Are Islamic Banks Affected by Conventional Bank Interest Rates? The Case of Turkiye

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Abstrack

The purpose of this study is to reveal the empirical causal relationship between the variables that affect the profit rates distributed to deposits at participation banks. In this study, monthly data for the period 2002:M01-2022:M02 were used in order to reveal the variables affecting the profit share rates distributed to deposits by participation banks. In order to analyze the relationship between the variables, the Johansen cointegration test, impulse-response analysis were used within the framework of the VAR model, and the effect ratios of the variables were revealed with the var decomposition table. In addition, the causality relationship was discussed with the Toda-Yamamoto causality test. In the study, a model has been developed that reveals the variables that affect the change in the profit share rate of participation banks distributed to time deposits. In the analyzes made, it has been revealed that the interest rates of conventional banks are effective on the profit share rates of participation banks in accordance with the literature in the case of Turkiye. VAR Decomposition results; It shows that approximately 38.05% of the change in the profit share ratio of participation banks distributed to time deposits in the 10th period is explained by the interest rate given to 1-year maturity deposits of conventional banks operating in Turkiye.

Keywords: *Islamic banking, Participation Banking, Islamic Finance, Interest, Dividend, Cointegration Analysis, Causality Analysis, Turkey, Turkiye*

INTRODUCTION

Islamic banking and conventional banking activities compete in the same market in many Islamic countries. The Islamic banking (participation banking) system has emerged based on the needs of Islamic sensitive societies. The Islamic finance field has grown day by day, reaching a volume of approximately 3.5 trillion dollars at the end of 2021, due to meeting the deficiency in this field and being accepted. IFDI predicts that the size of the Islamic finance industry will grow from $3.374 trillion in 2020 to $4.94 trillion in 2025, an average of 8% growth over the next five years. It is estimated that by the end of 2025, it will reach a volume approaching 4.94 trillion dollars (The estimated growth rate for the period 2020-2025 is 46%) (Refinitiv, 2021). The evolution of Islamic financial assets over the years is given below (Figure 1).
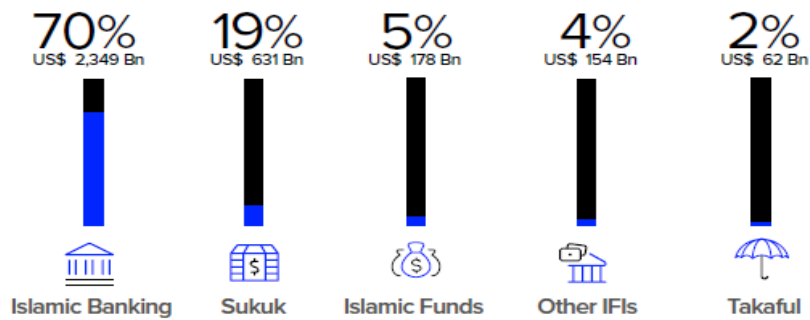
Figure 1. Development of the Islamic finance industry over the years
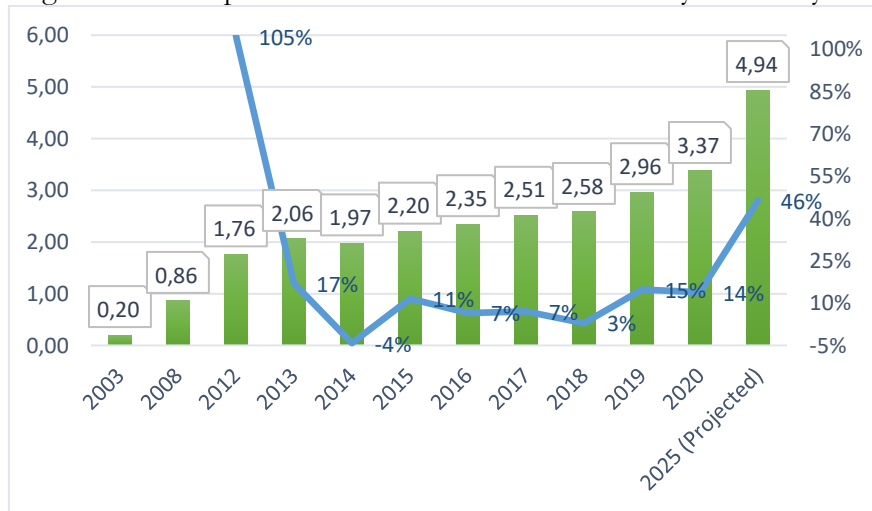
The distribution of Islamic finance assets, which reached a volume of 3.374 billion dollars by the end of 2020, is as follows (Figure 2):

**Figure 2. Islamic Finance Assets Distribution (2020, USD Billion)**

As can be seen, among Islamic finance assets, Islamic banking is the biggest and most important title with a ratio of 70%. The second important heading is Sukuk with 19%, which is followed by Islamic funds with 5%, followed by other Islamic financial instruments (IFIs) and Takaful with 4% and 2%, respectively.

When we look at the example of Turkiye, the development of the Islamic banking sector over the years is as follows (Figure 3):

Figure 3. Asset size development of participation banks in Turkiye (billion TL and US$)
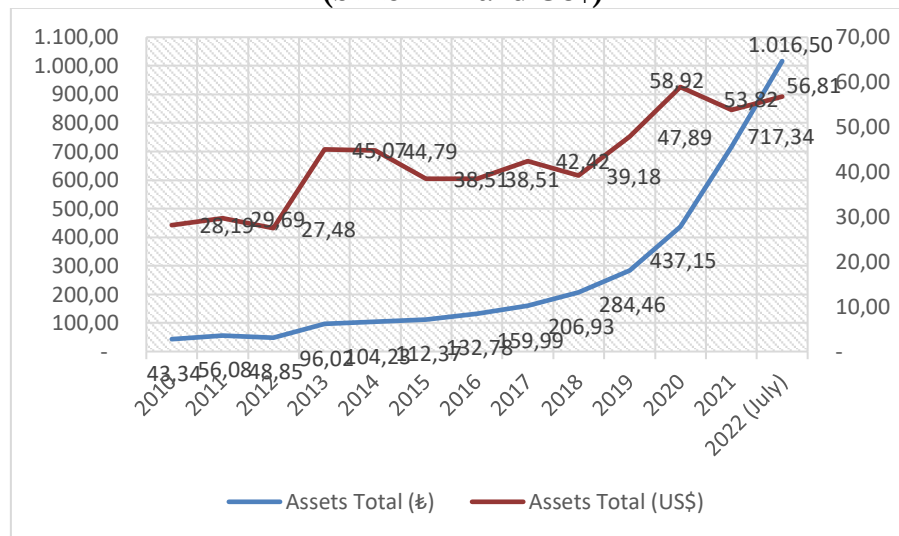

Source: (BDDK, 2022; Edited by the authors)

As can be seen in the chart above (Figure 3), the assets of participation banks operating in Turkiye are growing every year. As of the end of July 2022, total assets reached TL 1,016.50 billion. The annual growth rate reached a record 64.10% in 2021, and a serious growth of 41.70% was achieved for the first seven months of 2022. This growth rate corresponds to a compound monthly growth rate of 5.11%, which means that the year-end growth rate can be expected to be 81.77%. In this case, by the end of 2022, total assets will reach a figure of TL 1,303.89 billion. When we look at the growth figures in real terms based on the dollar exchange rate, the value of total assets as of July 2022 is at the level of USD 56.81 billion. According to this development trend, the year-end forecast is USD 72.44 billion. Accordingly, the annual real growth rate in US dollars in 2022 is 34.60% and the combined annual growth rate in US dollars between 2009 and 2022 is 9.37%.

When Islamic banking fund-raising activities are evaluated, it is seen that several important fund-raising instruments have a significant share in the total credit volume.

## Figure 4. Financing By Type of Shari'ah-Compliant Contract as of 2021Q2
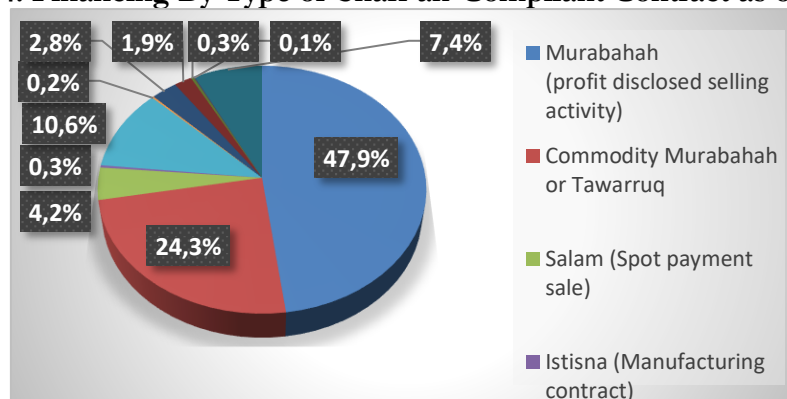
Source: (IFSB, 2021)

As can be seen in the chart above, instruments such as Murabahah, Tawaruq and Salam contract make up a large portion of the total funding volume. When the situation is evaluated in terms of Turkiye, a similar situation is observed. When we look at the distribution of funds extended by participation banks over the years, the table below is seen (BDDK, 2021).

Figure 5. Structure of funds used by participation banks (2011-2020)
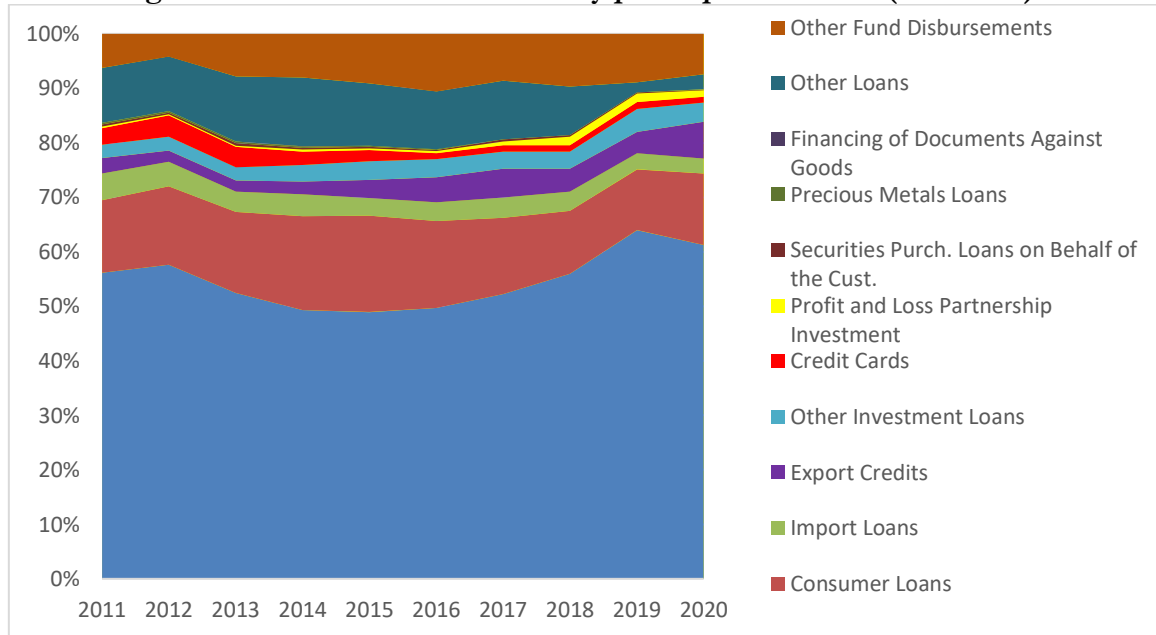
(Source: https://www.bddk.org.tr; BDDK, 2021; Edited by authors)

When the graphs above are examined, it is seen that participation banks in Turkiye, like conventional banks, work mostly on credit, and use methods based on profit/loss sharing very little. Participation banks, although there are many reasons, basically use credit extension methods that are compatible with the conventional banking system because, among others, these methods; are less risky and offers guaranteed rates of return, comply with the conventiona banking system, does not require commercial knowledge and skills, provide an avenue for the yields of the loans to be extended are independent of the returns of the commercial activities in which they will be used, lack of sufficient human resources, and provide opportunities to offer almost realistic profit rates to the collected funds (Kazak & Okka, 2022).

In the conventional banking system, the difference between the interest paid to the depositors and the interest collected in return for lending constitutes the banking income and the basis of the system is based on interest. In the Islamic banking system, since interest is considered haram, the funds collected are given a share of the profit obtained in return for the operation of these funds. The funds collected are transferred to individuals and institutions in need of funds, with a certain profit margin, through instruments that comply with Islamic rules. Participation banks receive a share of the profits obtained in return for these transactions. Although they are traded in the same market, participation banks may face additional limitations in the management of liquidity risk. Restrictions on marketability and fundraising in the financial market increase the funding cost of Islamic banks and thus

reduce bank profitability compared to traditional banks (Hashim, et al. 2022). Despite these difficulties, the two systems, which basically distinguish between interest and profit, are traded in the same market and often serve the same potential customers. It is also possible for the same individual to receive service from a conventional bank and sometimes from a participation bank. Individuals and institutions with interest sensitivity mostly prefer participation banks. Sharing the same economic environment and a common customer base, the banking system is affected by common variables. Since they appeal to a customer base with similar needs and expectations, the product and services offered by Islamic banking are similar to the products and services offered by traditional banks. Many products and services offered by the Islamic banking system are inspired by the conventional banking system. Under these conditions, although the Islamic banking system is based on the principles of interest-free working, it is inevitable that it will be affected by market interest rate variables and interest rate risks. When all these situations are evaluated, it seems likely that the profit rates of participation banks, which compete with conventional banks in the same market and whose fund disbursement methods are similar to conventional banks' interest rate lending methods, will be affected by bank interest rates.

This interaction has been tried to be revealed by various studies in the literature. In this study, the variables affecting the profit share rates distributed to deposits by participation banks on the example of Turkiye are discussed within the framework of a model. The model which is put forward within the scope of the variables in the model has brought a new perspective to the literature, and the relationship between the profit rates of participation banks and the interest rates of the banks in the conventional system has been revealed in accordance with the literature.

LITERATURE REVIEW

In the literature study, only the current studies of the last five years are presented. The most common studies in the literature in the comparative analysis of Islamic and conventional banks are the comparisons of financial characteristics and performances of interest-free banks and conventional banks. As an example of these; Alexakis et al. (2019), Nosheen & Rashid (2019), Haque et al. (2020), Faleel (2021), Nugroho, et al. (2022), etc. can be given.

Another study group in the literature is the studies on the variables that affect the Islamic banking profit rates. As an example of these; Caporale et al. (2020), Malim & Azizan (2020), Prandi & Colecchia (2021), Nugroho et al. (2022), etc. studies carried out by.

The other group literature studies that are directly related to this study are the studies that reveal the relationship between profit and interest rates between conventional banks and participation banks. The main ones of these works are:

In the study conducted by Koç (2018), it was revealed that there is a significant relationship between the profitability of participation banks and interest rate changes, and therefore, each institution is exposed to interest rate risk at different levels.

The study by Suyyinah (2018) revealed that there is a long-term relationship between conventional and Islamic bank deposit returns. According to the results of the study; The shock in the traditional deposit rate affects the fluctuation in the Islamic deposit yield. The reverse is also true, but Islamic banks have less influence over conventional banks.

In the study conducted by Mushafiq & Sehar (2021), the empirical causality relationship between Islamic bank term deposit rates (IBTDR) and conventional bank term deposit rates (CBTDR) was revealed in the short run. Study results revealed that IBTDR is dependent on CBTDR in the short term.

Ercan et al. (2021), They found that profit sharing rates of Islamic banks are highly correlated and compatible with conventional bank interest rates. The study by Saeed et al. (2021) revealed that Malaysia's Islamic bank deposit and financing rates are affected by both traditional and Bank Negara Malaysia's policy rates.

The study conducted by Zaman et al. (2021), aimed to analyze the long-term relationship between the rates of interest-free banks in savings and time deposit accounts and the interest rate offered by conventional banks for similar accounts. The results of the study showed that the evidence for the absence of a long-term relationship on the returns offered by Islamic and conventional banks is stronger than the evidence for a long-term relationship.

The study by Gök (2021) revealed that Islamic and conventional banking rates of return are not independent of each other. In the study conducted by Nouman et al. (2022), it was revealed that there is an important long-term and short-term relationship between interest rate volatility and the financing of the Islamic banking sector. They stated that the financing of Islamic banks operating within the dual banking system is subject to interest rate risk, which makes Islamic banks vulnerable to rate of return risk.

Many of the studies we have mentioned so far clearly reveal the interaction between Islamic banks and conventional banks. In this study, it is aimed to contribute to the literature by revealing the formation of dividend rates distributed to deposits by participation banks by means of different variables and to shed light on future studies.

Econometric Model

In this study, monthly data for the period 2002:M01-2022:M02 were used in order to reveal the variables affecting the profit share rates distributed to deposits by participation banks. In order to analyze the relationship between the variables, the Johansen cointegration test, impulse-response analysis were used within the framework of the VAR model, and the effect ratios of the variables were revealed with the var decomposition table. In addition, the causality relationship of important variables was discussed with the Toda-Yamamoto causality test.

Although it is possible for each sub-variable to affect each other, in this study, the effect of the variables on the profit share rates distributed to deposits of participation banks (PARTBANK3M) is discussed. The variables in the model are shown in the figure below.

Figure 6. Variables in the Model[1]
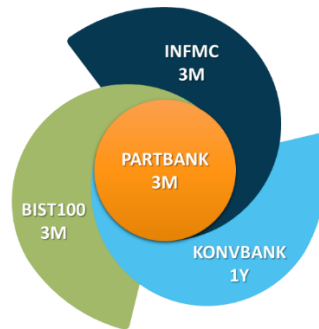
Here, PARTBANK3M represents the profit share of participation banks operating in Turkiye, distributed to deposits with a maturity of 3 months; KONVBANK1Y is the interest rate given to one-year deposits at conventional banks operating in Turkiye; BIST1003M, Turkiye BIST100 (Borsa Istanbul) Index 3-month growth rate; INFMC3M represents the last three months average (previous month's values) of the monthly rate of change in Turkiye Consumer Price Index (2003=100). Data sources for the variables are presented in Table 1.

Table 1. Variable definitions

Variables	Definition	Source
PARTBANK3M	Profit share rate distributed to 3-month maturity deposits of participation banks operating in Turkiye	TKBB (Turkish Participation Banks Association)
KONVBANK1Y	Interest rate given to 1-year maturity deposits in conventional banks operating in Turkey	Central Bank of the Republic of Turkiye (TCMB) Electronic Data Distribution System (EVDS)
BIST1003M	Turkiye BIST100 (Borsa Istanbul) Index 3-month growth rate	Central Bank of the Republic of Turkiye (TCMB) Electronic Data Distribution System (EVDS)
INFMC3M	Turkiye Consumer Price Index (2003=100) Monthly Change Rate - (Last Three-Month Average) (Note: The previous month's value)	Turkish Statistical Institute (TUIK)

Natural logarithms of PARTBANK3M and KONVBANK1Y variables were considered in the analyses.

Empirical findings

Descriptive statistics

Descriptive statistics regarding the variables used in the analysis are given in Table 2.

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[1] Figure edited with PresentationGO.

Table 2. Descriptive Statistics of Variables for the Period

	Mean	Median	Maximum	Minimum	Std. Dev.
PARTBANK3M	2.50186	2.41062	3.69723	1.79008	0.49458
CONVBANK1Y	2.72124	2.69019	4.09601	2.01890	0.49930
BIST1003M	0.04537	0.03596	0.49019	-0.35462	0.14416
INFMC3M	0.97842	0.83167	9.39667	-0.46667	0.98030

Unit Root Test

In order not to cause a spurious regression problem between the variables, the stationarity of the series was tested with the help of the ADF Unit Root Test, and the results of the series are presented in Table 3.

Table 3. ADF Unit Root Test Results

Variables			t-Statistic	1%	5%	10%	Prob.*
PARTBANK3M	1st Difference	Constant	-5.748942	-3.457747	-2.873492	-2.573215	0.000
CONVBANK1Y	1st Difference	Constant	-5.177538	-3.45763	-2.87344	-2.573187	0.000
BIST1003M	1st Difference	Constant	-9.41202	-3.45847	-2.873809	-2.573384	0.000
INFMC3M	1st Difference	Constant	-6.387279	-3.457865	-2.873543	-2.573242	0.000

Unit root test results for all series showed that non-stationary series became stationary at the 1% significance level at their first difference.

According to the ADF unit root test findings, it was observed that all series contained a unit root at the level, but the said series became stationary (1) at the first difference. Even though the series being stationary of the same order gives a clue that there is a long-term relationship between the variables, this relationship was tested with the cointegration test.

The fact that the variables are integrated to the same degree does not always mean that they act together (cointegrated) in the long run. Whether they act together in the long run is determined by cointegration tests. So, at this stage, cointegration with cointegration analysis will be evaluated.

Cointegration Analysis

In order to test the long-term relationship between the variables, first the appropriate lag length was determined and the VAR model was estimated.

Detection of lag length

The first step in estimating the VAR model is to determine the appropriate lag length. For this, criteria such as LR (LR Test Statistic), FPE (Final Prediction Error), AIC (Akaike Information Criteria), SC (Schwarz Information Criteria) and HQ (Hannan-Quin Information Criteria) were used. The lag length results according to the information criteria are given in Table 4.

Table 4. Optimal Lag Length Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-149.178	NA	4.35E-05	1.309216	1.368282	1.333031
1	820.8028	1898.51	1.25E-08	-6.84447	-6.54914	-6.72539
2	933.1817	216.1132	5.49E-09	-7.66822	-7.136631*	-7.45388
3	972.7749	74.78733	4.49E-09	-7.86987	-7.10202	-7.560275*
4	994.6687	40.60627	4.27e-09*	-7.920245*	-6.91613	-7.51539
5	1006.132	20.86933	4.45E-09	-7.88147	-6.6411	-7.38135
6	1024.482	32.77921*	4.36E-09	-7.90156	-6.42492	-7.30618
7	1033.162	15.20753	4.65E-09	-7.83899	-6.12609	-7.14835
8	1042.181	15.4947	4.95E-09	-7.77932	-5.83017	-6.99343

* Indicates lag order selected by the criterion

|	
LR: LR test statistic	SC: Schwarz information criterion
FPE: Final prediction error	HQ: Hannan-Quinn information
AIC: Akaike information criterion	criterion

In relation with the FPE and AIC information criteria, the VAR model was estimated based on 4 lag lengths.

Diagnostic challenge tests (residual diagnostics)

To apply a valid regression model, several assumptions must be satisfied for the data. Wonnacott and Wonnacott (1981) argued that if linearity, normality and independence assumptions are supported, additional assumptions such as constant values of X are not problematic. At this stage, stability condition and varying variance tests will be performed.

The Stability Condition

It is very important to provide the stability condition for the application of the EKK method in VAR models. In order for the stability condition to be fulfilled, the inverse roots must lie within the unit circle. As seen in Figure 2, the inverse roots of the AR characteristic polynomial lie within the unit circle, and the predicted model satisfies the stationarity condition.

Figure 7. Inverse Roots of AR Characteristic Polynomial
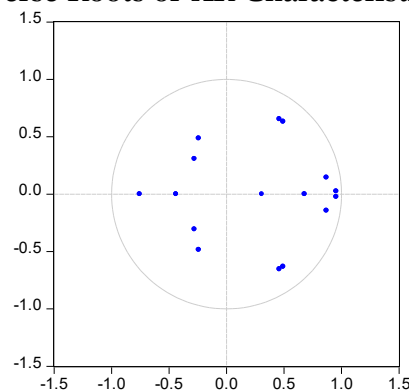
Heteroscedasticity Test Results

The assumption of constant variance, which is one of the basic assumptions of regression analyzes using the least squares method, is a very important issue (Bajpai, 2011). As a general rule, if statistical analysis is to be based on solid ground, the variance of the error term should not depend on the value of the independent variable x (Winston, Albright, ve Broadie, 1997). In other words, the variance of the unit values of the dependent variable should remain constant while the unit values of the independent variables change (Gujarati, 2003). This assumption is called constant variance (homoscedasticity). If this assumption is deviated, the heteroscedasticity problem arises. The presence of varying variance is a major concern in regression analysis and analysis of variance, as it invalidates statistical significance tests that assume that modeling errors all have the same variance (Johnston, 1972). When there is a changing variance problem, there are also solution methods to solve the problem.

In this study, variance analyzes were performed and as can be seen in the table below, no variance problem was encountered as a result of the Breusch-Pagan-Godfrey, Harvey and Glejser analysis.

Table 5. Heteroskedasticity Test Results (5% confidence interval)

Heteroskedasticity Test	Obs*R-squared	Prob.**	Absence hypothesis (Constant Variance Assumption Valid)	
Breusch-Pagan-Godfrey	2.64367	0.4499	Accept	There is no heteroscedasticity problem
Harvey	1.238048	0.7439	Accept	There is no heteroscedasticity problem
Glejser	3.051895	0.3837	Accept	There is no heteroscedasticity problem

Cointegration test

Johansen cointegration test was used to determine whether there is a long-term correlation between the variables. The results of the cointegration test are presented in Table 6.

Table 6. Johansen Cointegration Test Results

Cointegration Degree		Eigenvalue	Unrestricted Cointegration Rank Test (Trace)			Unrestricted Cointegration Rank Test (Maximum Eigenvalue)		
				0.05			0.05	
H0	H1		Trace Statistic	Critical Value	Prob.**	Trace Statistic	Critical Value	Prob.**
r=0	r≥1	0.14116	65.68746	47.85613	*	36.06480	27.58434	*
r≤1	r≥2	0.07090	29.62265	29.79707		17.42859	21.13162	
r≤2	r≥3	0.04023	12.19407	15.49471		9.73196	14.26460	
r≤3	r≥4	0.01034	2.46210	3.84147		2.46210	3.84147	

Trace test indicates and Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level
 * denotes rejection of the hypothesis at the 0.05 level
 **MacKinnon-Haug-Michelis (1999) p-values

The lag length (k=4) determined in the table above and the results of the cointegration test (Johansen (1988) and Johansen & Juselius (1990)) are given. As is obvious in the table, there is 1 cointegration vector in the trace test of the series at the 5% significance level, and 1 cointegration vector in the Maximum eigenvalue test. In the analysis, it can be said that there is 1 cointegration vector for both tests and therefore they act together in the long run.

Autocorrelation Test and Adjusted Regression Model

One of the basic assumptions of the classical linear regression model is that there is no relationship between the error terms. If there is a relationship between the error terms, the existence of the autocorrelation problem is mentioned (Ünver & Gamgam, 1996). Durbin-Watson d statistics (Durbin & Watson, 1950, 1971), which is used to determine the autocorrelation problem, was introduced as series correlation research in the least squares' regression study of time series. In this investigation, the d value provides a means to measure the serial correlation between adjacent least squares residuals and to predict whether this correlation behaves well. The d value will be calculated in the Durbin Watson test. According to this;

$$d = \frac{\sum_{t=2}^{n}(e_t - e_{t-1})^2}{\sum_{t=1}^{n} e_t^2}$$

Is the formula with which calculation is made (Draper ve Smith, 1998). Here et denotes the t'th residual values obtained from Least Squares (Least Squares) regression for t=1, 2, ..., n. The d value calculated in the equation is compared with two critical scale values, dL and dU. Durbin Watson value was tested for the established VAR model and the following values were reached.

Table 7. Durbin-Watson Statistic (at 5% significance level).

	Value	Min (d_L)	Max (d_u)
Durbin-Watson	0.247	1.769	1.817
Prob(F-statistic)	0		

As can be seen as a result of this comparison, there is a positive autocorrelation since 0 < d < d_L (0 < 0.247 < 1.769) is valid.

In order to correct the autocorrelation problem in the model, the standard errors were rearranged with the correction of Newey & West (1987) on the regression models. Accordingly, the adjusted regression model is presented in the table below (Table 8).

Table 8. Adjusted (Newey&West) Regression Model

PARTBANK3M	CONVBANK1Y	BIST1003M	INFMC3M	C
1	0.982036	0.19719	-0.036113	-0.144108**

|	(0.024912)	(0.062751)	(0.015843)
	[39.41986]*	[3.142402]*	[-2.279375]**

Values in parentheses show standard deviations, and values in square brackets show t statistical values.

* indicates significance at the 1% level and ** indicates significance at the 5% level.

Impulse-Response Functions (IRF)

Impulse-response functions were used to see how participation banks' dividends distributed to time deposits (PARTBANK3M) responded to a standard error shock given to the variables. The results are shown in Figure 8.

Figure 8. Impulse-Response Functions (IRF)

Response to Cholesky One S.D. (d.f. adjusted) Innovations ± 2 S.E.
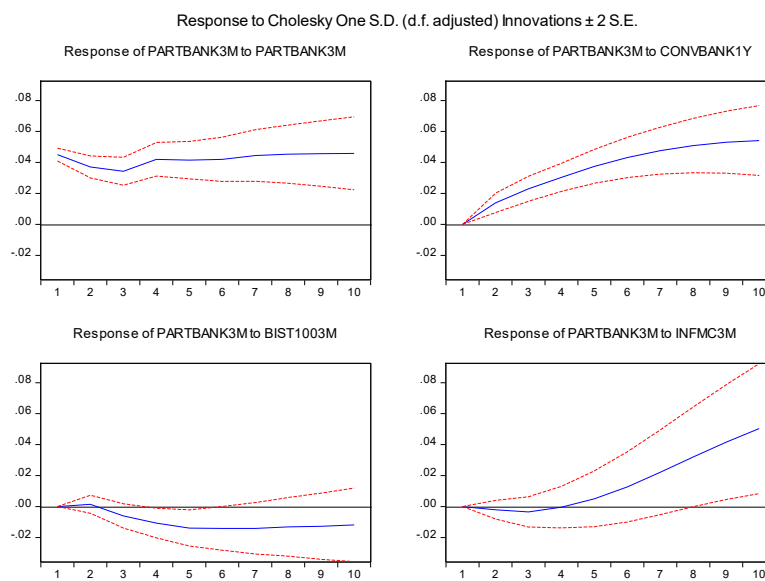
According to these results, it is seen that PARTBANK3M reacts positively to the increase in the CONVBANK1Y variable and this reaction continues for a long time by increasing. On the other hand, the increase in the INFMC3M variable initially gives a negative response, but turns into a positive response in the long run, and this reaction continues for a long time by increasing. It is also seen that it reacts negatively to the increase in the BIST1003M variable and the reaction continues at an increasing rate for a while, then follows a stagnant course.

Variance Decomposition

Variance Decomposition was made to determine how much of the change in the profit share rate of participation banks distributed to time deposits (PARTBANK3M) was due to independent variables, and the findings are given in Table 9.

Table 9. Variance Decomposition Results (PARTBANK3M)

Period	S.E.	PARTBANK3M	CONVBANK1Y	BIST1003M	INFMC3M
1	0.045043	100.000000	-	-	-
2	0.060012	94.493020	5.331697	0.056279	0.119003

3	0.073156	85.528750	13.432910	0.727757	0.310585
4	0.090285	77.774850	20.141120	1.877703	0.206326
5	0.107182	70.138400	26.487670	3.011772	0.362159
6	0.124397	63.452840	31.706730	3.532037	1.308389
7	0.142827	57.815210	35.140250	3.652254	3.392283
8	0.161981	52.768590	37.185880	3.496185	6.549341
9	0.181735	48.229530	38.056630	3.270425	10.443420
10	0.201822	44.267520	38.052250	2.995638	14.684590

In the results of the VAR Decomposition is reflected that approximately 38.05% of the change in the profit share rate distributed to time deposits (PARTBANK3M) of participation banks is explained by the interest rate given to 1-year maturity deposits of conventional banks operating in Turkiye (CONVBANK1Y), while 3% of it by Turkiye BIST100 (Borsa Istanbul) Index 3-month growth rate (BIST1003M) and 14.68% by the Turkish Consumer Price Index (INFMC3M) index.

Toda-Yamamoto causality test

The causality relationship between the interest rate given to 1-year deposits (CONVBANK1Y) of conventional banks operating in Turkey, which is the most important variable that causes the change in the profit share rate of participation banks to time deposits (PARTBANK3M), is shown below. The results of the Toda-Yamamoto causality test revealing the relationship between them are as follows.

Table 10. Toda Yamamoto Causality Test

	H_0		Lag Order	Chi-square	Probability	Decision	Relationship Direction
CONVBANK1Y	$\neq\gg$	PARTBANK3M	$k + d_{max}=5$	45.96926	0.00000	H_0 denied	CONVBANK1Y => PARTBANK3M
PARTBANK3M	$\neq\gg$	CONVBANK1Y	$k + d_{max}=5$	10.32733	0.03530	H_0 denied	PARTBANK3M => CONVBANK1Y

As can be seen in the table above, there is a mutual causality relationship between both variables. Accordingly, interest rates of conventional banks and profit distribution rates of participation banks are affected by each other.

EVALUATION AND CONCLUSION

Today, in most of the Islamic countries, the Islamic banking system competes in the same market as the traditional banking system. Fundamentally, Islamic banking is an alternative to the interest rate system, but it is influenced by common variables with the banking system that they share the same economic environment and a common customer base with. Developing economic systems, growth in production and trade volumes have increased the need for a banking system with Islamic sensitivity in Islamic countries. Due to the similar structures of the economic and commercial systems and the financial systems that

finance them, the Islamic banking system had to produce solutions suitable for the solutions found by the existing conventional banking system. For these reasons, it is inevitable that the products and services offered by Islamic banking will resemble the products and services offered by traditional banks, as they appeal to a customer base with similar needs and expectations. Many products and services offered by the Islamic banking system are inspired by the conventional banking system. Under these conditions, although the Islamic banking system is based on the principles of interest-free working, it is inevitable that it will be affected by market interest rate variables and interest rate risks.

Many studies in the literature clearly reveal the interaction between Islamic banks and conventional banks. In this study, by contributing to the literature, the important variables that are effective in the formation of the profit share rates distributed by the participation banks to the deposits by means of different variables have been revealed. Monthly data for the period 2002:M01-2022:M02 are used to reveal the variables that affect the profit share rates distributed to deposits by participation banks. In order to analyze the relationship between the variables, the Johansen cointegration test, impulse-response analysis were used within the framework of the VAR model, and the effect ratios of the variables were revealed with the var decomposition table. In addition, the causality relationship of the most important basic important variables in our study was discussed with the Toda-Yamamoto causality test.

Since this study is viewed only from a macro perspective, only PARTBANK3M (the profit share rate of participation banks operating in Turkey to 3-month deposits) is focused on, and other factors related to the banking sector are ignored. Again, the effect of only three variables on the dependent variable is discussed. In addition, the research results regarding the factors affecting PARTBANK3M are also sensitive to the purpose and method of the research and the proxies of the variables used. In addition, the research includes the elements arising from the unique characteristics of the examined periods, and the results of the research should be re-evaluated with future studies. Again, in this study, the economic crises in the relevant period were not taken into account. It is our recommendation that the effects of economic crises should also be dealt with in other studies to be carried out from now on.

In this study, the effects of KONVBANK1Y, BIST1003M and INFMC3M variables on PARTBANK3M (the profit share rate of participation banks operating in Turkiye to 3-month deposits) were examined. In this framework, it was found that the variables act together in the long run. In the adjusted regression model, KONVBANK1Y, BIST1003M and INFMC3M variables were found to be statistically significant. Therefore, in line with the established model, it was concluded that the relevant variables were effective on the PARTBANK3M variable. It is seen that PARTBANK3M reacts positively to the increase in the CONVBANK1Y variable of the impulse-response functions and this reaction continues for a long time by increasing. It is seen that the increase in the INFMC3M variable initially gives a negative response, but turns into a positive response in the long run, and this reaction continues for a long time by increasing. It is seen that it reacts negatively to the increase in the BIST1003M variable and the reaction continues at an increasing rate for a while, then follows a stagnant course. In the results of the VAR Decomposition is reflected that

approximately 38.05% of the change in the profit share rate distributed to time deposits (PARTBANK3M) of participation banks is explained by the interest rate given to 1-year maturity deposits of conventional banks operating in Turkiye (CONVBANK1Y), while 3% of it by Turkiye BIST100 (Borsa Istanbul) Index 3-month growth rate (BIST1003M) and 14.68% by the Turkish Consumer Price Index (INFMC3M) index. In addition, the causality relationship between the interest rate given to 1-year deposits (CONVBANK1Y) of conventional banks operating in Turkey, which is the most important variable that causes the change in the profit share rate of participation banks to time deposits (PARTBANK3M), is discussed. According to the results of the analysis, there is a mutual causality relationship between both variables. Accordingly, interest rates of conventional banks and profit distribution rates of participation banks are affected by each other. In this respect, the study supports the limited number of literature studies that say that the profit distribution rates of participation banks are affected by the interest rates of conventional banks. These results make an important contribution to the literature in terms of presenting a model that reveals the relationship of new variables that affect the profit rates of participation banks. In future studies, it will be useful to develop the results of the study by evaluating the data of other countries.

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