Tüketici Güven Endeksi Yabancı Yatırımcıların Portföy ve Hisse Senedi Yatırımlarını Nasıl Etkiler: Türkiye Üzerine Bir Araştırma

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Özet

Yatırımcı duyarlılığının bir göstergesi olan tüketici güven endeksinin, yabancı yatırımcıların portföy ve hisse senedi yatırımları üzerinde bir etki oluşturup oluşturmadığı bu araştırmada incelenmiştir. Türkiye'deki tüketici güven endeksi ve yabancıların portföy ve hisse senedi yatırımlarının 2012 ve 2020 yılları arasındaki çeyrek dönemlik verileri kullanılarak analizler yapılmıştır. Değişkenler arasında ikili VAR modelleri oluşturulmuş ve neden sonuç ilişkilerinin tespiti için Granger nedensellik analizleri yapılmıştır. Sonuçlar, tüketici güven endeksinden yabancı yerleşiklerin yaptığı yurtiçi portföy yatırımlarına doğru Granger nedenselliğinin bulunduğunu göstermektedir. Granger nedensellik ilişkisi, tüketici güven endeksinden yabancı yerleşiklerin yurtiçi hisse senedi yatırımları yönünde de tespit edilmiştir. Regresyon analizi sonuçları, tespit edilen nedensellik ilişkilerinin pozitif yönlü oluğunu işaret etmektedir. Tüketici güven endeksindeki bir artışın yabancı yerleşiklerin yurtiçi portföy ve hisse senedi yatırımlarında artışa yol açabileceği veya bunun tam tersi durumda azalacağı sonucuna varılmıştır. Bu sonuçların, tüketici güven endeksinin yabancı yatırımcıların portföy ve hisse senedi yatırımlarının miktarını tahmin etmede yatırımcı duyarlılığının bir ölçüsü olarak kullanılabileceği düşünülmektedir.

Anahtar Kelimeler

How Consumer Confidence Index Affects Foreign Investors' Portfolio and Equity Security Investments: A Research on Turkey

Abstract

In this study, it has been investigated whether the consumer confidence index, which is an indicator of investor sensitivity, has an effect on the portfolio and equity security investments of foreign investors. Analyses are made using the consumer confidence index and the quarterly data of foreigners' portfolio and equity security investments in Turkey between 2012 and 2020. Dual VAR models are created and Granger causality analyses are performed. The results show there is Granger causality from the consumer confidence index to the portfolio investments made by foreign residents. This causality is also determined in the direction to equity security investments. Regression analyses indicate that the causality relationships have a positive sign. It is concluded that an increase in the consumer confidence index may lead to an increase in the domestic portfolio and equity security investments of foreign residents or, on the contrary, it will decrease. These results could be interpreted as the consumer confidence index might be used as a measure of investor sentiment in estimating the amount of portfolio and equity security investments of foreign investors.

Keywords

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Introduction

Traditional finance, which is based on the concepts of modern portfolio theory put forward by Harry Markowitz (1952) and the efficient market hypothesis defined by Fama (1970), describes people as rational. The concept of traditional finance has received some criticism with the studies carried out. Behavioral finance's roots were built and expanded with these research. With the examination of uncertainty (Tversky & Kahneman, 1974), risk and complexity (Kahneman & Tversky, 1979) factors, the concept of finance has begun to gain a different dimension with behavioral finance studies that define people as irrational. Irrational human behavior, people's cognitive inclinations, behavioral tendencies, decision-making systems, emotions, and social interactions, as well as the consequences of all of these on the markets, are all examined with behavioral finance.

One of the indicators of investors' behavioral tendencies is investor sentiment. Investors' economic and financial expectations and their confidence about the economy and financial markets are considered among the indicators of investor sentiment. In order to investigate the investor sentiment, different kinds of surveys are made (Lemmon & Portniaguina, 2006, Menkhoff & Rebitzky, 2008). Consumer confidence indices are widely used as an important instrument for measuring investor sentiment.

Qiu and Welch's article compares investor sentiment measures based on consumer confidence surveys with measures taken from closed-end fund discounts. In this article, for a short period of 2-4 years, according to the direct investor sentiment survey data obtained from UBS / Gallup, it is found that there is a correlation between consumer confidence and investor sentiment. Another statement in this study is that consumer confidence seems to be a similar concept to investor sentiment, consumer confidence index has a component related to investor sentiment and when viewed as a value expressing investor sentiment, consumer confidence and investor sentiment must be positively correlated.

In Nofsinger's study (2005), it is stated that social mood is reflected in consumer behavior and when the society is optimistic, investors are more willing to borrow more and increase their spending. It is stated that the social mood that manages the activities of investors, company executives and consumers causes the stock market to move upwards and the size of the economy increases, and if the social mood rises too high, it can cause stock market bubbles and institutional excessive investments by creating excessive trust and enthusiasm.

Schmeling (2009) investigated whether the consumer confidence index, which is an indicator of investor sentiment, affects internationally anticipated stock returns in 18 industrialized countries. In this study, it was stated that investor sentiment was successful in predicting average total stock market returns across countries, and the relationship between variables was negative. In this study, it was also found that the relationship between investor sentiment and return, which seems intuitively rational for countries with high market integrity, is weak, and the effect of investor sentiment on stock returns is higher in countries with low market integrity and culturally more prone to herd behavior and overreaction tendencies. Thanks to globalization, technological developments and the internet, the convergence between financial markets has increased. This change has increased the willingness of foreign investors to seize possible opportunities, especially in developing countries. These preferences of foreign investors result in an increase in financial investments made by foreigners to developing countries. It is known that foreign investment is affected by many factors and consumer

confidence index is among these factors. From this point of view, it is thought that examining the effect of the consumer confidence index on foreign investors can make important contributions to the determination of the current situation, as well as to make future predictions of the financial markets and to increase the motivation of foreign investors.

In this research, the aim is to expose whether the consumer confidence index affects the domestic portfolio and equity security investments of foreign investors. The consumer confidence index of Turkey is calculated from the results of a consumer trend survey conducted by the Turkish Statistical Institute and The Central Bank of the Republic of Turkey. In this survey, consumers' consumption and saving patterns, prospects about the next periods, perceptions of the financial condition, and the current situation of the general economy are analyzed (TÜİK, 2021). The consumer confidence index may have values between 0-200. The values above 100 indicate a favorable customer confidence situation, while the values below 100 indicate a negative confidence situation.

Portfolio and equity security investments amount made by foreign investors are dependent variables of this study. These variables, which are the part of international investment position (IIP) data of Balance of Payments and Related Statistics, are a quarterly statistical value that shows the amount of non-residents' portfolio and equity security investments respectively. The values are taken from the portfolio and equity security investments part of the labilities section.

This study hypothesizes that "the consumer confidence index is effective on the portfolio investments made by foreigners" and "the consumer confidence index is effective on the equity security investments made by foreigners". Analyzes have been made to determine whether these hypotheses are correct or not separately.

The succeeding sections of the study are in the form of literature, materials&methods, results, and discussion&recommendations sections.

Literature

This section includes the studies that deal with the consumer confidence index as the main research subject and focus on the effects and determinants of the consumer confidence index. In this context, both general important conceptual studies and in particular researches on Turkey are examined.

It was observed in the analysis by Fisher & Statman (2003) that consumer confidence increases with high returns on stocks, and low stock returns are accompanied by high consumer confidence. This study also shared the findings that the feelings of individual investors about the stock market grow along with consumer confidence and that this relationship is not valid for institutional investors.In Oprea and Brad's study (2004), it is stated that there is a strong relationship between the attitudes and feelings of individual investors and therefore the behavior of these investors in the stock market can cause significant changes in price fluctuations. The results of this study show that individual investor sentiment affects stock prices and reveals that there is a positive correlation between the change in consumer confidence and stock market returns.

Lemmon & Portniaguina (2006) obtained the result that consumer confidence demonstrates the predictive capacity for small stock returns and future macroeconomic events.Bergman and

Roychowdhury (2008) investigated how firms react strategically to investor sentiment through disclosure policies in order to influence sensitivity-driven bias in investor expectations. In this study, which uses the Michigan Consumer Confidence Index for investor sentiment, it is stated that in low sensitivity periods, managers increase their predictions in order to increase the current estimates regarding future earnings over long periods and decrease their long-term forecast activities in high sensitivity periods.

In the study examining the connection between lack of consumer confidence and market fluctuations in stock returns, it has been found that pessimism towards financial markets has greater effects on stock returns in bear markets (Chen, 2011). In addition, this study reveals that the decrease in consumer confidence causes the possibility of transition to the bear market regime.

There have been numerous experiments undertaken to reveal the relationship between the consumer confidence index in Turkey and some financial and economic indicators. BIST100 and other stock market indices, stock prices and returns, real sector confidence index, gross domestic product (GDP), the volatility index(VIX) and exchange rates appear as financial and economic indicators examined in these studies.

In a study examining the link between the consumer confidence index and the BIST 100 index, it was determined that there is a feedback influence between the BIST 100 index return and the confidence index and that the variables affect each other simultaneously (Korkmaz & Çevik, 2009). In another study where the relationship between the Consumer Confidence Index and the BIST 100 index was examined, a one-sided relationship was determined from BIST 100 to Consumer Confidence Index (Tekin & Cengiz, 2018). Moreover, Baştürk (2019) revealed a one-way cause-effect relation from the BIST-100 index to the consumer confidence index for the short term and the variables have no long-term relationship between them. In the study of Gökalp (2019), it is found that there is a spread from the consumer confidence index to the Borsa Istanbul BIST-100 index.

Stock prices and BIST100 sub-indexes appear as other indicators whose relationship with the customer confidence index is investigated in the literature. Kandır (2006) showed in his study that the consumer confidence index for the majority of stocks in the financial sector is a significant factor. In another study based on consumer confidence, the causality relationship between consumer confidence and prices of the stocks was examined and a one-way cause-effect relation from stocks to consumer confidence was determined (Topuz, 2011). In the study investigating the effect of consumer confidence indices and sub-indices on BIST100 Return, it was seen that investor expectations and concerns affect stock returns (Köse & Akkaya, 2016). In a study investigating whether there is a long-term relationship between the economic confidence index and the stock indices, the existence of a long-term relationship between the economic confidence index and the BIST indices is shown (Eyuboglu & Eyuboglu, 2017). The study examining the relationship between the Borsa İstanbul Participation-30 index and the consumer confidence index showed no causal correlation between the Participation-30 index and the consumer confidence index. (Akkuş & Zeren, 2019). In this study, two indices of long-term integration in positive shocks were also determined.

The relationship between exchange rates and the index of consumer' trust is seen to be the focus of some studies. The study analyzing the relationship between the exchange rate and the consumer confidence index found that there is a long-term and short-run relationship between

the consumer confidence index and the exchange rate (İbicioğlu et al., 2013). Kaya (2020) examines the relationship between exchange rates and the consumer confidence index in Turkey. In this study, a one-way long-term negative relationship between the consumer confidence index and the exchange rate from the exchange rate to the consumer confidence index was found.

There are also studies in which GDP and VIX variables are included in the scope. The relations between BIST100 Index, VIX Index, and Turkey's Consumer Confidence Index are investigated in the study of Sadeghzadeh (2018). It is found that VIX Index reduces the stock market index in both the long and short term, while the confidence index is effective in the short term. In the study investigating whether the consumer confidence index has a leading nature in terms of GDP, It was concluded that there is a long-term association between the consumer confidence index and GDP, and that there is a short-term, one-way cause-effect correlation between the consumer confidence index and GDP (Yaşar & Ceylan, 2020).

Another factor whose relationship with the consumer confidence index is investigated is the real sector confidence. Usul et al. (2017) found that there is a cointegration relationship between the consumer confidence index and the BIST 100 index, the real sector confidence index, and the BIST 100 index. Vurur & Diler (2018) researched how consumer and real sector confidence affect the returns of the stock market in Turkey's BIST 100 index. Results of this study showed that there is causality in returns from the real sector confidence index. Kurt (2018) conducted a study to examine the effects of market confidence and economic stability variables on foreign direct investments. The results of this study show that the perceived improvement in consumer confidence and economic stability in the country has increased the direct foreign capital inflows to the country. In the study analyzing the relationship between consumer confidence index and real sector confidence indices with selected macro variables, it was shared that changes in exchange rates affect both the consumer confidence index and inflation, inflation affects the BIST 100 index and all variables are related to the interest rate (Kaygısız, 2019). Beşiktaşlı & Cihangir (2020) found in their study that long-term connection exists between the Consumer Confidence Index and the money market and general macroeconomic indicators, while this relationship was not found with the capital market.

Relationships between foreign investments and stock markets are also examined in the literature. Emir & Kutlu (2015) were examined the relationship between the volatility of portfolio investments and foreign direct investments in Britain, Greece, Germany, and Turkey in their study. Their results show that the volatility in portfolio investments is mutually or one-way affected by foreign direct investments. In another study, the relationship between the stock investments made by foreign residents and the BIST100 index was investigated (Polat & Kılıç, 2019). It has been determined that there is a one-way causality relationship from the stock investments of foreign residents to BIST100. Oyerinde (2019) researched the relationship between foreign portfolio investment and the stock market in his study. It is shared the result that there is a long-term positive relationship between the development of markets and foreign portfolio investment.

Materials and Methods

The materials and methods used in the study are given in this section.

Quarterly data of the domestic portfolio and equity security investments of foreign residents (million USD) and consumer confidence index between 2012Q1 and 2020Q3 are used. The data of the study variables are taken from the Electronic Data Delivery System (EVDS, 2021) of the Central Bank of Turkey (CBT).

In the first stage, descriptive statistics of the variables are obtained. Secondly, unit root tests are conducted to understand whether the variables are stationary or not. In the third step, VAR models are established by considering variables in pairs, and Granger Causality Tests are applied. In the final stage of the analysis, regression models are established.

Results

The findings obtained as a result of the analyzes made in the study are included in this section.

Descriptive statistics are given in Table 1. When the skewness values of the variables are examined, it is seen that consumer confidence index and domestic portfolio investments of foreign residents are left-skewed due to being less than zero and equity security investments is right-skewed. When the kurtosis values are examined, it is concluded that all the variables are platykurtic (flatter than a normal distribution). When Jarque-Bera and probability ($p > 0.05$) values of the series are evaluated, it is understood that all the series exhibit a normal distribution.

Table 1. Descriptive Statistics for Variables

	Consumer Confidence Index	Domestic Portfolio Investments of Foreign Residents	Domestic Equity Security Investments of Foreign Residents
Mean	88.6865	154,069.9000	45,262.4300
Median	90.6865	152,204.0000	49,100.9000
Maximum	95.3266	191,098.0000	76,276.0000
Minimum	78.7270	103,577.0000	20770.8000
Standard Deviation	5.1844	23,007.1300	13,855.7000
Skewness	-0.7380	-0.2598	0.0920
Kurtosis	2.1552	2.2756	2.3818
Jarque-Bera	4.2183	1.1591	0.6068
Probability	0.1213	0.5602	0.7383

In order to understand whether the variables are stationary or not, unit root tests of three different exogenous models are conducted at zero level degrees for each. In the analysis, the appropriate delay length that resolves the autocorrelation problem between errors is selected according to the Schwarz information criterion. The unit root tests are repeated by taking the differences of all variables from the 1st level because it is evaluated that series are not

stationary at the zero-level difference degree (p > 0.05) (see Table 2). When the first differences of all variables are taken, it is found that the series reached the stationary structure (p < 0.05).

Table 2. Unit Root Tests for Variables

Augmented Dickey-Fuller	Test for a unit root in	Models					
		none exogenous variables		constant exogenous variables		constant&lineer trend exogenous variables	
		t-Statistic	p	t-Statistic	p	t-Statistic	p
Consumer Confidence Index	Level	-0.7641	0.3778	-1.4889	0.5270	-2.4436	0.3522
	1st diff.	-6.5119	0.0000***	-6.4795	0.0000***	-6.4293	0.0000***
Domestic Portfolio Investments of Foreign Residents	Level	-0.4709	0.5040	-1.0850	0.7103	-2.7279	0.2325
	1st diff.	-4.5194	0.0000***	-4.4652	0.0012***	-4.8216	0.0025***
Domestic Equity Security Investments of Foreign Residents	Level	-0.9823	0.2854	-0.8982	0.7766	-3.2878	0.0854
	1st diff.	-5.3299	0.0000***	-5.3332	0.0001***	-5.3670	0.0006***

note: p = probability. *** significant at 0.01 level. ** significant at 0.05 level. a = abs (t-Statistics) < %1 level Test critical values. 1st diff. = 1st Difference.

To determine the cause-effect relationships between variables, VAR models are established in pairs between variables. The first differences of the series for variables are used in these models. According to achieved results delay lengths are determined as 1 for each VAR model. Then, Granger causality analysis is applied to each established VAR models. The results of the established models will be tried to be examined separately.

To reveal the effects of the consumer confidence index, which is the main starting point of our study, models are established with other variables. It was determined that the results of the Model 1 and Model 2 established between consumer confidence index & domestic portfolio investments of foreign residents and consumer confidence index & equity security investments are significant. Analysis results in Table 3 indicate that the consumer confidence index affects the domestic portfolio investments of foreign residents (p = 0.0460 < 0.05) and consumer confidence index affects equity security investments of foreign investors (p = 0.0959 < 0.10).

Table 3. Consumer Confidence Index and Domestic Portfolio and Equity Security Investments of Foreign Residents (Model 1) Granger Causality Analysis Results

Model 1	Chi-sqr	df	p
Dependent variable: Domestic Portfolio Investments of Foreign Residents Independent variable: Consumer Confidence Index	3.9806	1	**0.0460**[**]
Dependent variable: Consumer Confidence Index Independent variable: Domestic Portfolio Investments of Foreign Residents	1.3529	1	0.2448
Model 2	**Chi-sqr**	**df**	**p**
Dependent variable: Domestic Equity Security Investments of Foreign Residents Independent variable: Consumer Confidence Index	2.7716	1	**0.0959**[*]
Dependent variable: Consumer Confidence Index Independent variable: Domestic Equity Security Investments of Foreign Residents	2.4261	1	0.1193

note: df = degree of freedom. : p = probability. *** significant at 0.01 level. ** significant at 0.05 level. * significant at 0.1 level.

The results show that this relationship detected indicates a unidirectional causality from the consumer confidence index towards domestic portfolio investments of foreign residents and from consumer confidence index to equity security investments of foreign investors (see Figure 1).
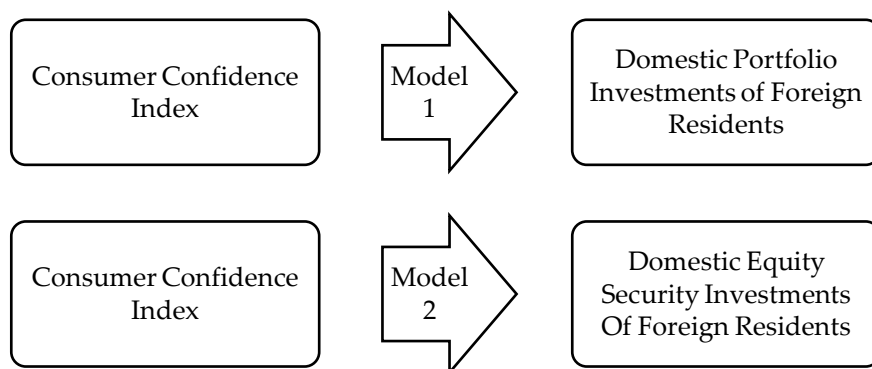

Figure 1. Consumer Confidence Index & Domestic Portfolio Investments of Foreign Residents (Model 1) and Consumer Confidence Index & Domestic Equity Security Investments of Foreign Residents (Model 2) Cause-Effect Relation

In order to find the answer to the question of what is the sign of cause-effect relationships between the variables, simple regression analyzes are carried out using the least squares method on the initial states of the series. The results are given in Table 4. It is seen that the regression model between the consumer confidence index and the domestic portfolio investments of foreign residents is statistically significant (p < 0.05). The regression model established between the consumer confidence index and the domestic equity security investments of foreign residents is statistically insignificant (p > 0.10).

When the coefficient of the first regression model is examined, it could be seen that the sign of the relation between the variables is positive. In other words, when the consumer confidence index increases, the domestic portfolio investments of foreign residents increases and vice versa.

Table 4. Results Of Regression Analyzes

Variable	Domestic Portfolio Investments of Foreign Residents		Domestic Equity Security Investments of Foreign Residents	
	C	Consumer Confidence Index	C	Consumer Confidence Index
Coefficient	-103,258.7000	2,901.5510	-122,638.1000	1,893.1910
Std. Error	51,924.0500	584.5091	29,170.7400	328.3751
t-Statistic	-1.9886	4.9641	-4.2041	5.7653
p	0.0551*	0.0000***	0.0002***	0.0000***
R-squared	0.4275		0.5018	
Adjusted R-squared	0.4102		0.4867	
S.E.of regression	17,669.8100		9,926.8360	
Sum squared resid	1.03E+10		3.25E+09	
Loglikelihood	-390.9196		-370.7380	
F-statistic	24.6421		33.2391	
Prob (F-statistic)	0.0000		0.0000	
Mean dependent var	154,069.9000		45,262.4300	
S.D. dependent var	23,007.1300		13,855.7000	
Akaike info criterion	22.4526		21.2993	
Schwarz criterion	22.5414		21.3882	
Hannan-Quinn criteria.	22.4832		21.3300	
Durbin-Watson stat	0.6338		0.7430	

note : C = constant. (-1) = a lagged value. : p = probability. *** significant at 0.01 level. ** significant at 0.05 level. * significant at 0.1 level.

The regression results of the models established with the 1-lagged values of the consumer confidence index are given in Table 5. For these new models, the signs of the consumer confidence index are found to be positive as in the previous models.

Table 5. Results Of Regression Analyzes For 1-Lagged Values Of The Consumer Confidence Index

Variable	Domestic Portfolio Investments of Foreign Residents		Domestic Equity Security Investments of Foreign Residents	
	C	Consumer Confidence Index (-1)	C	Consumer Confidence Index (-1)
Coefficient	-101,204.5000	2,880.2550	-109,090.1000	1,734.4470
Std. Error	54,035.5300	606.8670	33,531.6100	376.5899
t-Statistic	-1.8730	4.7461	-3.2533	4.6057
p	0.0702**	0.0000***	0.0027***	0.0001***
R-squared	0.4131		0.3986	
Adjusted R-squared	0.3948		0.3798	
S.E.of regression	17,804.1800		11,048.3400	
Sum squared resid	1.01E+10		3.91E+09	
Loglikelihood	-379.9777		-363.7545	
F-statistic	22.5255		21.2122	
Prob (F-statistic)	0.0000		0.0000	
Mean dependent var	154,844.000		45,098.5900	
S.D. dependent var	22.8857		14,029.6100	
Akaike info criterion	22.4693		21.5150	
Schwarz criterion	22.5591		21.6048	
Hannan-Quinn criteria.	22.5000		21.5456	
Durbin-Watson stat	0.9594		0.7791	

note : C = constant. (-1) = a lagged value. : p = probability. *** significant at 0.01 level. ** significant at 0.05 level.

After the regression analyzes without taking any differences of the series, the logarithmic differences of the series are taken, the models are reconstructed and analyzes are made with these states of the series. New models are established by adding the 1-lagged values of consumer confidence index, portfolio and equity security investments to new models separately, and the analysis results of these models are given in Table 6. When Table 6 is examined, it is seen that both the coefficients of the independent variables in the model established for portfolio investments are positive and the model is significant at 0.1 level. In addition, according to Table 6, it is seen that the coefficients for equity security investments

are positive for the consumer confidence index, while it is negative for the equity security investments, but the model is not statistically significant.

Table 6. Results Of Regression Analyzes For The Logarithmic Differences Of Series

Variable	Domestic Portfolio Investments of Foreign Residents		Domestic Equity Security Investments of Foreign Residents	
	Consumer Confidence Index (-1)	Domestic Portfolio Investments of Foreign Residents (-1)	Consumer Confidence Index (-1)	Domestic Equity Security Investments of Foreign Residents (-1)
Coefficient	0.7638	0.3150	1.0581	0.0430
Std. Error	0.4026	0.1663	0.7961	0.1782
t-Statistic	1.8973	1.8947	1.3292	0.2411
p	**0.0671***	**0.0675***	0.1935	0.8111
R-squared	0.1626		0.0241	
Adjusted R-squared	0.1356		-0.0074	
S.E.of regression	0.0332		0.0661	
Sum squared resid	0.0342		0.1355	
Loglikelihood	66.5864		43.8518	
Durbin-Watson stat	1.8519		1.9381	
Mean dependent var	-0.0031		-0.0116	
S.D. dependent var	0.0357		0.0659	
Akaike info criterion	-3.9143		-2.5365	
Schwarz criterion	-3.8236		-2.4458	
Hannan-Quinn criteria.	-3.8838		-2.5060	

note : (-1) = a lagged value. : p = probability. *** significant at 0.01 level. ** significant at 0.05 level. * significant at 0.1 level.

The common point of all established models is that both the domestic portfolio and equity security investments of non-residents move in the same direction as the change in the consumer confidence index.

Discussion and Conclusion

In the discussion and conclusion part. the results reached with the analysis will be discussed and interpreted. and suggestions will be presented for further studies on this and similar issues. Besides. the limitations of the study will be shared.

The validity of the hypotheses established in the study are proven with the Granger Causality Test results and these hypotheses established are accepted.

One of the finding of the study is that there is Granger causality between the consumer confidence index and portfolio investments made by foreign residents. The direction of this causality is from the consumer confidence index to the portfolio investments. This result means that the changes in the consumer confidence index affect the portfolio investments of foreign residents in the country. Moreover, according to the regression analyzes it is revealed that an increase in the consumer confidence index might result in an increase in the portfolio investments of foreign residents or vice versa.

According to the findings, the consumer confidence index is the Granger reason of the equity security investments made by foreign residents. This indicates that changes in the consumer confidence index have an impact on the equity security investments of foreign residents. The results of the regression analyzes show that an increase or decrease in the consumer confidence index causes a change in the domestic equity security investments of non-residents in the same direction.

The results could be interpreted as the consumer confidence index might be used as a measure of investor sentiment in estimating the amount of portfolio and equity security investments of foreign investors.

Based on these findings, it could be explained that the results of consumer confidence surveys of a country are positively affected on portfolio investments to be made in this country by foreigners. It is thought that the consumer confidence index might be perceived as a factor to reduce uncertainty for foreign investors to invest in the country. This behavior of foreign investors could be evaluated within the scope of the effect of avoiding uncertainty from behavioral finance biases resulting from the need to avoid risk.

It could be concluded that due to the decrease in the confidence in the country, there might be a decrease in the portfolios and equity securities of foreign investors' investments. A decrease in the confidence of consumers in a country might create an increase in the risk perception of foreign investors considering to make financial investments in this country and as a result of this situation, a decrease in the investments of foreign investors might occur. In the light of the results obtained, it is thought that foreign investors could be attracted by some improvements to be made in the consumer confidence of a country. In this way, the risk perception of the country in terms of foreign investors will change positively and portfolio and equity security investments might increase as a result.

The constraints of this study could be listed as follows. First, this work is performed only based on data of Turkey and other countries are left outside the scope of this study. Second, other possible factors that might affect the revealed cause-and-effect relationship of this study are not included. Because of these limitations, it is recommended for new researches that other countries should be included and other possible variables that might affect this relation should be added.

Conflict of Interest

The author declares that he has no conflict of interest. No potential competing interest was reported by the authors.

There are no relevant financial or non-financial competing interests to report.

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