Corporate Capital Structure Determinants of Listed Firms in West African Monetary Zone – A Review of Related Literature

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Abstract

In the financial management arena, corporate capital structure has attracted intense debate and scholarly attention over the past four decades. However, in the context of countries in the West African Monetary Zone (WAMZ), capital structure has received a scanty attention and most literature on this issue modelled only the firm specific determinants in their studies. Practically, managers also like to consider market conditions, like GDP growth, interest rate, inflation, stock market performance and other economic factors when deciding for financing mix (Antoniou et al, 2002). This paper provides new insights into the capital structure theory by proposing a more superior model which takes into account both the additional important and "lately" evidence firm specific factors and macroeconomic factors on capital structure as opposed to the existing models for capital structure. Both theoretical and empirical literature is reviewed. Conclusions are drawn based on the findings.

Keywords: key words, capital structure, determinants, related literature, Ghana, Nigeria, WAMZ

1. Introduction

Capital is an important and critical resource for all companies. The capital resources can be divided into two main categories, namely equity and debt. Equity arises when companies sell some of its ownership rights to gain funds for operation and investing activities. Debt is a contractual agreement, whereby companies borrow an amount of money and repay it with interest within a stipulated time frame. The amount of debt that a firm uses to finance its assets is called leverage. A firm with a lot of debt in its capital structure is said to be highly levered. A firm with no debt is said to be unlevered. There is a wide range of policy issues involving company financing. Capital market development, interest rate, security price determination and regulation are examples of macro level implications whiles corporate governance and company development could be considered as micro level implications (Green, Murinde and Suppakitjarak, 2002).

Corporate capital structure theories have evolved along many directions, with many models being built to explain a firm's financing behavior. The theories suggest that firms select capital structure depending on attributes that determine the various costs and benefits associated with debt and equity financing. Titman and Wessels (1988) have studied the theoretical determinants of capital structure by examining them empirically. The theoretical attributes namely, asset structure, non-debt tax shields, growth, uniqueness, industry classification, firm size, earnings volatility and profitability were tested to see how they affect the firm's debt-equity choice. From that study, they found that debt-levels are related negatively to the uniqueness of a firm's business. Short-term debt ratios were shown to be negatively related to firm size and past profitability. Harris and Raviv (1991) in their seminal work on capital structure determinants found some relationship of those factors with leverage. They pointed out that leverage positively relates to fixed costs, non-debt tax shields, investment opportunities and firm size.

According to literature, research on the determinants of capital structure has been directed mainly on firms in the United States and other developed nations with similar institutions. Chen and Jiang (2001) on Dutch firms, Devic and Krstic (2001) on Poland and Hungarian firms, Antoniou et al. (2002) on the UK, France and German firms, Drobetz and Fix (2003) on Switzerland firms and Padron et al. (2005) on Spanish firms with almost all the studies examined using secondary data. However, there were few interesting studies conducted by interviewing CFO and financial managers to find out the preferences for capital structure and the factors influencing them (Graham and Harvey, 2001 and Beattie et al., 2004).

The issue of determinants of capital structure in developing countries however received little attention. There were only few studies on the determinants of capital structure conducted in the developing countries. One of the

recent empirical studies was attempted by Booth et al. (2001). Ten developing countries were analyzed and they concluded that the variables that explain the capital structures in developed nations are also relevant in the developing countries irrespective of differences in institutional factors across these developing nations. Bhaduri (2002) did an empirical study of the determinants of corporate borrowing from the Indian perspective. He concluded that the optimal capital structure choice is influenced by factors such as growth of earnings, cash flow of the firm, size of the firm, and product and industry characteristics.

Although substantive research has been done on this subject, most of them were in the developed markets and limited literature is available from the emerging markets, especially capital markets in the West African Monetary Zone, specifically Ghana and Nigeria.   So, we cannot generalize the results of the developed markets on the emerging markets without any research. Eldomiaty (2007) said that capital market in these emerging market countries is incomplete or not efficient compared to the developed market because of the information asymmetry problems. This creates an environment where financing decision are attached with a significant level of irregularities for the firms. For these reasons, it is very essential to evaluate the validity of financial leverage levels and it's of the firms in Ghana and Nigeria, developing market economies.

2. Theoretical Literature on Capital Structure

The traditional capital structure theory (the Naïve Theory) developed prior to 1958 was based on the idea of weighted average cost of capital (WACC) principle, which states that companies issue debt in order to reduce their WACC as debt is considered less costly than equity (Prace, 2004).

Modigliani and Miller (1958) introduced the modern capital structure theory which argued that, a firm could not change the value of its outstanding securities by changing the proportions of its capital structure. They concluded that the value of the firm and its overall costs of capital were independent of its choice of capital structure. Then, Modigliani and Miller (1963) conducted another study and introduced corporate taxes into their earlier model. With the new model, the market value of a firm increased and the overall cost of capital reduced to the point of interest being tax deductible. From there, several empirical researches were conducted on the concept developed by Modigliani and Miller in (1958 and 1963).

The trade-off theory of capital structure explains the relevance of debt with the existence of taxes and bankruptcy costs (DeAngelo and Masulis, 1980). This theory maintains that the capital structure of a firm is the outcome of the trade-off between the benefits of debt and the costs of debt (Abor, 2007). Typical arguments for the trade-off between the costs and benefits of debts are based on bankruptcy costs, tax benefits and agency costs related to asset substitution, underinvestment and overinvestment (Oztekin, 2009). Sheikh and Wang (2011) explain that the trade-off theory shows that firms borrow to a point where the tax savings from an extra dollar in debt are entirely equal to the costs that results from the increased probability of financial distress.

The Pecking order theory developed by (Myers and Majluf, 1984) states that capital structure is driven by a firm's desire to finance new investments, first internally, then with low risk debt, and finally, if all else fails, with equity. Unlike the trade-off theory, this theory does not offer optimal capital structure. However, it demonstrates the preference of firms' use of internal financing as opposed to external financing. According to Myers, firms prefer retained earnings as their main source of funds for investment followed by debt. The last resort sought by a firm would be external equity financing. The reason for this ranking was that internal funds were regarded as 'cheap' and not subject to any outside interference. External debt was ranked next as it was cheaper and has fewer restrictions compared to issuing equity.

Agency theory focuses on the costs that are created due to conflicts of interest between shareholders, managers, and debt holders. This theory was developed by Jensen and Meckling in their 1976 publications. This theory considered debt to be a necessary factor that creates conflict between equity holders and managers. Both scholars used this theory to argue that the probability distribution of cash flows provided by the firm is not independent of its ownership structure and that this fact may be used to explain optimal capital structure. Jensen and Meckling

recommended that, given increasing agency costs with both the equity-holders and debt-holders, there would be an optimum combination of outside debt and equity to reduce total agency costs.

Signaling hypothesis was introduced by Ross (1977). The basic idea of signaling hypothesis is that the choice of capital structure signals outside investors the information of the insiders. According to Ross, managers, whom are known as insiders know the true distribution of firm returns, but investors do not. The managers feel more 'relax' with equity than debt as debt can lead to managers losing jobs if firms go bankrupt. Knowing this fact, if managers keep on adding more debt in the capital structure of the firms, which reflects a 'signal of higher future cash flow' and their managers' confidence of the firms. Therefore, investors take large level of debt as a signal of 'higher quality' and therefore, profitability is expected to be positively related to leverage. There were mixed results noted in the literature with respect of the effect of signaling on the capital structure decision.

3. Empirical Literature on Capital Structure

3.1 Capital Structure in Developed Countries

There were many empirical researches undertaken by scholars on capital structure choices in the developed nations. Among the scholars who have studied the capital structure issue in the developed nations include (Krishnan and Moyer, 1996). They examined the determinants of capital structure of large corporation of industrialized countries. Data was collected from 1993 Disclosure Worldscope of non-regulated corporations having total assets of over 5 billion dollars. The sample of 283 firms was selected for this purpose; which consists of 96 US companies, 71 from Japan, 25 from the UK, 22 each from Germany and France and 47 from other countries. Regression analysis was performed to analyze the data. The result appeared that corporations from Germany had lower leverage ratio than U.S corporations but corporations from Italy had relatively higher leverage ratio than U.S corporations. Because of close ties between Japanese firms and banks, corporations in Japan used more short-term debt than long-term. Hence, the long-term leverage ratio for Japanese corporations appeared to be smaller than others. It is evidenced from the research that the variables affecting the U.S companies on capital structure were also similarly affecting companies from other countries. Apart from that, profitability was seen as major determinant of leverage. The firm size and growth were also proven to be significant variables in explaining capital structure variations.

Antoniou et al. (2002) studied the determinants of corporate capital structure of European countries. Firms from UK, France and Germany for the period from 1969 till 2000 were analyzed. Both firm specific variables, institutional and macroeconomic factors were examined. Among the independent variables examined in their model were profitability ratio, effective tax rate, market to book ratio, fixed assets ratio, size of the firm, liquidity ratio, earnings volatility, market equity premium, term structure of interest rates and changes in share prices. The results showed that firms adjusted their leverage ratios to achieve their target capital structure and this complied with the static trade-off theory of capital structure. Leverage was positively affected by the size of the firm for all the three countries. Market to book ratio, term structure of interest rate and share price performance was negatively related to leverage. When the interest rate is high, firms generally used less debt and when share price decline or when lower stock performance experienced by firms, they tend to use more debt until the stock price signal good rise. Inverse relations were noted between profitability and market to book ratio with leverage respectively in France and the UK. Tangibility of assets with leverage appeared positive in Germany, insignificant in France and negative in the UK. This suggested that asset tangibility was an important element for borrowing in Germany. Liquidity and volatility in earnings appeared insignificant in affecting leverage in Germany, France and the UK.

In another study from the Spanish dataset, (Padron et al. 2005), examined 65 non-financial listed corporations in the Spanish stock exchange from 1990 till 1999. The balance sheets and the companies share closing price at 31 December each year were extracted from the Comision Nacional del Mercado de Valoners and the Madrid Stock Exchange respectively. Six factors were examined empirically to see their influence on capital structure namely, firm size, generated resources, level of warrants, cost of debt, growth opportunities and firm reputation (number of years of age). The results indicated that only the firm reputation (age of firm) seemed to be insignificant. Size and level of warrants showed a positive relation with leverage while generated resources cost of debt and growth

opportunities indicated negative relationship with leverage.

Delcoure (2006) made a recent attempt to find out the determinants of capital structure choice in the Central and Eastern Europe countries, namely Poland, Russian Federation, Czech Republic and Slovakia. The sample in this study covered a period from 1996 till 2002 and the independent variable measured by the book value of total debt to total assets, long-term debt to total assets and short-term debt to total assets. Three type of analysis is performed here namely, the fixed effects, random effects and the pooled effects. The results showed that the average debt ratio for Poland, Slovakia, Czech Republic and Russian are 0.56, 0.51, 0.43 and 0.34 respectively. The long-term debt to asset ratio were low for all the companies with 0.16 for Czech Republic, 0.81 for Slovakia, 0.21 for Poland and 0.25 for Russia that suggested that companies in these countries were mainly equity financed.

Gaud et al. (2006) conducted a comprehensive study on capital structure choice covering 13 European countries that include the United Kingdom, France, Germany, Sweden, Italy, Netherlands, Switzerland, Norway, Denmark, Spain, Belgium, Finland and Australia. This study was somewhat different from previous studies in the Europe such that here, three theories of capital structure namely, the trade-off theory, pecking order theory and agency costs model were tested through a panel analysis of firm specific determinants of capital structure choice. A panel data of 5,074 firms for the period from 1988 till 2000 was analyzed. It was noted that debt levels around Europe are fairly homogenous, with the range between 0.207 and 0.388. The lowest and the highest leverage are seen in the UK and Norway respectively. The effect of firm size and asset tangibility on leverage turned out to be positive as expected and this supports the trade-off theory of capital structure. Negative association were noted with leverage for the effect of return on asset and cash for all the European countries in the sample which supports the pecking order hypothesis of capital structure. The growth opportunities also showed a negative coefficient and this complied with the static trade-off theory. Another point earned from this study was that profitable firms prefer increasing dividends rather than decreasing debt levels with supports the agency cost theory.

3.2 Capital Structure in Developing Countries

There were not many research directed towards developing countries that saw the applicability of the theories of capital structure generated from the developed nations.

Booth et al. (2001). Studied the determinants of capital structure in 10 developing countries, namely; India, Pakistan, Thailand, Malaysia, Turkey, Zimbabwe, Mexico, Brazil, Jordan and Korea. The balance sheet and income statements data was collected from the International Finance Corporations (IFC) and stock prices for a maximum of 100 largest publicly traded firms in each country were also collected for a period from 1980 to 1991. Three main important ratios which are the total debt ratios, long-term book-debt ratios and long-term market-debt ratios were calculated from the data collected. The independent variables examined in their model include tax rates, business risk, asset tangibility, natural logarithm of sales, return on assets and market-to-book ratio. From their analysis, they concluded that the variables that explained the capital structures in developed nations were also relevant in the developing countries irrespective of differences in institutional factors across these developing nations. The same types of variables, which affect developed nations, were significant in developing nations too. However, the research scholars have identified some systematic differences in the way these ratios were affected by GDP growth rates, inflation rates and the development of capital markets.

Bhaduri (2002) studied the capital structure decision in Indian corporate sector. The balance sheets from 1989 till 1995 from 363 manufacturing firms in India with nine types of industries were collected from the Centre for Monitoring Indian Economy (CMIE) database. Three measures of leverages that were calculated include total borrowing to asset ratio, long-term borrowing to asset ratio and short-term borrowing to asset ratio. The independent variables examined in this study include asset structure, non-debt tax shield, firm size, financial distress, growth, profitability, age, signaling and uniqueness. From the analysis, firms with large size depend more on the long-term borrowing while the small firms depend more on short-term borrowings. Firms with high growth opportunities would like to increase their long-term debt taking capacity. The measure of profitability seemed to be significant for the short-term and total borrowings but not for long-term borrowing. The asset

structure showed that there was no association between share of fixed assets and short-term borrowings as theory recommends that they do with collateral argument.

A recent study on Asian countries was attempted by Deesomsak et al. (2004). Firms operating in four countries in the Asia Pacific region, namely Malaysia, Thailand, Singapore and Australia were sampled in this study. All the four countries selected were different in respect of the legal traditions, financial markets, bankruptcy codes and corporate ownership structure. The financial information was gathered from the respective country's national stock analysis covering a period 1993 till 2001. The sample study consists of 294 Thai, 669 Malaysian, 245 Singapore and 219 Australian firms. Using a cross-sectional framework, industrial firms leverage ratios were modelled as a fraction of the firm specific factors namely, tangibility, profitability, firm size, growth opportunities, non-debt tax shield, liquidity, earnings volatility and stock price performance. The effect of country specific variables was also tested here and they include the degree of stock market's activity, level of interest rates, legal protection of creditor right and ownership concentration. The results revealed that Thai and Malaysian firms were highly leveraged while the lowest revealed by Australian firms. Tangibility of assets was positively related in Australia and appeared to be insignificant for other countries. This is explained by Australia being the country which has the lowest level of protection of creditors and it is rational for Australian lenders to request for some extra security. Profitability showed a negative relationship with leverage only for Malaysia and remained insignificant for other three countries. Firm size showed a positive impact on leverage in all selected countries except Singapore while growth opportunity appeared to be negatively correlated with leverage for Thailand and Singapore and insignificant for Australia and Malaysia. The non-debt tax shields, liquidity and share price performance showed significant negative relationship leverage for all the four countries. Earnings volatility appeared to be insignificant for all the countries and this may be according to the authors firms ignoring risk when costs of entering liquidation is low.

3. 3 Capital Structure in the West African Monetary Zone

All the countries in West Africa are part of the Economic Community of West African States (ECOWAS) whose mission is to promote economic integration in the sub-region. The English speaking countries in West Africa consist of Sierra Leone, Gambia, Ghana, Liberia and Nigeria. The stock markets in English Speaking West Africa are at various stages of development. The Gambia does not have a stock exchange although a few local equities are traded over the counter. In Sierra Leone, there is no stock exchange. The Government is currently working towards the establishment of a formal capital market. The Sierra Leone Stock Exchange Technical Committee was created to establish a legal framework to structure and regulate the future domestic capital market.

The Ghana Stock Exchange (GSE) started operations in 1990. As of June 2013, the GSE had 36 listed companies. The GSE sets the rules and regulations for companies and other entities seeking to be listed on the GSE. The GSE is governed by a Council (Board of Directors) with representation from licensed dealing members, listed companies, banks, insurance companies and other persons of the Ghanaian finance and public service sectors. The All Share Index of the Ghana Stock Exchange has grown at a 10- year compounded annual growth rate of 30.6% while the 10-year average annual return is 37%. The manufacturing, brewery and banking sectors dominate the exchange.

The Nigerian stock market, the most liquid stock market in West Africa, was established in 1960 as the Lagos Stock Exchange. In December 1977 it became The Stock Exchange has eight branches located in Lagos (opened in 1961); Kaduna branch (established in 1978); Port Harcourt (in 1980); Kano (in 1989); Onitsha (in 1990); Ibadan (in 1990); Abuja (in 1999; Yola, (in 2002); and Benin (in 2005). Currently, there are 276 securities listed on The Exchange, made up of 17 Government Stocks, 50 Industrial Loans (Debenture/Preference Stocks) and 209 Equity/Ordinary Shares of Companies, with a total market capitalization of 2.23 trillion naira. Many of the listed companies have foreign/multinational affiliations and represent a cross-section of the economy, ranging from agriculture through manufacturing to services.

The three stock exchanges in the West African region, namely, the Nigerian Stock Exchange, Ghana Stock

Exchange and the BRVM in Cote D'ivoire are in ongoing harmonization talks to establish uniform rules, regulations and operational procedures. The aim is to allow free access to investors and issuers across the three markets. However, there are only very few recently done studies on capital structure available in the West African Monetary Zone countries, although the capital structure has had a lot of interest in developed markets, it has received less attention in emerging markets specifically Ghana and Nigeria.

3.3.1 Capital Structure in Ghana

In Ghana, Abor (2007) compared the determinants of capital structure of SMEs and listed firms in Ghana. The study sampled all firms that were listed on the Ghana Stock Exchange (GSE) during the six-year period 1998-2003. Twenty two firms were included in the study sample. The SME sample was selected from the Association of Ghana Industries' and the National Board for Small Scale Industries' databases of firms. A total of one hundred and sixty firms having fewer than a hundred employees were included in the study. The study found out that age of the firm has statistically significant positive relationships with long-term and total debt ratios among SMEs. Age was also significantly and positively related to short-term debt, and total debt ratios among quoted firms. However in the case of quoted firms, the results revealed a statistically significant negative association between age and long-term debt ratio.

Dokua et. al (2011), explored the relationship between financial market development and choice of finance (debt-equity) of listed firms in Ghana in a panel data framework. The core concern of this study was to test whether debt and equity finance are complements or substitutes. The study used panel data which involved pooling of twenty-one listed firms on the Ghana Stock Exchange (GSE) over the period 1995-2005. The study found evidence of complementarities between banking and stock market developments in financing decisions of listed firms in Ghana. The stock market development was indicated to have a positive effect on the capital structure decisions of listed firms. However, substitution effect between debt and equity mainly in favour of equity financing sets in as the financial landscape develops further. This finding emphasised the important role equity markets in developing countries played in capital structure of listed firms.

In a more recent study, Oppong-Boakye et al. (2013) investigated the determinants of capital structure using dataset from 33 listed and non-listed companies during the period 2003 – 2007 in Ghana. A multiple regression analysis of pooled-cross sectional and time-series observations was employed in the analysis. The results identified long-term debt to be irrelevant component of capital structure of large unquoted and quoted firms in Ghana as there is a greater reliance on equity. Furthermore, profitability, size, business risk and tangible assets have positive correlation with level of gearing of companies in Ghana. On the other hand, growth, and tax indicate a negative correlation with the level of gearing.

3.3.2 Capital Structure in Nigeria

Agboola & Salawu (2008) carried out a study on the determinant**s of capital structure of large** non-financial listed firms in Nigeria and found that profitability has a positive relationship with debt of large firms in Nigeria, and also that the large and profitable firms prefer debt because of the tax saving advantage. The results of the study also show that the large firms prefer short-term debt to long-term debt financing and also that relationship between tangibility and long-term debt ratios was significantly positive, thus showing the importance of collateral in the issue of debt finance. Size of the firm also showed a statistically significant and positive relationship with total debt and short-term debt.

Akintoye (2008) in a research on the sensitivity of performance to capital structure in selected Food and Beverage companies in Nigeria used performance indicators like the EBIT (earnings before interest and tax), EPS (earnings per share) and DPS (Dividend per share) and the level of turnover as a performance measure of capital structure of these companies. Results from the research showed that for most of the companies analyzed, their EBIT, EPS and DPS were sensitive to capital structure, in other words, an increase in turnover reflected a corresponding increase in EBIT, EPS and DPS and vice versa.

Ezeoha & Okafor, (2009) evaluated how local ownership of firms influenced capital structure decisions in Nigeria. Results from the paper showed that the discrimination between domestic and foreign firms played a big role in determining level of financial leverage in Nigeria, it also showed that local firms in the country had more total debts than foreign firms, while the foreign firms which were more diversified were considered as larger in size, more profitable and relied more on long-term financing. Overall, this paper showed that the inadequacy in access to the capital market in Nigeria was a major reason why most domestic firms relied on more short-term debts and internal capital and thus, these firms capital decision structures conform to theories that support short-term financing systems.

In another study, David & Olorunfemi (2010) examined the relationship between capital structure and corporate performance in the Nigerian petroleum industry. The study used the earnings per share (EPS) and dividend per share (DPS) as performance indicators, and results showed that the relationship between the EPS and the leverage ratio was positive implying that an increase in leverage ratio would lead to an increase in EPS, the paper also showed that there exists a positive relationship between the DPS and the leverage ratio, thus showing that debt has a huge impacts on performance in the Nigerian petroleum industry.

Finally, Oladimeji (2012) examined the determinants of capital structure of non-financial listed firms in Nigeria. The research was conducted using panel data methodology for a sample of 20 firms listed on Nigerian Stock Exchange during 2006-2010. The results showed that the major determinants of capital structure based on this study include: profitability, tangibility and liquidity. Age, Size and tangibility play determining roles in accessing long-term debt finance within the Nigerian context.

3.4 Determinants of Capital Structure

Asset Tangibility:

As discussed by capital structure theories, the type of asset a firm owns in some way has an impact on the capital structure choice of that firm. If a company has more tangible assets in their composition of total assets, it has higher capacity to raise debt on the collateral argument. Most of the empirical studies evidenced a positive influence of asset tangibility on leverage. Drobetz and Fix (2003) used the ratio of fixed assets to total assets as a proxy to measure asset tangibility. The evidence gathered from a 124 large firms listed on SPI of the Swiss Stock Exchange and concluded a positive correlation between asset tangibility and leverage.

Financial Flexibility:

Financial flexibility was referred to the amount of cash and marketable securities in the current asset of a company. Studies typically showed a negative relationship between financial flexibility and leverage and this is in line with the pecking order theory by Myers (1984). Singh and Hodder (2000) performed an empirical study to determine the relationship of multinational firm's capital structure with firm specific factors. Among the factors examined was financial flexibility and found to be significantly affecting the company's leverage.

Liquidity:

Liquidity was referred to as the ratio of current assets over current liabilities. In the recent studies, liquidity is also considered significantly affecting the capital structure choice of firms (Ozkan, 2000 and Antoniou et al., 2002). Wu et .al. (2007) examined the determinants of capital structure choice of China and liquidity was one the factors examined. They found that in both categories, liquidity was negatively related to debt ratio.

Profitability:

The effect of profitability on leverage was well explained by the "pecking order" theory that was suggested by Myers (1984). According to this theory, firm has an ordered preference for financing whereby they prefer retained earnings as their main source of funds for investment which is followed by debt. The pecking order theory believes that there exists a negative relationship, while the trade-off theory believes that the relationship between both variables is positive (Balcilar et. al, 2009). Booth et al. (2001) conducted a study on finding the

determinants of corporate capital structure on 10 developing countries. They used return on assets as a proxy for profitability. The results indicated that the more profitable the company is, the lower the debt would be.

Firm Size:

Firm size has been considered a very important determinant of capital structure, and one of the reasons given for this is the fact that large firms are usually more spread out in term of operations and thus have lower propensity to default (Rajan & Zingales, 2005). Most studies showed positive relationship between firm size and leverage. The reason as argued by Nagano (2003) was being large, firms generally seen as diversified entity. The diversification actually can protect them over time from demand downturns in business or product class, thus lowering the probability of income loss or in the extreme case insolvency. Therefore, large firms should be more leveraged, as they were less prone to bankruptcy.

GDP Growth:

Gross Domestic Product (GDP) was one of the macroeconomic variables tested by very few studies (Booth et al., 2001 and Muhammad, 1999). Balla and Mateus (2004) undertook a research on capital structure in Hungary and Portugal. GDP was examined to see the effect on leverage. The results indicated that GDP or gross domestic product was a significant effect on corporate leverage of both firms.

Inflation rate:

Gulati (1997) developed a general case model to identify the effect of inflation on capital structure. The result indicated that inflation is significantly affecting leverage. In another study, Mutenheri and Green (2002) measured inflation as the percentage change in consumer price index. The study was conducted on 52 listed companies in Zimbabwe for period 1990 till 1999. The result indicated that inflation has no significant effect on the capital structure choice of firms in Zimbabwe.

Base Lending Rate or Interest Rate:

Interest on loan was relatively related to a long fixed commitment, so firms generally do not prefer to raise further loan when the market interest rate is high as they are afraid of the risk of bankruptcy. Therefore, firms were likely to consider the market interest rate while deciding the capital structure. According to Antoniou et al. (2002), the interest rate is negatively related to leverage.

4. Conclusions and Policy Recommendations

A comprehensive review of literature reveals that empirical research on capital structure determinants is mostly focused on examining the influence of firm specific variables on capital structure, however, important theoretical firm specific variable like financial flexibility is not fully examined in the models. Only few studies examined this variable in the developed market, (Singh and Hodder 2000), (Upneja and Dalbor, 2001) and (Chen and Jiang 2001). The relationship between macroeconomic variables and capital structure has also not been fully explored especially in emerging markets. Most studies ignored the importance of macroeconomic factors in affecting capital structure choice. Examples of some important macroeconomic factors include GDP growth, inflation rate and interest rate. Only few studies discussed the said relationship. Balla and Mateus (2004), Booth et al., (2001) and Antoniou et al. (2002) discussed the influence of macroeconomic factors on capital structure in developed markets but no such study has been conducted to investigate the relationship between macroeconomic variables and capital structure for Ghanaian and Nigerian Listed firms.

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