EFFECT OF MARKET-TO-BOOK RATIO AND LEVERAGE ON CASH HOLDINGS: A STUDY OF ACCESS BANK PLC (2005-2017)

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ABSTRACT
The study examined the effect of market to book ratio and leverage on cash holdings of Access Bank plc. The data were gathered from a sample of Access Bank plc’s annual reports and accounts for (13) thirteen years (2005-2017). The research work made use of multiple regression method. Cash and Cash Equivalent (CCE) was used as proxy for cash holdings and the dependent variable, Market-to-book ratio (MBR) and leverage (LEV) were used as independent variable using multiple regression technique, E-view 9.0 software package as tool for data analysis. Market to book ratio and leverage has significant effect on cash holdings of Access Bank plc. The extent of effect of the independent variables on the dependent variable is positive and significant. The result shows positive influence of market to book ratio and leverage on cash and cash equivalents. This result is consistent with existing literature which points out positive effect of cash flow on cash holdings of Nigerian brewery firms. Based on the findings of this study, the researcher recommends that management of Access Bank plc should ensure that they maintain good relationship with their creditors.

KEYWORDS: Market-To-Book Ratio, Leverage, Cash Holdings, Study Access Bank Plc
1.1 INTRODUCTION

Cash is an essential component on each company’s balance sheet; it receives much attention from banks, investors and analysts. Bates, Kalile, & Stulz, (2016) argued that the credit crunch that started in late 2007 has had a massive and sustained impact on the way banks operate thought the world. Banks with sufficient cash on hand may escape the need to top into the increasingly costly and restrictive credit markets. So when talking about cash, in line with this work, we ask questions on what are the reasons for a company to hold cash. This question has been arousing the interest of scholars for decades and it is still a focal point of discussion in modern financial literature. This may be due to the controversial nature of the topic because in a world of perfect capital market, where capital would always be available to fund new projects, there will not exist any benefit rebated to holding cash. However, in the real world with financing frictions, information asymmetries and transaction cost, the story became more complicated. This leads to an investigation on to the determinants of cash holding by banks.

In the view of D’mello, Krishnaswami, & Harkin, (2017) market to book financial ratio measures the market value of a company relative to its book or accounting value. Market to book ratio is also known as the price to book ratio. This formula is a way of estimating if the market price of the stock is overpriced or underpriced. The market to book ratio compares the market value of the stock to the book value of the stock. An underpriced stock could mean the stock is selling for less than it should right now, or that there is something wrong with the company.

It is generally accepted that highly levered firms entail a higher risk of bankruptcy, due to the fact that the rigid nature of amortization plans by creditors pressures the treasury management of firms (Han, & Qui, 2007). In order to reduce this related risk, highly levered firms are expected to hold larger amounts of cash. However, there is another notion, which challenges this assumption. Generally, the extent to which a firm is financed by debt gives an indication of a firm’s ability to raise debt. Thus, firms with high leverage ratios are also expected to have a better access to debt capital and hence they would hold less cash, accordingly. So, from a static trade-off perspective the factor leverage would have a somewhat ambiguous relation with cash holdings, due to these competing assumptions.

Corporations hold a certain amount of liquid balance, in the spirit of Keynesian postulations of the money demand for various motives such as pre cautionary, speculation and transactional motives (Kim, Maver, & Sherman, 2015). One popular explanation of cash holding is that cash provides low cost financing for firms (Opler, Pinkowitz, Stulz & Williamson, 2009) scholars employed three basic theoretical models that determine the patter of holding cash, namely the tradeoff model, the packing – order theory and the free cash flow theory. These theories cover the potential factors that may drive a firms’ decision to hold more or less cash. The majority of studies conducted so far in this particular domino are based on us firms (e.g. Nguyen, 2015; Rizwan, & Javed, 2011; Han and Qui, 2007;
Megginson, & Wei, 2010; Ozkan, & Ozkan, 2016; Ferreira & Vilela, 2014). In contrast, there is only a limited number of papers available that focuses on the cash holdings of firm across countries (e.g. Ferreira and Vilela, 2014; Ozkan and Ozkan 2016; Pinkowitz and Williamson 2014).

However, the main goal of this paper is to examine the effect of market to book ratio and leverage on cash holdings of Access Bank plc. from 2005-2017. This work tries to solve the problems of Access Bank plc and the challenges that leads to their holding cash; which these research tries to determine. Perhaps the most merit time to hold cash is when a recession hits and the economy starts to slow down.

1.2 OBJECTIVE OF THE STUDY

The aim of this research work is to examine the effect of market to book ratio and leverage on cash holdings of Access Bank plc. from 2005-2017. The specific objectives of this seminar paper include the following:

1. To examine the effect market to book ratio on cash and cash equivalent of Access Bank plc.
2. To evaluate the effect of leverage on cash and cash equivalent of Access Bank plc.

1.3 RESEARCH QUESTIONS

1. What are the effects market to book ratio on cash and cash equivalent of Access Bank plc?
2. What are the effects of leverage on cash and cash equivalent of Access Bank plc?

1.4 RESEARCH HYPOTHESES

Ho: Market to book ratio does not have any effect on cash and cash equivalent of Access Bank plc.
Ho: Leverage does not have any significant effect on cash and cash equivalent of Access Bank plc.

1.5 SIGNIFICANCE OF THE STUDY

The study is expected to be beneficial to the followings:

Authorities who are charged with management of cash in various organisations. It will help them to appreciate the need for cash holdings.

Banks operating in Nigeria will equally benefit from this study as the study examines the effect of market to book ratio and leverage on cash holdings of Access Bank plc. from 2005-2017.

For management, findings and recommendations from the study will be an added advantage to the Board of Directors in their struggle to boost their organisation.

1.6 SCOPE OF THE STUDY

This study focuses on the effect of market to book ratio and leverage on cash holdings with particular references to Access Bank plc.

In terms of time, this study will be limited to 13 years. Thus, this study will be limited in time scope to a period from 2005 to 2017.
2.0 REVIEW OF RELATED LITERATURE

2.1 CONCEPTUAL FRAMEWORK

CASH HOLDING

Cash is a crucial component for the day-to-day operations of every company. It provides the firm with liquidity and it facilitates the payment of various types of obligations. Without sufficient liquid assets a company will not be able to meet those obligations and hence it will be forced to declare bankruptcy, sooner or later. In the view of the literature, cash holdings are commonly defined as cash and marketable securities or cash equivalents (Pinkowitz, & Williamson, 2014). Cash equivalents are current assets, which can be converted into cash in a very short term and are thus characterized by a high degree of liquidity.

They include for instance U.S. treasury bills, certificates of deposits, banker's acceptances and further money market instruments. Those securities have a low-risk, low-return profile (Ferreira & Vilela, 2014). If there were perfect capital markets, firms would not feel the need to hold liquid assets, but they would be easily able to raise external capital. As this is not the case in the real world, it is to assume that financial frictions are responsible for causing such ambiguous predictions with respect to holding cash (Isshaq, Bokpin & Onumah, 2017).

LEVERAGE

Leverage is the investment strategy of using borrowed money: specifically, the use of various financial instruments or borrowed capital to increase the potential return of an investment. Leverage can also refer to the amount of debt used to finance assets. When one refers to something (a company, a property or an investment) as "highly leveraged," it means that item has more debt than equity (Han, and Qui, 2007).

Pinkowitz, and Williamson, (2014) stated that Leverage is any technique involving the use of borrowed funds in the purchase of an asset, with the expectation that the after tax income from the asset and asset price appreciation will exceed the borrowing cost. Normally, the finance provider would set a limit on how much risk it is prepared to take and will set a limit on how much leverage it will permit, and would require the acquired asset to be provided as collateral security for the loan.

Leveraging enables gains and losses to be multiplied. On the other hand, there is a risk that leveraging will result in a loss i.e., it actually turns out that financing costs exceed the income from the asset, or because the value of the asset has fallen. Although interconnected – since both involve borrowing – leverage and margin are not the same. Leverage refers to the act of taking on debt. Margin is a form of debt or borrowed money that is used to invest in other financial instruments. A margin account allows you to borrow money from a broker for a fixed interest rate to purchase securities, options or futures contracts in the anticipation of receiving substantially high returns (Megginson & Wei, 2010).
In the view of Ozkan, and Ozkan, (2016) there is an implicit assumption in that account, however, which is that the underlying levered asset is the same as the unlevered one. If a company borrows money to modernize, or add to its product line, or expand internationally, the additional diversification might more than offset the additional risk from leverage. Or if an investor uses a fraction of his or her portfolio to margin stock index futures and puts the rest in a money market fund, he or she might have the same volatility and expected return as an investor in an unlevered equity index fund, with a limited downside. Or if both long and short positions are held by a pairs-trading stock strategy the matching and off-setting economic leverage may lower overall risk levels. Ozkan, and Ozkan, (2016) further opined that while adding leverage to a given asset always adds risk, it is not the case that a levered company or investment is always riskier than an unlevered one. In fact, many highly levered hedge funds have less return volatility than unlevered bond funds, and public utilities with lots of debt are usually less risky stocks than unlevered technology banks.

MARKET TO BOOK RATIO

The market to book ratio measures the market value of a company relative to its book or accounting value. Market to book ratio is also known as the price to book ratio. This formula is a way of estimating if the market price of the stock is overpriced or underpriced. The market to book ratio compares the market value of the stock to the book value of the stock. An underpriced stock could mean the stock is selling for less than it should right now, or that there is something wrong with the company (Rizwan, & Javed, 2011).

In the view of Megginson & Wei, (2010) the market value of the company is its value at any point in time as determined by the financial marketplace and is simply the product of the share price times the total number of shares outstanding. Intangible assets, such as a company's patents, are not included in book value. The omission of intangible assets in the calculation of Net Asset Value is an accounting necessity because it's usually the case that while a tangible asset's current value can be easily tracked by determining its original cost, then subtracting depreciation, an intangible asset's current value may be a matter of opinion or difficult to determine. "Goodwill," for instance, is an intangible asset that a proud business owner may believe to be quite valuable while a banker may note that it only has as much value as the general health of the business determines. If the business is failing, goodwill value may eventually fall to zero. Normally, a company's share value will be greater than its book value because the share price takes into account investors' estimate of the profitability of the company — how well it uses its assets — and includes best guesses of the future value of the company. The book value, on the other hand, makes no estimation of how well the company uses its assets to drive earnings and does not take into account revenue growth or any of the other financial parameters that take into account future earnings (Megginson & Wei, 2010).
Rizwan, and Javed, (2011) states that security analysts and investors look at the market to book ratio as one indication of worth. The book value is not quite the same thing as the company's liquidation value — what stockholders might recover in the event of a bankruptcy — but it comes a lot closer than market value to assessing the worst case value of the company.

Rizwan, and Javed, (2011) further argued that book value can still be a poor gauge of a company's worth if analyzed in a vacuum as it takes no account of the significance of earnings growth (or its lack thereof), and it leaves certain assets, such as the patents held by the company out of the equation. Because assets like patents are intangible rather than tangible assets, they are not included in book value.

In the view of Nguyen, (2015) the market price to book ratio of a company that far exceeds its competitors may be overvalued. On the other hand, it may reflect a company's history of superior earnings growth and the confidence that investors place in its ability to continue to outperform its competitors.

2.2 THEORETICAL FRAMEWORK

TRADE-OFF MODEL

In the view of the trade-off model, which assumes that the management of a firm is concerned with the maximization of shareholder value, the goal would be to reach an optimal level of cash holdings by weighing the marginal costs and benefits of holding cash (Ferreira and Vilela, 2014). First, cash holdings effectively reduce the likelihood of financial distress, because in case the firm faces unexpected losses or capital market constraints, cash can act as a safety reserve. Second, firms may benefit from cash on their balance sheets by saving transactions costs related to raising funds on the capital market and also to avoid the liquidation of assets to meet obligations (Hardin III, Highfield, Hill & Kelly, 2009). Put more simply, the holding of cash can serve as a buffer between the firm's internal resources and the funds that would have to be generated externally, which as a result minimizes costs. Finally, sufficient cash holdings can ensure the pursuance of an optimal investment policy, especially when the firms’ access to external capital markets is limited (Ferreira and Vilela, 2014). Hence, those firms would not be forced to pass on positive NPV investment projects. This benefit particularly pertains to high growth firms, with large amounts of intangible assets, whose firm value is largely determined by their growth opportunities. However, a traditional source of the cost of cash holdings is represented by opportunity costs, which are incurred by firms when they forgo profitable investment opportunities. These opportunity costs are generally also referred to as a liquidity premium. This liquidity premium expresses itself by means of a lower return that the firm generates by holding these assets (Chan & Mahajan, 2010). In Appendix 7, this trade-off between the benefits and costs of holding cash or liquid assets is illustrated by the marginal cost of liquid asset
shortage curve and the marginal cost of liquid asset (holdings). At the point where those two curves intersect; there is an optimal amount of cash holdings according to the transaction costs model.

**PECKING-ORDER THEORY**

The second main theory, this paper deals with, is the pecking-order theory. Isshaq, Bokpin & Onuma, (2009) posit that information asymmetries between managers and shareholders make external financing costly. Hence, in the presence of asymmetric information managers tend to prefer the use of internally generated funds to informational sensitive external capital and that they follow a so-called hierarchy of financing policies. Here, internal funds represent the most favourable option to finance investments, followed debt capital and the issuance of equity is viewed as being the least favourable source of financing. Isshaq, Bokpin & Onuma, (2009) argue that this particularly applies to firms, whose values are determined by growth options. If a firm is evaluating several investment opportunities that may increase its value, while being short of cash, it probably has to pass on some of those valuable investments. Thus, firms with such investment opportunities would be inclined to hold more cash in order to decrease the likelihood of being forced to give up some of those value-enhancing investments.

In line with the hierarchy of financing assumption, the pecking-order theory posits that when the level of investment exceeds the level of retained earnings, the amount of cash held decreases and the amount of debt increases, accordingly (Ferreira and Vilela, 2014). Thus from a pecking-order perspective the relation between leverage and cash holdings would also be negative.

**FREE CASH FLOW THEORY**

The free cash flow theory challenges the assumption about an optimal level of cash holdings. In the view of Bates, Kalile, & Stulz, (2016), firms may not always be inclined to hold the amount of cash that will maximize the shareholders’ value. The theory is based on the notion that there are some firms that hold excessive cash. Bates, Kalile, & Stulz, (2016) argues that managers tend to appreciate cash because it enhances their discretionary power to make investments and acquisitions that would not have been approved by the capital market, and thus they have more flexibility to pursue their own interests. For shareholders this might not be a desired situation because it can have a detrimental effect on the value of the firm. So, despite the benefits for managers to hold cash, the related agency problems, caused by this, may ultimately undercut firm value. This is due to the fact that shareholders automatically downgrade a stock when they believe that managers may be hoarding cash for non-identifiable purposes. Hence, Bates, Kalile, & Stulz, (2016) argues that increases in leverage may enhance firm value, while cash holdings play a less significant role. This view is also supported by D’mello, Krishnaswami, & Harkin, (2017), who suggest that firms do not target any specific holding-levels.
The agency perspective emphasizes the monitoring role of debt. In a highly levered firm, managers are disciplined by debt covenants and requirements that are imposed on them by their creditors. Hence, managers would have less discretionary power over the employment of funds. In contrast, managers in firms with a low amount of leverage have a greater leeway in decision-making because they are less subject to monitoring and thus their discretionary power is larger. Therefore, it is expected that less levered firms hold more cash (Han, & Qui, 2007).

2.3 EMPIRICAL REVIEW

Ferreira and Vilela (2014, 295) used a sample of 400 firms in 12 Economic and Monetary Union (EMU) countries for the period of 1987 – 2000 to investigate the determinants of corporate cash holdings. Their results suggest that cash holdings are positively affected by the investment opportunity set and cash flows and negatively affected by assets liquidity, leverage and size. They found that capital market development has a negative impact on cash level, contrary to the agency view.

Kim, Maver, & Sherman, (2015) investigated the determinants of the cash holdings by collecting data from 297 French firms over the period 1998 – 2002. Using the trade-off theory and packing order theory. Through regression analysis, saddour found that French firms increases their cash level when their activities are risky and the levels of their cash flow are high and reduces it when they are highly leverage.

Opler, Pinkowitz, Stulz & Williamson, (2009) focused on determining the level of corporate cash holdings of non-financial Pakistani firms, across different firms sizes and different industries. They use data set for the period of 1998 to 2015 for the firm size, growth opportunities, cash flow, net working capital, leverage, uncertainty and dividend payments. Opler, Pinkowitz, Stulz & Williamson found negative relation between

i. Market – to – book ratio, Net working capital, leverage, dividends and cash holding and

ii. Positive relation between firm size, cash flow and cash holdings. Their findings show that firm size, cash flow, cash flow uncertainty, net working capital and leverage, significantly affect the cash holding of non-financial firm in Pakistan.

Pinkowitz, & Williamson, (2014) investigated the determinants of cash holding for a comprehensive sample of 156 Swiss non-financial firms between 1995 and 2004. Through regression analysis, they found that asset tangibility and firm size are both negatively related to corporate cash holding. Dividend payment and operating cash flows are positively related to cash reserves.

Megginton & Wei (2010) studied that determinates of cash holdings and the value of cash in China’s share – issue privatized firms hold more cash. Debt and Net working capital are negatively related to cash holdings while cash holdings dealings decline as state ownership increases.
Ozkan, & Ozkan, (2016) examine a panel data set obtained from 125 publicity trade U.S restaurant firm between 1997 and 2008 and found that restaurant firms with greater investment opportunities tend to hold more cash. At the same time, large restaurant firms, firms holding liquid assets other than cash, firms with higher capital expenditures and firms paying dividends were shown to hold less cash.

Rizwan and Javed (2011) collected data from 300 Pakistani firms listed on Karachi stock exchange (KSE) over the period 1998 – 2007. Authors found that the cash holding of Pakistani firms increases in cash flow and market – to – book ratio. They also found that Net working capital and leverage are negatively related with corporate cash holding of the Pakistani firms.

Nguyen (2015) with the sample of 9168 firms year observations from Tokyo stock exchange for the period of 1992 – 2003, and he explored that precautionary motives of cash holding can be used to alleviate operating earnings volatility. He investigate that cash holding is in negative relation with firm size and debt ratio and has positive relation with profitability, growth opportunity and dividend payout.

Isshaq, Bokpin & Onumah, (2017) used a sample of 194 U.S.A real estate firms over 1998 – 2006. He with ordinary least square methods found that cash holdings are inversely related with operating funds and leverage and in direct relation with cost of external financing and growth opportunities.

Megginson & Wei, (2010) with the sample of firms from 15 Europen Union countries and 31 non-Europen countries from 1994 – 2004, find anti-director right and credit right as important determinant of corporate liquidity.

3.0 METHODOLOGY

3.1 RESEARCH DESIGN

The research is on the effect of market to book ratio and leverage on cash holdings of Access Bank plc from 2005-2017. The research adopted the ex post facto research design. This is appropriate because ex post facto determines the cause-effect relationship among variables or the effect of one variable on another.

The research will make use of secondary data from annual reports and accounts of Access Bank plc for the period 2005 to 2017. The research makes use of multiple regression method.

3.2 AREA OF STUDY

The geographical area covered by the study in the whole country Nigeria. The brewery firms that are quoted on the Nigerian stock exchange as at the time of the research 2005 to 2017.

3.3 SOURCES OF DATA

The study made use of secondary data from annual financial statements covering 2005-2017 of Access Bank plc, Journals of accounting and other related disciplines, textbooks and Internet websites.
3.3 POPULATION OF STUDY
The population of this study will be the twenty-two (22) banks in Nigeria.

3.4 SAMPLE SIZE
The sample size of one selected bank in Nigeria as at December, 2017 was used. The sampled bank is Access bank Plc, the reason for choosing this bank is that their annual reports are updated on the Internet.

3.6 MODEL SPECIFICATION
In order to determine the effect of market to book ratio and leverage on cash holdings of Access Bank plc. from 2005-2017 a multiple regression model will be formed and it is specified as follows:

\[ \text{CCE}_t = B_0 + B_1\text{MBR}_t + B_2\text{LEV}_t + e_t \]

Where
\[ \text{CCE} \quad = \text{Cash and Cash Equivalent (proxy for Cash Holding)} \]
\[ \text{LEV} \quad = \text{Leverage} \]
\[ \text{MBR} \quad = \text{Market to book ratio} \]
\[ B_0 \quad = \text{Constant or intercept} \]
\[ B_1 - B_3 \quad = \text{Coefficient for independent variables} \]
\[ t \quad = \text{Current Period} \]
\[ e \quad = \text{The error term} \]

3.7 MULTIPLE REGRESSION ANALYSIS
The multiple regression analysis was used to the effect of market to book ratio and leverage on cash holdings of Access Bank plc. The effect exhibited by the dependent variable included in the study upon Cash and cash Equivalent (CCE) will be measured through regression coefficient. The study will also involve test of significance of parameter estimates by using t-statistics at 5% level. This will enable us compare the probability of computed t-statistics at various situation of empirical analysis with the critical value at 5% to establish significance. When the computed t statistics probability associated with it is greater than the critical value at 5% the parameter in question is significant but otherwise not significant.

3.8 METHOD OF DATA ANALYSIS
The statistical tools for analysis in this study will be
1. The descriptive statistics analysis.
2. Multiple regression analysis.

The research variables will be structured into independent variables and dependent variable for the purpose of the analysis. The independent variables of the study are market to book ratio (MBR) and Leverage (LEV). While the dependent variable is Cash and Cash Equivalent (CCE)
4.0 DATA PRESENTATION AND ANALYSIS

4.1 DATA PRESENTATION

Table 4.1: Logged Data for Access Bank plc.

<table>
<thead>
<tr>
<th>Years</th>
<th>CCE</th>
<th>LEV</th>
<th>MBR</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>2066958</td>
<td>0.08</td>
<td>0.049</td>
</tr>
<tr>
<td>2006</td>
<td>13921255</td>
<td>0.15</td>
<td>0.053</td>
</tr>
<tr>
<td>2007</td>
<td>22007151</td>
<td>0.21</td>
<td>0.041</td>
</tr>
<tr>
<td>2008</td>
<td>15107980</td>
<td>0.23</td>
<td>0.034</td>
</tr>
<tr>
<td>2009</td>
<td>5820994</td>
<td>0.21</td>
<td>0.032</td>
</tr>
<tr>
<td>2010</td>
<td>12705186</td>
<td>0.19</td>
<td>0.034</td>
</tr>
<tr>
<td>2011</td>
<td>8080590</td>
<td>0.45</td>
<td>0.062</td>
</tr>
<tr>
<td>2012</td>
<td>4772154</td>
<td>0.27</td>
<td>0.057</td>
</tr>
<tr>
<td>2013</td>
<td>3189239</td>
<td>0.13</td>
<td>0.021</td>
</tr>
<tr>
<td>2014</td>
<td>6290582</td>
<td>0.15</td>
<td>0.15</td>
</tr>
<tr>
<td>2015</td>
<td>5804623</td>
<td>0.13</td>
<td>0.13</td>
</tr>
<tr>
<td>2016</td>
<td>5844524</td>
<td>0.19</td>
<td>0.0081</td>
</tr>
<tr>
<td>2017</td>
<td>6594514</td>
<td>0.16</td>
<td>0.0049</td>
</tr>
</tbody>
</table>

Source: Firm’s Financial Statement

4.2 DATA ANALYSIS

Table 4.3

Dependent Variable: CCE
Method: Least Squares
Date: 07/06/18   Time: 03:27
Sample: 2005 2017
Included observations: 13

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBR</td>
<td>13.802615</td>
<td>40937452</td>
<td>0.337164</td>
<td>0.7430</td>
</tr>
<tr>
<td>LEV</td>
<td>11.410933</td>
<td>19311319</td>
<td>0.590894</td>
<td>0.5677</td>
</tr>
<tr>
<td>C</td>
<td>71.10649.</td>
<td>4782992.</td>
<td>1.486653</td>
<td>0.1679</td>
</tr>
</tbody>
</table>

R-squared 0.047086    Mean dependent var 8631212.
Adjusted R-squared 0.743497 S.D. dependent var 5676159.
S.E. of regression 6.069767  Akaike info criterion 34.27471
Sum squared resid 3.68E+14 Schwarz criterion 34.40509
Log likelihood -219.7856  Hannan-Quinn criter. 34.24792
F-statistic 0.247063  Durbin-Watson stat 1.204826
Prob(F-statistic) 0.785722

SOURCE: Eview output version 9.0
Table 4.3 indicates that any change in market to book ratio will increase cash and cash equivalent by 13.802615 while change in leverage will result in an increase of 11.410933 in cash and cash equivalent (CCE). In summary, Cash and cash equivalent (CCE) is significantly influenced positively by leverage (LEV) and market to book ratio (MBR).

**INTERPRETATION OF REGRESSION COEFFICIENT RESULT**

Table 4.3, indicates that any increase in Market to Book Ratio and leverage of Access Bank plc will increase Cash and cash equivalents by 6.069767. This implies that cash holdings is affected by Market to Book Ratio and Leverage of Access Bank plc.

**INTERPRETATION OF DURBIN WATSON- STATISTIC**

The Durbin-Watson statistic is 1.204826 which is not up to 2. In this case, the Durbin Watson statistic is closer to 2 than 0 which indicates the absence of autocorrelation in the series. The result indicates the absence of positive serial correlation in the time series data extracted from the annual report and accounts of Nigerian Brewery Plc.

**COEFFICIENT OF DETERMINATION (R^2)**

The Adjusted R-squared is 0.743497. The adjusted R^2 reveals that only about 74% of the variations in cash and cash equivalent could be explained by Market to Book Ratio and leverage of Access Bank plc while about 26% could be explained by other factors capable of influencing cash holdings of Access Bank plc as well as the error term and the unexplained variables.

**4.3 TEST OF HYPOTHESES**

**Test of Hypothesis One**

Hypothesis one seeks to evaluate the effect market to book ratio on cash and cash equivalent of Access Bank plc using data from Appendix 1 at 95% confidence level.

**Statement of Hypothesis**

Ho: Market to book ratio does not have any effect on cash and cash equivalent of Access Bank plc.

**Decision**

The decision criterion is to accept H₀ if the probability of the t-Statistics > 0.05, otherwise reject. The probability of the t-Statistics of 0.7430 > 0.05, therefore, we accept the alternative hypothesis while rejecting the null hypothesis to conclude that market to book ratio has significant effect on cash and cash equivalent of Access Bank plc.

**Test of Hypothesis two**

Hypothesis two seeks to evaluate the effect of leverage on cash and cash equivalent of Access Bank plc using data from Appendix 1 at 95% confidence level.

**Statement of Hypothesis**

Ho: Leverage does not have any significant effect on cash and cash equivalent of Access Bank plc.

**Statement of Decision criteria:**
Accept $H_0$ if the probability of the t-Statistics > 0.05 otherwise reject.

**Decision**

The decision criterion is to accept $H_0$ if the probability of the t-Statistics > 0.05, otherwise reject. The probability of the t-Statistics of 0.5677 > 0.05, therefore, we reject the null hypothesis while accepting the alternative hypothesis to conclude that leverage significantly affect cash and cash equivalent of Access Bank plc.

**5.0 CONCLUSION AND RECOMMENDATIONS**

At the end of this seminar paper on the effect of market to book ratio and leverage on cash holdings of Access Bank plc. The researcher found out the following:

1. Market to book ratio has significant effect cash and cash equivalent of Access Bank plc.
2. It was also observed that leverage has significant effect on cash and cash equivalent of Access Bank plc.
3. The study shows that Market to book ratio and leverage significantly affect cash holdings of Access Bank plc.

Leverage is significant determinant of cash holding, a high leverage ratio indicates that firms maintain a good relationship to their creditors. This good relationship is associated with relatively low costs when issuing additional debt, in the event of shortages in cash. Hence firms with high leverage ratios would be inclined to hold less cash. The management of Access Bank plc should ensure that they maintain good relationship with their creditors.

The market value of the company is its value at any point in time as determined by the financial marketplace and is simply the product of the share price times the total number of shares outstanding. Intangible assets, such as a company's patents, are not included in book value. Regarding the variable cash flow, one would expect a negative relation between cash flow and cash holdings due to the facts that it acts as a substitute for cash holding but the reverse is the case, we received from the regression analysis a positively but non-significant relation on cash holding which indicates that agency problems has such a big influence on the cash holding of Access Bank plc.

The result of this study generally supports the trade-off-theory of cash holdings, that precautionary and transaction motives plays important role in explaining the determinants of cash holding.
REFERENCES


