Accounting Conservatism and Cost of Debt of African Firms: Based on Ownership Structure

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Abstract

This study examines the relationship between accounting conservatism and the firm?s cost of debt in an African firm?s settings. In further, the paper investigated the moderating effects of a firm?s ownership structure in this relationship. It uses firm-level data of 224 firms in 8 African countries from OSIRIS databases from 2007 to 2018. We employed a linear regression model to estimate the relationship and the moderating effects of ownership structure. We adopted a model of Givoly and Hayn (2000) the accrualbased measure of accounting conservatism to quantify the level of conservatism reporting of the firm, and we use 1-year ahead interests paid for the total interest-bearing debt to measure the cost of the firm?s debt capital. The findings indicated that the relation between accounting conservatism and cost of debt is negative as expected, and firms with high accounting conservatism in recognizing their losses than their gain enjoy a low cost of debt. The result also proves that firms with high institutional ownership shareholding percentages are more conservatism. Institutional ownership boots the relationship between accounting conservatism and the cost of debt. The results have a contribution to the positive accounting theory suggests that accounting conservatism enhances efficiency in the debt contracts process (Watts and Zimmerman 1986).

Index terms— accounting conservatism, cost of debt, ownership structure.

1 Introduction

he concept of accounting conservatism has a long history in accounting studies. Several works of literature defined conservatism from different angels. In the empirical work, Basu (1997) interprets accounting conservatism to capture accountants' tendency to require a higher degree of verification for recognizing good news than bad news in financial statements. Accounting conservatism is a tendency that accountants when encountering uncertainties in economic transactions, choose to report lower prediction for the values of assets and revenues, but higher estimates for the amounts of liabilities and expenses **??**Wang, Ã?" Hogartaigh, et al. 2009). Watts (2003) defined accounting conservatism as the differential verifiability required for recognition of profits versus losses. Hille (2011) also construed that accounting conservatism is about an asymmetry between the verification of positive and negative income streams and profits are being reported far more prudent, while losses are overestimated. Ruch and Taylor (2015) explained it as accounting policies or tendencies that result in the downward bias of accounting net asset value relative to the economic net asset value.

Generally, speaking accounting conservatism is differential verifiability for gains and losses where a high level of verifiability to be given to gains that are good news than losses that is bad news in financial reporting. It had been concluded that conservatism could lead to a direct benefit to investors in the form of more efficient investments **??**Lara, Osma, et al. 2016). Several pieces of literature made clear that accounting conservatism generates positive economics outcomes (Khan and Watts 2009), (Goex and Wagenhofer 2009), (Jayaraman and Shivakumar 2013), **??**Lara, Osma et al. 2016). In their studies, Zhong and Li (2017), concluded that accounting conservatism is imperative and cannot be excluded from accounting standards.

1 INTRODUCTION

The demand for conservatism in financial reporting comes from different stakeholders of the firm or enterprise. Lenders (Debt holder) in the debt market needs more conservatism accounting reporting in to evaluate their fund and make a contract with a firm. Investors in equity market demand conservative reporting to control opportunistic management and to make decisions about the firm, Similar to equity market users and debt market users, accounting information is of high quality to corporate governance users if it is relevant to corporate governance decisions and mitigates information asymmetry between shareholders and firm management (Ruch and Taylor 2015). **??**oh, Lim et al. (2017) studied whether conditional conservatism reduces information asymmetry differentially for shareholders and debt holders, and they use the setting of a firm's choice between equity versus debt when it seeks a significant amount of external financing to examine this research question. They found that when firms raise a significant amount of external financing, the use of equity (versus debt) increases with the level of conservatism and also found that the reduction in cost of equity associated with conservatism is more for equity issuers than for debt issuers, but find no such difference when they examine cost of debt. Lai and Taylor (2008) studied firm-level accounting conservatism in the Australian setting and concluded that conservatism is positively associated with stock return volatility, investment cycle length, and prior period conservatism, and it is negatively associated with firm age, firm size, and leverage. García Lara, Garcia Osma et al. **??**2005) predicted that conservatism also mitigates underinvestment among firms facing financing difficulties. They concluded these firms likely suffer from related problems such as the risk of insolvency and low profitability. **??**Chen, Hu et al. 2013) Investigated whether accounting conservatism solves the misalignment of interest between managers and shareholders by increasing hurdle rates used by managers during project selections. They argued that accounting conservatism raises managerial cautiousness in project screening. By incorporating bad news timely into earnings, a conservative accounting system increases the likelihood of early termination of unsuccessful projects, increasing a personal costs of the manager and thus deterring managers from investing in projects merely to enjoy private benefits. They found that conservative accounting increases hurdle rates, and such increases are more pronounced for firms that exhibit a higher degree of the agency problem. They also showed conservatism adds value to firms when an investment is under consideration.

Furthermore, prior researches showed that there is a relationship between accounting conservatism and the firm's cost of capital (Li 2015), Hille, 2011, **??**Beatty, Weber, et al. 2008) and others. Li (2015) concluded that in international setting, firms domiciled in countries with more conservative financial reporting systems have lower costs of equity and debt capital. On his part, Hille (2011) found the relation between accounting conservatism and the cost of debt is significant and concludes that firms that are more conservative face lower costs of debt. Contrary to the above literature, **??**igler, Kanodia et al. (2009), examined how accounting conservatism affects ef ficiency debt contracting. They developed the statistical and informational properties of accounting reports under varying degrees of conditional and unconditional accounting conservatism and found that accounting conservatism decreases the efficiency of debt contracts. **??**Lin, Wu et al. 2014)Investigated the relationship among accounting conservatism, institutional investor shareholdings, and earnings manipulation by using Benford's law, and results indicated that firms with more conservative financial reporting have less probability of engaging in earnings-manipulative activities. They also found a negative association between earnings management and institutional investor shareholdings. (Sánchez-Ballesta and García-Meca 2011) Empirically test the association between conditional conservatism and the cost of equity capital. Conditional conservatism imposes stronger verification requirements for the recognition of economic gains than economic losses, resulting in earnings of those reflect losses faster than benefits. Using standard asset pricing tests, they also found a significant negative relation between conditional conservatism and excess average stock returns. On the other, several types of research had investigated the relationship between ownership structure and accounting conservatism. For instance, Cullinan, Wanget al. (2012)found that conservatism is negatively associated with the percentage of shares held by the largest shareholders and that this effect is particularly significant when the ownership percentage exceeds 30% and they indicated that state ownership influences the relationship between largest shareholder's ownership and accounting conservatism. Several kinds of research also showed that stable shareholdings are negatively related to degrees of conservative accounting. Other studies like Alkurdi, Al-Nimer et al. (2017) also showed that there is an inverse effect of government ownership on accounting conservatism. They also indicated that there is a significant and positive relationship between foreign and institutional ownership with accounting conservatism, but the concentration doesn't affect conservatism.

However, all of the afros mentioned studies and others conducted in countries with a well-organized and efficient capital market. There is an empirical research gap on the relationship between accounting conservatism and the firm's cost of capital in developing nations, particularly Africa. Furthermore, the moderating effects of ownership structure on these relationships are where the previous studies overlooked. Such kind of research had not been conducted on African firms, which is working in a different setting and with a diverse scenario where most of the countries in the continent do not have an efficient and effective capital market. There are very little researches conducted in Africa about accounting conservatism. For instance, Houcine (2013) the effect of accounting conservatism on firm investment efficiency in an emerging market form the Tunisian context, and they concluded that conservatism has no significant impact on firms' investment efficiency the Tunisian market. Recently, Ugwunta and Ugwuanyi (2019) tried to see the association between accounting conservatism and performance of consumer goods firms in the context of Nigeria as opposed to the assumed negative relation and findings from their study suggest that accounting conservatism has a positive but non-significant effect on firm

performance. As far as our knowledge concerned, there is no empirical research has been done on the relationship between conservatism accounting reports and the cost of debt capital in the context of Africa so far.

Thus, our main objective here is to examine the relationship between accounting conservatism and the cost of debt and in further moderating effects of ownership structure. We investigate it using samples of non-financial African firms from 2007 to 2018. By employing a model of Givoly and Hayn (2000) the accrual-based measure of accounting conservatism we measure the level of conservatism reporting of the firm, and we use 1-year ahead interests paid for the total interest-bearing debt to calculate the cost of the firm's debt capital. We found that the relationship between accounting conservatism and cost of debt is negative, and firms with high accounting conservatism in recognizing their losses than their gain enjoy a low cost of debt. Further, our results prove that firms with high institutional ownership shareholding percentages are more conservatism. We indicated that institutional ownership boots the relationship between accounting conservatism and the cost of debt. The remaining parts of the study structured as; review of the literature and hypothesis development, research methods, results and discussion, and conclusions.

2 II. The Literatures Review and Hypothesis Development a) The relation between accounting conservatism and the cost of debt

This study is based on the literature linking accounting policy choice and financing decisions of the firm. There are two accounting theories, namely positive and normative accounting theories. In positive accounting theory, the investigator tries to predict and explain a particular phenomenon using observation, whereas in normative accounting theory, the investigator uses his/her assumption to explain the phenomenon (Deegan and Unerman 2011). Positive accounting theory suggests that accounting conservatism enhances efficiency in the debt contracts process (Watts and Zimmerman 1986). In their empirical work, Goh, Lim et al. (2017), argued that there is an association between accounting conservatism and debt versus equity financing decision choice. In more specific, Khurana and Wang (2015) proved that short-maturity debt could mitigate agency costs of the debt arising from information asymmetry and suboptimal investment problems inherent in debt financing. As such, debt contracting demand for accounting conservatism is expected to be lower in the presence of more shortmaturity debt. **??**Ahmed, Billings et al. 2002) showed that conservatism is positively associated with mitigating bondholder-shareholder conflict and lower debt cost of capital.

Francis, LaFond, et al. (2004)concluded that there is no significant evidence to indicate that conservatism affects the cost of equity capital. However, a large stream of research successively shows the effects of conservatism on the cost of equity capital. **??**im, Li et al. (2013)Using seasoned equity offerings (SEOs), examined the role of accounting conservatism in the equity market and found that issuers with a higher degree of conservatism experience fewer negative market reactions to SEO announcements. **??**han, Lin, et al. (2009) analyzed that unconditional conservatism is associated with a lower cost of equity capital, and conditional conservatism is associated with a higher cost of equity capital. Accounting conservatism makes timely loss recognition and deferred gain recognition result in the lower persistence of earnings in bad news periods relative to gain news period. The good news (gains) in earnings is more persistent because the capitalized value of good news is partially recognized in current earnings and partially is deferred in subsequent earnings **??**?odan 2012). **??**ara, Osma, et al. (2016) empirically test the association between conditional conservatism and the cost of equity capital. Conditional conservatism imposes stronger veri fication requirements for the recognition of economic gains than economic losses, resulting in earnings of those reflect losses faster than income. This asymmetric reporting of gains and losses is predicted to lower firm cost of equity capital by increasing bad news reporting precision, thereby reducing information uncertainty (Li 2015) pointed out that is a negative association between conditional conservatism and cost of equity capital. The paper further explores the crosssectional variation of the above relationships, finding that the negative association between conditional conservatism and the cost of equity and debt capital is more pronounced in countries with stronger legal enforcement, suggesting a complementary role between conservatism and legal institutions in capital markets. Empirical findings prove that companies with higher debt costs have a lower level of conditional conservatism, and lenders prefer conservative accounting and timely loss recognition because it improves debt agreement efficiency by sending a timelier signal of default risk and allows them to take protective actions **??**?odan 2012). Zhang (2008) studied the benefits of accounting conservatism for lenders and borrowers and concluded that borrowers profit from accounting conservatism through lower interest rates and lenders profit through reduce downside risk. Conservatism provides timely information about default risk to lenders, which results in lower debt cost of capital for borrowers. Li (2015) hypothesized that there a negative relationship between condition conservatism and the cost of debt capital. Li (2015) found that in international setting, countries with high conservative financial reporting systems have lower costs of equity and debt capital. In further analysis, Li (201) also determined that a negative association between conditional conservatism and the cost of equity and debt capital is more pronounced in countries with stronger legal enforcement, suggesting a complementary role between conservatism and legal institutions in capital markets.

As we have discussed in the previous paragraphs, accounting conservatism is one of accounting policy or measurement that helps both borrowers and lenders in debt contract setting. Lenders use accounting conservatism

to assess the credibility the default risk of the borrower (i.e., firm). Conservatism provides timely information about default risk to lenders, which results in lower debt cost of capital for borrowers.

For example, Li (2015) studied the benefits of accounting conservatism for lenders and borrowers and concluded that borrowers profit from accounting conservatism through lower interest rates and lenders profit through reduce downside risk. In other cases, similar to the shareholder-manager conflict, the agency problem also exists between shareholders and creditors. Due to conflicts of interest, self-serving shareholders may expropriate creditors' value through wealth transfers, such as asset substitution and overpaying dividends. Creditors protect themselves through binding contracts based on a series of performance measures in periodic financial reports. In the event of covenant violation, creditors could reduce their default risk by either taking over control of the firm or by exercising greater oversight. In exchange, creditors are likely to require a lower return from borrowers that commit to a conservative financial reporting practice. Also, many kinds of the literature showed that firms with more conservatism accounting practice bear the lower cost of debt (**??**Ahmed, Billings, et al. 2002), (Zhang 2008), (Li 2015)).

To seriously assess the performance of their borrowers and to avoid their risks, creditors favor a conservative financial reporting system that recognizes unwanted news in a timelier manner than good news and minimizes the default risk. For example, by recording bad news earlier than good news, covenants based on earnings numbers become more binding (e.g., **??**Ahmed, Billings, et al. 2002); (Zhang 2008)). From the above discussion, it could understand as firms become conservative in recording financial report the creditors or lenders require a lower return from their borrower. So, the hypothesis as follows;

H1: There is a negative relationship between accounting conservatism and the cost of debt.

3 b) The Moderating effects of ownership structure

Ownership structure characteristic like institutional ownership, ownership concentration, shareholding controls, and state ownership affects the cost of debt capital and accounting conservatism. The previous literature broadly support the significant influence of the ownership structure characteristic on the practices of the information disclosure by companies. For example, if there is a shareholder who owns a large percentage of the company's shares, this shareholder may heavily influence the functioning of the company organization, and the company's financial reporting quality. Li (2015) indicated that different ownership structure does matter for managers in adopting accounting conservatism. **??**hagat, Black et al. (2004) and Chen, Chung et al. **??**2007)among others, argue that while minority shareholders and institutional investors aiming for short-term trading gains tend to require timely disclosure of bad news, large shareholders with greater access to private information might discourage such disclosure owing to their longer investment horizons.

So, these show that the ownership structure of the company affects accounting conservatism of the company.

On the other hand, ownership also affects the cost of debt capital. For example, Sánchez-Ballesta and García-Meca (2011) noted that ownership structure might promote effective decision making and reduce information asymmetry and moral hazard, thus lowering the firm's cost of debt, mainly by increasing the external monitoring of management and by increasing the incentive alignment between management and shareholders. The empirical results of Lin, Wu et al. (2014) indicated that compared with companies demonstrating the lowest accounting conservatism and high institutional ownership ratios, companies with the lowest accounting conservatism and a low institutional ownership ratio possess enhanced motivation to manage their earnings.

Lafond and Roychowdhury (2008) investigated the association between managerial ownership and conservatism found that firms with lower ownership report more conservative earnings. Their results are consistent with equity stakeholders demanding greater conservatism as a means of addressing agency problems arising from the greater separation between ownership and control. Specifically, managers effectively enjoy limited liability concerning to other stakeholders in the firm. As managerial ownership declines, the severity of the agency problem increases, increasing the demand for conservatism (Lafond and Roychowdhury 2008). They also provide evidence on a source of demand for conservatism from the firm's shareholders.

García-Meca and Sánchez-Ballesta (2009) also noted that directors who own shares tend to aligned with external shareholders, that firms with government ownership enjoy a lower cost of debt and that banks effectively monitor management, so reducing the agency costs of debt.

Based on the arguments above, we argue that ownership structure and its characteristics may have a moderator effect on the relationship between accounting conservatism and the cost of debt capital. Accordingly, the second hypothesis is as follows; H2: The relationship between accounting conservatism and the cost of debt moderated by a firm's ownership structure.

4 c) Research framework

To analysis, the relationship between accounting conservatism and cost of debt capital as moderated by the firm's ownership structure three main proxy variables identified, and analyzed. The first one is accounting conservatism (ACCON), the firm's cost of debt (CD), and institutional ownership as a proxy for a firm's ownership structure. The study also includes some controlling variables; firms return on asset, convergence ratio, leverage ratio, tangibility ratio, and firm's size. Based on the hypothesis the following conceptual research framework has been designed;

5 Methodology a) Data and sample

To investigate the association between accounting conservatism and the cost of debt capital and examine the moderating effects of institutional ownership in these relations, we use OSIRIS financial database as sources of data. All Financial statements, ownership structures, and stock data of the firms extracted from these data sources. The study population is African non-financial publicly listed companies on the OSIRIS database. African Firms registered on the OSRIS database about 1300, including financial institution firms. The sample for the current study determined after excluding financial institution firms and firms with missing data. We exclude them due to that the financial reporting environment for financial institutions differs from that for other companies and to avoid some complexity. Firms that don't have a fiscal year report of 2018 have been excluded from the sample, and firms with missing value also excluded. Accordingly, 224 firms extracted for the analysis purpose. The study covers the period of 2007-2018. We chose this period due to that most African companies listed on the OSIRIS database start adopting IFRS from 2007.

6 b) Variable specifications and measurement i. Measurement for accounting conservatism

Prior literature suggests several empirical measures that can gauge the degree of accounting conservatism. Basu (1997)which is based on asymmetric the timeliness of earnings to good news and the incremental timeliness of earnings to loss news, Givoly and Hayn (2000) model a measurement based on the sign and magnitude of accruals overtime, and firm-year proxy for conditional conservatism model developed by (Khan and Watts 2009), and others.

Considering the scenario of African firms and the data on hand, a model of Givoly and Hayn (2000), the accrual-based measure of accounting conservatism employed to measure the level of conservatism reporting of the firm. They state that the sum of cash flows in the total lifetime of a company should be equal to the sum of net income in the entire lifetime of the company. The existence of a negative difference between this years is expected to be followed by a positive difference in the following year. If the accruals persistently remain negative in contrast to the expected pattern of accrual reversal it is a signal of conservative accounting, and it suggests that the mean of the firm's accrual over a long time is a proxy for accounting conservatism.

Accordingly, we use the method of Givoly and Hayn (2000) to measure the firm's accounting conservatism level. The Firms with a high value of accounting conservatism considered as conservative firms in reporting their losses than their gains. All the information used to determine the firm's conservatism level is obtained from the financial statement of the company. Operating income, depreciation, and others obtained from income statement, whereas accrual cash flows extracted from the company's cash flow statement. After calculating the value for accounting conservatism the result would be multiplied by mines 1 to avoid the negative value of the results.

7 ii. Measurement for the cost of debt

There are different measurements for firms' cost debt. For example, Li (2015), **??**odan (2012), (Zhang 2008), Beatty, Weber, et al. (**??**008) had used the 1-year ahead average interest rate a firm pays for its debt outstanding or interest-bearing. For example, Beatty, Weber et al. (**??**008) examine a sample of private lending contracts and find that higher conditional conservatism is associated with a lower probability of having an income escalator in debt contracts after controlling for the interest rate. Also, Gigler, Kanodia et al. **??**2009) argue that the optimal debt contract simultaneously determined by the specification of a covenant and an interest rate negotiated ex-ante between the lenders and borrowers. However, the possibility that creditors may adjust other contracting terms rather than lowering the

8 Accounting conservatism

Cost of debt Ownership structure (Institutional ownership) interest rate for conservative borrowers is working against finding a negative association between the interest rate and conditional conservatism.

In line with these literature and considering the nature of data on hand 1-year ahead interests paid for the total interest-bearing debt were used to measure the cost of the firm's debt capital. This measurement computed from the financial statements of the companies. Total interest paid by a firm obtained from the income statement of the company, and the total interest-bearing of the company is extracted from the balance sheet of the company.

9 iii. Measurement for control variables

Based on various previous literature and considering the nature of data on hand, control variables such as return on asset, firm size, leverage, convergence ratio, tangibility ratio and some dummy variables have been included in the model. Earlier research is proved that a higher return on assets leads to a better rating (Kaplan and Urwitz 1979). We measure return on an asset as operating income divided by total assets. The cost of debt is expected to be lower because when a firm has a better profit, it is more able to meets its obligations. The control variable for equity risk is leverage. Relatively more debt leads to higher leverage and more risk for the firm. The debt holders want compensation for the higher risk, and thus, the cost of debt will increase. So, a higher leverage rate leads to a higher value of interest expenses on debt (CD). So, we measure leverage as the

total debt divided by total assets. Size is a control variable for the size of a firm and of course, calculated as the natural log of the firm's total asset. Convergence ratio measured as operating income after depreciation divided by interest expenses. Tangibility ration determine the net property, plant, and equipment divided by total assets, as additional controls for default risk.

Also, we include country and company as dummy variables to controls their effects on the model. Generally, the following table shows the lists of variables and their measurements.

10 Table1: Lists of variables and their measurement

11 Variables Measurement

Cost of debt The 1-year ahead average interest rate a firm pays for its debt outstanding. Total interest expenses divided by total interest bearing debt

12 Accounting conservatism

Total accruals= (Net Income + Depreciation) -Cash flow from operations multi plied by -1 deflated by total asset

13 In stitutional ownership proportion of common shares held by institutional investors

14 Size

The natural log of a firm's total assets at the fiscal year end. Leverage the total debt divided by total assets Convergence ratio operating income after depreciation divided by interest expenses Tangibility ratio net property, plant, and equipment divided by total assets, as additional controls for default risk

15 Return on asset operating income divided by total assets c) Model specification

To achieve the research objectives, we have employed a linear regression model using a formula or model of **??**hmed, Billings et al. (2002) and Li (2015). Based upon the model from these two pieces of research, we investigate whether conservatism influences the cost of debt of a company or that conservatism has no significant effect on it. Ahmed, Billings et al. (**??**002) had used a credit rating from standard and poor (S&P) to measure the response variables. However, credit ratings for many African companies are unavailable. Due to that, we have another proxy for the cost of debt. Li (2015) used the interest expenses on the debt of a company divided by its total interest-bearing debt as a proxy for the creditworthiness of a firm. Following Li (2015), we have used the relation between interest expenses and total interest-bearing debt (CD-cost of debt capital) as a response variable (independent variable). The higher the result of this result, the higher the cost of debt is for a company. So, ACCON and CD are predictors for the cost of the debt in this formula.

So, generally, to test hypothesis H1, we employ the following a linear regression model employed.CD t+1 =??+ ?? 1 ACCON + ?? 2 InOwn+ ?? 3 Sizet + ?? 4 Lev + ?? 5 ROA + ?? 6 Cov + ?? 7 Tang + µ it???.. (**1**)

Where; CD t+1 is the 1-year ahead cost of debt capital, ACCON-level of accounting conservatism of the company In Own-institutional ownership, Size-firm size, Lev-leverage ratio, ROA-return on an asset, Cov-the interest coverage ratio, and tangibility -the tangible ratio. In the model, two dummy variables used to control Year effects, and country effects of the firms used as dummy variables.

For H2 only the interaction variable (?? 3 ACCON *In Own) has been included in the previous formula to measure the moderating effects of institutional Where; CD t+1 is the 1-year ahead cost of debt capital, In Owninstitutional ownership, ROA-return on an asset, Sizefirm size, Lev-leverage ratio, Cov-the interest coverage ratio, and tangibility -the tangible ratio. In the model, two dummy variables used to control their effects. Year effects and country effects of the firms have been taken as dummy variables.

IV.

16 Empirical Results and Discussion

a) Statistical descriptive Table 2shows the summary statistical descriptive of the variables included in this study by their mean, maximum-minimum, and standard deviation value of the variables. The average mean value of accounting conservatism (ACCON) is -0.04028 with 0.1369908 standard deviation value. Its maximum value is 222.03. The negative sign of the value indicates that, on average most companies are conservative in recognizing bad (loss) news than good(gain) news. The result also reveals that in the increase in the level of accounting conservatism and the existence of accounting conservatism in the financial reporting of African Firms. The result is more consistent with the finding of (Givoly and Hayn 2000), Alkurdi, Al-Nimer, et al. 2017). They confirm that the negative ratio refers to the increase in the level of accounting conservatism and the implementation of more conservative accounting standards. The average mean value of the cost of debt is 1.131326, which indicates the companies experiencing a low level of cost of debt with more conservative reporting. The average mean

institutional ownership is 0.038231 with a maximum value of 1.604069 less number of observations because of missing data. It also implies accounting conservatism driven by different ownership structures.

17 Correlation and variance inflation matrix

Before making a regression analysis, regression diagnosis was conducted to test multi colinearity and tolerance of variance among the variables. Pearson's correlation method and variance inflation (Vif) employed to examine the multi co-linearity and noise of the model. Table 3 presents both correlation, and the result showed that there no multi co-linearity problem among the independent variables. The maximum multi co-linearity exists between tangibility and accounting conservatism with the coefficient value of -0.3204, which still tolerable. Evans (1996)suggested that the absolute value of correlation (r) of more than 0.6 has a strong correlation. Since, our collinearity is less than this threshold, there is weak correlation between the variables used in the current study.

Table 3 also shows the variance inflation factor analysis of all variables in the model. Since multi colinearity inflates the variance parameter estimates in the model, and this may lead to a lack of statistical significance of individual explanatory variables. So, to test this problem, the correlation between the variables, variance inflation factor analysis has been used. In table 3, the mean value of variance inflation factor of all variables is 1.12, with the maximum amount 1.23 has existed for accounting conservatism is the highest in the model, which still acceptable. Literature suggested that 7% of VIF is tolerable for the variables in the model. For instance, (Kaplan and Urwitz 1979)standards analysis of correlation coefficient size suggested that 7% of VIF moderate for multi co-linearity. Generally, the outcome reveals that there is no multi co-linearity problem between the variables both in Pearson's correlation method and variance inflation. So, the current model is appropriate to investigate the moderating effect of ownership structure (institutional ownership) in the relationship between accounting conservatism and the firm's cost of debt. CD-determined total interest expenses divided by total interest-bearing debt, ACCON-accrual method followed, net income before interest expenses depreciation-, InOwn=the percentage of total shares held by institutions divided by total equity, Lev=the total debt divided by total assets, Tang=net property, plant, and equipment divided by total assets, as additional controls for default risk, Size= natural log of total asset, interact=it is an interaction value where acc*inown, ROA=total equity divided by total assets, Cov=operating income after depreciation divided by interest expenses.

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19 Heterogeneity test

Heteroskedasticity does make the coefficient estimates less precise, lower precision increases the likelihood that the coefficient estimates are far from the correct population value. It does not create bias in coefficient estimates.

In finance-related data, heteroskdasticty often exist because of unconditional price volatility, especially in stock data. In this study also there are some stock data used in the model so, heteroskedasticity problem does exist in the model. To solve this problem, robust regression analysis applied. The heterogeneity test conducted based on the results showed that there is heteroskedasticity in the model.

20 i. Regression results of Accounting conservatism and cost of debt capital

Table 5 provides the results of regression results for H1 using the accrual method of Givoly and Hayn (2000). The research hypothesizes of this study expects that there is an inverse relationship between accounting conservatism and the cost of debt, and there would be a moderating effect of ownership structure in this relationship. It expected that companies with a high level of accounting conservatism practice experience a low cost of debt and expected that institutional ownership in the companies' equity would enhance this relationship.

Accordingly, table **??** showed that there is a negative relationship between accounting conservatism and the firm's cost of debt capital. The result indicated that the level of the firms' accounting conservatism has statistically significant effects on the firms' cost of debt capital at (0.086) p-values a 10% significance level. The result implies that firms with more conservative in recognizing losses and give conscious about loss recognition or give timely recording would have less cost of debt. Because, the creditor or debt holder, offers low-interest-rate for firms with more conservative in recognizing losses than gains. This result is consistent with the findings of **??**odan (2012), who proved that that company with higher debt cost has a lower level of conditional conservatism, as it expected in the hypothesis. Namely, conservatism causes more timely recognition of losses than gains, which improves the quality of accounting information in the context of corporate governance and loan agreements. So, debt holders are likely to reward borrowers with more conservative accounting by reducing the interest rates (debt costs), and vice versa. Therefore, coefficients on changes in net income are expected to be substantially different for high debt cost companies than for the whole sample.

Generally, the results from Table 5 suggest; First, the existence of accounting conservative practice among African firms. Second, the association between accounting conservatism and the cost of debt capital is negative as expected. The result proves the hypothesis that there is a negative relationship between accounting conservatism and the cost of debt capital. The coefficient showed us that as 1% increases in the value of the, firms' accounting practicing level firms cost of debt capital decrease (-3.59%). The result disclose as firms become more conservative

in recognizing their losses than their gain, they enjoy a low level of cost of debt capital. Table 5 also shows the other controlling variables' significance level. Except for tangibility and leverage ratio, no variables appeared significant at 10%, 5%, and 1% confidence level, and it indicates that the majority of the controlling variables would not explain the dependent variable.

To sum up, the study results supported hypothesis H1. It indicates that as firms become conservative in recording their losses than their gain. The result implies as firms become more conservative in recognizing their losses than their gain, they enjoy a low level of cost of debt. Thus, the negative changes in accounting conservatism reduce the cost of borrowing debt as a result of timely recognizing losses than gains. The currents study proves that the majority of African firms are conservative in recording their losses than gains, which enables them to enjoy a low level of cost of debt. R-Square of the model explaining how the variables in the model fit to explain the dependent variables. Accordingly, Table 5 shows that R-square is 0.0085, which means the variables in the model explains the dependent variable is 8%. All results summarized in the following table 5. CD-determined total interest expenses divided by total interest-bearing debt, ACCON-accrual method followed, net income before interest expenses depreciation-, InOwn=the percentage of total shares held by institutions divided by total equity, Lev= the total debt divided by total assets, Tang= net property, plant, and equipment divided by total assets, as additional controls for default risk, Size= natural log of total asset, interact=it is an interaction value where acc*inown, ROA=total equity divided by total assets, Cov= operating income after depreciation divided by interest expenses.

21 ii. Moderating effect of ownership structure in accounting conservatism and cost of debt

The other main hypothesis of this study are that ownership structure, particularly institutional ownership, has moderating impacts on the relationship between accounting conservatism and firms' cost of debt. Accordingly, the results in table 6 show that institutional ownership in the company has statistically significant at 10% percent to boost the relationship between accounting conservatism and the cost of debt in African firms, and it indicates that the relationship between firms' conservatism reporting level and their cost of debt capital determined by the firm's ownership structure, specifically institutional ownership. On average, as institutional ownership increases by 2.53 percent, the level of accounting conservatism increases by 3.59 percent, which leads to the decrease of firms' cost of debt capital. So, the institutional ownership has moderating effects on the relationship between the independent variable (firm's accounting conservatism level) and the dependent variable (firm's cost of debt capital) implies decreases. The value of interaction variables is not statistically significant, but it has boosting or enhancing effects on the relationship.

Thus, it shows the existing relationship between accounting conservatism and the firm's cost of debt capital moderated by an institutional investor. Institutional investors need more conservative firms to invest in the company. For conservative firms, institutional investors offer low-interest rates for the amount borrowed by the firms. As a result, firms with high conservative accounting practices would enjoy a low-interest rate that means low cost of debt and it implies ownership structure of the company, particularly institutional ownership has a significant impact on the firms accounting conservatism level. So, the interaction results of the model have an effect on determining or enhancing the relationship of accounting conservatism (Independent variables) and the cost of debt capital (dependent). That means it increases the negative relation between accounting conservatism (Independent variables) and the cost of debt capital (dependent) and their association boosted by the interaction variables effects. Table 6 demonstrates that the coefficient between accounting conservatism (Independent variables) and the cost of debt capital (dependent) increased from (-2.50359 table 5) to (-3.97119 table 6), which indicates the relationship between the Independent variable and dependent variables becomes stronger because of the moderating effects of institutional ownership. In this second model, the accounting conservatism (ACCON) is statistically significant at 10% with a p-value of (0.019), which also indicates that the power of explaining the dependent variable boosted by the moderating effects of institutional ownership.

Most controlling variables is not statistically significant except tangibility ratio. The Tangibility ratio is significant at a 1% confidence interval, and it implies that the tangibility ratio can explain the dependent variables. This finding shows that variables such as return on asset, convergence ratio, firm size, and leverage ratio have not a significant impact on the dependent variables. However, it happened because of the interaction variables. Table 6 also shows the interaction variable is significant at a 5% confidence interval. It implies that the interaction variable increases the relation between accounting conservatism and the cost of debt capital.

R-Square of the model explaining how the variables in the model fit to explain the dependent variables. After including moderating effects of institutional ownership in the model, R-Square increases from 0.0085 8% to 0.010010% to describe the model, and it indicates that institutional ownership has an enhancing effect on the model.

Generally, the findings indicated that institutional ownership has moderating effects on the relationship between accounting conservatism and the cost of debt capital. The results proved H2 that is the relationship between accounting, and conservatism and cost debt capital moderated by ownership structure. CD-determined total interest expenses divided by total interest-bearing debt, ACCON-accrual method followed, net income before interest expenses depreciation-, InOwn=the percentage of total shares held by institutions divided by

total equity, Lev= the total debt divided by total assets, Tang= net property, plant, and equipment divided by total assets, as additional controls for default risk, Size= natural log of total asset, interact=it is an interaction value where acc*inown, ROA=total equity divided by total assets, Cov= operating income after depreciation divided by interest expenses.

V.

22 Conclusion and Implications

This paper examines the relationship between accounting conservatism and the cost of debt and the moderating effects of ownership structure particularly, institution ownership on this relationship. Findings emerge from this investigation are; One, it proves that the existence of accounting conservative practice among African firms. The association between accounting conservatism and the cost of capital is statistically significant. It implies that the majority of African companies conservatively recognize their bad news to achieve an efficient debt contract. That is, firms with a high levels of accounting conservatism practice bear low level of cost of debt. Two, the association between accounting conservatism and the cost of debt capital is negative as expected, and it infers as firms become more conservative in recognizing their losses than their gain, they enjoy a low level of cost of debt. The result consistent with the finding of literature; Ahmed and Duellman (2007), **??**Gigler, Kanodia, et al. 2009), (Li 2015), **??**Goh, Lim, et al. 2017). Thus, the negative changes in accounting conservatism reduce the cost of borrowing debt as a result of timely recognizing losses than gains.

Three, the firm's ownership structure moderates the relationship between accounting conservatism and the cost of debt capital. Specifically, institutional ownership has an enhancing or boosting effect on the relationship between accounting and the firm's cost of debt capital. It indicates firms with higher institutional ownership shareholding are more conservatism than with the lower institutional ownership shareholding. Firms with high institutional ownership structure enjoy a low cost of debt capital as institutional investors want to invest in more conservative firms.

The study is noble by showing that the moderating effects of institutional ownership in increasing the level of a firm's accounting conservatism, and also the first in its kind using African data. The currents study proves that the majority of African firms are conservative in recognizing their losses than gains, which enables them to enjoy a low level of cost of debt. These findings contributed to the literature by showing up that conservative reporting practice is existing and practicing among African firms. Furthermore, and perhaps more importantly, the study reveals that the relationship between accounting conservatism and the cost of debt capital moderated by ownership structure.

Generally, it is good to recommend that accounting standard-setter should emphasis that accounting conservatism principles are exiting among African firms. African firms should be conservatism in reporting their financial statements to enjoy the low cost of debt capital from an institutional investor. The findings of this paper could not be generalized for the whole African firms as it only focused very few countries, and also the study did not address all the country-level variables, it focuses only on firm-level. So, level of accounting conservatism could vary from firm to firm and from country to country. [1]

ownership. Accordingly, the following linear regression model used;
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[Note: CD]

Figure 1:

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Variable	Obs	Mean	Std. Dev.	Min	Max
CD	2,006	1.131326	7.362964	-0.14	222.03
ACCON	2,441	-0.04028	0.136991	-1.60407	1.705186
Size	2,437	6.807228	0.79832	2.053078	9.020443
InOwn	2,441	0.038231	0.130818	-1.70519	1.604069
ROA	2,437	0.096951	0.565233	-27.17	0.92
Cov	2,301	178.5806	5017.262	-116861	142162
Lev	2,437	0.545866	0.321623	0.006377	12.61947
Tang	2,437	0.334293	0.228791	0	0.937535

Figure 2: Table 2 :

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Figure 3: Table 3 :

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CD	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
ACCON	-2.50359	1.459643	-1.72	0.086	-5.36623	0.359054
Size	0.173962	0.227397	0.77	0.444	-0.27201	0.61993
InOwn	1.963	1.368157	1.43	0.152	-0.72022	4.646219
ROA	1.562319	1.580556	0.99	0.323	-1.53746	4.662093
Cov	-0.00049	0.000919	-0.54	0.593	-0.00229	0.001311
Lev	-0.09774	0.935248	-0.1	0.017	-1.93194	1.736463
Tang	-2.96282	0.793023	-3.74	0.000	-4.51809	-1.40755
_cons	0.717198	1.610162	0.45	0.656	-2.44064	3.875035
R-squared	0.3185					
Adj R-squared	0.0049					

Figure 4: Table 5 :

6

CD	Coef.	Std. Err.	T	P>t	[95% Conf.	Interval]
ACCON	-3.97119	1.690454	-2.35	0.019	-7.28649	-0.65588
Size	0.177144	0.227289	0.78	0.436	-0.26861	0.622902
InOwn	2.745041	1.44119	1.9	0.057	-0.08141	5.571492
ROA	1.628332	1.580225	1.03	0.303	-1.47079	4.727458
Cov	-0.00051	0.000919	-0.56	0.076	-0.00232	0.001288
Lev	-0.21131	0.937109	-0.23	0.012	-2.04916	1.62654
Tang	-3.08571	0.795842	-3.88	0.000	-4.6465	-1.52491
interact	18.16258	10.56821	1.72	0.086	-2.5637	38.88887

Figure 5: Table 6 :

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