

## Determinants of Financial Performance of Non-Bank Financial Institutions: Factoring Institutions in Türkiye

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### ABSTRACT

**Purpose:** Non-bank financial institutions can contribute to the deepening and diversification of financial markets by providing broader access to credit, insurance, and investment services. Additionally, they may support financial stability by offering alternative sources of financing to the traditional banking system. Therefore, examining the role of NBFIs and identifying the determinants of their financial performance can offer valuable insights into the finance literature. This study analyzes the factors influencing the financial performance of factoring companies.

**Methodology:** The Autoregressive Distributed Lag (ARDL) bounds testing approach is employed. The independent variables include banking sector profitability (ROA & ROE), the Turkish lira reference interest rate, and inflation. The dependent variable is the profitability of the factoring sector.

**Findings:** Empirical results indicate no statistically significant relationship between banking sector profitability and the financial performance of factoring firms. However, inflation exerts a negative impact on the sector's profitability.

**Originality:** While the literature has addressed the importance of factoring in financial markets, empirical studies focusing on Türkiye are limited. This research provides country-specific insights into the determinants of factoring firms' performance.

**Keywords:** Financial Markets and Institutions, Financial Performance, Factoring.

**JEL Codes:** G20, G23, M40, M41.

## Banka Dışı Finansal Kuruluşların Finansal Performans Belirleyicileri: Türkiye'deki Faktoring Kuruluşları

### ÖZET

**Amaç:** Banka dışı finansal kurumlar, finansal piyasaların derinleşmesine ve çeşitlenmesine katkı sağlayarak kredi, sigorta ve yatırım gibi hizmetlere daha geniş bir erişim sunabilir. Ayrıca, bu kurumlar ekonomik istikrarı destekleyerek geleneksel bankacılık sistemine alternatif finansman kaynakları yaratabilir ve finansal sistemdeki risklerin dağıtılmasına yardımcı olabilir. Dolayısıyla bu kurumların finansal piyasalardaki konumu ve banka dışı finans kurum performanslarının belirleyicilerinin ortaya konması finans literatürüne katkı sunabilir. Bu çalışmanın amacı banka dışı finansal kurumlardan factoring işletmelerinin finansal performansını etkileyen faktörleri analiz etmektir.

**Yöntem:** Çalışmada ARDL sınır testi uygulanmıştır. Bankacılık sektörü karlılığı, TL referans faizi ve enflasyon bağımsız değişkenlerdir. Faktoring sektörünün karlılığı is bağımlı değişken olarak modele dahil edilmiştir.

**Bulgular:** Ampirik bulgular bankacılık sektörü karlılığı ile factoring sektörünün finansal performansı arasında istatistiksel olarak anlamlı bir ilişki olmadığını gösterir. Enflasyonun factoring şirketlerinin finansal performansı üzerinde olumsuz etkisi mevcuttur.

**Özgünlük:** Literatürde factoring faaliyetlerinin finansal piyasalar için önemi ve factoring şirketlerinin finansal performansının belirleyicileri incelenmiştir. Ancak, Türkiye örneğine ilişkin ampirik bulgular sunan çalışmalar sınırlıdır. Bu çalışma, Türkiye'deki factoring şirketlerinin finansal performansının belirleyicilerini analiz ederek literatüre katkıda bulunmayı amaçlamaktadır.

**Anahtar Kelimeler:** Finansal Piyasalar ve Kurumlar, Faktoring, Finansal Performans.

**JEL Kodları:** G20, G23, M40, M41.

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## 1. INTRODUCTION

Companies in emerging markets largely rely on debt for financing. In these markets, bank loans are the primary traditional method of borrowing. As a result, this option is typically the preferred way for businesses to address their external financing requirements. Recently, factoring has become increasingly significant as an alternative funding source. This method entails a company acquiring quick funds by either transferring its accounts receivable to a third party or utilizing these receivables as security for a loan (Bilgin and Dinç, 2019).

Factoring originates from the Latin word “factor,” meaning a person who acts on behalf of another. As factoring is a financing method that spans business, law, and economics, it has been defined in various ways. Essentially, factoring is a financial service that provides companies with funding through selling their receivables. It can be described as a financing technique where factoring companies, known as factors, purchase and collect the seller's short-term receivables for a fee or commission. This allows the seller to access financing and benefit from a range of financial services (Özdemir, 2005).

Factoring became widely used worldwide after the cash shortages following the 1973 oil crisis and began to be adopted in Türkiye in the 1980s. Its importance in foreign trade, especially in export transactions, has been growing in recent years. Factoring is primarily a short-term financing method focused on receivables with payment terms of 60 to 180 days (Bağcı and Esmer, 2016).

Compared to bank loans, factoring offers businesses unique advantages, impacting their capital structure and financing costs in distinct ways. Factoring provides short-term funding by converting receivables directly into cash, thus enhancing liquidity and accelerating the business cycle without relying on equity. While bank loans often require collateral and involve lengthy approval processes, factoring is more flexible and typically does not require collateral. This flexibility allows small and medium-sized enterprises, in particular, to reduce their reliance on banks and maintain a more balanced debt-to-equity ratio. Additionally, although factoring fees and commissions are part of the overall financing cost, factoring can often reduce total financing expenses due to lower transaction costs and quicker access to funds than bank loans (Mol-Gómez-Vázquez et al., 2018).

Identifying the factors that influence the financial performance of factoring firms is crucial, especially considering their function as non-bank financial institutions. In contrast to conventional banks, factoring firms offer alternative financing options, mainly through managing accounts receivable, and play a significant role in improving the liquidity of businesses without engaging in direct lending. Gaining insights into these factors can enhance the stability and effectiveness of factoring firms in supporting small and medium-sized enterprises (SMEs) and other businesses. This understanding also aids policymakers and investors in evaluating the resilience and efficiency of factoring firms throughout economic cycles, strengthening their role within the overall financial system (Yıldırım, 2024). Moreover, revealing the relationship between deposit interest rates and banking performance and the financial performance of factoring companies may provide an outlook on financial markets in Türkiye regarding whether factoring is an alternative non-bank financial instrument (Bilgin and Dinç, 2019).

The importance of factoring activities for financial markets and the determinants of financial performance of factoring companies are analyzed in the literature. However, studies analyzing the Turkish sample are limited (Milenkovic-Kerkovic and Dencic-Mihajlov, 2012; Yıldırım, 2024). This study aims to contribute to the literature by analyzing the determinants of the financial performance of the factoring firms in Türkiye. For this purpose, the effect of inflation, banking sector profits, and interest on the ROA and ROE ratios of factoring enterprises in the 01.12.2018-01.08.2024 monthly period is analyzed by the ARDL bounds test. The paper can fill the gap in the literature by revealing the relationship between factoring and the banking sector in Türkiye and the determinants of factoring performance. The contribution of this study to the literature lies not only in its sample selection. The inclusion of the banking sector and the Turkish lira reference interest rate as model variables, as well as the selected analysis period, enhance the originality of the research. Moreover, while the existing literature primarily focuses on the firm-level performance of publicly listed factoring companies, this study provides a sectoral perspective.

This paper is organized as follows: Section 2 discusses theoretical background, Section 3 reviews the literature, Section 4 deals with methodology and data, Section 5 presents the results, and we present the conclusion in Section 6.

## 2. THEORETICAL FRAMEWORK

Factoring is an important source of external financing other than banks. Factoring companies lack the power to collect payments, so they rely on other financial institutions for their funding. This limitation results in a higher financing cost for their customers compared to banks. Nonetheless, factoring expenses can be deducted from taxes, and businesses can control their factoring costs by raising their sale prices. In contrast

to bank loan financing, factoring is not impacted by the crowding-out effect. This effect describes the drive to seek returns that exceed the expenses associated with financial intermediation. Such costs stem from the challenges of obtaining frictionless transactions, as outlined in the Arrow-Debreu model (Burdett et al., 2001).

Factoring companies rely on bank financing, adding to their costs. However, higher returns on factoring reduce the likelihood of a direct crowding-out effect. These firms use specialized expertise rather than trading financial instruments, ensuring reliable financing for clients. An indirect crowding-out effect may occur if public debt yields exceed bank loan rates (Bilgin and Dinç, 2019). Given these benefits, factoring is a popular external financing choice for companies, especially for small and medium-sized enterprises (SMEs), which heavily depend on this type of funding. In contrast, larger companies primarily turn to bank loans due to the flexibility of collateral they provide, whereas factoring is an alternative financing method that is less commonly utilized. These larger firms may consider factoring when they near their bank credit limits or wish to improve their balance sheet presentation. Factoring becomes particularly attractive for large companies once they hit their non-collateralized risk levels, enabling them to balance their higher costs with their additional advantages (Soufani, 2002).

The study analyzes the performance of factoring firms in Türkiye in the context of macroeconomic and banking variables and examines the factors affecting firms' demand for factoring financing. The study findings can be evaluated using several finance theories. Modigliani-Miller theory can provide insights into capital structure decisions within factoring firms, exploring how debt and equity choices affect firm value, especially in a non-banking context where financing structures differ from traditional banks (Marchi et al., 2020). Trade-off- Theory examines the balance between debt benefits (e.g., tax shields) and the costs associated with financial distress. It helps explain how factoring firms, as non-banking entities, manage leverage while maintaining flexibility and liquidity (Kalantonis et al., 2021).

Pecking order theory argues that financing through factoring should be considered an option between debt and equity, given that its related costs are intermediate between these two alternatives. Therefore, when companies seek external funding, they first choose to secure a bank loan. After reaching their limit on unsecured credit lines, the additional costs linked to bank debt will rise. Eventually, the factoring expense may match or fall below that of a bank loan. At this juncture, businesses might opt for factoring rather than progressing to their next financing option (equity) within the hierarchy. This approach is followed whenever a firm requires funding from external sources. From this viewpoint, this analysis can propose that factoring holds a place between bank loans and equity financing options within a modified pecking order framework (Myers and Majluf, 1984).

### 3. LITERATURE REVIEW

Due to the development of financial markets, the increase in the volume of international trade, and the role of factoring in financial markets, the literature on factoring is growing. This Section reviews the literature. Non-bank financial institutions have been widely covered in the literature in recent years. Studies examine the contribution of these institutions to economic growth through the diversity of financial instruments and their relationship with the banking sector. Selimler and Kale (2018) compare the non-performing loans of banks and non-bank financial institutions. The findings indicate that banks reduce non-performing loan ratios by selling their receivables to asset management companies. Therefore, banks have an advantage over non-bank financial institutions regarding non-performing loans. Tekin (2021) finds that the financial performance of non-bank financial institutions significantly affects inflation and GDP in Türkiye. Khowaja et al. (2021) emphasize the importance of non-bank financial institutions in financing SMEs. Wang et al. (2023) analyze the impact of customer satisfaction on the performance of non-bank financial institutions. Similarly, Sharma et al. (2020) argue that non-bank financial institutions can contribute to microfinance. Besides, studies emphasize the importance of non-bank financial institutions for fintech (Micu and Micu, 2016; Melnychenko et al., 2020).

Factoring institutions have an important place in the literature on non-bank financial institutions. According to Uyanık (2015), factoring can be defined as follows: "Factoring is the transfer of deferred receivables arising from the sale of goods or services to the assets of the factoring company (factor) with or without return, and whether or not the factor makes financing for these receivables; collection follow-up, keeping receivable records and fulfillment of at least one of the functions of protection against doubtful receivables." Domestic literature analyzes factoring in two dimensions. Some of the studies focus on the use of factoring in international trade. Özdemir (2005) emphasizes the role of factoring in financing foreign trade. Yılmaz (2007) discusses the advantages of factoring in financing tourism enterprises. Eke and Çetiner (2020) refer to the role of factoring in eliminating supplier credit risk in the export process.

A significant part of the domestic literature focuses on the financial performance of factoring companies. Özçelik and Küçükçakal (2019) rank the factoring companies traded in Borsa İstanbul according to their

financial performance using the TOPSIS method. Similarly, using multi-criteria decision-making methods, Özbek (2018) ranks factoring firms traded in Borsa İstanbul according to their financial performance. Selimler and Taş (2019) examine the credit management performance of factoring firms. Empirical findings show that market interest rates negatively affect the credit management performance of factoring firms. İslamoğlu and Kayhan (2013) propose a cumulative cash flow model for factoring firms to demonstrate a more prosperous financial performance. According to the VIKOR method, Lider Faktoring A.Ş. has the best performance in the 2016-2019 period, and Creditwest Faktoring A.Ş. has the best performance in the 2020 period. Bitrak (2023) Analyses the market concentration of the factoring sector in Türkiye. The findings show that the number of factoring companies operating in Türkiye has shown a decreasing trend over the years and the market concentration ratios in the sector have followed a fluctuating downward trend in the 2012-2016 period and a continuously increasing trend in the 2016-2021 period.

Some of the studies on the Turkish sample compare the financial performance of factoring and other non-bank financial institutions. Gülcan (2022) evaluates the financial performance of factoring and financial leasing companies whose shares are traded in Borsa İstanbul. Gürol (2018) compares the financial performances of financial leasing, factoring, and financing institutions from 2014-2016. The findings show that the most successful year of factoring firms was 2015. According to Bektaş (2023), the factors affecting the financial performance of financial leasing and factoring enterprises are shareholders' equity, profit for the period, and operating income.

Limited literature analyzes the factors affecting the financial performance of the factoring sector. Tekin and Yener (2020) Analyze the macro factors affecting the profitability performance of non-bank financial institutions in Türkiye. Empirical findings. Shows the significant impact of GDP, interest rates, and inflation on profitability ratios. Çetinceli et al. (2018) examine the performance of non-bank financial institutions with Modified Digital Logic (Mdl) Based Gray Related Analysis. The results show that factoring was the sector that developed the most during the analysis period. The reason for the result is the collaborations and regulations in the sector. Şeker (2022) finds that leverage ratios of non-bank financial institutions have a statistically significant effect on their profitability performance.

The international literature investigates the financial performance of factoring in a broader context. Koch (2015) measures the impact of shareholder groups on the profitability of factoring organizations. According to the empirical findings, the profitability of factoring companies is largely influenced by the size of the company and shareholders, and the factoring company with financial ownership is less profitable than the factoring company without financial ownership. Fiordelisi and Molyneux (2004) analyze the efficiency of the Italian factoring sector using data envelopment analysis. The findings indicate significant cost-saving opportunities within the Italian factoring industry, with average cost inefficiencies ranging from 14% to 22% between 1993 and 1997. These inefficiencies are primarily attributed to allocative inefficiencies rather than technical ones. Degl'Innocenti et al. (2020) examine the relationship between competition and stability in the factoring and banking sectors. The results indicate three conclusions: 1) On average, factoring companies exhibit more excellent stability than banks; 2) The stability of factoring companies tends to rise as competition diminishes (competition-vulnerability perspective); 3) The competition-vulnerability perspective is less pronounced in the factoring industry compared to the banking sector.

The literature on factoring emphasizes its effectiveness as a financing alternative to traditional banks. Ivanovic et al. (2011) contend that factoring can assist businesses in achieving liquidity during periods of financial management and crises. Soufani (2002) examines the various aspects of factoring utilization in the UK, based on a survey conducted with 3,805 companies, out of which 212 made use of factoring services. The results indicate that numerous factors play a significant role in firms' choices to adopt factoring for working capital financing and to enhance cash flow. Nevertheless, factoring is still a financial option not available to everyone. Klapper (2006) finds that factoring is more common in countries that exhibit greater economic development, growth, and well-established credit information systems. "Reverse factoring" can mitigate the problem of informational opacity for borrowers by factoring only the receivables from reputable buyers. The reverse factoring initiative by Nafin in Mexico exemplifies this strategy. Al-Zaqeba et al. (2022) argue the vital role of reverse factoring in supply chain financing.

Studies analyzing the factors affecting the performance of the factoring sector are limited. This study analyses the financial and macroeconomic variables affecting the factoring sector and discusses the determinants of the factoring sector and its role as an alternative to banks. The study is unique in its subject, period of analysis, and methodology. This study enhances the limited literature that provides a sectoral perspective on the financial performance of factoring companies in Türkiye. In addition, the broad analysis period and unique model are other elements that contribute to the study's originality.

#### 4. DATA and METHODOLOGY

The study analyses the effect of TL Reference Interest Rate, banking sector profitability, and inflation on factoring sector financial performance. ARDL bounds test is applied to the data for the monthly period 01.12.2018-01.08.2024. Profitability is a proxy of the financial performance of factoring. Average financial performance data of factoring companies and average profitability data of the banking sector are obtained from the Banking Regulation and Supervision Agency. Inflation and TL Reference Interest Rate data can be accessed from Investing. Rediscount interest rates of the Central Bank are obtained from the Electronic Data Distribution System. Table 1 presents the variable list.

**Table 1. Variable list**

<i>Variable Name</i>	<i>Abbreviations</i>	<i>Definition</i>
Banking Return on Assets	BROA	Net Income / Average Total Assets (%)
Banking Return of Equity	BROE	Net Income / Average Shareholder's Equity (%)
TL Reference Rate	TLREF	It is a benchmark interest rate for financial institutions and real sector firms in Türkiye.
Inflation	INF	The consumer price index.
Factoring Return on Assets	FROA	Net Income / Average Total Assets (%)
Factoring Return of Equity	FROE	Net Income / Average Shareholder's Equity (%)

ARDL bound test is applied to analyze the determination of factoring performance. The primary benefit of this approach is its flexibility in accommodating variables with varying degrees of stationarity in the study. However, the ARDL model cannot be used on stationary variables at the second level. This method presents a new approach to testing for the existence of a relationship between all variables in levels, which is applicable irrespective of whether the underlying regressors are purely  $I(0)$ , purely  $I(1)$ , or mutually cointegrated (Pesaran et al., 2001; Pesaran and Shin, 1999). Using an unrestricted error correction model increases the reliability of ARDL model outputs. Another notable feature of the ARDL model is that it may be applied to smaller sample sizes (Narayan and Smyth, 2005). The ARDL bounds test comprises three fundamental phases. In the initial phase, the cointegrating relationship among the variables is assessed. If cointegration is detected, the analysis proceeds to investigate both the long and short-term relationships (Gülmez, 2015).

#### 5. EMPIRICAL RESULTS

The study analyses the effects of bank profitability, TL reference interest rate, and inflation on the financial performance of factoring companies. Table 2 gives descriptive statistics for the variables. Two models analyse the factoring sector's ROA and ROE.

**Table 2. Descriptive statistics**

	<i>FROA</i>	<i>FROE</i>	<i>BROA</i>	<i>BROE</i>	<i>INF</i>	<i>TLREF</i>
Mean	2.88	16.37	1.32	12.56	2.71	20.65
Max.	8.62	57.22	4.85	49.92	13.58	52.99
Min.	0.31	1.43	0.09	0.72	-0.40	7.86
Std. Dev.	1.96	13.42	1.11	11.58	2.63	12.82
Obs.	69	69	69	69	69	69

The ARDL bounds test is applicable for stationary variables evaluated at their level or first difference. Therefore, a unit root test is conducted. The findings of the unit root tests, including the Augmented Dickey-Fuller and Phillips Perron tests, are illustrated in Table 3. According to these results, all variables demonstrate stationarity at the first level or difference.

**Table 3. Unit root tests**

	<i>ADF</i>		<i>PP</i>	
	<i>Level</i>	<i>1. Differences</i>	<i>Level</i>	<i>1. Differences</i>
FROA	-3.09**	-9.54**	-3.10**	-8.68***
FROE	-2.83*	-7.74***	-2.84*	-8.65***
BROA	-3.26**	-8.70***	-3.36**	-9.01***
BROE	-3.20**	-8.81***	-3.27**	-9.15***
INF	-4.01***	-8.44***	-4.02***	15.73***
TLREF	-0.48	-2.31**	0.74	-6.74***

Note: \*, \*\*, and \*\*\* indicate the significance at the 10, 5, and 1% levels, respectively.

Table 4 presents the ARDL models. When determining the ARDL model, the lag length is calculated using the Akaike Information Criterion. The ARDL model's lag length is (1,8,2,8,4) for Model 1, and (1,8,2,6,3) for Model 2.

**Table 4. ARDL models**

Models	F Statistic	Critical Values	Lower Limit	Upper Limit
Model 1	4.55	10%	1.9	3.01
		5%	2.26	3.48
		1%	3.07	4.44
Model 2	5.29	10%	1.9	3.01
		5%	2.26	3.48
		1%	3.07	4.44

The F statistics of both models are above the critical values. The models are significant. Table 5 shows the long-run coefficients. The findings indicate that bank profitability has no significant effect on the ROA of the factoring sector. Inflation has a negative effect on the ROA of the factoring sector, while TL reference interest rate has a positive effect. Only inflation has a negative effect on the ROE of the factoring sector. In addition, the existence of short-term deviations from the long-run relationship can also be examined with the help of the error correction model. However, since the study aims to reveal long-run relationships, the error correction model is not included in the scope of the study.

**Table 5. Long term coefficients**

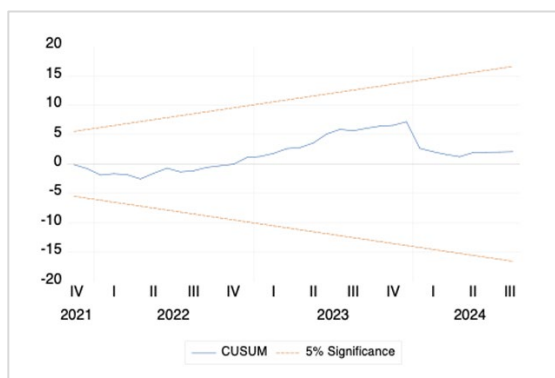
Independent Variables	Dependent Variable: FROA		Dependent Variable: FROE	
	Coefficients	P-Value	Coefficients	P-Value
BROA	0.00	0.99	-2.86	0.85
BROE	0.24	0.27	2.16	0.18
INF	-0.60	0.00***	-3.33	0.00***
TLREF	0.09	0.00***	0.13	0.10

Note: \*\*\*, \*\*, and \* indicate statistical significance at 1, 5, and 10 percent significance level, respectively.

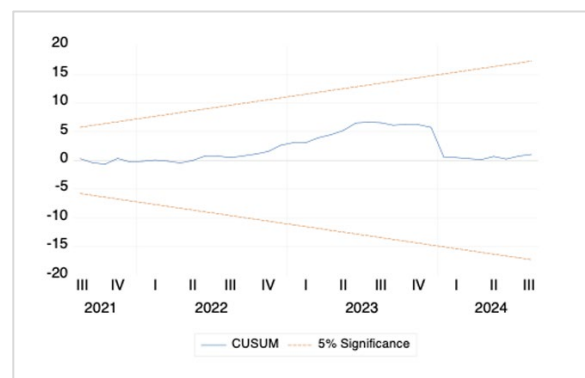
Table 6 shows the results of heteroskedasticity, autocorrelation, and normality tests. Probability values are above 5%. Therefore, there are no problems of heteroskedasticity, autocorrelation, or normality in the models. The model's structural break is examined using the CUSUM test. According to Figure 1, there is no structural break in the models.

**Table 6. Heteroscedasticity, serial correlation, and normality**

	Model 1		Model 2	
	Coefficients	P-Value	Coefficients	P-Value
Breusch-Pagan-Godfrey	21.99	0.73	24.19	0.45
Breusch- Godfrey-LM	2.66	0.26	1.41	0.49
Jarque-Bera	11.44	0.13	4.66	0.10



**a) Model 1**



**b) Model 2**

**Figure 1. CUSUM tests for Model 1 and Model 2**

The analysis results indicate that there is no significant correlation between the profitability of the banking sector and that of factoring. Existing literature includes studies highlighting factoring as a substitute for traditional banking and comparing the two sectors (Bilgin and Dinç, 2019; Degl'Innocenti et al., 2020). However, no study has presented empirical findings on the financial performance of the banking and factoring sectors. The findings are unique to the literature. The observation that the banking sector's

profitability does not significantly impact the profitability of the factoring sector underscores the unique operational characteristics and market functions of factoring as a non-bank financial institution. In contrast to banks, which mainly depend on interest income, factoring companies earn revenue through the sale and management of accounts receivable, making their profitability less dependent on conventional banking operations. This autonomy highlights the stability of the factoring sector in the face of banking industry fluctuations. It illustrates its distinct value proposition in offering liquidity and credit management solutions, especially to businesses that may not qualify for banks' rigorous lending requirements. This finding highlights factoring's function as a supportive yet independent entity within the financial ecosystem, addressing specific needs with minimal dependence on the performance of the banking sector (Goddard and Wilson, 2009).

Inflation has a negative effect on the profitability of the factoring sector. This finding is consistent with the literature that finds a significant effect of inflation on factoring (Tekin and Yener, 2020). Inflation may negatively impact the profitability of the factoring sector by increasing operational costs and reducing the actual value of receivables. As inflation rises, administrative expenses, such as employee wages, technology costs, and other overheads, erode profit margins. Additionally, the real purchasing power of the amounts recovered from factored receivables diminishes over time, particularly if payment terms are extended. High inflation may also lead to increased default risks among clients as businesses struggle with rising costs and declining profit margins, which can further impair the factoring firm's financial performance. Moreover, inflation often leads to higher interest rates, increasing the cost of funds for factoring firms that rely on borrowing to finance their operations, further squeezing profitability (Abreu and Mendes, 2001).

Interest rates positively influence factoring ROE. This result supports the studies in the domestic literature (Selimler and Taş, 2019; Tekin and Yener, 2020). The positive effect of interest rates on the return on equity (ROE) of factoring firms can be attributed to the nature of their revenue model, which often incorporates interest-like fees on advances provided against receivables. When interest rates rise, factoring firms can adjust their pricing to reflect the increased cost of funds, thereby maintaining or even enhancing their profit margins. Higher interest rates may also make traditional bank loans less attractive to businesses, driving more clients towards factoring as a flexible financing alternative. This increased demand for factoring services can result in higher revenues and improved operational efficiency, ultimately boosting ROE. As non-bank financial institutions, factoring firms are well-positioned to capitalize on these market dynamics by leveraging their expertise in receivables management and liquidity provision (Selimler and Taş, 2019).

## 6. CONCLUSION

This study seeks to identify the factors influencing the financial performance of the factoring sector within non-bank financial institutions. In addition, the impact of the financial performance of the banking sector on the factoring sector is also one of the subjects of the study. For this purpose, the impact of banking sector profitability, TL reference rate, and inflation on factoring sector profitability is analyzed by the ARDL bounds test. The findings show the negative effect of inflation on factoring profitability and the positive effect of TL reference interest rate on factoring profitability. Moreover, profitability in the banking sector has no significant effect on factoring profitability.

The finding that banking sector profitability does not affect the profitability of the factoring sector carries important implications for researchers, policymakers, and factoring firms. For researchers, this outcome underscores the necessity of investigating the factors that drive performance in the factoring sector, highlighting its distinction from traditional banking influences and the significance of alternative financial ecosystems. Policymakers may view this as an indication of the factoring sector's resilience and potential to serve as a complementary service to banking, suggesting the need for tailored regulatory frameworks that foster its growth while addressing systemic risks. This independence presents an opportunity for factoring firms to carve out unique value propositions by focusing on niche markets and providing innovative financial solutions, particularly to underserved businesses.

The adverse impact of inflation on the profitability of the factoring sector carries significant implications for researchers, policymakers, and factoring firms. For researchers, this finding underscores the necessity for additional studies examining how inflation influences non-bank financial institutions in contrast to traditional banks and the identification of adaptive strategies that can mitigate these effects. Policymakers should take into account the pressures inflation places on factoring firms when formulating monetary and regulatory policies, ensuring these institutions have access to affordable funding and mechanisms to stabilize operations during inflationary periods. Furthermore, for factoring firms, these implications highlight the importance of implementing dynamic pricing strategies to respond to inflationary pressures, establishing robust risk management practices to address heightened default risks, and enhancing operational efficiencies to control increasing costs.

The positive relationship between interest rates and the profitability of the factoring sector has significant implications for researchers, policymakers, and factoring firms. For researchers, this finding highlights the necessity of examining the mechanisms by which interest rate fluctuations impact the pricing, demand, and financial strategies of factoring firms, thereby distinguishing their performance from that of traditional lenders. Policymakers can interpret this as evidence of the sector's capacity to prosper in high-interest environments, suggesting the importance of implementing supportive regulations that facilitate the efficient provision of liquidity to businesses while effectively managing associated risks. For factoring firms, this relationship emphasizes the critical need to adapt their pricing models to align with interest rate changes in order to optimize profitability while leveraging their inherent flexibility to attract clients who may be deterred by elevated borrowing costs from traditional banks.

This study has some limitations. From data availability, the period of the study covers the period 01.12.2018-01.08.2024. Future studies may examine a wider analysis period. In addition, future studies can divide the analysis period into special periods such as high inflation, high interest rates. Analyses of non-financial variables can also contribute to the literature.

### **Conflict of Interest**

No potential conflict of interest was declared by the author.

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### **Compliance with Ethical Standards**

It was declared by the author that the tools and methods used in the study do not require the permission of the Ethics Committee.

### **Ethical Statement**

It was declared by the author(s) that scientific and ethical principles have been followed in this study and all the sources used have been properly cited.



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