

# FACTORS INFLUENCING ACCOUNTING CONSERVATISM IN BANKS: THE UAE CASE

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## Abstract

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The purpose of this study is to determine the factors influencing the accounting conservatism for banks in the UAE over the period 2006-2013. Design/methodology/approach - Multiple regression analysis is used to test the relationship between accounting conservatism as a dependent variable and the independent variables intellectual capital performance, market structure, level of protection against risk, bank size, and bank profitability. The results indicate that intellectual capital performance, market structure, bank size, the level of protection against risk and bank profitability have significant impact on the accounting conservatism for banks in the UAE. These results might help the banking and accounting regulators to address the factors affecting accounting conservatism. This study adds to the literature on the determinants of accounting conservatism in banks. In particular, it tests whether the new theories of intellectual capital performance, market structure and level of protection against risk have an impact on accounting conservatism in the banking industry in the UAE.

**Keywords:** Accounting Conservatism, Intellectual Capital Performance, Market Structure, Level of Protection Against Risk, Bank Size, Bank Profitability, Bank Age, Banks, UAE

## 1. INTRODUCTION

Accounting conservatism describes the way a firm's management reacts to "bad news" immediately while failing to recognize "good news" (Basu, 1997). Accounting conservatism needs a reliable way of identifying good news compared to bad news in earnings (see for instance, Basu, 1997; Watts, 2003)

The practice of accounting conservatism is acceptable internationally with IAS 36, IAS 37 and IFRS 9 being evidence for that. Its many benefits have been addressed in the literature with the main ones being:

- Reporting pessimistic results should reduce managers' requests for undeserved bonuses, improve the serving of debt contracts, and mitigate litigation risk (Ball and Shivakumar, 2005).
- Recognizing expected losses immediately and delaying recognition of expected gains should enhance the credibility of accounting information and hence improve the predictive value of this information in forecasting future performance (Hellman, 2008).
- It helps to solve the agency problem between management and shareholders by

which management are paid more than they should be (see for instance Ahmed and Duellman, 2007; Watts, 2003; Ball, 2001 and Basu, 1997).

- Better earnings quality (Penman and Zhang, 2002), enhanced disclosure quality (Paprocki and Stone, 2004) and improved corporate governance (Lara et al., 2007).

Watts and Zimmerman (1986) argued that the main purpose of accounting conservatism is to create a protection against the management's desire to manipulate financial results for its own benefit. Watts (2003) argued that there four reasons for the existence of accounting conservatism:

- Debt contracting: the reliability level of information needed by creditors for increases net assets is higher than that for decreases net assets to avoid the risk of losing some of their investments.
- Litigation: this can be started by shareholders if earnings and net assets are overstated.
- Income tax: this is to minimize income tax liability.
- Regulatory: because of the need for such practice.

Many factors have been address in the literature which might have impact on accounting conservatism such as antitakeover legislation (Cheng et al., 2017), national culture, social values, accounting values and institutions (Salter et al., 2013) and other factors [see for instance, Thijssen and Iatridis (2016), Ruch and Taylor (2015), Neag and Masca (2015), Kanagaretnam et al. (2014), Hamdan, et al. (2011)].

From the above, it can be concluded that accounting conservatism is important in the accounting literature because of its benefits and hence studying the determinants of accounting conservatism will be useful for users of accounting information. This paper addresses the fundamental question of whether there are differences in the level of accounting conservatism across banks and, if the answer is yes, why do these differences occur?

The study is expected to present valuable information for decision makers and regulators of accounting profession in the UAE. However, and to the best of my knowledge, this is the first study at the level of the firm in the UAE that examines the determinants of accounting conservatism.

The remainder of this paper is structured as follows: section 2 discusses the definition and measurement of accounting conservatism, section 3 formulates the hypotheses, section 4 covers the research method used, section 5 presents the empirical results, and section 6 provides the conclusions.

## 2. DEFINITION AND MEASUREMENT OF ACCOUNTING CONSERVATISM

Several definitions of the term accounting conservatism have been stated in the accounting literature including:

- to recognize potential losses and to not recognize potential profits (Bliss, 1924).
- to report the lowest potential value for assets and the highest one for liabilities (Watts and Zimmerman, 1986).
- to refer to the value of goodwill which is hidden in the overstatement of expenses/losses or understatement of revenues/profits (Feltham and Ohlson, 1995).

There are two types of accounting conservatism: unconditional and conditional. Unconditional, or *ex ante* conservatism, is an independent approach of reporting which understates the accounting value (increases expenses/losses or decreases revenues/assets) in the absence of a justifiable economic event (i.e., bad news) to support this understatement. Examples of this are considering research and development costs as expenses and speeding up depreciation (see for instance Beaver and Ryan, 2000 and Penman & Zhang, 2002).

Conditional, or *ex post*, conservatism is a dependent approach of reporting which understates the accounting value (increases expenses/losses or decreases revenues/assets) as a result of a justifiable economic event (i.e., bad news) to support this understatement. Examples are the lower-of-cost-or-market policy for valuing inventories and recognition of impairment of fixed assets (see for

instance Beaver and Ryan, 2000 and Penman & Zhang, 2002).

To summarise, we can define accounting conservatism as how to avoid the optimistic estimation of the future and hence avoid paying unjustifiable bonuses for manager as a result of an unverifiable claim of a good performance.

Several measures have been considered including an asymmetric timeliness of earnings (Basu, 1997), a negative accruals measure (Givoly and Hayn, 2000), a market-to-book ratio measure and hidden reserve measure (Penman and Zhang, 2002), an asymmetric accruals-to-cash-flow measure and the book-to-price ratio (Ball and Shivakumar, 2005).

In the accounting conservatism literature there is no evidence of any advantage of one measure over another. This study will adopt the best fit approach through measuring accounting conservatism using the book-to-price ratio as follows:

Accounting conservatism (ACit) = book value per share for Bank i in Year t (Bit) ÷ market price per share for Bank i in Year t (Mit).

Book value and market price are publicly available and are objective measures, avoiding any bias by the researcher. AC for National Bank of Abu Dhabi varied between 0.46 in 2006 and 0.58 in 2013 (as per Bankscope data).

## 3. FORMULATION OF HYPOTHESES

From the discussion of the banking literature above, the factors which can be considered as determinants of accounting conservatism in the context of the UAE banking are: intellectual capital performance, market structure, level of protection against risk, bank size, and bank profitability. These are now considered in turn in more detail.

### 3.1. Intellectual Capital Performance

Several definitions for intellectual capital (IC) have been introduced in the IC literature:

- IC is the hidden power of intangible elements which are sometimes recognized in the balance sheet, e.g. goodwill, and contribute to the success of firms in terms of e.g. better performance (Mondal and Ghosh, 2012)
- IC is the knowledge possessed by the firms' employees at all levels that contribute to value creation and might lead to a better competitive position in the market (see for instance, Arenas & Lavanderos, 2008 and Cantu, Bustani, Molina & Moreira, 2009).
- IC is a combination of hidden intangible assets which help in generating value to the business and in turn might contribute to a better competitive position to the firms (Cater & Cater, 2009).
- IC is a combination of intangible assets, knowledge, information and experience which is not represented accurately on the firms' balance sheets and contributing the market value of the firm as a source of

competitive advantage (Yalama and Coskun, 2007).

- IC is a skillful interaction among expertise, experience and competences inside and outside the firm and as a result contributes to the value creation and competitive advantage (Cabrita and Vaz, 2005).

The conclusion is that intellectual capital is a non-traditional power (i.e. knowledge and experience) rather than traditional power (i.e. physical assets such as machinery and equipment) which grants the firms competitive advantage which in turn is converted to better performance. That is, the good performance of this non-traditional power is critical in helping firms to achieve a better overall performance in terms of better profitability.

Several measures to intellectual capital performance have been adopted in the literature including Balanced Scorecard (Kaplan and Norton, 1992), the result of increasing market share per share over book value per share by Lev (1997), the Value Added Intellectual Coefficient (VAIC) (Pulic, 1997), Skandia Navigator (Skandia, 1999), Value Explorer (Andriesson, 2006), Intangible Assets Monitor model (Sveiby, 2007).

As the literature did not reveal reasons to prefer one measure over another so the value of market price per share minus book value per share for bank *i* in year *t* adopted by Lev (1997) will be used as a measure to intellectual capital performance in this study to avoid the expected data availability problem when adopting other measures.

As discussed earlier, the accounting conservatism concept is adopted under certain conditions which are not consistent with achieving good intellectual capital performance and hence the first hypothesis will be:

*H1:* There is a negative association between the level of conservatism and intellectual capital performance.

### 3.2. Market Structure

In general, market structure can be classified into two broad types: competitive and monopolistic. Firms operating under the conditions of the first type market structure (competitive) cannot achieve abnormal profits but some firms (e.g. big ones) operating under the second type conditions (monopolistic) can collude together and in turn achieve abnormal profits. So the conditions of monopolistic market (considered as barriers to entry) can help big firms to retain their dominance by preventing new firms from entering the market (see for instance, Gaspar and Massa 2006, Hou and Robinson 2006, Baginski, Lorek, Willinger and Branson 1999, Lev 1983, Eaton and Lipsey 1981, Mueller 1977).

Several measures have been adopted in the market structure literature to measure the level concentration in the market. These are the *N* bank concentration ratio, the Herfindahl-Hirschman index, the Gini coefficient of concentration, the comprehensive industrial concentration index and the entropy index (see for instance, Bikker and Haaf, 2002; Cetorelli, 1999 and Davies, 1979).

The consensus in the market structure literature is that while there is no preference for one

specific measure over another as indicator to the level of concentration in the market, the *N* bank concentration ratio performed well in most of the previous empirical studies (see for instance, Bikker and Haaf, 2002; Cetorelli, 1999 and Davies, 1979) and hence will be adopted in this study.

The UK Monopolies and Mergers Commission (1996, p. 12) states that:

'The complex monopoly is a situation where individuals or companies, account for at least 25 per cent of the supply or acquisition of particular goods or services, followed by a course of conduct, by agreement or not, that prevents, restricts or distorts competition'.

This ratio will be used as criteria when constructing the concentration ratio for the present study. An example of how construct this ratio is as follows:

If the result of adding up the total deposits for the largest two banks in the market divided by total market deposits is 20% so in this case we did not fulfill the criteria (which is 25%) and we need to use the total deposits data for more largest banks (i.e. three or four.. etc.) until we satisfy this criteria.

From the above it can be assumed that banks in a more concentrated market structure have less demand for accounting conservatism because there is no need for adopting this concept because the profits of the banks in this type of markets is protected from the competition risk which if existed might harm this advantage. So the second hypothesis is:

*H2:* There is a negative association between the level of accounting conservatism and the level of market concentration.

### 3.3. Level of Protection Against Risk

Banking is highly regulated industry and banks are requested by the central banks to retain some of the depositors fund as a legal reserve. Looking at the components of the statement of financial positions for UAE banks we can notice that there are two types of reserves: the legal reserves, imposed by the central banks, and the reserves from retained earnings which are the result of the individual bank's policy.

To that extent, it can be argued that increasing in the level of protection against risk should lead to less demand for adopting accounting conservatism approach.

Level of protection against risk will be measured by the value of total reserves of bank *i* in year *t* as a macro measure to the level of protection against all types of risks regardless of its sources. Hence, the third hypothesis is:

*H3:* There is a negative association between the level of conservatism and the level of protection against risk.

### 3.4. Bank Size

It has been argued that larger companies are more conservative than smaller ones for reasons such as political costs of failure. Hence they avoid the possible intervention of the government which would have a negative impact on the reputation of the firm and lead to losing potential market

opportunities (see for instance, El-Bannany 2012, Beaver and Ryan, 2000 and Penman & Zhang, 2002).

Many measures for bank size has been adopted in previous studies and because of the absence of the criteria to distinguish one measure over another the logarithm of total bank deposits in year  $t$  is chosen to represent bank size in this study as suggested by El-Bannany (2006). In addition, all banks in the study sample are commercial that deal mainly with the deposits, and hence volume of deposits can be considered as the best bank size proxy. Hence, the fourth hypothesis is:

*H4:* There is a positive association between the level of accounting conservatism and bank size.

### 3.5. Bank Profitability

As argued above, certain conditions need to be fulfilled to encourage the management of firms to adopt the accounting conservatism approach. It is not expected that the management of higher profits firms will be motivated to adopt this approach because there is no benefit from doing so.

The ratio of profit before tax to total equity for bank  $i$  in year  $t$  will be used as measure of bank profitability. The strength of return on equity is that a higher value might be an indicator of a high share price making the company more attractive to the present and potential investors and hence allowing capital to be raised on the market and this type of information is not available with other measures of profitability i.e. return on assets.

From the above discussion, the fifth hypothesis will be:

*H5:* There is a negative association between the level of accounting conservatism and bank profitability.

## 4. RESEARCH METHODS

Table 1 shows the study sample and study period. To overcome the data availability problem eight commercial banks are representing the study sample over the period 2006-2013. Thirty eight banks are excluded because of incompleteness data.

**Table 1.** The sample of banks in the study (2006 - 2013)

<b>Banks Names and Abbreviations</b>
Abu Dhabi Commercial Bank (ADCB)
Abu Dhabi Islamic Bank (ADIB)
Bank of Sharjah (BoS)
Commercial Bank International (CBI)
National Bank of Abu Dhabi (NBAD)
National Bank of Umm Al-Quwain (NBUQ)
Sharjah Islamic Bank (SIB)
Union National Bank (UNB)

The regression model used in this study is shown as follows:

$$AC_{it} = \alpha_0 + \alpha_1 IC_{it} + \alpha_2 CR3ASS_{it} + \alpha_3 LGDEP_{it} + \alpha_4 LEV_{it} + \alpha_5 ROE_{it} + u_{it} \quad (1)$$

Where:

$AC_{it}$  = the dependent variable - Accounting conservatism for bank  $i$  in year  $t$ ; measured (as explained in section, B above) the ratio of book value per share to market value per share.

$\alpha_0$  = constant;

$\alpha_{1,2,3...}$  = coefficients of the independent variables;

$u_{it}$  = disturbance term - that is the usual error term.

Details of the definitions of the independent variables are given in table 2.

**Table 2.** Description of independent variables and expected signs

<b>Variable and abbreviation</b>	<b>Measurement</b>	<b>Expected sign</b>	<b>Actual sign</b>
Intellectual capital performance (ICit)	The value of market price per share minus book value per share for bank $i$ in year $t$	-	-
Market structure (CR3ASSt)	Total assets for the biggest 3 banks in year $t$	-	-
Bank size (LGDEPit)	Logarithm of total deposits for bank $i$ in year $t$	+	+
Level of protection against risk (LEVit)	Total reserves for bank $i$ in year $t$	-	-
Bank profitability (ROEit)	The ratio of profit before tax to total equity for bank $i$ in year $t$	-	-

Source: Annual reports and Bankscope database

## 5. ANALYSIS OF THE RESULTS

### 5.1. Descriptive Statistics

As explained in section D above, study sample and study period were chosen based on the best available data that is to avoid data availability and completeness problems.

Table 3 reports the descriptive statistics for accounting conservatism and the independent variables selected in this study. Accounting conservatism for the sample banks throughout the study period varies from 0.34 to 10.63 of the maximum value representing the total accounting and the mean for the accounting conservatism is 1.49. The independent variables represented by intellectual capital performance, market structure, bank size, level of protection against risk and bank

profitability all vary as well and this should increase the confidence level in the results as argued by Naser and Al-Khatib (2000).

**Table 3.** Descriptive Statistics for the dependent and independent variables

<i>Variable</i>	<i>Mean</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>
Accounting conservatism (AC <sub>it</sub> )	1.49	1.62	0.34	10.63
Intellectual capital performance (IC <sub>it</sub> )	-1.63	9.75	-56.85	5.31
Market structure (CR3ASSt)	0.29	0.02	0.25	0.32
Bank size (LGDEPit)	4.36	0.53	3.40	5.30
Level of protection against risk (LEVit)	0.84	0.07	0.70	0.94
Bank profitability (ROEit)	0.12	0.06	-0.03	0.26

## 5.2 Test for Multicollinearity

Multicollinearity is a problem when the independent variables in the study are highly correlated. If this is the case it will be difficult to estimate their separate effects. The usual test for multicollinearity is to check the value of the Variance Inflation Factor (VIF) (see, for example, Gujarati & Porter, 2010). If the problem is present then action should be taken to avoid misleading results. Multicollinearity is not likely to be a problem if the value of VIF is less than 10 (see, for instance, Hair, et al., 1995; Kennedy, 1992) or less than 5 (as stated by Rogerson, 2001) or less than 4 (as stated by Pan & Jackson, 2008).

However, Neter et al. (1985) stated, "the fact that some or all independent variables are correlated

among themselves does not, in general, inhibit our ability to obtain a good fit nor does it tend to affect inferences about mean responses or predictions of new observations, provided these inferences are made within the region of observations". Furthermore, Neter et al. (1985) stated that "deleting some variables to reduce multicollinearity reduces the model's explanatory power and may lead to specification errors". So, care is needed when interpreting the results of the multicollinearity test.

The VIF matrix of the independent variables is shown in table 4. The maximum value of VIF is only 3.03 (below the rule of thumb of 10 or 5 or 4) so we can assume that multicollinearity is not a serious problem here.

**Table 4.** The variance Inflation Factor (VIF) matrix for the independent variables

<i>Independent Variables</i>	<i>ICit</i>	<i>CR3ASSt</i>	<i>LGDEPit</i>	<i>LEVit</i>	<i>ROE<sub>it</sub></i>
ICit	-	1.03	1.01	1.01	1.01
CR3ASSt		-	1.05	1.01	1.19
LGDEPit			-	3.03	1.09
LEVit				-	1.08
ROEit					-

## 5.3 Regression Results and Discussion

The results presented in table 5 shows that the regression model is significant and explains 92% of the relationship between the accounting conservatism and the independent variables and this indicates that the model is well specified.

The coefficients of intellectual capital performance, market structure, bank size, level of protection against risk and bank profitability are statistically significant.

Intellectual capital performance is significant with the expected negative sign.

This suggests that banks with higher intellectual capital performance are better than the ones with lower intellectual capital performance in terms of accounting conservatism because there will be no need to adopt this approach.

Market structure is significant with the expected negative sign. This suggests that where the market is highly concentrated the earnings of banks will be protected and hence there is no need to

adopt accounting conservatism. Therefore in the highly concentrated market, accounting conservatism is lower.

Bank size is significant with the expected positive sign. Bigger banks, compared to smaller ones, are interested in adopting accounting conservatism to avoid e.g. litigation and regulatory risks to maintain their reputation from one side and they are more visible in the economic life from the other side.

Level of protection against risk is significant with the expected negative sign. That is, the banks with a high-level protection from risk compared with the ones with low protection from risk are less motivated to accounting conservatism because there is no need for this adaptation.

Bank profitability is significant with the expected negative sign. This suggests that banks with higher profits compared with the ones with lower profits are not interested in adopting accounting conservatism because there will be no need to adopt this approach.

**Table 5.** The regression results: dependent variable  $AC_{it}$ ;

<i>Regressor</i>	<i>Coefficient</i>	<i>t-ratio</i>	<i>Probability</i>
Intercept	4.416	3.73	0.000
$IC_{it}$	-0.157	-26.14	0.000
$CR3ASS_{it}$	-6.434	-2.10	0.040
$LGDEP_{it}$	0.709	3.20	0.002
$LEV_{it}$	-4.752	-3.97	0.003
$ROE_{it}$	-3.490	-3.23	0.002
R-SQUARED = 0.93 F (5.58) = 147.047 N = 63		R-BAR-SQUARED = 0.92 Sig. F. = 0.000	

## 6. CONCLUSIONS

The purpose of this study is to investigate the determinants of accounting conservatism for banks in the UAE over the period 2006-2013.

The study contributes to the literature by providing evidence that accounting conservatism approach is not encouraged under the following circumstances: banks with better intellectual capital performance, banks operating in highly-concentrated markets, larger size banks, banks with higher protection from risk, banks with higher profits.

The results indicate that intellectual capital performance, market structure, bank size, the level of protection against risk and bank profitability have significant impact on the accounting conservatism for banks in the UAE.

There are some limitations to this study. First, more evidence is needed about the factors explaining accounting conservatism before any generalisation of the results can be made. Second, the empirical tests were conducted only on UAE banks over the period 2006-2013, and hence the results of the study cannot be assumed to extend beyond this group of banks or to different study periods. Finally, theories such as mediating and moderating role of corporate governance and ownership structure might be considered for further research as a possible explanation for accounting conservatism.

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