EFECTIVENESS ANALYSIS OF THE TURKISH BANKING SECTOR AFTER THE RESTRUCTURING PROGRAM: AN EMPIRICAL APPLICATION

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Abstract:
The banking sector is an important tool in achieving rapid economic growth. Banks are an effective institutions in the structuring of the economy and in ensuring long-term sustainable macroeconomic stability. The banking sector, which has an important role in the financial system, must be able to need the interaction with the economic system clearly and has to function in a healthy structure. Crises, structural changes in the Turkish banking sector has become mandatory. After the financial crises in 2000-2001, reduction in public sector borrowing requirement, improvement in macro-economic data, growth trend in the world, the effective implementation of risk management in developing countries have led to Turkish banking system a stable and healthy growth. In this process, groups of foreign capital has increased interest in the sector, this share continues to increase. In this study, after restructuring the process of development of the banking sector and financial soundness and efficiency are investigated. As a result, it is seen that including the period of the global financial crisis gaining a reliable structure of the sector and according to foreign-owned banks in the sector increasing an efficiency ratio.

Key words: *Turkish Banking Sector, Restructuring Program, Efficiency Analysis*.

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Introduction

The most important function of financial system is to enable funds to be effectively transferred between the units that supply and demand funds. Banks are the most distinct and important ring of financial mediation toward non- interruptedly flowing of funds. From this point of view, banking system has a pivotal position in the development of countries.

The most affected sector from economic crises has been banking sector, one of keystones of economy. Banks, whose financial performances fall in the crises, had serous losses, badly affecting each other in the system. Financial crises, experienced in Turkey in November 2000 and February 2001, led financial structures of banking system, in general, and of banks transferred to Savings Deposit Insurance Fund (SDIF), in specific, to rapidly disturb. Together with crises experienced, rapid disturbance that occurs in financial structures of banks, transferred to fund, created a serious financial burden on government. All of these developments experienced, particularly rapidly improvement of banks, transferred to SDIF, has increased the importance of the need to remove government control on these banks.

For the solution of the problems of Turkish Banking System, following Crisis 2001, with restructuring program, sector was tried to be arranged. In addition, with the effect of adaptation process to European Union, the need for making banking sector compatible with BASEL directives emerged.

The aim of the study is to identify the effectiveness change in Turkish banking sector after restructuring and introduce whether or not the program achieves to its target by means of Data Envelopment Analysis (DEA) for the period of 2001-2011, assessing sector in terms of financial soundness. In addition, in the second stage, by means of Tobit regression model, dealing with some financial ratios, which are targeted to be improved in restructuring process, and whose importance is known on being effective, those being statistically significant among them were tried to be identified and, thus, it was targeted to determine how much successful of improvement was enabled.

1.Turkish Banking Sector Before Restructuring

After the decisions on January 24, 1980, together with the process of becoming marketable that increases, important fluctuations were experienced in banking sector. The problems such as intertwinement of sector, inadequacy of equities, deposits, and credits; presence of a few number of large banks and more number of banks; dominance of public banks and high duty losses; monetary substitution and increase of deficit position; lack of supervision; and government –originated problems played important role in these fluctuations. Therefore, Transition to Strong Economy Program of Turkey after February 2001 Crisis transformed to recovery program of this sector. In the framework of program, About $ 45 billion of resource were transferred to the sector as compensation of duty loses of public banks and banks transferred to Savings Deposit and Insurance Fund, and important legal and institutional changes were carried out.

Table 1: Development of Banking Sector in the period of 1981 -2000

	1981	1990	2000
Number of banks (number)	45	66	79
Private commercial bank	24	25	28
Investment and development bank	2	7	12
Foreign banks	6	23	21
Staff per branch (number)	20,3	23,5	21,7
Active per capita ($)	203.954	361.696	1.524.158
Personal expenses/total expenses(%)	25,2	12,5	9,2
Credit/deposits(%)	86,2	84,0	49,9
Net profit / total assets (%)	1,75	2,3	-2,8

Source: Dinçer, A. DPT, Bankacılık Sektöründe Konsolidasyon, Ülke Deneyimleri ve Türkiye İçin Öneriler, Ekim 2006, pp.88-92

In the period of 1980 -1990, banks began to employ more personnel to collect deposit and market the products of banking system. So, while the number of personnel per branch was 20.3 in 198, it rose to 25.6 in 1989. In the second half, of 1980s, together with the increase of technology use, a rise was observed in the effectiveness of personnel established in banking system. As a result of this, active size per personnel, which was $ 203.954 in 1981 rose to $ 347.390 in 1989. In 1990s, due to positive developments occurring in the share of banking sector in economy, foreign expansion, technological infrastructure, and diversity of banking service, positive developments were experienced. In return to this, the function of sector to subsidize production and investment activities and channelize the resources to long term investments weakened. In 1990, the rate of credit-deposit was 84%, it regressed to 41.7% in 1995 and, with the effect of the fall in interest rates in 2000 and decrease of public sector borrowing requirement, this rate rose to the level of 49.9% (Dinçer,2006:92).

If necessary to summarize, in Turkish banking system, at the end of 1990, as a result of increase of public sector debt stock in high rate, since public financing was tried to be realized by risk premium gradually increasing, it was seen that an extreme vulnerable financial structure prevailed against the internal and external shocks (Gürleyendağ, 2006:83).

Among the major problems of sector are the inadequacy of equities, inadequacy of deposits, and credits; presence of a few number of large banks and more number of banks; dominance of public banks and high duty losses; monetary substitution and increase of deficit position; lack of supervision; and government –originated problems.

2.The Effects of Crises 2000 and 2001 on Turkish Banking Sector

"Inflation Reduction Program 2000-2002" continuing for quarter century and aiming economy to get rid of high inflation and bring economy into a stable structure, without completing its first year, deeply suffered from crisis in November 2000 and completely collapsed in February 2001.

The rise in the interest rates of domestic borrowing caused liquidity crisis to emerge in the banks holding the securities of public banks as a reserve in a large rate (Bayraktar,2010:465).

Overnight repo interest rose to 1500s % in the first crisis and to 7000s in the second crisis. Istanbul Securities Exchange (ISE) 100 index decreased in the first crisis from 17,000s to 7,000s and from 11,000s to 7,000s in the second crisis. $ 4 billion sold in exchange of TL 3 quadrillion transferred to some banks was not enough to reduce fever of the market and foreign exchange reserve of Central Bank of Republic of Turkey which was $ 27.9 billion in February 16, decreasing $ 5 billion, fell to $ 22.5 billion in February 23. Exchange rate of dollar, which was 1 $ = 686,500 in February 19, rose to TL 920,00 in February 23. In the framework of the program applied, while basket exchange rate, determined as 1 $ = 0. 77 EUR, was foreseen to increase in the rare of wholesale price index (CPI) (exchange rate anchor), in February 21, 2001, this policy was left and it was obliged to be passed floating exchange rate (TCMB Ekonomik Rapor, 2002:45-46).

Banking sector, after November 2000 Crisis, faced to interest risk and both interest and exchange rate risk after February 2001. In the leadership of Kemal Derviş, minister responsible for economy, a new program was implemented under the name of Transition to Strong Economy of Turkey.

At the end of the year 2000, rapid increase of interest rates, on the one hand, reduced market value of securities portfolio of banks, on the other hand, together with rapid increase in exchange rates, carried the costs resulted from deficit position and reached intolerable dimensions. Public and SDIF banks experienced the biggest loss, whose short tern fund demand was high (Bağımsız Sosyal Bilimciler İktisat Grubu, 2001: 11).

As foreign borrowing increases, monetary basis increased and TL gain value in the face of foreign currencies. As a requirement of program, since it was committed that any sterilization could not be, the nominal and real interests fell and consumer credits increased in the rate of about 330%. The rate of exports meeting imports fell; current deficit that was $ 14 billion rose to $ 9.8 billion in 2000. This state reduced the reliability to TL and urged people and institute to foreign currency substitution. After November 2000 crisis, while interest rate rapidly increased, that maturities are short especially disturbed the financial structures of public banks, suffered from liquidity shortage, and banks in the scope of SDIF.

3.Restructuring Methods in Banking and Its Methods

In restructuring program of banking sector, after global financial crises, banks were aimed to be structured transparently and originally by means of institutional and financial several innovations associated with both raising capital ratios and their internal management (Değirmenci,2003:89).

In general meaning, restructuring, when it is mentioned about for a single bank, is defined as increasing the net value of the bank, and thus, power to perform their obligations by strengthening its financial structure (BDDK Risk Bülteni, 2009:30). Applications of restructuring is a way appealed when all solution ways of public and banking sector are expired. Both public authority and banks can be reluctant about restructuring activities.

Table 2: Systemic Restructuring Methods of Banking

Financial Providing urgent monetary support for banks	Government Support (bond, , allowance, , credit) Liquidity Support by Central Bank, Guarantee of Private Capital and Bond Support
Operational Development of Management and Effectiveness	New Management, More Effective Personnel, Easiness for accessing of creditable foreign banks to the system
Structural Improvement of competitive level	Liquidation Merging/Downsizing Active Management and Debt restructuring

Source: Dziobek C., Market Based Policy Instruments for Systemic Bank Restructuring, IMF Working Paper, 1998, p.13.

Banking restructuring instruments are divided into three main categories as financial, operational, and structural. In the first category, financial restructuring take place and it includes direct financial transfers against abruptly occurring problems in financial structures of banks. Operational restructuring taking place in the second category includes the actions regarding that banks are active more profitably and effectively, being managed well in institutional meaning. Structural restructuring, attracting attention problems at the sectorial level, aim to enable competition in the medium, in which banks are active, to be reformed.

Table 3: Costs and Their Share in Bank Restructuring

Its Costs to Bank Shareholders	Its Cost to Government (Financial and Half-Financial Costs)
Financial Instruments	
Security Liabilities Liabilities to government in future Fresh Capital	Monetary transfer falls to the budget of central bank. Off balance sheets rise. Public debt increases.
Structural or Operational Aims	
Bank owners may lose their shares. Managers and personnel lose their jobs Creditors and deposit owners may incur loss. Higher deposits insurance premium can be brought to the banks. For foreign banks to access to the system and managerial services, fee can be demanded.	Liquidation cost (e.g. court charges) Unemployment compensation Severance allowance to personnel of public bank Budgetary transfer to deposits insurance fund In merging, paying for price to the bank sold Investment banking services for privatization Budgetary distribution for management of actives Price can be demanded for foreign banks to access to the system and management

Source: Erdönmez, P., Brezilya'da Banka Yeniden Yapılandırması ve Kamu Bankalarının Özelleştirilmesi, 2001, p.17.

In restructuring banks, bank owners can also face to some costs. They can be obliged to bring extra capital and undertake some liabilities toward future regarding capital injection government will make or lose their shares. In addition, the managers and personnel of the banks in this scope can also lose their jobs.

Another important point, due to the fact that banking sector is a labor-intensive market, as a result of liquidations and merging to be carried in this sector, is that a decrease will be experienced in total employment. Since this sector has an important share in total employment, decrease of employment in the sector will be able to bring significant social costs to economy (Erdönmez, 2001: 31).

4.Turkish Banking Sector After Restructuring

In this process, it is seen that banks increasingly move away from mediation function that is their main duties and are active in the way that supports and facilitates public financing.

In Turkey, the number of banks getting into act in 2010 is 49. 4 out of these are investment bank The total number of deposit banks that are 45 did not vary compared to the end of 2009. 32 of these banks are deposit banks and the remaining 13 banks are investment banks. 3 of deposits banks are public- capital and 11 of them is private-capital bank. Thee is 1 bank within Savings Deposit and Insurance Fund (SDIF). The number of foreign -capital deposit banks, in which foreign dwellers have the share of 51% and over, is 17. 3 of development and investment banks are public-capital; 6, private-capital; and 4, foreign-capital banks (TBB,2011:27).

Table 4:Sectorial Shares of Groups (%)

	Total assets			Total deposits			Total credit		
	02	**09**	**10**	**02**	**09**	**10**	**02**	**09**	**10**
Deposit banks	96	97	97	100	100	100	89	96	97
Public banks	36	31	31	39	37	38	20	27	29
Private banks	56	52	52	58	50	50	65	52	52
Foreign banks	3	13	13	2	13	12	4	17	15
Investment and development bank	4	3	3	-	-	-	11	4	3
Total	100	100	100	100	100	100	100	100	100

Source: TBB, Bankalarımız 2010, (March 2011)

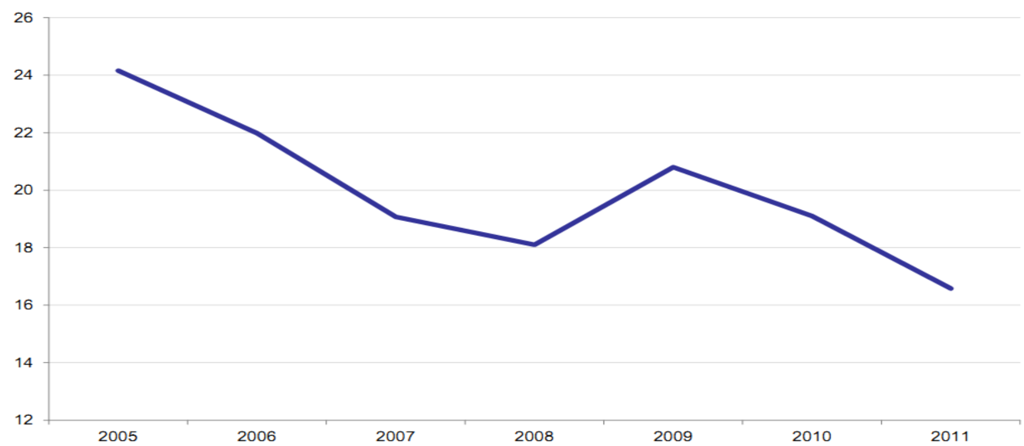
The share of actives of deposit banks in total has been 97% and the share of development and investment banks, 3%. In the group of deposit banks, the distribution of market share did not vary in terms of actives. In return to this, while the share of foreign-capital banks in total deposit, decreasing 1 point, regresses to 12%, share of public-capital banks, increasing 1 point, rose to 38%. In total credits, while total share of public banks rises to 29% from 27%, the share of foreign banks, decreasing 2 points, regressed to 15% (TBB,2011:30).

For enabling banks to work all over the world with common standards, in 1974, "Basel Committee" was formed within BIS. "Basel I Standards", which is the first reconciliation regarding capital adequacy, were published in 1988. Basel I is focused on the minimum capital that is necessary to be kept to reduce to minimum the costs depositors will face in case that any bank is bankrupted; the working criteria banks have to comply with were determined; and, in order to increase the tolerability of banks against criteria, capital adequacy ratio, expressing that the rates of bank capital to risky actives cannot be less than 8% was introduced (Beşinci, 2005: 15). Due to the fact that the capital standard applied remains insufficient und is only based on credit risk, Basel II applications were proceeded.

In accordance with Basel II, the most important innovation brought in calculation of equity capital is IRB (Internal Rating -Based) approach determining risk weights, depending on debtor ratings internally calculated. In terms of capital provisions, Basel II Convention, was resulted with an explicit victory of two business areas; company loans and mortgages. For the former of these, capital easiness in important dimension (by 70 %) has been already provided in reviewed standard approach and, more explicitly, in IRB approach. It is necessary to search for this in the risk weight in Basel I Convention, which is very high and always 100%. In contrast to this, those using ınly IRB approach in mortgage area can be significantly benefit from this capital easiness (by 65%), because in revised standard approach, risk weight is 50% as in Basel I TBB Raporu 2004:71).

Capital Adequacy ratio of Turkish Banks between the years of 2005 -2011 was shown in the following graphic. As seen, percent rate of capital adequacy ratio falls in crisis periods.

Graphs 1: Capital Adequacy Ratio (%)



In USA economy, the last global crisis, one of the biggest global crises, which began mortgage crisis and spread all over the world, and which occurred with the developments in the last period, and seemed to be extremely complicated and detailed, when regarded from outside, made a current issue the discussions of inadequacy of financial arrangements one tine more. In order to eliminate the deficiencies global financial crisis occurred, in the recent time, the amendments of arrangements called Basel III have become a current issue. With draft reports introduced as Basel III, the targets that want to be reached can be summarized as follows:

- Whatever its resource is, raising the vulnerability of banking system against economic and financial shocks
- Implementation of institutional governance and risk management applications in banking sector
- Increasing the transparency of banks and functions of informing public with the arrangements introduced in micro scale, raising the tolerability of banks individually
- With arrangements in macro scale, raising the resistance of financial system against shocks (BDDK Sorularla Basel III,2010:1).

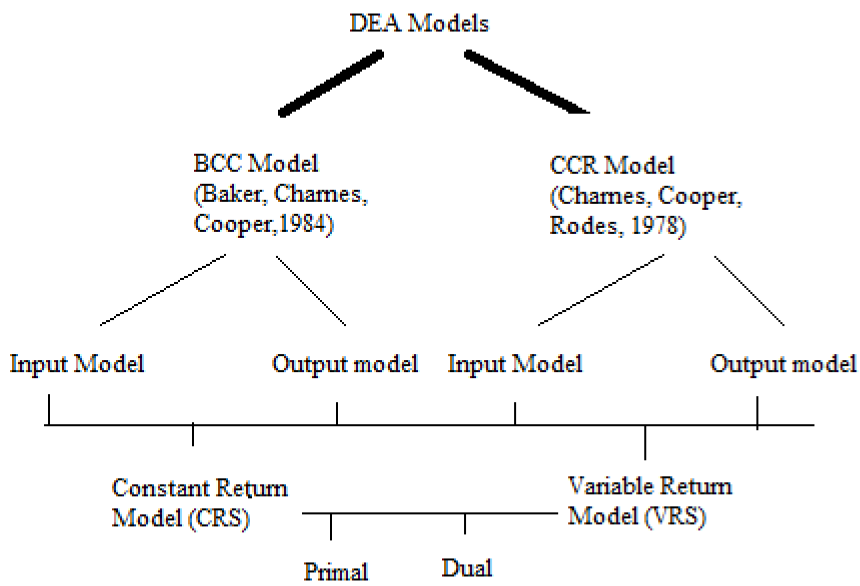
The points targeted with amendments of arrangement changes introduced as Basel III are: It was aimed that banks can be stand strongly with more qualified capital formation against crises In addition, the quantity of these capital ratios were also increased. It was targeted to form a capital buffer according to the direction of economic circles. As a result, with what is wanted to be presented with Basel III applications is to increase the tolerability of banks in banking sector, raising their liquidity ratios in the inadequate quality and price

5.Comparative Effectiveness Analysis of Banking Sector

In banking sector, in such a way that it will include either banks and all sector, it is a prevalent applications to realize performance assessment of all banks by using the various financial ratios.

Data Envelopment Analysis (DEA) is a linear programming based technique aiming to measure the relative performances of decision units in case that inputs and outputs, which were measured by scale, more than one, or which have the different measurement unit make it difficult to make a comparison. As the most simplest state, for a unit having a single input and output, effectiveness can be defined as output/input and, in the developed organizations, as total of weighed output/weighed input regarding the difference between input and output.

Figure 1: DEA Models



The main assumption of DEA in measuring total technical effects of decision units is the assumption of constant returns to scale (CRS) of decision units. When the literature is examined, in the studies on banking sector, it was also showed, in the study by Grifell-Tatje and Lovell (1995), that the use of output –oriented constant returns to scale (CRS) gave more appropriate results.

Table 5: Lists of Input and Output Variables

Inputs	Output
• Personnel expenses / total actives • Non-interest activity expenses / total actives • Total deposit / total activities • Non-deposit foreign resources / Total Actives	• Total deposit / total actives • Interest incomes /Total actives • Security Portfolio Total actives • Non interest activity expenses / total actives

6. Analysis Results

In the study, the results were obtained by EMS package program.

Table 6: Data Enveloping Analysis: CRC results

BANKS	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
State-owned Deposit Money Banks										
Türkiye Cumhuriyeti Ziraat	0.856	0.992	0.980	1	1	1	1	1	1	1
Türkiye Halk Bank	0.976	0.865	0.834	0.899	0.905	1	1	1	1	1
Türkiye Vakıflar Bank T.A.O.	0.983	1	1	1	1	1	1	1	1	1
Private Bank Deposit Banks										
Adabank	0.845	0.703	0.769	0.745	0.827	0.901	0.870	0.924	0.941	0.981
Akbank	1	1	1	1	1	1	1	1	1	1
Alternatif Bank	0.8500	0.956	0.888	0.9677	1.067	0.906	1	1	1	1
Anadolubank	0.782	0.665	0.778	0.812	0.845	0.888	0.895	0.936	0.871	0.907
Oyak Bank	0.856	0.873	0.989	0.922	0.995	0.830	0.978	0.897	1	1
Şekerbank	0.706	0.858	0.863	0.954	1	1	1	1	1	1
Tekfenbank	0.712	0.645	0.758	0.662	0.850	0.933	0.905	0.922	1	1
Tekstil Bankası	0.917	0.882	0.807	0.877	0.904	0.965	0.825	0.862	0.938	0.897
Turkish Bank	0.716	0.788	0.834	0.844	0.843	0.902	0.988	0.904	0.912	0.942
Turkland Bank	0.685	0.703	0.702	0.704	0.808	0.823	0.887	0.888	0.941	0.962
Türk Ekonomi Bank	0.721	0.786	0.891	0.848	0.919	0.922	0.977	1	1	1
Türkiye Garanti Bank	0.906	1	1	0.997	1	1	1	1	1	1
Türkiye İş Bank	1	1	1	1	1	1	1	1	1	1
Yapı ve Kredi Bank	1	1	0.990	0.971	1	1	1	1	1	1
Foreign Banks Established in Turkey										
Arap Türk Bankası		0.816	0.888	0.834	0.944	0.943	0.902	0.988	1	1
Citibank		0.882	0.893	0.829	0.811	1	1	1	1	1
Denizbank	1	0.838	0.997	1	1	1	1	1	1	1

Deutsche Bank		0.801	0.867	0.932	1	1	1	1	0.980	0.992
Finans Bank	1	1	1	1	1	1	1	0.988	0.903	0.983
Fortis Bank		0.816	0.809	1	1	1	1	0.888	0.816	0.988
HSBC Bank	1	0.765	1	1	1	1	1	1	1	1
Millennium Bank		0.751	0.436	0.659	0.97827	1.0077	0.9708	0.851	0.934	0.963

In the table, the value “1” shows effective banks. The other numbers show non-effective banks. In general, public banks take place among the effective banks. Especially together with restructuring program, that capital support is provided to public banks; deposit interest is made complied with market interests; and that credit portfolio is effectively managed are the positive developments about this issue. In the years, when they are dealt with, it was identified that the most effective private banks were Akbank, Garanti Bank, and Yapı and Kredi Bank, which are large scale banks. Among these, it is clearly seen that scale size positively affects the effectiveness values.

Alternatif Bank, Şekerbank and Ekonomi Bank did not turn out before restructuring but they gained effectiveness in later periods. Tekfenbank and Oyakbank were found effective in the last two years. Tekstil Bank, Turkish Bank and Turkland Bank did not turn out effective in any period. Among foreign banks established in Turkey, Millennium Bank is not effective in any period.

Citibank and gained effectiveness especially after 2005 and, HSBC Bank turned out effective in all periods other than 2003. Deutsche Bank, Finans Bank.,and Fortis Bank were negatively affected from global financial crisis and did not turn out effective.

As a result of DEA analysis, a point that attracts attention is that Turkish public and private banks are more effective compared to foreign banks. After crisis period, as a result of restructuring program, started in Turkish Banking System and continued non-interruptedly, the positive developments both were recorded from main sizes and banks performed their activities more effectively.

In the second stage, by means of Tobit regression analysis, the factors contributing the technical effective of banks were attempted to be identified. The appropriate independent variables were determined, reviewing literature. The aim here is to identify the relationship level and direction of these variables related to effectiveness analysis and, to interpret it by means of Tobit regression model First of all, correlation analysis was made for these variables; non-correlated variables were decomposed; and they were included in the model. Model analysis was carried out by means of *EVIEWS 7.1* program and estimation was made by “The Huber/White Robust Covariance” algorithm. By means of this algorithm, the problem with heteroskedasity (disturbance of covariance) was solved.

Tobit Model, an extension of Probit model, was developed by James Tobin. The sample, in which the information belonging to dependable variable is under consideration for only some observations, is known as censored sample. Therefore, Tobit Model is also termed as censored or interrupted regression model (Gujarati,1999: 34).

Table 7:Tobit Regression Estimations

Year Variable	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Capital adequacy	0.0023*	.0891*	.4587*	.6462*	.0632*	0.2352*	0.9853*	0.8720*	0.7453*	0.5631*
Total Credits/ total assets	0.4750*	0.5818	0.6413	0.1058*	0.7479*	0.8402*	0.9561*	0.5748*	0.7863*	0.2110*
Liquid assets / short-term liabilities	0.4189*	0.8633*	0.1137*	0.2560*	0.4660*	0.9004*	0.8876*	0.2683*	0.9907*	0.3490*
Return on equity	0.9941*	0.2387*	0.1721*	0.3603*	0.2992*	0.4197*	0.2284*	0.650*	0.1456*	0.5731*
Interest and non-interest income	0.0025	0.0145	0.0008	0.0602	0.1137	0.0068	0.0009	0.0032	0.0563	0.0461
Constant	0.0065*	0.0053*	0.1381*	0.0086*	0.3979*	0.6234*	0.0985*	0.5834*	0.0456*	0.6754*
Log L	-203.42	-562.27	-138.50	-147.93	-364.07	-101.85	-235.60	-148.91	-123.42	-156.09

* variable that is statistically significant at the significance level of 0.05

In some periods,, the negative effect of capital adequacy ratio is resulted from the motive to strengthen and protect equity after Crisis 2001, in the direction of the decision made by Bank Supervision and Regulatory Board (BSRB) about capital adequacy, depending on that new activities come to an end and that BSRB worriedly approach implicit inflation policies of banking sector: But especially in the years of 2008 and 2009, effectiveness of capital ratio reveals how Turkish Banking System overcome liquidity crisis that is effective all over the world with its own equities and how much important capital adequacy ratio is for preparation for crisis period. In addition, in this period, due to the fact that that there is equity at high rate in return low risk weighted assets contradicts to the theory of "more risk and more return", that low return of low risk –portfolio negatively affects technical efficiency is an unavoidable result.

That liquidity ratios, expressed as total credits/total assets and stating active quality, have a positive effect reveals that short term liabilities are financed by short term assets and that achievement in asset management is important to the effectiveness of banks.

The variable, defined as equity profitability ratio, as in the variable of total actives, has a passive effect on technical effectiveness. This result states that technical effectiveness profitability in the banks, whose profitability is high, will turn out low compared to the banks, whose technical effectiveness is high. That active quality of banking sector reaches more levels thanks to arrangements carried out led total actives to make positive effect on technical effectiveness.

That the ratio regarding expense structure, expressed as total of interest and non-interest incomes do not have a negative or positive effectiveness or do not express any value on the effectiveness of banks engender the conclusion that interest incomes banks obtain in the period of interest are not significant in total incomes and, in this period, that the income range of banking enlarges, and their incomes from operational activities are important.

Conclusion

In Turkey, banking sector forms the basis of financial system. The reason for this is that a large part of financial resources is collected and allocated by banks. Turkey faced to a national crisis in November 2000 and February 2001 and to a global crisis in the last quarter of 2007. Turkish Banking Sector exposed to the interest risk in November 2001 crisis and foreign currency risk in February 2001 and a large losses formed in the balance sheets of the banks. The crises experienced in the years of 2000 and 2001 revealed that an economy having structural problems in financial sector could not sustain fixed exchange rate regime. The twin crisis emerging in the form of the banking and monetary crisis showed that the structural problems in banking sector prepared a ground to the formation of crisis.

As will be understood from the publicity expression of the program of overcoming crisis in the form of strong banking and strong economy, presented to public opinion, the stability and soundness of banking sector has as high importance as financial discipline, sustainable borrowing, manageable foreign deficit,and correct exchange rate system. Therefore, in the transition period after 2000-2001, structural reforms enabling vulnerabilities toward banking sector, which play important role in the formation of crisis, to be eliminated have become the engine of economic growth and brought acceleration in the process of overcoming crisis.

The distance covered and political and economic stability in restructuring activities in banking sector have remarkably increased the interest of global capital. In 2001, while the share of global capital was 3%, in 2011, this number rose to 19% in 2011. Following Crisis 2001, the regressing personnel and branch numbers of banks showed increase in the period of 2000 and after it, in spite of global crisis. A total of actives of banking sector, which was TL 173.4 billion in 2001, thanks to the political and economic stability, provided after restructuring, rose to TL 732.5 billion in 2011 in spite of global crisis

After Crisis 2001, one of the most important lessons received has been the importance of maintaining strong capital structure. Capital adequacy ratio, which was 9.3% in 2000, rose to 18% in 2011. The policies applied and falls in market interest rates despite global crisis made a positive contribution to the profitability of Turkish banks, equities of banks strengthened, and depending on this, capital adequacy ratio of sector rose

In the study, after restructuring program, it was tried to be introduced how a development banking sector showed and how a stand it exhibited in terms of financial soundness especially over the global financial crisis 2007. For deposit bank in the sector, for the period of 2000-2011, applying output-oriented DEA, effectiveness levels after restructuring were determined. In effectiveness analysis of banking sector, in the determination of inputs and outputs, determining a common set from the main approaches such as mediation, production, and profitability, a mixed set of variables that is different from the other studies was formed and it was analyzed according to CCR method. When regarded to the results, especially in the period of global crisis, it was understood that the rate of Turkish banks to be more effective compared to foreign capital banks and that they took important step in the way that restructuring program reaches its aim. As a result of global crisis experienced, in Turkey, any bank was not seized and any resource transfer was not made. In Tobit regression analysis, made in the second stage, it was concluded that the main financial ratios – capital adequacy, liquidity and equity profitability - affecting banking sector were significant and income-expense ratios were not significant.

As a result of comparative effectiveness analysis we have carried out 25 deposit banks, at the end of restructuring the problematic actives that are effective on the efficiencies and effective of the banks and researching transparency in sector and full information share, studying the factors on bank profitability will introduce more useful results.

As a conclusion, this study introduces that after Crisis 2001, the decisions made and implemented in the leadership of Turkish Banking Regulation and Supervision Agency are correct in the long period; equity structure of banking sector is strong, that the success is provided in asset management; that liquidity is important; that the share of interest incomes in total activity incomes is not significant; and Turkish banking sector stands out continuity and compliance with legal arrangements, rather than targeting profitability.

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