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# The Major Determinants of Supply of and Demand for Business Loans in the Turkish Banking Sector

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**Abstract**

The aim of this paper is to analyze empirically the major determinants of supply of and demand for real business loans in the Turkish Banking Sector for the period from January 2006 to December 2016. In the theoretical part of the study, the disequilibrium model of a system of equations for the supply of and demand for credit is used. The estimation results show that the major determinant of supply of real business loans is real deposit volume of the banks. There is a negative relationship between real business loans and real interest rate contrary to expected. This result may be an indicator of credit rationing in the Turkish Banking Sector. The inflation rate has negative effects on the supply of real business loans. The nonperforming loans has no statistically significant effects on supply of business loans. This result may be due to the decrease of nonperforming loans in the banks' balance sheets. There is a negative relationship between the demand for real business loans and real business interest rate as well as inflation rate as expected. The variables regarding economic activity and future economic prospects have no statistically significant effects on both supply of and demand for real business loans contrary to expected.

**Keywords:** Turkish Banking Sector, business loans, disequilibrium model, real interest rate, real deposit volume

## I. Introduction

The main function of banks is to borrow deposit and to give credit to customers. The banks borrow deposits from the customers, other banks, financial markets or abroad and give different types of credits to non-financial companies, private sector and financial institutions. What motivates the banks to lend or how much to lend and what motivates the customers to borrow or how much to borrow from the banks? So, the objective of this study is to analyze empirically the major determinants of supply of and demand for real business loans in the Turkish Banking Sector for the period from January 2006 to December 2016.

After the 2001 financial crisis, together with the structural changes in the Turkish Banking Sector, the inflation rate and interest rates decreased, economic growth increased, Turkish lira appreciated and public debt decreased. All these positive developments caused an increase in both business loans and household loans. While the ratio of credits to total banks' assets was 35 percent in 2004, it increased to 64 percent in 2016. While the ratio of total business loans to total loans was 44.76 percent in January 2006, it increased to 62.10 percent in December 2016. These indicators show that the banks are making their main job, i.e., to give credit.

This study investigates the major determinants of demand for and supply of business loans in the Turkish Banking Sector (including deposit banks, investment and development banks and participation banks). The rest of this study is organized as follows: In Section II, a summary of literature review is presented. In Section III, an overview of the business loans in the Turkish Banking Sector is presented. In Section IV, the theoretical model is explained. In Section V, the empirical model is explained and the data used in the empirical part of the study and their sources are presented. In Section VI, empirical results of the study are analyzed. The Section VI concludes the paper.

## II. Literature Review

The literature on credit demand and supply determinants uses disequilibrium econometric model of a system of equations for the supply of and demand for credit. Laffont and Garcia (1977), contructed a montly model of supply and demand for charted banks'loans to business firms in Canada. Melitz, J. And Pardue, M. (1973) contructed demand and supply of commercial bank loans for the United States. Pazarbaşıoğlu (1997) investigated if there is a credit crunch in the aftermath of the banking crisis during 1992- 1993 in Finland. Credit crunch can be defined as a decline in the supply of credit due to unwillingness to lend by banks that is not reflected in higher credit interest rates. To do that, Pazarbaşıoğlu (1997) estimated disequilibrium model of a system of equations for the supply of and demand for business credit. Pazarbaşıoğlu (1997) found that the decline in bank lending during the 1990s mainly because of the decline in credit demand due to the high level of indebtness of credit borrrowers. During this period, banks also became less willing to lend due to bad asset quality of borrowers.

Ghosh and Ghosh (1999) investigated a possible credit crunch in Indonesia, Korea and Thailand during 1997-1998 in the event of East Asian financial crisis. The credit crunch is defined as a situation in which interest rates do not equilibriate supply of and demand for credit and the amount of aggregate credit is constrained by supply of credit (i.e., credit rationing). The empirical results found little evidence of a quantity rationing or credit crunch, except in Indonesia in the late 1997. In all three countries as real interest rate rises and economic activity weakens, credit demand decreases more than credit supply.

Poghosyan (2011) evaluated the role of demand and supply factors in the slowdown of credit flows in the Jordanian economy in the wake of global financial crisis for the period December 1999 to January 2010. He found that slowdown of the credit activity is mostly a supply phenonemon rather than a demand phenonemon. He also found that elasticity of credit demand with respect to lending rate is relatively smaller than elasticity of credit supply. This result is interpereted as equilibrium interest rate in Jordan is largely affected by shifts in credit supply, so stimulating credit supply are likely to be more effective tool for expanding credit flows.

Everaert, Che, Geng, Gruss, Impavido, Lu, Saborowski, Vandenbussche and Zeng (2015) analysed the role of demand and supply factors in explaining the recent credit cycles in Central, Eastern, and Southeastern Europe (CESE) region using bank level panel data as well as using country level data for Latvia, Lithuania, Montenegro, Poland, and Romania. They found using cross-county panel data that both demand and supply factors affect credit growth, but after the financial crisis relative importance of supply factors on credit growth increased and relative importance of demand factors on credit growth decreased. At the individual country level, they found that both credit supply and credit demand factors rose during the boom and fell during the bust. They also found that country estimation results are heterogenous and reflect county-specific circumstances. For instance, demand factors are the most important factors for explaining the credit behavior during the boom for corporate credit in Latvia and for household credit in Poland and Romania. On the other hand, supply contraints become binding during the post-crisis period for Lithuania and Montenegro.

Regarding Turkey, Nalın and Taşdelen (2016) examined the major determinants of total supply of credit in Turkey for the period 2005-2012. This study found a positive and statististically significant relationship between total credit volume and banks' credit extension

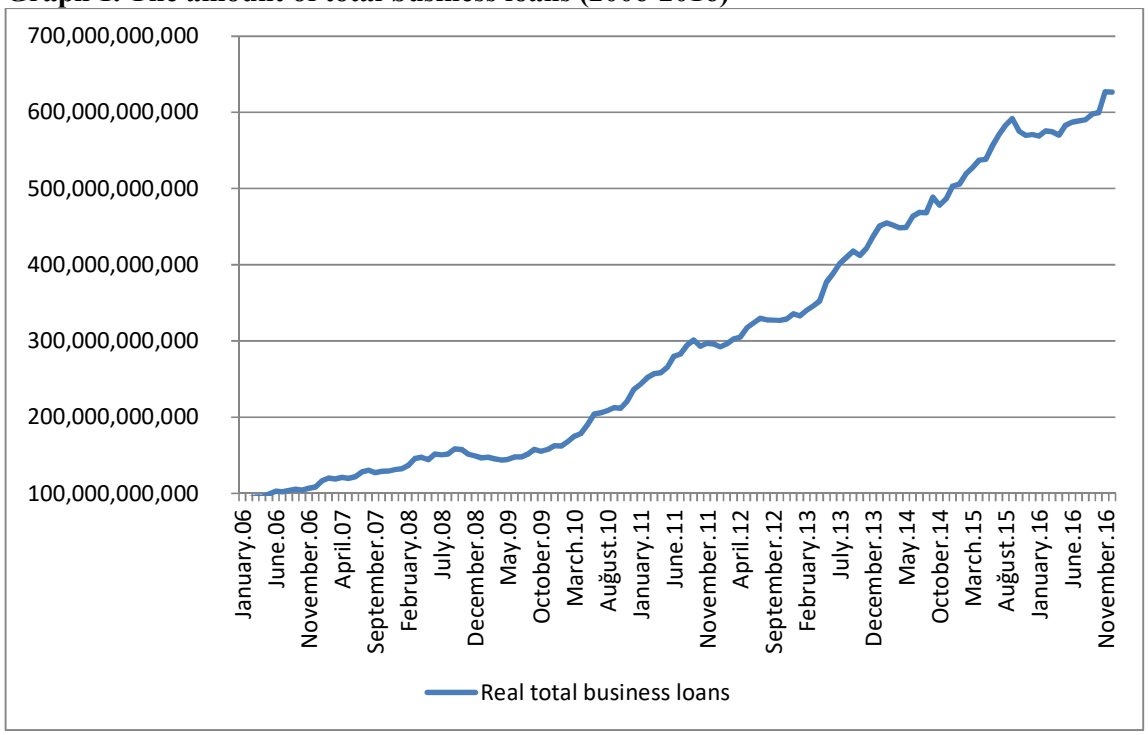
capacity. Nalın and Taşdelen (2016) found negative and statististically significant relationship between total credit volume and and central bank interest income and rediscount income.

In this study, the major determinants of supply of and demand for real business loans in Turkey are empirically analyzed. To the best of our knowledge, there is no empirical study about this topic. However, as Everaert, Che, Geng, Gruss, Impavido, Lu, Saborowski, Vandenbussche and Zeng (2015) and Pazarbaşıoğlu (1997) state that distangling the effects of demand and supply on total credit volume is highly difficult because of two major reasons: Firstly, while both credit demand and credit supply are unobservable, total credit volume is observable. Secondly, there are some factors that drive both credit demand and credit supply. So, the identification of factors that determine credit demand and credit supply by using econometric methods may not be so easy and straightforward.

## III. An overview of the business loans in the Turkish Banking Sector

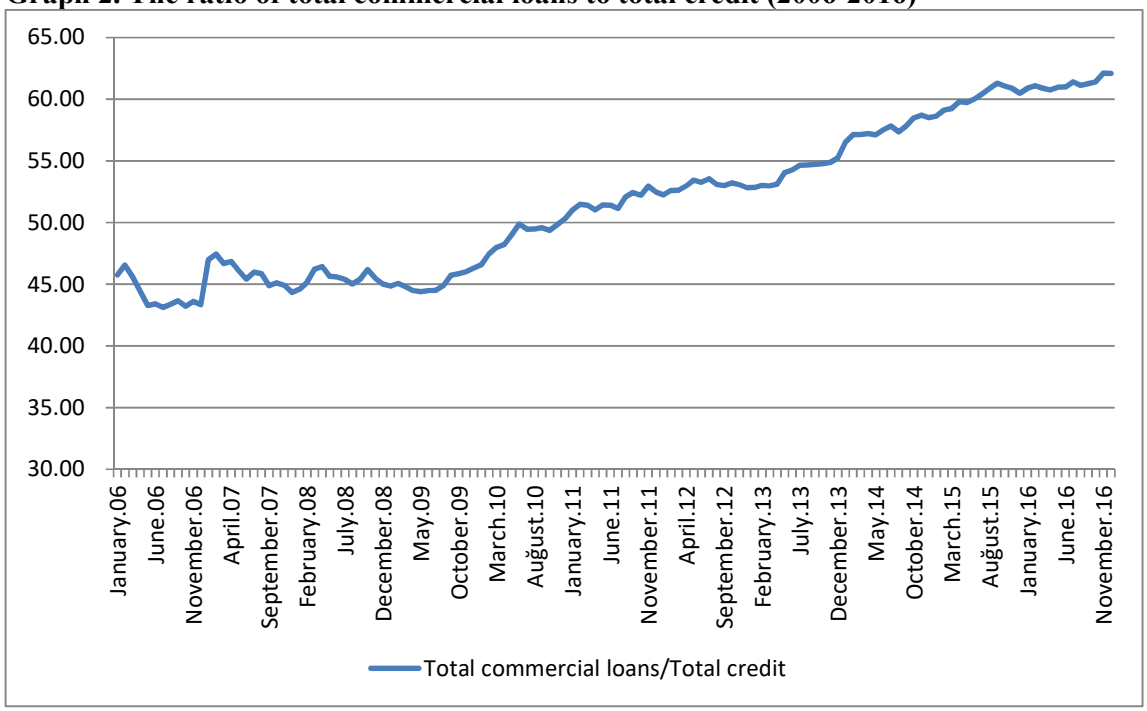
After the 2001 financial crisis, the Turkish Banking Sector has been strenghtened with the structural and legal changes. Besides, the Turkish Economy showed a good progress. The inflation and interest rates decreased, economic growth increased, Turkish lira appreciated and public debt decreased. Consequently, the amount of credits in the assets of the banks' balance sheets has been increasing continuously since 2004. (Pınar and Erdal (2016), pp. 364-365). While the ratio of credits to total assets was 35 percent in 2004, it increased to 64 percent in 2016. During this period, the amount of business loans has also showed an increasing trend (Graph 1).

**Graph 1. The amount of total business loans (2006-2016)**

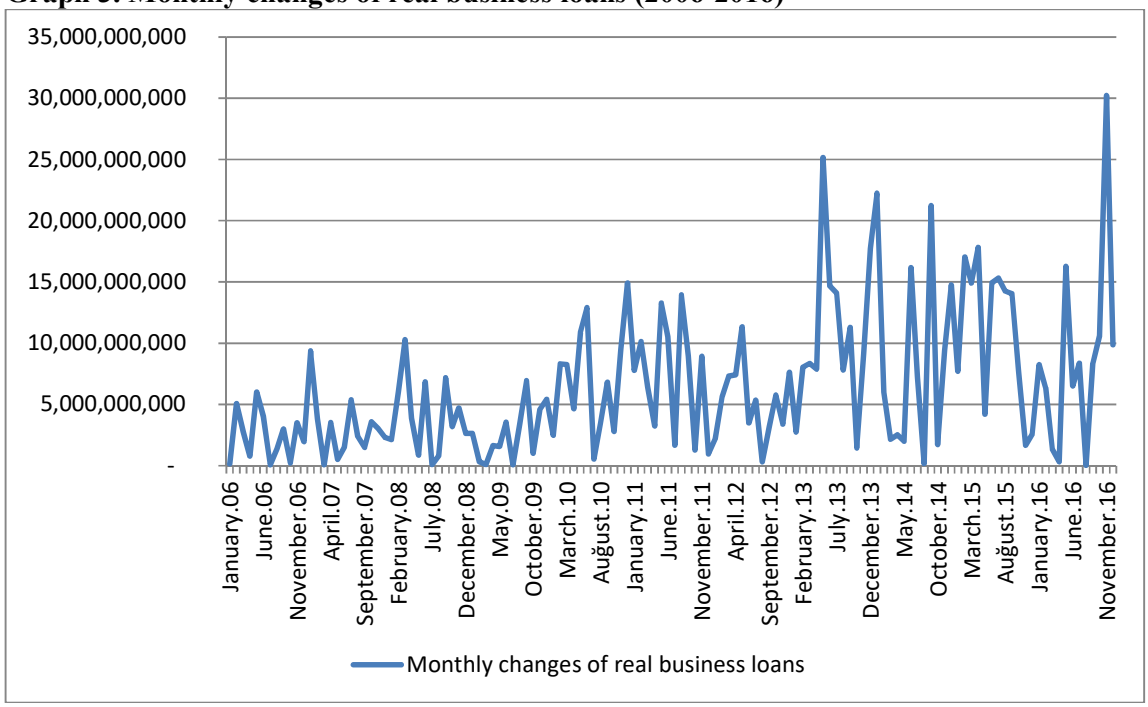



While the ratio of total business loans to total loans was 44.76 percent in January 2006, it increased to 62.10 percent in December 2016 (Graph 2). The monthly changes of total commercial loans can be seen in Graph 3.

**Graph 2. The ratio of total commercial loans to total credit (2006-2016)**




**Graph 3. Monthly changes of real business loans (2006-2016)**




## IV. Theoretical Model

In the theoretical part of the study, the disequilibrium model is used. Everaert, Che, Geng, Gruss, Impavido, Lu, Saborowski, Vandenbussche and Zeng (2015), Ghosh and Ghosh

(1999), Pazarbaşıoğlu (1997), Laffant and Garcia (1977) and Fair and Jaffee (1972) also used disequilibrium model in their studies.

If the market for bank credits clears continuously, the interest rate adjust to ensure that supply of bank credits equals to demand for credits. However, let's assume that interest rate is not perfectly flexible to clear the market and there are also non-price factors that determines supply and demand for credits. In such a case, credit demand will not be equal to credit supply at prevailing interest rate, and so the credit market will be in disequilibrium. Let's assume new lending at time t ($C_t$) is the minimum of the supply of credit ($C_t^s$) and demand for credit ($C_t^d$),

$$C_t = \min (C_t^s, C_t^d)$$

and

$$C_t^s = B_1 X_{1t} + e_t^s$$
$$C_t^d = B_1 X_{2t} + e_t^d$$

where $X_{1t}$ and $X_{2t}$ are the vectors that contain explanatory variables. The explanatory variables are real interest rate and non-price determinants (such as real deposit volume, industrial production index, nonperforming loans volume). The $e_t^s$ and $e_t^d$ are the error terms assumed to be jointly normal and independent over time with a zero mean and a covariance matrix.

The credit supply of banks are determined by the the real return of lending, economic conditions or expectations about credit customers, markets and economy, capacity to lend, the cost of funding and debt overhang or non-performing loans. So, the following explanatory variables can be used in the supply regresssions depending on the banking sector's and country's economic and financial conditions: 1- The real return of lending: lending rate, inflation and inflation expectations, 2- Economic activity: industrial production, stock exchange indices, economic sentiment index, 3- Capacity to lend: the amount of time and demand deposits, 4- Funding costs: real deposit rate, 5- Debt overhang (debt stocks as a percent of GDP) or non-performing loans in the banking sector.

On the other hand, the credit demand of customers are determined by the cost of credit, economic activity and expectations about economy. So, the following explanatory variables can be used in the demand regresssions depending on the banking sector's and country's economic and financial conditions: 1- The real cost of credit: lending rate, inflation and inflation expectations, 2- Economic activity: industrial production, stock exchange indices, economic sentiment index, 3- Expectations about economy: uncertainty about future proxied by the volatility of consensus forecasts, 4- Debt overhang (debt stocks as percent of GDP) or non-performing loans of the corporate or household.

Taking into consideration the major characteristics of the Turkish Economy and the Turkish Banking Sector, the explanatory variables of the supply of credit ($C_t^s$) are chosen as real credit interest rate, real deposit interest rate, inflation rate, real deposit volume, industrial production index, stock exchange index and the ratio of nonperforming loans to total loans. These variables can be explained as follows:

*The real credit interest rate* is a measure of real return of lending from the supply side. There is a positive relationship between real credit supply and real interest rate. As real interest rate rises, banks will be more willing to lend money to customers. So, the sign of the coefficient is expected to be positive.

*The real deposit interest rate* is a measure of real cost of lending for the banks. If the real deposit interest rate increases, the cost of banks increases, and so, they may give less credit. There is a negative relationship between real credit supply and inflation rate. So, the sign of the coefficient is expected to be negative.

*The inflation rate* is the rate of change in general price level. High inflation increases uncertainty about future price levels. Inflation rate measures monetary policy credibility and imbalances in the economy. There is a negative relationship between real credit supply and inflation rate. So, the sign of the coefficient is expected to be negative.

*Real deposit volume* shows the lending capacity of the banks. In Turkey, since deposits constitute around 60 percent of Banking Sector's liabilities, it would be a good approximation for banks' lending capacity. If deposits at the banks increases, banks will have more capacity to lend money to customers. There is a positive relationship between real credit supply and real deposit volume. So, the sign of the coefficient is expected to be positive.

*Industrial production index* is used as a measure of economic activity. There is a positive relationship between real credit supply and industrial production. So, the sign of the coefficient is expected to be positive.

*Stock exchange index* or price indices are used as measure of expectations of economic activity and economic prospects. So, the sign of the coefficient is expected to be positive.

*The ratio of nonperforming loans to total loans* negatively affects the decisions of banks' lending. High nonperforming loan ratio shows poor bank asset quality and may have negative effects on credit growth. So, the sign of the coefficient is expected to be negative.

On the other hand, the explanatory variables of the demand for credit ($C_t^d$) are chosen as real credit interest rate, inflation rate, industrial production index, stock exchange index and lag of real credit volume. These variables can be explained as follows:

*The real interest rate* is a measure of real cost of lending credit from the demand side. As real interest rate rises, customers will be willing to use less credit from banks. The sign of the coefficient is expected to be negative.

*The inflation rate* is the rate of change in general price level. Inflation is a measure of uncertainty about future prices. The sign of the coefficient is expected to be negative.

*Industrial production index* is used as a measure of economic activity. There is a positive relationship between real credit demand and industrial production. So, the sign of the coefficient is expected to be positive.

*Stock exchange index* or price indices are used as measure of economic activity and economic prospects. So, the sign of the coefficient is expected to be positive.

*The lag of real credit volume* shows the previous month's real new credit volume. The existence of this variable in the demand equation excludes any possible credit rationing from the credit demand equation (Pazarbaşıoğlu (1997). The sign of the coefficient is expected to be positive.

## V. Empirical Model, Data Description and Sources

The data used empirical part of the study are monthly and covers the period January 2006 to December 2016. The Turkish Banking Sector includes deposit banks, investment and development banks and participation banks. Firstly, the following supply equation is estimated for real business loans:

$$\ln(\text{REALCREDIT}_t) = B_o + B_1\,\text{REALCREDITINTEREST}_t + B_2\,\text{INF}_t + B_3\,\ln(\text{INDPRODINDEX}) + B_4\,\ln(\text{BIST-100}_t) + B_5\,\ln(\text{REALDEPOSIT}_t) + B_6\,\text{REALDEPOSITINTEREST}_t + B_7\,\text{NPL}_t/\text{TOTAL CREDIT}_t + u_t$$

where $\text{REALCREDIT}_t$ is real credit volume, $\text{REALCREDITINTERESTRATE}_t$ is real credit interest rate, $\text{INF}_t$ is inflation rate, $\text{INDPRODINDEX}_t$ is the industrial production index, $\text{BIST-100}_t$ Borsa İstanbul (BIST)-100 price index, REAL $\text{DEPOSIT}_t$ is real deposit volume at the banks, $\text{REALDEPOSITINTERESTRATE}_t$ is real deposit interest rate, $\text{NPL}_t/\text{TOTAL CREDIT}_t$ is the ratio of nonperforming loans to total loans and $u_t$ is the error term. "ln" shows the variable is in the logarithmic form.

Secondly, the following credit demand equation is estimated for business loans:

$$\ln(\text{REALCREDIT}_t) = B_o + B_1\,\text{REALCREDITINTEREST}_t + B_2\,\text{INF}_t + B_3\,\ln(\text{INDPRODINDEX}_t) + B_4\,\ln(\text{BIST-100}_t) + B_5\,\ln(\text{REALCREDIT}_{t-1}) + u_t$$

where $\text{REALCREDIT}_t$ is real credit volume, $\text{REALCREDITINTERESTRATE}_t$ is real credit interest rate, $\text{INF}_t$ is inflation rate, $\text{INDPRODINDEX}_t$ is the industrial production index, $\text{BIST-100}_t$ Borsa İstanbul (BIST)-100 price index, $\text{REALCREDIT}_{t-1}$ is the lag of the dependent variable.

All the data, except Consumer Price Index (CPI), are taken from the Elektronic Data Delivery System (EDDS) of the Central Bank of Turkey. The description of variables are as follows:

*REALCREDIT:* The volume of business loans (credit given to non-financial companies) in the Turkish Banking Sector is deflated by Consumer Price Index (CPI). The credit data is taken from the EDDS of the Central Bank of Turkey and the Consumer Price Index (CPI-2010 = 100) data is taken from the International Financial Statistics (IFS) of the International Monetary Fund (IMF). The montly changes of real business loans are used in the estimations of equations.

*REALCREDITINTERESTRATE:* The real credit interest rate is contructed by taking difference between credit interest rate and inflation rate. The credit interest rate is the weighted average interest rates for banks' consumer loans.

*INF:* Inflation rate. Inflation rate is the percentage change in CPI.

*REALDEPOSITINTERESTRATE:* The real credit interest rate is contructed by taking difference between deposit interest rate and inflation rate. The deposit interest rate is the weighted average interest rates for Turkish lira deposits.

*REAL DEPOSIT:* The volume of the total Turkish lira deposits is deflated by CPI. The montly changes of real deposit volume are used in the estimations of equations.

*INDPRODINDEX:* Industrial Production Index is an economic indicator that measures the amount of output from the Manufacturing Industry, Mining and Quarrying Sector and Electricity, Gas, Steam and Air Conditioning. This index is calculated to measure the positive and negative effects of political and economic decisions on the output in the short-term.

*BIST-100 INDEX:* Borsa İstanbul (BİST) price index that measures daily trading volume.

NONPERFORMLOANS/TOTAL CREDIT: The amount of nonperforming loans is divided to total credit volume. The nonperforming loans are measured by the net past due loans in the total banking sector's balance sheet. The montly changes of nonperforming loans ratio are used in the estimations of equations.

## VI. Empirical Results

The supply of and demand for business loans equations are estimated using Eviews. Firstly, each of the variable was tested using Augmented Dickey-Fuller (ADF) test whether the variable has a unit root. The ADF test consists of regressing each series on its lagged value and lagged difference terms. The ADF tests results are shown in Table 1.

**Tablo 1.** ADF Stationary Test Results

| Variable | Level | First Difference |
|---|---|---|
| Real business loan volume | -10.040 | - |
| Real credit interest rate | -2.853 | - |
| Inflation | -3.672 | - |
| Industrial Production Index | -5.274 | - |
| Stock Exchange Index (BİST-100) | -1.768 | -14.948 |
| Real deposit volume | -13.21 | - |
| Real deposit interest rate | -1.891 | -11.268 |
| Non-performing loans/Total credit volume | -11.693 | - |

Note: ADF critical values for 1 % level -3.48, 5 % level -2.88 and 10 % -2.57'dir.

The ADF test results show that BİST-100 price index and real deposit interest rate are nonstationary and all the other variables are stationary in their levels. So, the first differences of BİST-100 price index and real deposit interest rate and the levels of all the other variables are used in the estimations. Secondly, the supply of business loans and demand for business loans equations are estimated using Ordinary Least Squares (OLS) technique. The estimation results are presented in Table 2.

As can be seen from Table 2, the real deposit volume that shows the lending capacity of the Turkish Banking Sector has positive and statistically significant effects on supply of the real business loans. This estimation result is consistent with the expectations of this study. As the amount of deposit increases at the banks, the banks give more credit to their customers. Özgür (2011) also found a positive relationship between total loans and real deposit volume. The real credit interest rate has negative and statistically significant effects on supply of business loans that was not expected. But, this estimation result may be an indicator of credit rationing in the banking system. Even if credit interest rate increases, the banks may not be wiling to give credit to prevent the asymmetric information and adverse selection problems. Nalın and Taşdelen (2016) also found negative effects of real interest rate on total loans.

The coefficient of inflation rate is negative and statistically significant as expected. High inflation rate can be seen as a lack of monetary policy credibility and imbalances in the economy. The coefficient of real deposit interest rate that shows the cost of banks' funding is statistically insignificant. This estimation result shows that the cost of borrowing funds has no effect on the lending decisions of banks.

The Industrial Production Index and BİST-100 price index have no statistically significant effects on the supply of business loans. Alper, Şahin Karaşahin and Atasoy (2011) stated that the Turkish major banks take into consideration the borrower's financial position rather than macroeconomic conditions in deciding the credit risk. This outcome may be help us to understand the insignificant effects of the industrial production index and BİST-100 price index on the supply of business loans. The amount of nonperforming loans has also no statistically significant effects on supply of real business loans. This result may be due to the fact that the amount of nonperforming loans decreased in the banks' balance sheets during this period (Pınar and Erdal (2016), pp. 365).

Regarding to demand for business loans, real business interest rate has negative and statistically significant effects on business loans as expected. As real business interest rate increases, demand for business loans decreases or as real business interest rate decreases, demand for business loans increases. The values of real business interest rate between January 2006 to December 2016 can be seen in Graph 4.

The inflation rate has also negative and statistically significant effects on demand of business loans. This estimation result is also as expected, as inflation rate increases uncertainty about future prices increases and this may be lead to decrease of demand for business loans.

The Industrial Production Index and BİST-100 price index have also no statistically significant effects on demand for business loans. The lag of real business loans that shows previous month's real credit volume has no statistically significant effects on demand for business loans.

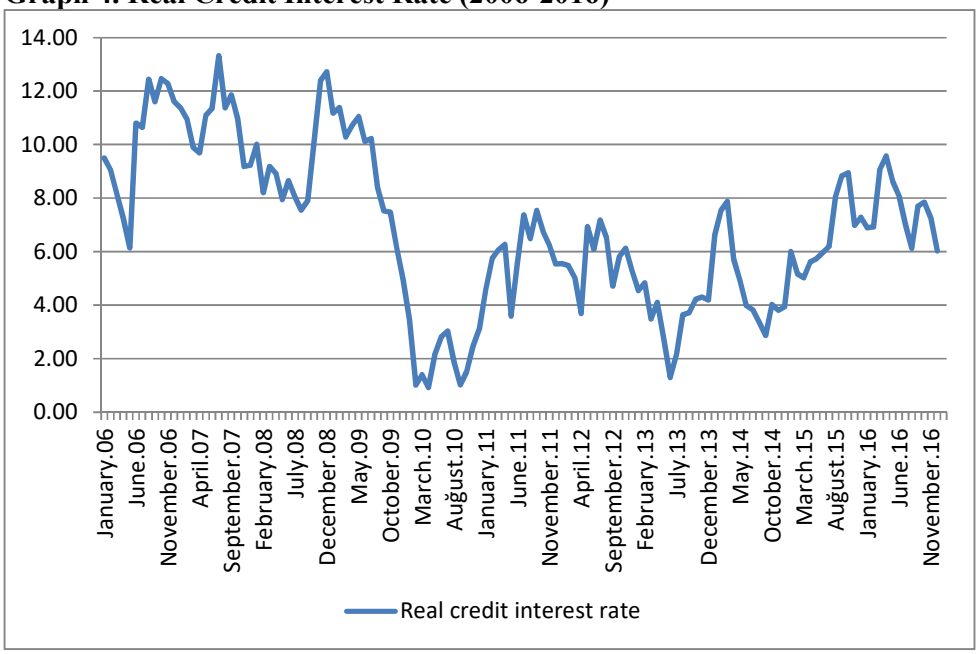
**Tablo 2.** Estimation results of supply of and demand for real business loans

| *Variable* | *Supply of Business Loans* | *Demand for Business Loans* |
|---|---|---|
| Real business interest rate $_{t-1}$ | -0.051** | -0.06** |
| | (-3.24) | (-4.01) |
| Inflation $_{t-1}$ | -0.082** | -0.05** |
| | (-2.88) | (-2.006) |
| Δ BIST-100 Index | 0.723 | 0.48 |
| | (1.39) | (0.85) |
| Industrial production index | 0.23 | 0.31 |
| | (0.53) | (0.63) |
| Real deposit volume | 0.41** | |

| | | |
|---|---|---|
| | (4.59) | |
| Δ Real deposit interest rate | 0.03 | |
| | (0.68) | |
| Nonperforming loans/Total credit | 0.024 | |
| | (0.15) | |
| Real business credit $_{t-1}$ | | -0.03 |
| | | (-0.33) |
| DW | 1.96 | 1.99 |
| $R^2$ | 0.30 | 0.17 |

Note: The values in the paranthesis are t-statistics. "**" shows the coefficient is statistically significant at 5 %. "Δ " shows first difference of the variable.

**Graph 4. Real Credit Interest Rate (2006-2016)**




## VII. Conclusion

This paper analyzed empirically the major determinants of supply of and demand for real business loans in the Turkish Banking Sector for the period from January 2006 to December 2016. The empirical findings show that the major determinant of supply of business loans is the amount of real deposit volume. There is a negative relationship between supply of business loans and real credit interest rates. As real business interest rate increases supply of business loans decreases or vice versa. This outcome may be an indicator of credit rationing in the Turkish Banking Sector. The banks may not give credit even if real interest rates are high or give the credit less than demanded. The nonperforming loans have no statistically significant effects on supply of business loans. This may be due to decrease of nonperforming loans in the Turkish Banking Sector's total balance sheet during this period.

On the other hand, there is a negative relationship between the demand for business loans and real business interest rate as expected. As real business interest rate increases demand for business loans decreases or vice versa. The inflation rate has negative effects on both supply of and demand for business loans. The variables regarding economic activity and future economic prospects have no statistically significant effects on both supply of and demand for business loans. Future study may be to analyze the determinants of supply of or demand for business loans taking into consideration the types of banks that give the credit or for other types of credit data

**References**

Alper, K., Şahin, D. M., Karaşahin, R. and Atasoy, H. (2011). Arzın Merkezine Seyahat: Bankacılarla Yapılan Görüşmelerden Elde Edilen Bilgilerle Türk Bankacılık Sektörünün Davranışı, *Türkiye Cumhuriyet Merkez Bankası Çalışma Tebliği No: 11/24.*

Everaert, G., Che, N., Geng, N., Gruss, B., Impavido, G., Lu, Y., Saborowski, C., Vandenbussche, J. and Zeng, L. (2015). Does Supply or Credit Demand Drive the Credit Cycle? Evidence from Central, Eastern, and Southeastern Europe, *IMF Working Paper,* WP/15/15.

Fair, R. C. and Jaffee, D. M. (1972). Methods of Estimation for Markets in Disequilibrium, *Econometrica,* 40, pp. 497-514.

Ghosh, S. R. and Ghosh, A. R. (1999). East Asia in the Aftermath: Was There a Crush? *IMF Working Paper,* WP/99/38.

Laffont, J.-J. and Garcia, R. (1977). Disequilibrium Econometrics for Business Loans, *Econometrica,* Vol. 116, pp. 218-252.

Melitz, J. and Pardue, M. (1973). The Demand and Supply of Commercial Bank Loans, Journal of Money, Credit and Banking, 5, pp. 669-692.

Özgür, E. (2011). *Türk Bankacılık Sektörünün Kredi Arzını Etkileyen Unsurlar: Türk Bankacılık Sektöründe Kredi Çöküşü*, Yayınlanmamış Yüksek Lisans Tezi, T.C. Ankara Üniversitesi Sosyal Bölümler Enstitüsü, Ankara

Pazarbaşıoğlu, C. (1997). A Credit Crunch? Finland in the Aftermath of the Banking Crisis, *IMF Staff Papers,* Vol: 44, No: 3, September.

Poghosyan, T. (2011). Slowdown of Credit Flows in Jordan in the Wake of the Global Financial Crisis: Supply or Demand Driven? *Economic Systems*, 35, pp. 562-573.

Pınar, A. and Erdal, B. (2016). *Para Banka Mali Kuruluşlar ve Uluslararası Mali Sistem,* Turhan Kitabevi.

Nalın, H. T. ve Taşdelen S. (2016). Bankalarda Kredi Arzını Etkileyen Faktörler*, Finans Politik & Ekonomik Yorumlar*, Cilt: 53, Sayı: 615, ss. 65-75.

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