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EQUITY PREMIUM PUZZLE, IS IT STILL A PUZZLE? EVIDENCE FROM TANZANIA

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ABSTRACT
Equity premium puzzle has been an issue of concern to many academicians, particularly in developed nations. However, there is yet to deduce on the interplay of the same to the developing countries such as Tanzania. This paper therefore provides a trend analysis of the investment among local investors and evaluates the biasness, if any, on the local firms listed at the Dar es Salaam Stock Exchange (DSE) versus foreign firms. Documentation and interview were dominant data collection strategies throughout the study. The paper is divided into three parts. The first part is the introduction, which surveys the establishment of the capital market in Tanzania and highlights some reasons for the establishment of the market. The second part is the literature review. The methodology is provided in the third part. The fourth part is the discussion of findings, which sets the level of bias, among others. The conclusion is the fifth part, and reveals that equity home bias is evident in Tanzania.

KEY WORDS: Equity, equity home bias, risk averse

1. INTRODUCTION

Norman (2009) reveals that the objective of an academic paper is to provide information to the recipient and the entire public so that the prevalence of such information could help fixing societal problems in one way or the other. Moreover, in this vein he provides that papers should be understandable by any elite reader irrespective of the professional background. Norman further reiterates that at times it is taken for granted that readers do understand the terms used in the academic publications, hence he suggests that defining the key words of the paper is paramount in bridging the gape of knowledge between the professionals and the non-professionals in the area. Indeed, defining the terms used frequently in this paper is of concern for many reasons including creating the premise of the terms in terms of meanings. Some words are used differently in different societies, hence definitions makes readers to forfeit their meanings at the expense of the meaning provided.

Investing in stocks is one of the huge businesses the world over (Norman, 2010). However, there is evidence that most investors prefer the foreign-based firms compared to the home firms. This paper examines the ownership of shares between foreign and local investors at the Dar es Salaam stock exchange in Tanzania and assesses the extent of bias if any. The rest of the paper is organized as follows: the literature review, which attempts to provide the definitions of terms among others. The methodology describes the data collections strategies. The results and discussions are provided in part four. Finally is the conclusion, which sets a position on the level of bias.

2. LITERATURE REVIEW

Equity Premium Puzzle

Mehra and Prescott (1985) indicated that the equity premium puzzle is based on the observation that in order to reconcile the much higher returns on equity stock compared to government bonds, individuals must have implausibly high-risk aversion according to standard economics models. EPP is a phenomenon that describes the anomalously higher historical real returns of stocks over government bonds (Maurice and Kenneth, 2000). It is from this dimension, economists have often tended to view big market-moving events as external shocks to the system, whose occurrence (and market impact) are inherently unpredictable (Chisholm, 2007). The equity premium, which is defined as equity returns less bond returns, has been about 6% on average for the past century in USA. The puzzle has led to an extensive research efforts in both macroeconomic and finance. So far a range of useful theoretical tools and several plausible explanations have been presented, but a solution generally accepted by economics and finance profession remains elusive (Tesar and Werner, 1995).

Norman (2009) reveals that the trend has proven to be not a puzzle rather a fact that should be agreed upon since; risky return on stocks far exceeds the return on safe-assets such as bank accounts. The observation in Tanzania stock exchange has revealed that gain resulting from share value increase supersedes the interest payable on deposits in financial institutions such as banks by far. For example investors with the Tanzania Breweries Limited (TBL) have enjoyed the sum of 254% (DSE, 2001; 2002; 2005) for the period of six years, the amount which can not be attained in governments bonds or other investment. Governments bonds in Tanzania pays the rate of 6% per annum compared to an average of 120 percent experienced as increase of share value for the firms that listed their shares in 2008 to 2009(DSE, 2008, 2009).

The puzzle is evident since from economic point of view, the bonds is supposed to reflect the relative risk of stocks compared to "risk-free" government bonds, but the puzzle arises because this unexpectedly large percentage implies a suspiciously high level of risk aversion among investors. The trend in Tanzania suggests that the equity premium puzzle is a mystery to financial academics. According to some academics, the difference is too large to reflect a "proper" level of compensation that would occur as a result of investor risk aversion; therefore, the premium should actually be much lower than the historic average of 6%. More recent extensions to the puzzle attempt to offer a different rationale for explaining the EPP, such as investor prospects and macroeconomic influences. No matter the explanation, the fact remains that investors are being rewarded very well for holding equity compared to government bonds. The practice of stock investments in Tanzania suggest for possibility of bias in favor of local firms as opposed to foreign firms. Hence a need to look at what is popularly known as equity home bias puzzle.

Equity Home Bias Puzzle

The observation in Tanzania indicates that there are some propositions that need to be addressed in relation to most local investors subscribing shares in local firms as opposed to foreign firms, hence a possibility of equity premium home bias. The Equity home bias puzzle is the term given to describe the fact that individuals and institutions in most countries hold modest amounts of foreign equities (Mehra and Prescott, 1985). This is puzzling since observed returns on national equity portfolio in the USA suggest substantial benefits from international diversification (French and Poterba, 1991). Tesar and Werner (1995) in the study of five OECD countries revealed three important conclusions: First, there is strong evidence of a home bias in national investment portfolios despite the potential gains from international diversification. Second, the composition of the portfolio of foreign securities seems to reflect factors other than diversification of risk. Third, the high volume of cross-border capital flows and the high turnover rate on foreign equity investments relative to turnover on domestic equity markets suggest that variable transactions costs are an unlikely explanation for home bias. Equity premium home bias is an area, which needs researches to find out factors leading for the local investors in Tanzania to prefer local firms as opposed to foreign. There are generally many reasons purporting for equity home bias. The reasons include: 1) Information asymmetry, and 2) Risk averse.

Information Asymmetry

Information asymmetry refers to simply some people having more knowledge than others on the investment interplays, including risks and benefits (Stiglitz, 2001). Stiglitz and his numerous coauthors have time and again substantiated that economic models may be quite misleading if they disregard informational asymmetries. Their common message has been that in the perspective of asymmetric information, many markets take on a completely different guise, as do the conclusions regarding appropriate forms of public-sector regulation. Stiglitz has analyzed the implications of asymmetric information in many different contexts, varying from unemployment to the design of an optimal tax system. Several of his essays have become important stepping stones for further research. Market economies are characterized by a high degree of imperfections. Hence with proper information regarding the type of investment one wants to invest, can suggest prudent investment.

However, a study conducted in Dar es Salaam which incorporated the six brokers registered with the DSE on the use of financial analysis as a consideration for stock exchange investment, revealed that most local investors did not make decisions with consideration of financial information of the firms. On the local investors only firms such as the National Social Security Fund, National Provident fund, and Local government Authorities Pension Fund and private firms whose stock exchange is their key business could use financial information before investing (Norman, 2006). Financial information is one of the key considerations for investment. In view of this, Stiglitz (2002) reveals that older models assumed perfect information, but even small degrees of information imperfections can have large economic consequences. Therefore asymmetries of information are important in making informed investment. Asymmetry of information is another way of saying some people know more than others (Stiglitz, 2001).

The Capital Market Pricing Model

Investors are generally risk averse. Although the experiences in Tanzania indicate that risk aversion decrease or increase with information asymmetry. The more the knowledge one has regarding a particular portfolio, can determine the level of responding to the averse. In populations where stock business is new, some investors are unable to make choice on whether the business is risky or not risky. And in some populations, local investors may not realize what it means by information regarding investments. However, the reality is, investors are risk averse. Hence, given the choice between a risky and risk-free investment with the same expected return, investors will choose the risk-free investment. By implication risk-averse investors need some kind of inducement to make risky investments (Chisholm, 2007). The inducement takes the form of higher expected returns. Faced with a choice of risky and risk-free alternatives, investors will tend to trade off risk against expected return until the desire for more expected return is matched evenly with a desire to avoid risk (Benning, 2007).

Therefore, the propositions, which the Capital Markets Price Model (CAPM) sets, appeal for more questions and thus justification for the Equity Premium Puzzle. It is known from investment, economic and business point of view that bonds and bank securities in general are less risky or risky free compared to stocks. Yet the trend of investors worldwide, including Tanzania seem to be in favor of the risky investments, in this regard stocks, while forsaking the seemingly risk free investment. Certainly that is why Benning (2007) further argues that the stock and bonds trading business are very different. Stocks tend to be priced from the bottom up, while bonds tend to be priced from the top down. It can be deduced that stock investors dream for price increase and thus eager to earn more, while bonds traders know what they will earn though not much, but certain.

3. MATERIALS AND METHODS

The study has utilised documentation and interview as the data collection strategies.

DSE library was crucial in providing information for the study. Some interviews were carried to find out reasons for the behaviour of the investors in Tanzania particularly of choosing firms when purchasing shares.

4. RESULTS AND DISCUSSIONS

Data on Comparative Analysis between Foreign and Local Investors

This part provides a comparative analysis of local investors versus foreign investors.

Fig. 3.1 indicating percentage shares of foreigners versus local investors

S/n	**COMPANY NAME**	**FOREIGNERS %**	**Local %**
1	TOL Gases Limited (TOL)	4.71	95.29
2	Tanzania Breweries Limited (TBL)	72.83	27.17
3	Tanzania Tea Packers (TATEPA)	62.67	37.33
4	Tanzania Cigarrette Company Limited (TCC)	75.00	25
5	Tanga Cement Company Limited (TCCL)	62.50	37.5
6	SWISSPORT Tanzania Limited (SWISSPORT)	58.98	41.02
7	Tanzania Portland Cement Company (TWIGA)	69.25	30.75
	Average share capital of the six profit making firms	66.87166667	33.12833333

Source: DSE, 2009. The figure reveals that foreign shareholding stands at 66.8% while that of local stands at 33%.

Companies listed with the DSE

The findings reveal that seven companies have listed shares with the DSE as indicated in Fig.3.1 above. The findings further reveal that total number shares invested by all companies is 721,799,268 which implies that with estimated Tanzania population of 38 million, if every citizen was to be accorded shares then each Tanzanian will be able to posses 18 shares. The trend has also revealed that about 2/3 of shares of all companies that are fairing well in terms of growth of shares and those that have managed to distribute shares annually are owned by foreign investors. The companies with foreign shares in brackets include Tanzania Breweries Ltd (72.83), Tanzania Tea Packers (62.67), Tanzania Cigarette Company LTD (75), Tanga Cement Company Ltd (62.50), Swissport Tanzania LTD (58.98), and Tanzania Portland Cement Company LTD (69.25). An analysis of the most profitable companies indicates that on average foreign investors own 66.87 percent. Hence local investors in the profitable companies own only 33.12 percent of shares on average, which indicate that although most of the stock exchange business brings together firms looking for finance with huge amounts of capital from investors, most of the shares belong to foreign investors.

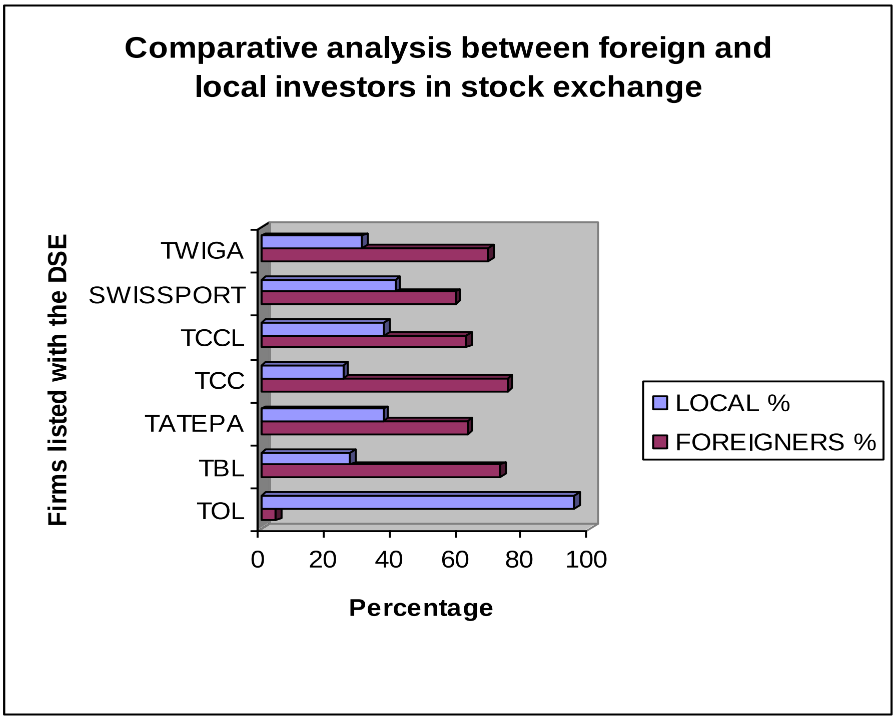
Local investors own 95. 25 percent of the shares of Tanzania Oxygen LTD (TOL), which is the only company that, has not been fairing well if compared with the rest. Several reasons can be associated with the dominance of local investors in the TOL. However, only four are narrated in this article. First, TOL was the first firm to list shares at the DSE in the history of Tanzania, hence very few foreigner were aware of the stock market, barring them from accessing the shares of the TOL. Second, the official launching of TOL shares was made by the President of the United Republic of Tanzania, which in a way assured local investors on the prudence of the firm. By mere being officiated by the President, the business was perceived by investors as risk free or close to risk free. Third, information asymmetry (some people know more than others) was in favor of the local investors. No efforts were made to advertise the launching beyond the borders of Tanzania, as Stiglitz (2002) puts it, even small variation in terms of information can have huge impact on the market, because markets are imperfect. Fourth, is the philosophy behind Capital Asset Pricing Model (CAPM), which reveals that investors are generally risk averse; hence investing in a new portfolio such as TOL which was the first company to list shares in the history of Tanzania, can suggest more risk averse demonstrated by the new investors in a new investment venture such as that of Tanzania which is now ten years old.

Thus, it can be reiterated that most of the local investors do not consider financial analysis information of the companies they invest rather they are swayed or moved by other factors such as adverts, influence of leaders such as Presidents (Norman 2006; 2009) noted that most of local investors in Tanzania do not consider financial analysis when investing in stock exchange. In his study of financial analysis as a consideration for investment he indicated that 75% of the local investors do not consider financial information, rather they were motivated by other factors such adverts, which include the use of potential people such as government leaders. On the contrary, foreign investors seem to be sensitive to the financial information of the firms in which they invest. For instance, among the companies whose shares have been growing most rapidly, a majority of shares are owned by foreign investors. Such companies include Tanzania Breweries, Tanzania Cigarette Company, Tanzania Portland Cement Company LTD, Tanga Cement Company LTD. In all the four companies foreign shares are above 60 percent.

The Norman (2009) study comparing the use of financial analysis by local and foreign investors helps to explain why it is that local investors own a minimum number of shares in the Tanzania Cigarette Company TCC, which is 25 percent, and in the Tanzania Breweries Company LTD which is 27 percent. On the other hand, foreign investors own minimum shares in the Tanzania Oxygen Company LTD which is 4.75 percent. Arguably accessing information to the companies is a duty of an investor. Firms are compelled to provide financial information to share holders or through the decision of the board of directors on behalf of members. Hence the use or none use of information can be associated with other factors such as “newly business”- stock exchange is about 10 years old in Tanzania, hence most Tanzanians are at learning stage commonly termed in marketing as “growing state” (Norman, 2008; Berkowitz, 1992). This appeal for further studies to find out the variation among foreign and local investors in the use of financial information as a consideration for decision making investment, through the use of multiple case studies, with bigger sample and coverage, which can allow easy generalization. The second study could venture into finding out marketing tools used to influence investors of stock exchange.

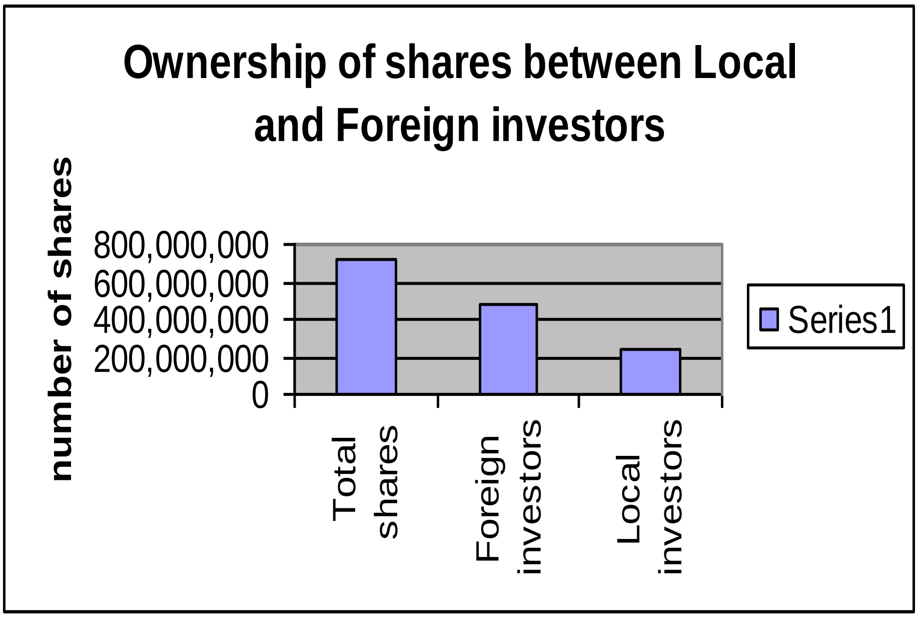
It is worth, noting that total shares owned by foreign investors is 483,605,509.6 while total shares owned by local investors is 238,193,758 which is about half of the foreign investors. Much can be learned from the figures provided. For example, although the total shares of the local investors is about half of the foreign shares, the difference in terms of value could be more than triple. The performance of the shares particularly of TOL, of which 95 percent of the shares are owned by local investors, was about 300 Tanzania shillings, while TWIGA cement was about 1400, and the TBL was 2500: all the companies when listed had an initial price offer less than 300 Tanzania shillings, which imply that the economically successful companies have shares which have the increased in value, and more than 60 percent of those companies are owned by foreigners. The total shares could be said to be ‘foreign biased’, as opposed to ‘home biased’. Literally, as discussed early, ‘home bias’, which is the phenomenon that people in every country tend to buy shares of companies that are local, and they to be buy-and-hold or long-term investors, whereas Martin Feldstein, Harvard Economist and President of the famous think-tank called the National Bureau of Economic Research (NBER) in Cambridge, Massachusetts, claims that a lot of International Capital is “hot money” or short-term money that can be pulled quickly from a country by international investors, while “patient money” is like long-term investing, which can help a country to develop since it is long-term (Feldstein, 1999). The case of Feldstein holds in Tanzania investment in general and in stock exchange in particular. In Tanzania about 95% of firms, which were privatized are found in the hands of foreigners, with the United Kingdom taking a leading role, followed with Kenya and South Africa (TIC, 2004). The case is also evident in the stock exchange investments, where, as indicated above, about 60 percent is ‘foreign biased’.

Figure 1.1: Ownership of shares per firm



Source: DSE, 2010. The figure indicates that foreign investors own 67% of the total shares compared to 33% of local investors. The ownership is home biased as local investors prefer to buy shares of local firms compared to foreign firms.

Figure 1.2: Ownership of shares per category of local and foreign investors



Source: A.S Norman, 2009. The comparative analysis between local and foreign investors, which indicate that foreigners own about 483,605,509.6 while local investors own about 238,193,758. The most profitable organisations are heavily loaded with foreign investors.

5. CONCLUSION

The findings have revealed that equity premium home bias is evident in Tanzania.

The observation in Tanzania indicates that there are some propositions that need to be addressed in relation to most local investors subscribing shares in local firms as opposed to foreign firms, hence a possibility of equity premium home bias. It is evident that in Tanzania most local investors have invested in local firms as opposed to foreign firms. The general trend however, has revealed that foreign firms have had shares that are increasing in terms of value than local firms shares. Hence, the total ownership of shares stands at 67 versus 33 percent indicating foreign and local shares respectively. Hence, equity home bias is still a puzzle as evidenced from Tanzania through the Dar es Salaam stock exchange.

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