Accounting for Marketable Securities and Corporate Financial Performance in Nigeria

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Abstract

This study aimed at examining the systems of accounting for marketable securities in Nigeria with a view to determine the impact of the accounting systems and the classification of Marketable Securities (MS) on the financial performance of banks. To achieve the above objective research questions were raised, hypotheses were formulated, and a review of related literature was made. In order to generate the necessary data for this study, data were sourced from the financial statements of banks and the Central Bank of Nigeria (CBN) statistical bulletin for a period of 15 years, i.e. 1995 – 2009. The data generated for the study were analyzed with the multiple regression analysis. Our findings indicated that, the unrealized gains arising from the classification of MS as current asset is a reduction to net income while the unrealized gains arising from the classification as non-current asset is a reduction to net asset. Based on the above findings, it was recommended that where marketable securities are debt instruments; they should be classified as current asset (temporary investment). But they should be classified as non-current assets (long-term investment) where they are equity instruments.

Key words: Accounting, marketable securities, corporate financial performance, current assets, non-current assets
Introduction

Equity securities (common stocks and preference shares) or debt securities (commercial papers, banker’s acceptance, treasury bills, certificates of deposits), which are held principally by Management for the purpose of resale, are described as marketable securities. Scholars such as Stickney and Weil (2010), Cheng (2008), Ayogun and Dike (2007), Skinner and Savorie (2004), Ukpai (2000), Mc Cosh (1999) identified several factors to consider in the choice of marketable securities to be invested. These factors include maturity, default risk, high degree of liquidity and tax implications. But none of the studies indicated the prevalent factor in choice of marketable securities (marketable equity securities or marketable debt securities) that is suitable for investment in developing economies as Nigeria, considering the level of risk in such economies.

Investments in marketable equity securities could generate an income in form of dividends. The big question is “when should a cash dividend be recorded as income by the firm”? Should it be the date the dividend is declared, the date of reporting, the ex-dividend date, or the date the dividend is received? When interest-bearing securities are acquired between interest payment dates, the amount paid for the security is increased by a charge for accrued interest to the date of the purchase. This charge is not reported as part of the security cost. In this case, two assets have been acquired – the security and the accrued interest receivable, and are reported in two separate asset accounts. Upon receipt of the interest, the accrued interest account is closed and interest revenue is credited for the amount of interest earned since the purchase date. More so, when marketable securities are sold, the sales value may be more or lower than cost in which case a realized gain or loss is recognized.

The accounting of marketable securities have been of considerable interest to researchers, accounting practitioners, accounting bodies and regulatory authorities because inaccurate recording and valuation of such securities has a serious implications on the Financial Statements of the firm. Akenbor and Oparanma (2006) posited that a wrong picture of the financial statements of an organization is bound to be presented where debt securities are inaccurately reported thereby misleading the decision makers. The controversial issue of realized/unrealized gains and losses as to whether they are recognized in net income or in the equity section of the balance sheet has its associated effect on the Financial Statements. More so, the classification
of MS as current asset or long-term investment has its implications on Financial Statements. The researcher also observed that empirical studies that show the implication of accounting for marketable securities on the Financial Statements of banks in Nigeria are hardly available. Therefore, there is need to fill these existing gaps and develop appropriate method of accounting for marketable securities that present a true and fair view of the Financial Statements of banks. It is on this premise that this study is consummated. Therefore, the objectives of this study are:

(i) To ascertain the effect of unrealized gains arising from the classification of marketable securities as current asset on the financial performance of banks.

(ii) To ascertain the effect of unrealized gains arising from the classification of marketable securities as non-current asset on the financial performance of banks.

To achieve this purpose, the following hypotheses were formulated-

(i) Unrealized gains arising from the classification of marketable securities as current asset has no significant effect on the financial performance of banks.

(ii) Unrealized gains arising from the classification of marketable securities as non-current asset has no significant effect on the financial performance of banks.

**Review of related literature**

 Marketable securities are investments for the purpose of earning income or making profit. The securities are considered marketable when a day-to-day market exists and when they can be sold on short notices.

The purchase of marketable securities could be cum div/int or ex-div/int. Purchase cum div/int means that the price a buyer is paying for the security consists of the capital cost of the security and the investment income, which had accrued to it up to the date of purchase. Purchase ex-div/int. means that a buyer of the security will not be entitled to the investment income that will accrue from the date of acquisition to the next income due date. Even if the buyer has become the owner of the security from the date of acquisition to the next income due date, he does not own the income related to the period. The current owner of the security still retains the ownership of investment income from the date it has been bought from him to the next due date although, the current owner has parted with right to the forthcoming income.
This implies that the price paid by a buyer would have been reduced by the prospective income. The big question that is commonly asked is “when should a cash dividend be recorded as income to the investor”? Should it be the date the dividend is declared, the date of record, the ex-dividend date, or the date the dividend is received? Meigs and Meigs (1981), Karim and Islam (1998), Lopes and Rodrigues (2007), claimed that investors record cash dividends as income on the date the dividend is declared. Meigs and Meigs (1981) further maintained that additional shares of stock split received or stock dividends are not income to the holder of the security, and only a memorandum entry is used to record the increase in the number of shares owned. The cost basis per share is decreased because of the larger number of shares comprising the investment after receiving additional “free” shares from a stock split or a stock dividend.

 Marketable securities whether available for sale securities, trading securities or held-to-maturity securities, are not purchased to be held forever. It is the feature of sale in them that characterized them as marketable. Therefore, at a particular point in time, the securities have to be sold. The sales of the security could be cum.div/int. or ex-div/int. When a security is sold cum div/int., it means that the price the seller is accepting includes the investment income, which had accrued to it up to the date of sale. This implies that the seller gets back both the capital value of the security and the income the security has generated up to the date of sale. But when a security is sold ex.div/int., it means that the seller will receive the income that will accrue from the date of sale till the next due date. Although the seller has parted with the ownership of the security, he still has the right to the prospective income. Even though the seller has relinquished the right of ownership as from the date of sale, he still retains ownership right of the prospective income. The total selling price will therefore be the amount which has actually been received by the seller plus the prospective interest, the right to which the seller still retained.

 According to Skousen (1984), investments in securities qualify for reporting as temporary investment (current assets) provided there is a ready market for converting such securities into cash, and it is management’s intention to sell them if the need for cash arises. Zikis (2009) stated that marketable securities may be converted into cash shortly after being acquired or they may be held for some time. In either case, however, they are properly classified as temporary investments as long as management intends to sell them if the need for cash arises. Meigs and Meigs (1981) posited that the deciding factor
is management’s intent, not necessarily the length of time the securities are held. Therefore, the following types of investments do not qualify as temporary investments even though the securities may be marketable—reacquired shares of a corporation’s own stock, securities acquired to gain control of a company, securities held for maintenance of business relations, and any other securities that cannot be used or are not intended to be used as a ready source of cash (Ukpai, 2000).

A balance sheet of International Business Machine (IBM) Corporation one time shows the following items listed first in the current asset section.

Current assets: $  
Cash 208,607,210  
Marketable securities, (at lower of cost or market) 208,607,210  


The large investment by IBM in marketable securities is not unusual; many corporations have large holdings of marketable securities. In the balance sheet extract shown above, marketable securities are listed immediately after the asset cash, because they are so liquid as to be almost the equivalent of cash. Although the classification of current assets above is not align with the General Accepted Accounting Practice (GAAP), which states that assets are classified. The point we are trying to make here is that cash and marketable securities are very close to each other.

In statement No. 12, the Financial Accounting Standards Board indicated that a company may choose to separate its marketable securities into two groups.

(i) Temporary investment classified as current assets, and  
(ii) Long-term investments classified as non-current assets.

If management intends to hold certain marketable securities on a long-term basis, these securities should be listed in the balance sheet just below the current asset section under the caption long-term investments. In most cases, however, management stands ready to sell marketable securities whenever company needs cash or stock market tends to make such action advantageous. Consequently, marketable securities are generally viewed as current assets.
Skousen (1984) advanced three different methods for the valuation of marketable securities. These are: cost, lower of cost or market, and market value. In the valuation of marketable securities, three possible outcomes are eminent. The market value may be lower than cost, equal to cost, or higher than cost.

If the market value is lower than cost, the accounting entries are:

- Debit loss from decline in market value
- Credit allowance for decline in market value (By the difference between market value and cost)

If the market value is higher than cost then,

- Debit allowance for increase in market value
- Credit gain from increase in market value (By the difference between market value and cost)

If the market value is equal to cost, there is nothing significant.

At the end of every accounting year, the valuation allowance account is adjusted to cause MS to be reported at lower of cost or market value. If there is a further decline in market value, there will be an additional unrealized loss and the valuation allowance account will be increased, if the decline in market value is not other than temporary and there is an increase in market value, it means that unrealized gain is recognized, which is credited by the difference and the valuation allowance is reduced by debiting it. If unrealized gain is more than the loss, the unrealized gain should only be accounted for to the tune of the realized loss previously recognized. This is the position of No. 12 Statement of Financial Accounting Standards (SFAS). This could be attributable to the accounting principle of conservatism.

In accounting for marketable securities, it should be noted that FASB statement No. 12 requires the use of the aggregate method. An important factor in choosing the aggregate basis is that many companies consider their marketable securities portfolios as collective assets. Further, the Board felt that applying the lower of cost or market procedure on an individual security basis would be unduly conservative.

Assume that a company bought 2,000 securities of common stock of B Company on January 1, 2004, at a price of #20,000. These securities meet the
definition of “marketable” and are classified as current assets. Company B has no other marketable securities in its portfolio.

On December 2004, the securities have a market value of #6 per share. During 2005, the company sold 1000 shares for #8 per share. At December 31, 2005, the value rose to #9 per share.

Required: Provide the journal entries required by the above transactions.

(a) Entries for 2004;
   (i) Marketable equity securities 20,000
       Cash 20,000
   (ii) Loss from decline in market value 8,000
       Allowance for decline in market value 8,000
       (To reduce carrying value of securities to market value - lower than cost and to recognize #8,000 unrealized loss)

(b) Entries for 2005;
   (i) Cash 8,000
       Loss on disposal of marketable equity securities 2,000
       Marketable equity securities 10,000
       (To record sale of MES and realized loss)
   (ii) Allowance for decline in market value of MES 9,000
       Gain from recovery in market value 9,000
       (To adjust allowance account to balance so that carrying Value of MES will be #9,000 market value (lower than cost)

Theoretical framework

Akenbor (2005) examined whether the system of accounting marketable securities has effect on the Financial Statements of firms. Investment companies in Rivers State were considered as the population of the study while the accountants of the companies were chosen as the unit of analysis. The chi-square statistical tool was used in analyzing the data, which revealed a value of 5.83 greater than the critical value of 3.84. The result suggests that
the system of reporting marketable securities has a positive and negative significant effect on the Financial Statements of firm. The study further revealed that the classification of marketable securities as current asset only affects the income statement without any effect on the balance sheet and the classification of marketable securities as long-term investment only affects the balance sheet without any effect on income statement.

Bodie, Kane and Marcus (1998) did a study in Hong Kong on the classification of marketable securities as temporary investments and long-term investments. The researchers selected companies that classify marketable securities as temporary investment in a group called group A and those that classify marketable securities as long-term investment in another group named group B. They examined the profitability and net asset of the two groups and observed that the net income of group A was increased while the net income of group B was low. Similarly, the net asset of group A was low and the net asset of group B was high. The study concluded that the classification of marketable securities as temporary investment is an improvement to net income while the classification of marketable securities as long-term investment is an improvement to net asset.

It is upon these theories that this study is built.

**Corporate financial performance**

Corporate financial performance is the extent of growth, expansion and survival of a business. Financial statements are the instruments used to measure such performance. They constitute a report on managerial performance, attesting to managerial success or failure and flashing warning signals of impending difficulties. All financial statements are essentially historical documents. They state what has happened during a particular period of time. However, most users of financial statements are concerned about what will happen in the future. Stockholders are concerned with future earnings and dividends. Creditors are concerned with the company’s future ability to repay its debts. Managers are concerned with the company’s ability to finance future expansions. Despite the fact that financial statements are historical documents, they provide valuable information bearing on all of these concerns.

Financial statement analysis involves careful selection of data from financial statements for the primary purpose of forecasting the financial health of the company. This is accomplished by examining trends in key financial data, comparing financial data across companies and analyzing key financial
ratios. Managers are vitally concerned with the financial ratios. First, the ratios provide indicators of how well the company and its business units are performing. Secondly, since managers must report to shareholders and may wish to raise funds from external sources, they must pay attention to the financial ratios used by external investors to evaluate the company’s investment potential and credit worthiness (Ukpai, 2007).

**Return on Equity (ROE)**

The absolute amount of income is an inadequate measure of profitability because it does not indicate how much had to be invested to achieve it. One way to put earnings and investment amounts together is to compute the rate of return on common equity—that is, the ratio of net income available to common shareholders to the book value of the common shareholders equity in the company. The rate of return on common equity is calculated as follows:

\[
\frac{\text{Net Income} - \text{Preferred Dividends}}{\text{Common Equity}}
\]

In reaching a judgment as to whether a return on equity represents good or bad performance, a number of questions must be answered. For example, how does this amount compare with the return of other companies in the industry? Is the rate of return holding steady, going up, or declining? How wide are the year-to-year fluctuations in the rate of return?

The rate of return on equity can also be calculated in another way, with the market value of the common shares as the denominator of the ratio. After all, book value represents investment decisions investors made in the past. The current question is: How large a return is the company making on the amounts investors are now willing to invest in this company? This ratio is calculated routinely but in an inverted form and’ it is called the price/earnings ratio. It is usually referred to as the P/E ratio.

**Profit margin**

There are several different interpretations of the term “profit”. An economist will say that profit is the reward for entrepreneurship—for risk taking. A labour leader might say that it is the measure of how efficiently labour has produced and that it provides as a base for negotiating a wage increase. An investor will view it as a gauge of the return on his money. An internal revenue agent might regard it as the basis for determining income taxes.
Lychi (1967) in Kiabel (2007) stated that the accountant will state profit simply as the excess of a firm’s revenue over the expenses of producing revenue in a given fiscal period. According to Soyode (1975), profit is the commonest measure of financial performance in productive organizations. Lagerstrom (2002) in Kiabel (2007) posits that profit measure is helpful both to the managers themselves and to those who judge their performance. It supplies managers with a current, frequent and easily understood signal as to how well they are doing and it provides others with a basis for judging the managers’ performances.

Malomo (1999) averred that the ultimate measure of the success of a business is whether or not it continues to exist and expand. As he states, sufficient cash will help to ensure its continued existence; sufficient profits will help to ensure continued expansion. Profits are necessary for growth and growth assists increasing profits. Profit has at least three functions in an economic system: 1) it attracts capital; 2) provides income for distribution and 3) it provides incentives for organizational action. Profit serves these purposes relatively well in profit-seeking organizations but not for the non-profit organizations.

The two common measures of profit are Gross Profit Margin and Net Profit Margin.

\[
(i) \text{ Gross Profit Margin } = \frac{\text{Gross Profit}}{\text{Sales}}
\]

\[
(ii) \text{ Net Profit Margin } = \frac{\text{Gross Profit} - \text{Cost of Sales}}{\text{Sales}}
\]

Methods

The population of this study consists of the twenty-five (25) recapitalized banks in Nigeria as listed in the Nigerian Stock Exchange Fact Book of 2009. In collecting the necessary data for this study, the survey method of research design was employed whereby the companies’ financial statements on data relating to the profitability, return on equity, age, and size of the selected banks and the Central Bank of Nigeria (CBN) statistical bulletin on data relating to inflation rate and exchange rate were considered as the source of data collection.

The classification of marketable securities was operationalised into current assets and non-current assets while corporate financial performance was
measured using Net profit before tax and return on equity of the banks. We classified marketable securities as current assets and measure the impact of realized/unrealized gains and losses on income statement and balance sheet of the bank. Thereafter, marketable securities were also classified as non-current assets and the impact of realized gains and losses on income statement and the balance sheet of the bank was measured. These measures cover a time frame of fifteen years (from 1995 – 2009).

The data generated for this study were analysed using the multiple regression analysis as suggested in the model specifications.

The following models in log-form are designed for this study.

**Model 1:**

The third objective is captured in the model given below;

\[ NPBT = \alpha_o \log + \beta_1 \log CUA + \beta_2 \log FIRA + \beta_3 \log INFRAT + \ldots \mu_i \]

**Model 2:**

The forth objective is captured in the model given below;

\[ ROE = \alpha_o \log + \beta_1 \log NCA + \beta_2 \log FISIZ + \beta_3 \log EXCRAT + \ldots \mu_i \]

Where:

- NPBT = Net Profit Before Tax
- ROE = Return On Equity
- FIRA = Firm’s Age
- FISIZ = Firm’s Size
- INFRAT = Inflation Rate
- EXCRAT = Exchange Rate
- CUA = Current Asset
- NCA = Non-Current Asset
- \( \mu_i \) = Error Term
- \( \alpha_o \) = Regression constant
- \( \beta \) = Regression co-efficient
Empirical Analysis

In testing the first hypothesis of this study, the Net Profit before Tax (NPBT) of the selected banks for a period of fifteen (15) years was regressed with unrealized gains arising from the classification of MS as current asset, firm’s age and inflation rate as shown in the table below.

Table 1: Multiple Regression Analysis with NPBT against CUA, FIRA and INFRAT

<table>
<thead>
<tr>
<th>Statistical Variable</th>
<th>Co-efficient</th>
<th>Std. Error</th>
<th>T-statistic</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept ($\beta$)</td>
<td>3.02E+08</td>
<td>1.56E+08</td>
<td>-1.932050</td>
<td>0.0795</td>
</tr>
<tr>
<td>CUA</td>
<td>53241128</td>
<td>30336996</td>
<td>2.754990</td>
<td>0.0070</td>
</tr>
<tr>
<td>FIRA</td>
<td>46497636</td>
<td>80284852</td>
<td>2.579158</td>
<td>0.0420</td>
</tr>
<tr>
<td>INFRAT</td>
<td>30958284</td>
<td>85974444</td>
<td>-2.360087</td>
<td>0.0256</td>
</tr>
<tr>
<td>R</td>
<td>0.720</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.518311</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.386941</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source; E-Views Version 3.1 Window

The above table shows a multiple correlation co-efficient (R) value of 0.720 which is close to one from the positive side. This suggests a very strong effect of the classification of marketable securities as current asset, on the profitability of banks.

(i) For 1% increase in unrealized gains arising from the classification of marketable securities as current asset, banks profitability increases by 53241128.

(ii) For 1% increase in firm’s age, banks’ profitability increases by 56497636 units.

(iii) For 1% increase in inflation rate, banks’ profitability increases by 30958284 units.

The multiple co-efficient of determination (R²) 0.5183 indicates that about 51.83% of the variation in NPBT is associated with changes in CUA, FIRA and INFRAT. In other words about 48.17% change in NPBT is due to other factors other than CUA, FIRA and INFRAT; hence the model is a good fit. Since the P-value associated with CUA (0.0070) is less than 0.05, it indicates a significant effect. Therefore, the null hypothesis, which states that the
classification of marketable securities as current asset has no significant effect on the financial performance of banks, was rejected.

In testing the second hypothesis, the return on equity (ROE) of the selected banks for a period of fifteen (15) years was regressed against unrealized gains arising from the classification of marketable securities as non-current assets, firm’s size and exchange rate as shown in the table below.

Table 2: Multiple Regression Analysis with ROE against NCA, FISIZ and EXCHRAT

<table>
<thead>
<tr>
<th>Statistical variable</th>
<th>Co-efficient</th>
<th>Std. Error</th>
<th>T-statistic</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept ((\hat{x}))</td>
<td>5.189331</td>
<td>3.417424</td>
<td>1.518492</td>
<td>0.01571</td>
</tr>
<tr>
<td>NCA</td>
<td>0.121488</td>
<td>0.363303</td>
<td>-2.334400</td>
<td>0.004</td>
</tr>
<tr>
<td>FISIZ</td>
<td>2.269870</td>
<td>1.648561</td>
<td>2.376879</td>
<td>0.019</td>
</tr>
<tr>
<td>EXCHRAT</td>
<td>-2.011331</td>
<td>1.688574</td>
<td>-1.191142</td>
<td>0.0287</td>
</tr>
<tr>
<td>R</td>
<td>0.3970</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R(^2)</td>
<td>0.157624</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R(^2)</td>
<td>-0.072115</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source; E-Views Version 3.1 Window Output

From the above presentation, we observe a multiple correlation co-efficient (R) value of 0.3970 which is close to one from the positive side. This suggests that the classification of marketable securities as non-current asset has a weak effect on return on equity of the banks.

i) For 1% increase in unrealized gains arising from the classification of marketable securities as non-current asset, the return on equity of banks increases by 12.15%.

ii) For 1% increase in firm’s size, return on equity of banks increases by 22.70%.

iii) For 1% increase in exchange rate, return on equity of banks decreases by 20.11%.

The multiple co-efficient of determination (R\(^2\)) of 0.1576 indicates that about 15.76% of the variation in ROE is attributable to changes in NCA, FISIZ and EXCHRAT. In other words, about 0.84.24% change in ROE is due to other factors other than NCA, FISIZ and EXCHRAT, hence the model is a good fit. Since the p-Value associated with NCA (0.004) is less than 0.05, it
indicates a significant effect. Therefore, the null hypothesis is rejected. This implies that the classification of marketable securities as noncurrent assets has a significant effect on the financial performance of banks.

**Conclusion and recommendations**

Marketable securities are usually classified as current asset in the Balance Sheet and they may alternatively be classified as long-term investments if management has a definite intention to hold the securities for more than one year. The classification of marketable securities as current asset has its implications on financial statements.

In this research work, it was gathered that unrealized gains arising from the classification of marketable securities as current asset, has a very strong effect on the profitability of banks. This result agrees with Akenbor (2005), who observed that the classification of marketable securities as current asset only affects the income statement without any effect on the balance sheet. This implies that unrealized gains increase current year’s income while unrealized losses reduce the income. Bodies et al (1998) concluded that the classification of marketable securities as temporary investment (current asset) is an improvement to net income whereas the unrealized gains arising from the classification of marketable securities as long-term investment is an improvement to net asset.

It has been observed that unrealized gains and losses arising from the classification of marketable securities are timing differences. This implies that the difference between market value and cost of marketable securities varies from time to time and they are not recognized for income tax purpose. The effect is recognized only if there is a reasonable certainty that the benefit will be realized by an offset of the loss against capital gains.

Statement No. 12, FASB (1975) indicated that a company may choose to separate its marketable securities into two-temporary investment (classified as current assets) and long-term investment (classified as non-current assets).

The unrealized gains arising from the classification of marketable securities has a significant effect on the financial performance of banks. Where marketable securities are classified as current assets, the unrealized gains serve as a boost to profitability without any effect on shareholders fund. Similarly, where marketable securities are classified as non-current assets, the unrealized gains serve as a boost to shareholders’ fund without having any effect on profitability. It is therefore recommended that where
marketable securities are debt instruments, they should be classified as current asset (temporary investment). But they should be classified as non-current assets (long-term investment) where they are equity instruments.

References


