

Investors Return: Do Mutual Funds Cashflows Really Matter?

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Abstract

The study assessed mutual funds' cash flows on investors' returns in Tanzania. The study was guided by two predicting variables: economic condition (EC) and fund growth (FG). The predictor variables were tested on investors' return (IR) as the dependent variable. The study employed a quantitative approach using secondary data generated through panel form in the series of 8 years from 2014 to 2021. The study collected facts with regard to the selected and tested variables from all five schemes in the mutual funds. The data were analysed by E-views 13 and STATA 15 for statistical assumptions tests and the inferential analysis towards relationship testing between study variables. The study findings revealed that both economic condition and fund growth had been found positive with a significant effect on investment return (IR) with $p < 0.05$. The results imply that economic condition and fund growth influence the investment return through Tanzania's mutual fund. Therefore, this study recommends that the government of Tanzania through its agencies, Capital Market Securities Authority (CMSA) and Bank of Tanzania (BOT), to invest more in growing the economy. This assures favourable economic conditions that will attract cashflows to mutual funds and assure fund growth and investors returns.

Keywords: mutual fund, mutual fund cash flow, investor return, economic condition, fund growth, Tanzania

1. Introduction

Mutual Funds are collective schemes that pull funds from various investors to invest in different securities markets (Wandia, 2015). Mutual Funds are also called Unit Trust Schemes since they collect money from investors with a surplus for investment purposes (Dogan, 2019). Mutual Funds corporations offer financial services where they oversee fund administration through expert fund managers (Fang, 2012). These services include fund establishment, fund accounting, fees collection and annual reports generation. Over the years,

Mutual Funds have advanced to be one of the main players in the capital market globally (Lückoff, 2011). It is established that Mutual Funds invest heavily in financial securities, which has significantly influenced worldwide capital markets. This evolution of Mutual Funds can be attributed to several advantages they offer to their investors, such as expert fund management, diversified portfolio opportunities and persistent expected returns.

Mutual Funds investors increase the prospects of their return by picking superior funds, timing their cash flows favourably into the fund, or both (Friensen & Sapp, 2007). Studies further elaborate that the cash flows may signify market sentiments causing a growing demand for units, which raises prices (Jank, 2011). This implies that anticipated investors' returns are low when the economy is soaring and high when in decline. It is, therefore, crucial to understand investors' preferences to establish their influence on Mutual Funds' cash flow since it significantly affects units' prices and fund manager incentives (Guo & Schönleber, 2021). Mutual Funds cash flows are also sensitive to economic cycles but differ between funds. Throughout the COVID-19 crisis, there was a consistent cash outflow of assets underneath active funds management (Pastor & Vorsatz, 2020). It is noted that the outflows are prominent in the market slump and continue at a decreasing rate during the recovery stage. Nevertheless, cash flows may be influenced by non-fiscal motivations to investors, such as ethics and sustainability (Białkowski & Starks, 2016).

Further, studies suggest that historical returns influence Mutual Funds' cash flows and that mutual investors do not perform any meaningful risk adjustment when allocating capital to mutual funds (Ben-David et al., 2019). Thus, even investors who select the funds with higher historical returns are relatively disadvantaged in the potential benefit due to poor timing of cash flows (Friensen & Sapp, 2007). Overall, studies commend the relative appeal of holding after buying units strategy to the average investor rather than timing the market. In addition, mutual fund investors seek returns across funds; thus, funds with high performance attract aggregate cash inflows (Karceski, 2002).

The performance of the Mutual Fund Industry in East African countries is not lagging. In Uganda, MFs' assets under management (AUM) amounted to approximately USD 46.8 million in 2019, contributing about 0.16 per cent of Uganda's GDP. In contrast, in 2019, Kenya showed that MF contributions were around USD 603.96 Million, about 6.12 per cent of the Kenyan GDP (The Independent Newspaper, 2019). In Tanzania, the Capital Market and Security Authority (CMSA) (2010) reported that Mutual Fund Industry contributed to Tanzania's economy about Tanzanian Shillings, TZS 107 billion, to about TZS 124.41 billion in 2016 (CMSA, 2016) to 146.4 billion in 2018 (CMSA, 2018). Although Tanzania is the second country in Eastern Africa to have a promising mutual Industry, the country still faces low competition caused by a small number of participants. According to Rakowski and Wang (2009), historically, Mutual Funds' cash flows positively influence expected investors' returns. Fund investors initiate these flows continually; however, the fund can advertise to attract more flow. Since mutual fund investors are principally individuals, they have more diverse preferences and approach risk conservatively than institutional investors (Jank, 2011). As a

result, mutual fund flows react to expected investors' returns as they predict future economic activities.

Studies such as (Jank, 2011) (Friensen & Sapp, 2007) and (Rakowski & Wang, 2009) differently examine the relationship between mutual cash flows and investors' expected returns. They determine that there is evidence to support that large recent returns positively influence investors' returns as they avoid funds with lower returns. Likewise, the growth of funds over time and favourable economic conditions influence inflows in expectation of higher returns for investors. However, fewer studies have been done in Tanzania as the mutual fund market is fairly still young (less than 20 years) with only one open-ended mutual fund. Thus, this study aimed to focus only on Tanzania since there are fewer published and unpublished studies on the relationship between investors' returns and cashflows of mutual funds. This will answer whether cash flows positively or negatively influence the mutual funds' investors' returns through historical returns, economic conditions and fund growth in Tanzania.

Our study will help mutual funds to understand investors' behaviours in predicting cash flows needed to invest efficiently. Fund managers can predict their fund's flow direction depending on investor behaviours. The study is also beneficial to mutual fund investors to time their investments better using historical returns or/and expected economic performance. It also helps investors time their investments better for possible expected returns. Moreover, our study benefits policymakers and regulators such as CMSA, BOT and the Ministry of Finance and Planning (MoFP) in formulating policies and guidelines that support the growth of mutual funds in Tanzania. This study also contributes to mutual funds researchers and academic studies in Tanzania, where there are limited publications on the industry. It may lead to the promotion of more mutual funds as the industry is relatively still small. On the other hand, our findings of this study help securities issuers in DSE and EAC markets to be aware of when to attract fund managers to invest in them.

The remainder of this paper is organised as follows. Section 2 of the paper study consists of a Literature review. Section 3 outlines the target population and sample size, the sample selection criteria, the data source, variable measurement and references, data analysis and model specification. Section 4 consists of a presentation and discussion of findings. Finally, section 5 consists of a conclusion and recommendations based on the research findings.

2. Relevant Literature Review and Hypotheses

Mutual fund investors may prudently time their cash flow to enhance their expected returns by picking superior funds (Friensen & Sapp, 2007). Funds with the best return rank in their respective section get significantly higher net flows than other funds (Fang, 2012). Therefore, it is argued that investors buy funds with strong past performance, where above half of all fund cashflows happen in top funds with high past annual returns (Barber et al., 2000). This theory is also supported by Rakowski and Wang (2009), who supported that historical fund cashflows positively impact future fund returns by causing investors to demand more fund

units. Thus, funds with better past returns to investors are expected to attract cash flow, while the struggling ones will not.

According to Jank (2011), mutual fund investors are influenced by macroeconomic information when deciding to invest. This results in inflow when there are good economic conditions and outflow when there are adverse conditions. It is also recognised that investors naively survey fund performance when they want to invest (Ben-David et al., 2019). Individual investors consider unadjusted past returns of their investment and follow advice from trusted sources. Therefore, depending on the current economic conditions or expected changes, investors will invest in funds when the economy is soaring, causing high cash flow to funds. This will result in low cash flow in funds when the economy is expected to fall or struggle. However, contrary to investors' expectations, directing cash flow into funds may negatively impact their chances of getting the expected returns. This is because high cashflow variations and large fund size may hinder the fund's performance due to the cost of liquidity and the effort of obtaining further attractive investment prospects (Wandia, 2015) & (Nanda, et al., 2003). As a result, it may mean that high cash flow led to a decline in investors' expected return. This potentially affects more liquid funds and may be why they offer investors lower returns.

Mansor *et al* (2019) examined the performance of mutual funds in Saudi Arabia. The study employed a causality testing approach, whereas variables such as investors' returns, fund growth and expansion of the firms were tested on return on assets, and equity with regard to performance, respectively. Findings revealed that mutual funds in Saudi Arabia have been well-performing since actors are several among firms, companies, groups, and individuals. Also, the country's economy is large and well-performing to support the growth of the entities. Finally, Apau *et al* (2021) assessed the performance of mutual funds due to regime change in South Africa. The study employed a survey approach supported by comparative analysis based on regimes in power and their evolution. The findings revealed that investors' returns had been well attained with limited performance on fund growth and expansion of the facilities. Besides that, xenophobia and the COVID-19 pandemic have worsened the situation due to lockdowns and curfews.

Ben-David *et al.*, (2019) assessed the interests and expectations of the mutual funds' investors before investing in the schemes respectively. The study was conducted in the United States of America using a cross-sectional design. In contrast, the results revealed that investors expect returns on their investments and the growth of the entities to assure further economic gains through the schemes. Once the returns are certain and vivid, the entities automatically grow and prosper progressively with vice versa being the case. Dougan (2019) analysed the comparative analysis of the equity mutual fund market performance in Ghana and Nigeria. The study employed the analysis to compare the two cases. Findings revealed that the performance of the mutual funds in the two countries is high since the participation and engagement level of the public is high due to awareness level and other components. Regardless of that, with limited economies and shortcomings in the governance systems,

management fund growth has been a challenge, and the schemes have been slightly growing, which is a setback in both contexts.

According to Guo and Schönleber (2021), mutual funds' cash flows respond to macroeconomic news. Positive news resulted in cash inflow in expectation of higher returns, and negative resulted to outflow due to uncertainty of returns expected. This is supported by a study done during the COVID-19 pandemic that took a toll on the global economy (Pastor & Vorsatz, 2020). It resulted in consistent cash outflow on mutual funds as investors repurchased their units. Jank (2011) supports this, explaining that unfavourable news about the economy results in outflows by mutual fund investors, while good news about the economy results in inflows. Moreover, it is established that mutual fund investors may increase their return prospects by picking superior funds, timing their cash flows favourably into the fund in hopes of higher returns (Friensen & Sapp, 2007). The perception of investors has a statistically significant influence on the growth of mutual fund institutions linked with return on investment (Ojung'a, 2019).

In light of these contradictory findings from previous empirical studies, the following null hypotheses were developed and tested by the study:

- Ho1 There is no statistically significant relationship between economic conditions and investors' return in Tanzania.
- Ho2 There is no statistically significant relationship between fund growth and investors return in Tanzania.

3. Research Methodology

The study employed a quantitative approach. Quantitative research represents a systematic empirical analysis of trending quantitative data and their relationship. Thus, to meet the study's main objective of establishing mutual fund cash flow effects on investors' return, this study was carried out on only five (5) schemes that attract investors of different horizons. These are Umoja Fund (sixteen (16) years), Wekeza Maisha (fourteen (14) years), Watoto Fund (Thirteen (13) years), Jikimu Fund (Nine (9) years) and Liquid Fund (Eight (8) years). The funds listed were observed on investors' return and cash flows for a period of eight (8) years from 2014 to 2021. We excluded the Bond fund scheme because it operated in a period of two (2) years only, unlike others, thus had insufficient observations. Moreover, it is the youngest fund scheme compared with other schemes. In addition, the study used secondary data from UTT AMIS, CMSA and BOT. Secondary data has the advantage of captivating the researcher to be clear about the basic assumptions and theories relating to the data.

This research uses investors' return (IR) as a dependent variable since other variables influence it. At the same time, independent variables that are determinants of cashflows are economic conditions (EC) and fund growth (FG). These two (2) are selected from discussions made in literature reviews where it was established that investors' return (IR) in being influenced highly by economic conditions (EC) and fund growth (FG). This study examines

investors' return (IR) as a dependent variable. Investors are constantly concerned about fund selection and investment information to ensure they make the most of the money invested. Mutual funds earn income from the investment through dividends, interest income and capital gains (Wandia, 2015). The income on investment is distributed as a return among the investors based on their unit holding's ratio.

Our research examines effects of two independent variables of economic conditions (EC) and fund growth (FG) on one dependent variable, investors' return (IR). These variables are as outlined in Rakowski & Wang (2009), Friensen & Sapp (2007) and Ben-David et al., (2019). The independent variables are the supposed causal factor in experiments, whereas the dependent variables are the presumed effect (BSC Worth Publishers, 2020). Therefore, these variables have a causal relationship, as studies suggest that independent variables influence the dependent variable. However, it is important to know that these variables are continuous, as quoted in TZS and percentage. Therefore, the study was guided by independent and dependent variables (See Table 1).

Table 1. Study Variables Measurements

| S/N | Variable | Measure | Reference |
|-----|-------------------------|---|------------------------|
| 1 | Investors' Returns (IR) | Capital Asset Pricing Model (CAPM) | Sharpe (1964) |
| 2 | Economic Condition (EC) | Annual Real GDP Growth | Mwambuli (2019) |
| 3 | Fund Growth (FG) | $(Assets_t - Assets_{t-1}(1+R))/Assets_{t-1}$ | Nazir and Nawaz (2010) |

Source: Researchers (2022)

Data analysis and presentation were done using E-views 13 and STATA 15 for statistical assumptions tests and for the inferential analysis towards relationship testing between study variables.

The model is formed as

$$IR = F(EC \& FG) \quad (1)$$

Due to the problem of heteroscedasticity, which results in biased-based estimators, a natural logarithm was used to reduce and increase the consistency of the results.

Upon transformation by taking the natural logarithm, the following model was used for estimation.

$$Y \text{ Log } (IR) = \beta_0 + \beta_1 \text{ Log } (EC) + \beta_2 \text{ Log } (FG) + \eta_t \quad (2)$$

Where;

IR=Investors Returns

EC=Economic Conditions

FG=Fund Growth

ut=Error Term

β_0 =Constant

β_1 to β_2 = Beta Coefficients indicating the sensitivity of the variables

4. Discussion of Results

This section is divided into two parts. The first part covers descriptive statistics, and the second part regression results and discussions.

4.1 Descriptive Analysis

This study assessed mutual funds' cash flows on investors' returns in Tanzania. Descriptive statistics analysis was conducted to establish statistical distributions of the study variables whereby mean, median, coefficients of variation, standard deviation, skewness, kurtosis and Jarque-Bera tests were employed. The study's findings (See Table 2) indicate the summary of the descriptive statistics on study variables. The study indicating investors' return has a mean of 10.6 % with a maximum of 19.4% and a minimum of 3.5%. This means investors' returns in Tanzania Mutual Fund are generally good compared to other investment options.

Economic condition measured by GDP has a mean of 5.3% with a maximum of 6.4% and a minimum of 3.3%. This indicates that Tanzania's economic condition is favourable and hence The GDP is the most important indicator to investors focused on corporate profit growth and returns. Since the GDP represents the sum of our economy's production, its growth rate is targeted at certain ranges. Moreover, the fund growth averages 2.4%, with a maximum growth of 8.9% while minimum growth of 3.3%. This means the mutual fund in Tanzania is growing yearly despite a slow growth. Therefore, the growth of mutual funds has a good indication of investors' returns.

Table 2. Descriptive Statistics

| Variable | Observations | Mean | Standard Deviation | Min | Max |
|-------------------------|---------------------|-------------|---------------------------|------------|------------|
| Investor Return (IR) | 40 | 0.10573 | 0.1205 | 0.0345 | 0.1935 |
| Economic Condition (EC) | 40 | 5.2778 | 0.2105 | 3.3387 | 6.4126 |
| Fund Growth (FG) | 40 | 2.3754 | 0.1493 | 0.2535 | 8.8561 |

Source: E-View-13 Data Analysis (2022)

4.2 Regression Analysis

This study assessed mutual funds' cash flows on investors' returns in Tanzania using economic conditions and fund growth as independent variables, while investor return was a dependent variable. The preliminary analysis indicates violations of some OLS regression assumptions, such as normality and heteroscedasticity. On the other hand, the RAMSEY test indicates that the log version of Robust OLS regression is appropriate for handling such violations and testing the two null hypotheses as per the study objectives.

The study's findings (See Table 3) indicate robust regression is statistically significant in explaining relationships between dependent and independent variables as indicated by R square (62%), which is statistical significance at 0.05 levels. This means R-square indicates that 60% of the variation in the dependent variable (investor return) is explained by the changes in the independent variables. In other words, collectively, the changes in economic condition and fund growth explain 60% of the variation in investor return. In contrast, the remaining 40% of changes in life insurance development are explained by other factors not included in the model of this study. Thus, it concludes that all the independent variables in this study collectively are good explanatory variables of investor return in the Tanzania Mutual fund context.

Table 3. Regression Analysis

| Variables | Coefficient | Standard Error | T-Statistic | Probability |
|----------------------------|-------------|----------------|-------------|-------------|
| Economic Condition (EC) | 0.5127 | 0.4739 | 3.17 | 0.014 |
| Fund Growth (FG) | 0.6829 | 0.1211 | 2.29 | 0.023 |
| Constant | 0.2392 | 0.1402 | 1.64 | 0.104 |
| R-squared | 0.6185 | | | |
| F-statistic | 3.31 | | | |
| Probability (F-statistics) | 0.0317 | | | |

Source: E-View-13 Data Analysis (2022)

To examine whether economic conditions determine investors' returns in Tanzania, we tested the hypothesis that, there is no statistically significant relationship between economic conditions and investors' returns in Tanzania. The study's findings (See Table 3) indicate that the economic condition has a positive statistically significant influence on investor return in Tanzania ($\beta_1=0.51$, $P\text{-value}\leq 0.05$); hence the null hypothesis is rejected. This implies that the level of economic condition influences the investor return in Tanzania by 51%. The study's findings are consistent with that of Jank (2011), which confirmed the positive influence of economic conditions on investor return.

Moreover, we also examine whether fund growth determines investor return in Tanzania. The hypothesis that tested this is, there is no statistically significant relationship between fund growth and investor return in Tanzania. The findings of the study, presented in Table 3, indicate that the fund growth has a positive statistically significant influence on investor return in Tanzania ($\beta_2=0.68$, $P\text{-value}\leq 0.05$); hence the null hypothesis is rejected. This implies that the fund growth influences the investor return in Tanzania by 68%. Our study's findings are consistent with that of Ojung'a (2019), confirming the positive influence of economic conditions on investor return.

5. Conclusions and Recommendations

This study assessed mutual funds' cash flows on investors' returns in Tanzania. The study was guided by two predicting variables: economic condition (EC) and fund growth (FG). The independent variables were tested on investors' return (IR) as the dependent variable. The study employed explanatory design through a causal relationship approach using secondary

data generated through panel form in the series of eight (8) years from 2014 to 2021, respectively. The study collected facts with regard to the selected and tested variables from all five (5) schemes in the UTT AMIS mutual fund. The data were analysed by E-views 13 and STATA 15 for statistical assumptions tests and for the inferential analysis towards relationship testing between study variables.

Investment return in Tanzania, through mutual funds, is influenced by economic conditions and fund growth since they have been found to have a positive with a significant effect on investment return (IR) with $p < 0.05$. The results imply that investment return through mutual funds in Tanzania is influenced mainly by economic conditions and fund growth. These results are in line with other studies that show economic conditions, and fund growth is an important consideration for investors as they positively influence cashflows of mutual funds and investors' returns when they are positive Jank (2011), Ojung'a (2019), (Apau et al., 2021) & (Ben-David et al., 2019). This signifies that the success and or failure of the mutual funds' cash flow regarding investors' returns are largely facilitated by the fund growth and economic conditions, which is the case to assure the entity's performance.

The study recommends that it is essential for the government to ensure that it fosters the increase in asset management firms concerning mutual funds on the funds boost. This is essential to assure the generation of the realisation of the performance of the entities of assuring returns to the investment for investors' attractions respectively. In addition, it is essential for the government and agencies, such as CMSA and BOT, to ensure that awareness is generated to various actors. The objective is to ensure that the participation of the individuals and actors in the firms and the schemes increases to guarantee income generation through charges and others which positively affect investors' returns. Further, this study recommends that mutual funds invest in fund managers who properly manage schemes and assure fund growth over time. That will attract more investors, assure cash flow, and result in higher returns for mutual fund investors in Tanzania.

To attain its aim, this study was limited to only one mutual fund in Tanzania, with total data observed from 2014 to 2021. Though the secondary data was incontestable, the accuracy degree attained was a constraint. This study analysed cash flow based on economic conditions and fund growth to determine the influence on investors' returns. Further research could use other independent variables, such as fund size, investment horizon, transaction cost, fund age, fund managers and marketing. These variables may provide new insight into other factors that may influence mutual fund investors' returns in Tanzania.

Moreover, another area for further studies may be to compare the influencing factors of investors' returns across African, regional, for instance, East African countries where markets are differently developed. This, possibly, can be achieved by comparing Kenya's mutual fund market with Tanzanian or Ugandan; South African with either Egyptian or Nigerian. Researchers may also examine whether closed-ended and open-ended mutual funds have similar influencing factors in investors' returns or differ. This would be insightful for fund managers of mutual funds and regulatory institutions in governing and making informed decisions.

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