dividends. Watts (1993) also suggests that greater uncertainty about future profits implies a greater risk that current dividends transfer too many resources to shareholders. Therefore, the higher the operating uncertainty, the more bondholder-shareholder conflicts over dividend policy. The operating uncertainty is measured by the average standard deviation of the firm's return on assets over the study period (STDROA).

Secondly, bondholders are more likely to concern about dividend overpayment if the firm pays a relatively high level of dividends. Thus, the higher the level of dividends, the more bondholder-shareholder conflicts over dividend policy. We measure the level of dividends (DIV)

as a proportion of total assets averaged over the study period.

For the third proxy, the higher the leverage, the higher claim on the firm's assets by bond-holders. In this situation, bondholders have more concerns about the firm's ability to satisfy their fixed claims since stockholders may reduce the available assets by over-paying dividends. Thus, firms facing higher leverage are likely to have greater bondholder-shareholder conflicts over dividend policy. Leverage (LEV) is measured as a long-term debt-to-total assets ratio, averaged over the study period.

Hypothesis 1 predicts positive coefficients on all three proxies for the degree of bondholder-shareholder conflicts over dividend policy.

Control variables

Four additional variables are used to control for alternative motivations for conservatism and for cost of conservatism: profitability, size, sales growth, and tax. The first three variables are used in Amhed et al. (2002). Firstly, it is more costly for low-profitability firms to use conservative accounting and resulting in a decrease in profits. In other words, high-profitability firms can better afford accounting conservatism. Thus, firms with high profitability are expected to use more conservative accounting methods. However, when accounting conservatism is measured by negative accruals, high conservatism implies lower profitability. The relation between negative accruals and profitability is opposite to the relation between accounting conservatism and profitability. Thus, the regression

coefficient for the profitability can be either positive or negative. An average ROA over the study period is used to measure a firm's profitability.

Secondly, Zmijewski and Hagerman (1981) find that large firms use more conservative accounting choices. Thus, firm size is expected to have a positive relation with accounting conservatism. The natural log of total assets is employed to measure firm size. The inclusion of total assets helps to ensure that the positive relation between conservatism and dividend-to-assets or leverage is not induced by lower asset values in the denominator of the ratios (Amhed et al., 2002).

Thirdly, Dechow and Sloan (1997) evidence that book-to-market ratio is inversely related with sales growth. Sales growth influences the market's expectations of future growth and hence increases in stock prices. When stock prices increase, book-to-market ratios decrease which implies high conservatism measured by CONMKT. Thus, we expect that sales growth is positively related with conservatism measured by CONMKT. On the contrary, an increase in sales growth is likely to decrease negative accruals, resulting in a decrease in conservatism as measured by CONACC. Thus, we expect that sales growth is negatively related with conservatism measured by CONACC. Sales growth (SALEGRO) is measured as an average change in sales over the study period.

In addition to the factors considered in Ahmed et al. (2002), we add an income tax expense as the fifth control variable in model (2). Watts (2003) suggests income tax as an explanation for

conservatism because taxable income and methods for calculating taxable income influence the calculation of reported earnings. We do not include the sum of R&D and advertising expenses as a control for growth opportunity since these data are not available for our sample but believe that the growth opportunity has already been captured by CONMKT.

3.2.3   Test of H2

Similarly to Ahmed et al. (2002), the following model is used to test whether firms applying more conservative accounting will incur lower debt costs:

$$
\begin{aligned}
\text{RATING}_i \;=\; & \gamma_0 + \gamma_1 \text{CON}_i + \gamma_2 \text{ROA}_i + \gamma_3 \text{LEV}_i \\
& + \gamma_4 \text{SIZE}_i + \gamma_5 \text{BETA}_i + \gamma_6 \text{MSE}_i \\
& + \mu_i
\end{aligned}
\tag{3}
$$

where:

RATING$_i$ = a numerical transformation of debt rating for firm i over the interval 2 through 27, where large values correspond to a less favorable debt rating, averaged over the estimation period;

BETA$_i$ = the value-weighted market-model beta, obtained from market-model estimates over the three-year period for firm i; and

MSE$_i$ = the mean squared error for the market-model residuals, obtained from market-model estimates over the three-year period for firm i.

All other variables are as defined in Section 3.2.2.

Cost of Debt

The cost of debt is measured indirectly similar to Ahmed et al. (2002). Prior evidence suggests that a firm's debt rating is closely associated with default risk (Altman, 1992), interest rates (S & P, 1986), and bond prices (Hand et al., 1992). Thus, debt rating is used as a proxy for a firm's cost of debt.

There are two rating institutions in Thailand: TRIS Rating and Fitch. Rating scales are quite similar except for speculative grade bonds (detailed in Table 2). To transform an ordinal scale of debt rating to an interval scale, a numerical value is assigned to each rating, assuming that the different among each interval has the same different in investment risk (Horrigan, 1966). The numerical values for debt ratings are presented in the last column in Table 2. If bonds have ratings from both institutions, the average value is used.

Since lower values of RATING are associated with better debt ratings and lower debt costs, H2 predicts a negative coefficient on CON, indicating that more conservative firms pay lower cost of debts.

Control variables

Debt ratings vary cross-sectionally with firm characteristics such as profitability, firm size, and equity risk (Kaplan and Urwitz, 1979). Thus, we include five additional variables, consistent with

Ahmed et al. (2002), in order to examine whether conservatism is incrementally associated with firm's cost of debts, as measured by its debt rating. Five additional variables are ROA, a leverage ratio (LEV), a log of total assets (SIZE), a measure of systematic risk (BETA), and a measure of unsystematic equity risk (MSE).

4. Sample and data characteristics

Fifty-four companies listed in the Stock Exchange of Thailand (SET) issue bonds continually for the period during 2003 and 2005. Financial statements data are collected from the I-SIMS (Integrated-SET Information Management System) CDs and SETSMART (SET Market Analysis and Reporting Tool) issued by the SET. Due to missing data from financial statements, only forty-eight firm-year observations are used to estimate proxies for conservatism. The firm-year observations in each regression for the two conservatism measures are reduced because of (1) data availability for estimation of conservatism measures, (2) unobtainable rating information, and (3) deletion of outliers. Data points falling outside the corridor of three times the standard deviation are considered outliers and are deleted from the sample. Table 3 shows the classification of the sample by industry. The majority of sample firms are in finance and property & construction industries.

Table 2   Debt Ratings in Thailand by TRIS Rating and Fitch Rating (Thailand) and the Transformation of an Ordinal Scale of Debt Rating to an Interval Scale

TRIS Rating	Fitch Rating (Thailand)	Numerical value
AAA	AAA (tha)	2
AA+	AA+ (tha)	3
AA	AA (tha)	4
AA-	AA- (tha)	5
A+	A+ (tha)	6
A	A (tha)	7
A-	A- (tha)	8
BBB+	BBB+ (tha)	9
BBB	BBB (tha)	10
BBB-	BBB- (tha)	11
BB+	BB+ (tha)	12
BB	BB (tha)	13
BB-	BB- (tha)	14
B+	B+ (tha)	15
B	B (tha)	16
B-	B- (tha)	17
	CCC+ (tha)	18
	CCC (tha)	19
	CCC- (tha)	20
	CC (tha)	21
C+		22
C	C (tha)	23
C-		24
	DDD (tha)	25
	DD (tha)	26
D	D (tha)	27

Table 3 The Classification of the Sample by Industry

Industry	Number of firms that have bondholder-shareholder conflicts	Number of firms to test H1		Number of firms to test H2	
		CONMKT	CONACC	CONMKT	CONACC
Agro & Food	1	1	1	1	1
Consumer Products	1	1	1	-	-
Financials	17	12	14	8	10
Industrials	5	4	4	2	2
Property & Construction	13	11	11	9	9
Resources	6	4	5	3	4
Services	7	6	6	5	5
Technology	4	4	4	2	2
Total	54	43	46	30	33

Definition of variables:

CONMKT = the market-based conservatism proxy, defined as $-\alpha_i$ in model (2), which represents the relative firm effect from a regression of book-to-market on current and lagged stock returns, multiplied by -1 to yield an increasing measure of conservatism;

CONACC = the accrual-based conservatism proxy, defined as three-year mean of total accruals deflated by total assets and multiplied by -1 to yield an increasing measure of conservatism.

Table 4 presents the descriptive statistics for all variables during the study period. For the measures of conservatism, the larger value of CONMKT indicates a relatively smaller book-to-market ratio, accordingly the greater the conservatism. Similarly, the larger value of CONACC indicates more negative accruals, thereby the greater the conservatism. However, the mean value of CONMKT for our sample is 0.05, which is not significantly different from zero. In contrast with prior studies, CONACC has a mean of -1.361 which indicates that the sample firms have positive accruals during the study period.

The mean debt rating is 8.002, corresponding to A- rating for both TRIS and Fitch ratings. The standard deviation of 2.213 suggests that the sample firms exhibit reasonable variation in debt rating. The mean of STDROA is 0.036 while the average payout dividends is 1.9% of total assets. About 22.8% of the sample firms' assets levered. The sample is relatively large firms and has average annual growth in sales of 20.5% over the study period. The mean income tax expense is only 1.2% of total assets.

Table 4 Descriptive Statistics for the Sample

Variable	n	Mean	Standard Deviation	First Quartile	Median	Third Quartile
CONMKT	43	0.050	0.473	-0.136	0.092	0.352
CONACC	46	-1.361	9.070	-4.729	-0.854	3.170
RATING	33	8.002	2.213	7.000	8.500	10.000
STDROA	46	0.036	0.035	0.008	0.027	0.048
DIV	46	0.019	0.029	0.001	0.009	0.022
LEV	46	0.228	0.152	0.114	0.209	0.354
ROA	46	0.073	0.087	0.020	0.060	0.133
SIZE	46	10.455	0.814	9.930	10.482	10.989
SALEGRO	46	0.205	0.216	0.078	0.151	0.303
TAX	46	0.012	0.020	0.001	0.004	0.013
BETA	46	0.945	0.516	0.659	0.888	1.148
MSE	46	1.829	1.598	0.484	1.257	2.792

Definition of variables:

CONMKT = the market-based conservatism proxy, defined as $-\alpha_i$ in model (1), which represents the relative firm effect from a regression of book-to-market on current and lagged stock returns, multiplied by -1 to yield an increasing measure of conservatism;

CONACC = the accrual-based conservatism proxy, defined as three-year mean of total accruals deflated by total assets and multiplied by -1 to yield an increasing measure of conservatism;

RATING = a numerical transformation of Thai BMA debt rating over the interval 2 through 27, where large values

correspond to a less favorable debt rating, averaged over three-year;

STDROA = the standard deviation of return on assets, averaged over three-year (a proxy for operating uncertainty);

DIV = common dividends divided by total assets, averaged over three-year (a proxy for dividend policy);

LEV = long-term debt divided by total assets, averaged over three-year (a proxy for leverage);

ROA = net income before extraordinary items divided its total assets, averaged over three-year (a control for profitability);

SIZE = the natural log of total assets, averaged over three-year;

SALESGRO = the annual percentage change in sales, averaged over three-year (a control for growth opportunities);

TAX = income tax expenses deflated by total assets, averaged over three-year;

BETA = the value-weighted market-model beta estimated over the three-year period using monthly returns (control for systematic equity risk); and

MSE = the mean squared error for the market-model residuals over the three-year period using monthly returns (control for idiosyncratic equity risk).

Table 5: Correlation Coefficient[a] (n=46)

Variable[b]	CONACC	CONMKT	RATING	STDROA	DIV	LEV	ROA	SIZE	SALESGRO	TAX	BETA	MSE
CONACC		0.195	-0.332	0.151	-0.115	0.207	-0.047	0.115	-0.305	-0.006	0.198	0.006
CONMKT	0.172		-0.292	-0.356*	0.203	0.039	0.175	0.423**	-0.049	0.050	-0.370*	-0.314*
RATING	-0.402*	-0.219		0.186	-0.228	0.234	-0.238	-0.621**	0.046	-0.122	-0.144	0.377*
STDROA	0.125	-0.348*	0.160		0.202	0.363*	0.271	-0.521**	0.171	0.205	0.389**	0.548**
DIV	0.046	0.365*	-0.329	0.156		0.242	0.652**	0.086	0.216	0.535**	-0.062	-0.018
LEV	0.071	0.110	0.113	0.172	0.132		0.436**	-0.296*	0.237	0.471**	0.090	0.382
ROA	-0.078	0.303*	-0.455**	-0.027	0.657***	0.297*		0.003	0.301*	0.535**	0.176	0.158
SIZE	0.176	0.377**	-0.555**	-0.448**	0.105	-0.249	0.104		-0.069	-0.132	0.007	-0.634**
SALESGRO	-0.405**	-0.036	0.112	0.007	0.004	0.161	0.197	-0.139		0.253	0.125	0.191
TAX	0.167	0.234	0.573**	0.046	0.660**	0.242	0.691**	0.107	0.090		0.058	0.105
BETA	0.240	-0.484**	-0.215	0.302*	-0.038	0.106	0.051	-0.013	0.073	0.009		0.216
MSE	-0.047	-0.395	0.354*	0.381	-0.029	0.242	-0.036	-0.540**	0.080	-0.093	0.168	

See Table 4 for variable definitions.
**, * Denotes significance at <.01 and <.05 levels, respectively, for two-tailed test.
a Spearman correlation coefficients are in the upper-right of the table and Pearson correlation coefficients are in the lower-left of the table.

Table 5 presents Spearman (top diagonal) and Pearson (bottom diagonal) correlations among our conservatism proxies, debt ratings, bondholder-shareholder dividend policy conflict measures, and control variables. The two conservatism proxies are weakly positively correlated. CONACC is not significantly correlated with any proxies for bondholder-shareholder dividend policy conflicts. Contrary to H1, CONMKT is significantly negatively correlated with one of the three proxies for bondholder-shareholder dividend policy conflicts (STDROA). The only correlation that is consistent with H1 is the Pearson correlation between CONMKT and DIV.

For variables of H2, the Spearman correlations between both conservatism proxies and ratings are negative, though insignificant. The Pearson correlation between CONACC and RATING is negatively significant. However, these univariate correlations do not control for other determinants in order to evaluate the incremental effect of conservatism on bondholder-shareholder dividend policy conflicts and debt ratings.

5. Results

5.1 Conservatism and bondholder-shareholder dividend policy conflicts

The regression results to test the cross-sectional variation in conservatism are presented in Table 6.[1] When conservatism is measured by CONMKT, the coefficient on STDROA is negatively significant at 0.01, inconsistent with H1. This negative coefficient indicates that the greater the bondholder-shareholder dividend policy conflicts, as measured by the operating uncertainty, the lower the conservatism. This result suggests that firms with greater operating uncertainty tend not to adopt conservative accounting choices to lower earnings and thereby to constrain the overpayment of dividends. Consistent with H1, DIV with the coefficient of 11.27 is significantly positive at 0.05 as predicted. However, the coefficient on LEV is insignificant with predicted sign. Further, none of the control variables are significantly related to CONMKT-conservatism proxy. Though insignificant, two of the four control variables (ROA and SIZE) have the predicted sign while the other two variables (SALESGRO and TAX) have the contradicted sign. Ahmed et al. (2002) also evidence this negative relation for SALESGRO suggesting that this is the case where SALESGRO is not able to proxy for expected future growth.[2]

Overall, the results suggest that the accounting conservatism, as captured by CONMKT, is associated with bondholder-shareholder conflicts stemming from dividend policy, but not from profit volatility and leverage.

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[1] Univariate regressions for each variable do not show significant coefficients. The results are not reported here.

[2] Ahmed et al. (2002) suggest that the negative coefficient on sales growth may by due to a relation between realized growth and book-to-market ratios. Greater realized growth increases the proportion of new to old assets. This reduces the disparity between the book and market values for newer assets, which in turn leads to lower estimated conservatism.

Table 6 Regression Results for the Cross-Sectional Variation in Accounting Conservatism

$$CON_i = \beta_0 + \beta_1 STDROA_i + \beta_2 DIV_i + \beta_3 LEV_i + \beta_4 ROA_i + \beta_5 SIZE_i$$
$$+ \beta_6 SALESGRO_i + \beta_7 TAX_i + \varepsilon_i$$

Variable	Dependent variable-CONMKT			Dependent variable-CONACC		
	Predicted sign	Coefficient	p-value	Predicted sign	Coefficient	p-value
Intercept		-1.491	0.097		-31.275	0.061
Proxies for bondholder-shareholder conflicts						
STDROA	+	-4.398	0.029	+	54.097	0.098
DIV	+	6.464	0.027	+	-35.062	0.289
LEV	+	0.624	0.092	+	9.558	0.145
Control variables						
ROA	+	0.137	0.454	?	-27.205	0.116
SIZE	+	0.140	0.086	+	2.837	0.059
SALESGRO	+	-0.035	0.454	-	-15.898	0.005
TAX	+	-2.205	0.321	+	173.401	0.033
Model F-test		2.84*			2.49*	
Adjusted R^2		23.45%			18.84%	
Sample size		43			46	

See Table 4 for variable definitions.
**,* Denotes significance at <.01 and <.05 levels, respectively, for one-tailed test.

When conservatism is measured by CONACC, all three coefficients of the proxies for bond-holder-shareholder conflicts are insignificant. Though insignificant, the coefficients on STDROA and LEV are positive and consistent with the conjecture, while DIV has the contradicted sign. These results suggest that accounting conservatism, as measured in cumulative (signed) accruals is not associated with any proxies for bondholder-shareholder conflicts. Further, the coefficient on SALESGRO is significantly negative indicating that higher sales growth likely increases current accruals, which reduces CONACC. The coefficient for TAX is positively significant. That is, firms with higher tax expense record more conservative accruals. This result supports Watts's (2003) explanation for conservatism that taxable income and methods for calculating taxable income influence the calculation of reported earnings. Firms with negative accruals result in decreasing in ROA and increasing CONACC measure. Though insignificant, the result lends support by showing a negative coefficient for ROA. SIZE has the corrected sign, but it is insignificant. The adjusted R2 indicates that the models explain only marginal amount of variation in firms' conservative accounting.

In sum, the evidence on the cross-sectional variation in conservatism indicates a very weak association between conservatism and bondholder-shareholder conflicts over dividend policy in Thai emerging stock and bond markets. Only market-value-based conservatism, CONMKT is associated with the proxy for level of dividends (as a percentage of total assets).

5.2 Conservatism and cost of debt

Table 7 presents the association between conservatism and cost of debt. Using CONMKT as the proxy for conservatism, the coefficient on CONMKT is insignificant and has the contradicted sign. Using CONACC as the proxy, the coefficient on CONACC is also insignificant, but has the predicted sign. This result is inconsistent with the evidence found in the U.S. These results suggests that, in Thailand, firms using more conservative accounting do not have more favorable debt ratings which proxy for lower cost of debts. For both proxies of conservatism, the coefficients on SIZE are significantly negative as expected. The coefficient on ROA is negatively significant as predicted when CONACC is used to proxy for conservatism. The adjusted R^2 indicates that the model explain marginal amount of variation in firms' debt costs. Thus, the result suggests that Thai listed firms using more conservative accounting do not incur lower cost of debts, after controlling for profitability, leverage, firm size, and equity risk. This evidence is inconsistent with the U.S. documented in Ahmed et al. (2002). The plausible explanations are that (1) credit analysts might adjust reporting numbers in the process of determining cost of debts, thus accounting choices of conservatism play no important role, or (2) non-affected by conservatism number such as cash flows is used in determining cost of debt.

Table 7 Regression Results for the Association between Accounting Conservatism and Cost of Debt

$$RATING_i = \gamma_0 + \gamma_1 CON_i + \gamma_2 ROA_i + \gamma_3 LEV_i + \gamma_4 SIZE_i + \gamma_5 BETA_i + \gamma_6 MSE_i + \mu_i$$

Variable	Predicted sign	Proxy for conservatism (CON)-CONMKT		Proxy for conservatism (CON)-CONACC	
		Coefficient	p-value	Coefficient	p-value
Intercept		22.998	0.000	21.644	0.004
Proxies for bondholder-shareholder conflicts					
CON	-	-0.031	0.209	0.157	0.438
Control variables					
ROA	-	-9.724	0.034	-10.137	0.055
LEV	+	-0.810	0.398	1.546	0.332
SIZE	-	-1.380	0.009	-1.292	0.032
BETA	+	0.078	0.456	0.336	0.357
MSE	+	0.282	0.127	0.232	0.204
Model F-test		3.93**		1.58	
Adjusted R2		37.74%		11.78%	
Sample size		30		27	

See Table 4 for variable definitions.
**,* Denotes significance at <.01 and <.05 levels, respectively, for one-tailed test.

6. Conclusion

This study provides weak evidence that accounting conservatism helps to mitigate bondholder-shareholder conflicts over dividend policy in Thai emerging stock and bond markets. Only the market-based measure of conservatism is significantly positively associated with dividend-to-asset ratio which proxies for bondholder-shareholder conflicts. Inconsistent with the expectation, the market-based measure of conservatism is significantly negatively associated with profit volatility, the proxy of bondholder-shareholder conflicts.

In contrast to Ahmed et al.'s (2002) finding that conservatism reduces cost of debts, the evidence in this paper shows that Thai firms using more conservative accounting do not have favorable debt ratings which proxy for firms' cost of debts. These results suggest that accounting conservatism does not have an important role in efficient debt contracting in Thai emerging stock and bond markets yet. One plausible explanation is that listed firms might focus on increasing firm values through return-earnings relation rather than mitigation of bondholder-shareholder conflicts over dividend policy. The findings from this study call for the stimulation of the conservatism accounting's benefit to mitigate the bondholder-shareholder conflicts over dividend policy in the environment where the stock and the bond markets are emerging.

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