The Impact of securities markets on economic growth in Zimbabwe

Wilford Mawanza\textsuperscript{1}, Nkululeko Mpofu\textsuperscript{2}, Silethembah. L. Nyoni\textsuperscript{3}

\textsuperscript{1}Department of Accounting and Finance, Lupane State University, Bulawayo, Zimbabwe
\textsuperscript{2}Department of Crops and Soil Sciences, Lupane State University, Lupane, Zimbabwe

*Corresponding Author email: wmawanza@lsu.ac.zw

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ABSTRACT

The paper examines the impact of securities exchange on economic growth in Zimbabwe for the period 1980 to 2017. The study adopted the endogenous growth model on which we deemed magnitude and fluidity of securities to be the key drivers of the economy. The ordinary least squares regression technique was applied as the primary method of analysis and as the maximum likelihood estimator. The findings of the study showed that securities exchange has blended effects on economic expansion. We observed that the market size (market capitalisation) and foreign direct investment (FDI) have a significant positive impact on the economic growth. The study recommended that policy makers establish economic activities that enhance development in stock markets, such as building confidence in local financial markets that will attract new investment. More so, small to medium enterprises should also take part in the securities market, possibly through introducing an exchange for these by authorities, as these have a significant contribution to the economy. Overall, government policies meant to promote stock market development may enhance growth in Zimbabwe.

Keywords: Stock Markets, Zimbabwe, Economic Growth, Securities

1. INTRODUCTION

The connection between economic development and securities exchange growth has and always been a broad subject of research. The real issue is whether securities exchanges pursue economic development except if there is an integral connection between them. Hypothetically, stock cost increments should match the realGDP growth rate. Studies have demonstrated that in various countries there is a sensible connection between GDP advancement and stock trade returns. On a fundamental level, and over the long run, corporate profit rise when the economy develops. For example, a study by (Owusu & Odhiambo, 2014) in Ghana, found out that the liberalization of the capital account and the level of development of the stock market have no positive effect on economic growth in the long run.

During the year 1987 on the 19th day of October, the global economy experienced a crash on the world stock market. During this time ZSE was amongst the well-performing trade markets when other nations were enduring the consequences of this Black Monday. The Black Monday had no effect at all on the ZSE as the economy had hit a record. Later in 2008, a global financial crisis took place and at that time Zimbabwe was experiencing hyperinflationary rates recorded at 231 million % rising to 5 billion by the year-end (Mankiw,
2014). The global financial crisis might not have a direct impact on the financial crisis of Zimbabwe, but it did not have an effect on the economy through diminishing the return on the exports and large external debts. Over the past decades, there has been theory and historical evidence linking the effect of stock exchange in driving economic development in emerging economies such an extent that the proof is agreeable of a positive connection in both cases. Past researches have dealt more with the financial market, credit market, and improvements of securities exchange on the growth of the economy. However, the impact of these variables on driving economic growth still calls for further research.

Other past studies, Yu Hsing, (2011), Jefferis & Okeahalam, (2000), have made a significant contribution to the understanding of the impact of macro-economic variables and other factors on the stock market development. This paper aims to examine the effect of securities exchanges in driving economic development in Zimbabwe. Besides indications of a strong connection between exchange market and debt finance in driving GDP growth, there has been little evidence in Zimbabwe, concerning the repercussions of securities exchange advancement in driving the economic boost. Rather, it’s unclear in existing literature in Zimbabwe whether to adopt policies promoting stock market enlargement to trigger economic growth more, thus creating a gap in the literature, in need of a research to be filled.

It is against this background that the study aims to fulfil the following objectives:

1. The primary objective was to investigate the impact of securities exchanges on economic development in Zimbabwe
2. To determine the relationship between the stock exchange and financial development
3. To determine the effect of market turnover on the growth of the economy

1.1. Securities Markets

The nexus between stock market development and economic growth has attracted a lot of attention from many scholars and economic researchers. Most studies revealed a positive relationship between stock markets and economic development, (among others include: (Hoque & Yakob, 2017, Shahbaza, et al., 2016, Ho, 2018, (ankal, 2015, (daramola & Popoola, 2019). The development of securities exchanges gives a road to new businesses and developing organizations to raise capital at lower costs. Thus, in the short run and long run, stock market promotes the economic growth (Hoque & Yakob, 2017). Securities exchanges are subsequently in a better position to emphatically impact and drive monetary development by empowering reserve funds among investors and giving roads to long-run firm financing (Yartey & Adjasi, 2007). It has been contended that stock market exchanges assume a key job in helping the development of the economy and in this manner ought not to be disregarded by the policymakers and the government (Khan, Abdelhak, & Smith, 2001). This implies the authorities ought to set up strategies that will be profitable to the financial market which over the long term will result in financial development. Likewise (Seetanah, Seetah, Appadu, & Padachi, 2014) states that securities exchange adds to financial development through the capacities it performs either
straightforwardly or by implication, and these incorporate; long-run capital for open and private establishments, corporate administration improvement, and the formation of liquidity which presents speculators with some authority over their long-run investments. Subsequently, the effect of financial exchange advancement in driving monetary development will fluctuate as per a nation’s dimension of monetary improvement with a bigger effect in underdeveloped economies (Shabbaz, et al., 2008), (Shahbaza, et al., 2016).

2. EMPIRICAL LITERATURE REVIEW

Up to today, the spearheading study on cross country investigation was finished by Goldsmith (1969) where they completed an examination on thirty-five nations, utilizing information for the period 1860–1963, utilizing the proportion of monetary mediator resources divided by Gross Domestic Product (GDP) as an intermediary for money related improvement and found that a positive connection between financial middle people's resources and financial development exists. In addition, they likewise discovered that the measure of financial intermediaries developed as nations kept on developing. In any case, the conventional view dependent on the empirical work of Solow (1956) is that money related markets advancement just inactively pool the reserve funds of the family units and assume no role during the time spent physical capital amassing which is viewed as the endogenous determinants of monetary development in any nation. They substantiated his development theory with an empirical investigation (1957) utilizing time arrangement information of US total yield levels for the period 1909 to 1949.

In this manner, the conventional view is of the conviction that money related improvement is the delayed consequence of financial advancement. (King & Levine, 199) studied the connection for a few nations than Goldsmith's 35, utilizing chronicled information run from 1960 to 1989. King and Levine's examination was one of a kind to others as it utilized a few pointers for economic development which are real GDP development, development in investments per individual, and all-out efficiency development; and they additionally utilized a few intermediaries for financial improvement. Among the money related intermediaries were the proportion of convertible liabilities of the monetary framework to Gross Domestic Product, to measures the profundity of the financial division.

There is limited empirical proof on the significance of securities exchange improvement, on their reliance, and on the impact of different superfluous factors in clarifying economic development. For example, Dow and Gorton (1997) proposed a contending double job of data creation and observing by securities exchanges, along these lines their examination note such reliance by concluding that financial exchange liquidity can be utilized for anticipating future economic development. Beck (2004) established proof that the extent of liquidity of securities markets is a constant huge determinant of economic growth. They controlled typical years of schooling, openness of trade and black market premiums among alternative factors before estimating variable relation amongst exchange turnover and economic development.

Jeccheche (2010) gives an observational investigation of link between financial development and its factors with exclusive attention on the ZSE advancement where he utilized
information for the period from 1991 to 2007. He recommended a significant association between proficient exchange markets and economic enlargement, along these lines, financial unsteadiness and inflation have an adverse effect whilst FDI has a strong influence on the economy. Another examination on the effect of stock trade in driving economic development demonstrated a unidirectional causal connection that keeps running from the securities exchange improvement to financial development and that there is proof of a roundabout transmission component through the effect of stock development on investment (Zvienga, et al., 2011). Their investigation planned to probe the underlying connection between securities markets improvement and the expansion of the economy in Zimbabwe utilizing annual data for the period 1980 to 2008, using progressed econometric procedures of Unit root tests and to investigate the degree of the effect.

In contemplating the reaction of trade markets performance on the growth of the economy using 11 Arabic nations, Naceur & Ghazouani, (2007) presumed that stock market improvement could contrarily impact the economic development in nations with less developed financial systems related frameworks subsequently; they focused on structuring a sound financial framework. Further, the World Bank (1994) found that financial exchange advancement does not just pursue growth, yet gives the way to foresee upcoming rates of development in wealth, profitability and per capital GDP, henceforth the World Bank inferred that, an expansion in securities exchange improvement prompts expanded real per capital development.

There are contentions existing in connection to financial exchange improvement and its effect on economic development. As of late, Dow & Gorton, (1997) recommend that financial exchanges perform comparable capacities, observing and giving data, which expands ex- present market liquidity on anticipate the future economic performance. Consequently, financial exchanges emphatically positively affect economic development exercises (Liu, W.C & Hsu, 2006). In any case, there is no immediate experimental proof of this respective effect of securities exchange improvement in driving financial development.

As per (Nazir, et al., 2010) there is an interconnection between securities exchanges and economic development, he built up that the most ideal approach to build up the economy is to augment market capitalization thus accomplishing monetary development. A unidirectional association was examined and the outcomes demonstrated that there is a degree of reflex of the securities exchange in driving the financial development (Shabbaz, et al., 2008). Using the ARDL bound, Adaramola & Popoola, (2019) found out that there is a positive effect between all the indicators of market development on Real GDP in the short run, hence concluding that market development causes economic growth. Using evidence from panel data of selected African countries, Jalloh, (2015) found out that the is a significantly positive relationship between market capitalization and economic growth, and hence a need for policymakers in Africa to direct attention towards the implementation of policy measures that will encourage the development of stock markets with a view to promoting economic growth.

In more developed nations, there is a huge effect of securities exchanges in driving economic development while in less developed nations there is a weaker effect and this
was discovered by Choong (2010) in his similar investigation. He envisaged that the more prominent the extent of the securities exchange the more prominent the probabilities of the economy performing better. In an undertaking to reveal whether the stock market exchange improvement has an effect in economic growth, Kolapo & Adaramola, (2012) utilized the following economic factors GDP, stock market capitalization, recorded equity shares by applying the Johansen co-integration and Granger causality tests. The creators established that securities exchange capitalization and economic performance are co-integrated.

Sajuyigbe & Odetayo, (2012) additionally bolstered this view by examining the economy of Nigeria and acquired similar outcomes. To support the above empirical evidence Austin and Bernard (2011) directed a time series examination utilizing O.L.S strategies to learn the effect of trade markets development in driving economic development. They additionally called attention to that exchange capitalization has a weak connection with economic performance while the turnover proportion has a positive one as it was identified with the development of the economy. The after-effects of these tests led demonstrated that dynamic financial exchanges can improve the economic development and securities exchange capitalisation affects the liquidity of the market. Sinha, et al., (2015), analyzed the impact of securities markets for the growth of the economy post liberalization. From this study, the stock market development was found to have larger and more significant long run mutual effects on economic growth in India.

Empirical evidence was utilized to decide the effect of financial exchange in upgrading the financial system in advancing markets in Europe. The outcomes demonstrated that financial expansion is helped by reserve funds which in a roundabout way influences the securities exchanges in a positive way and the entire economy all in all (Carp, 2012). In addition, Osasere & Osamwonyi, (2018), affirmed that the relationship is positive between financial exchange improvement and monetary amplification. To approve this they connected the least squared regression test to demonstrate the connection between the two factors referenced before in particular the following countries Britain, Russia, India, China and South Africa from 1994 to 2015. They utilized the unit root test which demonstrated that a portion of the factors were reliable at a wide range of levels for example market capitalization, GDP, financial exchange exchanging volume. In all the 5 nations the test suggested that the average financial development estimated by the GDP was 41% per period.

Securities exchange drives the speed of the performance of the economy in Nigeria from the period 1985 to 2014 (Adiogwe & Ifeanyi, 2015). To affirm this they utilized the ordinary least squared relapse test and this brought about a co-effective of a consistent of 34,832 355 which involved that the GDP will subsequently increment by 34,832 355 million with the condition that inflation rates and exchange openness levels are steady. The market capitalisation co-efficient of 1132 859 likewise involved 1132 859 million increment in GDP. Another test was directed to show the connection by Babaji, (2016) in the Indian economy. The consequences of the test demonstrated that the GDP responded contrarily to the market capitalization shocks. Securities exchange have an unfavourable impact after a long range and a positive one after a brief time. The results demonstrated a positive 2% change.
augmentation in the GDP in the short run and a negative 40% reason for cure in the
economy sought after by shocks as time goes on. The link between stock market
development and economic growth was assessed by Ho, (2018) in Hong Kong covering a
period from 1986 to 2015. They concluded that there was no influence of stock market
development proxy on economic growth. Notwithstanding, it may have an effect on the
size of the impact. More so, a Panel regression of stock market indices dynamics in south-
eastern European economies was conducted by (Pešaa & Festićb, 2014). Their results
indicated a mutual reinforcement of the interaction between financial integration and
economic growth in the form of industrial production, growth in GDP, trade liberalisation,
large capital as well as the implementation of reforms regarding EU integration.

In light of the empirical studies reviewed above, the following study hypothesis were
generated:

H01: Stock Turnover (SKT) does not affect the GDP of Zimbabwe.
H02: Market Capitalization (MKT) does not affect the GDP of Zimbabwe.
H03: Foreign Direct Investment (FDI) does not affect the GDP of Zimbabwe.
H04: Broad Money (BM) does not affect the GDP of Zimbabwe.
H05: Trade Openness (TO) do not affect the GDP of Zimbabwe

3. METHODOLOGY, MODEL AND VARIABLE DEFINITIONS

To analyze how market securities affect GDP, we use an ordinary least square (OLS)
econometric model in this study. GDP growth rate, as a measure of economic
development, was the independent variable while we took stock market performance
indicators and other variables affecting GDP growth rate as informed by theory and
empirical literature as independent variables. Independent variables included stock
turnover ratio (STK), market capitalization ratio (MTK), broad money (BM), trade openness
(TO), and foreign direct investment (FDI). We collected FDI data from the Zimbabwe
government statistical agency ZIMSTATS while we sourced GDP data from World Bank
Factual Information Base. Stock turnover and market capitalization data was acquired from
Zimbabwe Stock Exchange (ZSE) publications. Broad money data was obtained from the
Reserve Bank of Zimbabwe. We Specified OLS regression econometric model as informed
by Nurudeen (2009) endogenous growth model quoted by (Vacu, 2013) was specified as
follows:

Functional expression

\[ GDP = f (STK, MKT, TO, FDI, BM) \]

Mathematical expression

\[ GDP_{it} = \beta_0 + \beta_1 MKT + \beta_2 STK + \beta_3 TO + \beta_4 FDI + \beta_5 BM + \epsilon_i \]

Where; \( \beta_0 \) was the constant and \( \beta_1, \beta_2, \beta_3, ..., \beta_n \) were coefficients. \( \epsilon_i \) was error term.

**Stock Turnover Ratio**: Estimated the rate at which resources are turned into money. The
variable quantified the convertibility of the market securities and we took it as the
estimation of all traded stock partitioned by market capitalization. We expected higher turnover proportion to infer lower exchange cost. But in this model we used it as an intermediary for securities exchange advancement to measure liquidity.

**Market Capitalization Ratio (MKT):** measured the stock exchange size. It was the proportion of the stock exchange capitalization to Gross domestic product. Its measure depends on the supposition that the general market estimate positively correlates with the capacity to attract investments while minimizing threats by diversifying the economy. We took it as the size of the intermediary for stock exchange advancement.

**Broad Money (BM):** was the level of domestic cash supply, and it showed the level of banking advancement. As showed in (2016) monetary policy review the RBZ uses the rate of exports and imports as a monetary policy instrument.

**Trade Openness (TO):** was a proportion of financial approaches that either limited or welcomed exchange between nations. We incorporated transparency or openness into the quest to gauge the effect of money-related progression.

**Foreign Direct Investment (FDI):** were business ventures made by foreign firms or individuals into Zimbabwe.

### 3.1. Descriptive Statistics

The table below shows the descriptive statistics for the variables under study.

**Table 1. Descriptive Statistics**

<table>
<thead>
<tr>
<th></th>
<th>GDP</th>
<th>STK</th>
<th>MKT</th>
<th>FDI</th>
<th>BM</th>
<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>2,115,605.26</td>
<td>69,717,838.2</td>
<td>5,490,903,684</td>
<td>1,020,789.5</td>
<td>60,738,026</td>
<td>63,439,131.58</td>
</tr>
<tr>
<td>Standard Error</td>
<td>1,294,986.2</td>
<td>16,683,544</td>
<td>0.834064077</td>
<td>0.2222395</td>
<td>25,899,349</td>
<td>2,811,360,323</td>
</tr>
<tr>
<td>Median</td>
<td>2,078.5</td>
<td>24,677.95</td>
<td>3,450.04</td>
<td>0.615</td>
<td>26,749.5</td>
<td>63.44</td>
</tr>
<tr>
<td>Mode</td>
<td>1,585</td>
<td>311,101</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>76.04</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>7,982,831.1</td>
<td>102,844,256</td>
<td>5,145,162,73</td>
<td>1,369,976</td>
<td>159,654,31</td>
<td>17,330,388,94</td>
</tr>
<tr>
<td>Sample Variance</td>
<td>63,725,592.3</td>
<td>105,76,941</td>
<td>26,435,189,59</td>
<td>1,876,834</td>
<td>15,489,499</td>
<td>300,342,3809</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>3,643,056,08</td>
<td>7,475,924,925</td>
<td>2,681,668,683</td>
<td>8,369,798</td>
<td>35,369,895</td>
<td>-0.358,199,128</td>
</tr>
<tr>
<td>Skewness</td>
<td>-0.264,446,48</td>
<td>2,571,726,21</td>
<td>1,316,759,797</td>
<td>2,360,676</td>
<td>5,864,217</td>
<td>0.408,850,0242</td>
</tr>
<tr>
<td>Range</td>
<td>37,345</td>
<td>487,225</td>
<td>23,296.2</td>
<td>7.39</td>
<td>1017.09</td>
<td>73,602</td>
</tr>
<tr>
<td>Minimum</td>
<td>-17.67</td>
<td>0.775</td>
<td>0</td>
<td>-0.45</td>
<td>-13.77</td>
<td>35.92</td>
</tr>
<tr>
<td>Maximum</td>
<td>19,675</td>
<td>488</td>
<td>23,296.2</td>
<td>6.94</td>
<td>1003.32</td>
<td>109,522</td>
</tr>
<tr>
<td>Sum</td>
<td>80,393</td>
<td>2649,277,85</td>
<td>208,654,34</td>
<td>38.79</td>
<td>2308,045</td>
<td>2410,687</td>
</tr>
<tr>
<td>Count</td>
<td>38</td>
<td>38</td>
<td>38</td>
<td>38</td>
<td>38</td>
<td>38</td>
</tr>
</tbody>
</table>

The data in table 1 shows minimum of -13.77 and a maximum of 1003.32 for broad money during the study period with an average of 60.73 and standard deviation of 159. This suggests suggesting a more variation in broad money supply data. The upward trend in Broad Money could have been associated with a growth in GDP and shown by the statistic (Min [17.67] to Max 19.65). The kurtosis of 3.64 suggests that GDP data is nearly normally distributed. Variation of Trade openness data was moderately low as the standard deviation (+17.33) was less than the mean (+63.49). It ranges between a minimum of 35.92 and a maximum value of 109.62 implying that its graph is negatively skewed. In terms of normality, to record a kurtosis value of -0.36 implying that it is not normally distributed. Less
variability was recorded in Stock Turnover Ratio with a mean of 5.49 which is greater than a std. dev of 5.14. More so it is positively skewed and normally distributed. Market Capitalisation showed a high degree of variability with a mean of 69.74 which is less than the standard deviation of 10.84. FDI ranges between -0.45 to 6.94 with a positive skew value of 2.36. In terms of variability, there is a high degree of variation in FDI data as evidenced by an average of 1.02 which is less than the standard deviation of 1.36.

3.2. Normality Tests

Data was tested for normality and results were presented in fig 1 below and shows that the data collected is normally distributed. An upward evenly undulating Normal Probability Plot, the slope has an even steep in the middle, depicting that the data is normally distributed.

![Normal Probability Plot](image)

**Fig. 1. Unit Root Tests**

For URT, the stationarity position for all the factors under investigation was formally examined using ADF test. When $p > 0.05$ at all levels of significance, the test fails to reject the null hypotheses implying that variables in question are not stationary, therefore there is a need to do 1st and 2nd differences until $p < 0.05$. Trade openness data was made stationary through application of first differencing technic. Except for trade openness, all the variables under study became stationary at level.

<table>
<thead>
<tr>
<th>Variable</th>
<th>ADF test statistic</th>
<th>Prob.*</th>
<th>Critical value at 1%</th>
</tr>
</thead>
<tbody>
<tr>
<td>BM</td>
<td>-5.266503</td>
<td>0.0001</td>
<td>-3.621023</td>
</tr>
<tr>
<td>FDI</td>
<td>-3.7621023</td>
<td>0.0074</td>
<td>-3.62023</td>
</tr>
<tr>
<td>TO</td>
<td>-8.820733</td>
<td>0.0000</td>
<td>-3.626784</td>
</tr>
<tr>
<td>GDP</td>
<td>-3.746130</td>
<td>0.0073</td>
<td>-3.621023</td>
</tr>
<tr>
<td>MKT</td>
<td>-3.454756</td>
<td>0.0152</td>
<td>-3.621023</td>
</tr>
<tr>
<td>STK</td>
<td>-3.410538</td>
<td>0.0169</td>
<td>-3.621023</td>
</tr>
</tbody>
</table>
3.3. Correlation Matrix

It is used to quantify the degree of association amongst the different variables under consideration. Table 3 underneath presents coefficients of correlation for Economic growth and stock exchange variables used in the study. The variables are for Zimbabwe Economic Growth and Zimbabwe Stock Exchange, from 1981-2018: 38 Years Observations.

**Table 3. Correlation Matrix**

<table>
<thead>
<tr>
<th></th>
<th>GDP</th>
<th>STK</th>
<th>MKT</th>
<th>FDI</th>
<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STK</td>
<td>-0.30205</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MKT</td>
<td>0.208375</td>
<td>0.165747</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDI</td>
<td>0.152866</td>
<td>0.028069</td>
<td>0.164231</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>BM</td>
<td>-0.21324</td>
<td>0.165529</td>
<td>-0.1155</td>
<td>0.006598</td>
<td></td>
</tr>
<tr>
<td>TO</td>
<td>-0.23799</td>
<td>0.44413</td>
<td>0.401829</td>
<td>0.447881</td>
<td>1</td>
</tr>
</tbody>
</table>

The above table shows that Economic Growth (GDP) has a negative relationship with Stock Turnover (STK) with a co-efficient of (0.30205), Broad Money (BM) with a co-efficient of (0.21324), and Trade Openness (TO) with a coefficient (0.23799). Market Capitalization (MKT) and FDI have a positive effect on the GDP Rate with 0.208375, 0.152866 respectively. Hence with the depiction of this relationship, there is evidence of the stock market in driving economic expansion. Market Capitalization (MKT) and Foreign Direct Investment (FDI) may be reliable measures of the Stock Market. As shown by Table 4.2 the negative coefficients of STK, BM, TO show that there is a weak relationship between the stock market and the variables mentioned meaning that there are other forms of substitution that enhance economic development. The positive coefficients of MKT, FDI show that there is a strong inter-connection between trade markets and the variables mentioned implying that good performances in the stock market will be reflected by the economic advancement of a country.

3.4. Regression Analysis

The regression analysis in this section is used to enlighten us more on the impact of trade markets in driving economic enlargement. Following model specifications in chapter 3, the study examines the endogenous variable which is GDP growth rate against the five exogenous variables.

**Table 4. Summary Output**

<table>
<thead>
<tr>
<th>Regression Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple R</td>
<td>0.728997741</td>
</tr>
<tr>
<td>R Square</td>
<td>0.67983861</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.167313393</td>
</tr>
<tr>
<td>Standard Error</td>
<td>7.284466162</td>
</tr>
<tr>
<td>Observations</td>
<td>38</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ANOVA</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>Significance F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>5</td>
<td>659.8166028</td>
<td>131.9633206</td>
<td>2.486897</td>
<td>0.031870863</td>
</tr>
<tr>
<td>Residual</td>
<td>32</td>
<td>1698.03012</td>
<td>53.06344726</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
\[
\text{GDP} = 10.789 - 0.014\text{SKT} + 0.552\text{MKT} + 1.6848\text{FDI} - 0.0019\text{BM} - 0.1949\text{TO} + \varepsilon
\]

### 3.4.1. Model Specification

Model specification regressed GDP growth rate against Market Capitalization, Stock Turnover, Foreign Direct Investment, Broad Money, and Trade Openness. The R square in the model is 68%, this level of R square indicates that the descriptive factors in the regression, taken together, are very strong to explain the effect of the stock exchange in driving economic growth. With a significant F of less than 0.05, the variables taken together are statistically significant in explaining shareholders’ returns at 95% level of confidence interval. This also shows that the model is statistically significant in making forecast of GDP Growth Rate. The relationship between the 5 explanatory variables used in model specification and GDP Growth Rate are explained below:

### 3.4.2. Statement of Hypothesis

\(H_01: \) Stock Turnover (SKT) does not affect the GDP of Zimbabwe.
\(H_02: \) Market Capitalization (MKT) does not affect the GDP of Zimbabwe.
\(H_03: \) Foreign Direct Investment (FDI) does not affect the GDP of Zimbabwe.
\(H_04: \) Broad Money (BM) does not affect the GDP of Zimbabwe.
\(H_05: \) Trade Openness (TO) do not affect the GDP of Zimbabwe.

### 4. DISCUSSION OF RESULTS

#### 4.1. Relationship between Stock Turnover and GDP Growth Rate

The coefficient on the Stock Turnover (SKT) is (0.014) which insignificant (p-value > 0.05) since the p-value is 0.3152. This indicates the \(H_01 \) was not rejected, the hypothesis is “Stock Turnover (SKT) does not have a huge impact on the GDP of Zimbabwe.” This shows that Stock Turnover (SKT) is not statistically significant in explaining GDP Growth Rate. Hence, no relation between the variables furthermore, the regression showed a correlation coefficient of positive 1.4%. This co-efficient is too small and very close to zero meaning that there is a positive weak partial or no relationship between SKT and GDP. Hence an increase in Stock Turnover does not statistically maximize GDP Growth Rate because the two variables are to some extent independent from each other. The results of SKT suggests that liquidity of trade securities and economic growth are not statistically significant at all. That
is, an increase in stock turnover will not influence the economy. This finding is line with Levine (2003) that when markets are liquidity, there is an appetite by investors including the short-term investors, for investment in long-term instruments. However, excess market liquidity will distort the effect of projects being finance for long. As investors will be finding it easy to get access their savings on demand. Zervos (1996) further supported the result noting that it is largely market size than market liquidity that can influence stock market development and hence on economic growth.

4.2. Relationship between Market Capitalization (Mkt) and GDP Growth Rate.

The coefficient on the Market Capitalization (Mkt) is positive and statistically significant (p-value < 0.05). This indicates H2 was rejected, the hypothesis is “Market Capitalization (Mkt) does not affect the GDP of Zimbabwe.” This means that Mkt has a statically significant influence on the GDP. Hence, an increase in Market Capitalization (Mkt) will lead to an increase in GDP growth rate as it can be derived in the model. Since market capitalization is a non-subjective measure of the performance of ZSE, then to some extent ZSE has a strong influence on the determination of Economic Growth in Zimbabwe. Market capitalization was found to have a significant positive influence on economic growth at a 5% level of significance. A 1% escalation in market capitalization will boost the economy by 55%. This result confirms that of Jallow (2015), who found out that there is a positive and significant relationship between stock market capitalization and economic growth and thus gives some hopeful signals for African countries to explore stock markets as a potential avenue for expediting economic growth. Ho, (2018), confirms this result from their study of determinants of economic growth in Hong Kong, particularly looking at the role of stock market development. Their results indicated that stock market development to promote growth both in the short and long run.

4.3. Relationship between Foreign Direct Investment (FDI) and GDP Rate

The coefficient on the (FDI) is a positive 1.684 and statistically insignificant (p-value >0.05) since the p-value is 0.1046. The hypothesis H3 “Foreign Direct Investment (FDI) does not affect the GDP of Zimbabwe” was not rejected. This means that (FDI) is not statistically significant in explaining GDP Growth Rate. Hence increase in FDI does not statistically maximize GDP Growth Rate because the two variables are to some extent independent of each other. The results suggest an increase in FDI inflows will lead to economic growth. That is unit increase in FDI will result in 1.684 units increase in GDP, as supported by Boubaraki (2010). The result is in line with (Hoque & Yakob, 2017) who concluded that when both foreign capital inflows and exchange rates interact with each other, there is a joint positive effect on the relationship between stock market development and economic growth.

4.4. Relationship between Broad Money (BM) and GDP Growth Rate
The coefficient on the Broad Money (BM) is weak and insignificant (p-value >0.05) since the p-value is 0.1046. This indicates that the hypothesis H₄ was not rejected. This shows that Broad Money (BM) is not statistically significant in explaining GDP Growth Rate. Hence no relation between the variables. Furthermore, a correlation coefficient of 0.18% was too small and very close to zero meaning that they may be a positive weak partial or no relationship between BM and GDP. Hence, an increase in BM does not statistically maximize GDP Growth Rate because the two variables are to some extent independent from each other. This means that, the act of credit creation by banks and the central bank influences economic growth in economics the money in circulation which is created by the Reserve Bank of Zimbabwe through monetary policy activities and by banks through a process called credit creation influences economic growth.

4.5. **Relationship between Trade Openness (TO) and GDP Growth Rate**

The coefficient on the Trade Openness (TO) is a negative 0.19 and statistically not significant (p-value >0.05) since the p-value is 0.0565. This indicates the first null hypothesis was not rejected, the hypothesis is “Trade Openness (TO) do not affect the GDP of Zimbabwe.” This means that Trade Openness (TO) is not statistically significant in explaining GDP Growth Rate. Hence, no relation between the variables furthermore, the regression showed a correlation coefficient of a negative 19.49%. This co-efficient is too small and very close to zero meaning that they may be a positive weak partial or no relationship between TO and GDP. Hence, an increase in TO do not statistically maximize GDP Growth Rate because the two variables are to some extent independent from each other. However, this conflicts with Keho, (2017) who found out that trade openness has positive effects on economic growth both in the short and long run.

4.6. **Other Undefined Variables**

The constant intercept represented C in the model above shows or represents other factors that explain the effect of trade securities in driving development which was not captured in the model. These other variables are not significant in explaining economic growth value because their p-value is more than 5%. Irrespective of having a coefficient 10.78, GDP growth rates are not statistically determined by other factors that are not capital market variables to some extent.

5. **Conclusions**

The primary goal was to analyze the nexus of securities exchange on economic development in Zimbabwe, utilizing yearly information for the period 1980 to 2018. The literature reviewed proves a solid linkage between securities exchange and financial development over the long term. Along these lines, the investigation presumes that securities exchange advancement assumes a crucial job in financial development. The connection between trade markets and economic development was affirmed by most reviewed studies. However, nearly a few examinations contended that the significance of the financial exchange advancement has been over appraised. As shown by the model, trade markets are strongly related to economic growth. According to the results obtained,
if a stock market is very much active, it will automatically boost the performance of the economy. The study concludes that securities exchange has blended impacts on economic expansion. It was observed that the market size (market capitalization) and (FDI) have more impact on the economy. The conclusion supports Vacu, (2013), who also obtained mingled outcomes on the influence of securities exchange on the financial growth process. The policy implications of these results to the government of Zimbabwe are to come up with strategies that promote the integration of the securities exchange into the system i.e. strategies that enlighten prospective investors and stimulates their confidence in the market. This is because a well-developed market can positively stimulate the economic growth of the country. Following a prolonged era of economic decline, encouraging confidence in local financial markets will develop the level of investment and boost economic growth. Policies meant to promote stock market development may enhance growth in Zimbabwe.

References


