

# Assets Tangibility And Long Term Debt Of Firms Listed On Nairobi Securities Exchange, Kenya

Oliver Mukweyi Pyoko  
ICT Authority, Kenya,

---

## **Abstract**

*Asset tangibility is the proportion of fixed assets to the overall assets of the company. The fixed assets are crucial in determining a company's debt level, revenue, and ultimately profitability. Overall asset tangibility is recognized as a benchmark for the maximum amount of debt that a company can take on. As a result, a company with a high level of asset tangibility tends to have lower external financing costs and precautionary savings. Listed companies have experienced drop in the tangibility of asset which can be utilized for long term debt. Therefore this study aims to investigate the effect of assets tangibility on long term debt of quoted firms on Nairobi securities exchange. Descriptive research design was used. The study targeted all fifty four firms that were listed on Nairobi securities exchange from 2007 to 2011. Secondary data was used to gather data from yearly accounting reports from 2007 to 2011. Data was analysed using panel regression. Study result showed a positive and significant relationship between asset tangibility and long term debt. The study recommends that management should continue to focus on asset tangibility since it was found to be significant and positive to long term debt.*

**Keywords:** *Assets Tangibility, Long Term Debt, Pecking Order Theory, Trade off Theory*

---

Date of Submission: 01-09-2023

Date of Acceptance: 11-09-2023

---

## **I. Introduction**

Globally, due to the worldwide economic downturn in 2007–2008, organizations all over the globe have progressively frequently shifted their (asset) investment strategies from tangible to intangible asset investments, Lei, Qiu and Wan (2018) for the United State, ; Corrado, Haskel, Jona-Lasinio and Iommi (2018) from the Central Bank of the Republic of Turkey Company Accounts from 2005 to 2017, and Thum-Thysen, Voigt, Bilbao-Osorio and Maier (2019) for countries in the European Union. Asset tangibility is the proportion of fixed assets to the overall assets of the company (Juma, 2018). The fixed assets are crucial in determining a company's debt level, revenue, and ultimately profitability. Compared to intangible assets, which have less informational asymmetries and a tendency to lose value quickly in the event of bankruptcy, the company's fixed assets have a higher economic worth. In the event that a company needs outside funding, the tangible assets are typically utilized as a guarantee and as collateral for its creditors. As a result, businesses with a lot of tangible assets are likely to have more debt in their capital structure than businesses with less tangible assets. Anytime a company borrows money, the main kind of collateral used is assets with strong guarantees. As a result, a company with greater asset tangibility is probably to have reduced external financing costs, which will result in improved financial performance. According to Musah, Kong and Osei (2019), tangible assets are tangible goods with value that are utilized to produce income but are not offered for sale to customers.

Tangible assets can be divided into two categories: current assets, which have a life expectancy of up to one year (short-term) and are able to be transformed into cash without losing worth in a time of need, and fixed assets, which have a longer lifespan (more than one accounting period), such as property, plant, and equipment. A business may also have long-term operational assets that lack the physical substance of tangible assets in addition to its tangible assets. Intangible assets are those that give a company special rights, such as patents, copyrights, franchises, licenses, goodwill, software, and trademarks (Demirgüneş, 2019). Since it is exceedingly difficult to establish an objective market value for these intangible assets, they are typically not recorded on the balance sheet until a situation arises that necessitates it, such as the acquisition or disposal of an intangible asset. The fact that tangible and intangible assets are utilized as collateral in corporate borrowing is another characteristic that distinguishes them apart for information on collateral used in specific nations (Lei, 2018). Due to the differences between intangible and tangible assets' characteristics, it is typically more challenging to finance intangible assets externally. This is because, in most cases, external investors lack the necessary information to assess the viability, risk, and return of innovative investment projects.

Nevertheless, due to their substantial rate of recovery and comparatively small asymmetry between data in valuation, tangible assets with high guarantees are pledged as the main source of collateral in corporate

borrowing and play a significant role regarding a firm's ability to obtain external finance (Sturgess, 2018). Since they can be readily liquidated in the event of bankruptcy, creditors prefer tangible assets in the presence of frictions like contract incompleteness and limited enforceability, even though they typically depreciate when sold during financial distress. Additionally, the degree of overall asset tangibility is recognized as a benchmark for the maximum amount of debt that a company can take on. As a result, a company with a high level of asset tangibility tends to have lower external financing costs and precautionary savings (Lyandres and Palazzo, 2018); in contrast, a company with a low asset tangibility is more likely to have trouble raising outside funding and be limited in resources, lacking out on possibilities for investment. As long as managers can combine tangible and intangible assets in the most successful and effective way, a company can be very competitive and performance can be enhanced.

Long-term debt is a financial commitment that will need repayment after a year from the time of measurement (Paseda, 2021). Long-term debt has a significant disadvantage because it limits monthly cash flow in the short run. The monthly payment obligation increases as debt balances rise. They are obligations a business has toward third parties' creditors that are due after a year. It sets them apart from current liabilities, which a business must settle within a year. Bonds payable and long-term notes payable are the two types of long-term debt. Long-term debt is frequently secured by collateral. Property is frequently pledged as security for obtaining financing, particularly when the interest rate is low (Juma, 2018). Additionally, it makes businesses and enterprises susceptible to market fluctuations. It becomes challenging for the businesses to pay the monthly labour and administrative bills while still making debt repayments if there is an unanticipated drop in sales. As soon as payments are missed, late fees start to accrue and the business's credit is impacted. It is challenging to persuade lenders to issue new debts due to the incapacity to pay off existing debt, and at worst, one can face loan default and possible bankruptcy (Duho, 2022). Organizations utilize it as a finance strategy with payback periods ranging from one to thirty years. Additionally, it hinders a business's capacity to accumulate cash savings.

Kenyan public markets for trading securities of publicly traded companies include the Nairobi Security Exchange. It began as a non-profit organization of brokers in 1954 and was established under the Society Act. It was in charge of developing the securities market and controlling trading activity. Since its founding, the NSE has undergone significant changes, including the adoption of trading regulations, the Central Depository System, market automation, and separation from mutual company-to-company Ltd by shares (NSE, 2018). It is the fifth-largest stock exchange in terms of market value as a percentage of GDP and the fourth-largest stock exchange in regards of the volume of shares traded. Companies who are listed on the Nairobi Securities Exchange are increasingly expanding the amount of debt finance that makes up their capital structure as they search for additional funding to support their company operations and implement specific development projects. According to estimates from the capital market authority (CMA), between 2004 and 2014, right issues raised \$988 million for the companies listed on the Nairobi Stock Exchange (Anyanzwa, 2018). The debt to equity ratios of large listed companies appear to increase, although they decreased for small companies.

In their most recent fiscal year, two-thirds of companies trading on the Nairobi Securities Exchange reported losses or lower earnings (Otieno, 2018). Sixty-four listed companies that traded on the stock exchange reported losses from fifteen of them, two fewer than in the previous fiscal year, while 25 of the listed companies, or 39%, had declining after-tax profits. A total of 23 additional listed companies, or a third, reported rising profits (NSE Report, 2018). The data also reveals that eight prosperous companies made up a third of the companies that disclosed lower revenues. As a result, throughout the past ten years, some companies registered on the NSE have witnessed greater performance, while others have seen their fortunes decline and some have even been delisted from the NSE. Restructuring of company level factors has been the primary focus of significant efforts to turn around such companies or even dissolve them. However, according to Kibet, Kibet, Tenai, and Muthol (2018), managers and practitioners still lack sufficient advice for making the best decisions possible on firm-level issues.

## **II. Theoretical Review**

### **Pecking Order Theory**

This theory was developed by Myers and Majluf in 1984. This theory states that instead of stating that there is a predetermined ideal capital structure, firms instead show varying preferences for using internal funds or retained earnings over external capital. One of the most important theories of corporate leverage, it contradicts the firm's belief that a unique mix of equity and debt financing lowers the costs of capital for the company. In order to reduce the expenses associated with information asymmetry, it is suggested that the firm should prioritize its funding sources according to a clearly defined hierarchy, starting with retained earnings, moving on to debt, and ending with raising equity as a last resort (Myers, 1984). It promotes the use of retained earnings initially to finance long-term projects, followed by the issuance of debt when they are depleted or unavailable, and of equity when they are insufficient or unavailable. According to the notion, as businesses

become more successful, they seek less external funding since they have enough resources on hand to finance their investment projects (Myers, 1984).

### **Trade-Off Theory**

Myers (1984) suggested this view. According to the theory, every corporation has an ideal capital structure that can be calculated by weighing the advantages and disadvantages of equity. By weighing the advantages and disadvantages of each source, a corporation determines how much debt capital and how much equity capital to incorporate in their capital structure. Although large amounts of debt in the capital structure can lead to bankruptcy and agency costs, debt capital has benefits including tax exemptions. Agency costs are a product of information asymmetry and the different corporate stakeholders' conflicting interests (Jensen & Meckling, 1976). By incorporating the cost of agency into the trade-off theory, a corporation can determine its ideal financial structure by weighing the advantages of having debt (such as the tax benefits) against the costs of having too much debt (such as financial distress) and the resulting equity agency costs against debt agency costs. According to the idea, a firm's capital structure should not exceed a certain level of debt because doing so will result in an increase in the marginal cost of debt and a decrease in the marginal benefit of debt.

### **III. Empirical Review**

Irungu, Muturi, Nasieku and Ngumi (2018) in a study on the impacts of asset tangibility on the financial performance of listed firms on the Nairobi Security Exchange used a non-experimental research design called a panel. The 64 companies listed on the Nairobi Securities Exchange were the focus of this investigation. The 64 companies listed on the Nairobi Securities Exchange were counted as a unit of analysis. The relevant ratios were computed using secondary data that was taken from the financial statements and included panel data. In order to investigate the link between the variables across the sectors, an ANOVA was used in the study along with a dynamic panel data regression model. The 95% confidence level was used for the hypothesis test. The Nairobi Security Exchange's financial and nonfinancial listed enterprises' financial performance and asset tangibility had a favourable and significant association, according to the study.

Itas and Demirgunes (2020) examined the influence of asset tangibility on the financial performance of manufacturing firms in Turkey. The sample spans the years 1990.Q3 to 2016.Q4 and includes the Turkish manufacturing sector, which has 18 major sectors and 30 sub-sectors. The study's objective is to reveal the impact of asset tangibility on financial performance while also taking other firm characteristics, like financial leverage, liquidity, and operating efficiency (as control variables), into account. As a result, the data integrity available through The Central Bank of the Republic of Turkey (CBRT) website is restricted to the time period in question. The acquired data were analysed using descriptive and correlational analysis coupled with the cointegration test. According to the DOLS model, asset tangibility has significant and advantageous implications on financial performance up to and including the break date.

Pasada (2021) assessed the effects of asset tangibility on the capital structure of Nigerian quoted firms. All non-financial organizations listed on the Nigerian Stock Exchange (NSE) between 1999 and 2014 are included in the study's population, of which 50 companies were included since they matched the minimum data requirements. At the end of the research presents the following conclusions were derived using balanced (cross section- and period-) models of panel data least squares regression. While tangible assets have a negative impact on capital structure, intangible assets have a substantial impact on corporate borrowing and anticipated inflation. Regarding the transferability of the pecking order, target adjustment, trade-off, agency, and market conditions models, the findings were, at best, mixed.

Duho (2022) investigated the influence of asset tangibility on the performance of listed non-financial services firms in West Africa financially. From 2007 to 2018, panel data from listed non-financial enterprises in West Africa were used in the study. A total of 59 businesses from Ghana (10), Nigeria (30), and Cote d'Ivoire (19) are involved in this. For the firm-specific variables, the data were obtained from the Orbis Database. Furthermore, the World Development Indices of the World Bank Group served as the source for the macroeconomic variables. The companies who participated in the survey functioned in distinct industry sectors such Basic Materials, Consumer Goods, Consumer Services, Industrial, Oil and Gas, Telecom/Technology, Health, and Real Estate. The dataset can be thought of as an unbalanced panel because it contains some gaps and is a panel of data. The data were analysed using descriptive statistics, regression analysis, and correlation. The study revealed that performance is hampered by asset tangibility, although investing in intangible fixed assets has a marginally beneficial impact on performance.

Camison, Clemente and Camison-Haba (2022) determined how asset tangibility affects the leverage of family firms. The database utilized incorporates data on the Spanish tourism sector from primary and secondary sources. The sample was chosen from the full population of Spanish travel agencies included in the National Institute of Statistics' 2008 Central Companies Directory (DIRCE). This census indicated that there were around 140,900 tourism-related enterprises in total in 2008. A stratified random sampling technique was used to choose

the initial sample of 8,148 businesses. The data analysis employed descriptive statistics and correlation analysis. The study's findings revealed that family reputational intangibles are link to the vacuum left by finance theory about the value of intangibles for debt and has an indirectly positive effect on enterprises' leverage capacity.

#### IV. Research Methodology

The study chose to adopt a descriptive study design which sought to examine the effect of firm age on total debt of firms listed on NSE. The population of interest was comprised of all firms that are listed on the NSE between 2007-2011. The study opted to undertake a census because of the small number of firms listed on the NSE. It was therefore possible to collect data from all the firms.

The study utilize to use secondary data from the annual financial statements of the firms listed on the NSE. This data allowed for the calculation measures relevant to this study. The data constituted a mixed of cross-sectional as well as time series data and was therefore treated as panel data. The use panel data has advantages over both cross sectional and time series data include.

Data analysis was performed in order to convert obtained data into a format that can be used for interpretation and conclusion. Because the study was based on panel data, the analysis was based on panel regression. As a result, the panel regression technique was utilized to test hypotheses, and conclusions was drawn after. The 0.05 significance level, or 95 percent confidence interval, was used to guide the test of hypotheses. The fixed effects model is as follows;

$$Y_{it} = \alpha_i + \beta X_{it} + \mu_{it}$$

Where  $\mu_{it}$  = error term

$Y_{it}$  = Long Debt for  $i^{th}$  firm in  $t^{th}$  year.

$X_{it}$  = Tangibility (sum of Fixed Assets and Stock divided by Total Assets)

$\beta$  = Coefficients

#### V. Research Findings and Discussions

**Table 1: Panel Regression Analysis**

Group variable: Company				Number of groups = 52		
	F(9,459) = 2.99	Obs per group: min = 2				
	Prob > F = 0.0018	avg = 10.0				
		max = 10				
		0.0543107				
		0.2372819				
corr(u_i, Xb) = -0.7970						
Long term debt	0.22047758	Std. Err.	t	P>t	[95% Conf.	Interval]
Tangibility	0.05951692	0.0307181	1.77	0.078	-0.0060548	0.1146762
_cons	0.9320789	0.1329253	1.79	0.075	-0.0239356	0.4984995
sigma_u	F(51, 459) = 31.14					
sigma_e						
rho						
F test that all u_i=0:						

The findings demonstrated that asset tangibility is significant as well as positively related to the Long term debt at 10%. This implies that, tangibility will increase by 0.054 with a point increase in Long term debt. Tangibility will increase as firms will be having more intercompany debts resulting from long term debts which need to be paid as and when they become due. The outcome of the study by Camison *et al.* (2022) supports this research result. However, the findings by Pasada (2021) differ from this result, as it obtained a negative relationship between tangible asset and capital structure.

#### VI. Conclusion and Recommendation

From the study, it was found that tangibility had a significant relationship that has a positive relationship with the long term debt. This means that higher tangibility would lead to higher use of the long term debt. Therefore firms with high levels of assets that are long term would use to some to extend more of the long term debt. This is to say that firms would use their long term debt to purchase assets and therefore this positive relationship is expected. The relationship that is positive between tangibility and the long term debt is in accordance to trade off theory which predict a relationship that is positive between tangibility and the long term debt. This is because the firms in possession of high level of fixed assets would easily obtain long term debts easily by pledging the assets as collateral.

The study recommends that management should continue to focus on asset tangibility since it was found to be significant and positive to long term debt. Management should maintain and encourage assets tangibility. Policies should be enacted to make debt cheaper by reducing cost of operations. The NSE regulatory structure should be followed to boost credibility and better performance of quoted firms. Further studies should be carried out on banking institutions, non-listed companies and cooperative societies.

### References

- [1]. Anyanzwa, J. (2018). Nairobi Listed Firms Turn To Debt Financing To Raise Capital. The East African, Posted 14th March 2015. Retrieved From [Http://Www.Theeastafrican.Co.Ke/Business/Nairobi-Listed-Firms-Turn-To-Debt-Financing-To-Raise-Capital/-/2560/2653420/-/7c6vtaz/-/Index.html](http://www.theeastafrican.co.ke/business/nairobi-listed-firms-turn-to-debt-financing-to-raise-capital/-/2560/2653420/-/7c6vtaz/-/Index.html)
- [2]. Camison, C., Clemente, J. A., & Camison-Haba, S. (2022). Asset Tangibility, Information Asymmetries And Intangibles As Determinants Of Family Firms Leverage. *Review Of Managerial Science*, 16(1).
- [3]. *Change And Economic Dynamics*, 51(C), 77-88.
- [4]. Congress Of Economics And Business, "New Economic Trends And Opportunities", Sarajevo/Bosnia And Herzegovina, May 30-June 3, 1472-1483.
- [5]. Corrado, C., Haskel, J., Jona-Lasinio, C. And Iommi, M. (2018). Intangible Investment In The EU And The US Before And Since The Great Recession And Its Contribution To Productivity Growth. EIB
- [6]. Demirgünes, K. (2016). How Does Pecking Order Theory Explain Determinants Of Corporate Cash?
- [7]. Demirgünes, K. (2019). The Effect Of Liquidity On Financial Performance: Evidence From Turkish Retail Industry. *International Journal Of Economics And Finance*, 8(4), 63-79.
- [8]. Duho, K.C.T. (2022). Intangibles, Intellectual Capital, And The Performance Of Listed Non-Financial Services Firms In West Africa: A Cross-Country Analysis. *Merits*, 2, 101–125.
- [9]. Holdings? Evidence From BIST Listed IT And Software Companies. ICEB2016 2nd International
- [10]. İltaş, Y., & Demirgünes, K. (2020). Asset Tangibility And Financial Performance: A Time Series Evidence. *Ahi Evran Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 6(2), 345-364.
- [11]. Irungu, A. M., Muturi, W., Nasieku, T., & Ngumi, P. M. (2018): Effect Of Asset Tangibility On Financial Performance Of Listed Firms In The Nairobi Securities Exchange. *Journal Of Finance & Accounting*, 2(3), 55-74
- [12]. Jensen, C. M. (1986). Agency Costs Of Free Cash Flows, Corporate Finance And Takeovers, *American Economic Review*, 76(2), 323-329
- [13]. Jensen, C., & Meckling, M. (1976). Theory Of The Firm: Managerial Behavior, Agency Cost And Capital Structure, *Journal Of Financial Economics*, 4(3), 60-305.
- [14]. Jensen, M. (1986). Agency Costs Of Free Cash Flow, Corporate Finance And Takeovers, *American Economic Review*, 76, 323-39.
- [15]. Juma, V. (2018). Six NSE Companies In Survival Dogfight As Massive Debt Hurts. The Business Daily Posted 22RD February 2016. Retrieved From [Http://Www.Businessdailyafrica.Com/Image/View//3087492/medres/1263757/-/Chws6j/-/NSE.jpg](http://www.businessdailyafrica.com/image/view//3087492/medres/1263757/-/Chws6j/-/NSE.jpg).
- [16]. Kibet, B., Kibet, L., Tenai, J. & Mutwol, M. (2018). The Determinants Of Leverage At The Nairobi Stock Exchange, Kenya. The Second Asian Business And Management Conference 2011 Osaka, JP: Sage Global Publishers
- [17]. Lei, J., Qiu, J. And Wan, C. (2018). Asset Tangibility, Cash Holdings, And Financial Development. *Journal Of Corporate Finance*, 50(C), 223-242.
- [18]. Lyandres, E. And Palazzo, B. (2018). Cash Holdings, Competition, And Innovation. *Journal Of Financial And Quantitative Analysis*, 51(6), 1823-1861.
- [19]. Musah, M., Kong, Y. And Osei, A. A. (2019). The Nexus Between Asset Tangibility And Firms' Financial Performance: A Panel Study Of Non-Financial Firms Listed On The Ghana Stock Exchange (GSE). *European Academic Research*, 12(1), 450-474.
- [20]. Myers, S. C. (2001). The Theory Of The Capital Structure, *Journal Of Economic Perspectives*, 15(2), 81-102.
- [21]. Myers, S. C. (1977). Determinants Of Corporate Borrowings, *Journal Of Financial Economics*, 5 (1977), 147-175.
- [22]. Nairobi Security Exchange, (2018). History Of Organization, Nairobi Security Exchange Handbook, Various Editions, NSE.
- [23]. Paseda, O. (2021). Firm Size, Asset Tangibility, Growth, Volatility, Dividends And The Capital Structure Of Nigerian Quoted Firms. *Journal Of Finance And Accounting*. 9(2), 36-52
- [24]. Thum-Thysen, A., Voigt, P., Bilbao-Osorio, B. And Maier, C. (2019). Investment Dynamics In Europe: Distinct Drivers And Barriers For Investing In Intangible Versus Tangible Assets? Structural
- [25]. Working Papers 2016/08, European Investment Bank, Luxembourg.