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THE IMPACT OF SELECTED MACROECONOMIC VARIABLES ON THE VOLUME OF CIRCULATION: EVIDENCE FROM EMERGING STOCK EXCHANGE MARKET

MOHAMMAD SULIEMAN MOHAMMAD JARADAT

Associate Professor, Department of Banking and Financial Sciences, Ajloun National University, Jordan.
Email: mhmmd71@yahoo.com

TAYSEER ALI AL-MOMANI

Assistant Professor, Department of Accounting, Ajloun National University, Jordan.
Email: momani555@yahoo.com

Abstract

The relationship of macroeconomic factors to the volume of circulation is important and needs to be well understood on the basis that macroeconomic factors primarily affect the exchange of securities. Monetary forces influence discount rates, and macroeconomic factors in financial exchanges become risk factors due to this component. Direct macroeconomic factors, for example, loan costs, trade rates and inflation, are said to influence inventory costs. Changes in macroeconomic factors can clearly affect the exchange of securities and the volume of circulation. Inflation rate, interest rate (IR), and GDP are the three macroeconomic factors. The objective of this examination is to verify the impact of macroeconomic factors on the volume of circulation at Amman stock exchange market in Jordan at the time of of 2008 until 2018. This examination show that the volume of circulation at Amman Stock Exchange is not connected to the macroeconomic variables, the result of t-test and p-value of the macroeconomic variables as independent have no impact on the volume of circulation and all variables are insignificant, this results indicate that the volume of circulation doesn't influence by the changes of macroeconomics variables.

Keywords: Macroeconomic variables, Inflation rate, interest rate, real GDP.

1. INTRODUCTION:

Securities exchanges assume a significant part in public economies. It is extremely helpful in coordinating and differentiating homegrown reserve funds and unfamiliar capital into useful speculations, advancing capital arrangement, and keeping up monetary development and improvement. Numerous specialists have featured the significance of monetary intermediation for coordinating reserve funds into speculation. In accordance with this, the scientists additionally focused on the errand of monetary progression to invigorate homegrown reserve funds and venture, through the proficient portion of assets, subsequently advancing financial development and advancement (Raji, etal 2017).

Be that as it may, the primary investigations of the connection between monetary resource costs and different macroeconomic factors were set up in the mid-1980s, and monetary resource costs were said to routinely react to changes in macroeconomic factors like the list. Yield, loan costs, swelling, GDP, unemployment rate, unfamiliar trade, profit yield, and so forth The outcomes uncovered that macroeconomic changes can foresee an alternate securities exchange,

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however there is conflict over pointers and pattern of causation, particularly for created markets. Williams 2019) The importance of the study is to know the effect of macroeconomic variables: GDP, inflation rate, interest rate, on volume of circulation at Amman stock exchange. This can be helpful for analysts, financial specialists and chiefs for their investments and for better speculation choices.

The objective of this research is to see how macroeconomic variables affect the volume of circulation at Amman stock exchange in Jordan. The specific objective is to determine if the macroeconomic variables have a relationship between these variables that has been discovered. Investigate the relationship between the inflation rate and the volume of circulation. Investigate the relationship between the GDP and the volume of circulation Investigate the relationship between the interest rate and the volume of circulation. The specific objectives are to see if there is relationship between the selected macroeconomic variables and the volume of circulation.

2. REVIEW OF LITERATURE:

There are numerous examinations explored the macroeconomic factors on financial exchanges, Mohammed (2010), a recent report pointed toward deciding if the Ghanaian market is an appropriate sanctuary for long haul swelling security, The analyst found a solid association between stock costs and expansion in the Ghana market, which addresses a drawn out a promising circumstance for financial backers to support against expansion. This examination additionally showed non-industrial nations, where swelling rates have been consistently increasing for quite a long time, that an expansion in current expansion doesn't innately infer low likely returns.

Alagidede, (2009) looked to build up an association between stock returns and swelling rates around there. The examination reached the determination that there is a positive connection among expansion and stock returns in Kenya and Nigeria, and that the stock is a satisfactory sanctuary to support against swelling over the long haul.

Bashir (2004) directed an investigation to see whether there was a causal connection between the ASE stock value file and Jordan's swelling rate. The discoveries uncovered a negative connection between two factors, yet just in one heading, from the securities exchange file to the expansion rate. As per AL-zoubi and Salameh (2007), there are just two factors that influence stock returns: expected and surprising expansion. The investigation likewise tracked down that unforeseen expansion and stock returns have a drawn out relationship, yet that there is no transient connection between the two factors.

Mohammad (2011) announced the impact macroeconomic factors on stock returns in Bangladesh utilizing a Multivariate Regression Model and the Granger causality test. Stock returns have a negative relationship with expansion and worldwide settlements, as indicated by the report, while share Price/Earnings and market capitalization development emphatically affect stock returns. In any case, there is no evidence of unidirectional Granger Causality between stock returns and any of the free factors, demonstrating that the market is casually

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wasteful. Mahedi (2012) examines the drawn out relationship and transient elements between macroeconomic factors and stock returns in Germany and the United Kingdom. The discoveries show that stock returns caused expansion, cash supply causes stock returns, and mechanical yield causes stock returns in the short run. Since quite a while ago run causality exists among swelling and stock returns, just as between swapping scale and stock returns. Only one short-and since quite a while ago run relationship exists, and it is the one between stock returns and modern yield. From stock re-visitations of expansion, cash supply to stock returns, and modern yield to stock returns, there is a short and since a long time ago run causal relationship. As indicated by Sarbapriya(2012) that contemplated the connection between unfamiliar trade saves and financial exchange capitalization utilized a basic direct relapse model and the Granger causality test, the outcomes showed that the causality is unidirectional and runs from unfamiliar trade hold to securities exchange capitalization and that unfamiliar trade saves positively affect financial exchange capitalization in India. Coleman and Tettey (2008) took a gander at what macroeconomic pointers mean for the volume of circulation at Ghana Stock Exchange (GSE) and found that store cash bank loaning rates and swelling negatively affect financial exchange results.

Abdul Rahman et al., (2009) examined the complementary connections between chose macroeconomic factors and stock costs on the Malaysian stock trade, tracking down that money related arrangement factors have critical long haul impacts on the stock exchange.The impact of loan fee and conversion scale on the Stock Return was concentrated by Ahmad et al. in 2010. The stock return is the reliant variable, and the loan cost and swapping scale (Rs/USD) are the autonomous factors. The results were clear. Changes in loan costs negatively affect stock returns in Pakistan, while changes in return rates have a positive effect. Xiufang (2010) examined the connection between stock cost and macroeconomic factors (Real GDP, CPI, and momentary loan fee) in the securities exchange to gauge the instability of every factor and evaluate the causal connection between stock value unpredictability and macroeconomic factors. The examination's first decision is that there is no causal relationship between stock value instability and genuine GDP unpredictability.

Naik and Padhi (2012) explored the since a long time ago run harmony connection between the financial exchange file and macroeconomic factors utilizing Johansen's co-joining and vector blunder adjustment model in India. The macroeconomic factors and the securities exchange list were discovered to be co-coordinated, demonstrating that they have a since a long time ago run harmony relationship. Hsing et al. (2012) tracked down that the Argentine financial exchange record is decidedly connected with genuine GDP, the M2 cash supply to GDP proportion, the peso/USD swapping scale, and the US securities exchange list utilizing the remarkable GARCH model.

Ali et al., (2010) analyzed the causal connection between macroeconomic pointers and securities exchange costs utilizing information from June 1990 to December 2008. Swelling, swapping scale, equilibriums of exchange, and the list of mechanical yield are instances of macroeconomic markers, while stock trade rates are addressed by the overall value list of the Karachi Stock Exchange.

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Beirrene et al., (2009) took a gander at the effect of market, loan cost, and money conversion standard danger on monetary stock returns. They picked three areas from 16 distinct nations, including some European nations, to research this reality. They utilized the GARCH-M Model, which has four factors. In general, loan cost and conversion scale impacts are far and wide in the banking and monetary administrations areas, yet loan cost and swapping scale impacts are confined in the protection area.

Prempeh (2016) exactly inspected the effect of such macroeconomic factors on stock value instability in the Ghana Stock Exchange utilizing yearly time arrangement information from 1990 to 2014. The swelling rate, genuine GDP development, and loan fee were utilized as macroeconomic factors in Ghana to decide the connection between stock costs and macroeconomic factors. Coovadia (2014) utilized quarterly information from 1994 to 2012, a since a long time ago run connection between macroeconomic factors: short and long haul loan fees, expansion, the dollar swapping scale, modern creation cash supply development, GDP, gold and oil costs was created. The connection among expansion and GDP was positive, however the connection between cash supply and swelling was negative.

Rjoub et al. (2019) utilized quarterly information from the second from last quarter of 1995 to the final quarter of 2015 to research what miniature and large scale factors mean for stock returns in the Turkish financial area. Türsoy (2017) explore causality between stock cost and conversion standard in Turkey. The investigation tracked down a since a long time ago run bidirectional causality and a short-run unidirectional causality utilizing month to month information from 2001 to 2016, while the mistake rectification instrument proposed a since quite a while ago run relationship. Barakat et al. (2015) utilized VAR and Granger causality tests to explore the connection between macroeconomic factors and stock returns in Egypt and Tunisia for the period 1998-2014. The investigation tracked down a causal connection between macroeconomic factors and stock returns in Egypt.

As per Banawa et al., (2015), the connection among swelling and stock costs for the years 2006-2014 still can't seem to be determined utilizing a high level econometric method. It had the option to exhibit that there is a reasonable positive relationship among's swelling and stock costs. Albeit stock costs seem to irrelevantly affect swelling unpredictability in the short and since a long time ago run inside the foundation of the Philippine economy, it was found that a 1% ascent in expansion rate is probably going to expand stock costs especially over the long haul. As per Ong, (2014), less liquidity in the economy brought about less theoretical interest for products, easing back the expansion in everyday costs.

3. METHODOLOGY:

The research aims at analyzing the impact of macroeconomic variables on the volume of circulation in Amman stock exchange in Jordan for the period (2008–2018) by utilizing multiple regression analysis:

$$Y= \beta_0 +\beta_1 INF+ \beta_2 IR+\beta_3 GDP +\mu$$

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Variables:

The Dependent Variable

On the other hand Y is the volume of circulation is a dependent variable Volume of circulation is the money value of financial assets that have been traded during a certain period of time.

The Independent Variables

The study included four independent variables and one dependent variable. Changes in macroeconomic variables can have a big effect on the volume of circulation. Inflation rate (INF), Interest Rate (IR), and real GDP are the three macroeconomic variables.

Data collection and sampling:

The research methodology is descriptive and analytical secondary data which was collected from reports of Central Bank of Jordan, Amman stock exchange and World Bank and depend on previous studies and academic abstracts in period between from 2008 to 2018. The study focused on the impact of changing in the real GDP, the interest rates and inflation rate on the volume of circulation at Amman Sock exchange during the period 2008-2018.

This research relies on secondary data, such as data from previous studies and data obtained from various sources, such as the Ministry of Finance's handbook of information on the Jordanian Economy and the Central Bank of Jordan's annual reports. Independent and dependent macroeconomic variables are included in the analysis. Independent variables include the exchange rate, gross domestic product (GDP), and inflation rate, while the dependent variable is the volume of circulation.

4. RESULTS AND DISCUSSION

The volume of circulation at Jordanian Stock Exchange has extended fundamentally in accordance with the fast financial development. This might be because of the execution of the new online business framework (ETS), the support of an open and liberal economy, combined with solid macroeconomic strength by activating assets in the medium and long haul for a huge, delegate test of the populace. To fund public and private speculation improvement programs and the protection of social advancement. Also, upgrades in the general set of laws. As the extension of homegrown capital speeds up financial turn of events and diminishes over-dependence on unfamiliar benefactors, the Jordanian government offers various motivators to help the securities exchange by eliminating the vast majority of the limitations forced on unfamiliar interest in organizations. That are traded on an open market. These changes prompted positive outcomes in the advancement of the financial exchange.

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Table 1: Amman stock trade: Major indicators (2008-2018)

Year	Number of listed companies	MKT capitalization (JD million)	Volume of Circulation JD Million)	Mkt Capitalization (%GDP)
2008	262	#	20318	216.7
2009	272	#	9665.3	149.6
2010	277	#	6690	122.7
2011	247	#	2850.2	102.7
2012	243	19141.5	1978.8	93.5
2013	240	18233.5	3027.3	83
2014	236	18082.6	2263.4	75.8
2015	228	17984.7	3417.1	70.7
2016	224	17339.4	2329.5	65
2017	194	16962.6	2926.2	61.8
2018	195	16122.7	2319.3	56.7

Source: Annual reports and bulletins of Amman stock exchange

To comprehend the financial significance of market esteem in our investigation, we analyzed the volume of circulation. As demonstrated in Table (1), we note that the volume of circulation at Amman Stock Exchange has declined quickly as far as size and significance as far as market worth and market esteem. The volume of circulation declined from 9665.3 in 2009 up to 2319.3 in 2018 so this paper will try to investigate if there are any relation between the decline in the volume of circulation and the change in the macroeconomic variables.

Table 2: Results of ordinary least squares regressions for the whole sample

Dependent Variable: VOLOFCIRC				
Method: Least Squares				
Date: 02/01/22 Time: 02:04				
Sample: 2008 2018				
Included observations: 11				
Variable	Coefficient	Std. Error	t-Statistic	rob.
INFLRATE	7.05E+10	4.25E+10	1.659920	0.1409
INTERESRAT	-2.03E+11	4.91E+11	-0.413964	0.6913
REALGDP	-755129.3	390242.6	-1.935025	0.0942
C	3.62E+10	4.75E+10	0.762241	0.4708
R-squared	0.678314	Mean dependent var		5.25E+09
Adjusted R-squared	0.540448	S.D. dependent var		5.52E+09
S.E. of regression	3.74E+09	Akaike info criterion		47.19863
Sum squared resid	9.80E+19	Schwarz criterion		47.34332
Log likelihood	-255.5925	Hannan-Quinn criter.		47.10742
F-statistic	4.920114	Durbin-Watson stat		0.659437
Prob(F-statistic)	0.038037			

The consequences of this examination show that the volume of circulation at Amman Stock Exchange record is not connected to the macroeconomic variables, Table 2 shows that the result of t-test and p-value of the macroeconomic variables as independent variables namely inflation rate, interest rate and real GDP have no impact on the volume of circulation and all variables are insignificant, this results indicate that the volume of circulation doesn't influence by the changes of macroeconomics variables. Therefore, this result came out due to the nature of the people developing countries, their unwillingness and confidence to invest at the stock exchanges markets, as well as the real GDP is growing at slugging rate.

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CONCLUSION

In general, the outcomes showed that for all example contrasts, numerous macroeconomic variables showed a slacking impact on the of volume of circulation. Based on Multiple Linear Regression Result and t test result can be concluded as follows:

1. Inflation rate has insignificant impact on the volume of circulation at Amman Stock..
2. Interest Rates has insignificant impact on the volume of circulation at Amman Stock Exchange.
3. GDP has insignificant impact on the volume of circulation at Amman Stock. Exchange. In the majority of the subsamples, the impact of interest, inflation rate, and GDP show a slacking impact on the volume of circulation.

As well as including extra macroeconomic factors, further exploration should be possible on the effect of these components on volume of circulation. The selected macroeconomic variables have no impact on the volume of circulation. The Jordanian government should take a gander at the factors that effecting the volume of circulation since the volume of circulation will provide the economy of more financial resources and it will has a direct impact on the economic development and on the economic growth.

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