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KÜRESEL FİNANSAL KRİZİN TÜRKİYE'DE KAMU VE ÖZEL SERMAYELİ BANKALARIN KREDİ VERME DAVRANIŞINA ETKİSİ

THE EFFECT OF GLOBAL FINANCIAL CRISIS ON LENDING BEHAVIOR OF PUBLIC AND PRIVATE DEPOSIT BANKS IN TURKEY

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Abstract:

This article analyzes lending behavior differences between public and private deposit banks in Turkey during and after the global financial crisis. The study covers the years 2005-2015. Quarterly collective financials of deposit banks (released by Banking Regulatory and Supervisory Agency of Turkey) are analyzed. The research question (whether or not there exist a significant change in differences between Turkish public and private banks' lending behaviors after the crisis) in this study can be solved via Difference-in-Differences ('DiD') approach. This article concludes by suggesting that after the global financial crisis, lending behaviour of publicly owned deposit banks significantly differed from that of privately owned ones in Turkey. This is attributable to the very nature of the public banks. Literature review findings and the analysis results about Turkey indicate that unlike their privately owned rivals, public deposit banks took much more active role (as far as lending is concerned) to prevent the negative effects of the global financial crisis of 2008, which is a *counter-cyclical* behavior.

Keywords: Lending Behavior, Public and Private Banking, Global Financial Crisis. JEL Classification: F65, P10, E25

<u>Öz:</u>

Bu çalışmanın amacı, Türkiye'deki kamu ve özel sermayeli mevduat bankalarının kredi verme davranışlarının, küresel finans krizi sonrasında kriz öncesine kıyasla değişim gösterip göstermediğinin analiz edilmesidir. Çalışma 2005-2015 yıllarını kapsamaktadır, mevduat bankalarının çeyrek dönem finansal verileri (Bankacılık Düzenleme ve Denetleme Kurumu tarafından açıklanan toplu veriler) kullanılmıştır. Çalışmadaki araştırma sorusu Difference-in-Differences ('DiD') yaklaşımı ile çözülebilmektedir, kamu ve özel sermayeli mevduat bankalarının 2008 Küresel Finans Krizi öncesi ve sonrası davranış farklılıklarında istatistiksel olarak anlamlı derecede bir değişim olup olmadığının tespiti bu yöntem ile mümkün olmaktadır, bu nedenle, çalışmanın ekonometrik analizi 'DiD' yöntemi kullanılarak yapılmıştır. Çalışmanın sonuçları göstermektedir ki; kredi verme davranışı açısından, Türkiye'de kamu sermayeli mevduat bankaları küresel finansal kriz sonrasında özel sermayeli rakiplerinden önemli ölçüde farklı davranış göstermektedir. Bu sonuç, kamu bankalarının kendine özgü nitelikleri, yapıları (kuruluş misyonu) nedeniyle ortaya çıkmaktadır. Literatür ve ekonometrik analiz sonuçlarına göre, kamu bankaları krizin olumsuz etkilerini bertaraf edebilmek motivasyonu ile özel sermayeli rakiplerine nazaran kredi verme konusunda daha aktif rol üstlenmişlerdir ki bu konjonktür karşıtı hareket olarak nitelendirilir.

Anahtar Kelimeler: Kredi Verme Davranışı, Özel & Kamu Sermayeli Banka, Küresel Finansal Kriz. JEL Sınıflandırması: F65, P10, E25

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1. Introduction

Deposit (Commercial) banking is the largest branch of total banking industry by asset size in Turkey. Deposit banks collect deposits and grant loans to individuals and corporate firms. Deposit banks are established as publicly owned or privately owned incorporations. Given the size of deposit banks' lending amount that has been large enough to influence the economy, it is important to know lending behavior of deposit banks during and after an economic & financial crisis. Considering the very nature of public deposit banks and the effects of a crisis on the economy, it is also important to determine whether or not there is a considerable change in differences between publicly owned deposit banks and privately owned deposit banks' lending behavior during and after the global financial crisis ('the crisis').

The term 'banking behavior' refers to '*response*' that banks give when they face changes in external factors, so lending behaviour refers to loan supply response in this sense (Brooks, 2007:1). Did public deposit banks prefer to remain more liquid and restrain lending like private rivals *–operating only with a profit-making motivation-* by behaving in a *pro-cyclical* way in Turkey after the global financial crisis? Or did they behave differently (*in a counter-cyclical way*)? Did state-run deposit banks (public deposit banks) prefer to continue to lend or increase lending in accordance with their establishment motivations instead of being more liquid and focusing solely on the single goal of making more profit? Public banks -as opposed to private rivals- are expected to continue lending or increase lending and to lower the liquidity ratio (liquid assets over total assets) in order to keep on lending during and after the economic and/or financial crisis. Taking into consideration the mission of public banks, this is expected in the literature review and in the findings of analyses conducted for Turkey. This study is based on this theoretical argument.

The aim of this study is to determine if public deposit banks in Turkey behaved differently in comparison to private deposit banks in terms of lending after the global financial crisis (determining the existence of difference in differences regarding lending behaviour). Another way of saying, determining whether or not public deposit banks behaved in a '*counter-cyclical* manner is the purpose of this paper.

The contribution of this study to literature is that previous studies regarding the lending behaviour of banks during and after the crisis is reviewed comprehensively. Furthermore, findings about lending behaviour differences between public and private deposit banks during and after the crisis are provided via econometric analysis for Turkish deposit banks.

Introduction part provides the basic information about the paper together with the motivation behind this study. Remainder of this paper is organized as follows; section 2 covers literature review. Turkish Banking Industry as of 2015 is covered in Section 3. In Section 4, the data, sampling, econometric model is described and the results are discussed. The last section, which is section 5, concludes the article.

2. Literature

Previous studies show that banking behaviors are affected by 'bank ownership type' (public bank/private banks), 'bank-specific variables', 'macroeconomic & financial factors' (GDP, Inflation, Interest Rates), 'Global Economic Changes/Financial Crises'.

2.1. Global Financial Crisis and Banking Industry

Subsequent to the repayment difficulties about risky mortgage loans in USA in 2007, the financial institutions that invested in financial assets and derivative products based on mortgage loans started to have financial difficulties. The bankruptcy of Lehman Brothers - leading investment bank at that time in USA- paved the way to the onset and rise of the crisis that still have repercussions on the world economy.

The cycles and anatomy of financial crises and bank crises are analysed in the studies by Kindleberger and Aliber (2013), Parasiz (2014) and Yay (2015). Kindleberger and Aliber argue that there are mainly three phases in the history of the financial crises; namely, *manias (euphoria), panics and crashes* successively. Orhangazi (2008) and Terzi (2017) show that there is a close relation between the crisis and financialization and globalization.

When we look at the impact of the crisis on banking industry, it is found out that the crisis has had significant effects on the industry in general. Analyzing the financial institutions in USA, Adrian and Shin (2010) emphasize the changing role of the financial institutions after the crisis. Similarly, Sanya and Mlachila (2010) analyze South America and searched if the crisis significantly changed banking behaviors. Cucinelli (2015) argues that after the crisis banks started to take less risk, which caused them to restrain the loan limits. Parallel to these, Ivashina and Scharfstein (2010) analyze loans during the crisis and point to the decline in loan supply.

As far as lending applications in the world are concerned, during and after the crisis the decline in lending is addressed in studies by Demirguc-Kunt, Detragiache and Gupta (2006), Dell'Ariccia, Detragiache and Rajan (2008) and Merilainen (2016). Merilainen covers 18 West-Europe countries for the years 2004-2013.

When we look at the literature about the impact of the crisis upon Turkish economy and banking industry, it is observed that Ozatay (2014), Davutyan and Yildirim (2017) and Yay (2015) highlight the negative effect of the crisis on Turkey by showing the decline in the foreign funding which is in the form of contraction in foreign capital, decrease in foreign loans and the onset of difficulty of Turkish banks in securing funding. Eroglu (2011) takes up the measures taken by Central Bank of Turkey ('CBRT') to cope with these issues resulting from the crisis and observes that the crisis affected Turkish economy and therefore policy makers applied to certain measures in fiscal policy and monetary policy, CBRT adopted a balanced and flexible liquidity management while acting in line with price stability during the crisis in order to ease the effects of the crisis and to prevent deterioration in financial stability. Yay (2015), Davutyan and Yildirim (2017) point to the fact that although banking industry was affected by the crisis, the industry showed relatively good performance in showing resistance to the crisis thanks to conventional domestic deposits and relatively low level of non-performing loans.

2.2. Bank Lending Behavior

Lending is the most important function of the banks and therefore right allocation of loans is of great importance with respect to return of the loans. Literature findings related to the differences between public and private banks' lending behaviour during and after the crisis are as follows: Cull and Peria (2013) analyze the impact of bank ownership structure on loan growth during 2008-2009 crisis period (compared to pre-crisis period in Latin America an East Europe) and find that public banks are more active in lending in comparison to private ones. Similarly, for Brasilia, a similar result is found by Coleman and Feler (2015). Parallel to these studies, in their research covering 52 countries and years between 1994-2009 about lending behaviour of public banks in crisis times, Brei and Schclarek (2013) show that public banks lend more than their private rivals.

Yeyati, Micco and Panizza (2007), Bertay, Demirguc-Kunt and Huizinga (2015), Choi, M. J., Gutierrez, E., Peria, M. S. M. (2013) and Brei and Schclarek (2013) observe that public banks contribute to loan supply stability by reducing the dependence on (economic) conjuncture.

As far as Turkey is concerned, the following studies analyze the impact of the crisis on the difference between lending behaviour of public and private banks. Kok and Ay (2013) and Marois and Gungen (2016 and 2014) analyze Turkish banking system together with the crisis and find that public banks lend more than private banks in the global financial crisis of 2008. Kok and Ay analyze Turkey for the years 2007-2009 and observe that state banks are more active than private ones. Likewise, Marois and Gurgen argue that the crisis disclosed the credibility potential of public banks in Turkey, state banks (Publicly owned deposit banks are Ziraatbank, Halkbank and Vakifbank in Turkey. Ziraatbank grants loans mainly to farmers and Halkbank to SMEs, which is attributable to their mission) provided loans to ease the effect of the crisis on the farmers and SMEs. The lending (behaviour) difference of state banks is in line with their counter-cyclical behaviour. Marois and Gurgen state that one may relate this very fact to the ownership (state banks are publicly owned banks and have historical mission and task and in return have the capacity to back up the economy), but the main point that makes state banks different from private ones is not the ownership, rather it is their corporate and material re-production principles that make the real difference. For Marois and Gurgen, public and private bank are different in that the former is not profit-driven solely, but it does not necessarily mean that they serve for only public good, restructuring of them in a market friendly manner may cause state banks to be an active and profit-making banking firm.

After analyzing previous studies that show the lending behaviour difference between public and private banking firms in the face of the crisis, it is worth mentioning also the literature analysing bank specific variables and control variables that have influence on lending behaviour of banks.

Alper, Hulagu and Keleş (2012), Brooks (2007) and Alper et al. (2011) analyze Turkey and find that liquidity has influence on lending. In a similar study, Brooks (2007) analyzes the loan supply response (behaviour) to May and June 2006 financial turbulence in Turkey which is considered to be an external shock starting tightened monetary policy in the country. Brooks observe that liquidity has a lot of influence on loan supply in Turkey. Similarly, Alper et al. (2011) in their analysis carried out with a survey among top manager of the banks in Turkey find that liquidity position of a single bank (and also total liquid reserves of the banking system) is influential on lending behaviour. Apart from liquidity, Brooks (2007) analyzes the impact of capital and total assets of the banks on loan supply and maintains that capital has no significant impact on loan supply while assets have limited but not statistically significant effect on loan supply.

As far as control variables are concerned, Alper et al. (2011) analyze the impact of macro-economic and financial variables upon lending behaviors and argue that banks loosen credit standards and conditions when the

economy is in good condition, on the other hand when the economic conditions deteriorate, they prefer to make lending conditions more difficult. They also argue that in developing countries in addition to business cycles, foreign borrowing possibilities are also expected to be influential on the lending policies of banks.

3. Turkish Banking Industry as of 2015

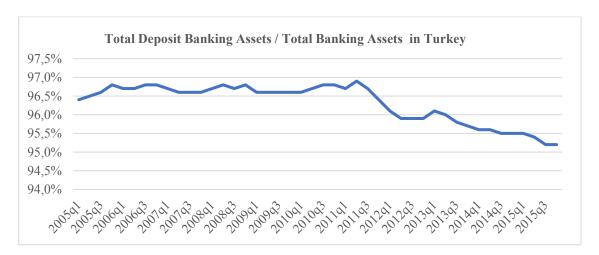
For the end of 2017, main (economic & financial) indicators report, which is released by the Banking Regulatory and Supervisory Agency, shows that as of the end of 2017, 33 deposit banks, 13 investment and development banks and 5 participation banks operate in Turkey (totally 51 banks). Regarding the end of 2015, the report indicates that

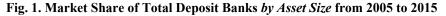
- Total assets of Turkish Banking System being TL 2.357 billion increased by 18.2% when compared to the previous year,
- The ratio of total assets over GDP is 1.01%,
- Loan distribution by type is as follows; commercial and corporate loans constitute 48% of the total assets, SME loans 26% and retail loans (composed of consumer loans plus credit cards) 26%.
- On the other hand, when we look at total balance sheets of the industry, it can be seen that the ratio of foreign assets and liabilities over total assets and liabilities is 38% and 45% consecutively.
- Regarding the local currency versus foreign currency loan distribution, it is observed that foreign currency loans constitute 32% of total loans.
- As regards deposits, the figures point to the fact that foreign currency deposits constitute 43% of total deposits.

4. Sampling, Data, Econometric Model and Analysis Results

Sampling

The data is collected from official website of *BRSA*. So, our analysis focuses on Turkey. Data from *BRSA* covers all public and private deposit banks for years 2005-2015 (quarterly figures are used). The total number of bank observations is 88 during the same period (2 (*public and private banks*) * 44 quarter period = 88). *Industry* refers to the data based on this sampling. The analyses for the sample are based on financial ratios which are released on the relevant webpage of BRSA in a uniform set quarterly.





Source: Turkish Banking Association (TBA). The table covers only conventional deposit banks in Turkey

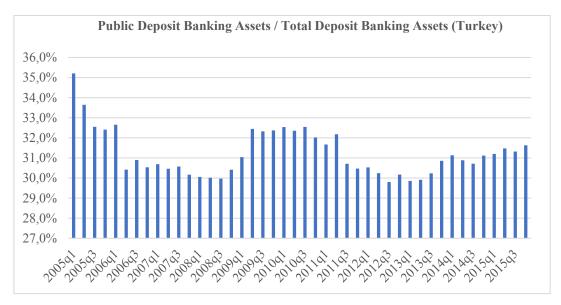


Fig. 2. Market Share of Public Deposit Banks by Asset Size from 2005 to 2015

Source: Turkish Banking Association (TBA). The table covers only conventional deposit banks in Turkey

Time Limit

The reasons behind choosing 2005 as the onset of period of analysis are as follows: 2005 is the year of regulatory changes especially in inflationary accounting. For having a standard data in all quarters, 2005 is chosen as the beginning on purpose. In addition to this, considering the recovery period of 4 years after 2001 banking crisis (Turkish economy and finance industry experienced the greatest crisis in the history of the country in 2001) in Turkey, it is considered necessary to start with the year 2005. Final reason for choosing 2005 as the onset of the analysis is that unique data set provided by data source starts with 2005.

Data

In this study, a dummy variable is used to control for ownership type of the deposit banks in Turkey (public banks and private banks). To control for the impact of the crisis on the bank lending behavior, two dummies are employed. Dependent variable is total loans/total assets (*loans*), which is the proxy of lending behavior in line with the literature.

Control Variables Used In The Analysis				
Variable	Explanation	Source		
	Variables for The Crisis (dummy variables)			
crisis	The Crisis Devied (200704 200002)	The National Bureau of		
	The Crisis Period (2007Q4-2009Q2)	Economic Research		
aftercrisis	The Deviat often The Origin (200002, 201504)	The National Bureau of		
	The Periof after The Crisis (2009Q2-2015Q4)	Economic Research		
Banking Industry (Ownership) Type				
public	Publicly Owned Deposit Banks Dummy Variable	BRSA		

Table 1. List of Control Variables

Variables for the Crisis

In this study, the crisis period is considered to be the quarter between 2007Q4 and 2009Q2 on the grounds that The National Bureau of Economic Research indicated December 2007 and June 2009 as the last peak and deep

levels for expansion and contraction of business conjunctures related to USA. Besides, CDS premiums over level of 200 for the period in question support the idea behind choosing the period. Košak vd. (2015:173) use the crisis as explanatory variable in their econometric model, Adrian and Shin (2010:611) include the crisis as in their studies while examining the changing nature of financial intermediation.

Estimation Method and The Model

The sample is composed of all public and private deposit banks in Turkey. The term *different behaviour* refers to *different response* by public banks regarding lending in comparison to private rivals in the face of the Global Financial Crisis (the crisis). The data type is panel data and OLS ('ordinary least squares') is used for estimation method.

The research question (whether or not there exist a significant change in differences between Turkish public and private banks' lending behaviors after the crisis) in this study can be solved via *Difference-in-Differences* ('DiD') approach. DiD can be described as an approach/method to compare the differences of *treatment and control group* after a *natural experiment* and to estimate the application impacts of natural experiment. In other words, it is a *before-and-after study* (impact analysis). In this study, the *natural experiment* is the 2008 global financial crisis. Gropp, Gruendl and Guettler (2014:4) and Adams-Kane, Caballero and Lim (2014:10) use DiD approach in their studies regarding banking behaviour.

The Model

The following econometric model is used in order to apply DiD estimation strategy (method).

 $Y_{it} = \pmb{\beta_o} + \pmb{\beta_{cr}} \ D_{cr} + \pmb{\beta_{pcr}} \ D_p \ D_{cr} + \pmb{\beta_{afcr}} \ D_{afcr} + \pmb{\beta_{pafcr}} \ D_p \ D_{afcr} + \mu_1 t + \mu_2 t \ D_p + \alpha_i + e_{it}$

Here,

D_p refers to dummy variable for *Public Bank*.

D_{cr} refers to dummy variable for *only-crisis* period, i.e. 2007Q4-2009Q2.

Dafer refers to dummy variable for the after-crisis period, i.e. 2009Q3-2012Q4.

i refers to observation unit and t refers to time.

Y refers to dependent variable (lending behavior = 'total loans/total assets')

 β_0 constant term,

 β coefficient of independent variables,

t: 't' refers to time trend, 'µ' refers to coefficient of time trend,

 α_i accounts for fixed effect,

eit stands for matrix of error terms.

The reason behind forming this model in this way is that tests conducted indicate that *random effects estimation* method is not proper for the data set in this paper. '*Driscoll-Kraay Standart Error Correction Method*' is used due to the existence of '*Fixed Effect*', '*Autocorrelation*' and '*Cross Sectional Dependency*'. It is not deemed necessary to include *quarter-fixed effect* in the analysis. This is due to the fact that trend and dummy variables related to the crisis periods are already included. In case *quarter-fixed-effect* is included, then the statistical issue of *multi-collinearity* might arise. Analyzing the (only) *crisis* period and *after-crisis* period separately makes it available to take the specific impacts of the only-crisis period (7 quarters from 2007Q4 to 2009Q2) into consideration.

Analysis Results

The table below indicates a considerable (statistically significant) change in the differences between Turkish public and private deposit banks' lending behaviors during the crisis period and after-crisis period separately.

Variables	loans
crisis	0.0159
011515	(0.0175)
aftercrisis	-0.0394**
	(0.0162)
crisis*public	0.0199**
	(0.00838)
aftercrisis*public	0.0563***
-	(0.0107)
tq*public	0.00348***
	(0.000340)
Τq	0.00580***
-	(0.000603)
Constant	-1.021***
	(0.113)
Observations	88
Number of groups	2
	s in parentheses

Table 2. Total Loans/Total Assets – Regression Results (Industry)

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Tables 2 indicates simple *DiD* regression results that include the sample of all public and private deposit banks (*Industry*) in Turkey. The regressions are based on only bank ownership type (public and private banks) dummy variable and the crisis dummy variable. The term '*loans*' refers to the ratio of 'total loans/total asset'. The term *crisis*public* explains the interaction of *only-crisis period* and *public bank*. On the other hand, the term '*aftercrisis*public*' accounts for the interaction of *after-crisis period* and *public bank*. The variable *tq*public* refers to the interaction of time *trend*public* and takes trend into account.

General Structure of Analyses

The regression analysis results in Table 2 indicate the existence of a *DiD*, a change in lending behaviour differences between public and private deposit banks after the crisis. In order to find *DiD* in Turkish deposit banks' lending behaviour, STATA (statistics program) is employed in the econometric analyses. The periods which are determined on the grounds of the crisis are explained in the following table.

Table 3. Period Intervals for the Analysis				
Crisis Analysis	2005Q1 – 2007Q3 2007Q4-2009Q2 Before-Crisis Crisis		2009Q3-2015Q4	
Crisis Analysis			After-Crisis	
Only-Crisis	0	1	0	
After-Crisis	0	0	1	

Table 3. Period Intervals for the Analysis

Hypotheses

I build the analysis around the following hypotheses; whether or not a DiD exists determine the structure of the following hypotheses. For *only-crisis* period, the hypotheses are structured as follows;

Ho: There is no change in differences between public and private banks' lending behaviour during the crisis period.

H1: There is a (significant) change in differences between public and private banks' lending behaviour during the crisis period.

On the other hand, for *after-crisis* period, the following hypotheses are built;

Ho: There is no change in differences between public and private banks' lending behaviour after the crisis period.

H1: There is a (significant) change in differences between public and private banks' lending behaviour after the crisis period.

Table 4. Total Loans / Total Assets - Basic DiD Analysis			
Basic DiD Analysis-Summary of Regression Results (Conducted By Using Only 'Crisis Status' and 'Bank Ownership Type')			
Period	Industry Loans (total loans/total assets)	Variable Coefficient	
(Only) Crisis Period (3 Period Analysis)	+ **	DiD	
After-crisis period (3 Period Analysis)	+ ***	DiD	
(+) Positive (-) Negative, (*) Significance Level			

DiD results are summarized in Table 4. The table indicates the change in lending behaviors (measured by the ratio of '*total loans / total assets*') of public deposits in Turkey in comparison to private deposit banks (during the crisis and after-crisis period separately).

Table 5: Banks Operating in Turkey (as of 2015)

			Banks Tree (as of 31/12/2015)				
	Deposit Banks			Development and Investment B	anks	Participation Banks		
Publicly Owned			Publicly Owned		v Owned	Publicly Owned	Privately Owne	-d
Publicly Owned	National	Foreign	Publicly Owned	National	Foreign	Publicly Owned	National	Foreign
Türkiye Cumhuriyeti Ziraat Bankası A.Ş.	Akbank T.A.Ş.	Alternatifbank A.Ş.	İller Bankası A.Ş.	Aktif Yatırım Bankası A.Ş.	BankPozitif Kredi ve Kalkınma Bankası A.Ş.	Ziraat Katılım Bankası A.Ş.	Türkiye Finans Katılım Bankası A.Ş.	
Türkiye Halk Bankası A.Ş.	Anadolubank A.Ş.	Arap Türk Bankası A.Ş.	Türk Eximbank	Diler Yatırım Bankası A.Ş.	Merrill Lynch Yatırım Bank A.Ş.	Asya Katılım Bankası A.Ş. (TMSF Bünyesinde)	Albaraka Türk Katılım Bankası A.Ş.	
Türkiye Vakıflar	Anadolabank A.Ş.	Alup Tulk Balkast A.Ş.	Türkiye Kalkınma	Biler Tatilini Bankası A.Ş.	Pasha Yatırım		Kuveyt Türk Katılım	
Bankası T.A.O.	Fibabanka A.Ş.	Bank Mellat*	Bankası A.Ş.	GSD Yatırım Bankası A.Ş.	Bankası A.Ş.		Bankası A.Ş.	
Birleşik Fon Bankası A.Ş. (under management of State Deposit Insurance Fund)	Şekerbank T.A.Ş.	Bank of Tokyo-Mitsubishi UFJ Turkey A.Ş.	İstanbul Takas ve Saklama Bankası A.Ş.	Nurol Yatırım Bankası A.Ş.	Standard Chartered Yatırım Bankası Türk A.Ş.			
Adabank A.Ş. (under management of State Deposit Insurance Fund)	Turkish Bank A.Ş.	Burgan Bank A.Ş.		Türkiye Sınai Kalkınma Bankası A.Ş.				
	Türk Ekonomi Bankası A.Ş.	Citibank A.Ş.	_					
	Türkiye İş Bankası A.Ş.	Denizbank A.Ş.	_					
	Yapı ve Kredi Bankası A.Ş.	Deutsche Bank A.Ş.	_					
		Finans Bank A.Ş.	-					
		Habib Bank Limited *	_					
		HSBC Bank A.Ş.						
		ICBC Turkey Bank A.Ş.	_					
		ING Bank A.Ş.	_					
		Intesa Sanpaolo S.p.A. *	-					
		JPMorgan Chase *Bank N.A.	_					
		Odea Bank A.Ş.	_					
		Rabobank A.Ş.	_					
		Société Générale (SA)*	-					
		The Royal Bank of Scotland Plc.*	4					
		Turkland Bank A.Ş.	_					
		Türkiye Garanti Bankası A.Ş.						

* Foreign Bank Branches That Have The Authority To Collect Deposit

5. Conclusion

In this article, I examine the relationship between lending behavior of banks and the global financial crisis. I analyze the impact of bank ownership type on lending behavior during and after the global financial crisis. More specifically, I search for whether or not lending behavior of public deposit banks significantly change as opposed to private rivals (during and) after the global financial crisis for the sample of all public and private deposit banks operating in Turkey between 2005-2015. To put it differtly, the existence of *a significant change in differences* between Turkish public & private deposit banks' lending behavior after the global financial crisis is analyzed in an effort to determine if public deposit banks behaved in a *counter-cyclical* way, which is an expected behavior considering *their very nature*.

According to the literature on the impact of the global financial crisis on lending behavior of banks, both public and private banks -on average- prefer to be liquid and to restrict lending. Nevertheless, previous studies also indicate that the very nature of public banks (the functions attributed to their establishment and existence) cause them to behave differently than private ones by lending more *-instead of holding more liquidity-* during and after the global financial crisis. Another way of saying, comparatively speaking, state-run banks are found to lend more *-instead of holding more liquid assets & securities-* when compared to private rivals. This very fact is considered to be attributable to their *counter-cyclical lending* behavior.

As far as Turkey is concerned, after conducting comprehensive data analyses, it is concluded *-on average-* public deposit banks lend more than private counterparts between 2005-2015. The result is in line with the literature on Turkey. Literature findings related to Turkey indicate that public banks give more loans than private ones during the global financial crisis. The conclusion is in conformity with the expectation that due to the *suis-generis* characteristics & structures of state banks, they operate not only for making more profit but also continue to provide funding for eliminating adverse effects of the crisis on economy.

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