

# The Impact of Economic Development Indicators on the Performance of the Damascus Securities Exchange During the Syrian Revolution (2011-2023)

## -An Analytical Study-

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### Abstract

This study aimed to demonstrate the impact of economic development indicators on the performance of the Damascus Securities Exchange during the Syrian Revolution between 2011 and 2023. The researcher adopted a descriptive-analytical approach as it addresses a real-world phenomenon. SPSS and EViews software were used to study the effect of economic development indicators, namely Gross Domestic Product (GDP) and Net Domestic Product (NDP) (comprising industrial, agricultural, and service production), on the market index using multiple regression analysis.

The study found no statistically significant impact at a significance level of ( $\alpha \leq 0.05$ ) of the Gross Domestic Product on the Damascus Securities Exchange index (trading volume) during the period 2011-2023. However, a statistically significant impact was found at a significance level of ( $\alpha \leq 0.05$ ) of the Net Domestic Product on the Damascus Securities Exchange index (trading volume) during the same period, with a good positive correlation of 56.4%. Additionally, a statistically significant impact was found at a significance level of ( $\alpha \leq 0.05$ ) for industrial and agricultural production as the most influential factors on the market index (trading volume), while no impact was found for service production. This is attributed to market fluctuations and interest rate decisions by the Central Bank.

The study recommends enhancing the monitoring and analysis of industrial production indicators periodically and integrating these indicators into market movement forecasting models due to their potential role in explaining or predicting trading trends. It also recommends the necessity of monitoring the performance of the agricultural sector and integrating it into the economic indicators affecting financial market movements, given its role in explaining or influencing the general market index's volatility, especially during periods when this sector experiences a clear contraction.

**Keywords:** Gross Domestic Product, Net Domestic Product, Damascus Securities Exchange Index, Economic Development Indicators.

## Chapter One: General Framework of the Study

### 1. Introduction

Stock markets emerged from the needs of economic development and have undergone significant evolution since their inception. Structural changes linked to the reformist philosophies of some advanced industrial countries, such as the United States and Great Britain, were credited with developing local economies until these markets became the lifeblood of financial life in developed nations. This made them an effective tool for creating economic balance between supply and demand and the primary pillar for advancing the global economy.

Due to the large scale of investments requiring substantial financing, a comparison between developed and developing countries showed that a more developed and efficient financial system allowed developed countries to achieve growth, with stock exchanges becoming a mirror reflecting the economies of major nations. This, in turn, motivated developing countries to reform their financial markets in pursuit of continuous growth to achieve comprehensive development. They diligently employed ideological and political diversity and exploited natural resources and human capital.

Arab countries, including Syria, followed the lead of these advanced markets by establishing mechanisms and systems to facilitate financial transactions, such as advanced disclosure laws and regulations to increase levels of disclosure and transparency. However, they have not yet reached the required levels, still suffering from many obstacles and challenges like the limited number of traded securities and legislative shortcomings.

In addition to the unstable security situation since the start of the Syrian revolution in 2011, the components of the Syrian economy have been significantly affected, leading to multiple challenges for market stability. During the revolution, economic growth experienced sharp fluctuations due to violent events, mass displacement, infrastructure destruction, and economic sanctions, which greatly impacted economic activity and the performance of the stock market, a mirror of the national economy.

## 2. Problem of the Study

The stock market contributes to economic development by mobilizing financial savings, providing liquidity for investors, forecasting the state of the national economy, and taking appropriate measures. The opinions of academics and stock market experts differ on the relationship between economic development indicators and the stock market. Most confirm a strong relationship, while others see no correlation. This debate has primarily grown around whether economic growth drives the financial sector or vice versa. Many researchers have tried to determine this nature, and this debate and interest have crystallized into three main intellectual trends that have addressed this relationship: The first trend is financial development leading to economic development. The second trend, contrary to the first, is economic development leading to financial development. The third trend combines the two and is called feedback or reciprocity. This prompted the researcher to study the impact of economic development indicators on the stock market movement and the relationship between them, especially in the Syrian economy, which suffers from significant imbalances due to political, economic, and security instability.

Accordingly, the problem of this research is to determine the impact of economic development indicators on the performance of the Damascus Securities Exchange during the period between 2011-2023 through the following questions:

1. What is the impact of the Gross Domestic Product on the Damascus Securities Exchange index (trading volume) during the period 2011-2023?
2. What is the impact of the Net Domestic Product on the Damascus Securities Exchange index (trading volume) during the period 2011-2023? This is explored by examining:
  - What is the impact of industrial production on the Damascus Securities Exchange index (trading volume) during the period 2011-2023?
  - What is the impact of agricultural production and livestock on the Damascus Securities Exchange index (trading volume) during the period 2011-2023?
  - What is the impact of service production on the Damascus Securities Exchange index (trading volume) during the period 2011-2023?

## 3. Study Model

Independent Variable	Dependent Variable
Economic Development Indicators	Damascus Securities Exchange Index (Trading)

## 4. Previous Studies

- **Farid & Abdel Salam (2024):** "Measuring the Role of the Stock Market in Achieving Economic Growth in Zambia since 1994." This study aimed to identify the role of the stock market (represented by market capitalization, traded capital, and stock turnover rate) in achieving economic growth (represented by GDP) in Zambia. The study found a long-term causal relationship between market capitalization and GDP.
- **Al-Muqaddam & Al-Nabi (2024):** "Testing the Impact Model of Inflation Rate, GNP, and Interest Rate on Stock Market Performance: A Comparative Study between the Egyptian and Saudi Stock Markets." This study revealed that economic variables (inflation, GNP, interest rate) explain 94% of the changes in the Saudi stock market and 57% in the Egyptian market. Interest and inflation rates had a negative impact, while GNP had a positive impact on both markets.
- **Kushwaha & Karat (2024):** "Impact of GDP, Inflation, and Interest Rate on Stock Market Performance of United States 'a Case Study of NYSE'." Using annual data from 1985 to 2022, this study concluded that 94.7% of the variance in the NYSE index is explained

by GDP, inflation, and interest rates. GDP had a strong positive correlation, while inflation had a weak negative correlation, and interest rates had a strong negative correlation with the index.

- **Depari (2022):** "Macroeconomics Factor: The Impact on Stock Price Index." This study examined the relationship between macroeconomic variables and stock price indices in Indonesia, Singapore, and Malaysia. It found that inflation has a negative impact, while the interest rate differential positively affects stock price indices.
- **Zibdeh, Khalid Hassan (2022):** "The Impact of Financial Market Indicators on Economic Growth: An Applied Study on the Palestine Exchange." This study found a variable impact of financial market indicators on economic growth in Palestine. Market capitalization and financial activities' contribution to GDP had a positive impact, while trading rate, purchase rate, and listed companies had a negative impact.
- **Al-Janahi, Husam Mohammed (2021):** "The Impact of Economic Performance Indicators on the Performance of the Iraq Stock Exchange for the Period 2007-2018." The study found a strong direct relationship between economic stability indicators (GDP, inflation, unemployment) and the performance indicators of the Iraq Stock Exchange.
- **Hafsi (2020):** "The Effects of Stock Market Indicators on Economic Growth in the Sultanate of Oman using the ARDL Model during the period 1993-2016." The study showed a long-term balanced relationship between market capitalization and economic growth (GDP), while trading value showed no relationship.
- **Vithalbai, V.S (2020):** "Analysis of Impact of Gross Domestic Products (GDP) on Stock Market Movement in India." The study found a strong relationship between GDP and the SENSEX and NIFTY 50 indices in India.
- **Haj Nour (2020):** "The Impact of Change in Gross Domestic Product on the Exchange Rate in Sudan for the Period 2010-2018." The study found a statistically significant relationship between GDP and the exchange rate in Sudan.

#### **Difference of the Current Study from Previous Studies:**

The current study is distinguished by its focus on a sensitive and unique period, the Syrian Revolution (2011-2023), whereas previous studies covered different time periods and other countries. The current study focuses on the relationship between gross and net domestic product and the market index, while previous studies addressed variables like inflation and unemployment. This difference gives the current study an advantage in analyzing the direct relationship between economic development indicators and market performance in an environment of instability.

#### **5. Study Objectives:**

The research aims to test the impact of economic development indicators on the market index during the period 2011-2023 by:

1. Testing the impact of GDP on the Damascus Securities Exchange index (trading).
2. Testing the impact of NDP on the Damascus Securities Exchange index (trading), by examining the impact of industrial production, agricultural production, and service production.

#### **6. Importance of the Study:**

The study's importance lies in its scientific and practical aspects, contributing to the understanding of the complex economic relationships between GDP, NDP, and the Damascus Securities Exchange index during 2011-2023. Scientifically, it provides a theoretical framework for analyzing the impact of economic variables on financial market performance, enhancing academic knowledge of the Syrian economy during crises. Practically, it aims to provide valuable information for decision-makers and investors, helping to identify investment risks and opportunities in the Syrian financial market.

#### **7. Study Hypotheses:**

- **H1:** There is a statistically significant impact at a significance level of ( $\alpha \leq 0.05$ ) of the Gross Domestic Product on the Damascus Securities Exchange index (trading) during the period 2011-2023.
- **H2:** There is a statistically significant impact at a significance level of ( $\alpha \leq 0.05$ ) of the Net Domestic Product on the Damascus Securities Exchange index (trading) during the period 2011-2023.

- **H2a:** There is a statistically significant impact of industrial production.
- **H2b:** There is a statistically significant impact of agricultural and livestock production.
- **H2c:** There is a statistically significant impact of service production.

### **8. Study Methodology:**

The research adopted a descriptive-analytical approach, focusing on time-series analysis for the period 2011-2023. Data was collected from official sources like government economic reports, international organizations, and the Damascus Securities Exchange. Time-series analysis techniques, including unit root tests, Granger causality tests, and ARIMA models, were used.

### **9. Study Population and Sample:**

The study population is the Syrian economy. The sample includes companies listed on the Damascus Securities Exchange.

### **10. Study Limitations:**

- **Spatial:** Syrian Arab Republic – Syrian companies listed on the Damascus Securities Exchange.
- **Temporal:** The study was conducted in 2025, covering the period 2011-2023.

### **Hypotheses Testing:**

- **H1 (GDP Impact):** Multiple regression analysis showed no statistically significant impact of GDP on the market index (Sig. = 0.412 > 0.05). The model's R-squared was only 6.2%. **Hypothesis Rejected.**
- **H2 (NDP Impact):**
  - **H2a (Industrial Production):** Found a statistically significant impact (Sig. = 0.044 < 0.05). R-squared was 29.6%. **Hypothesis Accepted.**
  - **H2b (Agricultural Production):** Found a statistically significant impact (Sig. = 0.005 < 0.05). R-squared was 52.9%. **Hypothesis Accepted.**
  - **H2c (Service Production):** Found no statistically significant impact (Sig. = 0.325 > 0.05). R-squared was 8.8%. **Hypothesis Rejected.**
- **Main H2 (Overall NDP Impact):** A multiple regression model with all three production sectors (industrial, agricultural, service) was statistically significant (Sig. = 0.040 < 0.05). The model explained 56.4% of the variance in the market index. The most influential components were industrial and agricultural production. **Hypothesis Accepted.**

### **Summary of Hypotheses Results:**

- No significant impact of GDP on the DSE index.
- A significant impact of NDP on the DSE index, with a positive correlation of 56.4%.
- A significant impact of industrial production on the DSE index.
- A significant impact of agricultural production on the DSE index.
- No significant impact of service production on the DSE index.

## **Study Results:**

- The lack of GDP impact is attributed to market volatility from political instability, Central Bank interest rate policies, the exclusion of unlisted private sector companies, and the effects of economic recession and high inflation.
- The positive impact of NDP on the market index indicates that an improvement in economic activity increases investment attractiveness. The decline in NDP in Syria due to sanctions, conflict, and infrastructure decay was reflected in the market.

## **Recommendations:**

1. Enhance periodic monitoring and analysis of industrial production indicators and integrate them into market forecasting models.
2. Monitor the performance of the agricultural sector and integrate it into economic indicators affecting the financial market, especially during periods of contraction.
3. Increase trading efficiency, provide indirect financing for projects, and conduct awareness campaigns about the importance of trading on the Damascus Exchange.
4. Raise investor awareness about the importance of trading in small and growing companies, not just large ones.
5. Ease listing requirements on the Damascus Exchange to increase liquidity and attract foreign companies and investors through tax incentives.

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