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Research Article

The relationship between the Istanbul Stock Market and Türkiye's foreign trade

Borsa İstanbul ve Türkiye'nin dış ticareti arasındaki ilişki

Selma Ayture[1]

Meltem Keskin[2]

[1] Assoc.Prof.Dr., Ankara, Türkiye, selma_ayture@hotmail.com

ORCID: 0000-0003-0184-5040

[2] Assoc. Prof. Dr., Yıldırım Beyazıt Universitiy Institution, Ankara, Türkiye, meltemkeskin@aybu.edu.tr

ORCID: 0000- 0002-8536-4940

Corresponding Author:

Assoc.Prof.Dr. Meltem Keskin,

Yıldırım Beyazıt Universitiy Institution, Ankara, Türkiye, meltemkeskin@aybu.edu.tr

Abstract

International trade is a significant indicator determining all countries' competitiveness and welfare levels, whether developed or developing. Stock markets are indicators of capital markets and economies. In this context, it may be significant to determine the relationship levels of international trade and the stock market. Purpose of the study: To examine the relationship and level between international trade potential in Türkiye and the BIST 100 Index (XU100) in the period 2013:01-2023:12. For this purpose, the reflection of Türkiye's exports and imports on BIST 100 was evaluated using Johansen Cointegral and Granger Causality Analysis methods. According to the findings, it has been determined that exports and imports are related to BIST 100 performance in the short and long term and cause BIST 100 performance. Exports positively affect BIST 100 performance in the short and long term, while imports negatively affect BIST 100 performance in the short and long term.

Keywords: XU100, Türkiye, International Trade

Jel Codes: F23, F30, F36

Öz

Uluslararası ticaret ister gelişmiş ister gelişmekte olsun tüm ülkelerin rekabet gücünü ve refah seviyesini belirleyen önemli bir göstergedir. Borsalar ise sermaye piyasalarının ve ekonomilerin indikatörüdür. Bu bağlamda, uluslararası ticaretin ve borsanın ilişki düzeylerini belirlemek önemli olabilmektedir. Çalışmanın amacı; Türkiye özelinde uluslararası ticaret potansiyel ile Borsa İstanbul'da işlem gören, işlem hacmi ve piyasa değeri en yüksek 100 hissenin oluşturduğu BIST 100 Endeksi (XU100) arasında ilişki ve düzeyi 2013:01-2023:12 döneminde incelemektir. Bu amaç doğrultusunda Türkiye ihracat ve ithalatının BIST 100 'de yansıması Johansen Eşbütünsel ve Granger Nedensellik Analizi yöntemlerinden yararlanılarak değerlendirilmiştir. Bulgulara göre ihracat ve ithalatın kısa ve uzun dönemde BIST 100 performansı ile ilişkili olduğu ve BIST 100 performansına neden olduğu tespit edilmiştir. İhracat BIST 100 performansı üzerinde kısa ve uzun dönemde pozitif yönde anlamlı etkiye sahip iken, ithalat BIST 100 performansı üzerinde kısa ve uzun dönemde negatif yönde anlamlı etkiye sahiptir.

Anahtar Kelimeler: BIST100, Türkiye, Uluslararası Ticaret

JEL Kodları: F23, F30, F36

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Introduction

International trade has an extraordinary power in the modern world, as it did during the Trading Colonies in BC. Moreover, trade is a significant financial resource for export/import countries and the healthy continuation of international capital markets. In particular, efforts to eliminate national customs borders after the second half of the 20th century increased the speed of international trade. With the services provided by financial technologies, the world is taking rapid steps towards a single giant market. In this situation, the international trade of products and services also enables companies to compete freely in a competitive environment. This contributes to the company's reliability and recognition while increasing the number of international potential buyers/sellers. This increases the market values of companies. Stock exchanges are among the primary institutions that compare those with excess funds and those needing funds in the capital markets. When viewed from this perspective, the existence of a relationship between the developments in international trade in goods and services and the stock market is worth analyzing.

In international trade, it is widely accepted that exports increase income, but imports have a narrowing effect on national income due to resource leakage (Nicita, 2013). In addition, thanks to their commercial transactions, such as export or import, companies benefit from trade opportunities through the international business network and ensure that their stocks are preferred by many national/international investors on the stock exchanges where they are listed. In addition, if exports are dependent on imports, that is if they are treated as production inputs, it will positively impact the stock market and contribute to national growth. A positive impact on the stock market will deepen the capital markets and prevent market vulnerabilities. Thus, national economic indicators will be positively affected, advantageous, and reliable in international markets (Köylü, 2018: 390). It is mentioned in the literature that the stock market index also increases in periods when the economy achieves a stable growth process. Economic stability will likely also emerge between the country's exports and imports and the stock market. In this context, the literature review summarising the studies on the relations between the stock market and exports and imports constituted the second part of the study. Based on the literature in the second part, variables and methods were selected in the third part, and the stock market and export and import relations in Türkiye were researched using statistical analysis. In the conclusion part, inferences were made specifically for the Turkish economy.

The international competitiveness of Turkish capital markets is significant. Borsa Istanbul is one of the institutions mediating the transfer of funds to the Turkish capital market. Within Borsa Istanbul, indices with different features are calculated to monitor market transactions and evaluate the assets underlying financial products and standard investment instruments. One of these indices is BIST 100. The index consists of 100 shares and includes one hundred shares among real estate investment trusts and capital investment trusts traded on the Structured Products, Investment Products, Collective, Star and Main Markets (Keskin and Yücel, 2019: 166).

This study examines the relationship between Türkiye's international trade and the companies' shared values, consisting of the hundred shares with the highest trading volume and market value in Borsa Istanbul. The relationships between Türkiye's exports and imports and BIST 100 index return rates were analyzed in this context. The short/long-term relationships between BIST 100 performance and exports and imports between 2013-2023 were examined to determine whether they were the cause of XU100 performance. For this purpose, Johansen Cointegration and Granger Causality analyses were used. It has been determined that exports and imports are related to BIST 100 performance in the short/long term.

Literature review

Many studies have been conducted using foreign trade data when the literature is examined. Some studies examine the relationship between foreign trade and exchange rates, interest rates, inflation, oil and gold prices. Some of them are as follows:

Wilson and Takacs (1979) examined the effects of exchange rates on the foreign trade of ten economically developed countries between 1957 and 1977 using the Junz-Rhomberg method. They concluded that the effects of exchange rate changes on foreign trade differ significantly in periods when interest rates are fixed. In their study, Buckle and Pope (1985) investigated the relationship between New Zealand inflation and trade rates between 1974 and 1985 using the RBNZ and BHP methods. They found that export prices were more inflationary than imports. In their study, Perée and Steinherr (1989) tested the relationship between exchange rate and foreign trade in the United States (USA) between 1960 and 1985. They concluded that this relationship was strong in the mid-term period. In and Menon (1996) tested the relationship between exchange rates and foreign trade in seven OECD countries with the

Cointegration test and Granger Causality analysis. As a result, they have found relevance in countries including the USA, Germany, France, England, Italy, Japan and Canada.

Chen, Tsaur and Liu (1989) modelled the relationship between inflation and trade in China. In the study, they concluded that the trade balance value deteriorated in periods when imports were flexible. Baldemir and Gökalp (1999) determined no cointegration relationship between the exchange rate and Turkish foreign trade through cointegration and Granger Causality tests in their study covering 1980-1997. Arize, Osang and Slottje (2000) examined the effects of the exchange rate on foreign trade using Johansen Cointegration analysis in 13 underdeveloped countries between 1973 and 1996 and concluded that the exchange rate affected foreign trade. In their study, Kara and Nelson (2003) tested the relationship between the exchange rate and inflation with foreign trade in the United Kingdom between 1964 and 2001. They concluded that the variables were closely related to imports. Yamak and Korkmaz (2005) tested inflation, exchange rate and foreign trade balance in Türkiye in 1995-2004 using Granger Causality and impulse-response functions. As a result, they detected strong correlations between the variables.

Reyes (2007) examined the relationship between the exchange rate pass-through and inflation in developing economies between 1989 and 2004. With correlation analysis, he found that the variables greatly impacted each other. Peker (2008) analyzed the real exchange rate and foreign trade relationship in Türkiye between 1992 and 2006. He determined that even a 1% change in the exchange rate negatively affects the foreign trade balance. Vergil and Erdoğan (2009) examined the exchange rate and Turkish foreign trade between 1998 and 2005 using the ARDL Cointegration test method. It was found that there is a long-term relationship between the variables. Ordu (2013) examined the relationship between the exchange rate and Turkish foreign trade in 1989–2012. He found that the increase in imports affects the demand in the domestic market, and the increase in exports is associated with economic growth. In their study, Hüseyin and Kutlu (2019) analyzed the var model, Türkiye's foreign trade, inflation and exchange rate balance. They found that inflation and real exchange rates changed the foreign trade balance in the 2003-2019 period. Aytekin and Okyay (2022), Türkiye between 2004-2019; It has been concluded that exchange rate, inflation and foreign trade figures affect each other, especially in the long term. Hepaktan, Çinar and Dündar (2011). They analyzed the effect of the exchange rate on foreign trade in Türkiye between 1982 and 2011 using Johansen Cointegration and Granger Causality methods. They concluded that the effect of the exchange rate on foreign trade is strong.

Şenol and Koç (2021) examined the impact of exchange rate risks on company performances using panel data analysis between 2007 and 2019. The study concluded that exchange rate risk reduces the profitability of businesses but does not affect firm value.

Barakalı and Elmas (2022) used panel data analysis to examine the effect of exchange rate risk on BIST30 in 2016-2021. They found that the effect of companies' foreign currency positions on market value was significant and positive.

Gürbüz, Kılıç and Bekereci (2023) studied the relationship between syndicated loans used in Türkiye in the 2013 – 2022 period and foreign trade volume, real exchange rate and BIST 100 index were examined with Johansen Cointegration and Granger Causality test. While there is a bidirectional causality between foreign trade volume and real exchange rate, a unidirectional causality relationship was found between the BIST100 index and syndicated loans.

Ani, Nzewi and Abere (2024) tested the exchange rate changes and stock market performance of manufacturing companies in the Nigerian Stock Exchange with regression analysis in the 2013-2023 period. The study concluded that the exchange rate has non-significant negative effects on market performance.

Studies examining the relationship between the stock market and foreign trade are included in the literature. Some of these studies are as follows:

Table 1: Studies Evaluating Relations between the Stock Market and Export/Import

Author	Subject	Data Set Period	Method	Result
Fung, Lo & Leung (1995)	Evidence for the relationship between international trade and the stock market.	S.Korea, Hong Kong, Singapore and Taiwan (1975-1991)	VAR & Granger Causation	Foreign trade data affects the stock market.
Dvorak (2001)	Effects of foreign trade on local stock markets.	10 advanced and 10 developing countries (MSCI index) (1990-2000)	Mathematical Analysis.	When the total transaction volume is controlled in developed countries, foreign trade does not have any effect on market volatility.
Nielsen (2010)	Stock returns and export and ımport.	Denmark, Netherlands, France and England (1970-2010)	Correlation, Simple regression and Time series analysis	It has been concluded that import and export data can help estimate stock value.
İkizlerli & Ülkü (2012).	Evidence of a relationship between foreign trade and the emerging stock market.	ISE indices and MSCI World index (1997-2008)	The impulse response functions (IRFs) Mathematical analysis.	Evidence has been found on political risks and the dynamics of foreign trade in stock markets.
Ülkü (2015)	The interaction between trading and stock market returns.	Türkiye, Greece, Hungary, Poland, Czech Republic, Slovenia and Romania (1997-2011)	Vector Auto Regression (VAR)	In many countries, foreign trade and investment have a positive simultaneous relationship with domestic returns.
Coşkun, Kiracı & Muhammed (2016)	Relationship between macroeconomic data and stock prices.	Türkiye (1992-2012)	Granger Causality test	A one-way causality relationship was determined between the BIST industrial production index and foreign trade.
Hasanujzaman (2016)	The effect of export growth on the stock market.	Bangladesh (2004-2013)	VAR	The stock market reacts positively to exports.
Brzeszczyński & Ibrahim (2019)	Effect on domestic and international trade performance in stocks.	America, Europe and Australasia (1998 – 2011)	Mathematical Analysis	When comparing fair value transactions using trading signals, it was concluded that stocks are very profitable.
Sadeghzadeh (2019)	The impact of Turkish imports and exports on the stock market.	Türkiye (1989-2018)	DOLLS Granger Causality test	It has been concluded that exports and imports affect the stock market in the short term.
Akmeşe, Demiroğlu & Akmeşe (2023)	Foreign trade and stock market relationship	Türkiye (2013- 2023)	ARDL	There is a cointegration relationship between data.
You (2024)	International trade and stock market connection.	Composite Index, S&P500, STOXX, FTSE 100, UK, Hang Seng Composite, Nikkei 225, SASX 200, Africa All Share, Bovespa Index & Nifty 50 index (2000 -2021)	DYCI (Diebold-Yilmaz Connectedness Index) VAR	Imports and exports affect stock markets.

As seen in the literature, while exports or imports impact the stock market, some studies have shown that they do not. Some of the reasons for this are; There may be changes depending on the country of application, the period in which the study was conducted, or the analysis method. After the pandemic that occurred in 2019, habits started to change. Technological changes have entered our lives at an accelerated pace. One of the areas where these changes were most intense was finance. Today, when the world is a single market, it is the BIST 100 index where the companies with the highest market value are traded in Borsa Istanbul, in the markets combined with fintech. Whether there is a relationship

between the recognition abroad and the shared values of the 100 companies traded in Borsa Istanbul is considered a subject worth examining.

Method and findings

The data set for the study was obtained from the official websites of Borsa Istanbul (2024) and TÜİK (2024). "Since all data used in this article were obtained from public web pages, this is a study that does not require an ethics committee decision."

The study examined the short- and long-term relationships between the BIST 100 index and Türkiye's exports and imports calculated in US Dollar currency to determine whether they caused the BIST 100 performance. Cointegration and causality analyses were used for this purpose. Before the Cointegration analyses, the normal distributions of the series were checked, and their single normal distributions were ensured by making logarithmic transformations. When the years 2022 and 2023 are included, the correlation between import and export variables is 0.84 (0.83 when the logarithms of the variables are taken), and the multiple normal distribution cannot be achieved in the model tests (J-B joint test statistics are significant at 0.05 and 0.01 levels). Data for 2021 (correlation between exports and imports 0.62) were included in the model.

Since the series must be stationary at the same level (integrated to the same degree) to perform the Cointegration analysis, the Extended Dickey-Fuller (ADF) (Dickey and Fuller, 1979) unit root test was applied, and it was observed that all of the series contained unit roots at the same level, but were stationary at the first difference. In the unit root test, all three models without a constant term, with a constant term and with a constant term and trend were tested and reported in Table 2.

The Wald lag exclusion test (VEC Lag Exclusion Wald Tests) was used to determine the appropriate lag length in the Cointegration analysis. Since the null hypothesis in the test is that "the relevant delay should be excluded", when $p>0.05$, the hypothesis is accepted, and the relevant delays are excluded. When p and the relevant delay are accepted.

Since heteroscedasticity, autocorrelation, and multiple norm distribution must be ensured for the validity of the model test, the White test (White VEC Residual Heteroskedasticity) is used for the heteroscedasticity problem, the LM test (VEC Residual Serial Correlation LM Test) (Cox & Solomon, 1988) and multiple normal are used for the autocorrelation problem. The Urzua RC multiple normal distribution test (VEC Residual Normality Test / Urzua RC) (Urzúa, 1996) was applied for the distribution condition. The White test (White VEC Residual Heteroskedasticity), which performs the heteroscedasticity problem, tests the null hypothesis that "the series have common variance", and the hypothesis is accepted when $p>0.05$ for the chi-square test statistic. LM test (VEC Residual Serial Correlation LM Test) tests the null hypothesis of "there is no serial relationship/correlation" for each delay within the specified delay range, and the hypothesis is accepted when $p>0.05$ for the LM test value (White, 1980). The Urzua RC test (VEC Residual Normality Test/ Urzua RC) calculates that the series are jointly normally distributed by the square root of covariances method, using the Jarque Berra test statistic (Bera & Jarque, 1980). The null hypothesis, "residuals of the series show normal distribution", is tested separately for each component. However, when the Joint test result is $p>0.05$, it is understood that the series jointly show normal distribution (multiple normal distribution is achieved).

Johansen Cointegration test was performed to determine the number of cointegration equations, and Trace and Max-Eigen test results were taken into account to determine the number of vectors. Johansen (1988). recommends trace test and maximum eigenvalue tests to determine the number of cointegration vectors and emphasizes that these calculated test statistics should be compared with the obtained critical values or p values should be taken into account (Johansen 1988). In the tests, cointegration numbers are determined for models without a constant term, with a constant term, and with a constant term and trend, as well as testing the null hypothesis of "there is no cointegration" (Johansen, 1995). The null hypothesis is tested separately for Trace and Max-Eigen statistics. When the values of these tests exceed the critical values ($p < 0.05$), the hypothesis of no cointegration relationship is rejected.

In the final stage of the study analysis, the prediction model was tested by considering the linear vector error corrected (VECM) Cointegration model. Since only the effects of exports and imports on BIST performance were examined in this study, the Cointegration equality of both independent variables with the BIST variable was taken into account, and vector error corrected (VEC) Granger Causality/ Block Exogeneity Wald test was performed to question whether exports and imports were the cause of BIST 100 performance. When BIST 100 is the dependent variable in the test, the null hypothesis for each independent variable regarding which independent variables should be excluded from the model is "the relevant independent variable should be excluded". The null hypothesis is rejected when the chi-

square test statistic is p<0.05. It is understood that the relevant independent variable should remain in the model and cause the dependent variable.

Table 2 shows the descriptive statistics of the series included in the model.

Table 2: Descriptive Statistics of the Series

Seri	Kısaltma	Log	Min.	Maks.	Ort.	SS	J-B(p)
BIST 100[3]	BIST	LNBIST	618.8	1857.65	975.127	246.123	3.888(0.143)[a]
Export[1]	EXPORT	LNEXP	8978291	22233318	14310770	2325968	5.985(0.050)[a]
Imports[1]	IMPORT	LNIMP	13393633	29064822	19434526	2778337	.

[1]: According to the general trading system, Thousand US Dollars, [2]: BIST 100 month-end closing value, J-B: Jarque-Bera

[a]: After logarithmic transformation

Extended Dickey-Fuller (ADF) unit root test was used to determine the stationarity of the logarithmically transformed series. Table 3 gives the unit root test results.

Table 3: Unit Root Statistics of the Series

Serial	Model	Unfixed	Fixed	Stable+Trending
LNBIST	At the level	0.995	*-0.349*	-2.622
	1st difference	-9.371**	*-9.435***	-9.504**
LNEXP	Level	0.468	*-2.567*	-5.525**
	1st difference	-15.961**	*-15.921***	-9.141**
LNIMP	Level	0.433	*-2.295*	-2.180
	1st difference	-16.138**	*-16.081***	-16.112**

*: 5% significant at the level **:1% significant at the level

According to the ADF unit root test results in Table 3, it was determined that the series were stationary in their first differences [I(1)] in the constant term and trend model. Table 4 shows the results of the Wald delay exclusion test (VEC Lag Exclusion Wald Tests) performed to determine the appropriate delay length.

Table 4: Delay Length Determination Results

Delay	Joint (p)
Dlag1	31,688 (**0,000**)
Dlag2	25,025 (**0,002**)
Dlag3	13,891 (0,126)
Dlag4	8,473 (0,487)
Dlag5	16,055 (0,066)
Dlag6	7,318 (0,603)

Appropriate delay length has been tested for up to 11 delays, and the first 6 delays are shown in the table.

According to the Wald error-corrected delay length exclusion test results in Table 4, the hypothesis that the first two delays should be excluded was rejected (p>0.05), and the hypotheses that the subsequent delays should be excluded (p<0.05) were accepted. Accordingly, the most appropriate delay lengths are delays 1 and 2.

Table 5 shows the heteroscedasticity, autocorrelation and multiple normal distribution results in the vector error correction model (VECM) cointegration model.

Table 5: Heteroscedasticity, Autocorrelation and Multiple Normal Distribution Results

	Statistics	p	Conclusion
Heteroscedasticity (White VEC Residual Heteroskedasticity)	240.037	0.076	There is no heteroscedasticity problem
Autocorrelation (VEC Residual Serial Correlation LM Test)	16.516	0.057	There is no autocorrelation problem (Lag 2)
Multiple normal distribution (VEC Residual Normality Test / Urzua RC)	23.683	0.527	Residuals are normally distributed

The model has no heteroscedasticity problem (X2=240.037; p>0.05), no autocorrelation problem (LM-Stat=16.516; p>0.05) and multiple normal distribution condition is met (Joint J-B=23.863; p>0.05).) was detected.

In Table 6, the Johansen Cointegration test was performed to determine the number of cointegration equations, and Trace and Max-Eigen test results were considered to determine the number of vectors. Johansen (1988) recommends a trace test and maximum eigenvalue test to determine the number of cointegration vectors and emphasizes that these calculated test statistics should be compared with the obtained critical values, or p values should be considered. Table 6 shows the Trace and Max-Eigen test results for determining Johansen Cointegration vector numbers and ranking unconstrained cointegration.

Table 6: Co-Integration Vector Numbers and Ranks Test Results

	- No S No T	**- S Yes T Yes**	**Linear S Yes No T**	**Linear S Yes T Yes**	**Quadratic S Yes T Yes**		
Trace	0	0	0	1	1		
Max-Eigen	0	0	0	1	1		
H0 Hypothesis	**Eigenvalue**	**Statistics**	**p**	**H0 Result**	**Statistics**	**p**	**H0 Result**
There is no cointegration	0.256	50.091	0.008	Denial	31.174	0.008	Denial
Most 1	0.132	18.916	0.286	Acceptance	19.387	0.197	Acceptance
Most 2	0.037	3.982	12.517	0.745	12.517	0.745	Acceptance

S: Constant term T: Trend

According to the Johansen Cointegration test results, it was determined that the hypothesis of no cointegration was rejected (p<0.05) and that there was one cointegration equation in the linear constant term and trend model and the quadratic constant term and trend model. Since the study searched for a linear relationship, a linear vector error corrected (VECM) Cointegration model with constant terms and trends using second lags was considered. Vector error-corrected short- and long-term forecast results are given in Table 7. Since the effect of exports and imports on BIST performance was examined in the research, only the BIST variable and cointegration equality were considered.

Table 7: Short and Long-Term Forecast Results with Vector Error Correction

Forecast Period	**Coefficient**	**SH**	**t**
Long Term			
LNEXP	30.133	11.556	2.607**
LNIMP	-25.971	4.135	-6.281**
Short Term			
COINTEQ	***-0.374***	***0.090***	***-4.138*** **
D(LNBIST(-1))	0.342	0.105	3.257**
D(LNBIST(-2))	0.098	0.107	0.923**
D(LNEXP(-1))	6.525	5.024	1.298
D(LNEXP(-2))	14.581	4.799	3.038**
D(LNIMP(-1))	-7.151	2.523	-2.834**
D(LNIMP(-2))	-5.551	2.353	-2.358*
C	0.086	0.165	0.516
R^2	0.216		
ΔR^2	0.160		
F	3.830		

*: Significant at 10% level **: Significant at 5% level ***: Significant at 1% level

The fact that the error correction coefficient (COINTEQ) is negative (between 0 and -2) and significant shows that the variables are cointegrated, and the inverse of the coefficient (1/coefficient) gives information about how long it will take for shocks to occur in the short term to balance. In other words, shocks experienced in the short term are balanced in the long term. When the test results in Table 6 were examined, it was determined that the error correction coefficient of the estimated model was negative and statistically significant (Cointeg=-0.374; p<0.05). According to the cointegration coefficient, shocks occurring in the short term in export and import variables balance in the long term (after approximately 3 months) (1/0.374=2.673). When long-term equations are examined, a 1% increase in exports increases the BIST 100 performance by 30.13% (B = 30.133). A 1% increase in imports reduces BIST 100 performance by 25.97% (β=-0.611). When short-term relations are examined, it has been determined that

the first and second delays lead to a positive increase in BIST 100 performance, exports lead to an increase in BIST 100 in the first and second delays, and imports cause a decrease in BIST 100 performance in both delays.

The results of the vector error corrected (VEC) Granger Causality / Block Exogeneity Wald test used in the Causality/externality relationship between variables are shown in Table 8. In test statistics, the null hypothesis (H0) is "Variable X is not the cause of Y / should be excluded". In this case, when the p-value of the X2 statistic is less than 0.05 ($p<0.05$), it is understood that the independent variable is the cause of the dependent variable and can be included in the model.

Table 8: VEC Granger Causality/Block Exogeneity Wald Test Results

	X^2	sd	p
When LNBIST is the dependent variable:			
D(LNEXP)	9.292	2	0.009
D(LNYURT)	9.750	2	0.008
All	15.891	4	0.003

According to the exogeneity tests in Table 8, it is seen that the null hypothesis, which states that both export and import variables are exogenous and the dependent variable is not caused, is rejected at the 0.05 level. Therefore, it is consistent that both independent variables are included in the model, and exports and imports are the reasons for BIST 100's performance.

Conclusion

Stock exchanges are among the capital market institutions that are the reasons that affect market indicators and the results of economic performance for countries. Developments in trade in goods and services constitute significant elements of globalization markets, and the existence of stock market relations can be considered worth examining. For this reason, there are studies in the literature on variables that affect country stock markets, determine stock market indices and/or affect the stock market index. The effects and levels of foreign trade on the stock market may vary from country to country or period. In today's world, where financial technologies are rapidly changing and being used, the relationship level of the companies with the highest market value and transaction volume in BIST 100 consists of 100 stocks with the highest market value and transaction volume in BIST 100 with the index code.

This study analysed the direction and degree of mutual impact of Türkiye's exports and imports on Borsa Istanbul. For this purpose, the relationship level between the periods 2013:01-2023:12 was examined with Causality and Cointegration tests in the BIST 100 index used in Borsa Istanbul, and its code is XU100, in the context of the stocks that are among the top hundred in terms of capital structure of Türkiye. It has been seen that foreign purchases and sales in both the short and long term are related to the BIST 100 performance and also cause the BIST 100 performance. However, it was determined that exports had a significant positive effect on BIST 100 performance in the short and long term, while imports had a significant negative effect.

Especially in developing economies, developments in international trade are likely to have the power to influence investor decisions. It is also expected that there will be relations between developments in trade in goods and services and exports and purchases, which reflect production. In this context, Türkiye's international trade determines the general economic conjuncture and affects the stock market index. This result is consistent with Fung et al. (1995), Dvorak (2001) and Hasanujzaman (2016) in the opposite direction; Coskun et al. (2016), Akmeşe et al. It can be said that it is similar to the studies conducted by You (2023) and You (2024).

Suggestions

Some strategic suggestions can be taken into consideration to strengthen Türkiye's capital market and stock market by increasing its exports: diversifying into innovative value-added sectors, organizing logistics networks at effective costs, branding by strengthening international marketing strategies, providing digital transformation incentives in trade, expand exports through economic diplomacy by developing trade agreements; providing financial incentives using tax policies; efficient use of human resources; It is considered that strategies such as green and sustainable production may be a way to strengthen Türkiye's market and stock market by contributing to its exports.

As a result, increased foreign trade may positively affect the stock market. It can be said that this study is beneficial for individual investors and brokerage firm representatives who will invest in the stock market to also consider foreign trade data.

Limitations and future research

The subject discussed in this study was researched for businesses in the BIST 100 index. However, in future studies, the factors affecting Türkiye's foreign trade and exports can be examined based on different sectors and indices and tested with Türkiye's various macroeconomic indicators. Thus, the findings will enrich the literature.

Ethical Text

In this article, journal writing rules, publishing principles, research and publication ethics rules, and journal ethics rules have been followed. The authors declare that the study included in the article is among the studies that do not require ethics committee permission.

Peer-review:

Externally peer-reviewed

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