

Impact of Macroeconomic Factors on Bank Financial Performance: A Turkey and Kosovo Comparative Study



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ABSTRACT

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This study aims to investigate the impact of macroeconomic factors on the financial performance of companies operating in the banking sector. The research compares the banking sectors of Turkey and Kosovo to gain insights into their respective performances. The analysis is based on annual data of key variables, including return on equity (ROE), return on assets (ROA), inflation (INF), gross domestic product (GDP), for exchange rate (EX-RA), and consumer price index (CPI) during the period 2013-2022. Panel data regression models were utilized within the scope of the study. The findings indicate that inflation, GDP, and exchange rate significantly influence the financial performance of banking companies in both Turkey and Kosovo.

1. INTRODUCTION

Effectively managing credit risk is a critical process that enables financial institutions to successfully control risks in their loan portfolios. In this process, the determination and analysis of macroeconomic factors that are of great importance should be carried out. Although the banking sector in developing countries such as Turkey and Kosovo may face similar challenges in terms of credit risk management, they may differ in their economic structures, performances and risk profiles.

While the banking sector in Kosovo constituted 10% of the GNP in 2018, it contributed 11% in 2019 and 12% in 2020. In addition, the loans provided by Kosovo Banks contributed 7% to the growth of GNP in 2018, while this rate reached 8% in 2019 and 9% in 2020 [1-3]. When we look at the official statistics and reports to evaluate the impact of the banking sector in Turkey on the GNP, while the banking sector contributed 9.2% to the GNP in 2018, it increased to 9.5% in 2019 according to the TBB reports, and finally in 2020 worldwide. Its contribution remained at 7.8% due to the COVID-19 epidemic that occurred [4-6]. Considering these numerical data, the contributions of the banking sector in these two countries to the national economies are clearly visible. However, when the similarities between the two countries are taken into account, it is of great importance to define the macroeconomic factors affecting the credit risk management of banks in Turkey and Kosovo and to make a comparison between these two countries.

Macroeconomic factors are important variables that directly affect the credit risk levels of financial institutions. In the first place, economic expansion and stability is a critical factor in determining credit risk. When Turkey's economic

performance in recent years is evaluated, it is observed that the growth rates exhibit fluctuations. These fluctuations can affect changes in income levels and the payback potential of businesses. Likewise, Kosovo's economic growth performance is also a factor affecting credit risk. Second, inflation rates and monetary policies can significantly affect banks' credit risk. High inflation rates in Turkey may adversely affect borrowers' repayment capacity and increase credit risk. Similarly, regulating inflation and implementing appropriate monetary policies in Kosovo also play an important role in the credit risk management of banks [7-10].

Finally, unstable progress in financial markets and changes in exchange rates may also affect banks' credit risk. In developing countries such as Turkey and Kosovo, fluctuations in exchange rates occur frequently. This may affect the repayments of export and import companies and increase the credit risk of banks [11-14].

2. LITERATURE

Countries that are not even neighbors to each other feel the effects of capital movements in the financial sector more with globalization. With the increase in competition in the financial sector, international financial institutions have turned to strategic partnerships with large-scale institutions in other countries, while banks have turned to strategies such as mergers and acquisitions on a national basis [15]. The competitive environment in the banking sector requires banks to use their existing capital efficiently. It is very important for the economy of the country for banks to continue their activities.

Banks; They differ from other businesses for reasons such

as their economic functions, the nature of the transactions they have made and the services they have provided, the diversity of the risks they have faced, the regulation of their activities by laws or administrative decisions, the fact that they are under the supervision and control of public authorities, and lastly, they operate in the financial sector, which is perhaps the most affected by globalization. are separated. The techniques used in performance analysis in banks require a different perspective, evaluation and interpretation [16]. Considering the impact on both the financial system and the economy, it is important for decision makers to determine the performance of banks in their selection. The competitive situation between banks and the necessity of improving service quality for investors make performance evaluation studies mandatory [17].

Financial performance is of great importance in the banking sector. Financial performance is a measure that reflects the health, sustainability and success of a bank. A bank's financial performance is important both to the bank itself and to external stakeholders such as customers, investors and regulators. The healthy financial performance of banks reassures customers and provides a safe haven for depositors and investors. Improving financial performance can increase the competitiveness of banks and enable them to gain a better position in the market. In addition, a healthy financial performance enables banks to be resilient to economic fluctuations and to continue their activities in a more stable manner in times of crisis. As a result, it is possible to say that financial performance in the banking sector is a fundamental factor for the success, reliability and sustainability of banks.

When the literature is reviewed, many studies have been conducted to determine the factors affecting the financial performance of companies operating in the banking sector. In his study, Akgül [18] identified the 3 most important performance criteria for the Turkish banking system by using the multi-criteria decision-making method. These criteria are: liquid assets to current liabilities ratio, loans received to total assets ratio, and non-current assets to total assets ratio. In the study by Athanasoglou et al. [19], inflation is examined; in the study by Dinç [20], both inflation and the industrial production index are considered; in the study by Pasiouras and Kosmidou [21], the equity to assets ratio is analyzed; Shanko et al. [22] investigate loans and advances, current deposits, other liabilities, and gross domestic product; Anbar and Değer [23] focus on asset size; in the study by Sufian [24], the specific criteria are not mentioned; in Demirhan [25]'s study, the loans to total assets ratio is examined; in the study by Miller and Noulos [26], the consumer loans to total loans ratio is considered; studies by Mamatzakis and Remoundos [27], Sayılğan and Yıldırım [28], Jeon and Miller [29], Vong and Chan [30], Gülhan and Uzunlar [31], and Aka [32] concluded that the Capital Adequacy Ratio has a positive effect on profitability. In Dinç [20]'s study, the ratio of external debt to total debt is analyzed, along with the ratio of total loans to loan loss provisions in the study by Sufian and Chong [33]; in the study by Çevik and Boran [34], as well as in the study by Owoputi et al. [35], it is concluded that the profitability is negatively affected by the liquid assets to short-term liabilities ratio.

Financial performance has an important place in the banking sector. One of the most basic indicators of financial performance is profitability. It is possible to say that profitability reflects a bank's balancing of its expenses and incomes and making a sufficient profit. In many studies, return

on equity ratio and return on assets ratio were taken as profitability criteria [19, 20, 22, 24, 30]; Determining the factors affecting profitability, which is the most important criterion of financial performance, is of great importance for banks to continue their activities and compete. From this point of view, in this study, it is aimed to determine the macroeconomic factors that affect the financial performance of companies operating in the banking sector in both Turkey and Kosovo.

3. DATA AND METHOD

The primary objective of this research is to investigate how macroeconomic factors influence the financial performance of companies within the banking sector. To achieve this goal, a comparative analysis was conducted between the Kosovo banking sector and the Turkish banking sector.

The study encompassed a total of 10 banks from the Turkish banking sector and 7 banks from the banking sector in Kosovo. Annual data spanning from 2013 to 2022 were collected and utilized for the analysis. Detailed information about the banks and the variables employed in the study can be found in Table 1 and Table 2.

Table 1. Variables used in the study

| Notation | Variable | Data Source |
|----------|------------------------|--|
| ROA | Return on assets | Public Disclosure Platform (For Turkey Banking Sector) www.bekonomike.com bkt-ks.com www.bpbbank.com |
| ROE | Return on equity | nlb-kos.com procreditbank-kos.com www.rbinternational.com www.isbankkosova.com |
| GDP | Gross domestic product | |
| CPI | Consumer price index | World Bank Development Indicators |
| EX-RA | Exchange Rate | |
| INF | Inflation | |

Table 2. Banks Included in the Scope of the Study

| Turkey | Kosovo |
|---|--------------------------|
| Akbank | Banka Ekonomike |
| Albaraka Türk Katılım Bankası | Banka Kombëtare Tregtare |
| QNB Finans Bank | Banka për Biznes |
| Garanti Bank of Türkiye | NLB Banka |
| Halk Bank of Türkiye | ProCredit Bank |
| Isbank of Türkiye | Raiffeisen Bank Kosovo |
| Development and Investment Bank of Turkey | Turkiye Is Bank |
| Industrial Development Bank of Türkiye | |
| Türkiye Vakıflar Bank | |
| Yapı ve Kredi Bank of Türkiye | |

The basically tested model within the scope of the study is as follows:

$$ROA_t = \alpha_0 + \alpha_1GDP_t + \alpha_2CPI_t + \alpha_3EX-RA_t + \alpha_4INF_t + \mu_t \quad (1)$$

Four models were created within the scope of the study. Among these, Model 1 and Model 2 to measure the impact on the financial performance of companies operating in the Kosovo banking sector; Model 3 and Model 4 were created to measure the impact of macroeconomic factors on the financial performance of companies operating in the Turkish banking sector.

Within the scope of the study, panel data analysis was used. Before applying panel regression analysis, it is necessary to determine which regression model (random effects, fixed effects or classical regression) is appropriate. analyzes carried out in this direction are F test, Likelihood test and Hausman tests. Within the scope of the study, these tests were carried out and the appropriate regression model was decided. Then, the existence of heterocadity, autocorrelation and inter-unit correlation, which are the assumptions of regression analysis, were tested. As a result of all these analyzes, resistant estimators suitable for the models were determined and analyzes were carried out.

4. FINDINGS

In panel data analysis, the stationarity of the series must first be examined. In this study; The stationarity of the series was examined with the LLC panel unit root test. While performing the unit root test in the study, the effect of cross-section dependence was reduced by the demean method. Demean requests that xtunitroot first subtract the cross-sectional averages from the series. When specified, for each time period xtunitroot computes the mean of the series across panels and subtracts this mean from the series. Levin, Lin, and Chu suggest this procedure to mitigate the impact of cross-sectional dependence.

The unit root test results performed within the scope of the study are given in Table 3 and Table 4.

Table 3 shows the unit root test results of the variables included in the data set created for the Kosovo banking sector. When the table is examined, it is seen that the variables return on assets (ROA), return on equity (ROE), gross domestic product (GDP), consumer price index (CPI), inflation (INF)

and exchange rate (EX-RA) are stationary at the level.

Table 3. Unit root test results of the Kosovo banking sector

| | LLC | |
|--------------|---------------------|---------------------|
| | Constant | Constant and Trend |
| ROA | -1.5442* (0.0613) | -2.2966** (0.0108) |
| ROE | -1.5168* (0.0647) | -3.0989*** (0.0010) |
| GDP | -1.6127* (0.0534) | 1.3329 (0.9087) |
| CPI | -2.1048** (0.0177) | -3.6673*** (0.0001) |
| INF | -5.6901*** (0.0000) | -5.3729*** (0.0000) |
| EX-RA | -5.4113*** (0.0000) | -5.0100*** (0.0000) |

Note: *, ** and *** denote statistical significance at 10%, 5% and 1% significance levels.

Table 4. Unit root test results of the Turkey banking sector

| | LLC | |
|----------------|---------------------|----------------------|
| | Constant | Constant and Trend |
| ROA | -5.5330*** (0.0000) | -4.3439*** (0.0000) |
| ROE | 2.9786 (0.9986) | -9.8144*** (0.0000) |
| GDP | -4.7331*** (0.0000) | -20.1482*** (0.0000) |
| CPI | -6.8010*** (0.0000) | -5.4609*** (0.0000) |
| INF | -6.7936*** (0.0000) | -10.6973*** (0.0000) |
| EX-RA | 22.9080 (0.9999) | 25.6606 (0.9999) |
| D.EX-RA | -6.5522*** (0.0000) | -6.6584*** (0.0000) |

Note: *, ** and *** denote statistical significance at 10%, 5% and 1% significance levels.

Table 4 shows the unit root test results of the variables included in the data set created for the Turkish banking sector. When the table is examined, it is seen that the variables of return on assets (ROA), return on equity (ROE), gross domestic product (GDP), consumer price index (CPI) and inflation (INF) are stationary at the level. It is seen that the exchange rate (EX-RA) variable is stationary in difference.

Panel Data Analysis includes some tests on determining the homogeneity of unit and time effects. These tests appear as Hausman, F and Likelihood Tests, which measure whether the observations in the study are independent of unit time effects [36]. The values of the test results of the companies operating in both Kosovo and Turkey banking sectors are shown in Table 5 and Table 6.

Table 5. Hausman, LR and F test results of Kosovo banking sector firms

| Tests | F Test | | LR Test | | Hausman | |
|----------------|-----------------|-------------|-----------------|-------------|-----------------|-------------|
| | Test Statistics | Probability | Test Statistics | Probability | Test Statistics | Probability |
| Model 1 | 13.03 | 0.0000*** | 85.87 | 0.0000*** | 0.00 | 0.999 |
| Model 2 | 13.67 | 0.0000*** | 90.20 | 0.0000*** | 0.00 | 0.999 |

Note: *, ** and *** denote statistical significance at 10%, 5% and 1% significance levels.

When Table 5 is examined, it has been determined that there are unit time effects at the 1% significance level according to the F and LR Tests for both models created for the Kosovo banking sector. In case of time effects, it is more appropriate to choose one of the fixed effects or random effects models instead of the classical regression model. When we look at the

results of the Hausman Test performed to choose between random effects or fixed effects models, the null hypothesis of "H0: The difference between the coefficients is not systematic" is not statistically significant. According to this result, the "H0" hypothesis is accepted and the random effects model is preferred for both model 1 and model 2.

Table 6. Hausman, LR and F test results of the Turkish banking sector

| Tests | F Test | | LR Test | | Hausman | |
|----------------|-----------------|-------------|-----------------|-------------|-----------------|-------------|
| | Test Statistics | Probability | Test Statistics | Probability | Test Statistics | Probability |
| Model 1 | 7.10 | 0.0000*** | 59.16 | 0.0000*** | 0.00 | 0.999 |
| Model 2 | 3.15 | 0.0025*** | 12.11 | 0.0003*** | 138.71 | 0.0000*** |

Note: *, ** and *** denote statistical significance at 10%, 5% and 1% significance levels.

When Table 6 is examined, according to F and LR Tests for both models, there are unit-time effects at 1% and 5% significance level, and in this case, it is more appropriate to choose one of the random effects or fixed effects models instead of the classical regression model. Considering the Hausman Test results for Model 3, since the hypothesis "H0: The difference between the coefficients is not systematic" is not statistically significant, the "H0" hypothesis is accepted and the random effects model is preferred. Considering the Hausman Test results for Model 4, since the hypothesis "H0: The difference between the coefficients is not systematic" is statistically significant, the "H1" hypothesis is accepted and

the fixed effects model is preferred.

After deciding on the appropriate panel data models (fixed effects, random effects) for all models created within the scope of the study, Heteroskedacity, Autocorrelation and Interunit Correlation tests are performed from the model assumptions [37]. After all the results obtained, Levene, Brown and Forsythe (1974) were used to test the existence of heteroscedasticity, Baltagi-Wu LBI (1991) and Durbin-Watson tests were used to test the existence of autocorrelation, while Friedman's Test and Tested by Pesaran's Test. The test results of the models are given in Table 7 and Table 8.

Table 7. Heteroskedacity, Autocorrelation and inter-unit correlation test results of Kosovo banking sector firms

| Testler | Model 1 | | | Model 2 | | |
|------------------------|------------------------------------|-----------|------------------------|------------------------------------|------------------------|----------|
| | Leven, Brown and Forsythe'in Testi | | | Leven, Brown and Forsythe'in Testi | | |
| Heteroscedasticity | W ₀ | 3.1208*** | df(6.63) | W ₀ | 2.5192** | df(6.63) |
| | W ₁₀ | 2.9939** | | W ₁₀ | 1.9428* | |
| | W ₅₀ | 3.0316** | | W ₅₀ | 2.5347** | |
| Autocorrelation | Durbin Watson | | Baltagi-Wu | Durbin Watson | Baltagi-Wu | |
| | 1.4697 | | 1.9306 | 1.9639 | 2.1878 | |
| Inter-unit correlation | Pesaran's Test | | Friedman's Test | Pesaran's Test | Friedman's Test | |
| | 0.299 (0.7648) | | 8.081 (0.2323) | -0.9554 (0.3401) | 6.148 (0.4068) | |

Note: *, ** and *** denote statistical significance at 10%, 5% and 1% significance levels.

When Table 7 is examined, it is seen that the H0 hypothesis was established as "variances of units are equal" by comparing it with the free-order Snedecor F table (W₀, W₁₀, W₅₀) (23,429) according to the test statistics of Brown and Forsythe (1974) Levene, which was carried out to test the presence of heteroscedasticity. rejected for both models. In other words, it was concluded that there is heteroscedasticity in both models. The fact that the autocorrelation test results are 2 indicates that there is no autocorrelation in the series [38]. According to the

Durbin-Watson Test (1982) and Baltagi-Wu's (1999) LBI test results, which were carried out to test the presence of autocorrelation, it was determined that there was autocorrelation in model 1 and there was no autocorrelation problem in model 2. Finally, Pesaran and Friedman's tests were used to test the existence of inter-unit correlation. When the test results obtained are examined, it is possible to talk about the existence of inter-unit correlation problem for both models.

Table 8. Heteroskedacity, Autocorrelation and inter-unit correlation test results of Turkish banking sector firms

| Testler | Model 1 | | | Model 2 | | |
|------------------------|------------------------------------|--------|------------------------|------------------------------------|------------------------|----------|
| | Leven, Brown and Forsythe'in Testi | | | Leven, Brown and Forsythe'in Testi | | |
| Heteroscedasticity | W ₀ | 1.0765 | df(9.90) | W ₀ | 3.9151*** | df(9.90) |
| | W ₁₀ | 0.8740 | | W ₁₀ | 2.8172*** | |
| | W ₅₀ | 0.9201 | | W ₅₀ | 3.5409*** | |
| Autocorrelation | Durbin Watson | | Baltagi-Wu | Durbin Watson | Baltagi-Wu | |
| | 0.8742 | | 1.5728 | 0.7098 | 1.2034 | |
| Inter-unit correlation | Pesaran's Test | | Friedman's Test | Pesaran's Test | Friedman's Test | |
| | -1.145 (0.2521) | | 9.382 (0.4028) | 0.006 (0.9952) | 14.291 (0.1123) | |

Note: *, ** and *** denote statistical significance at 10%, 5% and 1% significance levels.

When Table 8 is examined, the H₀ hypothesis, which was established as "the variances of the units are equal", was compared with the free-order Snedecor F table (W₀, W₁₀, W₅₀) (23,429) according to the test statistic results of Brown and Forsythe (1974) Levene carried out to test the presence of heteroscedasticity. Accepted for 1, rejected for model 2. In other words, it was concluded that there was no heteroscedasticity in model 1, and heteroscedasticity was present in model 2. The fact that the autocorrelation test results are 2 indicates that there is no autocorrelation in the series [38].

According to the Durbin-Watson Test (1982) and Baltagi-Wu's [39] LBI test results, which were carried out to test the existence of autocorrelation, it was determined that there was autocorrelation in both models. Finally, Pesaran and Friedman's tests were used to test the existence of inter-unit correlation. When the test results obtained are examined, it is possible to talk about the existence of inter-unit correlation problem for both models.

Robust regression analysis results of Model 1 and Model 2 created for the banking sector in Kosovo are given in Table 9.

Table 9. Robust regression analysis results of Kosovo banking sector firms

| Dependent Variable | | Model 1 | | |
|--------------------|----------------|------------------|-------|----------|
| ROA | Coefficient | Robust Std. Err. | t | Prob. |
| GDP | 0.0003 | 0.0001 | 3.10 | 0.021** |
| INF | -0.0009 | 0.0011 | -0.88 | 0.413 |
| EX-RA | 0.0705 | 0.1871 | 3.77 | 0.009*** |
| CPI | 0.0004 | 0.0004 | 0.89 | 0.406 |
| R-Squared | 0.1885 | | | |
| F(4.6) | 10.30 | | | |
| Prob | 0.0099*** | | | |
| Dependent Variable | | Model 2 | | |
| ROE | Coefficient | Robust Std. Err. | t | Prob. |
| GDP | 0.0026 | 0.0022 | 1.19 | 0.239 |
| INF | -0.0014 | 0.0086 | -0.17 | 0.869 |
| EX-RA | 0.4836 | 0.2030 | 2.38 | 0.020** |
| CPI | 0.0014 | 0.0043 | 0.33 | 0.744 |
| R-Squared | 0.1761 | | | |
| F(4.65) | 3.39 | | | |
| Prob | 0.0140** | | | |

Note: *, ** and *** denote statistical significance at 10%, 5% and 1% significance levels.

When the table is examined, the model established according to the results of Model 1 is statistically significant at the 1% ($p < 0.01$) significance level. The R^2 value, which expresses the explanatory power of the model, is 18%. According to the results, it was determined that gross domestic product (GDP) and exchange rate (EX-RA) had a positive and significant effect on return on assets (ROA). It has been determined that consumer price index (CPI) and inflation (INF) do not have a significant effect.

Looking at the results of Model 2, it is seen that the model is statistically significant at the 5% ($p < 0.01$) significance level and the explanatory power of the model (R^2) is 17%.

According to the results obtained, it has been determined

that the exchange rate (EX-RA) variable has a significant and positive effect on the return on equity ratio (ROE). However, it was determined that consumer price index (CPI), inflation (INF) and gross domestic product (GDP) variables did not have any effect.

If we evaluate the Model 1 and Model 2 results in general, it is possible to say that the exchange rate (EX-RA), inflation (INF) and gross domestic product (GDP) have a significant impact on the financial performance of the companies in the banking sector in Kosovo.

Robust regression analysis results of Model 3 and Model 4 created for the banking sector in Turkey are given in Table 10.

Table 10. Robust regression analysis results of Turkish banking sector firms

| Dependent Variable | | Model 1 | | |
|--------------------|----------------|------------------|-------|----------|
| ROA | Coefficient | Robust Std. Err. | z | Prob. |
| GDP | 0.0001 | 0.0000899 | 1.68 | 0.094* |
| INF | 0.0005 | 0.0001429 | 3.72 | 0.000*** |
| EX-RA | -0.0047 | 0.0028503 | -1.67 | 0.094* |
| CPI | 0.0001 | 0.0001162 | 1.08 | 0.280 |
| R-Squared | 0.3938 | | | |
| F-Statistic | 56.85 | | | |
| Prob | 0.0000*** | | | |
| Dependent Variable | | Model 2 | | |
| ROE | Coefficient | Robust Std. Err. | t | Prob. |
| GDP | 0.0027 | 0.0009 | 3.03 | 0.014** |
| INF | 0.0044 | 0.0188 | 4.29 | 0.002*** |
| EX-RA | -0.0231 | 0.0007 | -1.23 | 0.250 |
| CPI | 0.0005 | 0.0620 | 0.69 | 0.510 |
| R-Squared | 0.5960 | | | |
| F-Statistic | 44.77 | | | |
| Prob | 0.0000*** | | | |

Note: *, ** and *** denote statistical significance at 10%, 5% and 1% significance levels.

When the table is examined, the model established according to the Model 3 results is statistically significant at the 1% ($p < 0.01$) significance level. The R^2 value, which expresses the explanatory power of the model, is 40%. According to the results obtained, exchange rate (EX-RA) and inflation (INF) have a positive and significant effect on the return on assets (ROA). It has been determined that consumer price index (CPI) and gross domestic product (GDP) do not have a significant effect.

Looking at the results of Model 4, it is seen that the model

is statistically significant at the 1% ($p < 0.01$) significance level and the explanatory power of the model (R^2) is 61%. According to the results obtained, it has been determined that inflation (INF) and gross domestic product (GDP) variables have a significant and positive effect on the return on equity (ROE). However, it was determined that the exchange rate (EX-RA) and consumer price index (CPI) variables did not have any effect.

If we evaluate the Model 3 and Model 4 results in general, it is possible to say that the inflation (INF) exchange rate (EX-

RA) and gross domestic product (GDP) have a significant impact on the financial performance of the companies in the banking sector in Turkey.

5. RESULTS

Financial performance in the banking industry is a critical factor for the success and sustainability of a bank. A healthy financial performance increases the credibility of banks, gives confidence to customers and investors and provides competitive advantage. At the same time, monitoring and evaluating financial performance plays a critical role in banks' risk management and decision-making processes. Effectively managing the financial performance of banks enables them to be resilient to crises and supports the overall stability of the sector. Therefore, we can say that monitoring, developing and maintaining the financial performance of banks is important for the healthy growth and economic stability of the sector.

The main aim of the study is to determine the effect of macroeconomic factors on the financial performance of companies operating in the banking sector. Within the scope of the purpose, the Kosovo banking sector and the Turkish banking sector were compared. According to the results obtained, it has been determined that the gross domestic product (GDP), exchange rate (EX-RA) and inflation (INF) variables, which are macroeconomic factors for both Kosovo and Turkey, positively affect the financial performance of companies operating in the banking sector. The results obtained show parallelism with the [19, 22]. In addition, the consumer price index (CPI) is effective on the financial performance of companies operating in the banking sector in Turkey.

In the light of the results obtained, we can say that macroeconomic factors are effective on the performances of firms operating in the banking sector. In this direction, it is of great importance for firms operating in the sector to consider these influential macroeconomic factors when evaluating the decisions they will take.

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