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## EFFECT OF BOND ISSUANCE ON FINANCIAL PERFORMANCE OF FIRMS LISTED ON NAIROBI SECURITIES EXCHANGE

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**ABSTRACT:** *The bonds market in Kenya has experienced tremendous growth in the recent past. Firms listed on Nairobi Securities Exchange (NSE) have gone ahead to undertake secondary bond issues as they pursue their growth strategies. Looking at the financial performance (Return on Equity) of these firms that have undertaken secondary bond issues, there are declines at particular periods after these issues. Understanding the effect of bond issues on financial performance is important for the survival of firms. Studies on the relationship between debt and financial performance of firms have shown that debt has an effect on financial performance. This study went further to find out the effect of debt in form of bond issuances on listed firm financial performance as measured by return on equity. The study collected data from all the six firms that had issued bonds in tranches or additional bonds within the period 2008 to 2017. Data was analyzed via regression to assess whether bonds issuance has any effect on the financial performance of firms listed on NSE. Results indicate that about 75.4 percent of variance in financial performance could be explained by bond issuance as characterized by bond price, bonds coupon rate, bond proportion, and bond yield to maturity. Bond proportion and bond yield to maturity were found to have a statistically significant effect on financial performance. The study concluded that bond issues affected financial performance of listed firms in Kenya. It was recommended that the listed firms ought to take into consideration the various aspects of bond issues in order to enhance their financial performance.*

**KEYWORDS:** bond issuance, bond price, bond proportion, yield to maturity, financial performance, return on equity, Nairobi securities exchange.

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### INTRODUCTION

Corporate bond markets became larger over the last decade, and more and more global in nature. Corporate bond markets have nearly tripled in size since 2000, reaching \$49 trillion in 2013. Growth stalled within the wake of the financial crisis as banks began reducing debt from their balance sheets. Market depth has been increasing among developed and upcoming markets. Deepening markets will suggest increasing reliance on corporate bond markets to satisfy the financial wants of an economy. Corporate bond finance has enlarged as a proportion of total world company funding (which includes corporate bond financing, bank financing and equity market financing). Currently, bank loaning still dominates, making up 52% of total financing in Kenya (Onyuma & Kibet, 2017). Bonds offered on international markets have enlarged. Specialized local issuances also are breaking into the global market like Islamic issues. Corporate bond markets are considered a vital ingredient in economic process, money stability

and economic recovery, especially with the wake of the crisis. They give a key capital funding flow to corporations enhancing them to expand, innovate, and provide employment, products and services (Kapchanga, Owili & Onyuma, 2018; Tendulkar & Hancock, 2014).

Omollo (2018) studied the effect of debt financing options on financial performance of firms listed at the Nairobi Securities Exchange, Kenya. The purpose of this study was to examine the effects of debt configurations namely short-term, long-term and total debt on firm financial performance measured as return on assets and return on equity of listed firms in Kenya. The study utilized panel econometric techniques named pooled ordinary least squares (OLS), fixed effects (FE) and random effects (RE) to analyze the effects of debt on financial performance of 40 non-financial firms listed on the Nairobi Securities Exchange between 2009 and 2015. Empirical results showed that short-term, long-term and total debt have negative and statistically significant effects on returns on assets across OLS and RE. However, the debt measures had no significant effects on returns on equity across all estimation methods.

Karuma (2018) studied effect of debt financing on financial performance of manufacturing firms in Nairobi securities exchange. This research sought to investigate the effect of short-term debt, long-term debt, interest rates and corporation tax rates on the financial performance of manufacturing firms listed in Nairobi Securities Exchange during a five year period of 2013-2017. The study employed use of multiple linear regression models. Descriptive statistics, correlation and regression analysis were used to analyze the data. Statistical Package for the Social Sciences (SPSS) software was used to analyze the data. Accounts payable was found to be significant to ROA with a significance level of 0.00 which was less than 0.05. Bank overdraft was found not to be significant to ROA with significance level of 0.132 which is greater than 0.05 while debentures was found to be significant to ROA with a significance level of 0.016 which was less than 0.05. Bank loan and interest payments were found not to be significant to ROA with significance levels of 0.957 and 0.726 respectively which were both greater than 0.05. Interest on tax was found to be significant to ROA with a significance level of 0.014 which was less than 0.05 while Expenses deductibles were found not to be significant to ROA with a significance level of 0.480 which was greater than 0.05.

The Kenyan securities market is currently fairly developed with a thriving equities market as well as bonds market (Onyuma & Ochieng', 2017). The Kenyan bonds market offers two main categories of bonds which are treasury bonds and corporate bonds. Treasury Bonds are debt instruments issued by the Government of Kenya to finance budgetary goals. They are medium to long-term debt instruments usually longer than one year issued by the government to raise funds in local currency. Treasury bonds may be defined by the purpose, interest rate structure, maturity structure, and even by issuer. The most commonly issued bonds in Kenya are fixed coupon bonds. Additionally, Treasury bonds in Kenya are issued on a monthly basis. Treasury bonds are available in both the primary market (through auctions) and the secondary market through the Nairobi Securities Exchange. Corporate Bonds on the other hand are long-term (at least one year and above) debt instruments issued by the private sector (Onyuma, 2017).

A review of financial records of these firms that have issued bonds in tranches or additional bonds over the sample period indicated declines in their financial performance as shown by ROE. These declines in ROE occurred in particular years after the issue of the second bond tranche or additional bond. Stanbic Holdings ROE decreased from 15.81% in 2013 to 15.41% in 2014 then further to 12.79% in 2015 after it had issued a multicurrency bond in 2014. East Africa Breweries Ltd ROE dropped from 94.5% in 2016 to 71.02% in 2017 when it issued the second tranche of its medium term note. Centum Investments ROE declined from 28.83 % in 2016 to 22.28% in 2017 after it had issued an additional bond in 2015. Barclays bank had its Return on Equity drop from 28% in 2007 when it issued its 1<sup>st</sup> tranche to 27.1% in 2008 when it issued the second tranche and further dropped to 25.2% in 2009. The bank is set to exit the African business, Kenya included, it cannot be established if its corporate debt could have had an adverse impact on its financial performance. HF Group issued a second tranche of its seven year bond in 2012. The ROE dropped from 16.98% in 2013 to 14.87%, 11.27%, 8.02% and 1.1% in 2014, 2015, 2016 and 2017 respectively. Safaricom's ROE declined from 19.51% in 2011 to 17.52% in 2012. The company had issued a second tranche of its domestic medium term note in 2010. ([www.cma.or.ke](http://www.cma.or.ke))

There are varied views on the relationship between debt finance and performance of firms as evidenced in empirical literature. Some studies have reported negative effect of debt on firm profitability (Nwude et al., 2016; Bui, 2017; Maçãs Nunes, Serrasqueiro, & Sequeira, 2009) while others have reported a positive effect of debt on firm performance (Margaritis & Psillaki, 2009; Baum, Schäfer, & Talavera, 2006). Further, non-significant effects have been confirmed by Kebewar and Shah, (2012), Chadha and Sharma (2016) and Raza (2013). As such, the findings of these studies may not be representative of an entire economy with various industries/sectors, a gap that this study attempted to address by evaluating if bond issues had an effect on the financial performance of firms listed at NSE.

## **THEORETICAL UNDERPINNING**

The capital structure irrelevance theory was first recommended by Modigliani and Miller (1963). This theory argued that the quantity of debt within the capital structure doesn't have an effect on the performance and the worth of the firm. They argued that where corporate income taxes and distress costs are not present in the business environment, the use of financial leverage has no effect on the worth of the firm. The value of the firm depends on the earnings and risk of its assets rather than the way in which its assets have been financed. The irrelevance theory however has a number of impractical assumptions that do not apply in a real world business environment. In order to deal with this problem, Modigliani and Miller incorporated the impact of corporate income taxes, and the potential impact of distress cost, for purposes of determining the optimal capital structure for a company into their Irrelevance Proposition theorem.

The relevance of capital structure hypothesis appreciated the fact that corporate income taxes do exist in reality and interest paid to debt-holders is treated as a deductible expense. Thus interest payable by firms saves taxes. This makes debt financing advantageous. They showed that the value of the firm will increase with debt due to deductibility of interest charges for tax

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computation and the value of the levered firm will be higher than that of the unlevered firm. The MM's tax relevance hypothesis suggested that, because of the tax deductibility of interest charges a firm can increase its value or lower its cost of capital continuously with leverage. Thus optimal capital structure is reached when the firm employs 100% debt (Modigliani and Miller, 1963).

The information signaling theory contended that the choice of a firm's capital structure signals to outside investors the information of insiders. It further notes that the problem of asymmetric or incomplete information in firms makes it difficult for lenders to accurately assess the level of risk. Managers are motivated to communicate insider information about a firm's value to the public and their willingness or undertake costly capital structure reorganization change programs. These act as validated signals of this information. Ross (1977) argued that a firm signals an increase in the firm's asset value by increasing its leverage (debt) while Leland and Pyle (1977), however, posited that a firm signals the increase in firm's value by reducing its leverage (debt). Arising from the two signaling hypothesis above, increase in debt will lead to increases in price based on the Ross (1977) model while based on Leland and Pyle (1977) increase in debt will lead to reduced prices. In summary, the theory emphasized the importance of insider information to investors and the impact it has on the firm's performance.

These two theories supplement the whole argument on whether the capital structure of firms influences the performance and worth of the firms and the importance of insider information to investors and the impact it has on the firm's performance. In practice firms do not employ large amounts of debt nor are lenders ready to lend beyond certain limits of the debt level imposed by lenders. They expressed that the existence of a tax advantage for debt financing does not necessary mean that companies ought to use the most attainable amount of debt in their capital structures. There are limitations imposed by lenders, also as several alternative dimensions in world issues of financial strategy, that aren't absolutely apprehended within the framework of static equilibrium models. These considerations will normally imply the maintenance by the corporation of a sustained reserve of untapped borrowing power. In addition, firms' capital structure decisions such as plans to offer secondary bond issues sends signals to the public and could determine its financial performance in the long run.

Nwude et al. (2016) conducted an empirical investigation of the impact of debt structure on the performance of Nigerian quoted firms. It was conducted using 12-year annualized panel data spanning the period 2001-2012 for cross section of 43 firms from different sectorial classifications. The data were collated from the annual reports of the sampled firms and Nigeria Stock Exchange fact books. The study employed three regression estimations (Pooled OLS, Fixed Effects and Random Effects) as a result of unobserved heterogeneity in the dataset. The outcome from the regression estimations showed that debt structure has negative and significant impact on the performance of Nigerian quoted firms within the period under review. The study concludes that debt structure contribute negatively to performance of Nigerian quoted firms.

Kosimbei, Makau & Mwangi (2014) studied the relationship between capital structure and performance of nonfinancial companies listed at the NSE in the period 2006 to 2012, using a

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non-experimental and explanatory research design. The study conducted a census of 42 non-financial companies listed at the NSE. The Feasible Generalized Least Square (FGLS) regression findings revealed that the financial leverage had a statistically negative and significant association with the performance as measured by return on assets (ROA) and return on Equity (ROE), implying that managers in the listed non-financial should curtail their dependence on long term debt as a source of finance.

Machel (2013) studied the effects of bond issues on the stock price performance of firms listed at NSE. The objective of his study was to establish the effect of bond issues on the performance of the stock price of firms listed at the Nairobi Securities Exchange. A descriptive study was carried out using the event study methodology. The target population for this study was all the companies listed at the Nairobi Securities Exchange that have issued debt, in the form of bonds or notes. The study was a census of the six listed companies that met this criterion. The market model was used to estimate the market returns which were used to calculate the abnormal returns of each company's stock on every trading day. The findings obtained were the result of the parametric t-test carried out at a 5% significance level, which revealed outcomes that pull in either direction with regard to the objective of this study, that is where bond issues have a positive effect on the share price of the issuing company and where the bond issues have a negative effect or no effect at all.

Malm and Roslund (2013) investigated the bond-to-total debt ratio and its impact on firms' performance. The study was conducted on the Norwegian market, within which a well-developed and mature bond market was established. So as to check the importance of the correlation between the ratio and performance, a quantitative study was conducted through a multiple correlation analysis. The results were consistent, as none of the tests performed were able to offer vital correlations for the relationship. They therefore indicated that, within the Norwegian context, the bond-to-total debt ratio failed to seem to impact firms' performance. The tests showed an insignificant relationship between the bond-to-total debt ratio and firm performance. This result indicated that practitioners among the sector ought not to worry regarding whether or not bonds can impact their performance.

Abor (2005) investigated the effect of capital structure on profitability of listed firms on Ghana Stock Exchange (GSE). The study population was twenty-five listed firms for the period 1998 and 2002. The study used regression analysis methodology. The study results revealed a significantly positive relationship between the ratio of short-term debt to total assets and ROE. On the other hand, a negative relationship was found between the ratio of long-term debt to total assets and ROE. The results also showed a significantly positive association between the ratio of total debt to total assets and return on equity.

Koech (2013) sought to investigate the effect of capital structure on profitability of financial firms listed at Nairobi Stock Exchange. The study was carried out using a longitudinal research design and employed secondary data. Population comprised of financial firms listed at the NSE for period January 2008 to December 2012 for a period of 5 years. Data was collected by a review of documents, annual reports of the companies and the Nairobi Stock Exchange reports.



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Data collected was analyzed using Statistical Packages for Social Sciences (SPSS) which gave descriptive analysis. The data was then be summarized and presented using tables. The study revealed that capital structure was inversely related to performance as measured by ROE. This was revealed by the regression results of debt and return on equity.

Becker and Ivashina (2013) in their study reaching for yield in the bond market noted the tendency by investors to buy riskier assets in order to achieve higher yield. This they believed to be a very important issue contributory to the credit cycle. They conducted a close study of this development within the bond market. The study indicated that insurance corporations, the biggest institutional holders of company bonds, reach for yield in choosing their investments. Reaching-for-yield existed each within the primary and also the secondary market, and was strong to a series of bond and issuer controls, as well as bond liquidity and period, and issuer fixed effects. This behavior is connected to the trade cycle, being most pronounced during economic expansions. It's also more pronounced for companies with poor corporate governance and that restrictive capital requirement is more binding. A comparison of the ex-post performance of bonds acquired by insurance companies showed no outperformance, but higher systematic risk and volatility.

Additionally, a study was conducted by Okoola (2006) on the returns on investment in bonds that are listed in the Nairobi Stock Exchange. The study was based on 30 government bonds listed in the NSE from the year 2001 to 2005. The 7 corporate bonds, however, were considered to be part of the sample. The annual yields-to-maturity of all selected bonds were calculated and yields curves were drawn with the annual yields-to-maturity of the bonds being plotted against the time in years. The findings of this study were that there was a low performance of bonds in the period between 2001 and 2003, with a marked improvement in the successive years. The study concluded that the general performance of the bond market could be improved with a regulatory environment that is friendlier, availability of a respected credit rating agency and a market driven benchmark yield.

Balozi (2017) studied determinants of Kenyan Government bond Yields. The study sought to establish the determinants of the Kenyan government bond yields. This study used secondary data available from the Central Bank of Kenya and the Kenya National Bureau of Statistics. The study looked at Kenyan government bonds that had been in trade from year 1985 -2015. Finally, conclusions were made on the determinants of Kenyan government bond yields. The study found out that the budget deficit; inflation rates and interest rates changes influenced the yield of the ten, three and one year government bond. The study recommended bond investors to fully understand the market trends in order to make the right bond purchase decisions.

## **RESEARCH METHODOLOGY**

The study applied a descriptive research design with a sample of 6 firms listed on NSE that have issued bonds in tranches or additional debt in the form of bonds or notes for the period 2008 to 2017. The study was a census of six listed firms that meet this criterion. The study collected secondary data. Bond statistics were obtained from Nairobi Securities Exchange. Financial

performance data was collected from the published financial statements of the listed firms at respective firms. The CPI was obtained from the Kenya National Bureau of Statistics (KNBS) Economic Surveys. Tools for data analysis used were regression and hypothesis testing.

## RESULTS AND DISCUSSION

Regression analysis was conducted and 75.4% of variance in ROE of the studied listed firms could be explained by bond issue as shown in Table 1.

**Table 1: Regression Weights for Overall Model**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.944 <sup>a</sup>	.891	.754	1.77750591

The results of test of significance of the regression model, that is,  $F(5,4) = 6.519$ ;  $p < 0.05$ ) indicated that F-test with 5 and 4 degrees of freedom and a value of 6.519 was statistically significant ( $p < 0.05$ ) at 95% confidence level as shown in Table 2.

**Table 2: Analysis of Variance**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	102.991	5	20.598	6.519	.047 <sup>a</sup>
	Residual	12.638	4	3.160		
	Total	115.629	9			

The regression results shown in Table 3 indicated that a unit change in ROE required 0.348 unit change in bond price, 135.05 unit change in coupon rate, 46.0 unit change in bond proportion, and 76.413 unit change in bond yield to maturity while holding other factors constant ( $\beta_0 = -50.382$ ). The results of t-statistics ( $t = 4.842$ ;  $p < 0.05$ ) and ( $t = 3.081$ ;  $p < 0.05$ ) were evident that the effect of bond proportion and bond yield to maturity respectively on ROE was statistically significant.

**Table 3: Results for Overall Model**

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
1 (Constant)	-50.382	30.878		-1.632	.178
Bond Price	.348	.319	.195	1.091	.337
Bonds Coupon Rate	135.050	50.813	.690	2.658	.057
Bond Proportion	46.000	9.501	.949	4.842	.008
Bond Yield Maturity	76.413	24.799	3.441	3.081	.037

## CONCLUSION & POLICY CONSIDERATIONS

Based on the empirical evidence coming from this study, a number of logical conclusions can be made. The financial performance of the surveyed companies was affected by the behavior of the components of bond issue. Generally, an increase in financial performance of the said companies was associated with a positive change in elements of bond issue over the years under study. It is, therefore, important for the surveyed listed firms to look into the bond prices, coupon rates, bond yield to maturity and bond proportion in order to improve their returns on shareholder's capital. The findings of this study implied that the financial performance of the surveyed firms was affected by the behavior of the components of bond issue, and are in line with literature such as Onyuma, Cheruiyot & Okumy (2007). The findings of the study are important to firms including those listed on NSE, government agencies, academicians and research institutions. Managers of firms listed on NSE that wish to issue bonds can use the output of this research to predict the possible effects of bond issues on the firm's financial performance. The CMA and NSE can consider the study findings when designing policies and guidelines in the development of corporate bonds. Policies on secondary bond issues are key in regulating the timing and nature of secondary bond issues. The findings contribute to the body of knowledge on how listed firms can manage their debt.

In order to improve the financial performance of firms which borrow through corporate bonds, the study recommends the following: firms ought to be keen on the timing of additional bonds and tranche issues. Also, they should consider fixed rate bonds as opposed to floating rate bonds. This is because changes in inflation are likely to alter the market interest rates and this may have an impact on the financial performance of firms. In addition, both issuing firms and bond investors should fully understand the market trends in order to make the right corporate bond decisions.

To further expand knowledge on the effect of bond issue on financial performance, the study suggests that further research on how it influences other aspects of financial performance such as return on investment and return on assets. While the four aspects of bond issues were found to have an effect on the financial performance of firms, it is clear that many other aspects of bond issue unmeasured in this study, will be relevant and additional research will be needed to identify these. In addition, it is necessary to examine the influence of bond issues on financial performance of other listed firms and conduct a comparative analysis amongst listed firms drawn from different sectors such as manufacturing, telecommunication, and banking

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