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PERFORMANCE ANALYSIS OF BANKS IN TURKEY USING CAMEL APPROACH

Abstract:

This study attempts to extensively investigate the performance and financial soundness of state-owned and private-owned banks in community of Turkish banks for the period 2005-12. We have chosen one of the most popular methods for measuring banking performance, the CAMEL approach, which is an acronym for the terms, Capital adequacy, Asset quality, Management quality, Earnings quality and Liquidity. This approach was initially adopted by the Federal Financial Institution Examination Council on November 13th, 1979; then adopted by the National Credit Union Administration in October 1987 in the U.S.A. After selecting the model, we have chosen three State-Owned banks and twelve Private-Owned banks from the Turkish banking sector, which represent more than seventy percent of the banking system in terms of total assets. For our purpose evaluating data for eight years, these data were analyzed by calculating 23 ratios related to CAMEL Model. The results indicated that on the overall performance, in the CAMEL rating model Ziraat Bank was in top position followed by Ak Bank and Vakif Bank. Tekstil Bank had the lowest rank in most positions. It was also observed that there is a significant difference between performance of state-owned and private-owned in Turkish banking system.

Keywords:

Banking, CAMEL Approach, Performance Analysis

JEL Classification: G21

INTRODUCTION

The two last decades are marked by notable in most of a nations domestic banking was generally subjected to heavy regulations and financial repression. The role and importance of banking sector and the monetary mechanism cannot be under-estimated in the development of a nations. The growth and financial stability of the country depends on the financial soundness of its banking sector. Supervision of banking unit can help to make them financially sound.

In Turkey the economic growth of Turkish economy has been expanded in a continuing progress after the economic program that was launched in 2001. In parallel with the aim of reinforcing the market mechanism, important steps for strengthening the regulatory and supervisory institutions have been taken(The Banks Association of Turkey, 2005, p.59). Turkey is one of the largest middle-income partners of the World Bank Group. With a Gross Domestic Product (GDP) of 820.21 billion US dollars in 2013, Turkey is the 17th largest economy in the world.

As of December 2012, the number of banks operating in Turkey was 49, which 4 were participation banks. Out of total deposit and development and investment banks, 32 of the banks were deposit banks, and 13 were development and investment banks. Out of deposit banks, 3 were state-owned, and 12 were private-owned banks. "Turkish banking sector has experienced a dramatic change after 1999 and 2001 economic crises. In the late 1990s and the beginning of 2000s, several frauds were experienced in the Turkish banking sector. After the financial corruption, Turkish banking system experienced a restructuring process. This process was first started with disinflation programed as of the end of 1999 and followed by the extensive banking restructuring program in 2001. In this process, the financial problems of the banks, which are under the control of the Savings Deposit Insurance Fund (SDIF) were solved, state-owned banks were restructured, the capital of private-owned banks were strengthened, the banking legislation became aligned with international regulations, best practices and European Union directives including the Basel Capital Accord (Basel-II). As a result of banking restructuring program, Turkish banking sector has become excessively regulated since 1999. Banking restructuring program was successful and this was one of the most important factors improving the positive performance of Turkish banks during 2002 – 2008"(IEYG,2014). Turkish banking sector has recently faced major changes due to recent merger and acquisitions and therefore competition has increased in the sector. Turkish banks have reacted to this new competitive environment by widening their operations beyond traditional lending activities so that an increasing share of non-interest income in operating profits was experienced.

CAMEL is, basically a ratio-based model for evaluating the performance of banks. It is a model for ranking of the banks. CAMEL is an acronym for five components of bank safety and soundness(Dang,2011, p. 17):
  ➢ **C**apital adequacy
  ➢ **A**sset quality
  ➢ **M**anagement quality
  ➢ **E**arning ability

> ➢ **L**iquidity

In the present study an attempt is made to appraise the financial performance of state and private-owned Turkish banks, during the period 2005-12. The studies base on twenty three ratios of the variables relating to CAMEL framework.

BRIEF LITERATURE REVIEWS

The analysis of banking performance has received a great deal of attention in the banking literature. A popular framework used by regulators is the CAMELS framework, which uses some financial ratios to help evaluate a bank's performance(Barker and Holdsworth,1993).

Barker and Holdsworth (1993) predicting banks failure, they find evidence that CAMEL ratings are useful, even after controlling a wide range of publicly available information about the condition and performance of banks. Cole and Gunther (1998) conducted a study on "A CAMEL Rating's Shelf Life" and their findings that CAMEL ratings contain useful information. Nevertheless, Hirtle and Lopez (1999) stress that the bank's CAMEL rating is highly confidential, and only exposed to the bank's senior management for the purpose of projecting the business strategies, and to appropriate supervisory staff. Its rating is never made publicly available, even on a lagged basis. Barr et al. (2002) viewed that "CAMEL rating has become a concise and indispensable tool for examiners and regulators". This rating ensures a bank's healthy conditions by reviewing different aspects of a bank based on variety of information sources such as a financial statement, funding sources, macroeconomic data, budget and cash flow. Said and Saucier (2003) examined the liquidity, solvency and efficiency of Japanese Banks using CAMEL rating methodology, for a representative sample of Japanese banks for the period 1993-1999, they evaluated capital adequacy, assets and management quality, earnings ability and liquidity position. Sarker (2005) in Bangladesh examined the CAMEL model for regulation and supervision of Islamic banks by the central bank. This study enabled the regulators and supervisors to get a Shariah benchmark to supervise and inspect Islamic banks and Islamic financial institutions from an Islamic perspective. Derviz et al. (2008) investigated the determinants of the movements in the long term Standard & Poor's and CAMEL bank ratings in the Czech Republic during the period when the three biggest banks, representing approximately 60% of the Czech banking sector's total assets, were privatized (i.e., the time span 1998-2001). Kabir and Dey (2012) examined the performance Private, Commercial of Bangladesh banks by adopting the CAMEL Model. The author concluded that the central banks of all around the world have improved their supervision quality and techniques. Mishra and Aspal (2013) analyzed the performance of State Bank Group through the help of the CAMEL model in India. They found that though ranking of ratios is different for different banks in the State Bank group. But there is no statistically significant difference between the CAMEL ratios. Prasad and Ravinder(2012) analyzed   performance of nationalized banks in India.

RESEARCH METHODOLOGY

Sample information set consists of three state-owned banks and twelve privately-owned banks for the period of 2005-12 were selected from a list of the Turkish banks. In this analysis, we tend to maintain twenty-three ratios associated with different dimensions of

financial analysis that reflected the performance and soundness of banks framework are considered. These ratios using by the Banking Regulation and Supervision Agency (BRSA-BDDK) for the various indicators of banking vulnerability measure. In applying this model, five main dimensions of the performance (Capital adequacy, Asset quality, Management quality, Earning quality and Liquidity) are assessed using ratio analysis. These five indicators which seven years average has been calculated with a simple arithmetic average. All data's were collected from the Banks Association of Turkey database and financial annually reports. In our study, the variables used in this research are presented in the following Table 1. Information for choosing variables were selected, calculated and transferred into an Excel spreadsheet.

Table 1.The Financial Ratios

NO:	Ratio	Definition	Category
C1	Capital Adequacy Ratio	CAR	Capital Adequacy
C2	Equity to Total Assets	E/TA	Capital Adequacy
C3	(Equity - Fixed Assets) to Total Assets	(E-FA)/TA	Capital Adequacy
C4	Net Balance Sheet Position to Equity	NBSP/E	Capital Adequacy
C5	(Net Balance Sheet Position + Net Regulatory Account Position) to Equity	(NBSP+NRAP)/E	Capital Adequacy
A1	Financial Assets (net) to Total Assets	NFA/TA	Asset Quality
A2	Total Loans and Receivables to Total Assets	TL/TA	Asset Quality
A3	Total Loans and Receivables to Total Deposits	TL/TD	Asset Quality
A4	Non-performing Loans NPLs (net) to Total Loans and Receivables	NPLs/TL	Asset Quality
A5	Permanent Assets to Total Assets	PA/TA	Asset Quality
M1	Profit per Employee (Turkish Lira)	NI/Emp	Management
M2	Business per Employee (Turkish Lira)	NOI/Emp	Management
M3	Personnel Expenses to Other Operating Expenses	Pex/OEx	Management
M4	Total Assets to Total Deposit	TA/TD	Management
M5	Funds Borrowed to Total Assets	FB/TA	Management
E1	Net Profit (Losses) to Total Assets	ROA	Earning Quality
E2	Net Profit (Losses) to Equity	ROE	Earning Quality
E3	Earnings (Losses) Before Taxes and Interests to Total Assets	EBIT/TA	Earning Quality
E4	Net Interest Income After Specific Provisions to Total Assets	NiIASP/TA	Earning Quality
E5	Non-interest Income (net) to Total Assets	Noni/TA	Earning Quality
L1	Liquid Assets to Total Assets	LA/TA	Liquidity
L2	Liquid Assets to Short-term Liabilities	LA/StL	Liquidity
L3	Liquid Assets to Total Deposit	LA/TD	Liquidity

DATA ANALYSIS AND INTERPRETATION

The data used in this work are collected from the annual reports of the Central Bank of Turkey, Banking Regulation and supervision Agency and The Banks Association of Turkey. Our study is based on annual data spanning 8 years, from 2005 to 2012 for the fifteen banks. All the banks were first individually ranked based on the sub-parameters of each parameter. The sum of these ranks was then taken to arrive at the group average of individual banks for each parameter. Finally the composite rankings for the banks were arrived at after computing the average of these group averages. Banks were ranked in the ascending/descending order based on the individual sub-parameter.

Capital Adequacy

Capital adequacy ratios are a measure of the amount of a bank's capital expressed as a percentage of its risk weighted credit exposures. In Turkish Banking system is used these five ratios for capital adequacy. According to Basel norms the total capital adequacy ratio

is set at a rate of 8% of risk weighted assets. Furthermore, the BRSA currently imposed 4% additional capital requirement for Turkish banks as a prudential requirement. "Meeting statutory minimum capital requirement is the key factor in deciding the capital adequacy, and maintaining an adequate level of capital is a critical element"(Gürbüz, Yanık and Aytürk,2013,pp.9-29). The ratios used to evaluate capital adequacy are represented as:

- Capital Adequacy Ratio
- Equity to Total Assets
- (Equity - Permanent Assets) to Total Assets
- Net On Balance Sheet Position to Equity
- Net On and Off Balance Sheet Position to Equity

Table 2.Capital Adequacy Sub-parameter Ratios of Banks During the Period 2005-12

Name of Bank	CAR		E/TA		(E-FA)/TA		NBSP/E		(NBSP+NRAP)/E		Group Rank	
	Ave	Rank	Ave	Rank	Ave	Rank	Ave	Rank	Ave	Rank	Ave	Rank
A Bank	14.11	15	9.57	13	6.52	11	-55.44	15	1.95	4	11.60	15
Ada Bank	218.72	1	84.22	1	76.28	1	0.14	5	0.14	12	4.00	1
Ak Bank	19.74	5	11.91	7	-15.26	15	0.18	4	0.18	11	8.40	7
Anadolu Bank	17.24	8	14.21	4	11.75	2	-34.34	12	11.13	1	5.40	3
Fiba Bank	17.47	7	10.33	12	7.98	7	23.72	1	0.69	8	7.00	6
Garanti Bank	17.08	9	11.48	9	8.18	6	-5.90	7	-0.84	13	8.80	9
Halk Bank	22.32	4	10.39	11	7.50	9	-18.37	10	-2.33	15	9.80	12
Is Bank	18.86	6	12.36	5	5.39	13	5.31	2	1.48	6	6.40	5
Seker Bank	15.82	12	12.26	6	7.72	8	-34.42	13	1.58	5	8.80	9
TEB Bank	15.09	13	9.40	14	6.41	12	-43.76	14	3.39	2	11.00	14
Tekstil Bank	16.24	11	15.02	3	10.26	4	-33.25	11	-2.08	14	8.60	8
Turkish Bank	33.04	2	15.54	2	10.87	3	-14.99	9	0.49	9	5.00	2
Vakıf Bank	16.88	10	11.68	8	8.43	5	3.81	3	3.18	3	5.80	4
Yapı Kredi Bank	14.24	14	10.47	10	3.47	14	-6.18	8	0.71	7	10.60	13
Ziraat Bank	26.22	3	8.77	15	7.28	10	-3.56	6	0.44	10	8.80	9

Table 1 indicates that on capital adequacy ratio Ada Bank on the top position with highest CAR of 217.72 followed by Turkish Bank 33.04 and Ziraat Bank (26.22). A Bank scored at the bottom position. In terms of equity to total assets ratio Ada Bank was at the top position with highest average of 84.22 followed by Turkish Bank 15.54 and Tekstil Bank (15.02). A Bank scored the lowest position. Its again Ada Bank was at the top position in (equity - permanent assets) to total assets ratio with highest average of 76.28, followed by Anadolu Bank (11.75) and Turkish Bank (10.87). Ak Bank was at the bottom with lest average of -15.26. In case of net on balance sheet position to equity ratio, Fiba Bank was at first position with highest average of 23.72 followed by Is Bank and Vakif Bank. A Bank scored the lowest position. Anadolu Bank was at the top position in the net on and off balance sheet position to equity ratio with an average (11.13) followed by TEB Bank, Vakif Bank while A Bank stood at last position.

By group averages of sub-parameters, Ada Bank stood at the top position with group average 4.00, followed by Turkish Bank (5.00), Anadolu Bank (5.40). A Bank scored the

lowest position due to its poor performance in capital adequacy and net on and off balance sheet position to equity ratios.

Asset Quality

The quality of assets is an important parameter to examine the degree of financial strength. The maintenance of asset quality is a fundamental feature of banking. The prime motto behind measuring the assets quality is to ascertain the component of non-performing assets as a percentage of the total assets. Some of the important asset quality ratios are adopted for analyzing the data of the BRSA.

- Financial Assets (net) / Total Assets
- Total Loans and Receivables / Total Assets
- Total Loans and Receivables / Total Deposits
- Non-performing Loans NPLs (net) / Total Loans and Receivables
- Fixed Assets / Total Assets

Table 3. Assets Quality sub-parameter Ratios of Banks during the Period 2005-12

Name of Bank	NFinA/TA		TL/TA		TL/TD		NPL/TL		FA/TA		Group Rank	
	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank
A Bank	14.75	**12**	68.43	**13**	115.68	**14**	2.01	**14**	3.05	**7**	12	**13**
Ada Bank	25.46	**7**	0.00	**15**	0.00	**15**	0.00	**15**	7.94	**15**	13.4	**15**
Ak Bank	37.48	**3**	49.44	**5**	83.97	**7**	0.03	**1**	1.93	**2**	3.56	**2**
Anadolu Bank	19.09	**10**	59.24	**10**	95.40	**11**	0.21	**4**	2.46	**4**	7.8	**7**
Fiba Bank	11.50	**13**	69.93	**14**	87.18	**8**	0.79	**8**	2.35	**3**	9.2	**10**
Garanti Bank	28.58	**5**	53.33	**6**	91.03	**9**	0.74	**7**	3.31	**9**	7.2	**6**
Halk Bank	37.93	**2**	48.72	**4**	64.71	**3**	0.49	**6**	2.89	**5**	4	**3**
Is Bank	30.67	**4**	46.79	**3**	75.32	**4**	0.05	**2**	6.97	**13**	5.2	**4**
Seker Bank	28.06	**6**	56.21	**8**	79.63	**5**	1.23	**10**	4.55	**10**	7.8	**7**
TEB Bank	17.11	**11**	60.93	**11**	97.50	**12**	0.94	**9**	2.99	**6**	9.8	**11**
Tekstil Bank	11.16	**14**	67.49	**12**	114.33	**13**	1.44	**13**	4.76	**12**	12.8	**14**
Turkish Bank	9.74	**15**	26.75	**1**	48.45	**2**	1.28	**11**	4.67	**11**	8	**9**
Vakıf Bank	25.42	**8**	55.38	**7**	81.87	**6**	0.16	**3**	3.25	**8**	6.4	**5**
Yapı Kredi Bank	23.05	**9**	57.07	**9**	91.39	**10**	1.29	**12**	7.00	**14**	10.8	**12**
Ziraat Bank	53.34	**1**	32.18	**2**	41.24	**1**	0.49	**5**	1.49	**1**	2	**1**

Table 3 clearly states that the on financial assets (net) to total assets ratio Ziraat Bank was at the top position with an average (53.34), followed by Halk Bank (37.93), Ak Bank (37.48). Turkish Bank scored lowest position with lowest percentage of 9.74. Turkish Bank was at the top position with a least average total loans and receivables to total assets ratio of (26.75), followed by Ziraat Bank (32.18), Is Bank (46.79). Ada Bank was at last position as a consequence of no loan. In case of total loans and receivables to total deposits ratio, Zirrat Bank at the top position with a least average of 41.24, followed by Turkish Bank (48.45), Halk Bank (64.71). Again Ada Bank was at last position as consequence of no loan. In terms of non-performing loans to total loans and receivables ratio, Ak Bank was at the top position with an average of 0.03, followed by Is Bank (0.05), Vakif Bank (0.16). Ada Bank was at last position as consequence of no loan. At the front

of permanent assets to total assets ratio, Ziraat Bank was at the first position in with an average of 2, followed by Ak Bank and Fiba Bank. Ada Bank scored the lowest position with highest percentage of 7.94.

By group averages of seven sub-parameters of assets quality, Ziraat Bank was at the first position with group average of 2, followed by Ak Bank (3.60) and Halk Bank with ranking of 4. Ada Bank scored the lowest position with 13.40 rank due to its poor performance in all sub-parameter ratios.

Management Quality

Management efficiency is another vital essential of the CAMEL model that guarantee the survival and growth of a bank. It is the management which sets vision and goals for the organization and ensures that it achieves them. In the process of achieving their goals, management takes certain crucial decisions depending on its risk perception. The ratios accustomed evaluate management efficiency are represented as:

- Profit per Employee (Turkish Lira)
- Business per Employee (Turkish Lira)
- Personnel Expenses / Other Operating Expenses
- Total Assets / Total Deposit
- Funds Borrowed / Total Assets

Table 4.Management Quality Sub-parameter Ratios of Banks duringthe Period 2005-12

Name of Bank	PPE (TL)		PBE (TL)		PE/OTE		TA/TD		LR/TA		Group Rank	
	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank
A Bank	49614	**9**	57470	**9**	53.06	**13**	1.70	**10**	16.91	**3**	8.80	**9**
Ada Bank	-131610	**15**	-131536	**15**	44.79	**5**	7.24	**14**	0.00	**15**	12.80	**15**
Ak Bank	153707	**1**	193747	**1**	36.80	**2**	1.70	**9**	11.94	**6**	3.80	**1**
Anadolu Bank	55101	**8**	63053	**8**	61.60	**15**	1.61	**7**	10.23	**7**	9.00	**10**
Fiba Bank	-35779	**14**	-37380	**14**	49.59	**10**	1.24	**1**	7.91	**11**	10.00	**11**
Garanti Bank	143720	**2**	180832	**2**	38.08	**3**	1.88	**13**	13.64	**5**	5.00	**3**
Halk Bank	114443	**4**	145831	**3**	49.04	**9**	1.32	**3**	3.98	**14**	6.60	**6**
Is Bank	94827	**6**	121139	**6**	47.49	**7**	1.61	**8**	9.81	**8**	7.00	**7**
Seker Bank	35163	**10**	45511	**10**	47.44	**6**	7.52	**15**	4.44	**13**	10.80	**13**
TEB Bank	34547	**11**	42668	**11**	47.95	**8**	1.60	**6**	14.06	**4**	8.00	**8**
Tekstil Bank	17862	**12**	21621	**12**	59.13	**14**	1.72	**11**	6.77	**12**	12.20	**14**
Turkish Bank	13743	**13**	16406	**13**	52.96	**12**	1.88	**12**	23.56	**2**	10.40	**12**
Vakıf Bank	100814	**5**	128952	**5**	41.90	**4**	1.47	**4**	9.77	**9**	5.40	**4**
Yapı Kredi Bank	62454	**7**	81702	**7**	33.92	**1**	1.59	**5**	9.55	**10**	6.00	**5**
Ziraat Bank	123370	**3**	141875	**4**	52.57	**11**	1.27	**2**	42.16	**1**	4.20	**2**

Table 4 clearly reveals that on profit per employee, Ak Bank was at the top position with an average of 153,707 Turkish Lira, followed by Garanti Bank and Ziraat Bank. Ada Bank was at the last position with lowest average of 131610 Turkish Lira. Its again Ak Bank was at the top position in business per employee with highest average of 193747 Turkish Lira, followed by Garanti Bank (180832 Turkish Lira), Halk Bank (145831 Turkish Lira).

It's again Ada Bank at the lowest position. In case of personnel expenses to other operating expenses ratio Yapi kredi Bank with an average of 33.92 was at top position, followed by Ak Bank (36.80), Garanti Bank (38.08). Anadolu Bank scored the lowest position with an average of 61.60. Fiba Bank was at the top position with an average in total assets to total deposit ratio of 1.24, followed by Ziraat Bank and Halk Bank. Seker Bank at the least position with an average of 7.52. In content of funds borrowed to total assets ratio Zirrat Bank was at the first place with highest average of 42.16, followed by Turkish Bank (23.56) and A Bank (16.91).

By group average of the sub-parameters of management quality, Ak Bank stood at top position with group average 3.80 , followed by Ziraat Bank (4.20), Garanti Bank (5.00). Ada Bank placed at last.

Earning Quality

Earnings quality reflects quality of a bank's profitability and its ability to earn consistently. It basically determines the profitability of bank and explains its sustainability and growth in earnings in future. The following ratios explain the quality of income generation.

- Net Profit (Losses) / Total Assets
- Net Profit (Losses) / Equity
- Earnings (Losses) Before Taxes and Interests / Total Assets
- Net Interest Income After Specific Provisions / Total Assets
- Non-interest Income (net) / Total Assets

Table 5. Earning Quality Sub-parameter Ratios of Banks during the Period 2005-12

Name of Bank	ROA		ROE		EBIT/TA		NITASP/TA		Non-I/TA		Group Rank	
	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank
A Bank	1.30	**9**	13.49	**8**	1.73	**9**	56.58	**9**	1.71	**10**	9.00	**10**
Ada Bank	-2.08	**15**	-2.59	**14**	-2.07	**15**	86.92	**1**	1.19	**12**	11.4	**14**
Ak Bank	2.45	**1**	17.80	**4**	3.09	**2**	56.26	**11**	2.07	**5**	4.6	**2**
Anadolu Bank	2.32	**5**	16.60	**5**	2.97	**4**	70.03	**5**	1.73	**8**	5.4	**4**
Fiba Bank	-0.73	**14**	-6.90	**15**	-0.79	**14**	85.77	**2**	0.51	**15**	12	**15**
Garanti Bank	2.36	**4**	20.86	**3**	2.96	**5**	53.97	**12**	2.46	**4**	5.5	**5**
Halk Bank	2.43	**2**	23.65	**2**	3.12	**1**	64.09	**7**	1.71	**9**	4.2	**1**
Is Bank	1.86	**6**	15.11	**6**	2.40	**6**	46.52	**14**	2.74	**3**	7	**6**
Seker Bank	1.48	**8**	11.95	**10**	1.94	**8**	49.42	**13**	3.27	**2**	8.2	**8**
TEB Bank	1.20	**10**	13.26	**9**	1.49	**10**	64.50	**6**	1.77	**7**	8.4	**9**
Tekstil Bank	0.68	**11**	4.87	**11**	0.89	**12**	61.60	**8**	1.29	**11**	10.6	**12**
Turkish Bank	0.47	**13**	3.02	**12**	0.57	**13**	70.38	**4**	1.04	**14**	11.2	**13**
Vakıf Bank	1.73	**7**	14.76	**7**	2.22	**7**	56.53	**10**	1.77	**6**	7.4	**7**
Yapı Kredi Bank	0.68	**12**	1.38	**13**	0.98	**11**	44.00	**15**	3.52	**1**	10.4	**11**
Ziraat Bank	2.37	**3**	27.25	**1**	3.07	**3**	76.27	**3**	1.08	**13**	4.6	**2**

Table 5 indicates that the return on assets ratio, Ak Bank rated top with an average of 2.45 followed by Halk Bank (2.45), Ziraat Bank (2.37). Ada Bank was at the bottom most position with an average of -2.08. In case of return on equity ratio Ziraat Bank was at the first position with an average of 27.25, followed by Ak Bank, Garanti Bank. Fiba Bank was at the last place with an average of -6.90. In terms of profit (losses) before taxes after

continuing operations to total assets ratio Halk Bank was at the top position with an average of 3.12, followed by Ak Bank (3.09), Zirrat Bank (3.07).Ada Bank at the least position with an average of -2.07.Ada Bank was at the first position in net interest income after specific provisions to total assets ratio with an average of 86.92, followed by Fiba Bank and Ziraat Bank. Yapi kredi Bank scored the lowest position with lowest percentage of 44.00. In terms of non-interest income (net) tototal assets ratiosYapi Kredi Bank was at the top position with highest average of 3.52 followed by Seker Bank 3.27 and Is Bank (2.74). Fiba Bank scored the lowest position.

By group averages of seven sub-parameters of earning quality, Halk Bank was at the first position with group average of 4.2, followed by Ziraat Bank and Ak Bank. Fiba Bank scored the lowest position with 12 rank due to its poor performance in all sub-parameter ratios.

Liquidity Quality

For a bank, liquidity is a crucial aspect which represents its ability to meet its financial obligations. It is utmost important for a bank to maintain correct level of liquidity, which will otherwise lead to declined earnings. A high liquidity ratio indicates that the bank is more affluent. However, a bank needs to take care in hedging liquidity risk to ensure its own liquidity under all rational conditions. It is possible only when the percentage of funds ploughed in the investments with high returns is large.

Risk of liquidity can have an effect on the image of bank. Liquidity is a crucial aspect which reflects bank's ability to meet its financial obligations. An adequate liquidity position means a situation, where organization can obtain sufficient liquid funds, either by increasing liabilities or by converting its assets quickly into cash.

- Liquid Assets / Total Assets
- Liquid Assets / Short-term Liabilities
- Liquid Assets / Total Deposit

Table 6. Liquidity Quality Sub-parameter Ratios of Banks during the Period 2005-12

Name of Bank	LA/TA		LA/Sht-L		TD/TA		Group Rank	
	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank
A Bank	19.17	**14**	34.07	**14**	0.60	**10**	12.67	**15**
Ada Bank	91.96	**1**	3000.37	**1**	0.14	**15**	5.67	**4**
Ak Bank	41.37	**3**	70.77	**5**	0.59	**11**	6.33	**6**
Anadolu Bank	21.94	**13**	37.95	**13**	0.62	**7**	11.00	**12**
Fiba Bank	26.11	**10**	52.55	**8**	0.81	**1**	6.33	**6**
Garanti Bank	36.75	**6**	59.50	**6**	0.58	**12**	8.00	**9**
Halk Bank	22.10	**12**	38.38	**12**	0.76	**3**	9.00	**10**
Is Bank	39.76	**4**	71.56	**4**	0.62	**8**	5.33	**3**
Seker Bank	30.09	**9**	43.76	**11**	0.56	**13**	11.00	**12**
TEB Bank	32.92	**8**	49.64	**9**	0.63	**6**	7.67	**8**
Tekstil Bank	25.46	**11**	44.06	**10**	0.60	**9**	10.00	**11**
Turkish Bank	68.14	**2**	86.20	**2**	0.54	**14**	6.00	**5**
Vakif Bank	36.05	**7**	85.94	**3**	0.68	**4**	4.67	**1**

Yapı Kredi Bank	17.07	**15**	27.93	**15**	0.63	**5**	11.67	**14**
Ziraat Bank	38.55	**5**	56.16	**7**	0.79	**2**	4.67	**1**

Table 6 clearly reveals that on liquid assets to total assets ratio Ada Bank was at was first place with highest average of 19.17, followed by Turkish Bank (68.14), Ak Bank (41.37). Yapı Kredi Bank availed 15th position. Its again Ada Bank was at the top position in liquid assets to short-term liabilities ratio with highest average of 3000.37, followed by Turkish Bank and Vakif Bank. Also Yapı kerdi Bank was at the bottom position with an average of 27.93. In contest of liquid assets to total deposit ratio, Fiba Bank was at the top with the average 0.81, followed by Ziraat Bank (0.79), Halk Bank (0.76). Ada Bank was at the last position.

By group averages of sub-parameters, Vakif Bank and Ziraat Bank stood at the top position with group average 4.67, followed by Is Bank (5.33). A Bank scored the lowest position due to its poor performance in liquid assets to total assets and liquid assets to short-term liabilitiesratios.

Overall Performance Ranking

In order to assess the overall performance of state-owned and private-owned banks, we calculated the composite ranking and results are conferred in table six.

Table 7. Overall Performance Ranking during the Period 2005-12

Name of Bank	C	A	M	E	L	Avg	Rank
A Bank	11.60	12	8.80	9.00	12.67	10.81	**15**
Ada Bank	4.00	13.4	12.80	11.4	5.67	9.44	**12**
Ak Bank	8.40	3.56	3.80	4.6	6.33	5.34	**2**
Anadolu Bank	5.40	7.8	9.00	5.4	11.	7.72	**7**
Fiba Bank	7.00	9.2	10	12	6.33	8.90	**9**
Garanti Bank	8.80	7.2	5	5.5	8	6.92	**6**
Halk Bank	9.80	4	6.60	4.2	9	6.72	**5**
Is Bank	6.40	5.2	7.00	7	5.33	6.18	**4**
Seker Bank	8.80	7.8	10.80	8.2	11	9.32	**11**
TEB Bank	11.00	9.8	8	8.4	7.67	8.97	**10**
Tekstil Bank	8.60	12.8	12.20	10.6	10	10.84	**14**
Turkish Bank	5.00	8	10.40	11.2	6	8.12	**8**
Vakıf Bank	5.80	6.4	5.40	7.4	4.67	5.93	**3**
Yapı Kredi Bank	10.60	10.8	6.00	10.4	11.67	9.89	**13**
Ziraat Bank	8.80	2	4.20	4.6	4.67	4.85	**1**

It is found that Ziraat Bank was ranked at the top position with composite average 4.85, followed by Ak Bank (5.34), Vakif Bank (5.93), Is Bank (6.18) and Garanti Bank (6.92). A Bank was stood at the bottom most position with an average of 10.81.

CONCLUSION

Economic growth of countries is highly deepened on growth of banking system of that country. Our study has been conducted to examine performance of private and state owned banks among fifteen banks in Turkey during 2005-12. This study highlights

ranking of fifteen banks for their performance with respect to CAMEL ratios. This study shows that all banks that are examined in our research are in higher levels of Basel committee. Also in front of capital adequacy, Ada bank was at the top position. In terms of asset quality, Zirrat Bank stood on the top position. In context of management quality, Ak bank was at the top position. Halk bank stood at the top position in terms of earning quality and finally in terms of liquidity Ziraat bank was stood at top position. Analyzing through CAMEL method results that Ziraat bank was totally first among other banks, then Ak bank, Vakif Bank, Is Bank and Garanti bank are the other efficient performance banks. The most weak bank among fifteen banks was A bank has the worst efficacy after Tekstil bank, Yapı kerdi bank, Seker bank, Ada banks.

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