INSURANCE INVESTMENT AND CAPITAL MARKET IN NIGERIA

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Abstract

As investors, insurance companies are very important participants in the financial market, especially in the capital market. Interest from the academia on the effect of insurance investments in the Nigerian economy has been minimal. It is in order the study aimed to asses assess the insurance company investments on capital market in Nigeria. Research design was Ex-post facto. Ordinary least square regression was used as analytical technique. The data used for this study are annual time series while ordinary least Square estimator (OLS) was adopted to determine the unit regression and explain the possible correlation. The researcher used the E-view statistical package to analyze the data. It was found that total Insurance investment in has negative but significant impact on Total Market Capitalization while total Insurance asset has positive and significant impact on Total Market Capitalization. From the findings, the study concluded that collectively the insurance industry investments in the Capital market have the capacity to make very significant impact on Market capitalization. The recommendations made was that National Insurance Commission should make policy that will enhance effective growth and development of insurance business in Nigeria and ensures that both cooperate organizations and individual embraces the compulsory insurance business in Nigeria.

Keywords: Market Capitalization, Insurance Investment, Insurance Total Asset

Introduction

Insurance sector is one of the financial institution recognized in particular as the bedrock of the nation, particularly in respect of the tremendous activities with effective and efficient roles and functions primitively played in promoting economic development and growth of Nigeria as a whole Akinpelu (2002) .The sector Provides lengthy coverage to the insuring public vis a vis oil and gas sector, Transportation sector, mining, agricultural, commerce and industry, corporate organizations, individuals, religious groups and government at large Raji (2021).Insurance is a contractual agreement between two parties which fondly called insuring public (buyer) and the insurance company (seller) whereby the insurer agrees to indemnify the policyholder in the event of accident that resulted to damage or loss of life, limb and properties in exchange for premium paid by the insured, subject to the contract terms and conditions .The Nigeria Insurance Industry is one of the key sectors of the Nigerian economy and play a crucial role in the nation as a whole (Agbamuche, 2012). The industry mustered funds that are channelled into viable investments and also acts as an accelerator to economic growth in Nigeria, helping to sensitised the process of qualitative structural transformation. Basically, it provides services in the form of security against general uncertainties which are likely to occur in everyday life and create empowerment by granting loan to an exiting policyholder on a viable project. Every human being is faced with the possibility that one or more of the hazards which form part of life will sooner or later befall him and cause him some financial loss or liabilities Raji(2018). The damage may be very small or very large according to that person's position in the community. If a king house is damaged by fire or accident, he can rebuild the damaged house by gathering the necessary building materials from the seller outside his door or in neighbouring community Chikeleze (2003). If however, a big modern mining company is damaged by flood e.g. cement industry, the cost of repairs by virtue of indemnity principles may be immense and would involve the purchase of equipments from home and abroad, the life support of staff during repairs, loss of profits as a result of delays in production, compensation to injured employees, and other burdensome responsibilities which the owner of the company would be ill-prepared to meet at a time when his asset are in damage as a result of the flood, thereby resulting in liabilities which translate to a financial loss. The main function of insurance is that of spreading risks, Insurance facilitates investment by reducing the amount of capital that businesses and individuals need to keep at hand to protect themselves from uncertain events. These services are usually provided by the insurer to the insured in return for a given small consideration known as a premium which basically serves as the main source of insurance funds and also used in the settlement of claims (Agbamuche, 2012). The premium paid by the insuring public serve as an additional revenue to the sector and are not kept stationary rather they are invested in capital market and other investment outlet

as specified in section 25 of Insurance Act of 2003. The world today looks very different after insurance recapitalization. The investors invest, conduct business transactions, reason about risk on the investment, changed their mind set on insurance as the pillar to avert loss. Over the past decades, there has been upwards trending in stock market, with occasional market corrections. But there is a little or no demand for insurance policy as a result of 2008's recession, which has had lingering effects. As a result of technological development and social communication, investors started looking at the insurance industry as a source of opportunity and a way to diversify to minimize exposure (Marsh, 2017). The substantial parts of surplus funds declared by the insurance company were channel to the capital market. The capital market facilitate smooth relationship between the supplier and the user of medium to long term capital for investment in socio-economic developmental projects, since it serve as a network of specialized financial institutions, (Al-Faki, 2006). However capital market is most importantly recognised as a platform for the mobilisation of funds from the savings (surplus) sector of the economy to the spending (deficit) sector. Capital Markets may look at the insurance industry to: view a risk that is not correlated to other markets like mortality/longevity; simply invest in an area where returns are thought to be attractive or access assets to manage (SOA, 2016). Therefore, the part of the financial system concerned with raising capital by dealing in bonds, shares and other long term investments is acknowledged as capital market, it will not amount to an overstatement to assert that Nigeria insurance industry through its investment facilitate the smooth exercise of the capital market. Insurance companies have a crucial role in disposition of values which surpasses the needs and expectation of the people and at the same time are affordable. The views of Nigerians mind set on insurance is quite far differ with the value received in the developed country. As a result of this challenge, the industry invests less than 1% of funds in stock and bonds, government securities, as well as real estate properties and mortgages. Irrespective of the sector's investment in the Nigerian Capital market, the impact has not truly reflected to the growth of the Nigeria economy. Empirical interest from the academia on the effect of insurance investments in the Nigerian economy has been minimal. This is particularly with regards to the investments of the insurance industry in the Capital market. It is in order to assess the insurance industry in this context that this study was undertaken.

Literature Review

Concept of Insurance and Capital Market

Insurance is a safeguard against risk. It is a device aimed at reducing the chance of a risk occurring or when it happen reduces the extent of its damage and providing the affected person with compensation is a form of insurance (Ogwo, Eche, Ibeabuchi, Nwite and Enwereuzor: 2000). Irukwu (1989) further defined insurance as a device for the transfer of some risks of economic loss from the insured who otherwise would have borne the risks to an insurer in return for a premium. Irukwu (1989) defined insurance as a social device whereby the participants provide financial compensation to those among them who encounter the many misfortunes or contingencies that could happen in a world full of assorted risks and hazards. Lijadu (1999) describes insurance as the principle of charity put into an official form for business purposes in other to meet financial requirements. It is the conversion of unknown risks into fixed costs by way of consolidation of an economic device where by various the risks associated with living or other economic enterprises are transferred from an individual to a group. Insurance is a social device that provides financial compensation for the effect of misfortune; the payment is being made from the accumulated contribution of all parties participating in the scheme. Insurance as a modern principle of solving risk related problem depends on the law of co-operation of large number of people for its success. Its operation involves payment of assessed contribution, known as premium, by the person wishing to insure known as the insured or the policyholder. The payment is made to an organization legally constituted and registered in accordance with the law to function as an insurance company or insurer (Ogwo et al: 2000). The role insurance play encompass: Promotion of industrial safety and general loss prevention measure (Nwite, 2004), encouraging savings (Ogwo et al: 2000), promoting the growth of capital market and foreign direct business, promoting growth and development of the economy (Nwite, 2004), protection against economic insecurity, reduction of the level of unemployment in the country etc.Capital market is one of the significant aspects of every financial market. It is a market for financial assets that have a long or indefinite maturity. Rose (2009) accord with the above definition by saying that capital market is a market that is designed to finance long term investment. Capital market is seen as a "market for the mobilization of funds from the savings surplus sector of the economy to the savings deficit sector. According to Al-Faki (2006), the capital market is a "network of specialized financial institutions, series of mechanism, processes and infrastructure that, in various ways, facilitate the binging together of suppliers and users of medium to long term capital for investments in socio economic developmental projects". Adewole (2010) further described the capital market as covering all services rendered institutions and facilities which exist for mobilizing long term funds and for channellings such funds to ultimate users. He divided the market into two segments namely the long term securities market and market for negotiated long term finance, otherwise called the primary and secondary market.

i. Long term securities market: This constitutes the centre point of the capital market and is involved in productive assets. It includes the new issues market and the stock exchange which exist for the resale of existing securities.

ii. Market for negotiated long term finance: These are dealings in long term funds not covered by negotiable instruments dealings but involve direct negotiation between suppliers and users of long term funds.

The role of the capital market include; Mobilization of Savings, Capital Formation, Provision of Investment Avenue, Speed up Economic Growth and Development and Continuous Availability of Funds Kalyan City Life (2010).

Related Theories

Capital Asset Pricing Model (CAPM)

Pronounced as though it were spelled "cap-m", this model was originally developed in 1952 by Harry Markowitz and fine-tuned over a decade later by others, including William Sharpe. The capital asset pricing model (CAPM) describes the relationship between risk and expected return, and it serves as a model for the pricing of risky securities. CAPM says that the expected return of a security or a portfolio equals the rate on a risk-free security plus a risk premium. If this expected return does not meet or beat our required return, the investment should not be undertaken. The commonly used formula to describe the CAPM relationship is as follows: required or expected return = RF Rate + (Market Return –RF Rate) Beta. It is important to remember that high-beta shares usually give the highest returns. Over a long period of time, however, high beta shares are the worst performers during market declines (bear markets). While you might receive high returns from high beta shares, there is no guarantee that the CAPM return is realized.

However, the study adopted the theory of Financial Liberalization Theory which has its origins in the work of McKinnon (1973) and Shaw (1973). Patrick (1966) published the seminal work on the relationship between financial development and economic growth where he hypothesized two possible relationships which are; “demand-following” approach, whereby financial development arises as the economy develops, and “supply-leading”phenomenon, in whereby the widespread expansion of financial institutions leads to economic growth (Arestis, Nissanke and Stein, 2005). Studies have pointed out that financial liberalization can exert a positive effect on growth rate as interest rate levels rise towards their competitive market equilibrium, while resources are efficiently allocated. Arestis(2005) states that the relationship between financial development and economic growth has received a great deal of attention throughout the modern history of economics.

Empirical Review

Okparaka (2018) examined the impact of insurance investments on Nigerian capital market. Its specific objectives were to examine the impact of Insurance Investment in Government Securities in Nigeria Capital Market and analyse the impact of Insurance Investment in Stock and Bond in Nigeria Capital Market. Research design was Ex-post facto. Ordinary least square regression was used as analytical technique. It was found that Insurance investment in Government Securities has positive and significant impact on Total Market Capitalisation; and Insurance investment in Stocks and Bonds has positive and significant impact on Total Market Capitalisation. From the findings of the study it is concluded that collectively the insurance industry investments in the Capital market have the capacity to make very significant impact on Market capitalization.Sambo (2016) assess the effect of insurance investment on GDP in Nigeria. Its specific objective was the consequence of insurance investment by asset type to the total contribution to Nigerians GDP using monthly data from 1996 to 2012 has not been empirically established. *Ex-post facto* research design method was applied to the study. The study employed monthly time series data for the portfolio of investment within this period and the GDPt as its variables. Multiple regression model was utilized to estimate the relationship for the combine variables while linear regression for the total investment against GDP using Gretl- 1.9. 12 for the analysis. Consequently, the study concludes that the statistically positive R2 of 74% indicates a joint relationship between insurance investments and GDP in Nigeria. It was recommended that the increase in insurance investment that form its industry portfolio would maximize the investments and result to increase in economic development. Igbodika, Ibenta and John (2016) examined the contributions of insurance investment to economic growth of the Nigerian economy for the period 1980 to 2014. Economic growth is proxied by gross domestic product while insurance sector development is proxied by insurance investment. The study used time series data generated from Central Bank of Nigeria (CBN), Statistical bulletin and Nigerian Insurance Digest for various years. Thus *Ex-post facto* research method was used. Augmented Dickey- Fuller and Philip-Peron methods were employed to establish stationary of the data. Johansen co-integration tests were done to establish long run effect among the

variables. It revealed the existence of at least one co-integrating effect at1% and 5% levels of significance. The study adopted generalized method of moments (GMM) technique for analyses. The result of the study reveals that ;insurance sector investment has positive and significant effect on Gross Domestic Product. The study recommends mandatory insurance protection for all investors, not only to encourage them but also as a boost for the economy. Moreover, insurers should diversify their investment portfolio to enable them to guarantee the stability of their return and ability to pay claims. Egbeonu (2016) investigated the pattern of flow between insurance investment portfolio and economic development in Nigeria. As an *Ex-post facto* study, data was extracted from CBN statistical bulletin and World Bank record 2013, various econometric tools were used to performed the analysis; multiple regression analysis, unit root test, Engle – Granger co-integration and Granger Causality. The individual coefficient result of OLS revealed positive and significant relationship between bills of exchange, investment in stocks and bonds, while inverse and insignificance relationship was found between investment in Government securities; Granger causality result revealed that the pattern of relationship between insurance investment portfolio and economic development was demand following (Economic development → Insurance investment portfolio). It is therefore recommended that insurance sector awareness be increase and encourage in the country.

Methodology

The study examined the impact of insurance investment on capital market in Nigeria for the period of 25 years (1996-2020). Secondary sources of data were employed and gathered from journals, textbooks, websites related to the study as well as CBN statistical bulletin. The data used for this study are annual time series. Ordinary least Square estimator (OLS) was adopted to determine the unit regression and explain the possible correlation. The researcher used the E-view statistical package to analyze the data.

Model Specification and Formulation

For the purpose of this study, the time series data were used for the period of 25 years (1996-2020). Thus, the model for the study is formulated as follows:

$Y= f (X_n)$

$Y = f (X_1, X_2, X_3……X_n)$

MCAP = f (TINV, TASSET) ……..equ (1)

$MCAP = \beta_0 + \beta_1 TINV + \beta_2 TASSET + \mu$…….equ (2)

Where:

MCAP = Total Market Capitalization

TINV = Total Insurance Investment

TASSET = Total Insurance Asset

β_0 = Constant term

β_1-β_2 = Coefficients of Explanatory variables

μ = Error Term

Apriori Expectation: the researcher depends on micro economic theories for the validation of statistical result. it is expected that total insurance investment and total insurance asset should be Positive i.e$\beta_1 > 0$; $\beta_2 > 0$

Data Analysis and Interpretation

Presentation of Results

Table 1: Result of Unit Root Test

Series	ADF	Critical value	Order of Integration
MCAP	-5.323820*	-3.831511*	I(2)
TINV	-3.693987*	-2.998064*	I(1)
TASSET	-6.644459*	-3.004861*	I(2)

Note: (*) indicates rejection of the null hypothesis of non-stationary at 5 percent significance level based on the MacKinnon critical values.

Source: Authors' Computation from E-View, 2022

Unit Root Test

Augmented Dickey-Fuller test relies on rejecting a null hypothesis of unit root test (the variables are non-stationary) in favor of the alternative hypotheses of stationary.The conduct of unit root test is essential to avoid spurious

regression results (Gujarati, 2004). The order of integration can also be ascertained with this test using the Augmented Dickey-Fuller (ADF) statistics. The result of unit root test is presented in Table 1 above shows that market capitalization and total insurance asset are stationary at first difference while total insurance investment is stationary at second difference. Therefore, it was concluded that all the variables were stationary and integrated of order one and two.

Table 2: Breusch-Godfrey Serial Correlation LM Test:

Breusch-Godfrey Serial Correlation LM Test:

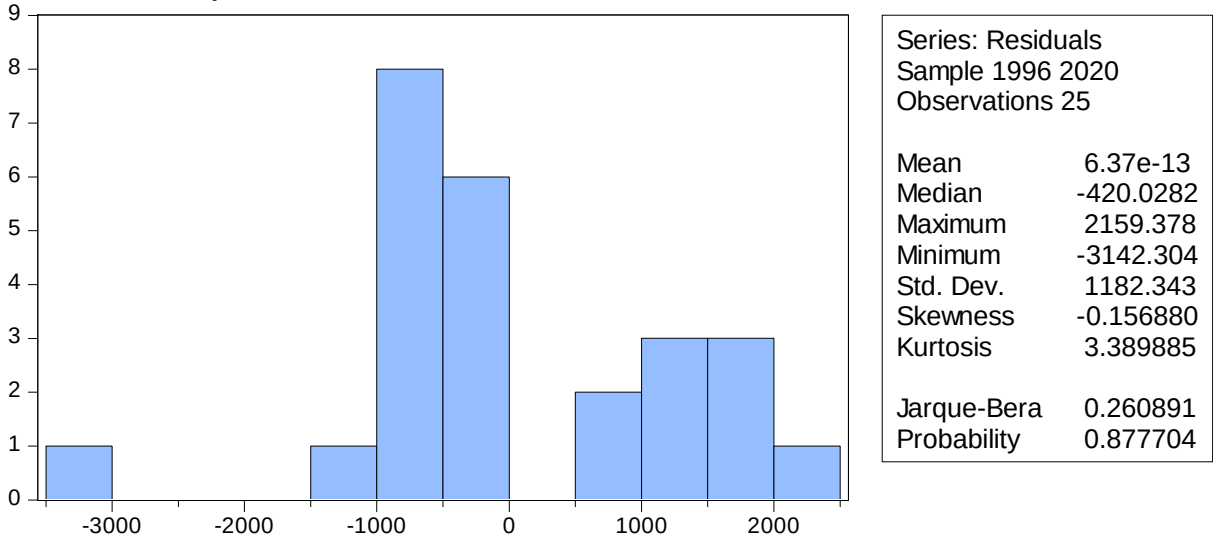
F-statistic	27.32636	Prob. F(2,20)	0.0000
Obs*R-squared	18.30232	Prob. Chi-Square(2)	0.0001

Source: E-View Output, 2022

Diagnostic Test

Table 2 above shows the Lagrange multiplier (LM) which reveals that there is serial correlation at the chosen lag because the p value is less than 5% level of significance.

Table 3: Normality Test



Source: E-View Output, 2022

Table 3 above reveals the normality test of the data, probability value of Jacque bera shows that the data are normally distributed and are good for decisions.

Table 4: Regression Analysis Result

Dependent Variable: MCAP
Method: Least Squares
Date: 06/04/22 Time: 23:14
Sample: 1996 2020

Included observations: 25

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	680.1526	411.1401	1.654309	0.1123
TINV	-0.005748	0.002005	-2.867228	0.0090
TASSET	0.008716	0.000477	18.26260	0.0000

R-squared	0.938439	Mean dependent var	4767.361
Adjusted R-squared	0.932842	S.D. dependent var	4765.291
S.E. of regression	1234.917	Akaike info criterion	17.18756
Sum squared resid	33550434	Schwarz criterion	17.33383
Log likelihood	-211.8445	Hannan-Quinn criter.	17.22813
F-statistic	167.6835	Durbin-Watson stat	0.480351
Prob(F-statistic)	0.000000		

Source: E-View Output, 2022

Assumption 1 Goodness of Fit: The table 4 above shows R^2 value of 0.9384. This indicates that about 93.8% variation in market capitalization is explained by total insurance investment and total insurance asset. The R^2 value also shows the strength of the model, the closer to one the better the result, (Tabachnick and Fidell, 2007). The adjusted R^2 shows that after adjusting for the degree of freedom, the model could explain about 93% of the systematic variation in market capitalization in Nigeria. In addition, the Durbin-Watson statistics (0.480351) which lies before 1.5 and 2.5 which shows that there is evidence of positive serial auto-correlation among error terms of variables considered for the study. The overall performance of the model is quite good because the p-value is 0.000 which indicates that the model is significant. This signifies that the model is adequate and fit.

T- Test: Most of the independent variables should be individually significant. This could be checked using t-test. If the p-value of t-statistics is less than 5 percent (0.05) we can reject the null and accept alternative hypothesis. If otherwise, we do the inverse. All the independent variables employed in the study shows significant impact on market capitalization. Total insurance investment with has a significant impact on market captalisation and also total insurance asset has a significant impact on market capitalization.

Coefficient of the variables: The value of the constant which means that holding every other variable constant. Market capitalization will increase. However, total insurance investment has a negative relationship with market capitalization which indicate that for every unit increase in the total insurance investment, there will be decrease in market capitalization. Total insurance asset has a positive relationship with market capitalization which means that for every unit increase in total insurance asset, there will be increase in market capitalization.

Table 5: Unrestricted Cointegration Rank Test (Trace)

Date: 06/04/22 Time: 23:22
Sample (adjusted): 1998 2020
Included observations: 23 after adjustments
Trend assumption: Linear deterministic trend
Series: MCAP TINV TASSET

Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.743232	39.89775	29.79707	0.0025
At most 1	0.300888	8.627314	15.49471	0.4010
At most 2	0.017010	0.394587	3.841466	0.5299

Trace test indicates 1 cointegratingeqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.743232	31.27044	21.13162	0.0014
At most 1	0.300888	8.232727	14.26460	0.3555
At most 2	0.017010	0.394587	3.841466	0.5299

Max-eigenvalue test indicates 1 cointegratingeqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Source: E-View Output, (2022)

Co integration Result

The Johansen co-integration test uses two statistics tests namely; the trace test and the likelihood eigenvalue test. The first row in each of the table test the hypotheses of no co-integrating relation, the second row test the hypothesis of one co-integrating relation and so on, against the alternative of full rank of co-integration. The results of the co-integration test show that we reject the null hypothesis because the trace and Max-Eigen statistic is higher than 0.05 critical value, however, given the result generated, the null hypothesis of no cointegration is rejected at the 5% level. Hence, it is concluded that a long run relationship exists among the three variables.

Table 6: Granger Causality Result

Pairwise Granger Causality Tests
Date: 06/04/22 Time: 23:23
Sample: 1996 2020
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
TINV does not Granger Cause MCAP	23	0.61543	0.5514
MCAP does not Granger Cause TINV		0.18698	0.8311
TASSET does not Granger Cause MCAP	23	0.54068	0.5915
MCAP does not Granger Cause TASSET		3.94778	0.0379
TASSET does not Granger Cause TINV	23	0.37581	0.6920
TINV does not Granger Cause TASSET		10.3998	0.0010

Source: E-View Output, (2022)

Granger casualty test shows that all the variables does not granger cause each other with the p value which is greater than 5%. This indicate that we accept null hypothesis which means that TINV does not granger cause MCAP, MCAP does not granger cause TINV, TASSET does not granger cause MCAP, MCAP granger cause TASSET, TAASET does not granger cause TINV while TINV Granger cause TASSET.

Conclusion

From the result, total Insurance investment will pull an increasing impact on total market capitalisation. This is given that a unit change in total insurance investment pushes upwards the deepening of the capital market as well as the likely returns the insurance industry stands to receive from investment of its fund which equally means that it will further extends the depth of total market capitalisation. This finding is in line with Catalan, Impavido and Musalem (2000), Waldamannati (2008), Eze and Okoye (2013) and Okparaka (2018). Also, the result oftotal insurance asset will also pull an increasing impact on total market capitalisation. This is given that a unit change in total insurance asset pushes upwards the deepening of the capital market as well as the likely returns the insurance industry stands to receive from investment of its fund which denote that its expands the total value of asset in the Nigerian Capital market which further extends the depth of total market capitalisation. Also, this finding is in line with Catalan, Impavido and Musalem (2000), Waldamannati (2008), Eze and Okoye (2013) and Okparaka (2018).

As investors, insurance companies are very important participants in the financial market, especially in the capital market. They have a very important role as they contribute to the strengthening of competition in the financial market, corporate governance, stimulate financial innovation, strengthen, contribute to increase market integrity, pressure for modernizing market infrastructure and also encourage the development of regulation. From the findings of the study it is concluded that the insurance company investments have the capacity to make very significant impact on Market capitalization in the capital market.

Recommendations

Based on the findings of the study the following recommendations are made:
National Insurance Commission and the Government should make policy that will enhance effective growth and development of insurance business in Nigeria and ensures that both cooperate organizations and individual embraces the compulsory insurance business in Nigeria.

The Nigeria government should also provide enabling environment that will facilitate the growth of insurance business in Nigeria.

The Nigeria insurance industry should also ensure prompt settlement of genuine claims to induced the insuring public patronage towards insurance products in Nigeria.

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Appendix

Null Hypothesis: D(MCAP,2) has a unit root
Exogenous: Constant
Lag Length: 3 (Automatic - based on SIC, maxlag=5)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.323820	0.0004
Test critical values:	1% level	-3.831511	
	5% level	-3.029970	
	10% level	-2.655194	

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20 observations
and may not be accurate for a sample size of 19

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(MCAP,3)
Method: Least Squares
Date: 06/04/22 Time: 23:06
Sample (adjusted): 2002 2020
Included observations: 19 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(MCAP(-1),2)	-4.980106	0.935438	-5.323820	0.0001
D(MCAP(-1),3)	3.431197	0.795829	4.311476	0.0007
D(MCAP(-2),3)	2.099562	0.647925	3.240441	0.0059
D(MCAP(-3),3)	1.532268	0.389205	3.936916	0.0015
C	280.1453	107.7668	2.599552	0.0210

R-squared	0.886984	Mean dependent var	16.40947
Adjusted R-squared	0.854693	S.D. dependent var	981.0186
S.E. of regression	373.9554	Akaike info criterion	14.90708
Sum squared resid	1957797.	Schwarz criterion	15.15562
Log likelihood	-136.6173	Hannan-Quinn criter.	14.94915
F-statistic	27.46901	Durbin-Watson stat	2.131961
Prob(F-statistic)	0.000002		

at second Difference

Null Hypothesis: D(TINV) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=5)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.693987	0.0114
Test critical values:	1% level	-3.752946	
	5% level	-2.998064	
	10% level	-2.638752	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(TINV,2)
Method: Least Squares
Date: 06/04/22 Time: 23:12
Sample (adjusted): 1998 2020
Included observations: 23 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(TINV(-1))	-0.788204	0.213375	-3.693987	0.0013
C	2383.950	15654.37	0.152286	0.8804

R-squared	0.393861	Mean dependent var	538.2422
Adjusted R-squared	0.364998	S.D. dependent var	94165.24
S.E. of regression	75037.49	Akaike info criterion	25.37230
Sum squared resid	1.18E+11	Schwarz criterion	25.47104
Log likelihood	-289.7815	Hannan-Quinn criter.	25.39714
F-statistic	13.64554	Durbin-Watson stat	1.988712
Prob(F-statistic)	0.001347		

At first difference

Null Hypothesis: D(TASSET,2) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=5)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.644459	0.0000
Test critical values:	1% level	-3.769597	
	5% level	-3.004861	
	10% level	-2.642242	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(TASSET,3)
Method: Least Squares
Date: 06/04/22 Time: 23:13
Sample (adjusted): 1999 2020
Included observations: 22 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(TASSET(-1),2)	-1.377160	0.207264	-6.644459	0.0000
C	24004.66	22299.16	1.076483	0.2945

R-squared	0.688225	Mean dependent var	2345.413
Adjusted R-squared	0.672636	S.D. dependent var	180839.8
S.E. of regression	103468.8	Akaike info criterion	26.01844
Sum squared resid	2.14E+11	Schwarz criterion	26.11762
Log likelihood	-284.2028	Hannan-Quinn criter.	26.04180
F-statistic	44.14883	Durbin-Watson stat	2.080683
Prob(F-statistic)	0.000002		

At second Difference