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THE EFFECT OF MACROECONOMIC FACTORS ON FINANCIAL PERFORMANCE OF THE REAL ESTATE IN SAUDI ARABIA

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ABSTRACT

Real estate is booming with an increasing population and living standards. People are putting a lot of money in it, and this is seen as a positive response to the growth of the economy. In addition, various macroeconomic variables are linked to real estate and its financial performance in the Kingdom of Saudi Arabia. Thus, this work investigated the effect of macroeconomic factors on the financial performance of the real estate industry in Saudi Arabia. The methodology used for this research is quantitative in nature due to the use of the Ordinary Least Square (OLS) method and the regression analysis, which will generate data to understand the link between the macro-economic factors and the financial performance of real estate. The results generated showed that the factors affecting REITS in Tadawul market are GDP, REER, unemployment and the interest rate. GDP has significant positive impact on REITS, inflation does not have any impact on REITS, REER has significant negative impact on REITS, unemployment has significant negative impact on REITS and interest rate has a significant negative impact on REITS.

INTRODUCTION

Real estate is an important sector responsible for improving the economy, and this is seen as an increase in the country's GDP. There is a dynamic, large-scale relationship between real estate and the economy [1]. It is evident that the various real estate companies, such as those in the residential, commercial and even the stock market, which work together to boost the economy, drive the market. It's also working the other way around. If real-estate enterprises fall sharply, the functioning of the economy will lead to a final downturn. The real estate crisis has a number of consequences for the performance of the economy [1]. Real estate looks like an easy way to invest and make a profit, but it's a form of investment that requires patience and an illiquidity of money. Even after completion of the project, the payback period for the investment is longer than usual. It is true that there is less risk compared to other forms of investment, but the rate of return depends on the project and its market success. It's even unpredictable sometimes because of other competing businesses. If real estate blocks a lot of money, the economy is going down sharply [2].

Real estate is known to many as a form of investment that generates good profits based on projects and helps the economy in a variety of ways [3]. It helps to acquire production factors in order to claim them as assets that would benefit property holders over the years from their value appreciation. It depends on how the demographics of a particular place perceive it as being, in addition to the interest rates applied to markets, the local economy and the policies, rules and regulations laid down by the government. Due to their sensitivity to economic activities, the type of property also affects the economy [4]. The concerns that arise with the investment in real estate are the illiquidity of the assets held until their recovery period, which can be destroyed by natural disasters, which can cause enormous losses and increase the amount of risk and reduce the return [5].

Real estate acts as a measure of wealth among people in different countries whose money can be invested in a variety of investments, which then enhances the diversification of the portfolio [6]. This is one of the strongest reasons for its financial performance, which contributes to the large-scale development of the economy due to GDP growth, employment opportunities, inflation, exchange rate, and public purchase of real estate shares. It is also the main driver of the financial sector, as most of the economy depends on its development in both developing and emerging economies, and is seen as a source of financial stability, bank development and an important role in monetary policy decisions [7]. However, due to fluctuations that may occur due to supply lags and historical dependence on investment decisions, one cannot simply rely on real estate. Likewise, real estate can be used as a diversification tool, but not as a whole portfolio form, because it is illiquid, low turnover rate, inefficient information flow, and its response to supply are slow compared to other markets [8].

Real estate is a class of assets characterised by fixed short-term supply and high capital intensities, and investors use real estate stocks to gain exposure to underlying direct real estate [9]. In addition, the performance of which is related to the macroeconomy, and both of them differ in their performance as direct real estate, is considered to be lower than those of the stock [10]. Furthermore, macroeconomic variables have a strong impact on real estate transactions due to their relationship with real estate, in addition to financial variables and business variables. The findings of one study have shown that the international real estate business is based on individual firm characteristics and the country's macroeconomic environment, which are considered to be one of the most important determinants of the return on real estate yields [11]. In addition, Sorić et al. [12] found that there is a strong positive relationship between macroeconomic variables and investment in real estate and that they do not have an individual effect but a combination of all variables has an impact on the development of investment in real estate

Saudi Arabia is one of the most developed countries in the world, especially in the Middle East and Africa [13]. This is because of their performance in the oil-based economy. Huge revenues are collected from the oil-based economy as it exports oil to most countries, and this is attributed to their economic development. The main industries that contributed to the country's growth were the energy, agriculture, banking, private sector, and investment sectors [14]. Furthermore, the increase in non-oil GDP activities has helped the Kingdom to earn revenue through a variety of means [15]. One of the non-oil GDP activities is the real estate industry, which has increased due to the housing needs of both local and foreign populations [16]. Not only residential real estate, but also technology development and continuous advancement have led to the rise of industrial and commercial real estate. All of these developments in real estate include buildings such as hospitals, malls, factories, corporate offices, industrial areas, and etc have brought more income to the Kingdom in terms of macroeconomic level.

Thus, this paper has investigated the effect of macroeconomic factors on the financial performance of the real estate industry in Saudi Arabia.

METHODOLOGY

This work has utilized quantitative research method. Ordinary Least Square (OLS) is a statistical method used to analyse variables in finance as well as statistics. It was used to determine the line of best fit and is used to develop relationship between independent and dependent variable. The sample of this research is the real estate sector in Tadawul market (Saudi primary market). The data collected will include revenue generated from real estate sector and GDP of the economy, which was used in the OLS method to identify the relationship between these variables. It will take real estate investment traded funds (REITs) and real effective exchange Rate (REER) into account.

RESULT AND DISCUSSION

The results and analysis showed that the independent variables GDP, inflation, REER, unemployment and interest rate and the dependent variable of REITS

Impact of Gdp On Reits

Figure 1 shows the regression results for GDP. Based on Figure 1, the regression results derived shows that the coefficient of GDP is 3.41 with t-value (t-statistic) of 2.44. Because t-value of 2.44 that is far away from zero, the coefficient is significant, which means that GDP has positive impact on REITS. Thus, The R variance of GDP explains 59.9% of variance in REITS.

Dependent Variable: REITS
Method: Least Squares
Date: 11/26/19 Time: 09:48
Sample: 2014 2019
Included observations: 6

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	82.96506	3.545091	23.40280	0.0000
GDP	3.412237	1.395875	2.444516	0.0709

R-squared	0.599024	Mean dependent var	89.45000
Adjusted R-squared	0.498780	S.D. dependent var	8.136277
S.E. of regression	5.760232	Akaike info criterion	6.601034
Sum squared resid	132.7211	Schwarz criterion	6.531620
Log likelihood	-17.80310	Hannan-Quinn criter.	6.323166
F-statistic	5.975658	Durbin-Watson stat	1.460935
Prob(F-statistic)	0.070863		

Figure 1. Regression Results For GDP

Impact of Inflation on Reits

Figure 2 shows the regression results for inflation. Based on Figure 2, the regression results derived shows that the coefficient of inflation is 2.089 with t value (t-statistic) of 0.662. Because t-value of 0.662, which is near to zero, the coefficient is insignificant, which means that inflation does not have any impact on REITS. In addition, the R variance of inflation explains 9.8% of variance in REITS.

Dependent Variable: REITS
Method: Least Squares
Date: 11/26/19 Time: 09:50
Sample: 2014 2019
Included observations: 6

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	86.63063	5.528453	15.66996	0.0001
INFLATION	2.089417	3.155914	0.662064	0.5441

R-squared	0.098760	Mean dependent var	89.45000
Adjusted R-squared	-0.126550	S.D. dependent var	8.136277
S.E. of regression	8.635768	Akaike info criterion	7.410904
Sum squared resid	298.3060	Schwarz criterion	7.341490
Log likelihood	-20.23271	Hannan-Quinn criter.	7.133036
F-statistic	0.438329	Durbin-Watson stat	0.488664
Prob(F-statistic)	0.544127		

Figure 2. Regression Results for Inflation

Impact of Reer On Reits

Figure 3 shows the regression results for REER. Based on Figure 3, regression result derived shows that the coefficient of REER is -1.126 with T value (t-statistic) of -2.017. Because t-value is -2.017 which is far away from zero the coefficient is significant, which means that REER has significant negative impact on REITS. Furthermore, the R variance of REER explains 50% of variance in REITS.

Dependent Variable: REITS
Method: Least Squares
Date: 11/26/19 Time: 09:52
Sample: 2014 2019
Included observations: 6

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	217.0197	63.30072	3.428392	0.0266
REER	-1.126084	0.558292	-2.017018	0.1139

R-squared	0.504236	Mean dependent var	89.45000
Adjusted R-squared	0.380295	S.D. dependent var	8.136277
S.E. of regression	6.404985	Akaike info criterion	6.813232
Sum squared resid	164.0953	Schwarz criterion	6.743818
Log likelihood	-18.43970	Hannan-Quinn criter.	6.535364
F-statistic	4.068360	Durbin-Watson stat	1.075907
Prob(F-statistic)	0.113884		

Figure 3. Regression Results For REER

Impact of Unemployment on Reits

Figure 4 shows the regression results for unemployment. Based on Figure 4, the regression results derived shows that the coefficient of Unemployment is -35.894 with T-value (t-statistic) of -3.8611. Because t-value is -3.8611 which is far away from zero the coefficient is significant, which means that Unemployment has significant negative impact on REITS. In addition, the R variance of REER explains 80% of variance in REITS.

Dependent Variable: REITS
Method: Least Squares
Date: 11/26/19 Time: 09:54
Sample: 2014 2019
Included observations: 6

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	298.5375	54.17905	5.510203	0.0053
UNEMPLOYMENT	-35.89486	9.296501	-3.861115	0.0181

R-squared	0.788452	Mean dependent var	89.45000
Adjusted R-squared	0.735565	S.D. dependent var	8.136277
S.E. of regression	4.183941	Akaike info criterion	5.961586
Sum squared resid	70.02144	Schwarz criterion	5.892172
Log likelihood	-15.88476	Hannan-Quinn criter.	5.683718
F-statistic	14.90821	Durbin-Watson stat	1.185944
Prob(F-statistic)	0.018130		

Figure 4. Regression Results for Unemployment

Impact of Interest Rate on Reits

Figure 5 shows the regression results for interest rate. Based on Figure 5, the regression results derived shows that the the coefficient of interest rate is -9.93 with t-value (t-statistic) of -3.01. Because t-value of -3.01, which is far away from zero, the coefficient, is significant, which means that interest rate has a significant negative impact on REITS. Moreover, the R variance of interest rate explains 69.3% of variance in REITS.

Dependent Variable: REITS
Method: Least Squares
Date: 11/26/19 Time: 09:55
Sample: 2014 2019
Included observations: 6

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	104.2677	5.334169	19.54714	0.0000
INT	-9.933679	3.299924	-3.010275	0.0395

R-squared	0.693762	Mean dependent var	89.45000
Adjusted R-squared	0.617203	S.D. dependent var	8.136277
S.E. of regression	5.033962	Akaike info criterion	6.331493
Sum squared resid	101.3631	Schwarz criterion	6.262080
Log likelihood	-16.99448	Hannan-Quinn criter.	6.053625
F-statistic	9.061755	Durbin-Watson stat	1.283767
Prob(F-statistic)	0.039540		

Figure 5. Regression Results for Interest Rate

OVERALL DISCUSSION

Upon investigation of the REITs in the Tadawul market (Saudi primary market), these were the following observations made for the impact of different variables on REITs. First, GDP has significant positive impact on REITS. Next, the results also showed that inflation does not have any impact on REITS. Furthermore, REER has significant negative impact on REITS. In addition, unemployment has significant negative impact on REITS. Finally, interest rate has a significant negative impact on REITS. Therefore, the factors affecting REITS in Tadawul market are GDP, REER, unemployment and the interest rate.

CONCLUSION

This study has investigated the effect of macroeconomic factors on the financial performance of the real estate industry in Saudi Arabia. The key findings have shown that GDP has significant positive impact on REITS in Saudi Arabia. In addition, the other factors had negative impact on REITS were unemployment and the interest rate. Real estate returns are shown to be inversely proportional to interest rate movements, some returns vary with market conditions, while GDP is generally assumed to be positively associated with returns in both commercial and residential forms, as well as to be affected by supply and demand. Thus, these factors are important It is very important to manage risk and return in addition to the transparency and legal framework of real estate business.

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