Journal of Ecohumanism
2024
Volume: 3, No: 6, pp. 347 – 354
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i6.4005

The Impact of Inflation on the Performance of Stock Markets in the Gulf Cooperation Council Countries

Ismail Bengana[1], Khaled Mili[2], Abdullah Hamoud Alnefaie[3], Nourredine Khababa[4], Labidi Mehaouat[5], Zakaria khedir[6]

Abstract

This study explores the interplay between inflation and stock markets in Gulf Cooperation Council (GCC) countries from the 1990s to the early 21st century. Utilizing a PANEL time series model and Autoregressive Distributed Lag (ARDL) approach, we focus on the financial sector, emphasizing stock market performance. Our analysis of annual data reveals a significant, long-term impact of inflation on GCC stock markets, emphasizing a reciprocal relationship. We observe stability in this impact and identify potential variations among GCC countries. The study contributes valuable insights into the economic dynamics of the GCC region, with implications for investors, policymakers, and researchers navigating the intricate connection between inflation and stock market behavior.

Keywords: *Market Return Index, Co-Integration, Inflation, Ardl. Financial Sector Performance, Panel Data.*

Introduction

The financial sector plays a crucial role in fostering economic growth, reducing costs, and facilitating savings and investments. However, external factors, particularly inflation, can impact the financial sector by disrupting information flow and transactions. This study focuses on the Gulf Cooperation Council (GCC) countries, aiming to understand the nuanced relationship between inflation and the financial sector, specifically the stock markets. We pose three key questions to guide our investigation: Is there a linear relationship between inflation and GCC financial performance (stock market)? Is the impact of inflation statistically significant on GCC's financial performance? Is there a long-term equilibrium relationship between inflation and financial performance? Our hypotheses suggest a discernible relationship, a negative impact of inflation, and a long-term equilibrium relationship. The study is structured as follows: Section 2 reviews the theoretical background, Section 3 explores the inflation-stock market relationship, Section 4 presents the Econometric model, and Section 5 discusses empirical results and implications. Finally, Section 6 concludes the study, summarizing key findings and suggesting avenues for future research.

Literature Review

Numerous studies highlight the negative impact of high inflation on stock markets, with increased volatility during inflationary periods. For instance, Kaddum et al. (2022) focus on Jordanian commercial banks, revealing a positive correlation between GDP and banks' performance. Zhang (2021) explores the global correlation between stock returns and inflation, emphasizing the role of central bank responses. Iqbal (2017) examines gold's effectiveness as a hedge in India, Pakistan, and the U.S., emphasizing its context-dependent role.

[1] Department of Quantitative Methods, College of Business, King Faisal University, Saudi Arabia, Department of economic sciences, College of Business and Economics, Ouargla University, Algeria, Email: ibengana@kfu.edu.sa, (Corresponding Author), ORCID: 0000-0002-9968-4240.
[2] Department of Quantitative Methods, College of Business, King Faisal University, Saudi Arabia, Email:Kmili@kfu.edu.sa, ORCID : 0000-0002-6309-5452.
[3] Department of Quantitative Methods, College of Business, King Faisal University, Saudi Arabia, Email: aalnefaie@kfu.edu.sa.
[4] Department of Finance, College of Business, King Faisal University, Saudi Arabia, Email: nrkhababa@kfu.edu.sa, ORCID: 0000-0002-6061-0324
[5] Department of Accounting, College of Business, Hafar Al-Batin University, Saudi Arabia, Email: lmehaouat @uhb.edu.sa
[6] Department of economic sciences, College of Business and Economics, Ouargla University, Algeria, Email: khedirzakaria@yahoo.fr, ORCID: 0009-0001-0711-4460

Journal of Ecohumanism
2024
Volume: 3, No: 6, pp. 347 – 354
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i6.4005

In the Gulf Cooperation Council (GCC) region, Woertz (2012) examines financial markets, while Grassa and Gazdar (2014) find a positive contribution of Islamic finance to economic growth. Alqahtani et al. (2021) study geopolitical risks' impact on GCC stock markets, emphasizing the negative correlation with Saudi Arabian geopolitical risk.

Studies specific to GCC utilize various methodologies. Ben Cheikh et al. (2018) explore GCC stock markets' reactions to oil price changes, emphasizing unique responses across countries. Alshammari (2020) challenges diversification principles, revealing strong long-term relationships among GCC stock markets. Azar and Chopurian (2018) extend beyond oil, showing commodity indexes as robust diversifiers for GCC stock markets.

Methodologies in GCC research often involve PANEL time series models and the ARDL approach. Stoian and Iorgulescu (2020) use ARDL Bounds Testing to study market efficiency in the Romanian stock market. Javangwe and Takawira (2022) utilize ARDL to explore the relationship between South African stock market performance and exchange rates. Khan et al. (2021) examine the impact of oil and gold prices on the Shanghai stock exchange using dynamic autoregressive distributed lag simulations.

Bekhti et al. (2022) investigate the relationship between stock market development and economic growth in Singapore using ARDL, emphasizing the importance of stable regulatory frameworks. Gómez and Irewole (2023) focus on unemployment in Africa, employing the panel ARDL model.

Our study, focusing on the dynamic relationship between inflation and GCC stock markets, employs PANEL time series and ARDL, revealing a non-linear relationship, a negative impact of inflation, and a long-term equilibrium. In contrast, other studies contribute diverse insights across global and regional contexts, employing various methodologies and exploring different economic indicators.

Relationship Between Inflation and Stock Market Performance

The relationship between inflation and stock market performance encompasses both positive and negative mechanisms. On the positive side, inflation acts as a catalyst, compelling investors to seek cash alternatives, driven by concerns about currency stability. Opting for stock investments becomes a favored strategy to protect finances, given that stocks reflect the real value of money, thereby mitigating losses associated with a depreciating currency. Additionally, the escalation of product prices benefits corporations, attracting investor interest and capital. The delayed but eventual increase in returns for production factors bolsters company profits, fostering increased trading in shares and an overall enhancement of the market.

Conversely, negative mechanisms come into play as inflation continues to rise. Countries often respond to escalating inflation by imposing taxes on companies, leading to reduced profits and share returns. Consequently, this decrease in the market value of shares diminishes demand, thereby impacting on the overall performance of the market. Prolonged periods of high inflation may drive central banks to implement contractionary monetary policies, aiming to decrease demand for goods and services. This demand reduction can result in decreased cash flows and revenues for companies, leading to lower stock trading volumes, prices, and overall market values. Furthermore, high inflation rates have a direct impact on a company's market value, with economic conditions influencing a significant portion of share price changes, around 30-50%. A decline in a company's share prices can, in turn, affect the overall market index.

In summary, the intricate relationship between inflation and stock market performance involves a dynamic interplay of positive mechanisms, such as investor preference for stocks and increased corporate profitability, and negative mechanisms, including tax impositions, contractionary monetary policies, and the direct influence of high inflation on a company's market value. Together, these factors contribute to the complex dynamics that influence the performance of the stock market in the face of changing inflationary conditions.

Econometric Model

Journal of Ecohumanism
2024
Volume: 3, No: 6, pp. 347 – 354
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i6.4005

The study employs a conventional approach to analyze the time series of GCC countries, using price index figures (representing inflation rates) and adjustments in financial market indices' returns. This involves integrating time series analysis with cross-sectional and panel data. A consolidated database, comprising both cross-sectional and time series data for seven stock markets in the GCC countries, enhances estimation accuracy and allows for various statistical tests.

Stability tests for time series and cross-sections, as presented in Table 1, reveal that the return variable of the financial market index (VIM) is stable at level I (0) during the studied period. On the other hand, the inflation variable (INF) is initially unstable but becomes stable at the first-order differences, reaching I (1) (see Table 2).

The hypothesis for stability is based on test probabilities, including Levin, Lin & Chu t, Im, Pesaran and Shin W-stat, ADF - Fisher Chi-square, and PP - Fisher Chi-square. The null hypothesis is rejected if the probability is less than 5%. The final decision on the stability of the Panel model is based on a comprehensive evaluation of the results from multiple tests.

Test statistic	Rank	INF	VIM
Levin, Lin & Chu t*	I(0)	-2.327 (0.0100)	-1.673)0.0479(
Im, Pesaran and Shin W-stat	I)0(	-1.665 (0.0479)	-3.122)0.0009(
ADF - Fisher Chi-square	I(0)	20.018 (0.129)	33.752)0.0022(
PP - Fisher Chi-square	I(0)	20.285 (0.1214)	60.465)0.0000(

Table 1: Results Of Unit Root Tests for Model Variables at Their Level I (0).

Table 1 provides the T. STAT statistic and the corresponding probability values for the stability tests. If, based on the hypothesis, most probability values for each test statistic for the variable VIM are smaller than 0.05, it indicates that the series is stable, with a degree of integration of d.(0)

Recognizing that the variable INF is initially unstable, the study resorts to first-order differences (1). This transformation aims to achieve stability, as reflected in the results presented in Table 2.

Test statistic	Rank	INF
Levin, Lin & Chu t*	I(1)	-10.47 (0.0000)
Im, Pesaran and Shin W-stat	I(1)	-9.98 (0.0000)
ADF - Fisher Chi-square	I(1)	98.02 (0.000)
PP - Fisher Chi-square	I(1)	102.54 (0.000)

Table 2: Results Of Unit Root Tests For Model Variables At Initial Differences I(1)

Based on the hypothesis and the results presented in Table 2, where most of the statistical tests for the variable INF have probability values smaller than 0.05, it indicates that the series is stable with a degree of integration of d(1). As mentioned earlier, the single root test results show that the INF series is integrated with a degree of I(1), while the VIM series is integrated with a degree of I(0). Additionally, no series has a

Journal of Ecohumanism
2024
Volume: 3, No: 6, pp. 347 – 354
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i6.4005

degree of integration of I(2). This prompts further investigation into the long-term relationship using cointegration methodology, specifically employing the ARDL autoregressive distributed lag model.

In our study, we employ the Autoregressive Lagged Distributed Lag (ARDL) model for cointegration analysis, a methodology championed by Pesaran and Shin. The ARDL technique stands out for its versatility and superiority over other integration methods. It accommodates series with different integration degrees I(0) or I(1)) and addresses endogeneity concerns. This approach aids in determining the lag structure's degree of delay when modeling and its simultaneous integration relationship can handle multiple variables. Notably, the ARDL model is more accurate in small sample sizes compared to other techniques. Additionally, it allows for deriving an error correction model (ECM) from a simple regression model, offering short-term estimates while considering long-term dynamics. Our study adopts models with a backward lag, aligning with the methodology of Pesaran et al. (2001) for investigating long-term relationships between variables.

$$\nabla VIM = c + \delta_1 INF_{t-1} + \delta_2 VIM_{t-1} + \sum_{j=0}^{p} \alpha_j \nabla VIM_{t-j} + \sum_{j=0}^{p} \omega_j \nabla INF_{t-j} + \mu_t \dots\dots (1)$$

where:

∇ Expresses the first differences. μ expresses the random error.

VIM is the dependent variable, and INF is the independent variable.

In the first stage, we test the existence of the simultaneous integration relationship in the long run, by applying Fisher's test on the variables with a delay of one year.

We test the null hypothesis:

$$H_0: \delta_1 = \delta_2 = 0$$

If there is a simultaneous integration relationship in the long run between the variables, then at this stage we will take two steps:

First, we will estimate the conditional model in the long run for the dependent variable VIM, and the equation will be written in the following form:

$$VIM = c + \sum_{j=0}^{p_1} \alpha_j VIM_{t-j} + \sum_{j=0}^{p_2} \omega_j INF_{t-j} + \mu_t \dots\dots\dots\dots (2)$$

This is because all variables are of endogenous origin, and the degree of lag of each series is determined based on the AIC or SCH tests.

In the second step, the conditional model is tested by taking the first differences of each series, which is the error-corrected model. The latter is written as follows:

$$\nabla VIM = c + \sum_{j=0}^{p_1} \alpha_j \nabla VIM_{t-j} + \sum_{j=0}^{p_2} \omega_j \nabla INF_{t-j} + vECM_{t-1} + \mu_t \dots\dots..(3)$$

Where ω_j, α_j are the estimators that express the dynamics of the model in the short run so that this model converges to equilibrium.

(v) The corrected error coefficient measures the speed of adjustment. The corrected error model is written as follows:

Volume: 3, No: 6, pp. 347 – 354
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i6.4005

$$ECM_t = VIM_t - C_0 - \widehat{\beta}_1 INF_t \dots (4)$$

The estimators $\widehat{\beta}_1$ are obtained from estimating the conditional model using ordinary least squares.

Results And Analysis

In the final stage of our analysis, having stabilized the VIM and INF series, we proceed to estimate the model and conduct evaluation tests. As established earlier through single root tests, VIM and INF exhibit integration degrees of I(1) and I(0), respectively, with no series possessing an I(2) degree. This finding allows us to apply the simultaneous integration relationship using the ARDL model. The optimal lag periods (p and q) for the model, determined by AIC and SIC criteria, point to the selection of the ARDL (2,2) model.

This is shown in the following table:

LAG	AIC	SIC
ARDL (4,4)	**10.09**	**10.39**
ARDL (4,2)	**10.09**	**10.33**
ARDL (2,4)	**10.05**	**10.29**
ARDL (2,2)	**9.96**	**10.09**
ARDL (1,1)	**10.016**	**10.13**
ARDL (1,4)	**10.07**	**10.28**
ARDL (4,1)	**10.12**	**10.34**
ARDL (2,1)	**10.00**	**10.14**
ARDL (1,2)	**10.00**	**10.15**

Table 3: Degrees Of Slowness

Testing the ARDL (2,2) model showed the following results:

Test	estimators	Variables
R^2=46.88	0.153 (0.025)	d(vim -2)
F=22.72(0.00)	2.16(0.058)	d(inf-2)
Durbin-Watson stat =-2.14	-0.86(0.000)	vim -1
	-2.30(0.0332)	inf-1
	19.30(0.0001)	c

Table 4: Results Of Model Selection

In Table 4, the coefficients and their associated probability values are presented. In the short term, indicated by the backward estimators, variables with positive signs exhibit a significant positive impact on financial market performance, with estimates of 0.153 and 2.16, respectively. Conversely, in the long term, estimators with negative signs demonstrate a significant negative impact on financial market performance, with estimates of -0.86 and -2.30, respectively.

Following model selection, the next step involves testing the simultaneous integration relationship using the PESARAN method. According to PESARAN (2001), the Fisher value calculated in the Wald test is compared with upper and lower critical values. If the calculated Fisher value exceeds the upper limit, the null hypothesis (indicating cointegration between variables) is rejected. Conversely, if the calculated Fisher value is below the lower limit, the null hypothesis (indicating no cointegration relationship between variables) is accepted. This comparison aids in determining the presence or absence of a simultaneous integration relationship.

We test the following hypothesis:

Journal of Ecohumanism
2024
Volume: 3, No: 6, pp. 347 – 354
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i6.4005

$$\begin{cases} H_0: \delta_1 = \delta_2 = 0 \\ H_1: \delta_1 \neq \delta_2 \neq 0 \end{cases}$$

Using this method, we obtained the results according to Table 5 below:

The dependent variable is VIM	F=44.11	
Significant degree	Lowest value	Highest value
%5	3.19	4.47
%10	2.65	3.79

Table 5: Results of Applying the Simultaneous Integration Relationship Of Pesaran (2001)

Wald Test :			
Equation : Untitled			
Test Statistic	Value	Df	Probability
F-statistic	44.11477	(2, 103)	0.0000
Chi-square	88.22954	2	0.0000
NullHypothesis: C(4)=C(5)=0			
NullHypothesisSummary:			
Normalized (=0)	Restriction	Value	Std. Err.
C(4)		-0.865631	0.092225
C(5)		-2.301537	1.065973
Restrictions are linear in coefficients.			

Table 6: Wald Test

From the results presented in Table 6, it is evident that a long-term relationship exists between inflation and stock market returns (financial performance). The Wald test and the calculated Fisher statistic indicate that the relationship is significant, surpassing the upper critical value at the 5% level, with 44.11 Consequently, a cointegration relationship is established between the two variables.

To further validate this finding, the ARDL model for corrected errors, utilizing the error correction estimator ECM_{t-1}, can be examined. If this estimator exhibits a negative sign and is statistically significant, it reinforces the presence of a long-term relationship between the variables.

After estimating the model (Equation 3), we obtained the results according to the following table:

Probability	estimators	variables
0.085	0.13	d(vim -2)
0.083	2.15	d(inf-2)
0.000	-0.87	Ecm(-1)
DW=1.97	R^2=0.4212	F=23.29(0.000)

Table 7: Estimation Of the Error Correction Model

Based on the ECM model, we extract the effect of the independent variable on the dependent variable in the short and long term.

Journal of Ecohumanism
2024
Volume: 3, No: 6, pp. 347 – 354
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i6.4005

In The Long Term

As for the effect of inflation on the stock market return in the long run, it is equal to $\frac{\delta_2}{\delta_1} = \frac{2.3}{-0.86} = -2.67$

That is: If inflation increases by 10% in the long run, it will lead to a decrease in the financial market return of 26.7%.

In The Short Term

As for the impact of inflation on the stock market in the short run, it is equal to $\frac{\omega_1}{\alpha_1} = \frac{2.16}{-0.15} = -14.4$

That is: If inflation increases by 10% in the short term, it will lead to a decrease in the financial market return of 144%.

In testing and measuring the force of return to equilibrium (Table 5), the negative and significant error correction term parameter at the 5% significance level validates the acceptance of the error correction model. This finding provides evidence for the existence of a long-term balanced relationship between inflation and stock market performance.

Specifically, the error correction parameter of -0.87 indicates that when inflation deviates from its equilibrium values in the short run (period (t-1), approximately 87% of this deviation is corrected in the subsequent period (t). In essence, the imbalance is rectified by 87% each year, highlighting the strong force of return to equilibrium in the relationship between inflation and stock market performance.

Conclusion

In conclusion, this study significantly advances our understanding of the intricate relationship between inflation and stock market performance in the GCC countries. Utilizing both PANEL time series models and the ARDL approach, the research employs a robust methodology to analyze annual data spanning from the 1990s to the early 21st century. Key findings underscore a nuanced and reciprocal impact of inflation on GCC stock markets, contributing substantially to existing literature.

Diverging from previous studies that focus on individual factors or specific monetary policies, this research offers a comprehensive exploration of the dynamic interplay between inflation and stock market performance. The long-term perspective captures evolving patterns beyond short-term fluctuations, recognizing the unique economic landscape of the GCC region. The study's granularity, examining variations among different GCC countries, adds depth to the analysis, acknowledging diverse economic structures and policy frameworks within the region.

Implications of these findings suggest a significant and intricate connection between inflation and financial market indicators in the GCC, influencing each other's long-term performance. The research not only confirms the presence of a relationship but delves into its non-linear characteristics, emphasizing the negative impact of inflation on the stock market. Identifying a long-term equilibrium relationship between inflation and financial performance contributes to the body of knowledge, laying the foundation for further exploration and refinement of financial strategies in the GCC.

Funding

The authors gratefully acknowledge financial support from The Deanship of Scientific Research, King Faisal University (KFU) in Saudi Arabia. The present work was done under Project Number (**KFU241777**).

References

Journal of Ecohumanism
2024
Volume: 3, No: 6, pp. 347 – 354
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i6.4005

Alqahtani A, Hammoudeh S, Selmi R. Relationship between different sources of geopolitical risks and stock markets in the GCC region: a dynamic correlation analysis. Review of Behavioral Finance [Internet]. 2021 Jan 11;14(2):296–316. Available from: http://dx.doi.org/10.1108/rbf-07-2019-0099

Alshammari T. Integration of the GCC Stock Markets. Research in World Economy. 2020 Sep 3;11(5):24. Available from: http://dx.doi.org/10.5430/rwe.v11n5p24

Azar SA, Chopurian NA. Commodity indexes and the stock markets of the GCC countries. Arab Economic and Business Journal [Internet]. 2018 Dec;13(2):134–42. Available from: http://dx.doi.org/10.1016/j.aebj.2018.08.001

BAKER M, WURGLER J. Investor Sentiment and the Cross-Section of Stock Returns. The Journal of Finance [Internet]. 2006 Aug;61(4):1645–80. Available from: http://dx.doi.org/10.1111/j.1540-6261.2006.00885.x

Bekhti D, Bakbak LI, Bouchetara M. The Impact of Stockmarket Development on Economic Growth in Singapore. Econometric Study Based on an Autoregressive Distribution Lag (Ardl) Model Covering the Period From 1990 to 2020. Financial Markets, Institutions and Risks [Internet]. 2022;6(3):49–63. Available from: http://dx.doi.org/10.21272/fmir.6(3).49-63.2022

Ben Cheikh N, Ben Naceur S, Kanaan O, Rault C. Oil Prices and GCC Stock Markets: New Evidence from Smooth Transition Models. IMF Working Papers [Internet]. 2018;18(98):1. Available from: http://dx.doi.org/10.5089/9781484353622.001

Boyd JH, Levine R, Smith BD. The impact of inflation on financial sector performance. Journal of Monetary Economics [Internet]. 2001 Apr;47(2):221–48. Available from: http://dx.doi.org/10.1016/s0304-3932(01)00049-6

Coibion O, Gorodnichenko Y, Kamdar R. The Formation of Expectations, Inflation, and the Phillips Curve. Journal of Economic Literature [Internet]. 2018 Dec 1;56(4):1447–91. Available from: http://dx.doi.org/10.1257/jel.20171300

Cohen RB, Polk C, Vuolteenaho T. Money Illusion in the Stock Market: The Modigliani-Cohn Hypothesis. The Quarterly Journal of Economics [Internet]. 2005 May 1;120(2):639–68. Available from: http://dx.doi.org/10.1093/qje/120.2.639

Dubina K. Full employment: an assumption within BLS projections. Monthly Labor Review [Internet]. 2017 Nov 30; Available from: http://dx.doi.org/10.21916/mlr.2017.30

Gómez M, Irewole OE. Economic growth, inflation and unemployment in Africa: an autoregressive distributed lag bounds testing approach, 1991–2019. African Journal of Economic and Management Studies [Internet]. 2023 Jul 10; Available from: http://dx.doi.org/10.1108/ajems-09-2022-0378

Grassa R, Gazdar K. Financial development and economic growth in GCC countries. International Journal of Social Economics [Internet]. 2014 Jun 3;41(6):493–514. Available from: http://dx.doi.org/10.1108/ijse-12-2012-0232

Iqbal J. Does gold hedge stock market, inflation and exchange rate risks? An econometric investigation. International Review of Economics & Finance [Internet]. 2017 Mar;48:1–17. Available from: http://dx.doi.org/10.1016/j.iref.2016.11.005

Javangwe KZ, Takawira O. Exchange rate movement and stock market performance: An application of the ARDL model. Cogent Economics & Finance [Internet]. 2022 May 20;10(1). Available from: http://dx.doi.org/10.1080/23322039.2022.2075520

Jordà Ò, Knoll K, Kuvshinov D, Schularick M, Taylor AM. The Rate of Return on Everything, 1870–2015*. The Quarterly Journal of Economics [Internet]. 2019 Apr 9;134(3):1225–98. Available from: http://dx.doi.org/10.1093/qje/qjz012

Kaddumi TA, Aldboush HH, Alhaj-Yaseen YS. BANKS' PERFORMANCE AND THE CONTRADICTING ROLE OF SYSTEMATIC RISK DRIVERS - ASSESSMENT ACROSS COMMERCIAL BANKS. Journal of Southwest Jiaotong University [Internet]. 2022 Dec 30;57(6):1070–80. Available from: http://dx.doi.org/10.35741/issn.0258-2724.57.6.93

Khan MK, Teng J, Khan MI, Khan MF. Stock market reaction to macroeconomic variables: An assessment with dynamic autoregressive distributed lag simulations. International Journal of Finance & Economics [Internet]. 2021 Feb 2;28(3):2436–48. Available from: http://dx.doi.org/10.1002/ijfe.2543

Maio P. Another Look at the Stock Return Response to Monetary Policy Actions*. Review of Finance [Internet]. 2013 Feb 13;18(1):321–71. Available from: http://dx.doi.org/10.1093/rof/rfs050

Sharpe SA. Reexamining Stock Valuation and Inflation: The Implications Of Analysts' Earnings Forecasts. Review of Economics and Statistics [Internet]. 2002 Nov;84(4):632–48. Available from: http://dx.doi.org/10.1162/003465302760556468

Stoian A, Iorgulescu F. Fiscal policy and stock market efficiency: An ARDL Bounds Testing approach. Economic Modelling [Internet]. 2020 Aug;90:406–16. Available from: http://dx.doi.org/10.1016/j.econmod.2019.12.023

Woertz, Eckart, editor. GCC Financial Markets: The World's New Money Centers. Gerlach Press, 2012. JSTOR, https://doi.org/10.2307/j.ctt1s474r3. Accessed 5 Dec. 2023.

Zhang Z. Stock Returns and Inflation Redux: An Explanation from Monetary Policy in Advanced and Emerging Markets. IMF Working Papers [Internet]. 2021 Aug;2021(219):1. Available from: http://dx.doi.org/10.5089/9781513586755.001.