THE MACROECONOMIC DETERMINANTS AND ITS IMPACT ON STOCK RETURNS

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ABSTRACT

Investors in every economy may gauge stock returns by trading the many equities available to them. So, the primary purpose of trading is to generate an efficient positive flow of funds to the investors. The trade's primary focus is the character of ownership represented by the claim in the proportion of the partnership as established by the profits and assets. As a result, the investment should be geared toward producing a sound profit from the capital outlay. The rate of return is the amount of money made from an investment after factoring in the impact of market fluctuations An online questionnaire served as the primary data collector for this investigation.

This was utilized to acquire massive volumes of data from a wide range of individuals across many financial institutions. The study was able to acquire the necessary data in the lowest amount of time possible while also keeping costs to a minimum thanks to this approach.

It is hoped that the following suggestions may increase the volume of stock investing in Lebanon. Researchers, policymakers, financial advisers, and individual investors may all benefit from the findings of this research. However, a hybrid technique, including both quantitative and qualitative methods of data collecting, is strongly suggested for the study.

Managers' perspectives on the variables that might effect stock returns in Lebanon can be studied through a survey for the quantitative approach, and in-depth interviews with key stakeholders for the qualitative.

However, it is also advised to gather data over a ten-year period on the macroeconomic causes and then evaluate them using a panel regression. One alternative is to

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examine the differences between Lebanon and other nations via a comparative research

Keywords: Inflation, Interest Rate, Money Supply and Stock Returns

INTRODUCTION

Investors in every economy may gauge stock returns by trading the many equities available to them. So, the primary purpose of trading is to generate an efficient positive flow of funds to the investors according to Zhu et al (2016). The trade's primary focus is the character of ownership represented by the claim in the proportion of the partnership as established by the profits and assets. As a result, the investment should be geared toward producing a sound profit from the capital outlay. The rate of return is the amount of money made from an investment after factoring in the impact of market fluctuations according to Momani et al (2012). When making a decision, the Investor has to think about both the stocks and the current market price. Returns in this case are the increments in the value of the stocks that could lead to a higher dividend payment mostly by end of fiscal year. Conversely, risk is the uncertainty of future returns due to changes in the probabilities of various outcomes according to Moghadam (2010). The main consideration in this area is to be able to maximize the returns from the investment taking into consideration the evaluated risks involved. The process of evaluation stocks is also one of the primary reasons why most investors are willing to consider the investment as opposed to other processes for evaluation. The benefits of stock investing prompted investors to seek out opportunities in other markets both domestically and abroad. The primary motivation for taking such an action is to raise the amount invested and, consequently, to improve the efficiency of stock returns.

Significance of the Study

The primary objective of this study is to investigate the macroeconomic determinants in Lebanon and their potential bearing on the overall stock returns performance. This research is also helpful since it establishes a solid foundation for future research into the effects of various investment options. The training of future researchers and academics would benefit greatly from such a study. As a result, they will become much

aware of the macroeconomic determinants that will affect the stock returns. Moreover, the findings of this study will aid in the identification of best practices that can be implemented to increase the effectiveness of stock returns. Consequently, this has an effect on both attracting and keeping investors.

Theoretical Framework
The Portfolio Theory

The "anticipated utility model" forms the foundation on which this theory rests. The idea posits a significant risk–reward tradeoff in figuring out how people spend their money. Investing in a diverse portfolio allows for a higher return with less risk. To rephrase, a good portfolio generates a steady and sizable profit with minimal exposure to loss according to Masih et al (2010). Selecting assets with low correlation is the first stage in building a diversified portfolio. This is because losses in one asset may be partially offset by gains in another. This model is basic tool used for the assessment and comparison of assets returns utilizing risk free rate, predicted market return and beta variable. The Beta coefficient is a single factor model that reveals an investment's susceptibility to market-wide risk shifts according to Gomes et al (2014). The Beta coefficient is created on the assumption that the market is efficient, and investors calculate the risk and uncertainty in the stock using basic statistical tools i.e. mean and variance. As every sensible investor prefer portfolio that have lower risk and greater returns, the efficient portfolios outweigh the inefficient ones. Ross developed a "arbitrage model" in response to the CAPM that used the Arbitrage Pricing Theory to predict returns (APT) according to Dogan et al (2016). The CAPM model compares the risk and return of a single stock or portfolio to the risk and expected return of the market; the APT model, on the other hand, is multidimensional and accumulates many factors simultaneously.

Behavioral Finance Theory

The theory's conclusion regarding investor behavior, however, doesn't take into account how each investor makes their own choices. The basic criteria of wealth in macroeconomics suggests that investors need to trade off between consumption and saving with respect to time, and the behavioral theory suggests that investors will do so to maximize their investment returns according to Diaz et al (2019). Behavioral

finance proposes how psychological biases influence an investor's behavior. It also hypothetically explains how and why markets are inefficient or do not follow ideal conditions. The goal of categorizing behavioral finance is to shed light on the market-moving consequences of individual investors' and savers' preferences and behavior. The theory works on the premise that market participants are not completely in control of their actions, but are instead influenced by their mental and emotional state at the time of making a choice according to Dhaoui et al (2014).

The Heuristic Theory

Similarity between two separate occurrences that indicates their representativeness. The degree of similarity between a child event and its parent event is the simplest definition. Since individuals have a tendency to give greater weight to current occurrences and entirely ignore the long-term average, representativeness becomes a point of personal bias. A trader may, for instance, see the current success of bitcoin as a good reason to put all of his money into that currency, while ignoring other trades that have been consistently profitable for years according to Al-Qudah (2019). Anchoring Effect, whereby individuals may readjust their entire forecasts based on a single value. This singular value is then used as a starting point for making long-term projections. There are a variety of potential confounding factors that might be overlooked if an arbitrary starting point is employed in the computation of findings.

One common cognitive bias seen in investors is the tendency to "ground" their predictions on a single metric. The pricing of assets is a common instance of anchoring, since investors often place too much weight on the asset's original purchase price and too little on the impact of time and inflation on its returns.

When making financial decisions, individuals prefer to "get anchored" on the most recent occurrences rather than the long-term performance of their assets. One of the sources of error in investor judgment is an individual's tendency to place an excessive amount of faith in his or her own expertise and knowledge. Investors and analysts tend to be overconfident in their own abilities in areas where they have prior experience or expertise. However, a perfect market cannot be predicted using such factors, as all investors have equal and unfettered access to the same information according to Al-Assaf (2019).

The Theory of Risk Tolerance

The term "risk tolerance" refers to the amount of uncertainty and swings in returns that a potential investor is willing to accept. When making long-term financial plans, one must take one's risk tolerance into account. An investor has to genuinely assess his or her inclination to withstand these enormous fluctuations in prices, because some individuals panic in circumstance and sell their stocks when they cannot bear the ongoing pressure.

The idea puts investors into two primary types which are risk progressive investors and hostile ones according to Ajmi et al (2014). The first ones are combative, and they like to take on risks for the purpose of better reflexes while on the other hand, risk antagonistic investors would not gamble their gains at the cost of losses but they would prefer purchasing stable assets with lower risk and returns. Yet Risk tolerance is not a logical habit since it is vital to be risk tolerant while investing but an investor should know the amount of risk he or she should accept according to Al-Qudah et al (2014). The individual risk one investor can tolerate relies on their financial capability. That is the reason why people tend to invest in portfolios and mutual funds as they tend to decrease the variance to an optimal level while maximizing the total output of the portfolio. Hence, the theory implies that long term investment strategy involves a dynamic blend of risk tolerance and assessing the optimum risk to bear

Empirical Literature
The relationship between exchange rates and stock returns

Currency rates are highly impacted by the operations of stock markets and the selling of valuable shares, according to a study conducted by Dhaoui et al (2014). To represent the assets and stocks traded on the stock exchange, Diaz et al (2019) unveiled their stock-oriented model. Since the value of a currency is directly proportional to its exchange rate, any change in the value of a currency will cause subsequent exchange rates to change as well. Therefore, the exchange rate will almost certainly have an impact on stock prices and trade rates. Research by Gomes et al (2014), two independent studies, failed to show the influence of US Dollar exchange rates on US financial markets and businesses between 2010 and 2014. Masih et al (2010) found that currency exchange rate fluctuations had minimal influence on financial flows in

six developed countries. During the 2017–2018 Asian financial crisis, new benchmarks were established that would later have an effect on exchange rates and stock market currencies. As a result of the depreciation of the dollar versus Asian currencies, stock prices have plummeted and commerce has come to a complete standstill. The drop in demand was also felt in China, Japan, and other countries with trade ties to Asia. Money transfers bolstered stock prices and trading as they climbed. Due to transactions involving other currencies, the value of the weaker currency declined in relation to those of equal value according to Al-Assaf (2019).

The relationship between Inflation Rate and Stock Returns

Since then, investor enthusiasm for monetary changes has skyrocketed. Moon stressed the need of updating and helping developing markets by linking established markets with new markets. Zhu et al (2016) has been arguing for this view as recently. Foreign investors should avoid certain stock markets due to high volatility and potential losses. According to Masih et al (2010), such markets may be found in nations like the United States, China, and Malaysia. No foreign currency has a significant market share in the nation because of the plethora of transactions and the reliance on local investment. To take advantage of a favorable exchange rate on the global market, the local currency must be strong. Just as doing business over international borders may be dangerous, so can trying to connect two separate markets. These markets likewise depend on financial outliers and strategy monitors to maintain a dominant position. According to Al-Qudah (2019), it is good to familiarize oneself with the views of prominent economists.

The value of a stock portfolio is greatly affected by inflation. The market also announces the items that are for sale and their respective pricing. The inflation rate increases when the cost of living increases. The effects of inflation on the financial markets are negative. The experts argue that the stock market becomes agitated when inflation rates climb. Stock price volatility is increased by inflation, making it harder for investors to plan for the long term. Moghadam (2010) claims that the fluctuating inflation rates are to blame for the company's declining profitability. Inflation has a checkered past full of unpleasant and unwelcome episodes. It took a long time and continues to take time to undo the harm that was done by fluctuating violation rates. Rising inflation rates pose a grave threat to the economies of several Asian countries.

Due to this, the market now places a higher value on inflation that is higher than projected. Zhu et al (2016) research on the subject yielded results that caught everyone off guard. His research led him to discover three things. Dhaoui et al. (2014) argue that unexpected inflation shocks have an impact on market outcomes. As a result, inflation shocks that neither markets nor investors had expected led to a decline in stock returns.

Last but not least, an imbalance in the stock market contributed to the unexpected increase in the inflation ratio. Unpredictable fluctuations in stock prices generate a disastrous imbalance in the market, which in turn drives up prices across the board. Momani (2012) claims that we may avoid disaster by using a macroeconomic policy that seeks to curb the widespread circulation of duplicated or fraudulent shares. The GARCH approach and discourse of exponential and threshold growth were intentionally used in a deceptive way to sway people in the wrong direction. The results of this study suggest that the ever-changing inflation rate system may not be the main influence on stock market values. He arrived at his conclusions after doing his own research and compiling statistical data. The speaker informed him that both nations included inflation as part of their inflationary strategy to guarantee the financial security of vital economic sectors. According to Zhu et al., (2016) the market has been used to operating in an environment where inflation is likely to grow.

The relationship between Money Supply and Stock Returns

Many books and stories provide biased evaluations of exchange rates and stock prices. The truth is shocking, but it's reality all the same. Several scholarly papers support this claim. The rate of return on an investment is a measure of how profitable a firm is expected to be relative to its market capitalization and the amount of money it brings in each year.

A common turnover side-line, interest value, or currency value might be monitored and acted upon to achieve this. According to a professional in the field of finance, the term "money supply" refers to the entire amount of currency in circulation in a nation at any one time. According to Gomes (2014), if the economy keeps growing, people will have more disposable income and buy a broader assortment of goods and services. As a consequence of this extensive analysis, several important surveys and studies have been carried out by economists and financial professionals. Economists

at home are always analyzing the current economic climate to extrapolate future trends in interest rate behavior on the stock market.

When interest rates are high, investors and businesspeople may make more money and more quickly respond to market opportunities. However, it has a huge negative impact on the economy and stands as a major barrier to progress. The country's financial advisors have drained the economy by instituting an unfavorable interest rate structure due to their incorrect monetary policies, and the public haven't even been informed.

A stable financial system is essential to every country. It is imperative that all available means be utilized to locate the nation's missing people. The government must ensure the safety of all citizens, regardless of their economic standing.

Economic policies that favor the affluent will place a greater burden on the poor while providing a windfall for the wealthy. Keeping interest rates artificially low might cause a recession in the U.S. economy. The significance of the stock market played a role in deciding on this particular interest rate. Dogan (2016) claims this is borne up by the statistics. The correlation between interest rates and stock market returns is a subject of substantial study. Despite their attractiveness to investors, high interest rates have been shown to have a negative effect on both long- and short-term ratios. Research shows that both investors and companies feel the effects of rising interest rates. This study shows that large corporations suffer the most when interest rates are high. Allen and Jagtianti used data from the last two decades of the last millennium to analyze these numbers. These analysts claimed that higher interest rates hampered the growth of the stock market.

Some theories suggest that interest rates are both more efficient and helpful when the stock market is active. Zhu et al (2016) found that national budget advisors' demand for loans had decreased due to the historically low interest rate environment.

Though interest rates are bad for the stock market, they prevent the economy from entering a debt trap. To further explore this tactic, Diaz (2019) used Granger causality testing. Interest rates were mentioned as a major negative effect on stock returns, citing a research by Zhu et al (2016). In light of this evidence, it is reasonable to infer that interest rates have no beneficial effect on commercial centers. Cattle farmers are among the many who will feel the effects of this. Diaz (2019) notes, however, that

few studies have examined the longer-term implications of interest rate changes on the stock market.

Data Collection Procedures

Primary data, collected firsthand by researchers, and secondary data, gathered by others, are the two basic categories of data. A large number of procedures exist in data collecting, all with the overarching aim of accumulating credible proof. The information is subsequently processed into detailed statistical evaluations. With its help, we may construct plausible and weighty explanations for pressing problems. Therefore, certain views, such as the results reached and the outcome, must be taken into account by such approaches in order to increase the validity and reliability of the data, since these various ways of collecting data may complement each other.

Primary and secondary sources of information were employed in the study to guarantee its validity and reliability.

Primary Data

Primary data is information gathered by a researcher from the actual topic of study, using means such as questionnaires, observations, interviews, and surveys.

Primary data was collected by administering questionnaires to an intended sample size of 210 bank employees in Lebanon in order for the researcher to assess the factors influencing stock returns resolutions in the country's banking sector.

There are several advantages to using primary data, which gives the researcher more freedom to focus on numerical concerns such stock investors' behavior and level of oversight. In this way, the researcher may choose the best means by which to gather data, and is free to make other important choices about the study, such as its scope, duration, and purpose.

Secondary Data

Secondary data were gathered from both internal and external sources for this study. These secondary resources include theses, journals, articles, research literature, books, and many more. Internet sources were also carefully utilised in addition to the aforementioned.

The major reason secondary data was so important was because of the time savings it provided when more information was needed than could be collected from primary sources.

When dealing with qualitative information, secondary sources of information have always played a crucial role. As a result, it gives an improved and more useful database that would have been impossible for any researcher to get via traditional means of data collecting.

Research Instrument

Described above are the specifics of the tool used to conduct the research. Tools used in qualitative and quantitative field research and observation are called research instruments. An online questionnaire served as the primary data collector for this investigation.

This was utilized to acquire massive volumes of data from a wide range of individuals across many financial institutions. The study was able to acquire the necessary data in the lowest amount of time possible while also keeping costs to a minimum thanks to this approach.

Therefore, it may be concluded that this method was straightforward and amenable to quantification by means of a scientific software program, which has traditionally been more objective than other types of study.

Second, it was clear that the questionnaire used always lessens data bias; in addition, there is similarly no middle-man bias and consistency in question representation.

Therefore, it is not always the case that the respondents' emotions will reflect in their responses to surveys.

Regression Analysis

The purpose of the regression analysis was to determine, with a 5 percent margin of error, whether there is a connection between the dependent and independent variables. For alternative hypotheses, the null hypothesis will be rejected if the error margin is smaller than 5%.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.979ª	0.959	0.957	0.28935

a. Predictors: (Constant), Exchange Rate, Inflation, Money Supply, Interest Rates

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
	(Constant)	-0.063	0.058		-1.096	0.276
	Interest Rates	0.339	0.133	0.143	2.548	0.043
1	Inflation	0.275	0.108	0.075	2.546	0.040
	Money Supply	0.248	0.112	0.049	2.214	0.012
	Exchange Rate	0.721	0.118	0.718	6.126	0.010

a. Dependent Variable: Financial Performance

Based on the above regression, the results indicated the following results :

- There is a significant correlation amid interest rates and stock returns **(0.043)**
- There is a significant correlation amid inflation and stock returns **(0.040)**
- There is a significant correlation amid money supply and stock returns **(0.012)**
- There is a significant correlation amid exchange rate and stock re turns **(0.010)**

For further elaboration, the following regression formula was implemented and the outcome of the analysis

Y = A+ BX1 + BX2 + BX3

Where Y= Dependent Variable, A=Constant, B=Coefficient, X=Independent Variable

Thus,

Stock Returns = 0.276 + 0.043 interest rates + 0.040 inflation + 0.012 money supply + 0.010 exchange rate.

This means the following:

- Stock returns are impacted by a factor of 0.043 for every unit rise in interest rates.
- Stock returns are 0.40% less than they would be without inflation.
- Stock returns are 0.012 percentage points more sensitive to a one-unit rise in the money supply, and 0.010 percentage points more sensitive to a one-unit increase in the exchange rate.

Furthermore, the **T-Test** is another test which aimed to prove that whether the hypotheses were validated or not, and that if the test indicated a ratio above 2.

As can be seen in the table above, all of the variables have a T-Test over 2, indicating that they are all correlated with the dependent variable, and this correlation may be preserved by dividing the Beta by the Standard error.

What this entails is as follows:

- Betta/Standard Error = 0.339/0.133 = 2.548 for Interest Rates
- Betta / SE = 0.275 / 0.108 = 2.546 Inflation Rates
- Betta/Standard Error for the Money Supply = 0.248/0.112 = 2.214
- Betta/Standard Deviation Exchange Rate = 0.721 / 0.118 = 6.126

This means that all the null hypotheses are rejected and the alternative ones are accepted.

Pearson Correlations

The Pearson Correlations is a test aimed to test whether the correlation amid the variables is positive or negative based on a Pearson Coefficient

		Stock Returns
Interest Rate	**Pearson Correlation**	**-0.957**
	Sig. (2-tailed)	.000
	N	100
Exchange Rate	**Pearson Correlation**	**-0.959**
	Sig. (2-tailed)	.000
	N	100
Inflation Rate	**Pearson Correlation**	**-0.962**
	Sig. (2-tailed)	.000
	N	100
Money Supply	**Pearson Correlation**	**0.983**
	Sig. (2-tailed)	.000
	N	100

The results Pearson Correlations indicated the following ;

- Increasing interest rates are associated with decreasing stock returns, and vice versa (Pearson Coefficient -0.957)
- There is a negative relationship between a country's exchange rate and its stock market, meaning that higher exchange rates lead to lower stock market returns and vice versa (-0.959)
- Stock returns tend to fall when inflation rises because of an inverse relationship between the two variables (-0.962)
- The bigger the money supply, the greater the stock returns will be (0.983)

Recommendations

It is hoped that the following suggestions may increase the volume of stock investing in Lebanon. Researchers, policymakers, financial advisers, and individual investors may all benefit from the findings of this research. However, a hybrid technique, including both quantitative and qualitative methods of data collecting, is strongly suggested for the study.

Managers' perspectives on the variables that might affect stock returns in Lebanon can be studied through a survey for the quantitative approach, and in-depth interviews with key stakeholders for the qualitative.

However, it is also advised to gather data over a ten-year period on the macroeconomic causes and then evaluate them using a panel regression. One alternative is to examine the differences between Lebanon and other nations via a comparative research.

After establishing a causal link between the study's variables, however, it's crucial to take steps to mitigate any negative impact the variables have on the economy as a whole. Interest rates are a major consideration for individuals who are planning to start a company or buy a property and the Central Bank of Lebanon should focus on modifying them. On the other hand, managing the economy requires a focus on inflation management because of the interplay between inflation and money supply and the resulting dominance of illicit markets in the exchange rate, as is happening now in Lebanon.

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