A COMPARISON OF DOMESTIC BANKS AND FOREIGN BANKS IN TURKEY AFTER 2001

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A COMPARISON OF DOMESTIC BANKS AND FOREIGN BANKS IN TURKEY AFTER 2001

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Approval of the Graduate School of Social Sciences

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ABSTRACT

A COMPARISON OF DOMESTIC BANKS and FOREIGN BANKS IN TURKEY AFTER 2001

Can, Emre

MA in Financial Economics, Department Of Social Sciences

Supervisor: Asst. Prof. Dr. Efe Postalcı

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A significant empirical observation of this research, which is itself a contribution, is that domestic banks performed better than foreign banks. In this thesis the term “performance” is used in the sense of generating Return on Assets for a given value of Net Operating Income/Total Assets and Non-Performing Loans/Total Loans of domestic and foreign banks. This performance is referred and conceptualized as “return efficiency” in a narrow sense in the framework of thesis. The thesis is we defend here is that the structural changes in the sector led to a better return efficiency of domestic banks in Turkey. These structural changes are basically; foundation of Banking Regulation and Supervision Agency, the regulation changes (risk minimizing and capital adequacy) in the sector and development of public banks as a result of privatization process of public banks. We claim that political and economical stability triggered these improvements. Moreover, abolishment of full government guarantees of saving deposits and the increasing foreign bank share in the sector are other reasons. We have investigated better return efficiency factors of domestic banks in the fifth chapter. The argument has specific importance since the literature about bank performances states the contrary observation that foreign banks performances better than domestic countries in developing countries. We construct our thesis in six parts. In the first chapter we build the main motivation for this thesis. The second chapter we review the literature on finance showing that when foreign penetration occurs, there is a significant difference between domestic and foreign banks favoring the latter. The third chapter consists of a brief history of the Turkish financial sector, emphasizing the main turning points that affect the structure of the sector. In the fourth chapter, we build an econometric model and show that during the time interval of 2002 and 2007 return efficiency of domestic banks is significantly better than the foreign banksThe fifth chapter states the reasons why domestic banks performed better than foreign banks after 2001 and sixth chapter concludes.

Key Words: Domestic Banks, Foreign Banks, Return on Assets

ÖZET

2001 YILI SONRASI TÜRKİYE'DEKİ YEREL VE YABANCI BANKALARIN KARŞILAŞTIRILMASI

Can, Emre

Finansal Ekonomi Yüksek Lisans Programı

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Bu tezin en önemli gözlemi 2001 yılından sonra yerel bankaların yabancı bankalardan daha iyi performans göstermesidir. Bu tezde performans kavramı, tezin modelinde yer alan net faaliyet karının toplam aktiflere oranının ve takipteki kredilerin toplam kredilere oranının aktif karlılık yaratması anlamında kullanılmıştır. Bu kavram tezin kapsamı içinde ve dar anlamıyla "karlılık etkinliğine" atıf yapmaktadır. Bu çalışmada savunduğumuz tez sektördeki yapısal değişimlerin yerel bankaların yabancı bankalardan daha iyi performans göstermesine neden olduğudur. Bu yapısal değişiklikler; Bankacılık Denetleme ve Düzenleme Kurulunun açılması, sermaye yeterliliği ve risk ölçümleriyle ilgili mevzuat değişiklikleri, kamu bankalarının özelleştirme kapsamına alınmasıyla daha iyi performans göstermesidir. Analizlerimize göre politik ve ekonomik istikrar bu gelişmeleri tetiklemiştir. Bunun yanında mevduatların tamamına uygulanan devlet garantisinin kalkması ve en önemlisi sektördeki yabancı payının artması yerel bankların performansını arttırmıştır. Tezin 5. bölümünde tüm nedenler ayrıntılı olarak ele alınmıştır. Tezde yapılan gözlemin önemi literatürün aksine gelişmekte olan ülkelerde yerel bankaların yabancı bankalardan karlılık etkinliği açısından daha iyi performans göstermiş olmasıdır. Tez altı kısımdan oluşmaktadır. Birinci kısımda tezi yazma konusundaki amacımıza yer verilmiştir. İkinci kısımda literatür taramasıyla gelişmekte olan ülkelere yabancı banka girişi olduğunda yabancı bankaların yerel bankalardan daha iyi performans gösterdiğini analiz eden çalışmalara atıf yapılmıştır. Üçüncü bölüm Türk Bankacılık sektörünün kısa tarihini ve sektördeki önemli değişimleri anlatmaktadır. Dördüncü kısımda 2002 ve 2007 yılları arasında yerel bankaların karlılık etkinliği açısından yabancı bankalardan daha iyi performans gösterdiğini açıklayan ekonometrik model anlatılmıştır. Beşinci bölüm yerel bankaların 2001 yılı sonrası neden yabancı bankalardan daha iyi performans gösterdiği açıklarken; altıncı bölüm ise sonuçtur.

Anahtar Sözcükler: Yerel Bankalar, Yabancı Bankalar, Aktif Karlılığı

To burnt down forests of Turkey,

Keeping the hope of revitalization of them…

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1. INTRODUCTION

Turkey has been adopting the rules and practices of the liberal economy since 1980s. This process paves the way for structural transformation of financial sector in Turkey. Turkey faced many economical crises and high fluctuating growth rates after the adoption free market economy principles. Bank structures and performances are important reasons of the financial crisis in Turkey. After every financial crisis it is evident that many of the banks are taken over by government, foreign banks or other domestic rivals.

The results of this thesis emphasize the structural change in Turkish banking sector especially considering the penetration of foreign bank to the banking sector of Turkey. Banking sector is the mediator between financial markets and industry which is called as real sector. Thus the banking sector is a clear indicator of strength of an economy. In this thesis we draw a snapshot of Turkish economy by underlying the structural change of Turkish Banking Sector and identifying the performance differences between foreign and domestic banks in Turkey.

The result of this thesis is referring a country example which has the special features of a developing country, a candidate member of the EU and a country which is in the process of implementing Basel II in 2009. These characteristics of Turkey indicate that it wants to be an important and strong part of the international markets in its region considering the global role in the world. Globalization has directly affected all parts of the life since 1990s. We observe the results of the globalization in many sector and markets but the most severe results can be seen in the financial markets particularly in banking sector. The fast and easy flow of capital resulted with mergers

and acquisitions in banking sector. To compete all over the world and search for higher returns led foreign banks to expand especially in emerging markets and developing countries. Turkey is both accepted as an emerging market and developing country and financially liberal country where both foreign direct and portfolio investment are encouraged. That is why we can easily observe the foreign banks penetration to Turkey. This penetration increased after 2001 considering the contractionary fiscal and monetary policy and risk minimizing legislation in financial markets based on the IMF stand by agreement.

After 2001 an obvious structural improvement happened and changed positively the indicators both in macro economy and financial sector. Risk minimizing measures and higher capital adequacy ratio are defined by the new regulations. New institutions are founded such as Banking Regulation and Supervision Agency (BRSA) and risk management departments are established in every bank in Turkey. Similar regulations and institutions have been active in Turkey, such as establishment of Saving Deposit Insurance Fund (SDIF) in 1983, the Bank Act of 1985, and new regulation of banks in 1999. However the fundamental transformation started in banking sector after 2001. The performance of the both foreign and domestic banks which is the core of this thesis has dramatically changed. The basic reason of this change is the competition which is derived from the penetration of the foreign banks and increasing market share in the sector. In their study Yayla, Kaya and Ekmen (2005) calculate the foreign bank market share % 3,5 in 1990, % 2,9 in 1995, % 5,4 in 2000 and according to data of Banking Regulation and Supervision Agency (2008) % 42 in 2008. (See Appendix Figure: 1)We observe foreign bank market share are higher and dominates the sector in developing countries where as in

developed countries foreign bank market share is not more than %20. (See Appendix Figure: 2 and 3)

The dramatic increase in the volume of penetration of foreign bank in Turkey has specific aspects. After the 2001 the government which had the majority in the parliament came to power without a coalition which Turkey was not used to face. The one party-government continued the contractionary fiscal and monetary policy which was put into effect after 2001 financial crisis. Next, Turkey sustained single-digit inflation after a long chronic inflation period. By the help of single-digit inflation, interest rates fell and burden of interest payments of the government has decreased. This development helped to stabilize the budget balance of the government. According to Yılmaz (2008) after 2001 Turkey grew 7 percent on a year-on year basis and in the 23 quarter periods of uninterrupted growth process, private sector investment increased % 150 in real terms.

Macro economical improvements, after 2001 Banking Sector Restructuring Rehabilitation Programme was initiated by the government in order to strengthen the banking sector of Turkey. During the period 1997-2003, 23 banks were taken by the SDIF in order to stabilize the sector and according to Esen (2005) 47.2 billion US dollar was transferred by the government in order to stabilize the banking sector. Banking Regulation and Supervision Agency announced new capital and risk ratios in order to increase the assets quality of the banks.

In this thesis my main motivations are to evaluate the performances of the foreign banks in Turkey after 2001 considering the model of the thesis and explain the

performance differences of the banks in the sector. When the literature is considered regarding developing countries, we expect that foreign banks would perform better than domestic banks in Turkey. Thus we first check whether foreign banks performed better than domestic banks in Turkey after 2001. Second we try to answer whether foreign banks entry affect the domestic banks of Turkey or not. In order to figure out the answers to these questions a multi regression model based on panel data is built. To calculate the performance of both foreign and domestic banks Return on Assets (ROA) ratio is used as a dependent variable. Number of the branches and employees of the banks, ratio of non interest income to total assets, ratio of interest income to total income, ratio of equity to total assets, ratio of non-performing loans to total loans, ratio of net operating income to total assets are taken as an independent variables. Foreign bank dummy is used in order to calculate and compare the foreign bank performance considering the domestic banks in Turkey. According to finding of the model, domestic banks performed better than foreign banks after 2001. In this thesis the term performance is used in the sense of generating Return on Assets for a given value of Net Operating Income/Total Assets and Non-Performing Loans/Total Loans of domestic and foreign banks.

Our findings can be summarized as follows; net operating income, non-performing loans and foreign bank dummy are founded significant in order to explain the changes in ROA from 2002 to 2007. Coefficient of net operating income is positive, whereas coefficient of non-performing loans and foreign bank dummy is negative. However coefficient of foreign bank dummy is unexpectedly negative because this displayed domestic banks performed better contrast to the literature.

In contrast to literature in developing countries, according to observation of my thesis domestic banks performed better than domestic banks after 2001. There are specific explanations of this finding. First of all the ratios in the model show us domestic banks have sounder ratios considering the model of the thesis. However the facts behind the numbers should be analyzed. For instance even the number of branches of the domestic banks increased, the number of employee per branches did not increase for domestic banks and remained below the foreign banks. In this thesis public banks are also accepted as domestic banks. The performances of public banks were sounder especially after 2001. Behind this better performance of public banks, the privatization policy of the government exists. In order to privatize the public banks they have to get better ratios. In line with the regulation of BRSA, domestic banks reached the newly defined capital and risk minimizing criteria.

Ex-domestic banks which were acquired by foreign banks were one of the best performing banks. After the acquisitions new foreign banks could not attain the same performance. Foreign banks increased their market share in the sector which was % 5 in 2000 and % 42 in 2008. This foreign penetration increased the competition in the sector. Public banks which were called as cumbersome, slow and bureaucratic became profitable. Figures which show return on asset (Appendix, Figure: 9), return on equity (Appendix, Figure: 10) and net profit (Appendix, Figure: 11), during the period 1995-2007, indicate public and private banks close the gap between private banks after 2001 and started to dominate foreign banks. According to data of return on asset and return on equity in some years after 2001, foreign banks have better return on asset and return on equity ratios. This is not contradicting to our findings. Because the performance measure of this thesis based on generating Return on

Assets for a given value of Net Operating Income/Total Assets and Non-Performing Loans/Total Loans of domestic and foreign banks. This performance is referred and conceptualized as “return efficiency” in a narrow sense in the framework of thesis.

As the foreign bank share increased in the sector performance of the domestic bank also increased. Even the foreign banks market share reach %42 percent of whole banking sector bigger share of total credits and total deposits belong to domestic banks. Furthermore; consolidation, political stability, economic growth, new regulatory institution, capital requirements and risk minimizing regulations affected the banks in a positive way. Moreover; inflation accounting, privatization process of public banks, diminishing ratio of duty loss (Public Banks), diminishing ratio of subsidiary loans (Public Banks), diminishing number of employee per branch of domestic banks, competition, enforcement of decreasing interest rates to increase product variety and increasing commission profit are important factors to explain the better performances of the domestic banks. High ROA of ex-domestic and new acquired banks, individual choice and Market Price/Book Value of Foreign Banks are the other factors put domestic banks in a favorable place in the sector. These factors are explained in the fifth chapter. The remainder of this thesis is organized as follows. Chapter 2 provides a detailed literature review of foreign banks presence and performance especially in developed and developing countries. Chapter 3 gives brief information about the structure and structural changes in the banking sector of Turkey. Chapter 4 presents data and the empirical model of the thesis. The better performance of domestic banks is discussed in chapter 5 and chapter 6 concludes.

2. LITERATURE REVIEW

As the globalization expands; volume of exports, imports and financial flows increase. This tendency causes banks to be international or invest abroad. This internationalization process matches with liberalization of financial markets. Especially in the last decade foreign bank entry became a debatable issue considering its positive and negative dimensions. In the literature the effects of foreign banks are studied in a detailed way pointing out its cost and benefits.

Claessens, Kunt and Huizinga (2001) observe 7900 banks from 80 countries and find that foreign banks have higher profits than domestic banks in developing countries. In contrast is the case for developed countries. According to the same study positive dimensions of foreign banks are seen as to improve quality of financial services by increasing bank competition, to serve to stimulate the development of the underlying bank supervisory and legal framework and to enhance a country's access to international capital. Where as negative dimension are seen as domestic banks may incur costs since they have to compete international banks with better reputation, domestic entrepreneurs may receive less access to financial services because generally foreign banks focus on multinational firms and governments may loose the control the economy because foreign banks tend to be less sensitive to the governments wants.

Bayraktar and Wang (2005) give a very detailed description of costs and benefits of foreign banks which are generally match with Claessens. According to Bayraktar and Wang, referring a vast literature, foreign banks increases the efficiency of the

domestic banks and because of competition foreign banks reduce costs and increase profits. Beside that credits given to the private sector may increase because of the new and complex credit pricing systems. Another advantage is a better structure of domestic banking supervisory and legal framework for the banking sector. Foreign banks may also decrease the cost concerning with recapitalizing and restructuring banks in the post crisis period.

In the same study of Bayraktar and Wang (2005) costs of foreign entry are also stated. For instance if the franchise value of domestic banks decreases after the foreign bank entry, domestic banks may have a tendency to bear greater risks. Beside that with more qualified and strong services and assets, foreign banks serve the most profitable and sound share of domestic markets so riskier sector will be served by domestic banks. Next considering the foreign bank entry, access to credit may be impaired for some sectors of the economy. Another cost is, foreign banks may increase instability by pulling out of host countries and because foreign banks priorities are different their lending pattern may ignore domestic priorities.

Lensink and Hermes (2004) examine the short-term effects of foreign banks entry on the behaviour of the domestic bank sector. Their study show that at lower levels of economic development foreign bank entry generally faces with higher costs and margins for domestic banks. In contrast at higher levels of economic development, foreign bank entry is either linked with a fall of costs, profits and margins of domestic banks or no changes in domestic bank variables. In another study, Jeon and Miller (2002) analyze the performance of the domestic and foreign banks in Korea during the period between 1994 and 1999. They find that domestic bank performance

deteriorate dramatically especially in crisis period where as foreign banks perform better.

Crystal, Dages and Goldberg (2002) addresses the question that whether foreign bank penetration led to sounder banks in Latin America or not. They examine Argentine, Brazil, Chile, Colombia, Mexico, Peru and Venezuela during the period between 1995 and 2000. They find that foreign ownership contribute sounder and more stable banking systems in stated Latin America countries. Beside that foreign bank displayed higher loan growth, aggressive response to asset quality deterioration and greater loss absorption capacity. Because of these features foreign banks provide higher and more sustained credit flows than domestic banks.

Haber and Musacchio (2005) analyze the foreign bank and domestic bank performance in Mexico during the period between 1997 and 2004. They find that foreign banks are better to screen borrowers and charge lower interest margins than domestic banks. One of the findings of the study is that foreign bank entry increase the bank administrative efficiency.

Uiboupin (2004) estimates the short term effects of foreign bank entry on performance in the Central and Eastern European countries. A sample of 219 banks from Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovenia and Slovakia show that foreign bank entry affects negatively domestic banks' revenues and can also raise the overhead costs of the local banks in short term and study concludes that foreign banks increase the competition in host countries. In this study technological and financial innovations, possible economies

of scale and scope, improvement of financial infrastructure and attracting foreign direct investment are counted as benefits of foreign bank entry. Fear of foreign control, regulatory differences, different objectives of foreign banks are stated as costs of the foreign banks in Uiboupin study.

Green, Murinde and Nikolov (2003) evaluate whether foreign banks are more efficient that domestic banks in Central and Eastern Europe for the period 1995-1999 using a panel data of 273 foreign and domestic banks located in Bulgaria, Croatia, The Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland and Romania. In the study they find no evidence to sustain the arguments that bank ownership is an important factor in reducing the banks' total cost and state that foreign banks are not more efficient than domestic banks.

While the comparison held in the literature consistently identifies how foreign bank entry affects the home country considering whether it is a developing country or developed country, another important distinction is the order or the way of liberalization of the country. Countries have alternatives to liberalize their financial markets. First option is to liberalize the capital accounts first. Second option may be to liberalize the stock market first. Third way is a mixture of the first two ways.

Bayraktar and Wang (2004) in their study state that sequence of the financial liberalization matters for the performance of domestic banking sector and they find that foreign bank entry has significantly improved the domestic bank competitiveness in countries which liberalized their stock market first. Moreover, Johnston (1998) emphasizes the relation capital account liberalization and financial

markets. According to Johnston countries which do not have strong financial infrastructure should develop financial institutions and markets considering the banking sector, before liberalizing the capital account. Dobson (2003) states capital account liberalization, market opening and domestic regulations may affect the bank performance in a country. Claessens and Glassner (1998) find that the level of capital account liberalization may affect the benefits and costs of internationalization.

In the literature of bank performance in Turkey there are studies considering different periods and different methodologies that measure different aspects of domestic and foreign banks.

Güngör (2007) examines the factors which influence the bank profitability and in the paper all determinants are researched for both domestic and foreign banks by using a panel data for the period of 1990 and 2005. Güngör finds that micro and macro factors are significant to explain the changes in the profitability and these factors have similar effects on domestic and foreign bank profitability, except for operating expenses.

In another study, Abbasoğlu, Aysan and Gunes (2007) study the degree of concentration and competition in the banking sector of Turkey between the period 2001 and 2005. They examine the relation between efficiency and profitability considering whether the banks are foreign or domestic. According the finding of the study of Abbasoğlu (2007) has two interesting results: “Regression results show that larger banks generally turned out to be more efficient than the smaller ones and the least efficient banks were the foreign banks with the exception of few” and they find

that “Only one coefficient which is the dummy for foreign banks turned out to be significant in explaining return on assets as the measure of profitability.” The study briefly concludes that foreign banks have higher profits without having high efficient scores.

In line with these studies, Süer (2008) investigates domestic and foreign banks between 2001 and 2006 and finds that foreign banks in terms of capital adequacy management quality and liquidity are better than those of domestic banks.

Hagmyr and Haiss (2006) compare the developments in the banking sector of European Union Accession countries; Bulgaria, Croatia, Romania and Turkey. They argue that minority foreign banks entry do not prove conducive economic growth in the new EU member states and other EU accession countries.

Atan and Çatalbaş (2005) measure the efficiency of the commercial banks in Turkey considering their capital structure between the period December 2002 and September 2004. They find that according to efficient ratio results private and foreign banks have better scores than public banks. Denizer (2000) analyzes the foreign entry in Turkey’s banking sector between the time 1980 and 1997. In his study he finds that foreign banks both contribute the sector and performed better than domestic banks. Işık and Hassan (2002) research the effect of bank size, corporate control and governance and ownership, cost and profit efficiencies of Turkish banks between 1988 and 1996. They find that foreign banks have higher costs and profit efficiencies than the domestic banks and they explain this finding referring that foreign banks are in small in size but have large amount of business.

Öncü and Aktaş (2007) examine the Turkish Banking sector during the period of 2001-2005. They find that productivity gain in 2001-2005 periods, which was mainly referring to technical process rather than efficiency increases. Jackson, Fethi and İnal (1998) in their paper analyze the technical efficiency and productivity change between the years 1992-1996. They find that except the year 1993-1994 Turkish commercial banking faced productivity growth.

In order to summarize the literature there are common advantages and disadvantages of the foreign bank penetration in a country. Foreign bank penetration increases the efficiency in the banking sector and allocation of credits to private sector improves. Foreign bank entry develops banking supervisory and legal framework. Foreign banks also reduce the costs and maintain a sustainable a credit flow. Foreign banks bring with them new technology and risk management techniques. These are common advantages that mentioned in the literature.

On the other hand, because foreign banks have stronger capital structure, they serve profitable sectors, so domestic banks serve riskier sectors. With increased foreign bank penetration, access to credit may be impaired for sectors and foreign banks have different priorities so their lending criteria may not match with domestic politics. The possibility foreign banks' not providing funds in times of trouble may affect the stability in the economy.

However its effect differentiates whether the country is a developed or developing country. Domestic banks perform better than foreign banks in developed countries.

In the literature it is generally observed that foreign banks performed better than domestic banks in developing countries and foreign bank; increase the competition in the sector. In our thesis it is clear that competition increased with the foreign bank penetration after 2001 in Turkey. But what is more important is that domestic banks performed better than foreign banks during the period between 2002 and 2007. In next chapters we give a brief summary of banking sector of Turkey and examine the reasons of better performance of domestic banks in Turkey

3. STRUCTURAL TRANSFORMATION OF BANKING SECTOR OF TURKEY

In 2008, 46 banks operate in Turkey (Banking Association of Turkey Report 2008), down from 81 at the end of 1999, as a result of a consolidation in the banking sector. Banking sector of Turkey has 33 commercial banks. Three of them are public owned, 11 are privately owned deposit banks, 18 are foreign banks, and one is controlled by the Savings Deposits Insurance Fund (SDIF), a public banking receivership fund. Turkey also has 13 development and investment banks of which three are public owned, six are privately owned and four are foreign owned.

According to report of Banking Regulation and Supervision Agency (BRSA), the total assets of the Turkish financial system as of the end of September 2007 stood at 517.4 billion U.S. dollars, or 116.3 percent of the Gross Domestic Product.

The banking sector of Turkey is a good indicator of Turkish economy. Crisis of Turkish economy is also crisis of the baking sector of Turkey and success of Turkish economy matches with success of banking sector of Turkey.

According to data of Banking Association of Turkey, banking system has grown 3.5 fold since the end of 2002, when its total bank assets stood at a mere 126.7 billion US dollar. Growth has run parallel with the robust performance of the Turkish economy, strength of the New Turkish Lira, record foreign investment into the banking system, and abundance of global liquidity, as the nation rebounded from the 2001 crisis. Since 1997, the Savings Deposits Insurance Fund (SDIF) took the control of 23 financially tottering banks, which have since been either shut down,

merged with stronger banks, or privatized. A dozen other private banks have also merged with affiliate banks.

Until 1980 the government pressure and effect on markets determine the structure of Turkish economy. Liberalization process of Turkish economy and financial markets were put into effect by “24 January decisions”. The decisions involved elimination of control of government on interest rates and exchange rates. In 1983 Saving Deposit Insurance Fund was founded to protect saving deposits. The domestic market liberalization was continued by the foundation of Istanbul Stock Exchange in 1986. Capital accounts were liberalized in 1989.

3.1 REGULATIONS

The Banks Act of 1985 announced provisions for a minimum capital base for banks and capital adequacy ratio in line with the Bank of International Settlement. Accoriding to Ersel (2001), credit extended to a specific customer limited. Banks became more transparent by reporting their non-performing loans they were obliged to reserve provisions for failed loans. Control of external auditing was one of the new requirements of the banks involving the Bank Act of 1985. According to Kibritçioğlu (2005) these regulations and reforms failed because of strong competition between banks and broker houses in interest rates and missing regulations towards strengthening the legal fundamentals of banking sector of Turkey. (See Appendix Figure: 5)

Process of liberalization of financial markets of Turkey showed the costs and benefits. After 1980s Turkey started to increase fund options. Volume of portfolio

investments to Turkey also increased. On the other hand domestic market became more fragile to crises. Because of easy access to international funding Turkish Banks borrowed foreign currency and lend Turkish currency to domestic market which caused external open positions for the banking sector of Turkey. The tendency of open positions caused a financial crisis in 1994 by the help of high inflation rates.

After the crisis of 1994 government had to provide credibility and confidence in the markets. Thus government put an act into force and announced that a full guarantee is given all saving deposits in the sector by the government. By this way government took the responsibility of the all banks in the sector. This act caused moral hazard problems and deteriorated competition structure of the sector.

According to Alper and Öni (2003) the crises happened after 1990s cause to argue neither financial liberalization nor the opening up the capital account had produced the desired outcomes. Financial deepening and sustainable growth could not have been achieved. During the liberalization process inflation rates never fell to single digit unit, and especially after 1988 when coalition governments were in the power.

After 1980, liberalization process increased the number of the banks in the sector. The number of the banks in the sector was 43 in 1980 and it increased to 66 in 1990. The numbers of foreign banks were 4 in 1980 and increased to 23 in 1990. According to study of Yayla (2005) although the liberalization process started and the number of foreign banks increased, the ratio of foreign banks were so limited that foreign bank market share was % 3,5 in 1990, % 2,9 in 1995 and % 5,4 in 2000. So the weight of foreign banks were limited in the sector which is the missing and at the

same time the strongest factor to block the competition between the foreign and domestic banks.

The results of 1994 crisis were severe and showed high vulnerability of the Banking sector of Turkey. Ersel (2001) states the full guarantee of state to deposits created moral hazard problems. Because of the full insurance of state the banks, which would be taken by the Saving Deposit Insurance Fund, high interest rates were offered in order to cover debts or open positions. Zaim (1995) and Akçay (2001) criticized the banking sector because it became over branched and over staffed.

The transformation of the banking sector of Turkey is part and result of the economic crisis of Turkey. Liberalization process and new regulations could not solve the problems in the sector. According to Kibritçioğlu (2005) bad investment decisions, connected lending, illegal activities in banking sector and increasing ratio of non performing loans to bank assets were the signals of following crisis. Open positions was another factor. At the end in 1999, 6 banks were taken over by the State Deposit and Insurance Fund. The sector failed again.

All troubles of the banking sector needed a new regulation in order to strength and consolidate the sector. According to new banking law referring the act of 4491 in 1999 a new institution was established in order to provide the supervision and transparency in the sector which was the Banking and Regulations and Supervision Agency (BRSA). According to this act, the Banking Regulation and Supervision Agency, with financial and administrative autonomy, was formed. The mission of the agency is to safeguard the rights and benefits of depositors and create the proper

environment in which banks and financial institutions can operate with market discipline, in a healthy, efficient and globally competitive manner, thus contributing to the achievement of the country's long-term economic growth and stability. With the establishment of the Banking Regulation and Supervision Agency (BRSA), the Savings Deposits Insurance Fund, previously under the authority of the Central Bank, started to operate under the administration of the BRSA. Later on, with the enactment of Act No. 5020 in 2003, the management of the Saving Deposit Insurance Fund (SDIF) was separated from the management of the BRSA. In 2003 government took measures in order to decrease the inflation rate and provide macro economic stability and started to make reforms considering pension system, agriculture, fiscal measurement and transparency and tax policy. Contractionary monetary and fiscal policies have started to be implemented.

Moderate macro economic recovery and a new regulatory institution realized after 1999, Turkey faced two banking and currency crises respectively in 2000 and 2001. According to Kibritçioğlu (2005) 32000 employees lost their job and 20 banks were taken by SDIF during the crises. The 2001 crisis was initiated by the failure of a private bank because of liquidity problem which is one of the main indicators of the risk in the sector.

The crises showed that banking sector should be reconstructed. This reconstruction activity involved reconstructing the public and SDIF banks, strengthening private banks and developing regulatory and legislative structure of banking sector. Thus after these two successive crises a new regulation was announced by the government. Banking Sector Restructuring and Rehabilitation Programme was constructed. This

programme was prepared in order to strengthen the private banks. Other aim was to consolidate and sell the banks which were transferred to the SDIF. It was also important to provide operational and financial restructuring of public banks in order to privatize them, and develop and framework to increase the supervision of a more efficient and competitive banking sector.

Moreover a law which refers to independence of Central Bank put into effect in 2001. The practice of free floating exchange regime in 2001 and inflation targeting regime in 2002 were other factors which empower the banking sector of Turkey.

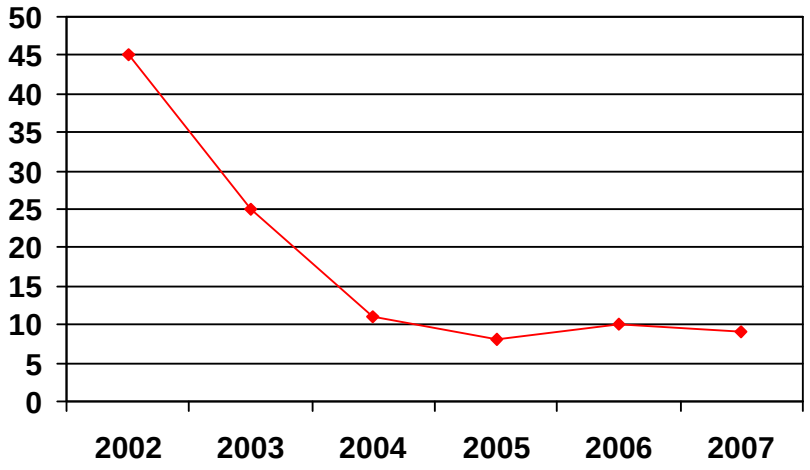
After the crises in the elections single party government came to power instead of coalitions that Turkey used to before. The new government continued the contractionary monetary and fiscal policies that had been started before by the previous government. In 2004 instead of full deposit guarantee system, the limited deposit guarantee system put into effect which increased the competition in the banking sector. Next the Banking Regulation and Supervision Agency declared the capital adequacy ratio as 8 percent which increased the capital quality of the domestic banks in the sector. Capital adequacy is an important ratio that it involves the ratio of a bank's capital to its risk. It is a measure of the amount of a bank's capital expressed as a percentage of its risk weighted credit exposures. It determines the capacity of the bank in terms of meeting the time liabilities and other risk such as credit risk and operational risk. That is why the new regulation about capital adequacy forced domestic bank to empower their financial ratios and decrease their risks. Since 2005 Turkey adapted her banking law in line with EU standards. This adoption also increased the foreign bank penetration to banking sector of Turkey.

Alper and Öni (2005) claim that the problems that occur in the banking sector of Turkey are not because of absence of rules or regulations but weak implementation of the rules and regulations in practice. This thesis claims that absence of competition or absence of penetration of foreign banks is also important factors in order to explain the problems in the sector until 2002.

After 2001 Turkey reached stable macro economic indicators. Turkish economy has been on positive trend considering the economic growth and reduced inflation since 2001.

Overnight interest rates in Turkey were % 100 in 2000, % 80 in 2001, % 60 in 2002, % 40 in 2003, % 20 percent in 2004 and after 2005 it is around 20 percent. After 2001 Turkey grew 7 percent on a year-on year basis and in the 23 quarter periods of uninterrupted growth process, private sector investment increased % 150 in real terms. According to Yılmaz (2008) exports which were 31 billion USD at the end of 2001 reached 107 billion USD by the end of 2007. Overnight interest rates 12 month saving deposit interest rate also decreased gradually. According to data of Central Bank of Turkey, 12 month saving deposit rate was 77 % in 2001, 49 % in 2003 and 23 % in 2001. (Appendix, Figure: 15). Moreover, Consumer Price Index followed the interest rate decrease.

Figure 3.1 CPI ANNUAL AVERAGE
Data is taken from Banking Association of Turkey



Another important indicator is non-performing loans ratio which has decreased rapidly in the Banking Sector of Turkey. Kouyoumdjian and Volland (2006) state the ratio of non-performing ratio to total loans were % 25 in 2001 and in 2006 it became less than % 5.

In order to show how macro economic stability affects the banking sector of Turkey, it would be very useful to analyze the figure which shows the fragility of banking sector. (Appendix: Figure 5) When the figure is analyzed it is certain that the years which Turkey face high inflation rates, unemployment rates and high interest rates deteriorate the fragility index of banking sector. It is important to emphasize that after 2001, as the macro economic stability and foreign penetration increase the banking sector gained power. (Appendix: Figures 9, 10 and 11)

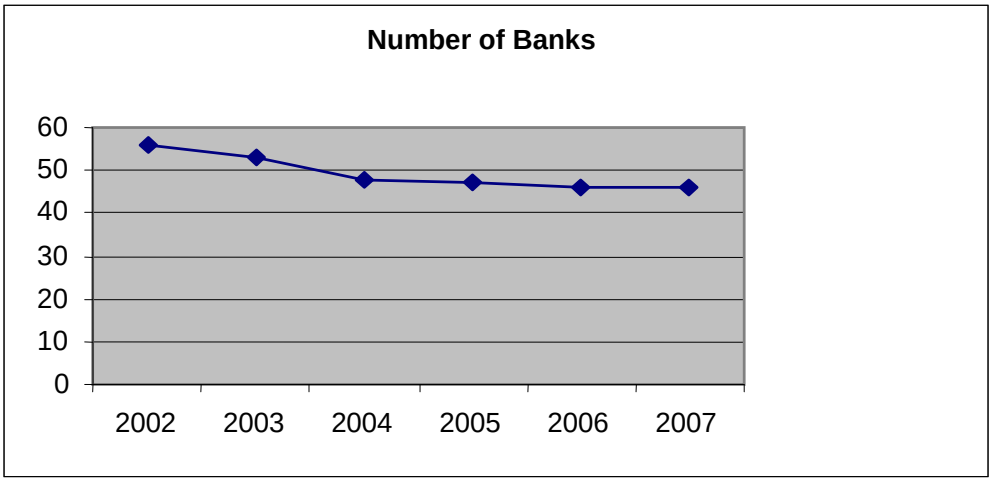
Moreover macro economic indicators become sounder and foreign penetration increase during this process. (Appendix, Table: 6 and 7)

In order to sum up, after 1980 financial markets of Turkey adopted many regulations considering the liberalization process. Every crisis in the economy required new regulations in order to strength and minimize the risks in financial markets. Open positions of banking sector, instable macro economic indicators, duty losses and subsidiary loans, which are not paid back, of domestic banks, regulation of full guarantee of saving deposit and political instability did not lead a sounder banking sector. After 2001 regulations became effective but what is more important, in line with macro economic stability, foreign direct investment increased in Turkey, especially in financial markets. This process increased the competition and efficiency in financial markets. Effects of regulation became effective considering the competition in the banking sector.

3.2 BANKING SECTOR OF TURKEY AFTER 2001

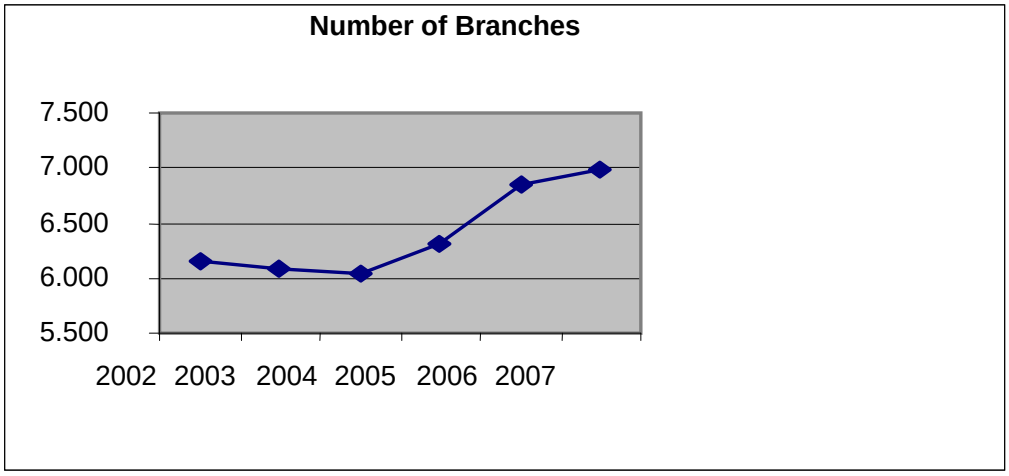
After 2001 a consolidation process was realized in the banking sector. Number of the banks started to decrease.

Figure 3.2.1 Number of the Banks in the Sector
Data is taken from Banking Association of Turkey



However number of the branches was increased. Numbers of the branches were 6000 in 2002 and it became 7000 in 2007.

Figure 3.2.2 Number of the Branches in the Sector
Data is taken from Banking Association of Turkey

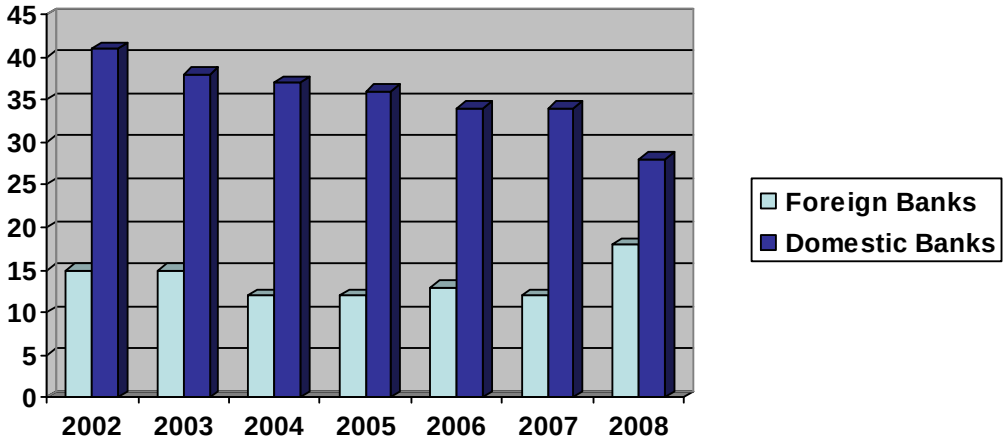


Numbers of the foreign banks increased after 2004 and reached to 18 in 2008. But what is more important is the market share. Market share increased in the sector and reached to 42 percent in 2008. In their study of Yayla, Kaya and Ekmen (2005) calculate the foreign bank market share % 3,4 in 1990, %2,9 in 1995 and %5,4 in 2000.

The market share of foreign bank is still a current debate in Turkey. When we compare developing countries and developed countries we observed that market share of foreign banks are higher in developing countries and less in developed countries.

After 2001, we observe that when the number of the domestic banks decreases and the number of foreign the banks increase.

Figure 3.2.3 Number of the Foreign and Domestic Banks in Turkey
Data is taken from Banking Regulation and Supervision Agency (BRSA)

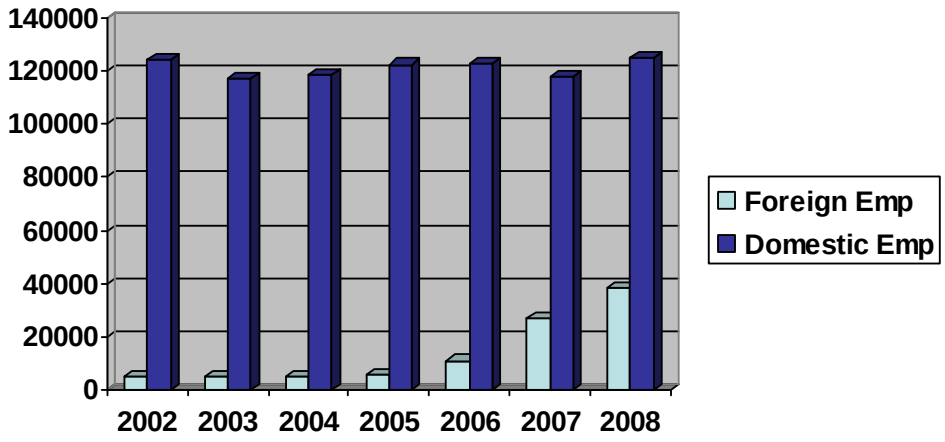


The number of the domestic banks was 41 in 2002 and 28 in 2007 and number of the foreign banks was 15 in 2002 and 18 in 2007. While number of the branches of domestic banks remain almost constant the number of the branches of the foreign banks increased. The branch number of the domestic banks was 5949 in 2002 and 6057 in 2008 and the number of the branches of the foreign banks was 207 in 2002 and 1795 in 2008.

Number of the employee number is also an important indicator in the sector. The number of the employee number of the domestic banks remains almost the same while number of the employee of the foreign banks increased 7 times. The number of the employee of domestic banks was 122402 in 2002 and 124686 in 2008 whereas the number of the employee of the foreign banks was 5860 in 2002 and 38609 in 2008.

Figure 3.2.4 Number of the Employees in Foreign and Domestic Banks in Turkey

Data is taken from Banking Regulation and Supervision Agency (BRSA)



Moreover almost 95 % of total credits was given by domestic banks in 2002 and 5 was by foreign banks in 2002. However in 2007 domestic banks total credit share decreased to 80 % and foreign banks credit share increased to 20 % in 2007. In 2002 95 % of total deposits was collected by domestic banks but in 2007 the share of total deposits of domestic banks decreased to 86 percent and the share of foreign banks increased to 14 %.

4. AN EMPIRICAL STUDY OF COMPARING BANK PERFORMANCES IN TURKEY

In the literature there are many ways to calculate performance of the banks. Different profit, capital, credit and liquidity indicators are generally used as dependent and independent variables of the models. (See Appendix: Table: 4) In the literature net interest margin or net operating profit, non-performing loans, ratio of operating cost/ net income, ratio of overhead costs/total assets and ratio of non-interest income/total assets, foreign and domestic bank ownership dummy are used to build models.

Bayraktar and Wang (2005) used panel data for their model. Market share of the banks and macro economic variables; they choose ratio of net interest income/total assets, non interest income/total assets and loan loss provisions/total assets in order to evaluate the performance of the domestic and foreign banks in their research. They examine which factors affect the different performance indicators. Oster and Antioch (1996) in their study regarding the measure of productivity of the banks; refer net interest income/total assets, operating costs/average assets and operating cots/net income in order to build the model. Claessens, Demirgüç and Huizinga (1998) determine the ratio of before tax profits/total assets and overhead costs/total assets in order to answer how foreign bank entry affect the domestic banks. In this study indicators of sources of profitability are taken as performance measures.

Lensink and Hermes (2004) build a similar model of Claessens, their model involve ratio of interest margins/total assets, ratio of non interest income/total assets, ratio of before tax profits/total assets and ratio of total overhead costs/total assets in order to calculate the performance of the domestic and foreign banks.

Vennet (2002) examines cross-border mergers in European banking and bank efficiency. In his study he implied a regression by using return on asset before taxes as a dependent variable and ratio of personal costs/total costs, ratio of proportion demand and saving deposits/total deposits, ratio of loan/total asset ratio as independent variables. Kosak and Cok (2008) use also ROA as a dependent variable in which they analyze ownership structure and profitability of the banking sector in the South Eastern European region. Okazaki and Sawada (2008) in their paper analyze the effect of bank consolidation on financial system. They also take the ROA as a dependent variable and number of the branches and total assets as an independent variable in their regression.

Sturm and Williams (2004) practice Data Envelopment Analysis and Malmquist index and stochastic frontier analysis in order to evaluate the bank efficiency covering the employee numbers, deposits and borrowed funds and equity capital as inputs and loan advances commitments and contingent liabilities as outputs.

Jeon and Miller (2002) analyze the performance of the domestic and foreign banks in Korea during the period between 1995 and 2000. They use return on asset and return on equity as dependent variables. Ratio of total loans/total assets, ratio of deposits/total assets, ratio of provision for loan losses/total loans and total assets are put into regression as independent variables.

Haber and Musacchio (2005) analyze the foreign bank and domestic bank performance in Mexico based on interest rate in the sector. Interest rate was used as a

dependent variable in their study. They use foreign and domestic bank dummies, market share, macro economic variables and return on equity as independent variables.

Uiboupin (2004) finds the model in order to analyze the performance of the banks by using net interest margin, non-interest income to total assets, overhead costs to total assets and loan loss provisions to total assets. Green, Murinde and Nikolov (2003) build the model in their study by using loans, other earning assets, non interest income, number of employees, fixed assets and deposits.

In line with these studies there also studies which examine the banking sector of Turkey. Güngör (2007) evaluates the bank performance in banking sector of Turkey by using a panel data involving the capital adequacy ratio, assets quality, the liquidity adequacy and profitability. Tufan, Hamarat, Cristea and Vasliescu (2007) in their study evaluate the domestic and foreign banks in Turkey by applying Principal Component Analysis and Logistic Regression Method. For these analyzes they use foreign and domestic bank dummies, equity ratios, balance sheet structure ratios, liquidity ratios, branch ratios, income expenditure, share in group and sector and profitability indicators. Denizer (2000) measures the performance of the foreign banks and domestic banks in Turkey during the period between 1980 and 1997. In the study as a performance indicators net interest margin, overhead expenses and ROA are used.

Atan and Çatalbaş (2005) use data envelop and tobit regression model analyzes involving the data of return on assets, capital adequacy ratio, ownership and numbers

of branch. Süer (2008) in his research used the CAMEL method which calculate capital adequacy, asset quality, management quality, earnings, liquidity and sensitivity to market risk. These indicators refer to the ratio of shareholders' equity/total assets, the ratio of loans under follow up, the ratio of permanent assets/total assets, the ratio of net interest income/total operating income, the ratio of non interest income/total assets, the ratio of net profit/total assets, the ratio of net profit/total shareholders' equity, the ratio of liquid assets/total assets, the ratio of liquid assets/short term liabilities. Crystal, Dages and Goldberg (2002) also analyze that whether foreign bank penetration led to sounder banks in Latin America or not by using CAMEL method. Işık and Hassan (2002) in their study use parametric cost efficiency and profit efficiency in order to investigate the banking sector of Turkey.

In order to summarize in the literature there are many different indicators are taken (Appendix: Table 4 is formed in order to compare and indicate different dependent and independent variables of different literature) in order to calculate the performance of the banks considering profit, capital, credit and liquidity ratios and input-output analyzes. In our model we analyzed the ratios mentioned in the literature and chose the data from the selected ratios of Banking Association of Turkey considering the literature.

4.1 DATA

In this thesis we used panel data which are data set, containing observations on multiple phenomena observed over multiple time periods. Brüderl (2005) explains the panel data as "panel data are repeated measures of one or more variables on one or more repeated cross-sectional time-series." We used the e-views 5.0 software for the model.

In this thesis in order to measure the performance of the foreign banks, a simple multi regression model is built by considering the variables of the literature above. 30 foreign and domestic banks (3 public banks are also accepted as domestic banks) are examined between the years of 2002 and 2007.

The data of selected ratio[1] of Banking Association of Turkey (BAT) is used. In the model, ratio of return on assets (ROA) is taken as a dependent variable. Number of the branches and employees of the banks, ratio of non interest income/total assets, ratio of interest income/total income, ratio of equity/total assets, ratio of non-performing loans/total loans and ratio of net operating income/total assets as an independent variables. Foreign bank dummy is taken as 1 and domestic bank dummy is taken as 0 in order to calculate and compare the foreign bank performance in Turkey.

Banks which have more than 50% foreign share is accepted as foreign bank in the model. (See Appendix: Table 8) One of the strong side of the model is that during

[1] Seleceted Ratios of BAT are the specific ratios of the banks in order to measure performance of the banks.

2002 and 2007 there were banks that were acquired by foreign investors. Thus there were domestic banks which transformed to foreign banks during that period. So their dummy became 1 which was 0 in the past. These changes also let us compare the performance of the "new" foreign banks. All the data of the model is also put in appendix. (Appendix, Table: 17)

4.2 MODEL

Research on bank performance use many types of indicators. Most common ones are accounting based indicators and profit or cost efficiency indicators based on the efficiency and productivity analysis. In this thesis we use accounting-based profitability indicators in banking. Return on Assets (ROA) is a core performance indicator used in many of studies that mentioned above. ROA directly or indirectly incorporates most of the aspects of the banking business because it gives an idea as to how efficient management is at using its assets to generate earnings. (See Vennet 2002, Kosak 2008, Okazaki 2008, Jeon 2002 and Denizer 2000)

We use ROA as a dependent variable of the model. The assets of a bank or company are formed of both debt and equity. The ratio of ROA gives investors an idea of how effectively the bank is converting the money it has to invest into net income. The higher the ROA number is better, because the bank is earning more money on less investment or asset. ROA is a functional ratio for comparing competing companies in the same sector, especially in this thesis banks in the banking sector.

Kosak and Cok (2008) states ROA is considered to be a core performance indicator used in majority of studies. Because ROA may directly or indirectly incorporates

most of the aspects of the banking business. It can be derived from a simplified bank income statement equation:

$$NI = (II-IE) + (NII-NIE) – EXP –TAX,$$

In this equation; NI is the net income, II is the interest income, IE is the interest expenses, NII is the non-interest income, NIE is the non-interest expenses, EXP is the operating expenses and TAX is the taxes. Dividing simplified income statement equation by total assets (TA) gives us the following expression:

$$ROA = NIM + NNIM – \frac{OVH}{TA} – \frac{LLP}{TA} - \frac{TAX}{TA}$$

In this equation, NIM is the net interest margin, NNIM is the net non-interest margin, OVH is the overhead costs and LLP is the loan-loss provisions.

Return on assets is a common figure used for comparing performance of financial institutions especially banks, because the majority of their assets will have a carrying value that is close to their actual market value. Return on assets is not useful for comparisons between different industries because of factors of scale and peculiar capital requirements.

Another measure we use in our model as independent variable is Net Operating Profit (or income). It is a measure of a company's earning power from ongoing operations, equal to earnings before deduction of interest payments and income taxes. It is also called operating profit or earnings before interest and taxes.

Net operating profit is a commonly used to evaluate the bank performance. That is why we use ratio of net operating profit/total assets in the model and it is also a selected ratio which is announced by Banking Association of Turkey.

Another independent variable of the model is non-performing loans. International Monetary Fund (2000) defines non-performing loan as "payments of interest and principal that are past due by 90 days or more, or at least 90 days of interest payments have been capitalized, refinanced or delayed by agreement, or payments are less than 90 days overdue, but there are other good reasons to doubt that payments will be made in full."

Non-performing loan is a loan that is in default or close to being in default. That means a risk and a cost for the banks. Many loans become non-performing after being in default for 3 months, but time condition depends on the contract terms. Non-performing loans cause trouble for banks, which will often reschedule the debt with different conditions, rather than allowing it to lie on the books without producing any return. Moreover, much empirical study measure performance of the banks uses the non-performing loans as an independent variable in their models. (See Appendix: Table 4) Thus we also use ratio of non-performing loans/total loans as an independent variable in our model to see the risky credits that banks have.

The last independent variable of the model is foreign bank dummy. Foreign bank dummy is used in order to calculate and compare the foreign bank performance considering the domestic banks in Turkey. Foreign bank dummy is taken as 1 and domestic bank dummy is taken as 0 in order to calculate and compare the foreign bank performance considering the banks in Turkey.

Number of the branches and employees of the banks, ratio of non interest income/total assets and ratio of interest income/total income are also used as independent variables in the model but they are not found significantly in order to explain the changes in ROA which is the dependent variable of the model.

Before the result of the regression we expect a positive relation between ROA and ratio of Net Operating Income/Total Assets, negative relation between ROA and ratio of Non-Performing Loan/Total Loans (because this ratio is a cost for the banks) and positive relation between ROA and foreign bank dummy. (See Claessens, Kunt and Huizinga 2001, Bayraktar and Wang 2005, Lensink and Hermes 2004, Uiboupin 2004, Green, Murinde and Nikolov 2003).

The following abbreviations are used in the model:

Return on Asset: ROA

Net Operating Profit/ Total Assets: NOP/TA

Non Performing Loans/Total Loans: NPL/TL

Return on Assets= f (foreign bank dummy, net operating profit/ total assets, non performing loans/total loans)

$$ROA = \alpha + \beta_1 \, Dummy + \beta_2 \frac{NOP}{TA} + \beta_3 \frac{NPL}{TL}$$

The calculation of regression results are given in the table 4.2.1 below:

Table 4.2.1 Regression Results

Dependent Variable: ROA
Method: Least Squares
Date: 07/02/08 Time: 11:25
Sample: 1 180
Included observations: 180

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.236213	0.255268	0.925351	0.3561
DUMMY**	-0.881693	0.375044	-2.350905	0.0198
NOP/TA***	0.652979	0.031020	21.05006	0.0000
NPL/TL***	-0.202623	0.019047	-10.63792	0.0000

R-squared	0.855369	Mean dependent var	1.391562
Adjusted R-squared	0.852904	S.D. dependent var	6.241102
S.E. of regression	2.393655	Akaike info criterion	4.605491
Sum squared resid	1008.407	Schwarz criterion	4.676446
Log likelihood	-410.4942	F-statistic	346.9645
Durbin-Watson stat	1.720538	Prob(F-statistic)	0.000000

*** denotes P < 0.01

** denotes P < 0.05

According to result of the regression ratio of net operating profit/total asset, ratio of non-performing loan/total loans and foreign bank dummy are significantly important to explain the changes in ROA. Results indicate that considering the sign of the coefficient there is a positive relation between ratio of net operating profit/total asset and ROA (expected), negative relation between ratio of non-performing loan/total loans and ROA (expected) and negative relation between foreign bank dummy and ROA (contrast to literature, unexpected). This negative relation indicates that between 2002 and 2007 domestic banks performed better than foreign banks considering ROA. As we mentioned before it is useful to emphasize that the term performance is used in the sense of generating Return on Assets for a given value of Net Operating Income/Total Assets and Non-Performing Loans/Total Loans of domestic and foreign banks. Thus the framework of performance term is limited with the variables of the model.

In order to check and stabilize the statistical problems among independent variables, we run the regression by using White Heteroskedasticity-Consistent Standard Errors & Covariance and reached the results which were displayed Table 4.2.2 below:

Table 4.2.2 Regression Results by using White Heteroskedasticity-Consistent Standard Errors & Covariance

Dependent Variable: ROA
Method: Least Squares
Date: 07/02/08 Time: 12:17
Sample: 1 180
Included observations: 180
White Heteroskedasticity-Consistent Standard Errors & Covariance

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.236213	0.321324	0.735124	0.4632
DUMMY***	-0.881693	0.280986	-3.137853	0.0020
NOP/TA***	0.652979	0.093046	7.017805	0.0000
NPL/TL***	-0.202623	0.062412	-3.246545	0.0014

R-squared	0.855369	Mean dependent var	1.391562
Adjusted R-squared	0.852904	S.D. dependent var	6.241102
S.E. of regression	2.393655	Akaike info criterion	4.605491
Sum squared resid	1008.407	Schwarz criterion	4.676446
Log likelihood	-410.4942	F-statistic	346.9645
Durbin-Watson stat	1.720538	Prob(F-statistic)	0.000000

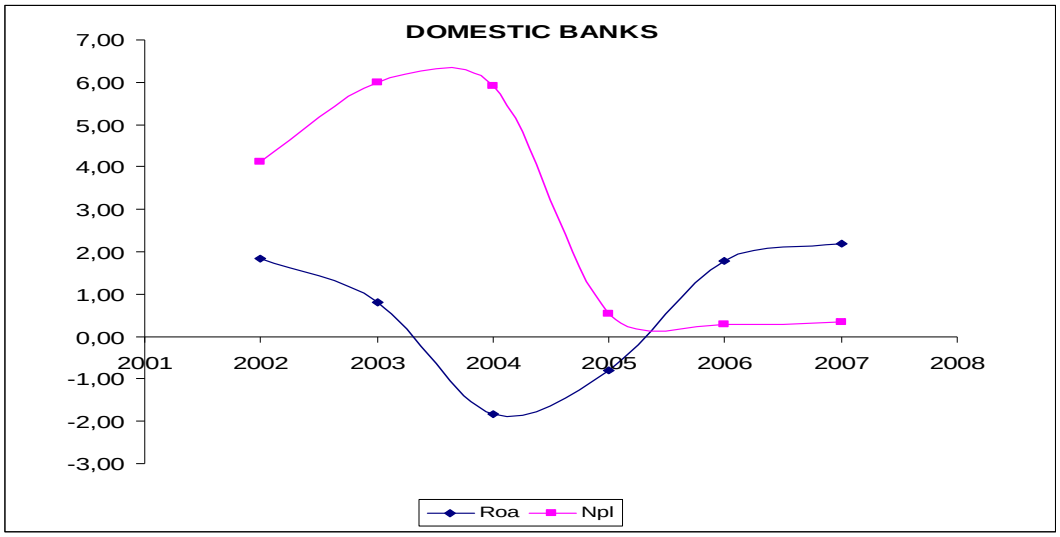
*** denotes P < 0.01

According to result of the regression by using White Heteroskedasticity-Consistent Standard Errors & Covariance ratio of net operating profit/total asset, ratio of non-performing loan/total loans and foreign bank dummy are founded significant to explain the changes in ROA. Moreover by this way dummy becomes more significant. Results again indicate that considering the sign of the coefficient there is a positive relation between ratio of net operating profit/total asset and ROA (expected), negative relation between ratio of non-performing loan/total loans and ROA (expected) and negative relation between foreign bank dummy and ROA (contrast to literature, unexpected). This negative relation indicates that between 2002 and 2007 domestic banks performed better than foreign banks considering generating Return on Assets for a given value ratio of Net Operating Income/Total Assets and Non-Performing Loans/Total Loans of domestic and foreign banks.

In this context it would be useful to analyze the relation of variables of the model with ROA by referring the figures below to make a closer analysis. We analyze the relation between ROA and non-performing loans considering the foreign and domestic banks. Thus Figures 4.2.3 and 4.2.4 are prepared to compare and indicate the difference between foreign and domestic banks considering the relation between ROA and non-performing loans. (All the ratios in the figures 4.2.3, 4.2.4, 4.2.5 and 4.2.6 are taken as the average ratios of the both domestic and foreign banks.)

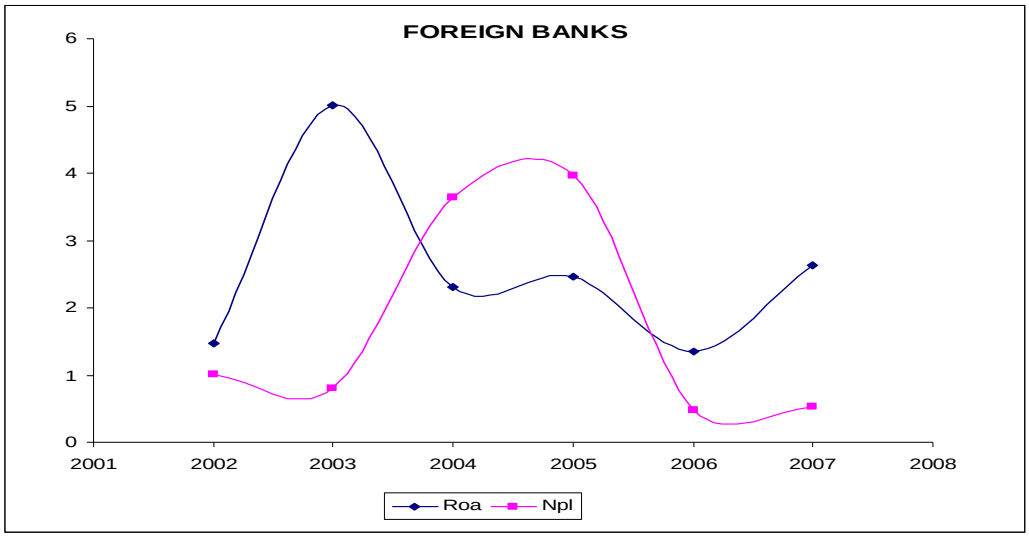
When the figures are analyzed, it is clear that there is a negative relation between ROA and non-performing loans which is in line with the results of the regression in this thesis.

Figure 4.2.3 ROA-Non Performing Loans Relations of Domestic Banks



Especially after the end of 2003 non-performing loans of domestic banks started to decrease dramatically. Thus this tendency increased the ROA that is why non-performing loans and ROA have a negative relation. The first reason of the improvement of domestic bank is the adoption of risk minimizing regulations of Banking Regulations and Supervision Agency in the sector. Secondly in this context the turning point, which is the end of 2003, in the figure should be analyzed. This time matches with the period of intensified foreign bank penetration in Turkey. As the foreign banks acquired domestic banks, ex-domestic banks transferred the burden of non-performing loans to new foreign banks.

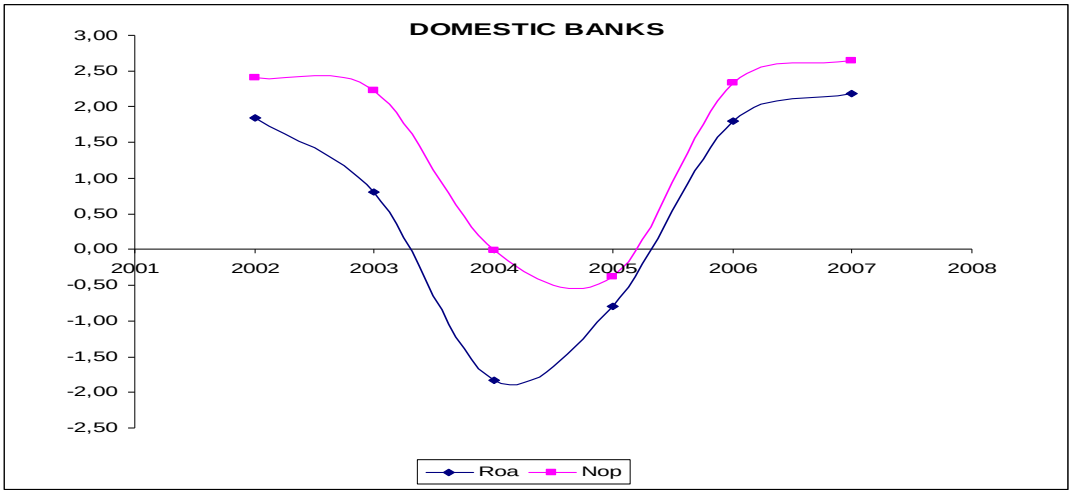
Figure 4.2.4 ROA-Non Performing Loans Relations of Foreign Banks



As it is observed in the figure 4.2.4 non-performing loans of foreign banks started to increase from 2003 to at the beginning of 2005. This period coincidences with the positive ROA and negative non-performing loan trend of domestic banks and for foreign banks this period is just the opposite of domestic banks. This analyzes indicate that foreign banks digest ex-domestic banks and adopt the sector in two years time. After 2006, ROA increases while non-performing loans decreases both for domestic and foreign banks.

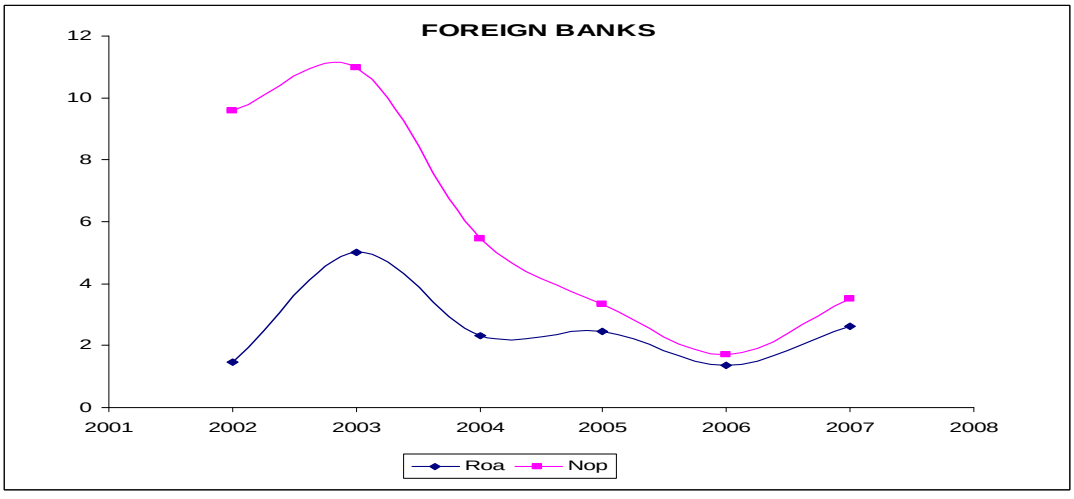
The second independent variable is net operating profit. It would be also useful to analyze the relations between the ROA and net operating profit considering the both foreign and domestic banks. Figures 4.2.5 and 4.2.6 are prepared to compare and indicate the difference between foreign and domestic banks considering the relation between ROA and net operating profit. When the figures are analyzed, it is clear that there is a positive relation between ROA and net operating profit which is in line with the results of the regression in this thesis.

Figure 4.2.5 ROA-Net Operating Profit Loans Relations of Domestic Banks



As it is observed in the figure 4.2.5 net operating profit of domestic banks started to increase from the beginning of 2004. ROA followed the net operating profit because they are positively correlated. This period coincidences with the decreasing ratio of non-performing loans of domestic banks and also matches with intensified acquisition of domestic banks by domestic banks.

4.2.6 ROA-Net Operating Profit Loans Relations of Foreign Banks



As it is seen Figure 4.2.6 net operating profit of foreign banks started to decrease from 2003 to 2006. This period also matches with the increasing rate of non-performing loans of foreign banks. As net operating profit decreases, ROA also decreases because of the positive correlation of the two factors. This period should be underlined because this period also coincidences with the intensified foreign bank acquisition in the sector. When ex-domestic banks were acquired the market value/bank value was very high which will be discussed in the fifth chapter of this thesis. When we compare domestic and foreign banks, both banks enjoy the recovery. However domestic banks joined the trend in 2004 which is two years earlier than foreign banks. Moreover positive ROA and net operating profit trend of domestic banks are dramatically higher than the foreign banks. This observation also indicates domestic banks performed better than foreign banks which confirm the regression result of the model in this thesis. However we should emphasize that the term performance is used in the sense of generating Return on Assets for a given value of Net Operating Income/Total Assets and Non-Performing Loans/Total Loans of domestic and foreign banks.

5. A COMPARATIVE ANALYSIS OF TURKISH DOMESTIC BANKS: REASONS BEHIND PERFORMANCE DIFFERENCE

The reasons of better performance of domestic banks are also the answers to the question "Why penetration of foreign banks increased after 2001 in Turkey?" Political stability, improvement in macroeconomic indicators such as high growth rates and decreasing interest rates, increasing volume of global liquidity, increasing population and higher real returns are the reasons in order to explain the foreign entry to Turkey.

Aysan, Faruk and Pinar (2006) states Turkey specific factors which pull foreign banks to Turkey as; increasing population and per capita income, reforms in investment area, high foreign trade, geopolitical importance, EU accession process, lower interest rates, declining inflation rates, improving corporate system, sounder auditing and regulation, flexible exchange system, Basel II agreement, consumer credits and mortgage.

The same study states that in contrast to literature new foreign players in the banking sector which acquire the domestic banks benefit from the technological potential of financial sector of Turkey. For instance this technological infrastructure is one of the important reasons considering acquisition of Finansbank by NGB. This explanation displays the developing aspect of the domestic banks in Turkey. Because in the past domestic banks were acquired because they became "cheap". So the changing reason of acquisition shows the soundness of the banking sector of Turkey. Regulations in the banking sector in order to ease the foreign penetration and liberalization which

started especially from 1980s (even caused problems) also pave the way of competition and entry of foreign banks.

According to Goldberg (2004) domestic banks are forced to become more efficient after foreign entry, especially in the business lines in which foreign banks choose to compete. This competition after foreign entry reduces the monopolistic excess of domestic banks. This competition forces domestic banks to become more transparent and to have better management strategies.

5.1 BASIC REASONS OF BETTER PERFORMANCES OF DOMESTIC BANKS

Better performance of domestic banks in Turkey has country specific reasons. In this context, domestic banks of Turkey separated positively from both banks of similar emerging markets and foreign rivals in the sector.

In order to compare domestic banks of Turkey with other domestic and foreign banks of similar emerging markets, we consider into Argentine, Chile, Colombia, Mexico, Venezuela, China, India, Korea, Thailand, Czech Republic, Hungary, Poland and Israel. When we consider capital adequacy ratio among these countries between the periods 1999 and 2004 (See Appendix: 18) both public and private banks of Turkey (domestic banks) has the highest ratios.

In line with these when we compare net profits and costs as a percentage of total assets among these ten countries, we see that (See Appendix: 19) foreign banks in Turkey have the highest operating cost. It is important that operating profit is the independent variable of our model. Moreover, public banks (accepted as domestic banks in the model) of Turkey is also at the top of the banks that makes the highest profit among these ten countries.

Thirdly, when we compare interest rate margins (banking lending rate minus deposit rate) we observe that Turkey has the highest interest rate margin. Because domestic banks dominate the credit market in Turkey, domestic banks enjoyed transforming this margin into profits. (See Appendix: 20)

When Turkey is compared to Bulgaria and Romania, which are the new members of the EU, and Croatia, which is a candidate member of the EU, we observe that the share of public banks in Turkey (% 30) is more than Bulgaria (%2.3), Romania (%6.8) and Croatia (%3.1). According to Hagmyr and Haiss (2006) market share of foreign banks in Bulgaria (% 83), Romania (% 62) and Croatia (91.3) is more than Turkey.

Hagmayr and Haiss (2006) states that even there are acquisitions in the banking sector of Turkey; Turkey is also pursuing another approach to attract foreign investors compared to other accession countries in the EU. Because Turkish bank owners not only prefer acquisition but also prefer strategic partnerships and joint ventures with their foreign partners and retain a controlling share. Akbank, Garantibank and Yapı Kredibank are examples of the banks which followed strategic partenership strategy. In the model of this thesis these three banks are accepted as domestic banks because foreign share in these banks are less than %50. (See Appendix: Table 8)

When we focus to internal changes in Turkey, we can refer to reasons below in order to explain better performances of domestic banks:

Table 5.1 Better Performance Reasons of Domestic Banks in Turkey After 2001

Political Stability
Macro Economic Growth
New Regulatory Institutions, Capital Requirements and Risk Minimizing Regulations
Inflation Accounting
Privatization Process of Public Banks Diminishing Ratio of Duty Loss (Public Banks) Diminishing Ratio of Subsidiary Loans (Public Bank)
Diminishing Number of Employee per Branch
Competition and Increasing Market Share of Foreign Banks
Decreasing Interest Rates force Banks Increase Commission-Profitability
ROA of Ex-domestic and New Acquired Banks
Market Price/Book Value of Foreign Banks
Consolidation, Decreasing Costs and Individual Choice

In contrast to literature, according to observation of my thesis; domestic banks performed better than foreign banks after 2001. First of all the ratios in the model show us, domestic banks have sounder ratios. However the facts behind the numbers should be analyzed. (Appendix, Figure: 9, 10 and 11)

In the table above potential reasons of better performance of the domestic banks are stated. In this chapter we explain and discuss these reasons in order to understand the result of the model of the thesis and structural change in the banking sector of Turkey.

5.1.1 POLITICAL STABILITY

After 1960 to 2002 generally coalition governments were in the power in Turkey which was the main reason of political instability. Since the republic founded in Turkey in 1923, 60 governments came into power. So the average life a government in Turkey is 1.4 year which is very short. This average keeps to obstacle to see a stable future in order to give decisions and forecasting. On the contrary since 2002 (6 years is much more than 1.4 the average) the same government without a coalition is in the power in Turkey. Political stability directly affects the macro economic indicator in Turkey. Because of the depth burden, Turkey is very sensitive to interest rates. For instance in 2008, % 1 increase in Turkey causes 4 billion dollar extra cost for Turkey's budget balances. Annual interest rates which were % 65 in 2002 decreased to % 19 in 2008. Turkey faced many economical crises because of political instability. In 1994 when crisis was appeared a coalition government was in the power. Moreover it both in 2000 in 2001 crises a coalition government was in the power which was built by three different parties.

In November of 2000 a new letter of intent was presented to the International Monetary Fund. But at the end of December, Ozatay and Sak (2002) states that the average interest rates and the overnight rate were almost four times higher than their levels at the beginning of November and more than five times higher than the pre-announced year-end depreciation rate of the lira.

Instability ended on the February 2001, when the prime minister announced that there was a severe political crisis triggered a crisis at the end of the preceding year. On that day the Ozatay and Sak (2002) emphasize overnight rates jumped to unprecedented levels of 6200 percent in uncompounded terms. Only three days later, the exchange rate system collapsed and Turkey declared that it was going to implement a floating exchange rate system from that time onwards.

This process was so similar the past crises. Turkish lira devaluated like always in the past. Interest rate and Turkey's risk premium increased. Thus the tendency of investment decreased. Because of these all forecast of the business sector was thrown away. This transmission mechanism affected the domestic banks in a very severe way. Many of them were taken by Insurance Fund and some of them were sold to foreign investors for "cheap prices" because of devaluation.

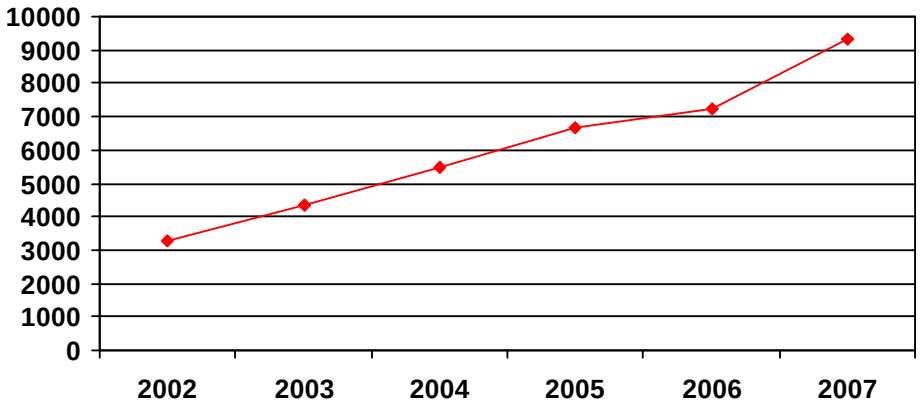
This process ended after 2001. Single party government provided political stability in Turkey with the help of positive externality of emerging markets. This political stability lead the domestic banks make better vision for future, sounder forecasts and increase in investment tendency. As the banks increased their profit, they started to get new employees that they had fired before during the crises in 2000 and 2001. Because of the political stability business sector increased the credit volume which lead to make profits for the banks in the sector. (Appendix, Figure: 16)

5.1.2. ECONOMIC GROWTH

Macro economic stability followed the political stability in Turkey. After 2001 Turkey grew 7 percent on a year-on year basis and in the 23 quarter periods of uninterrupted growth process, private sector investment increased % 150 in real terms. According to Yılmaz (2008) exports which were 31 billion USD at the end of 2001 reached 107 billion USD by the end of 2007. Inflation (Consumer Price Index) which was % 50 in 2002 decreased to %10 in 2007.

Increasing growth rates also increased the GDP per capita in Turkey. GDP per capita was 3296 US dollars in 2002 and it reached 9333 US dollars in 2007.

Figure 5.1 GDP per Capita (US Dollar)
Data is taken from Banking Association of Turkey

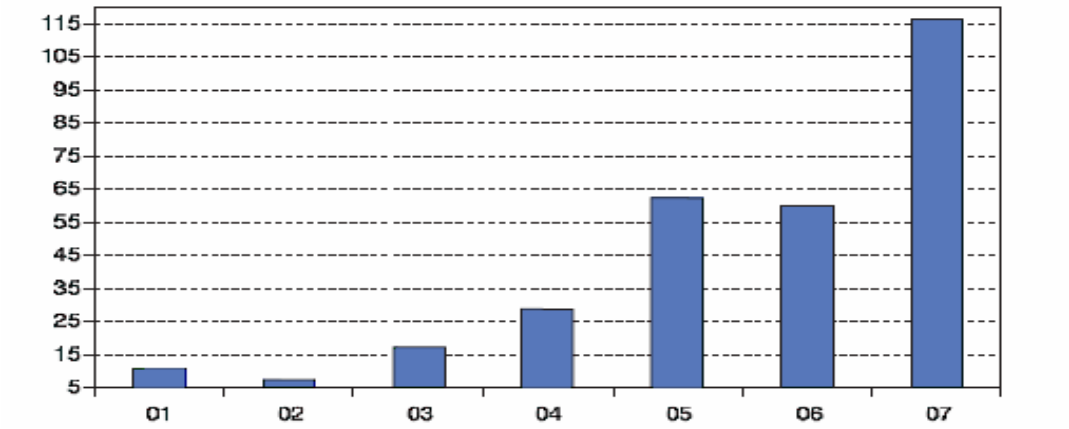


This tendency in growth changed the consumer behavior. People increased their spending which also increased the usage of credits cars which is an important income item for the banks in the sector. Purchase of houses and cars increased which also increased the credit volume in the sector. Until 2006, 80 percent of the credits were given by domestic banks that domestic banks took the advantage of this growth.

The Turkish banking sector continued to grow after 2001 and foreign participation also increased. The ratio of deposits and loans to GDP and the ratio of loans to deposits, important indicators of financial depth and intermediation level of the banking sector, kept rising. According to Banking Association of Turkey market value of financial institutions reached 117 billion US dollars as of the end of 2007 which was about 7 billion US dollars in 2002.

Figure 5.2 Market Value of Financial Institutions Traded in ISE (US Dollar billion)

Figure is taken from Banking Association of Turkey



Macro economic stability affected positively the performance of domestic banks which they used to oblige to face the risk of the country and sector. In this context relatively stable sector, sounder indicators and growing rates increased the performance and profit of the domestic banks.

5.1.3. NEW INSTITUTIONS, CAPITAL REQUIREMENTS AND RISK MINIMIZING REGULATIONS

Turkey faced many financial crises. This learning process from the crises took a long time that Turkey had to wait to practice the lessons especially aftermath of the 2001 financial crisis. During this trying and learning periods Turkey has two basic references or as it widely used in the literature “anchors” which are the EU and the IMF.

According to Volland (2006) lessons learnt from banking crises as well as the Turkish government's commitments to the IMF and the requirements of EU accession, have led to the implementation of several reforms and the tightening of prudential norms. Structural changes in the banking law are under consideration to better align Turkey with EU practices and Basel standards. The Banking Regulation and Supervision Agency (BRSA) has been gaining authority over non-bank financial institutions. The BRSA also issued its own set of accounting standards to local standards with International Financial Reporting System since 2002.

Financial sector reform began with the establishment of the BRSA in 2000. The BRSA is responsible of the regulation and supervision of the banking sector. It is an independent body established by the Banks Act and came into force in 1999. The Financial Services Act 5411 was enacted in 2005 to strengthen the banking system. According to this act, significant improvements had already been made on the regulatory front.

Revisions to the regulatory framework have focused on areas such as capital adequacy, risk management, and credit limits. The banking law enacted in 1999,

brought banking regulations closer to international standards. Additional measures taken to strengthen commercial banks included limiting the net foreign open position, reducing bank loans to owners, applying international standards to loan-loss classification and provisioning, and requiring consolidated accounting. Compliance with regulations is as important as adopting the regulations themselves, however. The BRSA, which benefits from good credibility, needs to be proactive and continues to take strong action against banks that will not follow regulations.

According to Kouyoumdjia and Volland (2006) the standards below are the main regulatory requirements of banks in the sector must meet:

- Banks must maintain a minimum capital-adequacy ratio of % 8
- The total book value of real estate acquired by a bank, net of depreciation, can not exceed 50% of the bank's own funds.
- In trying to maintain control over the level of domestic interest rates and major fluctuations in the Turkish lira exchange rates, the Central Bank has made extensive use of the reserve and liquidity requirements on bank deposits. The reserve requirement ratios for Turkish lira deposits and foreign-currency deposits are currently set at 6% and 11%, respectively; while liquidity ratios are 4% for Turkish lira deposits and 1% for foreign currency deposits.
- Large exposures are defined to mirror the European Directive (in excess of 10% of the bank's own funds) and are limited to an amount equal to 8 times the bank's own funds.
- The limit on loans that can be extended to a single customer or risk group is 25% of own funds. This reduces to 20% for related party group of borrowers.
- Total exposure to banks' shareholders cannot exceed 50% of own funds.

- Loans are classified into five groups, such as standard, closely monitored, limited collectibility, doubtful and loss, according to the following criteria: The borrower's financial credibility; the relation of capital and interest with solvency and cash flow of borrower and the adequacy of the collateral provided by the borrower.
- All loans classified in the third category, and all receivables whose principal and interest has been delayed by more than 90 days, are classified as Non-Performing Loans. All loans to the same borrower at a bank would be classified as NPLs if any of the loans becomes an NPL.
- Banks have to establish specific provisions of at least 20% for loans classified in the third group, 50% for the fourth group, and 100% for the fifth group. A general provision of 0.5% of total cash and 0.1% of non-cash credits is required. The amount is calculated net of qualifying/discounted collateral. As a result, collateral is categorized into four groups according to liquidity and risk, and various discounts are applied, ranging from 25% to 100%, before netting collateral from credits to be provisioned.
- According to regulation, credit can be restructured only once. In this case, the collateral must fully cover the outstanding credit and the debt cannot be reclassified for a period of six months following restructuring. A tax regulation providing for the full deductibility of loan-loss provisions was implemented in 2001. The deductibility of general provisioning was eliminated.
- The open position, based on consolidated accounts, is limited to 20% of shareholder equity. This regulation applies to National Accounting Standards accounts so foreign currency risks deriving from non-financial subsidiaries are not captured by this ratio.

In order to sum up, these standards defined by the Banking Regulation and Supervision Agency deeply affect the banks in the sector especially domestic banks. These standards lead them to have better balance sheets and transparent structure which cause them to perform better. Public banks had huge amount of duty losses and subsidiary loans before the regulations. New standards considering the capital requirements and risk minimizing positively affect the performance of domestic banks.

5.1.4. INFLATION ACCOUNTING

Another reason why domestic banks show better performance is found out to be the inflation accounting practice as Aysan and Ceyhan (2007) stated in their study. Inflation accounting was put into effect in 2002. However, the positive effect is sharper for the public banks (domestic banks for our thesis). The inflation accounting practice and the resulting standardized financial statements of the banking sector. Other reasons are that during the period, bank balance sheets became more transparent and small and relatively inefficient banks which incorrectly reported losses as profits were cleared from the system.

5.1.5. PRIVITIZATION PROCESS OF PUBLIC BANKS

After financial crisis in 2001 new policies were conducted to solve the problems. First aim was to form confidence of investors in Turkey. Next, measures would be taken to restore stability in the money and foreign exchange markets. Third macroeconomic balances were to be re-established to enable sustainable growth. In this context new laws and regulations were announced in following issues:

- financial sector restructuring
- public sector transparency enhancement and public finance strengthening
- economic competition and efficiency enhancement
- social solidarity strengthening

In 2001 Banking Sector Restructuring Program (BSRP) was formed and practiced by the Banking Regulation and Supervision Agency (BRSA). The BSRP was based on the following four main areas

- regulatory and supervisory framework enhancement
- bank resolution of Saving Deposit Insurance Fund
- private bank strengthening
- public bank restructuring.

In this framework in order to restructure the public banks, according the report of BRSA (2002), 19.854 million US dollars were transferred to the public banks. Restructuring is the first step of the privatization of the public banks. Government announced that public banks will be privatized. However in order to privatize the public banks, balance sheets of the public bank should be empowered. After 2001, because of the reasons above, public banks started to operate like private banks which increase the performance of the public banks. Because public banks have an important market share, this progress directly and positively affect the performance of the domestic banks.

5.1.5.1 DIMINISHING RATIO OF DUTY LOSS (PUBLIC BANKS)

In the 1990s, duty losses of public banks were one of the leading factors of the financial crises in Turkey. These losses refer to the losses caused by directed lending which the Treasury recognizes as an obligation. The Treasury was not able to pay these obligations on time and public banks started borrowing heavily. This led to high deposit and interbank rates in the sector. That's why one of the major problems in Turkish banking sector was diagnosed to be a huge duty loss stock, of the public banks which lead to excessive borrowing almost overnight and exposing these banks to interest rate and liquidity shocks.

According to Mercan (2003) duty loss was combined with bad management, negative net worth in the public and the SDIF controlled banks, distortion effect on competition of a blanket deposit guarantee, systemic deterioration in asset quality as well as undercapitalization in the private banks. Public banks' losses were a consequence of government-mandated subsidized lending. These loans were dominantly given to the agricultural sector and to small and to medium enterprises. The losses were kept as assets on public banks' balance sheets until redeemed in 2001 by government bonds.

In 2001, legislation was enacted to prevent future public bank financial position distortions. Thus banks can not run duty losses unless funding was a-priori allocated for the purpose. Alper and Oni state (2003) importance of the public banks' duty losses in financial crisis and bad performance of public banks. They explain the reason of duty loss referring the direct involvement of the political authority in the regulatory process. They mention that absence of incentives for banks under

surveillance to restructure themselves is the source of duty loss. Finally low priority attached to bank regulation on the part of the regulatory authority in the presence of multiple and conflicting objectives is another important reason.

Because of duty losses of public banks government had to transfer huge amount of resources in order to save the public banks of Turkey. In 2001 according to report of BRSA (2002) government transferred 17.400 million US dollars to Ziraat Bank, 9.309 million US dollars to Halk Bank and 31 million US dollars to Emlak Bank in order to compensate duty losses. In order to empower the balance sheet of the public banks government transferred treasury bonds and cashes to these three banks. At the end 19.854 million US dollars transferred to the public banks as cash and treasury bills. This huge amount of money corresponds to % 15.8 of GNP of Turkey.

This saving plan is the reason of sounder balance sheets and better performance of the public banks after 2001. As the interest rate decreased since 2001, public banks made huge profits because of the treasury bills that they have which were transferred in 2001. This process was also the first step of privatization of public banks. Because in order to privatize these banks balance sheets of should be empowered and public banks should be profitable. This tendency completely indicates an opposite policy and approach on public banks which was considered in 1990s.

According to these progress in line with IMF stand by Ziraat Bank will be privatized. % 25 shares of Vakıfbank were sold through initial public offering in 2005 and % 25 shares of Halkbank were sold by the same way in 2007.

5.1.5.2 SUBSIDIARY LOANS

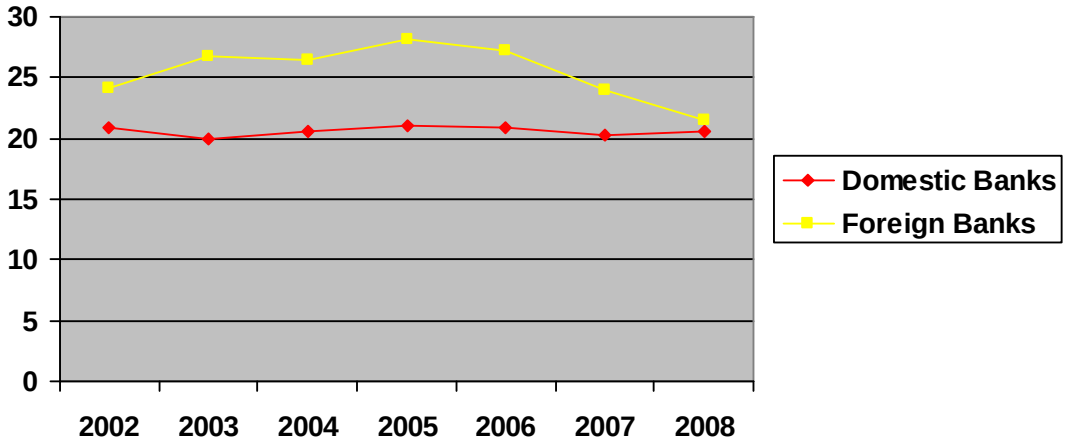
Before 2001 public banks have price distortion as they did not have the same focus on profitability as the private and foreign banks. Domestic banks were used as vehicles for supporting sectors of agriculture, textile, mining, shipping and trade. Thus subsidized lending caused big expenses for the public banks.

These credits disturbed dramatically public banks' asset quality and liquidity profiles. Uncollected duty losses were the cause of deterioration of balance sheets of the public banks which we mentioned above. After 2001 considering the stand by agreement with IMF public banks could not provide subsidized loans. As the performance of public banks become sounder, performance of domestic banks become well, too according to model we use in this thesis.

5.1.6. DIMINISHING NUMBER OF EMPLOYEE PER BRANCH

Before 2001 public banks were seen as the game field of the politicians. They were criticized of excess employee and branches. Private banks are also criticized having excess number of branches. After 2001 we see that even the number of branches of the domestic (both public and private) banks increased, the number of employee per branches did not increase for domestic banks and remained below the average of foreign banks. After 2001 employee per branch number of domestic banks is always below the employee per branch number of foreign banks.

Figure 5.3 Number of Employee per Branch
Data is taken from BAT



In the figure above the upper line belongs to foreign banks where as lower line belongs to domestic banks. This is a good indicator that displays domestic banks use less human resources to operate. This indicator is in line with results of our observation in the thesis.

5.1.7 COMPETITION AND INCREASING MARKET SHARE OF FOREIGN BANKS

Competition in banking sector of Turkey has been increasing considering the penetration of foreign banks to sector. Consolidation, decreasing number of the banks and tendency of foreign penetration are clear indicators of the competition in the sector. Competition in the banking sector continued to increase since 2001 because of the reasons mentioned above. According to Report of Banking Association of Turkey (2007) largest five banks had a share of 62 percent and the largest ten banks had a share of 85 percent in the total assets of the sector. There

were 50 banks operating in Turkey in 2007; of these banks 33 were deposit banks, 13 development and investment banks, and 4 participation banks. Change in the capital ownership also continued in 2007. There were 17 deposit banks and 4 development and investment banks, whose shares were owned by nonresidents at a rate of 51 percent at minimum. The number of these banks in total increased to 25 with the inclusion of 4 banks which had made strategic partnership agreements with non-resident financial institutions. Of these banks; 15 were European, 5 were Middle Eastern, 4 were USA and 1 was African origin.

Moreno and Villar (2001) state larger foreign bank presence can enhance the competitiveness of the banking sector. Greater competition is desirable for a number of reasons: to enhance the efficiency of financial services; to stimulate innovation; and to contribute to stability. It can also widen access of qualified borrowers to financing, which may increase aggregate lending and so enhance growth. A more competitive and efficient banking system can also improve the effectiveness of monetary policy transmission by tightening the link between policy rates and deposit/lending rates.

A number of studies have investigated empirically the effects of foreign bank entry on the efficiency of the financial sector. The evidence generally suggests that increased entry, including by foreign banks, is associated with greater competition. For example, using a data set of regulatory restrictions applied in 107 countries in 1999, Barth et al (2001) find that tighter entry restrictions are associated with lower bank efficiency. Claessens et al (2001) find that foreign bank entry tends to reduce profit margins in the banking sector. Demirgüc (2003) find that greater bank

concentration is associated with lower bank efficiency in emerging economies. Claessens and Laeven (2003) find that greater foreign bank entry and lack of entry and activity restrictions are associated with more competition. Moreover, there is evidence that competitive pressures are greater in those areas where foreign banks are active.

The basic reason of the improvements in the sector and performance of domestic banks is the competition which is derived from the penetration of the foreign banks and increasing market share in the sector. In their study of Yayla, Kaya and Ekmen (2005) calculate the foreign bank market share % 3,5 in 1990, % 2,9 in 1995, % 5,4 in 2000 and according to data of BRSA (2008) % 42 in 2008.

5.1.8 DECREASING INTEREST RATES FORCE BANKS TO INCREASE COMMISSION-PROFITABILITY

Before 2001 banks make profits by giving loans to government. Because of high interest rates, bank did not need to expand the variety of their instruments. But after 2001 as the interest rate decreases (Appendix, Figure: 15) banks need to increase their product variety. The relation between bank profitability and purchase of government bonds forced banks to operate efficiently after 2001. After crises the quality of bank management and hence efficiency were given more importance. As Aysan and Ceyhan (2006) refer in their study, decreasing inflation rates decreased the interest income from government bonds encouraging banks to find alternative ways to make profits. Thus banks started to charge higher commissions for their services which increased their profits.

5.1.9 PERFORMANCE OF EX-DOMESTIC AND NEW ACQUIRED BANKS

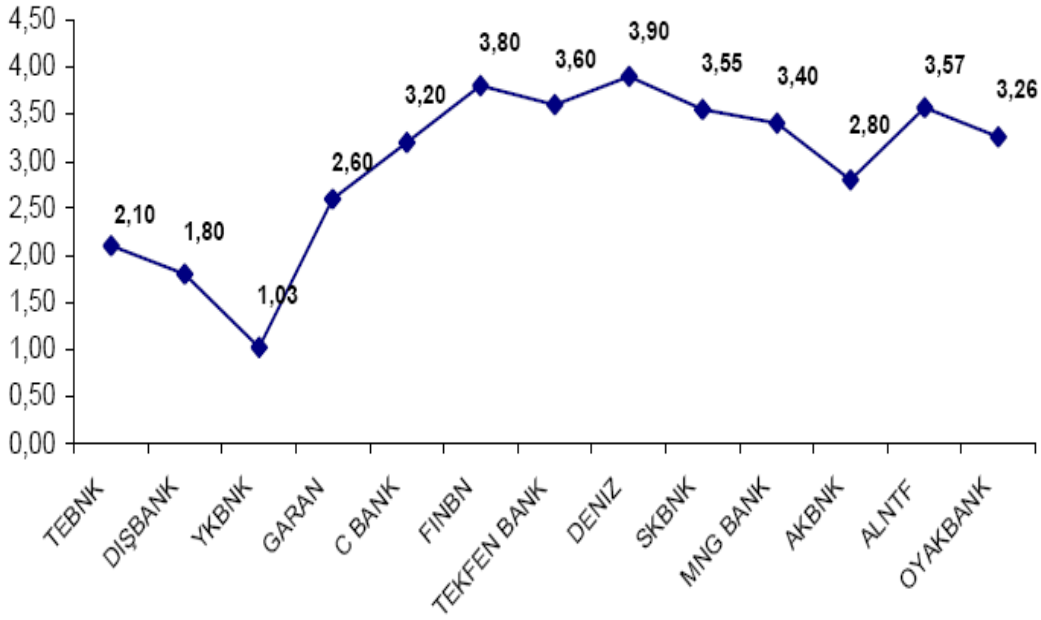
Correa (2008) examines database that includes deal and bank balance sheet information for 220 cross-border acquisitions between 1994 and 2003 to analyze the characteristics and performance effects of international takeovers on target banks. His study shows that banks are more likely to get acquired in a cross-border deal if they are large, bad performers, in a small country, and when the banking sector is concentrated. Post-acquisition performance for target banks does not improve in the first two years relative to domestically-owned financial institutions. This result is explained by a decrease in the banks' net interest margin in developed countries and an increase in overhead costs in emerging economies.

When we focus Turkey, ex-domestic banks which were acquired by foreign banks were one the best performed banks in the sector. After the acquisition it was difficult to attain the best performance. For instance Finansbank has the highest ROA (4.1) among domestic banks in 2006 when it was acquired. But after the year it was acquired it was difficult to reach the same ratio. The ROA of Finansbank decreased from 4.1 to 2.6 in 2007. The same thing is also valid for Denizbank, after the year of acquisition they could only reach almost half of the ROA that they had. Denizbank's ROA decreased from 2.4 to 1.4 in 2007. Tekfenbank acquisition also strengthens the observation of the thesis. Before the acquisition, Tekefenbank had higher ROA. ROA of Tekfenbank decreased from 1.1 to 0.7 in 2007.

5.1.9.1 MARKET PRICE/BOOK VALUE OF FOREIGN BANKS

It would be useful to compare the ratio of market price/book (MP/BV) value of new foreign banks which transact in Istanbul Stock Exchange. Market price indicates the value of the stock which is transacted in the market. On the other hand book value derives from the balance sheet. It is useful to compare this ratio when the time ex-domestic bank was sold and today. The difference of the ratio considering past and today of indicates the bank's loss or profit.

Figure 5.4 Market Value/Book Value of Latest Acquisition in Turkey



For instance when TEB Bank was sold, MP/BV was 2.1 but in 2008, the ratio becomes 1.63. When Finansbank was sold MP/BV was 3.2. However in 2008 it becomes 2.98. The difference is more severe for Sekerbank. Because the ratio was 3.55 when it was acquired but in 2008 the ratio becomes 1.16. Finally for Alternatifbank the ratio was 3.57 but in 2008 it becomes 1.09. The latest acquisition in the sector was Oyakbank. When Oyakbank was sold the ratio was 3.26 even the

market average was 2.5. The comparison showed that today new foreign banks in Turkey have lower MP/BV. This ratio directly affects the banks asset and returns which also empower better performances of domestic banks in Turkey considering the model of the thesis.

5.1.10 CONSOLIDATION, DECREASING COSTS AND INDIVIDUAL CHOICE

The number of the banks which were 81 in 1999 decreased to 43 in 2008. 21 banks taken over by Saving and Deposit Insurance Fund after 1999. As the banks were taken over by SDIF, strong banks remained and new foreign banks appeared in the sector. That is why concentration is high in the banking sector of Turkey. According to Hagmayr and Haiss (2006) the ten largest banks comprise the % 84.5 of the sector. Moreover, the top ten banks hold % 90 shares of total deposits. Three of these ten banks are public banks, five of them are private banks and only two of them are foreign banks. Thus domestic banks started to enjoy consolidation, concentration and scale economies of saving deposits (especially public banks).

According to Ardic and Yüzeroğlu (2007) individuals (older customers who dominate the customer base) choose public banks and large and reputable private banks instead of relatively smaller private or foreign banks in Turkey. Because of this, relatively smaller private and foreign banks have to offer higher interest rates in order to attract customer's attention which increases the cost of these banks. This explanation is also in line with better performances of the domestic banks because bank which dominate the credit market in Turkey are public banks and reputable

domestic private banks which enjoy the consolidation and scale economies considering the deposit rate and deposit gathering.

As the reasons discussed above it is considerable that foreign bank penetration, which increased after macro economic stability, affected competition structure in the banking sector of Turkey in a positive way.

According to Hermes and Linsink (2004) state foreign bank penetration differs according to economic level of the host country. According to Hermes and Lensink, foreign bank penetration cause higher costs and margins of domestic banks at low level of financial developments. In contrast foreign bank penetration leads decreasing costs and margins of domestic banks at higher level of financial developments.

By referring the study of Hermes and Lensink (2004) it is a very important result that domestic bank performed better than foreign banks after 2001. This finding indicates that even the banking sector of Turkey faced many crisis and failures during the liberalization process; sector reached a sounder structure after 2001. Even similar or new regulations have been adopted the most important factor is the gradually increasing volume of foreign banks in the sector after the macro economic stability provided.

Barajas (2000), Claessens (2001), Pastor (2000) show that foreign bank penetration increased the competition and performance of the host countries banks. Beside Clarke (2000) has an important observation that foreign bank penetration led to

competitive pressure on domestic banks but only in those markets where foreign banks have comparative advantage.

In order to summarize, it should be stated there are many possible explanation of better performances domestic banks during the period 2002-2007. It would be useful to calculate the level of significances of these factors in further researches. In this chapter reasons of possible better performances of domestic banks are analyzed.

Political Stability, macro economic stability, new regulatory institution, capital requirements and risk minimizing regulations, inflation accounting, Privatization Process (Public Banks), Diminishing Ratio of Duty Loss (Public Banks), Diminishing Ratio of Subsidiary Loans (Public Banks), Diminishing Number of Employee per Branch of domestic banks, Competition, enforcement of decreasing interest rates increase product variety and increase commission profit, high ROA of ex-domestic and new acquired banks and Market Price/Book Value of Foreign Banks are the factors explain why domestic banks perform better in the sector.

6. CONCLUSION

In this thesis in the first chapter a multi regression model based on panel data is built in order to measure the foreign bank performance. Regression is also repeated by using White Heteroskedasticity-Consistent Standard Errors & Covariance. According to findings of the model, domestic banks performed better than foreign banks between 2002 and 2007.

In the second chapter, literature is referred considering the performance of foreign banks and their effect on domestic banks after they enter the sector. Moreover literature regarding effects of financial liberalization on domestic banks is discussed. In the third chapter structure and structural transformation of banking sector of Turkey are examined. In the fourth chapter we present the data and empirical model of the thesis. The better performance of domestic banks is discussed in chapter five.

In contrast to literature in developing countries, according to observation of my thesis; domestic banks performed better than foreign banks after 2001 considering the model used in the thesis. First of all, the ratios in the model show us domestic banks have sounder ratios. However the facts behind the numbers should be analyzed. For instance even the number of branches of the domestic banks increased, the number of employee per branches did not increase for domestic banks and remained below the foreign banks. The public banks have an important market share in the sector. In this thesis public banks are also accepted as domestic banks. The performance of public banks became sounder after 2001. Behind this better performance the privatization policy of the government exists. In line with the

regulation of BRSA, domestic banks reached the newly defined capital and risk ratio criteria and public banks started to perform as “private banks”.

Ex-domestic banks which were acquired by foreign banks were one of the best performed banks. After the acquisition it was difficult to attain the best performance. As the foreign bank share increased in the sector, performance of the domestic bank also increased. Even the foreign banks market share reach %42 percent of whole banking sector big share of total credits and total deposits belong to domestic banks. Banking sector of Turkey followed the macro economic recovery after 2001; the empirical result in this study clearly indicates this. Domestic banks and public banks empowered this process with new regulations.

But what is more important is the increasing volume of foreign bank penetration to the banking sector of Turkey. Penetration of foreign banks may stimulate domestic banks to reduce costs, increase efficiency and increase the diversity of financial services through competition. This generalization is confirmed by the banking sector of Turkey during the period between 2002 and 2007. Existence of foreign banks forced domestic banks to improve the quality of their services to retain their market shares and develop the quality of their financial services. We can observe this generalization by referring the ratios of the domestic bank after 2001. Foreign bank entry has positive spill over effects. The introduction of new services by foreign banks may stimulate domestic banks to develop such new services, improving the efficiency of financial intermediation of the domestic financial system. This is also confirmed by the similar products and adoption of the financial innovations by the domestic banks of the banking sector of Turkey.

Foreign bank penetration leads to improvements of regulation and supervision. This generalization has two aspects. First of all adoption of the new regulation and supervisions decrease the risk percentage of the domestic banks and ease to penetration of foreign banks. Banking Regulation and Supervision Agency, Banking Sector Restructuring and Rehabilitation Programme and declaration of new Capital adequacy ratio, and acts which strength the autonomy the Central Bank are some examples which verify the generalization.

Moreover foreign bank penetration contributes to decreased impact of the government on the domestic financial sector. As it is easily observable fact those public banks have no more “duty looses” or “unpaid subsidized lending” which deteriorate the balance sheet of the public banks. Furthermore, enforcement of decreasing interest rates increase product variety and increase commission profit, high ROA of ex-domestic and new acquired banks and Market Price/Book Value of Foreign Banks are also the factors put domestic banks in a favorable place in the sector.

At the end, until 2001 the percentage of foreign share was not more than % 5. But in 2008 it reached almost % 50. These structural changes forced domestic banks especially the public ones (which are announced to be privatized) to work efficiently and compete with foreign counterparts. Domestic banks started to perform better under the limitation of the model of this thesis considering the sense of generating Return on Assets for a given value of Net Operating Income/Total Assets and Non-Performing Loans/Total Loans of domestic and foreign banks. The observation of

this thesis is a good comparison of the transformation process in 1980s and in 2000s in the banking sector of Turkey. Only regulation changes would not let the sector became liberalized. Banking sector was improved or failed by the macro economical performance of the governments. But at the end, after a painful 28 years time sector started operate and compete regarding the regulations of Banking Regulation and Supervision Agency (which is good a lesson outcome of crises in Turkey) and more important the increasing volume of foreign penetration.

Competition encouraged by foreign banks, close supervision of the regulatory institution and risk minimizing regulations increased the performance of the domestic banks in Turkey considering the political and economical stability. The agents of the Banking sector and government took the necessary lessons from the last financial crisis. However as the sectors and governments in Turkey expect crisis to learn and take lessons, it would be difficult to transform Turkey, from a developing country, to a developed country.

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APPENDIX

FIGURE 1 FOREIGN BANK MARKET SHARE IN TURKEY

Data is taken from Banking Association of Turkey.

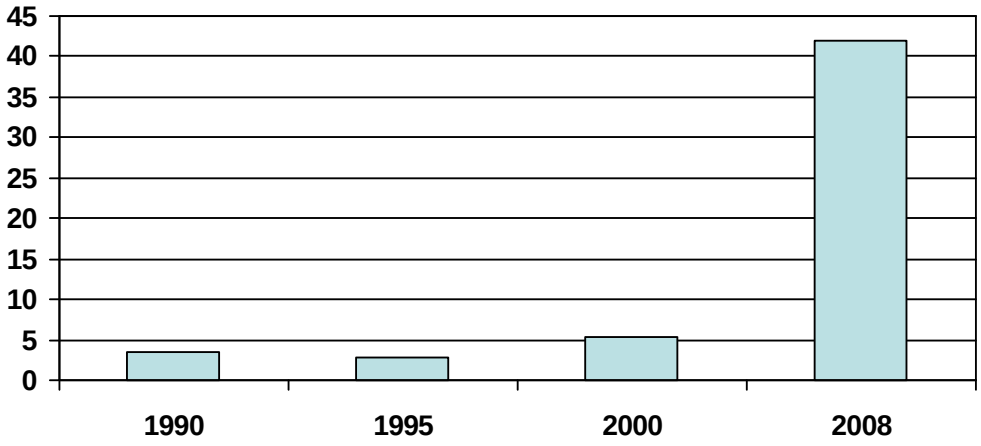


FIGURE 2 FOREIGN BANK MARKET SHARE IN DEVELOPING COUNTRIES

Figure is taken from BRSA

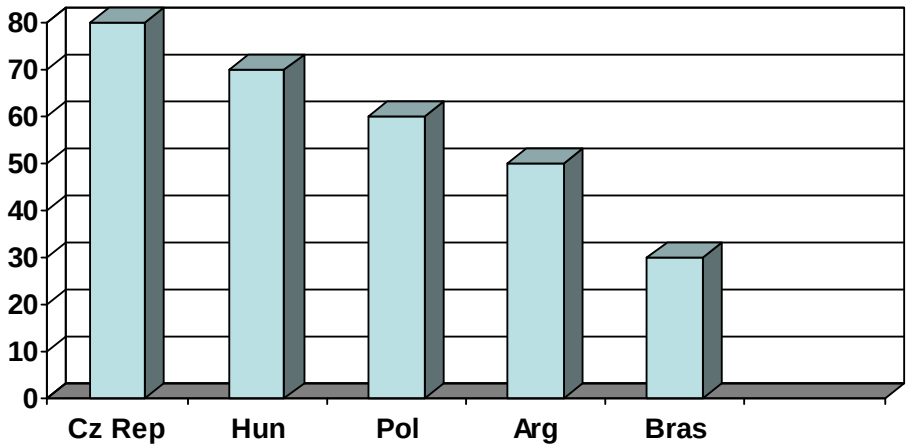


FIGURE 3 FOREIGN BANK MARKET SHARE IN DEVELOPED COUNTRIES

Data is taken from Banking Association of Turkey

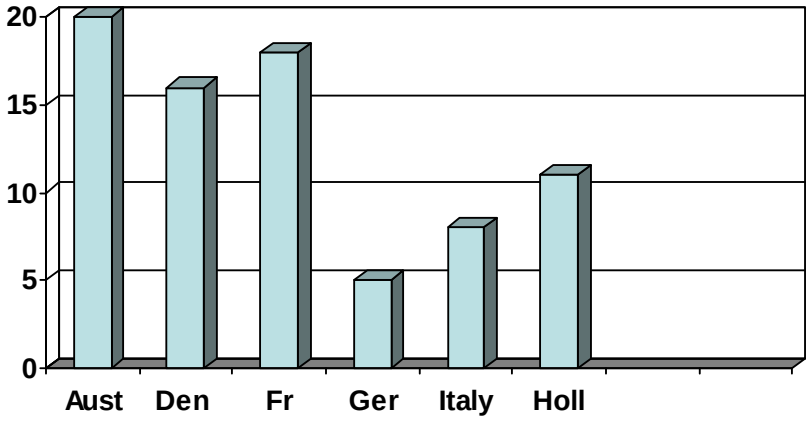


TABLE 4 INDEPENDENT, DEPENDENT VARIABLES AND METHODOLOGY OF THE LITERATURE

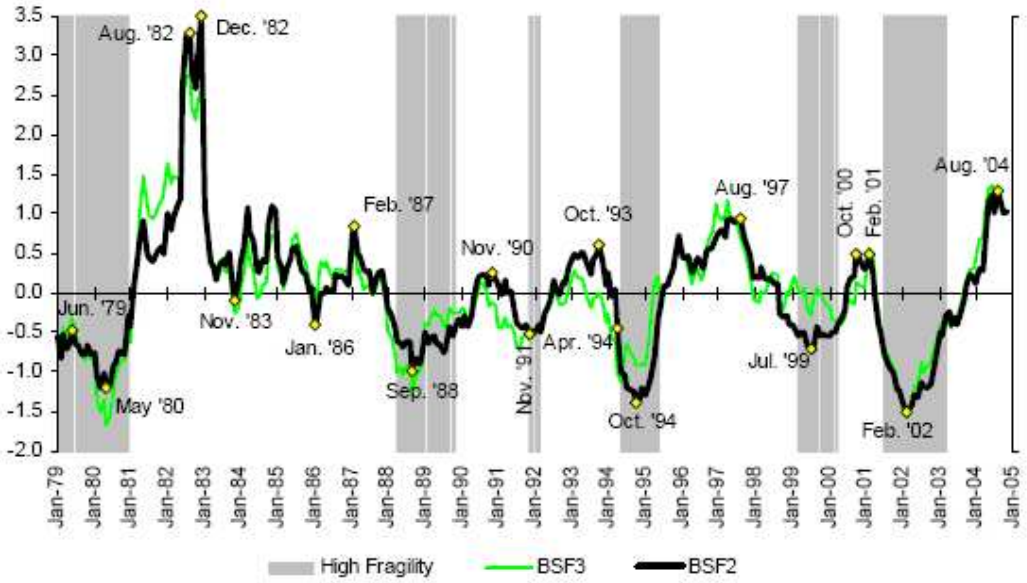
	Dependent Variables	Independent Variables
Bayraktar and Wang 2005	• Net interest margin • Non interest income to total asset • Before tax profit • Over head costs to total assets • Loan loss provisions	• Level of foreign bank share • Bank variables of domestic banks • Macro economic variables
Claessens and oth 1998	• Before tax profits to total assets	• Share of foreign banks • Bank variables • Overhead costs/ta • Loan loss provisions
Lensink and Hermes 2004	• Net interst margin • Non interst income • Before tax profits • Overhead costs	• GDP per capita • Growth • Inflation • Equity • Non-deposit short term funding to total assets
Vennet (2002)	• ROA	• personal costs to total costs • proportion demand and saving deposits to total deposits • total loans to total asset
Kosak and Cok (2008)	• ROA	•
Okazaki and Sawada (2008)	• ROA	• Number of the branches • Total Assets
Jeon and Miller (2002)	• ROA • ROE	• Total loans to total assets • Deposits to total assets • provision for loan losses to total loans and total assets

Sturm and Williams (2004)	Inputs • Employee numbers • Deposits and borrowed funds • Equity capital	Outputs • Loan advances and other receivables • Off Balance sheet commitment contingent liabilities
Green (2003)	Inputs • Number of employees • Fixed Assets • Depostis	Outputs • Total Customer Loans • Total earning assets • Non interst income
Uiboupin (2004)	• Net interest margin • Before tax profits	• Number of foreign bank • Bank variables(net interst income, overhead costs, loan loss provisions)
Haber and Musacchio (2005)	• Interest rates	• Foreign and domestic bank dummies • Market share • Macro economic indicators • ROE
Denizer (2000)	• ROA • Net Interest margin • Overhead Costs	
Süer (2008) Crystal, Dages and Goldberg (2002)	• CAMEL approach	• Equity to total assets, • total assets, • net interest income to total operating income, • non interest income to total assets, • net profit to total assets, • net profit to total shareholders' equity
Tufan, Hamarat, Cristea and Vasliescu (2007)	• Principal Component Analysis • Logistic Regression Method	• foreign and domestic bank dummies • equity ratios • balance sheet structure ratios • liquidity ratios • branch ratios

		• profitability indicators
Atan and Çatalbaş (2005)	• Tobit Regression	• Return on assets • Capital adequacy ratio • Ownership • Numbers of branch

FIGURE 5: BANKING FRAGILITY

Figure is taken from the study of Kibritçioğlu (2005)



Data Source: Central Bank of Republic of Turkey, State Institute of Statistics, and the International Monetary Fund; author's own calculations. Methodology: Kibritçioğlu (2003).

Note: Turkish banking sector experienced several difficulties, as a result of their own excessive risk-taking behavior within the last 25 years. Figure 1 above shows a banking sector fragility (BSF) index developed by Kibritçioğlu (2003). In one version, BSF3, it measures the weighted average of month-to-month real changes in bank claims on the domestic private sector, foreign liabilities of banks, and bank deposits, which are accepted as indicators of credit risk, exchange-rate risk and liquidity risk, respectively. The BSF2 version then excludes changes in bank deposits. The difference between these two versions shows roughly the effect of bank withdrawals, which becomes small if deposit insurance exists. Applied to Turkey, Figure 1 shows an excessive risk-taking behavior prior to each of the banking crises, visible as a peak value of the BSF curve. Then, these periods of excessive risk-taking are followed by sharp falls in the BSF index. The periods in which the index is below –0.5 are entitled as "high-fragility" periods, which are depicted as gray-shaded areas in the figure.

FIGURE 6: FINANCIAL DEEPNESS

Data is taken from Banking Association of Turkey.

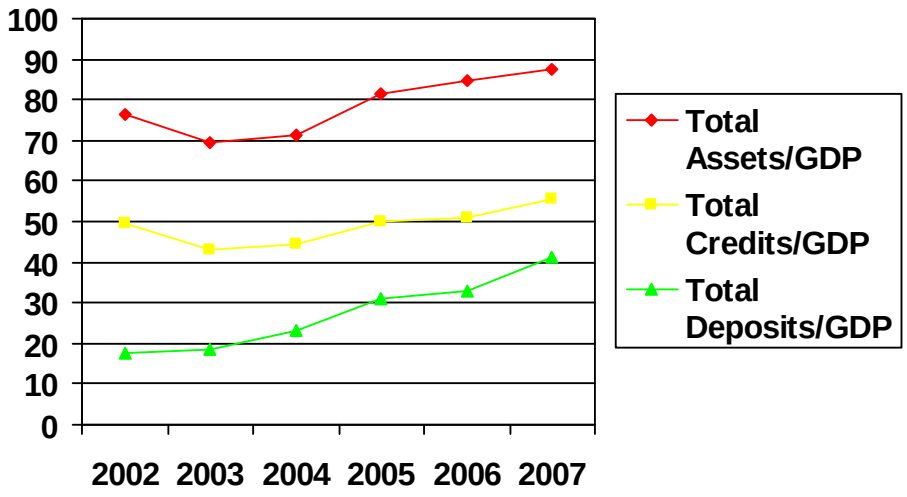


TABLE 7 PERFORMANCE INDEX OF BANKING SECTOR

Data is taken from BRSA.

2003 is taken as a base year

	Performance Index	Liquidty	Equity
2003	**100**	**100**	**100**
2004	100.2	100.2	99.5
2005	100.1	100.8	99.4
2006	100.7	100.5	99.4
2007	101	102.3	99.3

	Profitability	Asset Quality	Exchange Risk
2003	**100**	**100**	**100**
2004	99.8	101.2	100.1
2005	98.7	102.2	99.8
2006	100.4	103	100.1
2007	101.9	103.1	99.2

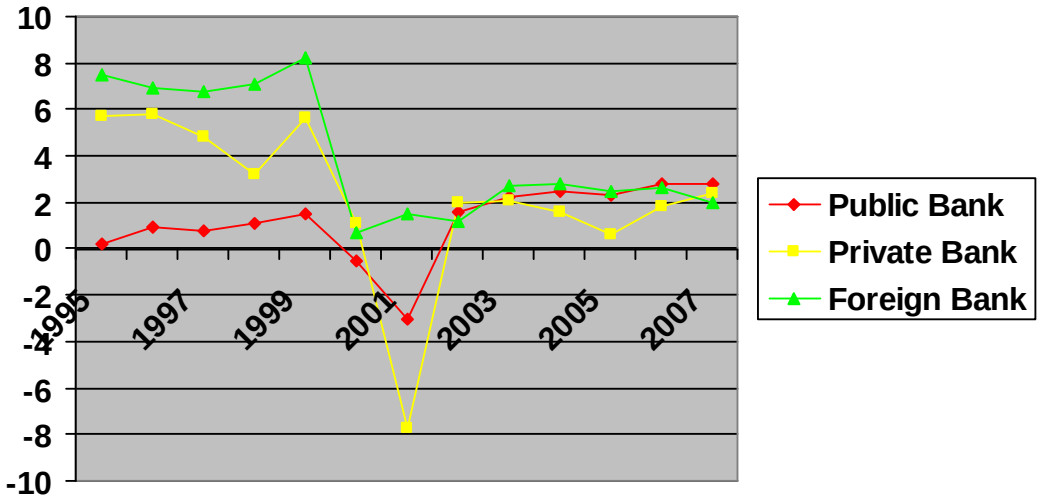
TABLE 8 FOREIGN AND DOMESTIC BANK DUMMY OF THE MODEL

Data is taken from Banking Regulation and Supervision Agency

Banks	Foreign Bank Share %	Dummy in the Model	Dummy Years
ABN AMBRO	100	1	All years in the model
ADABANK	0	0	All years in the model
AKBANK	21	0	All years in the model
ALTERNATİF BANK	0	0	All years in the model
ANADOLUBANK	0	0	All years in the model
ARAPTURK BANK	65	1	All years in the model
BANCA DI ROMA	100	1	All years in the model
BANK MELLAT	100	1	All years in the model
CITI BANK	100	1	All years in the model
DENIZBANK	99,8	1	Since 2006 (1)
DEUTSCHE BANK	100	1	All years in the model
FINANS BANK	89,7	1	Since 2006 (1)
FORTIS BANK	94,1	1	Since 2005 (1)
HSBC BANK	100	1	All years in the model
JP MORGAN CHASE BANK	100	1	All years in the model
MERRILL LYNCH	100	1	All years in the model
ING BANK	100	1	Since 2007 (1)
SOCIETE GENERALE	100	1	All years in the model
ŞEKERBANK	34	0	All years in the model
TC ZIRAAT BANK	0	0	All years in the model
TEB	51	1	Since 2004 (1)
T.GARANTİ BANK	25,5	0	All years in the model
T.HALK BANK	0	0	All years in the model
T.İŞ BANK	0	0	All years in the model
T.VAKIFLAR BANK	0	1	All years in the model
TEKFENBANK	93,2	1	Since 2006 (1)
TEKSTİLBANK	0	0	All years in the model
TURKİSH BANK	5,8	0	All years in the model
WESTLB AG	100	1	All years in the model
YAPI KREDI BANK	40,1	0	All years in the model

FIGURE 9- RETURN ON ASSET[2]

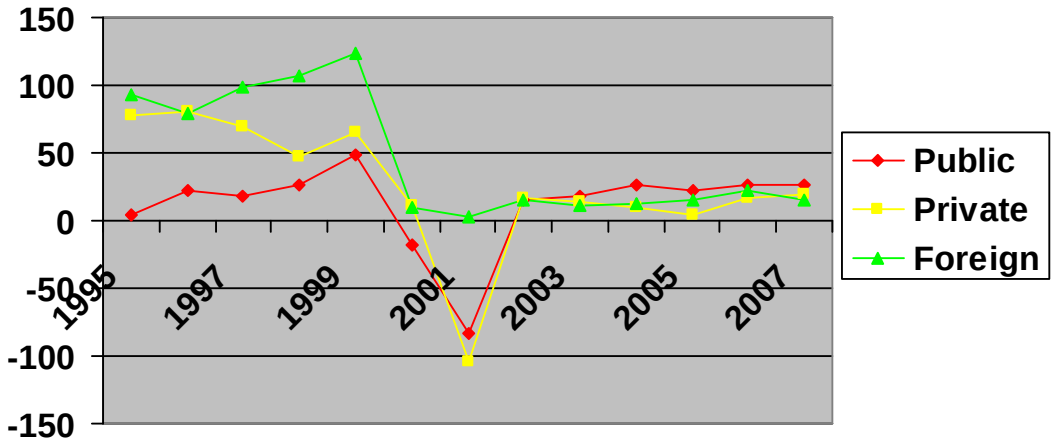
Data is taken from Banking Association



[2] ROA of banks in the sector

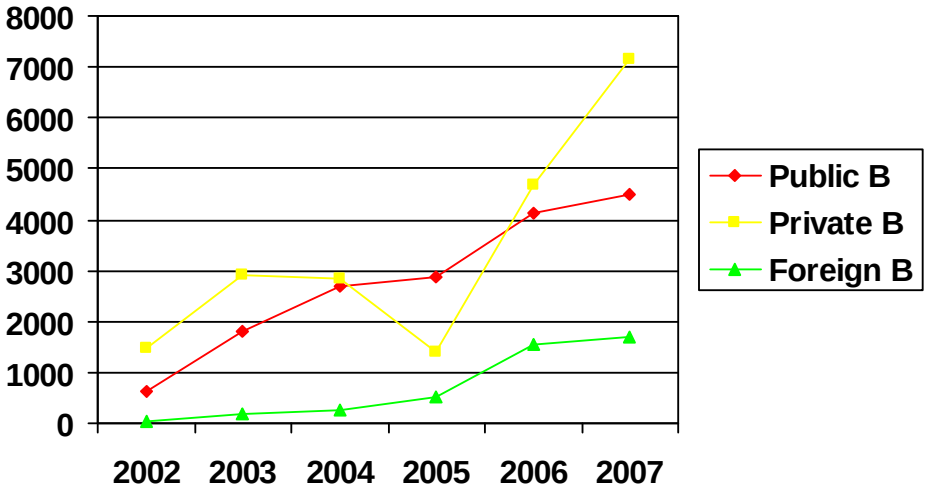
FIGURE 10- RETURN ON EQUITY[3]

Data is taken from Banking Association



[3] ROE of banks in the sector

FIGURE 11- NET PROFIT[4] (MILLION USD)
Data is taken from Banking Association



[4] Net profit of banks in the sector

FIGURE 12 MARKET SHARE (PERCENTAGE OF ASSET) OF FOREIGN AND DOMESTIC BANKS

Data is taken from Banking Association of Turkey

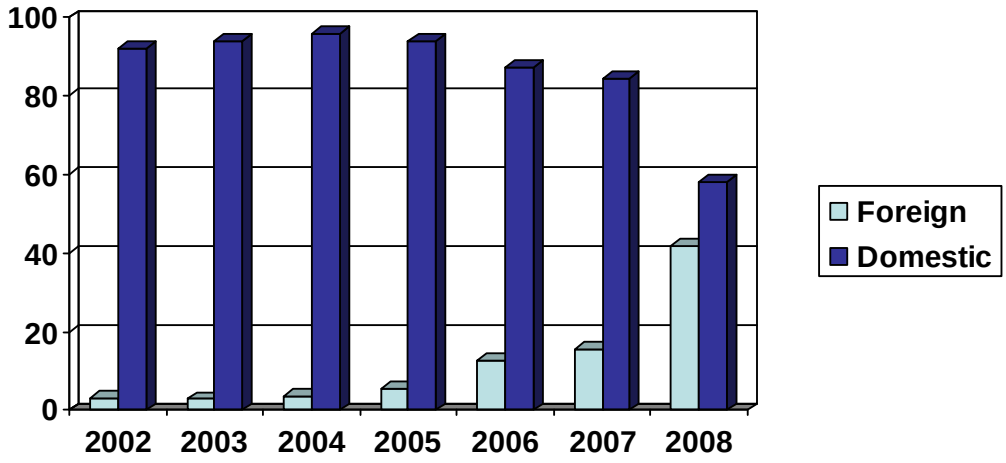


FIGURE 13 PERCENTAGES OF TOTAL CREDITS GIVEN BY DOMESTIC AND FOREIGN BANKS

Data is taken from Banking Association of Turkey

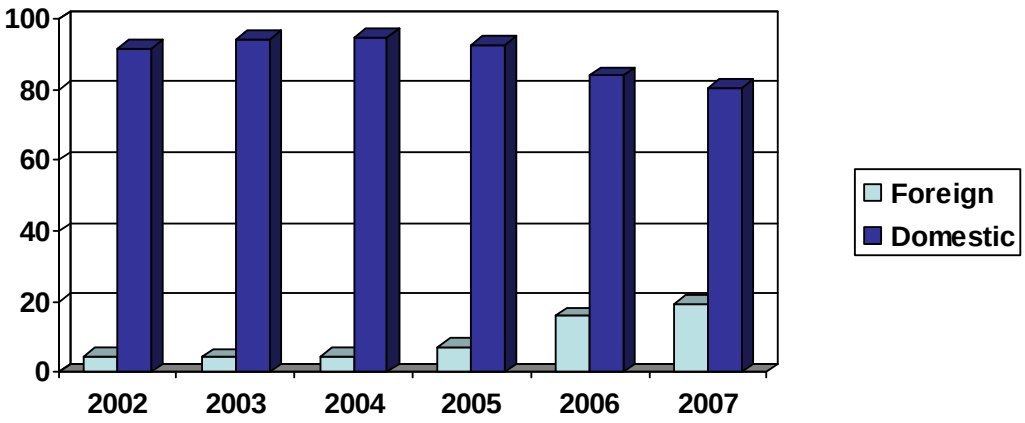


FIGURE 14 PERCENTAGES OF TOTAL DEPOSITS OF DOMESTIC AND FOREIGN BANKS

Data is taken from Banking Association of Turkey

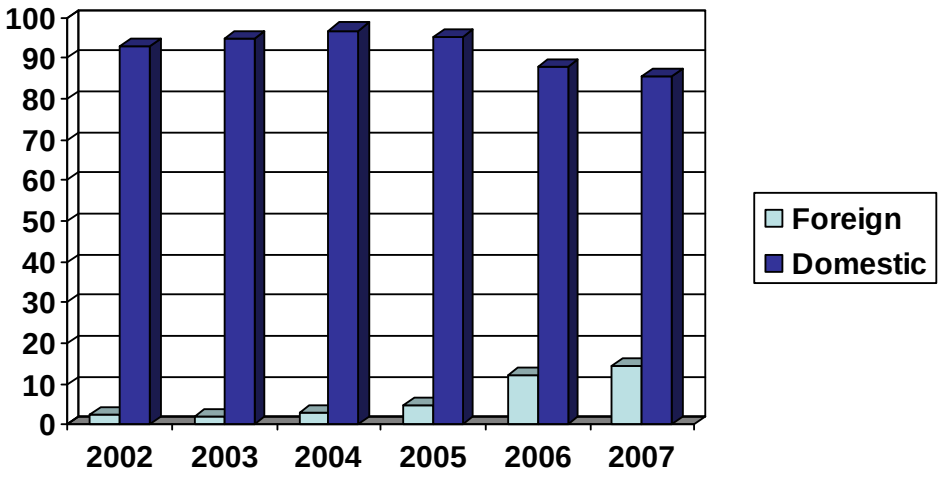


FIGURE 15- 12 MONTH SAVING DEPOSIT INTEREST RATE

Data is taken from Central Bank of Turkey

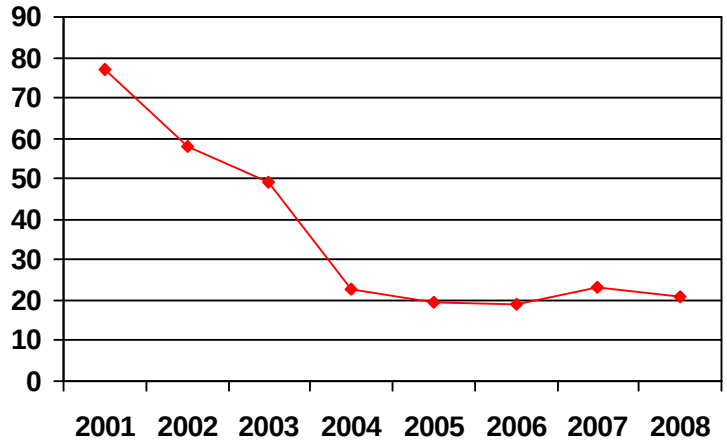


FIGURE 16 TOTAL CREDITS GIVEN TO BUSINESS SECTOR (BILLION US DOLLAR)

Data is taken from Banking Regulation and Supervision Agency

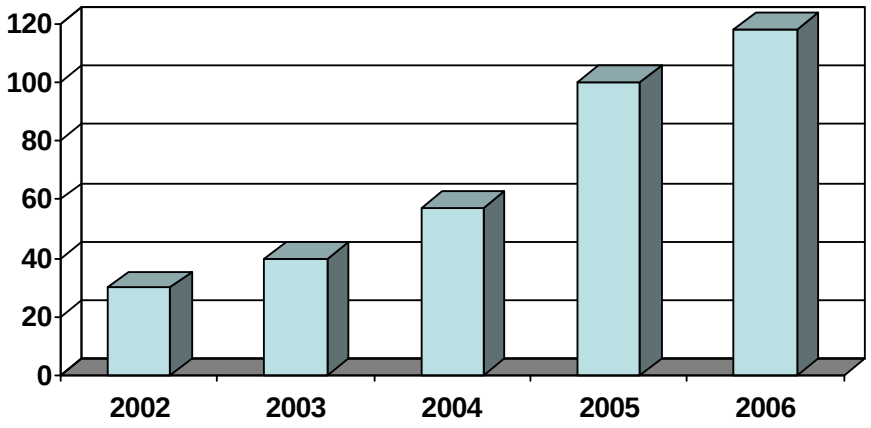


TABLE 17 DATA OF THE MODEL

Banks	Year	ROA	NPL/TL	NOP/TA	dummy
1	2002	3,0	4,7	7,7	1
1	2003	1,4	2,6	5,1	1
1	2004	2,8	4,2	6,3	1
1	2005	3,0	2,7	4,2	1
1	2006	1,1	1,6	1,4	1
1	2007	-0,3	1,6	4,0	1
2	2002	1,0	0,1	4,1	1
2	2003	2,1	0,7	5,1	1
2	2004	1,8	0,0	2,5	1
2	2005	1,2	0,0	0,5	1
2	2006	1,3	0,0	1,6	1
2	2007	0,8	0,0	0,8	1
3	2002	-2,6	2,0	-0,7	1
3	2003	-6,2	1,7	-5,5	1
3	2004	-0,2	4,2	0,7	1
3	2005	0,7	2,7	0,7	1
3	2006	0,2	1,6	0,3	1
3	2007	4,0	0,0	4,0	1
4	2002	1,8	0,0	5,7	1
4	2003	4,2	0,0	7,1	1
4	2004	1,7	0,0	3,1	1
4	2005	2,3	0,0	3,1	1
4	2006	2,0	1,0	2,7	1
4	2007	3,9	0,0	4,8	1
5	2002	2,2	4,0	8,9	1
5	2003	1,0	3,8	7,5	1
5	2004	1,5	3,1	4,4	1
5	2005	4,5	2,8	6,3	1
5	2006	1,0	1,8	1,4	1
5	2007	3,9	1,0	4,9	1
6	2002	4,4	0,0	16,1	1
6	2003	21,5	0,0	36,5	1
6	2004	12,1	0,0	22,4	1
6	2005	8,2	0,0	12,0	1
6	2006	5,1	0,0	6,1	1
6	2007	5,4	0,0	6,9	1
7	2002	1,4	0,0	13,7	1
7	2003	3,8	0,0	9,4	1
7	2004	1,7	28,2	7,3	1
7	2005	-2,1	42,0	-2,3	1
7	2006	-1,6	0,0	-1,7	1
7	2007	4,7	1,1	5,7	1
8	2002	0,9	0,3	9,6	1
8	2003	2,7	0,1	7,2	1
8	2004	2,0	0,2	5,2	1
8	2005	3,0	0,4	4,4	1
8	2006	2,7	0,5	3,4	1
8	2007	2,7	1,3	3,4	1
9	2002	2,4	0,0	27,6	1

9	2003	14,7	0,0	29,4	1
9	2004	0,2	0,0	2,0	1
9	2005	4,8	0,0	6,6	1
9	2006	2,4	0,0	3,0	1
9	2007	12,5	0,0	15,6	1
10	2002	0,0	0,0	9,6	1
10	2003	9,4	0,0	17,7	1
10	2004	1,6	0,0	3,7	1
10	2005	1,9	0,0	2,8	1
10	2006	-2,4	0,0	-3,0	1
10	2007	-2,6	0,0	-2,4	1
11	2002	1,7	0,0	3,0	1
11	2003	0,5	0,0	1,4	1
11	2004	0,2	0,0	2,4	1
11	2005	1,9	0,0	3,0	1
11	2006	0,0	0,0	0,0	1
11	2007	1,5	0,0	1,8	1
12	2002	0,5	1,8	1,5	0
12	2003	2,0	1,1	2,4	0
12	2004	1,8	0,5	1,6	0
12	2005	2,1	0,3	2,4	0
12	2006	2,4	0,1	2,7	1
12	2007	1,4	0,4	1,8	1
13	2002	3,8	3,9	4,6	0
13	2003	2,7	0,0	4,1	0
13	2004	2,2	0,0	3,6	0
13	2005	2,8	0,0	3,9	0
13	2006	4,1	0,0	4,9	1
13	2007	2,6	0,0	3,1	1
14	2002	1,1	0,6	0,7	0
14	2003	1,4	0,8	2,0	0
14	2004	1,9	0,8	3,0	0
14	2005	3,7	0,4	2,8	0
14	2006	0,9	0,5	1,4	0
14	2007	1,1	0,8	1,4	1
15	2002	3,0	0,9	4,1	0
15	2003	1,3	0,3	3,2	0
15	2004	0,8	0,6	1,0	0
15	2005	0,3	1,1	0,3	0
15	2006	1,1	0,4	1,4	1
15	2007	0,7	1,6	0,8	1
16	2002	2,1	0,6	4,3	0
16	2003	3,3	1,2	2,8	0
16	2004	1,5	1,5	1,6	0
16	2005	1,2	0,3	0,0	1
16	2006	0,9	0,3	1,4	1
16	2007	1,5	0,4	1,9	1
17	2002	0,8	0,6	3,1	0
17	2003	1,8	0,7	3,3	0
17	2004	0,9	0,6	2,2	0
17	2005	1,5	0,6	2,0	1
17	2006	1,3	0,3	1,6	1

17	2007	1,1	0,7	1,4	1
18	2002	-2,3	0,0	0,5	0
18	2003	-17,7	91,0	-8,1	0
18	2004	-63,2	100,0	-47,7	0
18	2005	-28,3	0,0	-28,3	0
18	2006	3,4	0,0	3,4	0
18	2007	1,9	0,0	1,9	0
19	2002	2,8	0,0	7,1	0
19	2003	4,5	0,0	8,3	0
19	2004	2,9	0,0	6,0	0
19	2005	2,7	0,0	3,9	0
19	2006	2,8	0,0	3,4	0
19	2007	2,9	0,0	3,6	0
20	2002	0,8	10,9	-5,6	0
20	2003	1,1	4,8	1,5	0
20	2004	0,4	2,7	2,4	0
20	2005	1,4	2,2	2,2	0
20	2006	1,5	0,6	2,2	0
20	2007	2,4	0,8	2,7	0
21	2002	1,5	1,4	2,2	0
21	2003	1,0	0,0	2,3	0
21	2004	2,2	0,0	2,7	0
21	2005	1,9	0,0	2,4	0
21	2006	1,7	0,0	2,4	0
21	2007	2,4	0,0	3,0	0
22	2002	0,5	9,5	0,2	0
22	2003	2,3	6,4	2,3	0
22	2004	2,6	0,0	3,5	0
22	2005	1,2	0,0	1,6	0
22	2006	1,3	0,0	1,9	0
22	2007	2,0	0,0	2,4	0
23	2002	5,4	1,1	2,4	0
23	2003	0,5	0,2	0,9	0
23	2004	0,3	0,3	0,7	0
23	2005	0,5	1,0	0,8	0
23	2006	0,5	0,3	0,8	0
23	2007	1,5	0,6	1,8	0
24	2002	0,9	0,0	4,5	0
24	2003	1,4	0,0	3,2	0
24	2004	0,3	0,0	1,9	0
24	2005	0,8	0,0	0,7	0
24	2006	0,9	0,0	1,1	0
24	2007	0,2	0,7	0,3	0
25	2002	0,6	4,3	0,5	0
25	2003	1,3	2,3	1,1	0
25	2004	1,7	1,8	2,4	0
25	2005	1,9	1,4	2,6	0
25	2006	2,1	0,7	2,6	0
25	2007	3,4	0,8	4,1	0
26	2002	1,3	9,6	0,6	0

26	2003	1,4	0,0	1,7	0
26	2004	1,6	0,0	2,9	0
26	2005	1,5	0,0	2,4	0
26	2006	1,5	0,0	2,2	0
26	2007	2,1	0,0	2,6	0
27	2002	5,9	3,5	3,7	0
27	2003	0,8	2,3	-0,3	0
27	2004	-0,2	1,8	-0,6	0
27	2005	-12,6	1,8	-13,3	0
27	2006	1,0	1,4	1,5	0
27	2007	1,4	1,2	1,7	0
28	2002	0,4	14,7	4,1	0
28	2003	2,3	1,2	5,0	0
28	2004	2,7	0,7	5,3	0
28	2005	2,8	0,4	4,0	0
28	2006	2,9	0,4	3,8	0
28	2007	2,9	0,4	3,7	0
29	2002	3,4	0,7	6,1	0
29	2003	2,5	1,3	5,1	0
29	2004	2,1	1,0	4,0	0
29	2005	2,0	0,3	2,8	0
29	2006	2,5	0,1	3,2	0
29	2007	2,8	0,1	3,5	0
30	2002	2,4	14,1	1,0	0
30	2003	1,4	0,0	1,3	0
30	2004	2,6	0,0	3,0	0
30	2005	1,7	0,0	2,3	0
30	2006	2,1	0,0	2,8	0
30	2007	2,4	0,0	3,0	0

TABLE 18- COMPARISON OF CAPITAL ADEQUACY

Table is taken from study of Hagmyr (2006)

Capital adequacy[1]

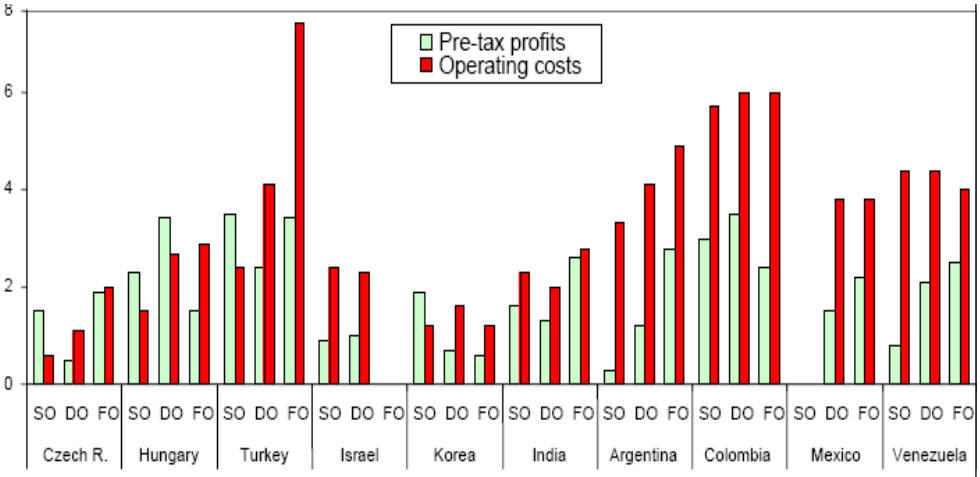
	State-owned banks		Private domestic banks		Foreign-owned banks		All commercial banks	
	1999	2004	1999	2004	1999	2004	1999	2004
Argentina	16.5	9.1	31.5	16.3	16.3	11.9	19.7	12.3
Chile	13.3	10.1	11.4	12.0	15.4	16.7	13.5	13.6
Colombia[2]	9.1	8.3	11.7	11.1	12.0	11.1	11.2	10.7
Mexico	…	…	16.4	17.8	14.6	13.2	16.0	14.1
Venezuela	15.2	10.9	12.8	12.6	13.6	12.6	13.3	12.5
China[3]	5.4	6.8	…	7.6	…	…	…	…
India	11.3	13.2	11.9	11.2	10.8	15.0	11.3	12.9
Korea	9.3	12.5	11.6	11.3	21.9	13.1	12.0	11.8
Thailand	24.4	31.9	16.3	13.7	13.8	12.1	15.0	13.2
Czech Rep	…	31.6	11.5	14.0	18.6	12.1	13.6	12.6
Hungary	24.4	31.9	16.3	13.7	13.8	12.1	15.0	13.2
Poland	8.8	16.3	12.6	15.1	15.0	15.4	12.4	15.6
Turkey	11.7	36.8	17.2	22.3	22.5	26.9	7.0	26.2
Israel	9.6	10.8	9.3	10.7	…	…	9.4	10.8
Average	*13.3*	*13.7*	*14.7*	*13.5*	*15.7*	*14.4*	*13.0*	*13.8*

[1] Risk-weighted capital adequacy ratios, in per cent. [2] Total capital over total assets. [3] Data refer to end-2001 and June 2004, respectively. Data on private domestic banks are for joint stock commercial banks.

Source: Central banks (BIS questionnaire); OECD.

FIGURE 19- COMPARISON OF PROFIT AND COST

Figure is taken from study of Hagmyr (2006)

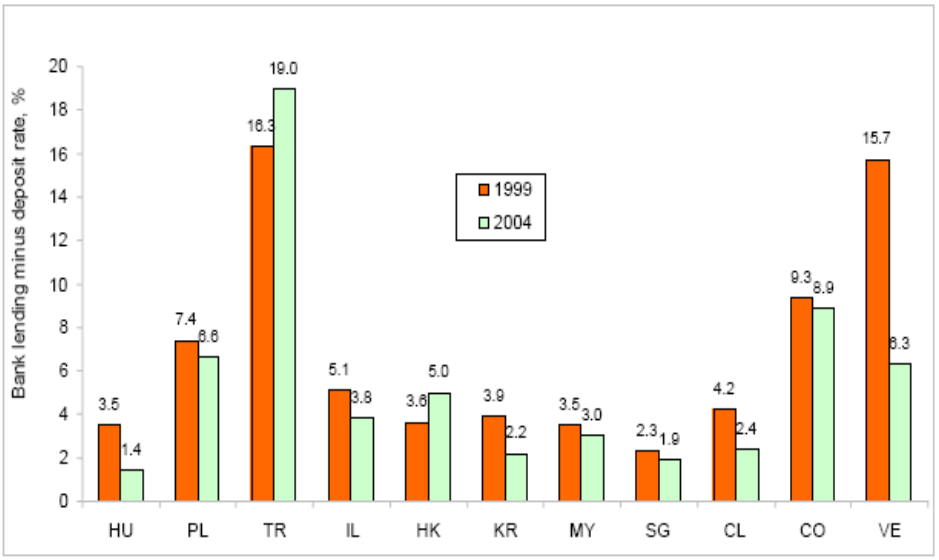


Note: SO = state-owned banks; DO = private domestic banks; FO = foreign-owned banks.

Source: Central banks.

FIGURE 20- COMPARISON OF INTERST RATE MARGINS

Figure is taken from study of Hagmyr (2006)



Source: National data (BIS questionnaire).