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# Regulatory quality, rule of law and stock market performance: A system GMM approach

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**Abstract**

The stock market has played an undeniable role in economic growth and is a complement to the banking sector in allocating financial resources to manufacturing firms. Hence, the role and importance of the stock market in the economy have always been emphasized. There are several factors that affect stock market returns, one of which is the Rule of the law and the Regulatory Quality of countries. Therefore, in this study, the importance of the Rule of the law and the Regulatory Quality on stock returns has been studied in Iran and selected emerging countries in the period 2000-2021 by the system generalized method of moments. The results of this estimate show that at a significance level of 5%, the rule of law and Regulatory Quality have a positive and significant effect on stock returns. Also, the effects of inflation, exchange rate, and growth of industrial production have been positive and significant. The effect of crude oil prices is negative and significant, and trade openness has a positive effect on stock market returns, but this effect is not statistically significant at the significant level of 5%.

Keywords: Rule of law, Regulatory quality, Stock market, Dynamic panel data, Iran
2020 MSC: 91G15

## 1 Introduction

Financial market is a broad term used to describe a wide range of capital markets, money, and so on. One of the most important financial markets is the capital market, also known as the stock market, and it is a market for buying and selling stocks, bonds and securities. The main task of the capital market is to create a bridge between the supplier of micro and macro capital, both real and legal, and capital applicants such as companies [3]. In the economic literature, especially the financial economics literature, the capital market plays a key role in economic growth through the financing of enterprises, the optimal allocation of resources, the improvement of liquidity of assets, the improvement of corporate governance and the increase of transparency in the economy. Because in order to achieve sustainable economic growth, it is necessary for domestic savings and foreign capital to be directed to high-yield productive activities. This will be possible through an efficient stock exchange market as the main participation institution of

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joint stock companies [9]. Therefore, economic theorists have always tried to identify and solve the main problems and obstacles in the way of this market so that this institution can play its role in the best possible way. In the absence of a capital market in a country or its inactivity, financial resources are inevitably transferred through banking systems or informal markets. This mechanism leads to inefficient financing of economic activities and is considered as an obstacle to economic development, especially in the industrial sector. In general, it can be said that an efficient capital market plays an important role in improving the economic situation. Therefore, recognizing the characteristics of the capital market and the stock exchange as the main component of the capital market and determining the factors affecting its performance and function is of particular importance. In the research literature, many studies have been conducted to determine the factors affecting the performance of stock markets. Much, but not all, research has focused on the undeniable role of the legal system and the quality of governance in stock market performance across countries. [14] examine theories and legal rules that are applicable in different countries and have a significant impact on stock market performance. Accordingly, inadequacies in the legal system that fail to protect shareholder rights often lead to managerial expropriation and loss of shareholder profits. In addition, investor protection mechanisms in legal systems can increase the amount of funds that risk-averse investors want to direct to companies. [1] found that fund managers invest less in countries with weak legal environments and low corporate governance standards. Also, based on law and finance theory, [14] examined the relationship between the legal system and the concentration of property in 49 countries and concluded that countries such as France, which have civil law, with less emphasis on government power, support investors. And their financial markets are less developed. In contrast, in countries with a British legal system, the rights of investors are better protected, which has a positive effect on financial development. In addition, differences in the amount of legal protection for investors will lead to differences in ownership structures and different financial decisions. [16] divided the determinants of stock market performance into two categories of macroeconomic indicators (real income, savings, financial development, inflation, interest rate and stock market liquidity) and institutional determinants (corruption, Political rights, public sector efficiency and regulatory pressures, legal protection of private property and law enforcement). The Worldwide Governance Index is often used to study institutional influences and the legal environment. The World Bank defines governance as the traditions and institutions by which power is exercised in the public interest in a country, which includes: 1. the process by which those in power are elected, supervised and delegated. 2- The capacity and ability of the government to efficiently manage resources and implement the right policies 3- Respect of citizens and the government to the institutions that manage social and economic interactions between them. Good governance requires a broad approach to the participation of a wide range of groups, including government, civil society and the private sector, in a transparent and accountable manner. The World Bank has defined good governance based on six dimensions of governance. Voice and Accountability, Political Stability and Absence of Violence/Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law, Control of Corruption. Among the components of the good governance index, it can be seen that most of its sub-indices, especially the sub-index of rule of law, regulatory quality and government effectiveness, can have a direct impact on stock market performance. It is also possible that the effects of each of these components on the functioning and performance of the stock market are not the same? For example, one of the most important institutional variables affecting stock market performance and the economy as a whole is the rule of law. The rule of law shows the degree of practical respect that the rulers and citizens of a country have for the legislature and the law enforcement agencies. Rule of law is currently one of the most important concepts in the field of public law, especially recognized constitutional rights and has universal value and is even one of the criteria for evaluating legal and political systems. Thus, every political and legal system has been held accountable and evaluated in terms of the characteristics of the rule of law.

The rule of law can affect the functioning of the stock market through multiple channels. The first channel is the protection of property rights and the proper execution of contracts. Because the more advanced property rights are, the more motivated people will be to invest. Because the owners will be sure to make a profit on their investments in the future. Also, when people have control over their assets, they can trade on them. Good execution of contracts also helps to accelerate the investment process in financial markets by creating more trust in national and international investors. Because in this case, the probability that the business partner of individuals (who may also be the government) will not follow the contracts, will be reduced and the amount of investment risk will be reduced [11]. In addition, good laws and institutions strengthen all markets, including the capital market. Because any exchange in the market requires a legal structure that guarantees the recognition of the property rights of buyers and sellers. Also, the existence of contract enforcement mechanisms such as explicitly predictable rules, transparency in methods and impartial implementation of laws is essential for the development of markets [2]. In addition, along with institutional factors, the impact of macroeconomic variables on stock market performance has always been considered an important issue. In general, economic variables are divided into micro and macro. Micro variables are introduced at the company and industry level, which include variables such as the composition and structure of assets and liabilities of the company, financial ratios and profit margins of firms, and so on. Macroeconomic variables also include variables such as interest rates, exchange rates, world oil prices, industrial production indices, etc., and are not limited to a specific enterprise or industry and are related to the performance of the entire market. So the question is, is there a relationship between stock market performance and the regulatory quality and the rule of law at the national level? If so, how can it be measured? In addition, do economic variables affect stock market performance? To answer these questions, data and information of selected emerging countries in the period 2000-2021 have been extracted and the effect of the rule of law and the regulatory quality on stock market returns has been studied in them.

## 2 Theoretical principles and literature review

Over the years, there has been increasing concern that since output levels could be truly shaped by capital accumulation and technological innovation across economies, why is it that measures required to accumulate and acquire the capital and technology needed to engender a balanced growth have often been neglected by some countries? In order to address this issue, the New Institutional Economics (NIE), mainly based on the work of North [19], which incorporate the essence of institutions in the narrative, stressed that institutions are the significant determining factor of development and long-term economic outcomes. Accordingly, institutions are defined as the humanly devised constraints that influence human interactions and decisions (North, 1990). [19] In this light, political and institutional factors are viewed as important facilitators of the development of stock markets, indicating that the financial market operations are influenced by some factors including institutional setups. The main role of institutions in most economies is to regulate and monitor the level of transparency in the market, governance procedures and the economic competitiveness. Furthermore, the quality of governance does affect foreign investors' decision and thus the level of foreign direct investment. As a result, improved governance quality could lead to reduced transaction costs and enhanced business environment (Williamson, 1985) [26]. It gives rise to stable rules, which are critical factors for the advancement of viable investment and projects [19].

Also, in the success of the market reforms, sound institutions can cause drastic change, and even for long-term economic growth, institutional environment is assumed to have represented a key factor [27]. The author further stresses that the flow of information in the financial market would be improved by such reforms, given that the existence of strong institutions would enhance social standards that could lead to the entrenchment of property and contract rights. Analogously, La Porta et al. [14] posit that legal origin shapes the level of financial development. Their view is based on the notion that common law-based systems better stimulate the development of financial markets compared to civil law systems — in protecting private property, common law has been more instrumental. The protagonists of this assertion include Rajan and Zingales [21]; Acemoglu and Johnson [6]; and Roe and Siegel [22]. Hence, in their conclusion, fortifying the institutional framework could engender financial market development. In addition, Rajan and Zingales [21]; and Acemoglu and Johnson [6] summit that governance measures such as, political instability, regulatory quality, government effectiveness and property right among others are key determinants of financial sector development and long-run economic growth and development.

Due to the importance of institutions and governance on the overall performance of the economy and the stock market, several studies have been conducted around the world. The most important of these studies present as below.

Nazir et al. [18] also examine political events in Pakistan and its impact on Karachi Stock Exchange performance. These authors find a similar effect, but the impact is found to be more pronounced in autocratic system in Pakistan.

Khodaparast Mashhadi et al. [13] in a study examining the effect of institutional quality on the financial development of selected member countries of the Organization of the Islamic Conference using the combined data method in the period 1996-2000 and concluded that the corruption control index and the average index Governance's have a positive and significant effect on the credibility index. Also, the government effectiveness index has a positive and significant effect on the liquidity index; therefore, improving institutional quality is a necessary condition for promoting financial development.

Ozpolat et al. [20] Analyzes the impact of institutions on economic growth in two groups of developed and developing countries from 2002 to 2015 using GMM And put analysis. The dependent variable is GDP and the independent variables are institutional variables (rule of law, anti-corruption, voice and accountability). Based on the findings of the study, it showed that institutions in developed countries, unlike developing countries, have less impact on economic growth and the impact of institutions on economic growth in developing countries has been significant.

Manasseh et al. [15] examines institutional quality–stock market development linkage between 1985 and 2013. In their work, institutional quality is represented by democratic accountability, corruption control and bureaucratic quality. These authors argue that democratic accountability and corruption control are major institutional measures that influence substantially stock market development.

Javaheri et al. [12] has studied the effect of the quality of institutions on financial development in developing countries. In this study, using GMM_SYS method, the effect of institutional quality on financial development in two groups of selected developing countries during the period 2000-2019 was investigated. The index used for the financial development of the first group is the credit allocated to the private sector to the GDP and the index of financial development used for the second group is the ratio of investment in the stock market to the GDP. Six indicators of good governance were also used as criteria for institutional quality. The results show that the indicators of good governance, except for the right to comment and accountability, have a positive and significant relationship with the index of credibility. Also, indicators of corruption control, government effectiveness, quality of laws and regulations and the rule of law have a positive effect on the stock market investment index.

Asongu and Nwachukwu [4] examined the effect of political institutions on stock market performance in 14 African countries for the sample period 1990–2010 and revealed that countries with democratic regimes enjoy higher levels of financial market development compared to their counterparts with autocratic inclinations.

Bamanga and Nayan [25] empirically investigated the impact of regulatory quality on African stock market development by employing pooled mean group model for the sample period of 1996-2016. The findings suggest that quality regulation has a positive impact on stock market development.

Selçuk [24] examined the nexus between the quality of governance and financial development over the period 1975–2015. With the use of democracy as governance quality, it is found that improved democracy stimulates financial development.

Cherif [5] examined the impact of macroeconomic environment and institutional quality on the development of the stock market of 14 countries in the MENA region in the period 1990-2017, using Panel data and instrumental variables, concluded that income level and stock market liquidity have a positive effect and interest rates have a negative effect on the development of the stock market, but the institutional quality index is not a stimulus for stock market investment in the region

Modugu and Dempere (2020) [17] examined the association between governance quality at country level and stock market performance of the six Gulf Cooperation Council (GCC) countries. The study employs panel data spanning from 2006 to 2017. The findings show that political stability and absence of violence and rule of law exhibit a significant positive impact on stock market performance, while regulatory quality and voice and accountability have a significant, but negative relationship with stock market performance.

Ali Imran et al (2020) [11] examined the relationship between stock market performance and country level governance indicators. This study utilizes annual stock returns and country level governance indicators for 25 developed countries from 1996 to 2018. The fixed effect estimation suggests that stock market performance and governance indicators share a positive relationship. Findings suggest that high quality of governance is associated with higher returns on stock. Institutional quality is a preconditioned for financial developed that set the direction of change to reduce transaction costs and agency costs and make profitable projects available to firms that subsequently leads to higher demand for equity financing.

Fagbemi et al (2022) [8] examined the possible long-run and short-run impact of regulatory quality on stock market performance in Nigeria for 1996–2019 period. The study adopts autoregressive distributed lag (ARDL) bounds test a. Findings reveal that regulatory quality positively and significantly influences the performance of stock market, which strengthens the view that market-enhancing governance can engender an improvement in stock market performance. The study further demonstrates that quality of the regulatory environment is a critical component of market operations, since the improvement of the operation of stock market performance depends on appropriate policy measures, which could be the outcome of improved governance.

## 3 Research methodology

In this study, to provide a suitable model for studying the effects of governance and institutional impact on stock market performance, reviewing the results of similar studies can be helpful. There are three important and comprehensive studies that estimate the relationship between governance quality (Worldwide governance indicators) and stock market performance. The first study was conducted by Hooper et al. [10] and studied 50 developed and developing countries and showed a positive relationship between worldwide governance indicators and excess returns (rit-rf) in stock markets in these countries. However, Ejaz et al. [7] argued that the stock markets of emerging countries provide more attractive investment opportunities for diverse portfolios compared to developed stock markets. These contradictory findings require further study of the effect of governance quality on stock market performance. In addition, not only are the above studies inconsistent, but they are outdated and contain fewer data from the worldwide

Governance Index. The rule of law variable indicates the degree to which a country's citizens trust the courts, the police, the level of contract management, and the propensity for crime and violence. The rule of law is the evaluation of law and order in the country. This index generally expresses the respect of citizens and the government for the institutions that govern their interactions. The rule of law has taken into account the effectiveness and predictability of the judiciary and, more importantly, the enforceability of contracts and property rights. This indicator represents the success of a society in creating an environment in which fair and predictable rules form the basis of economic and social interactions. The rule of law index can be considered as a measure to protect investors from the implementation of fair principles. The quality of the judicial system, the legal protection of investors' rights and the socio-political environment in a country are significantly related to returns and risk. Numerous studies have confirmed the relationship between the performance of financial systems, comprehensive legal protection, and an efficient legal system at both the macroeconomic and corporate levels [14]. It also regulatory quality, measures the government's ability to formulate and implement sound policies and regulations, which allow the presence and development of the private sector under these law. The regulatory quality examines some of the unfavorable market guidelines, such as price controls or inadequate banking supervision, as well as over-regulation. the regulatory quality has a positive and significant relationship with stock market returns. In addition, the effectiveness of government reflects the understanding of the quality of public services, the quality of civil service and its degree of independence from political pressures, the quality of policy formulation and implementation, and the validity of government commitment to such policies. This index measures the ability of governments to produce and implement appropriate policies and deliver public goods.

In addition to institutional factors and governance components, other studies have confirmed the effect of economic variables on stock market performance. In general, the factors affecting the performance of the capital market, especially the stock market can be divided into two main parts: economic factors including inflation, interest rates, exchange rates, industrial production growth, etc. and institutional factors including the regulatory quality, rule of law and recognized the effectiveness of the government. An issue that has not been considered in previous studies is that in each study, only economic or institutional factors affecting stock market performance were examined and the impact of the two was not studied together. In other words, at the same time, the impact of good governance index components and economic variables on stock market performance has not been considered. This leads to the removal of the important variable from the research model and leads to the bias caused by the removal of the important variable. Therefore, based on previous studies, in this study, the following model is presented to investigate the effect of governance on the performance of the capital market in Iran and selected emerging countries.

$$\begin{aligned} RET_{i,t} =& \beta_0 + \beta_1 RET_{i,t-1} + \beta_2 GOVERN_{i,t} + \beta_3 TRADE_{i,t} + \beta_4 OIL_{i,t} + \beta_5 INF_{i,t} + \beta_6 R_{i,t} \\ &+ \beta_7 IND_{i,t} + \beta_8 EXCH_{i,t} + u_{i,t} \end{aligned}$$

Where RET is the dependent variable of the model and represents the stock market return. The model independent variable (GOVERN) also represents the governance indicators and includes the regulatory quality (RQ) and rule of law (Rlaw). Economic variables affecting stock market performance are also included as control variables in the model and include trade openness (TRADE), inflation rate(INF), crude oil price(OIL), interest rate (R), industrial production growth rate (IND) and exchange rate(EXCH). The data and information of all these variables can be extracted using the World Bank database or the worldwide Governance Indicator (WGI). The statistical population of this study is all countries whose data and information are available in the World Bank.

From these countries, Iran and selected emerging countries are selected as a sample and their data and information are extracted in the period 2000-2021. Selected emerging countries are Turkey, Indonesia, Malaysia, Brazil, Russia, China, India, Mexico, Poland, Thailand, South Africa, Peru, Singapore and South Korea. It should be noted that, due to the nature of the model and its dynamics, in this study, the dynamic panel data method and GMM system estimators have been used to estimate the model. Also, the software used in this research is Eviews 10. There are two important tests in discussing a dynamic panel data. One of these tests is the Sargan test, which measures the validity of the moments and the instruments used in the estimated equation. This test, examine the correlation of regression disturbance term with instrumental variables. The next test is the first degree AR (1) and second degree AR (2) Arellano autocorrelation test .In this test, if the instrument variables to be valid, the existence of first-degree autocorrelation must be confirmed and the existence of second-degree autocorrelation must be rejected.

## 4 Research findings

Before estimating the model, Augmented Dickey-Fuller test is used to avoid spurious regression estimates. The results of this test are presented in Table 1. Based on these results, all model variables have stationary property at the level of variables. In other words, the model variables do not have a unit root.

Table 1: Results of unit root test

| Variable | Level | Prob | Result |
|---|---|---|---|
| RET | 60.2 | 0.00* | I(0) |
| RQ | 57.5 | 0.00* | I(0) |
| Rlaw | 49.6 | 0.00* | I(0) |
| TRADE | 45.5 | 0.02* | I(0) |
| INF | 55.8 | 0.00* | I(0) |
| OIL | 51.8 | 0.00* | I(0) |
| R | 44.1 | 0.03* | I(0) |
| IND | 53.4 | 0.00* | I(0) |
| EXCH | 51.3 | 0.00* | I(0) |

Source: Research Calculations
*: Indicates that the variables have no unit root

Now we can estimate proposed model by SGMM and 2SLS estimator .Based on the model estimation results in both approaches, the regulatory quality and rule of law have a positive and significant effect on stock market returns. Thus, increasing the regulatory quality and the rule of law in selected countries has led to an increase in stock market returns. The high regulatory quality, especially in the economic and financial sector, while increasing trust and confidence in the business and market environment, makes trade and business laws more transparent and easier to analyze and use. It also minimizes different interpretations of a single rule. Hence, investors will find space to invest in the real and financial sector and the volume of investment in the stock market will also increase. The entry of new capital resource into the stock market is mainly due to the increase in the stock market index and its positive return. The rule of law implies that the government using a legal framework to prevent speculation and volatility in parallel markets and therefore does not fluctuate the stock market. Also According to the Stock market related law, the government does not intervene in the stock market and its trend. The rule of law also assures that the activities of companies operating in the stock market are within the relevant law and companies are not inclined to violate the legal framework due to the rule of law. This makes the investment opportunity in the stock market safer and more attractive. Based on SGMM and 2SLS estimator, Trade openness has a positive effect on stock market returns, but this effect is not statistically significant.

The effect of inflation on stock market return is positive but only statistically significant based on SGMM estimator. As inflation increases, stock market returns also increase. The reason for this is that with the increase in inflation, the firm's nominal profit in the financial statements will be affected by inflation and will be high. Increased firm profits enhance the desire of investors and individuals to enter and invest in the stock market and improve the stock market return. Also, price of crude oil has a negative and significant effect on stock returns in both SGMM and 2SLS estimator. Because energy as one of the important inputs of production increases the production cost of companies, especially energy-intensive industries, and has a negative impact on the profits of these companies. This will reduce the attractiveness of companies to invest and will have a negative impact on market volume trading volume and stock market returns. The estimation results of SGMM and 2SLS estimators indicate that Interest rate has a significant negative impact on stock market returns. Because high interest rates reduce the willingness of investors to invest in the stock market and in turn encourage them to deposit in banks. Based on SGMM and 2SLS estimators, the growth rate of industrial production has a positive effect on stock market returns and this effect is statistically significant. In other hand, the high growth rate of industrial production, has a significant impact on the stock market index and stock market returns. Because industrial companies are among the key companies active in the stock market in any country. The effect of exchange rate on stock market returns is also positive and this effect is statistically significant. Because the high exchange rate makes domestic products cheaper for foreigners and this increases the exports of export-oriented companies such as petrochemical, refineries and machinery. Therefore, increasing exports and increasing the exchange rate is in favor of export-oriented companies and has a positive effect on the returns of these companies and the return of the entire stock market.

At SGMM estimator, the null hypothesis of Sargan test accepted. Therefore, considered instrument variables in both models are confirmed. Also, Arellano's autocorrelation test shows that in the estimation models, although there is first-degree autocorrelation between regression disturbance terms, but there is no evidence of second-degree autocorrelation. At 2SLS estimator, the coefficient of determination span between 0.79-0.82. Also, based on F Statistics, the estimated regressions are statistically significant.

Table 2: Estimation results (SGMM estimator)

| variable | first model | second model |
|---|---|---|
| Lagged stock market return | 0.21<br>(0.05) * | 0.19<br>(0.03) * |
| Regulatory quality | 0.29<br>(0.01) * | - |
| Rule of Law | - | 0.37<br>(0.04)* |
| Trade openness | 0.18<br>(0.17) | 0.16<br>(0.09) |
| Inflation rate | 0.11<br>(0.04)* | 0.10<br>(0.01)* |
| Crude oil prices | -0.24<br>(0.00)* | -0.22<br>(0.02)* |
| interest rate | -0.13<br>(0.00)* | -0.12<br>(0.05)* |
| Growth rate of industrial production | 0.21<br>(0.04)* | 0.24<br>(0.02)* |
| Exchange rate | 0.08<br>(0.01)* | 0.11<br>(0.04)* |
| First degree correlation test | -3.85<br>(0.00)** | -3.29<br>(0.00)** |
| Second degree autocorrelation test | -1.18<br>(0.21) | -1.12<br>(0.23) |
| Sargan statistics | 21.1<br>(0.24)** | 22.8<br>(0.25)** |

* Shows the rejection of the null hypothesis and the significance of the coefficients at the significance level of 5%.
** Indicates the existence of first degree correlation and the validity of the instrumental variables considered in the model.
Source: Research Findings

*Shows the rejection of the null hypothesis and the significance of the coefficients at the significance level of 5%.
Source: Research Findings

## 5 Discussion and conclusion

The stock market along with the money market has an important role in financing the economic activities of firms and has a significant impact on economic growth. In the absence of a capital market in a country or its inactivity, financial resources are inevitably transferred through banking systems or informal markets. This mechanism leads to inefficient financing of economic activities and is considered as an obstacle to economic development, especially in the industrial sector. In general, it can be said that an efficient capital market plays an important role in improving the economic situation. The impact of the capital market, especially the stock market, on economic growth has been confirmed by several studies. Hence, the stock market has a special role in the economy. One of the most important and influential issues on stock market returns is the rules, legal structure and in general the role of institutions and legal systems of countries. So that the determinants of stock market performance can be divided into two categories of macroeconomic determinants (real income, savings, financial development, inflation, interest rates and stock market liquidity) and institutional determinants (corruption, rule of law and regulatory quality).Therefore, due to the importance of governance indicator and its components, in this study, the effects of rule of law and the regulatory quality on stock market returns in Iran and selected emerging countries in the period 2000-2021 has been studied. For this purpose, the system generalized method of moments (SGMM) and 2SLS estimators have been used.

Based on the model estimation results and at a significance level of 5%, the regulatory quality and the rule of law has a positive and significant effect on stock market returns. The high regulatory quality, especially in the economic

Table 3: Estimation results (2SLS estimator)

| variable | first model | second model |
|---|---|---|
| intercept | 1.73<br>(0.19) | 1.46<br>(0.22) |
| Lagged stock market return | 0.11<br>(0.03) * | 0.09<br>(0.04) * |
| Regulatory quality | 0.21<br>(0.02)* | - |
| Rule of Law | | 0.24<br>(0.05*) |
| Trade openness | 0.14<br>(0.13) | 0.12<br>(0.16) |
| Inflation rate | 0.08<br>(0.11) | 0.09<br>(0.15) |
| Crude oil prices | -0.17<br>(0.00)* | -0.13<br>(0.05)* |
| Growth rate of industrial production | 0.21<br>(0.03)* | 0.24<br>(0.01)* |
| interest rate | -0.09<br>(0.02)* | - 0.10<br>(0.04)* |
| Growth rate of industrial production | 0.15<br>(0.02)* | 0.17<br>(0.01)* |
| Exchange rate | 0.12<br>(0.02)* | 0.14<br>(0.05)* |
| R-squared | 0.79 | 0.82 |
| Adjusted R-squared | 0.75 | 0.78 |
| Prob(F-statistic) | 0.00 | 0.00 |

and financial sector, while increasing trust and confidence in the business and market environment, makes trade and business laws more transparent and easier to analyze and use. It also minimizes different interpretations of a single rule. Hence, investors will find space to invest in the real and financial sector and the volume of investment in the stock market will also increase. Also, the rule of law implies that the government using the legal framework, prevent speculation and volatility in parallel markets and therefore does not fluctuate the stock market. It does not enter the stock market according to the rules and trends. The rule of law also assures investors that the activities of firms operating in the stock market are within the relevant law and they are not inclined to violate the legal framework due to the rule of law. This makes the investment opportunity in the stock market safer and more attractive. Trade openness affects stock market returns, but this impact is not statistically significant at the 5% level. The results of model estimation show that the effect of inflation on stock market returns is also positive and significant. As inflation increases, stock market returns also increase. The reason for this is that with the increase in inflation, the nominal profit in the financial statements will be affected by inflation and will be high. High firm's profits increase the desire of investors and individuals to enter and invest in the stock market and improve the stock market return. Also, the price of crude oil has a negative and significant effect on stock returns. Because energy as one of the important inputs of production increases the production cost of companies, especially energy-intensive industries, and has a negative impact on the profits of these companies. This will reduce the attractiveness of firms to invest and will have a negative impact on stock market returns. Interest rates also have a significant negative impact on stock market returns. Because the interest rate is a competitor to the stock market return. Because the risk of investing in a bank is lower compared to stock market instruments and a larger number of risk-averse people will not be willing to invest in the stock market as interest rates rise, so this has a negative impact on stock market returns. The growth rate of industrial production has a positive effect on stock market returns and this effect is statistically significant at a significant level of 5%. Because the high growth rate of industrial production is the volume of production and activity of industrial companies in the stock market, and this will have a positive impact on the returns of these firms and the overall return of the stock market. Because industrial firms are among the key companies active in the stock market in any country. The effect of exchange rate on stock market returns is also positive and this effect is statistically significant at the level of 5%. Because high exchange rates make domestic products cheaper for foreigners, this increases the exports of export-oriented companies such as petrochemicals, refineries and machinery. Therefore, increasing the exchange rate in favor of export companies and has a positive effect on the returns of these companies and the overall return of the stock market.

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