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STOCK MARKET DEVELOPMENT AND ECONOMIC GROWTH: AN EMPIRICAL ANALYSIS FOR TUNISIA

Sana Ayachi Jebnoun[1i],
Mohamed Rafaa Chebbi[2]
[1]High School of Business of Tunis ESCT,
University of Manouba,
Tunisia
[2]National Institute of Labor and Social Studies INTES,
University of Carthage,
Tunisia

Abstract:
This paper examines the influence of the Tunisian stock market development on economic growth. We perform a time series investigation for the period 1998-2018 using four measures of stock market development: total value traded to GDP; market capitalisation to GDP; stock market turnover ratio, and stock market depth. GDP growth rate is used as a proxy for economic growth. Since the series are non-stationary, we perform the cointegration test and use the ECM method developed by Engle-Granger to consider both short-term and long-term dynamics. Our findings report that the ratio of the total value of trades divided by GDP and the turnover ratio have a positive long-run effect on economic growth at the 10% significance level. This result supports the hypothesis of the importance of liquidity in promoting investment and long-run economic growth. The results also reveal that in the short term, stock market development does not have a significant impact on Tunisia's economic growth.

JEL: G10, G12, O40, C22

Keywords: stock market development, economic growth, Tunisian Stock Exchange, ECM

1. Introduction

Stock markets play a crucial role in the economy. They promote efficient allocation and mobilization of capital by enhancing liquidity, reducing trading costs and enabling risk diversification, which mitigates overall portfolio risk and fosters an environment where capital flows towards the most promising ventures.

[i] Correspondence: email sanaayachijebnoun@gmail.com

The relationship between stock market development and economic growth has been extensively discussed by several studies using a variety of methods and yielding mixed results. Much research has focused on the benefits of investing in an internationally diversified portfolio of stock and stressed the importance of the financial system in mobilizing savings, allocating capital and easing risk management.

A more developed financial system, often measured by market capitalization of stock markets, is expected to support economic activity by easier access to finance for investment at lower costs. According to Levine (1991) and Bencivenga et al. (1996), stock market liquidity enhances growth by creating liquidity, which lowers the risk of investments by enabling savers to purchase and sell assets more rapidly and affordably. Furthermore, by gathering and communicating essential information about the state and future prospects of a firm, stock markets perform a significant informative function. In this context, Holmstrom and Tirole (1993) demonstrated that liquid stock markets have the ability to improve corporate governance and motivate investors to learn more about companies. Furthermore, as individuals feel more secure about their financial status, greater share values boost wealth and, consequently, spending, which in turn may spur company expansion and investment and support economic growth.

Most of the empirical studies suggest that large, deep and more liquid stock markets can stimulate higher economic growth. This conclusion is, however, not obvious in the case of some developing countries where financial markets are small and not characterized by a wide range of financial instruments. Does the financial system have a significant impact on economic growth in emerging markets? The research about the importance of stock markets for economic growth in these markets is still relevant. In this paper, we aim to study the specific role of the Tunisian stock market.

The present study follows this line of thinking and tries to look into how the stock market development affects the growth of the Tunisian economy. It focuses specifically on how key stock market performance indicators, including the capitalization ratio, value traded ratio, and turnover ratio, affect the growth of Tunisia's production. Understanding how stock exchanges contribute to economic performance is important for crafting effective economic policies.

The paper is structured as follows. The next section provides a brief theoretical and empirical review of the literature. Section 3 contains a description of the data and the estimation procedures used in this study. In section 4, we present the empirical results of the study. Finally, the conclusion is provided in section 5.

2. Literature Review

The theoretical literature suggests that the functioning of equity markets affects liquidity, risk diversification, information acquisition about firms, corporate control, and savings mobilization. An effective financial system allows an economy to increase its real GDP growth by allocating resources through its financial intermediaries in an efficient manner. Therefore, illiquid, costly, or poorly functioning capital markets discourage

foreign investment. Claessens (2019) argues that larger local companies find difficulties in obtaining financing due to high transaction costs and illiquidity of the capital market.

Various studies support the hypothesis of a correlation between capital markets and economic growth. Debate exists, however, over the potentially positive, neutral or even negative implications of stock market development for economic growth.
Although theoretical arguments imply a positive association between the stock market and real economic activity, the existing empirical data is still ambiguous.

According to one school of thought, growth is positively and significantly impacted by the development of the stock market. However, other works indicate that stock markets either have a negative impact on growth or do not significantly contribute to economic prosperity.

Empirical studies of Atje and Jovanovic (1993), Demirgüç-Kunt and Levine (1996), Levine and Zervos (1996 and 1998) confirm the existence of a significant positive correlation between stock market development and economic growth. In their study of the US scenario, Alam and Hasan (2003) conclude that the development of the stock market significantly boosts economic growth. Furthermore, research by Caporale et al. (2004), Adjasi and Biekpe (2006) demonstrates that stock markets allocate resources efficiently and spur economic growth, whereas financial intermediaries usually have less information than stock markets.

The positive relationship between stock market development and growth was also confirmed in many studies interested in developing countries. According to Filer et al. (1999), an active equity market is crucial for fostering economic growth in developing countries. Agarwal (2001) also reports that over the years 1992 to 1997, there was a positive correlation between economic growth and a variety of measures of stock markets in nine African countries. Nowbutsing and Odit (2009) use a time series econometric analysis for the period 1989-2006 to investigate how Mauritius' stock market development affects growth. Their findings reveal that the development of the stock market had a positive effect on economic growth in Mauritius, both in the short- and long-term.

In a similar study, Okoh and Eke (2015) assessed the link between capital markets and GDP growth in Nigeria and revealed that capital market variables are positively correlated and have a significant association with economic growth. Abina and Maria (2019) also studied the relationship between stock market development and economic growth in Nigeria and found that the capital market is a strong determinant of economic development during the period 1985–2017. Furthermore, the study by Abdullahi and Fakunmoju (2019) is another empirical investigation that supports the hypothesis of a positive effect of stock market development on growth in the ECOWAS region. The results of this study revealed that the ratio of market capitalization to gross domestic product, all-share index, and stock turnover have positive effects on economic performance in West African countries. More recently, using quarterly data for the years 2013–2022, Collin (2023) employed a time series VAR model to investigate the impact of Zimbabwe's stock market in a context marked by political instability, high inflation and economic volatility. At the 10% significance level, the study's findings demonstrate a

statistically significant positive relationship between economic growth and stock market development.

Several other studies, however, have mixed evidence concerning the empirical relationship between stock market development and economic growth. According to Mayer (1988), even large stock markets are not crucial for funding business corporations. Stiglitz (1993) states that stock market liquidity will not increase incentives for acquiring information about firms. Besides, Devereux and Smith (1994) affirm that greater risk sharing through internationally interconnected stock markets may reduce saving rates and slow economic growth.

Gries et al. (2009), in their study conducted for 16 sub-Saharan African countries, analyze the link between financial deepening and economic development. The empirical findings report that financial deepening has not benefited the countries under study.

In a similar study employing Granger causality tests and using data for Eastern and Central European countries from 2000 to 2007, Carp (2011) shows that market capitalization and traded stock value do not have any impact on growth rates. Demetriades and Rousseau (2015) also confirm that financial depth is not an important factor in determining long-term growth.

Besides, the study by Borteye (2022) concludes that Ghana's economic growth and stock market development have a mixed relationship that is not statistically significant. Al Salamat and Batayneh (2022) also looked at how the performance of the stock market affects the economic growth of a set of Middle East and North Africa (MENA) countries between 2000 and 2019. They find that the stock market index, the ratio of foreign direct investment to GDP, the banking sector development and the consumer price index which serves as a proxy for inflation, all have a significant positive long-term effect on the economic growth, whereas the ratio of the broad money supply (M2) to GDP has a significant negative long-term impact on economic growth.

Nichkasova et al. (2022) studied the case of Kazakhstan and showed that the country's economic development is not significantly impacted by the financial market. Instead, economic development raises demand for financial resources in the stock exchange and banking industry, which in turn drives economic growth.

In their study, Dibor Alfred et al. (2023) used the Autoregressive Distributed Lag (ARDL) model to examine how stock market performance affected Nigeria's economic development between 1985 and 2021. GDP was used as a proxy for economic growth while stock market performance was measured by market capitalization, all share index and the total value of transactions. The results reveal that market capitalization and total value of transactions variables have a positive impact on economic growth in the long run, while the all-share index has a negative long-term influence on GDP. In addition, in the short term, the total value of transactions has a negative impact, while market capitalization and all-share index have a short-term positive influence on GDP.

Adamu and Mustafa (2023) employed Johansen cointegration and Vector Error Correction Model (VECM) to assess the relationship between the capital market and economic growth in Nigeria from 1985 to 2021. Findings reveal that in the long run, all share index and total value of transactions have a negative impact, while market

capitalization and number of deals have a positive impact on economic growth. In addition, the short run results also reveal that all share index, number of deals and total value of transactions have a positive and significant effect on economic growth, while market capitalization is negatively related.

3. Model Specification

The aim of this section is to assess the influence of capital markets on Tunisia's economic growth.

3.1 Data Description

The data compiled for this study covers the period 1998 - 2018 and are collected from several sources, namely the Tunisian stock exchange "BVMT" database, which is available online, the Central Bank of Tunisia "BCT" and the National Institute of Statistics "INS".

In order to assess the quantitative importance of stock markets in economic growth, we use four indicators of stock market development and one indicator of economic growth.

- Market size measure: to measure the size of the stock market, we adopt the variable (SIZE), which divides market capitalization by Gross Domestic Product, following Levine and Zervos (1996). Market capitalization is equal to the total value of all listed securities.
- Market liquidity measures: we use (VALTRADE), which is simply the ratio of the total value of trades divided by GDP. This variable provides additional information to market size because the market may be large but inactive. We also use (TURNOV) the turnover ratio measured by trading volume to market capitalization volume.
- Market depth measure: (DEPTH) is another variable introduced by Black (1971), which indicates the quantity of securities that can be traded without influencing or changing the prices displayed on the market.
- Economic growth measure: (GROSS) represents the change in Gross Domestic Product per capita. The most widely used measure of economic output is the Gross Domestic Product.

3.2 Statistical Methodology

To estimate the impact of stock market development indicators, we use the following regression:

$$G = \alpha X + \beta B(i) + \varepsilon i \quad (1)$$

Where:
G represents the measure of economic growth (GROSS),

B(i) represents the different measures of stock market development with i=1,2,3,4 [(SIZE), (VALTRADE), (TURNOV) and (DEPTH)],
ε is the error term,
α et β are the coefficients of this model,
X is the set of control variables: expected inflation (*INFL*), the ratio of government consumption expenditures to GDP (GOV) and the logarithm of initial real GDP per capita (LNGDP).

4. Empirical Analysis

4.1 Testing for Stationarity

Time series data are often assumed to be non-stationary. In order to avoid the occurrence of spurious results, this study adopted the Augmented Dickey-Fuller (ADF) test for testing the Stationarity of the time series data.

Table 1: Unit Root Test results

Variables		ADF Statistic	Critical Values 1% (5%)	Number of lags	With Constant	With Trend	Decision
B(i)	SIZE	-1.690392	-3.8304 (-3,0294)	1	Yes	No	NS
	VALTRADE	-3,197	-3,83 (-3,029)	1	Yes	No	NS (1%) S(5%)
	TURNOV	-1,669	-3,83 (-3,029)	1	Yes	No	NS
	DEPTH	-2,859	-3,83 (-3,029)	1	Yes	No	NS
G	GROSS	-3,78	-3,83 (-3,029)	1	Yes	No	NS (1%) S(5%)
X	INFL	-2,393	-3,83 (-3,029)	1	Yes	No	NS
	GOV	-2,592	-3,83 (-3,029)	1	Yes	No	NS
	LNGDP	-1,746	-3,83 (-3,029)	1	Yes	No	NS
ΔB(i)	ΔSIZE	-4,022	-3,857 (-3,04)	1	Yes	No	I(1)
	ΔVALTRADE	-5,285	-3,857 (-3,04)	1	Yes	No	I(1)
	Δ TURNOV	-4,508	-3,857 (-3,04)	1	Yes	No	I(1)
	Δ DEPTH	-16,305	-3,857 (-3,04)	1	Yes	No	I(1)
ΔG	Δ GROSS	-5,142	-3,857 (-3,04)	1	Yes	No	I(1)
ΔX	Δ INFL	-3,809	-3,857 (-3,04)	1	Yes	No	I(1)
	Δ GOV	-4,632	-3,857 (-3,04)	1	Yes	No	I(1)
	Δ LNGDP	-4,227	-3,857 (-3,04)	1	Yes	No	I(1)

The results of this test show that the hypothesis of non-stationarity is accepted for almost all the variables of the study. Similarly, the test on the first difference reveals that almost all the variables are non-stationary.

4.2 Testing for Co-integration

Since the series are non-stationary, the variables under examination are tested for cointegration to determine whether there is any long-run equilibrium relationship among them and whether the correlation between them is not a spurious correlation. To do this, it is necessary to perform the cointegration test. Engle and Granger (1987) demonstrate that a linear combination of two or more non-stationary series could be stationary and thus are said to be cointegrated.

Table 2: Cointegration Test Results

Relation de cointegration	**SIZE+X**	**VALTRADE+X**	**TURNOV+X**	**DEPTH+X**
	ADF (lag)	**ADF (lag)**	**ADF (lag)**	**ADF (lag)**
GROSS	-0,312 ** (1)	- 1,172* (1)	-0,471* (1)	0,085*** (1)

Note: The signs ***, ** and * indicate rejection of the H0 hypothesis of no cointegration at the respective thresholds of 1%, 5% and 10%. The variables in parentheses are the lag orders of the ADF test. X represents the series of control variables: INF, GOV and LNGDP.

We conclude that Economic Growth and Stock Market Development are cointegrated, meaning there exists a long-term equilibrium relationship between them.

Econometric analyses have shown that most time-series data sets are non-stationary, meaning that they have a tendency to increase or decrease over time; therefore, an error correction mechanism becomes useful to deal with non-stationary data that exhibit long-term equilibrium relationships, known as cointegration.

4.3 The Error Correction Model

The Error Correction Model (ECM) is a powerful statistical tool used in time series analysis to estimate the speed at which a dependent variable returns to equilibrium after a change in other variables. Deviations from long-term equilibrium are corrected gradually through short-term adjustments. This makes ECMs particularly useful for analyzing both short-term dynamics and long-term relationships between variables**.** In this study, we use the ECM method developed by Engle-Granger (EG two-step model).

The equation of the short-term model can be written as follows:

$$\Delta G_t = \alpha^1{}_i\, \Delta INFL_t + \alpha^2{}_i\, \Delta LNGDP_t + \alpha^3{}_i\, \Delta GOV_t + \beta_i\, \Delta B_t(i) - (1-\lambda)\, ECM^i{}_{t-1} + u_t \quad (2)$$

Where:

ECM represents the residuals obtained from the estimation of the long-term model (1),
Since the series are cointegrated, we can assume that the ECM is stationary,

α^1_i, α^2_i and α^3_i are respectively the short-term impacts of estimated inflation (*INFL*), the logarithm of initial real GDP per capita (LNGDP) and the ratio of government consumption expenditure to GDP (GOV) ,

βi are the short-term impacts of stock market development measures on economic growth measures,

(1 - λ) reflects the magnitude of the adjustment in output growth Δ relative to the imbalance of the past period. The closer (1 -λ) is to 1, the greater the magnitude of the adjustment.

Tables 3 and 4 present the main results of our econometric model using the OLS technique. Table 3 includes four regressions. The first specification includes the macroeconomic variables and the variable SIZE. In the second specification, we introduce the liquidity variable TURNOV in addition to the macroeconomic variables. In the third regression, we test the impact of the variable VALTRADE on economic growth, and in the last specification, we introduce the market depth variable DEPTH.

Table 3: Results of long-term estimations

Variables	**GROSS (Model 1)**	**GROSS (Model 2)**	**GROSS (Model 3)**	**GROSS (Model 4)**
C	16422130 (0.655660) [0.5214]	-12825923 (-0.505470) [0.6201]	834259.9 (0.036695) [0.9712]	22166076 (0.671973) [0.5112]
INF	0.006908 (1.749337) [0.0994]	0.005856 (1.672808) [0.1138]	0.004975 (1.419617) [0.1749]	0.006001 (1.556412) [0.1392]
LNGDP	0.029283 (1.332212) [0.2015]	0.026441 (1.284928) [0.2171]	0.026863 (1.313326) [0.2076]	0.032932 (1.451856) [0.1659]
GOV	0.003176 (0.245685) [0.8091]	0.004479 (0.375688) [0.7121]	-0.001163 (-0.099779) [0.9218]	-0.000875 (-0.067917) [0.9467]
SIZE	-0.091271 (-0.971536) [0.3457]			
TURNOV		0.060782 (1.867611) [0.0802]		
VALTRADE			0.411360 (1.915835) [0.0734]	
DEPTH				-0.023479 (-0.572819) [0.5747]
STATISTICS	Adjusted R-Squared=0,276 F-Statistic =1,53 Prob(F-Statistic)=0,24	Adjusted R-Squared=0.371 F-Statistic =2.36 Prob(F-Statistic)=0,09	Adjusted R-Squared=0,376 F-Statistic =2,42 Prob(F-Statistic)=0,09	Adjusted R-Squared=0,249 F-Statistic =1,32 Prob(F-Statistic)=0,301

Notes: (Standard errors in parentheses) [P-values in brackets]. The dependent variable is the average annual growth rate of per capita GDP (Gross). The explanatory variables are: the size of the stock market (SIZE), the ratio of the total value of transactions divided by GDP (VALTRADE), the volume turnover rate (TURNOV) and the market depth (DEPTH). The control variables are: expected inflation (INF), the ratio of government consumption divided by GDP (GOV) and the logarithm of initial per capita GDP (LNGDP)

The results of this table show that the ratio of the total value of trades VALTRADE and the Turnover ratio (TURNOV) are significant at the 10% level of importance and positively related to economic growth, which is consistent with the literature on the importance of liquidity and stock market activity in stimulating investment and growth. On the other hand, the size of the market (SIZE) and its depth (DEPTH) are insignificant and do not seem to have any long-term effect on economic growth. Concerning the control variables (INF, LNGDP, GOV), the results indicate that they are not statistically significant, despite the consistency of their sign with economic theory.

The next step is to estimate the short-term model. In Table 4, we report the results of the short-term ECM estimation.

Table 4: Results of short-term model estimations

Variables ↓	**ΔGROSS (Model 1)**	**ΔGROSS (Model 2)**	**ΔGROSS (Model 3)**	**ΔGROSS (Model 4)**
C	-26625933 (-0.908437) [0.3780]	-29492143 (-1.079668) [0.2973]	-35406961 (-1.191217) [0.2521]	-32689773 (-1.071436) [0.3009]
Δ INFLATION	0.010089 (1.004300) [0.3312]	0.011434 (1.159210) [0.2645]	0.011497 (1.198416) [0.2493]	0.009886 (0.987405) [0.3391]
Δ LNGDP	0.255644 (0.719892) [0.4827]	0.258612 (0.811516) [0.4298]	0.354278 (0.987714) [0.3390]	0.333705 (0.893669) [0.3856]
ΔGOV	-0.001256 (-0.470524) [0.6447]	-0.000128 (-0.050164) [0.9607]	-1.46E-05 (-0.006039) [0.9953]	-0.000685 (-0.277919) [0.7849]
Δ SIZE	0.058697 (0.119793) [0.9062]			
ΔTURNOV		-0.041907 (-0.778177) [0.4486]		
ΔVALTRADE			-0.379159 (-0.948877) [0.3577]	
ΔDEPTH				0.160970 (0.676748) [0.5089]
ECMt-1	-0.062628 (-0.126790) [0.9008]	0.279178 (0.599006) [0.5581]	0.358158 (0.785370) [0.4445]	0.042874 (0.091173) [0.9286]
Statistics	Adjusted R-Squared=0.195 F-Statistic =0.727 Prob(F-Statistic)=0.61	Adjusted R-Squared=0.243 F-Statistic =0.920 Prob(F-Statistic)=0.94	Adjusted R-Squared=0.269 F-Statistic =1.107 Prob(F-Statistic)=0.39	Adjusted R-Squared=0.218 F-Statistic =0.836 Prob(F-Statistic)=0.54

Notes: The dependent variable is the change in the Gross Domestic Product per capita (Δ GROSS). The explanatory variables are: (Δ SIZE), (Δ VALTRADE), (Δ TURNOV) and (Δ DEPTH). The control variables are : (Δ INFL), (Δ GOV), (Δ LNGDP), and the error correction term is (ECMt-1).

In all specifications, the stock market development variables are not significant. These results reveal that, in the short term, the Tunisian stock market development does not have an impact on economic growth.

5. Conclusion

This study contributes to the existing literature on the relationship between stock market development and economic growth and aims to examine how the stock market affects long-run economic growth in the case of a developing country.

The empirical analysis conducted reveals that the ratio of total value of trades to GDP and the turnover ratio have a positive long-run impact on economic growth at the 10% significance level. Moreover, the results show that the size of Tunisia's stock market and its depth are not relevant for Tunisia's economic growth.

These findings suggest that Tunisia needs to improve market depth and continue to increase the liquidity and attractiveness of the stock market by enlarging the variety of financial instruments.

Future research may include a cross-national study involving a group of Middle Eastern and North African countries in order to better understand the role that a well-functioning stock market can play in promoting long-run economic growth in developing countries.

Conflict of Interest Statement

The authors declare no conflicts of interest.

About the Authors

Sana Ayachi Jebnoun is an Assistant Professor at High School of Business of Tunis (ESCT). She took her PhD in Economics from University of Paris Nanterre, France. Her main areas of interest are Money and Banking, Risk Management, Financial Inclusion, Markets and Financial Institutions.

Mohamed Rafaa Chebbi is an Assistant Professor at National Institute of Labor and Social Studies, University of Carthage, Tunisia. He took his PhD in Finance from Faculty of Economic Sciences and Management of Tunis (FSEGT). His main areas of interest are Microstructure of Stock Markets, Financial Markets, Information Asymmetry, Volatility and Risk.

References

Abdullahi I B, Fakunmoju S K, 2019. Stock Market Development and Economic Performance of West-African Countries: A dynamic Panel Data Analysis. Journal of Management, Economics, and Industrial Organization, 3(3), 12-26. http://dx.doi.org/10.31039/jomeino.2019.3.3.2

Abina A, Maria L, 2019. Capital market and performance of the Nigerian economy. International Journal of Innovative Finance and Economic Research, 7(2), 51–66. Retrieved from https://www.researchgate.net/publication/332627354_Capital_market_and_performance_of_Nigeria_economy

Adamu I M, Mustafa Z A, 2023. Capital Market and Economic Growth in Nigeria. Available at SSRN: https://ssrn.com/abstract=4517642 or http://dx.doi.org/10.2139/ssrn.4517642

Adjasi C K D, Biekpe N, 2006. Stock Market Development and Economic Growth: The Case of Selected African Countries. African Development Review, 18(1), 144-161 http://dx.doi.org/10.1111/j.1467-8268.2006.00136.x

Agarwal S, 2001. Stock Market Development and Economic Growth: Preliminary Evidence from African Countries. Journal of Sustainable Development in Africa, 3(1), 48-56. Retrieved from https://www.researchgate.net/publication/253446212_Stock_Market_Development_And_Economic_Growth_Preliminary_Evidence_From_African_Countries

Al Salamat W, Batayneh K I, 2022. Does Stock Market Performance have a long-term effect on economic growth: Evidence from MENA. Journal of Governance and Regulation, 11(2), 368- 373. https://doi.org/10.22495/jgrv11i2siart16

Atje R, Jovanovic B, 1993. Stock markets and development. European Economic Review, 37, 632-640. https://doi.org/10.1016/0014-2921(93)90053-D

Bayar Y, Kaya A, Yıldırım M, 2014. Effects of Stock Market Development on Economic Growth: Evidence from Turkey. International Journal of Financial Research, 5(1). https://doi.org/10.5430/ijfr.v5n1p93

Bencivenga V R, Smith B D, Starr R M, 1996. Liquidity of secondary capital markets: Allocative efficiency and the maturity composition of the capital stock, Economic Theory, 7, 19-50. Retrieved from https://link.springer.com/article/10.1007/BF01212180

Borteye E A, Peprah W K, 2022. Correlates of Stock Market Development and Economic Growth: A Confirmatory Study from Ghana. International Journal of Economics and Finance, 14(3). http://dx.doi.org/10.5539/ijef.v14n3p1

Bostan I T, 2023. Effects of Internal and External Factors on Economic Growth in Emerging Economies: Evidence from CEE Countries. Eastern European Economics, 61(1), 66-85. Retrieved from https://doi.org/10.1080/00128775.2022.2109489

Bui T N, 2021. The impact of stock market development on economic growth: A GMM approach. Investment Management and Financial Innovations, 74-81 http://dx.doi.org/10.21511/imfi.18(3).2021.07

Caporale G M, Howells P G A, Soliman A, 2004. Stock Market Development and Economic Growth: The Causal Linkage. Journal of Economic Development, 29 (1), 33-50. Retrieved from https://jed.cau.ac.kr/archives/29-1/29-1-2.pdf

Carp L, 2011. Can stock market development boost economic growth? Empirical evidence from emerging markets in Central and Eastern Europe. Procedia Economy and Finance, 3, 438–444. https://doi.org/10.1016/S2212-5671(12)00177-3

Chee Y L, Nair M, 2010. The Impact of FDI and Financial Sector Development on Economic Growth: Empirical Evidence from Asia and Oceania. International Journal of Economics and Finance, 2(2), 107-119. https://doi.org/10.5539/ijef.v2n2p107

Claessens S, 2019. Fragmentation in Global Financial Markets: Good or Bad for Financial Stability? BIS Working Paper, 815. Retrieved from https://www.bis.org/publ/work815.htm

Collin C, Jahed I M, 2023. The Impact of the Stock Market on Liquidity and Economic Growth: Evidence of Volatile Market. Economies 11(6). https://doi.org/10.3390/economies1106 0155

Demetriades P O, Rousseau P L, 2016. The changing face of financial development. Economics Letters, 141(C), 87-90. Retrieved from https://ideas.repec.org/a/eee/ecolet/v141y2016icp87-90.html

Demirguc-Kunt A, Levine R, 1996. Stock market development and financial intermediaries: Stylized facts. World Bank Economic Review, 10(2), 291-321. Retrieved from https://documents.worldbank.org/en/publication/documents-reports/documentdetail/861001468777018643/stock-market-development-and-financial-intermediaries-stylized-facts

Devereux M B, Smith G W, 1994. International Risk Sharing and Economic Growth. International Economic Review, 35(3), 535-550. Retrieved from https://doi.org/10.2307/2527072

Dibor-Alfred C, Somoye O A, Ozdeser H, 2023. Stock market performance and economic growth: empirical evidence from Nigeria employing the ARDL approach. SN Business & Economics, 3(12). Retrieved from https://ideas.repec.org/a/spr/snbeco/v3y2023i12d10.1007_s43546-023-00603-4.html

Filer R K, Hanousek J, Campos N F, 1999. Do Stock Markets Promote Economic Growth. William Davidson Institute Working Papers Series 267.

Gries T, Kraft M, Meierrieks D, 2009. Linkages between Financial Deepening, Trade Openness and Economic Development: Causality Evidence from Sub-Saharan Africa. World Development 37(12)1849-1860. https://doi.org/10.1016/j.worlddev.2009.05.008

Gurley G J, Shaw E S, 1967. Financial Structure and Economic Development. Economic Development and Culture Change, 15 (3), 257-268. Retrieved from https://www.jstor.org/stable/1152277

Holmstrom B, Tirole J, 1993. Market Liquidity and Performance Monitoring. Journal of Political Economy, 101, 678-709. https://doi.org/10.1086/261893

Imam Alam M, Hasan T, 2003. The Causality between Stock Market Development and Economic Growth: Evidence from the United States. Studies in Economics and Finance, 21 (1), 93-104. https://doi.org/10.1108/eb028770

Levine R, 1991. Stock Markets, Growth, and Tax Policy. The Journal of Finance, 46, 1445-1465. https://doi.org/10.1111/j.1540-6261.1991.tb04625.x

Levine R, Zervos S, 1996. Stock market development and long-run growth. World Bank Economic Review, 10(2), 323–339. Retrieved from https://documents1.worldbank.org/curated/en/185791468336645559/pdf/771200JRN0WBER0Box0377291B00PUBLIC0.pdf

Levine R, Zervos S, 1998. Stock markets, banks and economic growth. American Economic Review, 88, 537-557. Retrieved from https://www.jstor.org/stable/116848

Mayer C, 1988. New Issues in Corporate Finance. European Economic Review, 32 (5), 1167-1183. https://doi.org/10.1016/0014-2921(88)90077-3

Ngare E, Nyamongo E M, Misati R N, 2014. Stock market development and economic growth in Africa. Journal of Economics and Business, 74, 24-39. https://doi.org/10.1016/j.jeconbus.2014.03.002

Nguyen K Q, 2022. Determinants of stock market modern development: Evidence from Vietnam. Journal of Eastern European and Central Asian Research, 9 (6) 951-964. https://doi.org/10.15549/jeecar.v9i6.987

Nichkasova Y, Shmarlouskaya H, Sadvokassova K, 2022. Financial market sustainable development of Kazakhstan: scenario approach based on fuzzy cognitive maps. Journal of Sustainable Finance & Investment, 12(3), 912-933. Retrieved from https://ideas.repec.org/a/taf/jsustf/v12y2022i3p912-933.html

Nowbusting B M, Odit M P, 2009. Stock Market Development and Economic growth: the case of Mauritius. International Business and Economic Research Journal, 8(2),77-88. Retrieved from http://dx.doi.org/10.19030/iber.v8i2.3104

Okoh J I, Eke R I, 2015. Capital market and economic growth nexus: evidence from Nigeria, IOSR Journal of Business and Management, 17(11), 31-38. Retrieved from https://www.iosrjournals.org/iosr-jbm/papers/Vol17-issue11/Version-2/D0171123138.pdf

Samarakoon S J M N G, 2023. Stock Market Development and Economic Growth: An Evidence from Six South and Southeast Asian Countries. International Journal of Research and Innovation in Social Science, 7 (3), 582-588. Retrieved from https://econpapers.repec.org/article/bcpjournl/v_3a7_3ay_3a2023_3ai_3a3_3ap_3a582-599.htm

Stiglitz J, 1993. The Role of the State in Financial Markets. The World Bank Economic Review, 7 (1), 19–5. https://doi.org/10.1093/wber/7.suppl_1.19

Wójtowicz L, Czupryn R, 2023. The impact of the capital market on economic growth in Luxembourg. Central European Review of Economics & Finance, 44 (3), 175-185. https://doi.org/10.24136/ceref.2023.019