A Comparative Study of Profitability Indicators of Commercial Banks in Turkey and the UAE

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ABSTRACT

The role of banks in boosting economic growth is undeniably. Central Banks are principal to the process of development, through financing, monitoring, and coordinating. Thus, evaluating the performance of banks or using profitability indicators of the banking system is of great significance to decide whether or not the contribution of the banking system to economic growth is considerably positive or declining and therefore requires reform.

The present study is a comparison of the financial performance of seven commercial banks which have the biggest size of asset in Turkey and seven commercial banks which have the biggest size of asset in UAE for the period of 2004-2010, using ROA, ROE, and Growth in Net Income. The empirical study involves the implementation of 'Trend Analysis' with regression and correlation analysis to achieve its objectives.

Keywords: profitability indicators, commercial banks, Turkey, UAE

ÖZ

Bankaların ekonomik büyümeyi artırmadaki rolü inkar edilemez. Merkez bankaları finansman, denetim ve koordinasyonla gelişme sürecine büyük katkı sağlamaktadır. Bu nedenle bankaların performansını veya karlılık belirleyicilerini analiz etmek, ekonomik gelişmeye nasıl etki edeceğini göstermekte ve gerekli reformların belirlenmesine yardımcı olmaktadır.

Bu çalışma Türkiye'de faaliyet gösteren varlıkları bakımından en büyük yedi banka ile Birleşik Arap Emirliklerinde faaliyet gösteren varlıkları bakımından en büyük yedi bankanın 2004-2010 yılları arasında finansal performanslarını, varlıklar üzerinden karlılık oranı, özsermaye üzerinden karlılık oranı ve net gelir büyümesini göz önünde bulundurarak karşılaştırmaktadır. Bu amaç doğrultusunda çalışmada trend analizi ile birlikte korelasyon ve regresyon analizi uygulanmıştır.

Anahtar Kelimeler: karlılık belirleyicileri, ticari bankalar, Türkiye, BAE

To My Family

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LIST OF ABBREVIATIONS

AED	United Arab Emirates Dirham
ATM	Automatic Teller Machine
bn	Billion
CAGR	Compound Annual Growth Rate
CBRT	Central Bank of the Republic of Turkey
CEE	Central Eastern Europe
CSR	Corporate Social Responsibilities
EFT	Electronic Fund Transfer
ESTS	Electronic Securities Transfer System
FDI	Foreign Direct Investment
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
IMF	International Monetary Fund
LPI	Logistics Performance Index
NIM	Net Non-Interest Margin
OIC	Organization of Islamic Cooperation
PM	Profit Margin
ROA	Return on Assets
ROE	Return on Equity
SWIFT	Society for Worldwide Interbank Financial Telecommunication
UAEBF	UAE Banks Federation
UNCTAD	United Nations Conference on Trade and Development
USD	United States Dollars

Chapter 1

INTRODUCTION

1.1 Background

Banking systems have an indispensable role in driving economic growth. Banking systems are contributors to GDP. They contribute to development by financing businesses (and therefore creating job opportunities), and helping people manage their financial resources and even alter their deposits into feasible investment. The process of loan offering by banks is the basis for the initiation and growth of countless businesses; a process whose outcomes are best accomplished by implementing and maintaining sensible lending policies. The role of banks in supporting both public and private sectors is undeniable. Furthermore, the role of banking systems extends to risk management and smoothing out fluctuations. Banks also contribute to better corporate discipline and governance, in addition to accentuating and stimulating corporate social responsibilities.

The financial solutions and services offered by banks such as various loans, credit cards, cheques, Automatic Teller Machines (ATMs) and e-banking services facilitate transactions and encourage spending leading to increase in production and a subsequent economic growth.

Banking is a financial intermediary procedure which involves collecting funds from depositors and allocating them to borrowers so as to achieve the best revenues, thus contributing to economic growth. Banking systems do not only contribute to the development of national economy, but they also contribute to the development of the global economy as they facilitate international Banking transactions. Banking sector is growing due to its foretasted roles in economy.

The banking system contributes – as part of the financial system – to GDP and to economic development and social welfare. Therefore, measuring the profitability of the sector captured the interest of economists, and finance and banking experts.

The bank is basically established as a business aiming at making more money – any excess money or revenue that exceeds the costs (of establishing and running this business and the interest that the bank pays on its liabilities – deposits and borrowings) is profit. Bank profits come from fees for the services they provide to clients, as well as interest on its assets (loans that the bank gives as well as securities that the bank holds).

Profit's tendency to grow, stabilize or decline over a period of time is a demonstration of the bank's performance over a given period of time, and monitoring it helps forecast future trends and set pertinent plans. Indicators of a bank's profitability are numerous and the most important ones amongst which are: Return on Assets (ROE), and Return on Equity (ROA), as they are used to measure the profit made by the use of a bank's aptitudes, and to measure the profit made on shareholders' investments, respectively. Such ratios are investigated over specified

periods of time as they are subject to change, in line with alterations in a the policies and strategies implemented by a specific bank or changes of the financial situation.

1.2 Aim of the Study

The present study aims at conducting an empirical comparison of the financial performance of seven commercial banks which have the biggest size of asset in Turkey to seven commercial banks which have the biggest size of asset in the UAE. This empirical investigation is an attempt to answer the following important question: Is there a statistical difference between profitability of commercial banks in Turkey and profitability of commercial banks in UAE, arrived at by using profitability indicators?

1.3 Scope of the Study

The present study is an evaluation of profitability indicators of seven Turkish commercial banks which have the biggest size of asset and seven Emirati commercial banks which have the biggest size of asset for the period 2004-2010. The researcher has made use of the profitability indicators (ROA, ROE, and Growth in Net Income) for the selected banks of both countries. The reasons of choosing these countries are: (1) both chosen countries are on the top of the Logistics Performance Index (LPI) of Middle East countries, (2) they are also classified as two of the twenty fastest growing economies in 2015 according to economic survey by Bloomberg.

1.4 Significance of the Study

The significance of the study can be practically manifested by offering empirical answers to the stated important question: Is there a statistical difference between profitability of commercial banks in Turkey and profitability of commercial banks in UAE, arrived at by using profitability indicators?

Getting appropriate answers with relevant explanations is very significant not only for Turkey and UAE, but also for the rest of the world, since it provides invaluable information about the performance and profitability of the banks during a critical period of the international economy – the economic crisis which started in 2008. This investigation, as well as similar attempts, provides insights to banks to survive economic crises - especially that the study has taken into account by banking systems of two countries with outstanding significance internationally as commercial centers and investment destinations.

1.5 Research Methodology

To get the real facts and issues, the quantitative research approach has been implemented by researcher. A statistical analysis technique, called 'Trend Analysis' has been applied to data using MS Excel Program because' Trend analysis' operates on past data to predict future outcome that can be achieved pursuing various cost and performance variations. In order to analyze the profitability of the banks, different specific ratios have been used, such as ROA, ROE, Growth in Net Income. The researcher has also applied regression and correlation analyses by using CAMELS ratios approach to support and explain the results of the trend analysis.

1.6 Structure of the Study

The present study is divided into six chapters. Chapter One is an introduction to the study. An overview of the banking systems worldwide and those of Turkey and the UAE is provided in Chapter Two, shedding light on the latest developments of the sector. Chapter Three is entirely dedicated to a literature review. Selected up-to-date investigations of profitability are reviewed. Investigations are selected are according to variations they bear in analytical methods, indicators, regions, bank types and numbers, in addition to the type of comparison - within a country or taking more than one in account. Data methodology – compilation of data is accounted for in Chapter Four. In Data analyses and findings are provided in Chapter Five. Chapter Six, however, encapsulates the conclusions and suggestions.

Chapter 2

OVERVIEW OF BANKING SYSTEMS IN TURKEY & UAE

2.1 Review of the World's Banking Systems

Banks are the world's most efficient financial intermediary institutions. Banks create a safe environment for lenders (individuals, firms, and central banks) to deposit their funds, and turn such funds into useful investments by lending them in turn to individuals or institutes in need of them, acting thus as a financial intermediary between lenders and borrowers.

There are different designations of banks, such as: commercial banks, savings banks, agricultural banks, Islamic banks, industrial banks, cooperative banks, retail banks, offshore banks, and investment banks. In spite of the different designations of banks, all of them are commercial in reality.

What is common amongst the world's countries' banking systems, in addition to the financial intermediary function of banks, is the existence of one main bank (called the central bank) which licenses, controls and supports other banks operating in the country, and which is used by the government to oversee the country's monetary system and to fulfill its objectives that positively affect the country's economy, such as issuing and stabilizing the local currency, controlling inflation (by controlling money supplies through implementing monetary policy: putting in, or taking out excess money in the market), achieving full employment, regulating the credit

system, controlling interest rates, and managing exchange reserves. The central bank also plays a protective role and guards the country's banking system from collapse because collapse or deterioration in the banking system is a threat to the economy. In addition, existing banks can borrow from the central bank to meet the needs of clients – in case such banks do not have enough money (henceforth, the central bank is often described as the bank of banks).

Conventional banking systems have been prevailing worldwide. However, Islamic banks made their way into the banking industry steadily, since the setting up of experimental Islamic banks in the 1950's, followed by the opening of the first Islamic saving bank in Egypt and the first Islamic saving and investment bank in Malaysia in the 1960's, the opening of Islamic banks in Bahrain, Kuwait, Saudi Arabia, The Sudan, and The UAE in the 1970's (the era of international occurrence of Islamic financing), the introduction of more Islamic banks in Malaysia and Bangladesh; the application of interest-free banking in Iran and the Sudan in the 1980's, the adoption of more regulations for Islamic banking, Bahrain's development of the International Islamic Accounting Standards Organization, the launch of Dow Jones Islamic Market Index, the development of sukuk market in the 1990's, Bahrain's issuing of the Financial Trust Laws, Dubai's announcement of attempts to create the first Islamic stock-exchange, and offering Islamic banking services by many conventional banks worldwide since 2000.

Banks have a dynamic role in economy. Since they are fund and financial advice providers, they contribute to the initiation (as well as maintenance) of businesses,

and consequently to economic growth. In spite of the agreement on the significance of banks in each country, the importance of banks and the contribution of banking sector in an economy vary according to the type of the economy (e.g. whether or not it is more market-based). However, banks cannot make a good contribution to economy unless they generate some profit.

The main aim of the banking system worldwide is to make profit. This can be done by the optimal use of the bank's income which is obtained from its assets.) Making profit – any excess money or revenue that exceeds the costs of establishing and running this business and the interest that the bank pays on its liabilities – deposits and borrowings) is an indication of the bank's success. Bank profits come from fees for the services they provide to clients, as well as interest on its assets (loans that the bank gives as well as securities that the bank holds).

2.2 Review of Banking System in Turkey

There are national and foreign banks operating in Turkey, and they are all linked to the Central Bank of the Republic of Turkey (CBRT). CBRT implements monetary policy, and monitors the local financial system so as to insure stability in price level, in addition to being aware of the international financial changes that would affect the local economy. In other words, the Central Bank of Turkey, together with the government, pursue securing of the value of the national currency, both domestically and internationally, so as to achieve the government's objective of national economic growth by achieving and maintaining low inflation rates and full employment, in addition to encouraging investment. The Banknote Printing Department, which is part of the organizational structure of CBRT, is responsible for issuing banknotes in addition to

CBRT also determines and implements open market operations. CBRT establishes, operates, oversees, and regulates payment systems(instruments and procedures that enable and simplify the transfer of funds and securities amongst the participants, such as Electronic Fund Transfer (EFT), Electronic Securities Transfer System (ESTS), Interbank Clearing House, Interbank Card Centre, Istanbul Settlement and Custody Bank Inc. (TAKAS BANK), and Central Registry Agency Inc. (MKK), in addition to performing the function of the last lender of the systems of payment to solve those systems' liquidity complications.

The Central Bank provides consultation to the government as far as economic issues are concerned, and may be a representative of the country's international economic relations. Of course the CBRT maintains mutual relations with other countries' central banks, as well as membership in international institutions involved in financial activities such as Society for Worldwide Interbank Financial Telecommunication (SWIFT). In order to boost economic growth, CBRT maintains cooperation with international organizations that contribute to monitoring and sustaining international economic growth and development, such as the World Bank, the International Monetary Fund (IMF), in addition to the Organization of Islamic Cooperation (OIC).

CBRT compiles monetary, financial and economics-relevant data, produces relevant statistical accounts and publishes them, therefore providing a significant source of information and maintaining transparency in so far as such information is concerned.

Table 2.1. List of Turkish Banks Size

Bank	2010	2011	2012	2013	2014
Türkiye Cumhuriyeti Ziraat Bankası A.Ş.	98,308.9	85066	91622	97414	106408
Türkiye Halk Bankası A.Ş.	47,439.1	48242	60915	65689	66794
Türkiye Vakıflar Bankası T.A.O.	48,102.0	47215	58832	63601	67995
Adabank A.Ş.	33.3	27	28	23	22
Akbank T.A.Ş.	73,609.9	70703	87676	86245	88294
Alternatif Bank A.Ş.	2,769.7	3412	4483	4837	4581
Anadolubank A.Ş.	2,919.3	3061	3593	3513	4073
Şekerbank T.A.Ş.	7,394.1	7632	8167	8789	9105
Tekstil Bankası A.Ş.	1,673.5	1847	2068	1807	1571
Turkish Bank A.Ş.	669.6	474	538	528	602
Türk Ekonomi Bankası A.Ş.	12,377.1	20166	24489	25070	27071
Türkiye Garanti Bankası A.Ş.	80,621.4	77634	90117	92422	94082
Türkiye İş Bankası A.Ş.	85,715.7	85589	98697	98808	102184
Yapı ve Kredi Bankası A.Ş.	55,135.4	57231	68733	69884	77872
Arap Türk Bankası A.Ş.	741.8	1595	1546	1537	1597
Deniz Bank A.Ş.	17,989.2	19050	24864	27895	29857
HSBC Bank A.Ş.	11,535.7	12776	14232	17006	14535
ING Bank A.Ş.(Oyak Bank)	11,250.8	11152	14129	15675	16337
Alternative Bank	2,770.0	3412	4483	4837	4581
Birlesik fon Bankasi	514.0	436	454	383	885

Source: The Banks Association of Turkey

Studies detected the history and development of banking in Turkey, and highlighted the success of the sector in the face of crises through sound policies and measures.

It is reported that the Ottoman Empire lacked a commercial banking system for decades, and saved wealth in palaces in the form of gold which was mostly used to finance wars, and that street banking and Galata bankers who started lending Ottoman Sultans initiated the first banking attempts (Görmez, 2008). Görmez also states that banking licenses were then given by Ottomans mostly to foreigners to facilitate further borrowing. Thus, foreign banks were the early winners of Ottoman licenses - namely Banque de Constantinople in 1872, followed by the licensing of European joint venture banks, to the establishment in 1863 of the first Turkish central bank under the name Banki Osmani Şahani and the establishment of the first state-owned bank under the name Ziraat Bank (which still subsists as one of Turkey's largest local commercial banks), moving on to a trend of Ottoman and European joint ventures from 1868 to 1872.

Establishing a healthy financial and banking system was quite a challenging task for the Republic of Turkey especially in the first half of the 20th century as the republic had to pay the debts inherited from the Empire – a matter which was finalized in the 1950.

 The first national central bank was established in 1930 and there were public and private banks, however, from 1923 to 1932, 20 out of 45 national banks bankrupted due to the Great Depression; there were nevertheless 13 overriding foreign bank.

 The Republic of Turkey established banks to monetize and develop specific sectors or professions on priority basis, such as "Sumer Bank to encourage the development

of textile, Municipal Bank for regional development, Etibank for natural resources including iron and steel, Denizbank for sea lines and maritime development and Halkbankasi for small and medium-sized enterprise credits"

World War II affected Turkish banking and finance, however, new private banks emerged with lots of branches till the break of the banking crisis and the establishment of the Turkish Bankers Association in 1958, a year which also witnessed revising banking law, and which was followed in the beginning of the 1960's with the establishment of the Banking Solvency Fund by the Central bank to handle the 1950's debts. Holding banking prevailed in the 1960's and the decade witnessed the establishment of the American-Turkish Foreign Trade Bank.

The 1970's was a decade of crises that affected banking and finance in Turkey due to the global oil price shock leaving 44 banks in the country with the help of the IMF external debts were restructured and a new economic policy package was announced in the beginning of 1980 the decade witnessed the establishment of the Capital Market Board in 1982, the 1983 bankers' crisis that resulted into the bankruptcy of a number of Turkish banks and led to the revision of the Banking Law in 1985 to heal the banking sector, forming the Istanbul Stock Exchange in 1986, the Central Bank starting open market operations in 1987, the bankruptcy of more banks in the duration from 1987 to 1988, as well as the decline of the Turkish lira against the US Dollar, ending up with freeing foreign exchange trading and capital movement in 1989,the 1990's brought international crises – both man-made and nature-made – that affected the banking sector in Turkey in 1994 and some of the 67 banks in Turkey cleared out.

However, banking in Turkey scored its first quick growth of credit by the end of the 1990.

Ups and downs persisted in the banking industry which arrived at another financial crisis in 2001 which ended more than 10 banks, fortunately banks recovered and inflation rate lowered to less than 8% in 2005 and credit started growing quickly in spite of the global crisis owing to increasing international interest and participation in Turkish banks during the period from 2002 to 2008, the total assets increased "from USD 130bn to USD 465bn; their ratio to GDP from 57% to 77%'' plus and increase in the number of bank branches and workforce as per the Banks Association of Turkey's report of October 2008 on the financial system and banking sector in Turkey in 2009, Turkey had 49 of which 23 banks were commercial, had the highest share in the sector, and were members of the Banks Association of Turkey.

As per the March 2015 monthly report on commercial banks prepared by the Banking Regulation and Supervision Agency (BRSA), Turkey has Europe's 2nd biggest banking system with USD 820bn asset size .It is dominated by commercial banks which have "96.8% of total assets in the banking system as of 2010" which are of three types of ownership: 3 state-owned, 11 private-owned and 11 foreign ones. (Dinçer and Hacioğlu, 2014). Authorities that are responsible for governing and monitoring Turkish banking system; namely: the Central Bank of the Republic of Turkey (CBRT) and the Banking Regulation and Supervision Agency (BRSA).
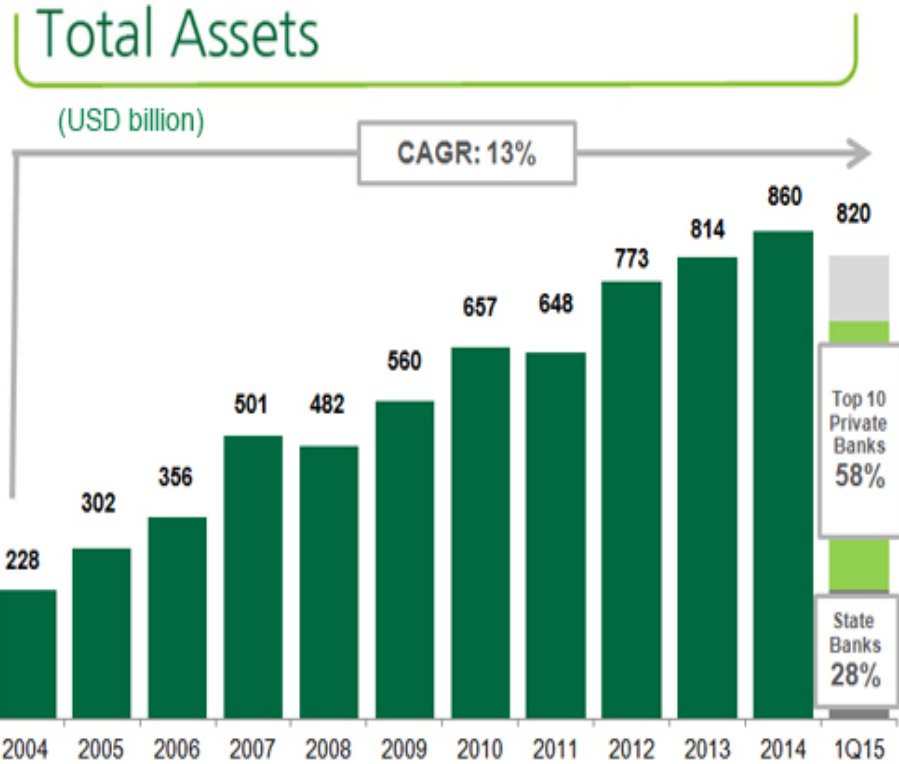
Figure 2.1. Total Assets of Turkish Banks (2004 – 1st Quarter of 2015) USD
Source: Garanti bank 2014.

Today's success of banking in Turkey is indeed the outcome of experience gained over long periods of practice and development starting from the Ottoman Empire era, the creation of national banks (1923), the creation of public banks (1933), the creation of private banks (1945), the planned period (1960), the period of liberalization (1981), the restructured period (2002), the economic crisis period (2008), and the post economic crisis period (2012-).

2.3 Review of Banking System in the UAE

The year 1973 was of crucial significance to the UAE as it witnessed creating the first monetary authority, namely the UAE Currency Board which issued the first national currency and which became the Central Bank of the UAE in 1980 (Bundhun, 2011). Before that, other currencies were in circulation and foreign banks operated in the country, such as the British Bank of the Middle East (1946) (acquired later by HSBC), and Standard Chartered, the Ottoman Bank (1962)[5] in addition to local banks as well, such as the National Bank of Dubai (1963) and the National Bank of Abu Dhabi (1968).

Like many other countries, including Turkey, the UAE does have a central bank whose main responsibility is the "formulation and implementation of banking, credit and monetary policies, to ensure the growth of the national economy of the UAE in a balanced manner [as well as] working to maintain a fixed exchange rate of the dirham against the U.S. dollar and to ensure the free convertibility of the national currency into foreign currencies, in addition to its role as "Bank of Banks" and the Government's bank and its financial adviser.

Like CBRT, the Central Bank of the UAE compiles monetary, financial and economics-relevant data, prepares and provides to the public different pertinent statistical reports and publishes them monthly, quarterly and annually to maintain

transparency. UAE has both conventional and Islamic banking systems. Table 2.2 and Table 2.3, which are provided by the Central Bank of the UAE, indicate that different types of local banks as well as foreign banks operate in the UAE.

The banking sector's role in supporting economy during financial crises is of great significance. The Central Bank of the UAE played a dynamic role in sustaining UAE economy to overcome the global financial crisis which blew in the year 2008. An example is the successful strategy implemented by the UAE Central Bank to reduce the gaps between loans and deposits since the beginning of the crisis, ending up with deposits surpassing loans by AED18bn by the end of 2010; an indication of how powerful the Emirati banking sector was and can be in the face financial crises - adopting and implementing a wise monetary policy.

The banking sector stood strong in the face of the crisis and continued growing during crisis years 2008-2010. This is indicated by the reserves which increased from AED 231.4bn by the end of 2009 to AED 256bn by the end of 2010, thus raising the sector's capital adequacy from 13.3% by the end of 2008 to 19.2% by the end of 2009, reaching 20.8% by the end of 2010. In fact, 15 UAE banks took a leading place among the best 100 Arabic banks in Assets for the end of 2009.[7]

Table 2.2. Some Banking Indicators in the UAE

in Billion Dirhams	Dec. 2010	Dec. 2009	Dec. 2008	Ratio Charges by the end of Dec. 2010	
				For Dec. 2009	For Dec. 2008
Total Bank Assets	1605.6	1519.1	1456.2	5.7 %	10.3%
Total Bank Deposits	1049.6	982.6	922.5	6.8%	13.8%
Loans & Advances	1031.3	1017.7	993.7	1.3%	3.8%
of which: Personal Loans	247.1	237.9	227.1	3.9%	8.8%
Certificate of Deposits Held by Banks	94	71.9	47.1	30.7%	99.6%
Capital & Reserves	256	231.4	153.6	10.6%	66.7%
Provisions (including General)	56.8	43.3	25.0	31.2%	127.2%

Source: Emirates Banks Association: Annual Report 2010

Banks operating in the UAE, however, are members of the UAE Banks Federation (UAEBF) which was established in 1982 as the Association of National Banks[9] and which protects their interests, facilitates coordination and maintains cooperation among them to enhance the banking sector, leading ultimately to enhancing UAE economic growth. UAE banking system recovered from the global economy of the later part of the first decade of the 21st century. As per 2014 statistical reports, The UAE banking system had 23 banks which locally incorporated which had 869 branches - operating in the UAE, the total banking activity grew up a healthy 9.7% reaching AED 2.31 trillion by the end of December 2014 loans and advances grew to AED 1.37 trillion, deposits to AED 1.42 trillion, and capital and reserves to AED 282.7 billion.

Chapter 3

LITERATURE REVIEW

There are number of investigations of banks' profitability. Available investigations, however, differ in so far as the selection of banks, countries, historical periods, methods or models of empirical analyses which are taken into account. There are also comparative investigations that vary in so far as comparing banks in one country or comparing banks across two or more countries is considered – the former type is more common, though. A number of studies aimed at exploring the determinants of profitability.

A considerable number of related studies have been conducted taking South Asia into consideration, specifically India. One collaborative investigation was conducted by Rao et.al (2005), who used key profitability ratios, to assess profitability of banks operating in India for the period (1998-2003) and who grouped the banks operating in India into 3 major groups according to their type of ownership; to privately-owned domestic banks, publicly-owned domestic banks, and foreign-owned banks. The researchers, using ROA, ROE, and Profit Margin (PM), arrived at the final finding that there has been an overall improvement in the profitability of the three groups of banks in India owing to economic reform, and that there has been an outstanding improvement in the profitability of private-owned and foreign banks due to liberalization of the banking industry, which allowed more growth of private and foreign banks in the banking sector, and which competed with public–owned banks

to achieve growth in productivity, cost efficiencies and advances in offering technological banking services.

Rao et.al. arrived at the conclusion that foreign-owned banks demonstrated the best financial performance owing to more efficient control over expenses, and more efficient use of assets. Therefore, foreign banks achieved better ROA. However, private banks excelled in ROE, and publically-owned banks' ROE was positively affected by greater debt-usage. The researchers also found that although domestic banks were attempting to rapidly catch up with foreign ones in profitability, they needed more control over costs (namely personnel and operating ones) and better utilization of assets.

The study was basically conducted because the researchers believed that there has been a shortage to studies of profitability of banks (taking into account one particular country at a given time) based on ownership of banks as a selection criterion. Their research was also inspired by monitoring the fast economic growth that India has witnessed since the early 1990's due to economic reform that has given more space to foreign direct investment, making India the 3rd most preferred destination for foreign direct investment as per the FDI ranking conducted by the United Nations Conference on Trade and Development (UNCTAD).

Thota (2013) conducted an investigation of the bank-specific and macroeconomic determinants of profitability of108 commercial banks of the sets of bank ownerships in India for a period that extended from 1999 (post financial reform) to 2011. A valuable finding was the existence of effect variation according to bank types. Another was the existence of effect variation according to bank types. Another was that ROA and ROE remained unaffected neither by the liquidity conditions or sizes of the banks. The analysis revealed a positive relation of the profitability of foreign banks and private ones to credit risk, and a negative effect of overheads cost to ROE of public commercial banks operating in India and a negative effect of overheads cost to ROA of private commercial banks in India. The researcher stated, as per the data analysis that higher levels of capital strength, lead to more profitability of commercial banks.

The study also revealed that macroeconomic influences on ROA were significant on all banks as one entity, and that the same factors' influences on ROE were insignificant for the bank categories under investigation.

Studies also focused on Pakistan, making a comparison of the profitability of a particular type of Pakistani banks, or comparing the profitability of Pakistani banks to banks in another country. Ali etal.(2011) investigated the profitability of Pakistani public and private commercial banks from 2006-2009 using ROA and ROE to investigate the effects of bank-specific and macroeconomic factors on profitability of the chosen type of banks, and implementing SPSS to arrive at the results of the regression and correlation analysis. The researchers concluded that economic growth and efficient asset management had a positive effect on profitability measured by

ROA and ROE, capitalization and high credit risk lowered profitability measured by ROA, and operating efficiency came highest in profitability measured by ROE.

Meanwhile, Al-Bihadili (2013) worked out a comparison of profitability indicators of commercial banks of Pakistan and their Malaysian counterparts. The researcher made a regression analysis and has arrived at the conclusion that there was no statistical difference in profitability determinants for commercial banks of both countries, and has suggested that the banks of both countries should not increase and hold more capital in order not to reduce profits.

AL-Tamimi (2010) conducted a comparative investigation of the factors which influenced the overall performance of UAE Islamic banks and conventional banks for the period form 1996 until the end of 2008. The study aimed at improving the performance and competitiveness of the two sets of the banks. The researcher, compiling data and implementing a regression model and using ROA and ROE and dependent variables alongside seven independent variables, noticed that due to the impact of the crisis, there emerged a greater demand on the services offered by Islamic banks which has led three national banks to switch their system to an Islamic banking system, and it even led foreign banks – namely, Citibank and HSBC to offer Islamic banking services to their clients in the UAE.

Ghazali (2008) investigated the determinants of the profitability of 60 Islamic banks in 18 different countries (GCC – except Oman, Yemen, Jordan, Lebanon, Egypt, Tunisia, Sudan, Brunei, Indonesia, Malaysia, Pakistan, Iran, Turkey, UK)for the period 2002 -2007 implementing regression models using three profitability indicators (ROA, ROE and NIM) and a variety of variables. The researcher's finally

found that the most significant determiners of the profitability of the selected Islamic banks were capital strength, efficiency factors. The researcher also arrived at the conclusion that there was a relationship between profitability measures of the selected banks and inflation and GDP growth (which are macroeconomic variables).

'Banks profitability Indicators in CEE Countries', is the title of a study conducted by Erins and Erina (2013) to determine the impact of external and internal factors of bank performance on profitability indicators Return on Average Assets (ROAA) and Return on Average equity (ROAE), using SSPS, data correlation and linear regression analysis. The research data was compiled for the selected countries for the period of 2006 – 2012 during which ROAE increased by 6.71%, whilst ROAA was 0.25% due to the impact of the financial crisis. The researchers arrived at the conclusion that most internal and external factors do not directly affect CEE countries' (Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia) banks profitability.

Unal et al. (2007) compared profitability of state-owned and private-owned banks in Turkey compiling data over a decade extending from 1997 to 2006. The researchers found out that both categories of banks were equally efficient in many respects, and that it is state-owned commercial banks which demonstrated more efficiency at some respects in comparison to private ones – a result which ran contrary to market forces theory.

Ongore and Kusa's (2013) investigation of the effect of bank-ownership type and its profitability shows that bank-specific factors (except the liquidity factor) had a major influence on commercial banks' performance in Kenya, and that such type of banks'

performance depends on the decisions of their boards and managements and is barely affected by macroeconomic factors. The sample was 37 commercial banks (13 domestically-owned; the rest foreign-ownership), and were studied using the CAMEL ratios, and the bank's compiled data was analyzed using MS Excel and E-views software. The indicators used were NIM, ROA and ROE.

Chapter 4

DATA METHODOLOGY

4.1 Data

In the present work, the researcher has made use of the data published at the official websites of the seven local commercial banks in Turkey and the seven local commercial banks the UAE which have the biggest asset size for the period of 2004 to 2010. The banks' balance sheets and income statements have been used as sources of data that has been subjected to subsequent analysis.

4.2 Methodology

The following table encapsulates the two groups of the selected seven local commercial banks in Turkey and the selected seven local commercial banks in the UAE, which were selected for the compilation of data required for the investigation of profitability determinants in the two groups of banks for the period of 2004 – 2010. The main criterion of selecting both groups of banks is that they have the biggest size of asset. the major sources of data collection for banks include: annual reports, management reports, descriptive notes of financial reports

Table 4.1. The Seven Commercial Banks which have the Biggest Size of Assets in Turkey & the UAE (2004-2010)

No.	UAE Biggest assets size banks	No.	Turkey's Biggest assets size banks
1	National Bank Abu Dhabi (NBAD)	1	Türkiye Garanti Bankası A.Ş,
2	Abu Dhabi Commercial Bank (ADCB)	2	Türkiye İş Bankası A.Ş,
3	United National Bank (UNB)	3	Yapıve Kredi Bankası A.Ş
4	Emirates Islamic Bank (EIB)	4	Türkiye Vakıflar Bankası T.A.O
5	Dubai Islamic Bank (DIB)	5	Türkiye Cumhuriyeti Ziraat Bankası A.Ş
6	Mashreq Bank (MASQ)	6	Türkiye Halk Bankasi A.Ş
7	Ras Al-Khaimah bank (RAK)	7	Türk Economi Bankasi A.Ş

4.3 Analysis of data

Data has been analyzed using profitability ratios and a statistical technique called 'Trend Analysis'. Trend Analysis is used to provide a clear picture of each bank's yearly performance in terms of ROA, ROE, and Growth in Profit ratios. Further, Trend Analysis has been selected by the researcher as an analytical tool in this work as it has been successfully used by researchers in the fields of business and economics to work out comparisons of available data over selected periods of time to identify any consistencies forming a trend (improving performance, constancy, or underperformance). Such identification can be used by researchers, specialists, or decision makers to respond to the trend in order to put business on the right track.

Also the researcher has used the regression analysis by eviews to support and explain the results of the trend analysis by running two regression models for each country and the data has been checked by running the eviews panel root test to decide whether the data is stationary or not .The regression analysis consists of two dependent variables (ROA, ROE) and six independent variables which are the explanatory variables (CAPX, AQUA, MANQ, LIQUD, INF, SIZE), and correlation analysis is run to find out the correlation between the variables.

Equations of regression analysis for models:

ROA=a1+B1(CAPX)+B2(AQUA)+B3(MANQ)+B4(LIQUD)+B5(INF)+B6(SIZE)+U

ROE=a1+B1(CAPX)+B2(AQUA)+B3(MANQ)+B4(LIQUD)+B5(INF)+B6(SIZE)+U

Whereas, $\beta 1$ is the intercept of the regression that represents the constant of banks ROA and ROE regarding the effect of independent variables.

$\beta 2$, $\beta 3$, and $\beta 4$ on the other hand are the coefficient of the independent variables.

4.3.1 Control variables

Appraising the profitability of banks is important not only for banks and economists, but also for investors and depositors. There are a number of indicators of banks' profitability. The present account highlights a number of such indicators. The designations and definitions of the selected profitability indicators as well as the ways they can be calculated are specified in the following sections of the present chapter.

As we have designed two regression models (mentioned above in this section), each of them consists of different independent variables. Here, we assumed ROA and ROE as dependent variables and other all factors as independent variables. These variables are mentioned below:

4.3.1.1 Return on Assets (ROA)

Return on Assets, abbreviated as ROA, is a profitability indicator that reveals how much profit a company earns for every dollar of its assets. Assets include things like cash in the bank, accounts receivable, property, equipment, inventory and furniture. The return on assets ratio of a bank is obtained by dividing total net income by total number of the bank's assets. The ROA shows how efficiently each bank is managing its assets (Guru et al., 1999). ROA is calculated as per the following equation:

ROA= (Annual Net Income)/(Total Assets).

4.3.1.2 Return on Equity (ROE)

Return on Equity is a sign of a bank's best profitability management. This ratio actually indicates the bank's profitability in terms of shareholder's equity; a ratio derived from Net Income divided by Total Equity. It is also an essential profitability ratio that discloses the bank's profit over shareholders' investment (Guru et al., 1999)

ROE = (Annual Net Income)/(Average Shareholders Equity)

4.3.1.3 Growth in Profit

Growth in Profit ratio can be calculated by extracting all operational cost, tax amount, and dividend price from total revenue. Growth in profit shows which bank or firm is more profitable than another.

4.3.1.4 Capital Adequacy (CAPX)

Capital Adequacy is a measurement that shows whether the bank has adequate capital for potential risks or not. Efficient banks keep high capital adequacy ratio.

Capx=total equity/ total assets

4.3.1.5 Assets Quality (AQUA)

Assets Quality is a measurement that shows the ability of generating cash by the banks to meet their obligations and pay out their loans. Generally, when the asset quality of the bank is high it will reflect to lower asset quality ratio, which means that the bank has a good credit portfolio.

Aqua= provision to loan losses/total loans.

4.3.1.6 Management Quality (MANQ)

Management Quality is an efficiency measurement which shows the ability of the bank to act against its expenses and deposits. Generally, low ratio of management quality indicates that the bank is efficient in terms of making more profits with less expense.

Manq=interest expenses/total deposit.

4.3.1.7 Liquidity Ratio (LIQUD)

Liquidity Ratio measures the ability to convert the assets of the bank to cash within a year. It is also used to find out if the bank is able to pay its short term debts. Higher ratio indicates the bank's ability to meet its short term obligations.

Liqud = liquid assets/total assets

4.3.1.8 Inflation (INF)

Inflation shows the increase in the prices of goods and services against the value of money. John H, et. all (2001) in their study "the impact of inflation on financial sector performance", stated that banks and other financial institutions have a negative relationship with Inflation. As the inflation raises the ability of lending amount diminished (John H. Boyd, 2001). Thus, it proved that inflation also affects banks an lending decision. Therefore, we chose inflation as an independent variable for our study analysis.

4.3.1.9 Bank Assets Size (SIZE)

Are the total assets of the banks, and in this study the size in the regression models is logarithmic value because of the absolute value nature of it. If any bank or financial institutions run out of enough assets they will definitely won't be able to provide loans. Making loans directly rely on assets size and availability, thus we took banks o size (on the basis of their total assets) as another independent variable that influence their lending decision

Chapter 5

ANALYSIS AND FINDINGS

5.1 Introduction

This section covers the performance analysis of both Turkish and UAE banks, with the help of trend analysis. Trend analyses are used to provide a clear picture of each bank's yearly performance in terms of ROA, ROE, and Growth in Profit ratios. In this section, regression analysis will be used to explain and support the results of the trend analysis.

5.2 ROA

The return on assets (ROA) ratios of both countries' banks is achieved by dividing total net income by total number of assets of each bank. The ROA shows how efficiently each bank is in managing its assets (Guru et al., 1999). Figure 1 and Table 1 represent the ROA for the five most active Turkish and UAE commercial banks for the period from 2004 to 2010.
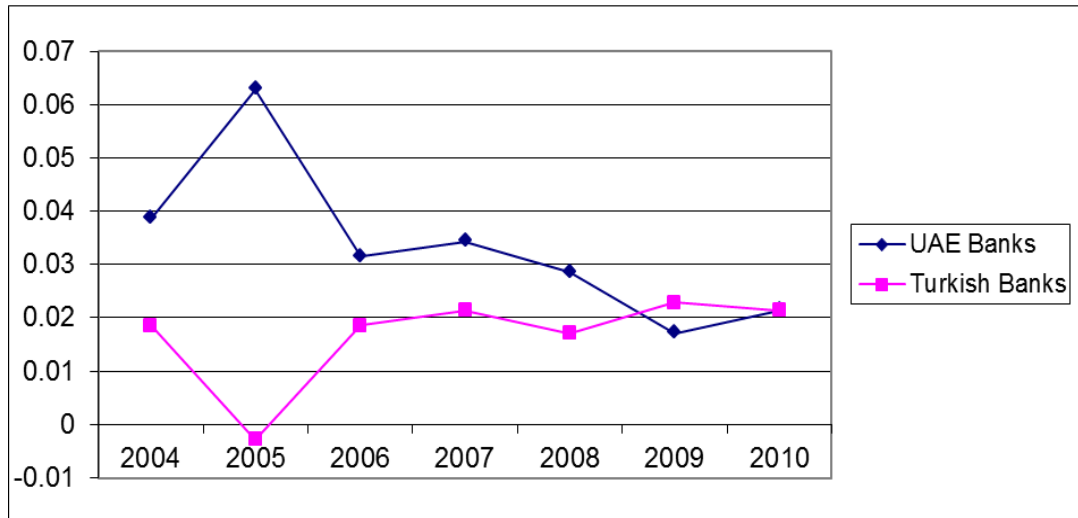
Figure 5.1. ROA of Seven Commercial Banks which have the Biggest Size of Asset in Turkey and Seven Commercial Banks which have the Biggest Size of Asset in the UAE (2004-2010)

Table 5.1. ROA of Seven Commercial Banks which have the Biggest Size of Asset in Turkey and Seven Commercial Banks which have the Biggest Size of Asset in the UAE (2004-2010)

Years	Turkish Banks								UAE Banks							
	TCZB	TVB	TGB	TIB	THB	TEB	YKB	Average	NBAD	ABCB	UNB	EIB	DIB	RAK	MASHRIQ	Average
2004	0.03	0.03	0.02	0.02	0.02	0.01	0	0.019	0.02	0.02	0.02	0.13	0.02	0.03	0.03	0.039
2005	0.03	0.02	0.02	0.01	0.02	0.01	-0.13	-0	0.03	0.03	0.03	0.09	0.03	0.18	0.05	0.063
2006	0.03	0.02	0.02	0.01	0.03	0.01	0.01	0.019	0.02	0.03	0.02	0.07	0.02	0.03	0.03	0.031
2007	0.03	0.02	0.03	0.02	0.03	0.01	0.01	0.021	0.02	0.02	0.02	0.09	0.03	0.03	0.03	0.034
2008	0.02	0.01	0.02	0.02	0.02	0.01	0.02	0.017	0.02	0.01	0.02	0.07	0.02	0.04	0.02	0.029
2009	0.03	0.02	0.03	0.02	0.03	0.01	0.02	0.023	0.02	-0.03	0.02	0.05	0.01	0.04	0.01	0.017
2010	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.021	0.02	0.02	0.02	0.02	0.01	0.05	0.01	0.021

Figure 5.1 and Table 5.1 clearly illustrate that the active commercial UAE banks were more efficient than Turkish banks maintaining their assets during the first five years. 2005 was the profitable year for UAE banks in comparison to their Turkish counterparts. However, 2009 brought the opposite results as in 2005. UAE banks had around 0.063. returns on their assets, while Turkish banks faced a loss with negative returns. In 2009 UAE banks also faced loss and their return on assets ratio decreased to 0.019. and after that UAE underwent a continuous decrease with a minor increase in the return value.

On the other hand, Turkish banks performed better than previous years and managed to have a better return on assets with minor increase every year. Hence, comparatively, during the entire period, the selected UAE banks were much better than Turkish banks as they always had more returns than Turkish banks at the first five years. Meanwhile, using the regression analysis to support the trend analysis and to explain the fluctuations in return on assets (ROA) of both groups of banks, both models showed different results when the models recorded R-squared of 45% and 80% for Turkish and UAE models respectively, which in turn means that the UAE model explained the fluctuations in the dependent variable by the independent variables at 80% which is higher than the 45% of the Turkish model. The rest unexplained 20% of UAE's model is from other factors that are not included in the model, the same is true of the rest unexplained 55% of the Turkish model.

Also in terms of autocorrelation, both models successfully maintained almost no auto- correlation, which was shown by the Durbin-Watson stat. when the UAE model indicated a 1.96 which is better than the 1.91 Durbin-Watson stat. of the Turkish model. Further, in terms of data fitting in their models, Prob (F-statistic)

shows that with 0.000000 probability for the UAE model and less than 1% for the Turkish model, UAE's ROA regression analysis model had a positive significant interception at level of 5%. This means, with other things being constant, that the ROA will increase by around 0.175 units. In addition, this is an indication that the model has a positive significant independent variable at level of 5% which is capital adequacy, and that means if other variables stay unchanging with the increasing of CAPX by 1 unit, the independent variable ROE will increase by 0.18 units - as stated in one outstanding study made by Bashir (2000) in which the researcher arrived at the same positive relationship between ROA and CAPX by empirical analysis. Bashir (2000)'s model also maintained a positive relationship between liquidity and ROA on the one hand, and negative relationship between ROA and asset quality as well as management quality. However, in the present model, asset quality and inflation were not significant. At the same time the model showed a positive significant relationship at level of 1% with liquidity. So, when other variables remain constant, an increase of 1 unit in liquidity will lead to an increase of 1 unit in ROA. The model showed also a negative significant relationship at level of 5% between ROA and size of bank which means that if other variables remain stable, an increase by 1% in the bank size will lead to decrease in ROA by10%, as well as an increase of size in percentages because in the regression model the researcher in the present work has used the logarithmic numbers for size because it's an absolute number.

On the other hand, the empirical analysis of the selected active Turkish commercial banks showed different empirical results of UAE in terms of significantly positive and negative independent variables with difference in affection degrees when the intercept for Turkish regression was significant at level of 5% with coefficient of -0.52. This means that with other variables remaining constant, ROA will decrease by

0.52 units, and this is higher than the UAE intercept. Also, the CAPX, AQUA, MANQ, LIQUID and INF were insignificant when CAPX was significant in UAE. However, the assets size for both countries negatively affected the ROA of both groups of banks under present investigation at the same significance level of 5%. Nevertheless, the size affection on ROA was less for Turkish banks with recorded coefficient of -0.027.

5.3 ROE

ROE is a ratio derived from net income divided by total equity called return on shareholders' equity. It is also an essential profitability ratio that discloses the bank's profit over shareholders' investment (Guru et al., 1999). Figure 5.2 and Table 5.2 consist of the return on shareholders' equities (ROE) for the selected banks of Turkey and their UAE counterparts for the period of 2004 – 2010.
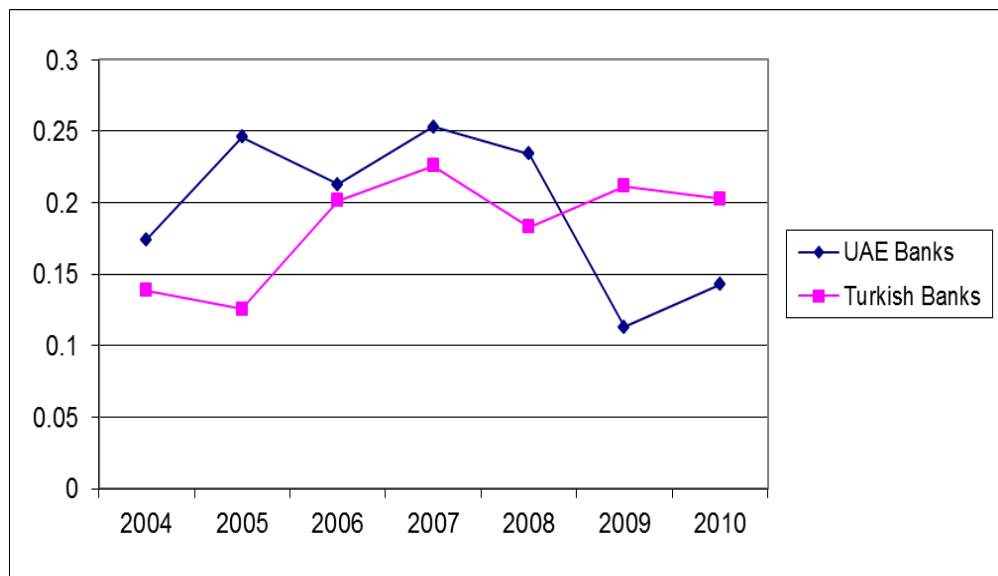

Figure 5.2. ROE of Seven Commercial Banks which have the Biggest Size of
Asset in Turkey & Seven Commercial Banks which have the
Biggest Size of Asset in UAE (2004-2010)

Table 5.2. ROE of Seven Commercial Banks which have the Biggest Size of
Asset in Turkey & Seven Commercial Banks which have the
Biggest Size of Asset in UAE (2004-2010)

Years	Turkish Banks								UAE Banks							
	TCZB	TVB	TGB	TIB	THB	TEB	YKB	Average	NBAD	ABCB	UNB	EIB	DIB	RAK	MASHRIQ	Average
2004	0.3	0.31	0.14	0.08	-0.13	0.18	0.09	**0.139**	0.02	0.16	0.2	0.36	0.15	0.16	0.17	**0.174**
2005	0.31	0.13	0.18	0.1	-0.18	0.17	0.17	**0.126**	0.03	0.22	0.22	0.5	0.28	0.18	0.29	**0.246**
2006	0.32	0.17	0.23	0.12	0.15	0.23	0.19	**0.201**	0.02	0.2	0.17	0.51	0.18	0.2	0.21	**0.213**
2007	0.33	0.2	0.34	0.16	0.15	0.26	0.14	**0.226**	0.02	0.18	0.17	0.69	0.24	0.25	0.22	**0.253**
2008	0.29	0.13	0.19	0.16	0.15	0.24	0.12	**0.183**	0.02	0.09	0.18	0.69	0.19	0.3	0.17	**0.234**
2009	0.34	0.17	0.22	0.18	0.16	0.28	0.13	**0.211**	0.02	-0.27	0.11	0.45	0.14	0.25	0.09	**0.113**
2010	0.27	0.14	0.19	0.18	0.2	0.27	0.17	**0.203**	0.02	0.2	0.11	0.21	0.08	0.31	0.07	**0.143**

The previous figure and the table demonstrate that the return on shareholder's equity (ROE) for the selected UAE banks are more favorable than (ROE) for the Turkish banks. During the period of 2004 to 2008, UAE banks were having more return on shareholders' investment than the Turkish banks. However, there was a bit fall in 2005 and 2008 for UAE banks and a small fluctuation in equity ratio in 2009, but overall the selected UAE banks managed maximum return on equity (ROE) which surpassed Turkish banks at the first five years . The selected Turkish banks, in comparison to the UAE banks, had kind of the same scenario. After 2005, there is a significant increase of ROE ratio, however less than UAE banks, till 2008. Moreover, there was an increase which surpassed selected UAE banks' ROE in the last two years - though in 2006 both countries' banks had a very close difference.

Meanwhile, using of the regression analysis to support the trend analysis and to explain the fluctuations in return on equity of both countries' models showed an acceptable result when the models recorded R-squared of 83% and 71% for Turkish and UAE models respectively. This means that the Turkish model explained the fluctuations in the dependent variable by the independent variables at 83% which is

higher than the 71% of the UAE model and the other unexplained 17% came because of factors that were not included in the model, the same is true for the unexplained UAE's 29%. In terms of autocorrelation, both models successfully maintained almost no autocorrelation which was indicated by the Durbin-Watson stat. when the Turkish model indicated a 1.96 (which is better than the 1.72 Durbin-Watson stat. of the UAE model). In terms of data fitting in their models, Prob(F-statistic) showed that with 0.000000 probability for the two models.

The Turkish banks' regression model had a negatıve significant interception at 5% with coefficient of 0.16, and a negative significant at 1% CAPX with coefficient of - 0.86. This indicates that with other variables remaining constant, the CAPX decrease by 1 unit, will lead ROE to decrease by 0.86 units. This conclusion is possible because if the CAPX ratio was large, it indicates that the bank has a risk caused by bad capitalization. This ratio affection on ROA is different from country to another as found in previous study of Brock and Suarez (2000). Also, Bashir and Hasan (2001) stated that more capital kept by a bank leads to less involvement in financial transactions, which in turn leads to lower profitability. Furthermore, AQUA is negative and insignificant. Management quality was also negative but significant at level of 10%. To put it simply, a high ratio is an indication that the bank has more interest expense. The Turkish model maintained a positive significant at 5% liquidity with coefficient of 0.10 and this is normal because higher liquidity ratio indicates that the bank has more liquid assets. The model also has insignificant inflation and negative insignificant size.

The same variables signs of UAE regression but with different levels and coefficient affecting ROE when the UAE intercept had lower significance level of 1% which is less than the Turkish model, but with positive coefficient of 0.79. Further, CAPX were insignificant in the UAE model. AQUA had a negative significance level which was 5% with coefficient of -0.18. Management quality of UAE model was negative and significant at level of 10%; Liquidity ratio had a significant level at 5% which was the same as the Turkish model with positive coefficient of 0.14, which was higher than the Turkish one. The inflation in UAE model was significant at level of 1% and coefficient of 1.18, and was therefore more than the Turkish inflation coefficient. The last independent variable, which is size of Turkish model, had insignificant level and coefficient of -0.031, while the size was insignificant in the Turkish model.

5.4 Growth in Profit

Growth in Profit ratio can be calculated by extracting all operational cost, tax amount, and dividend price from total revenue. Growth in profit shows which bank or firm is more profitable than another. The following figure and the table illustrate growth ratio of the chosen Turkish and UAE banks' profit for the period of 2004 to 2010.
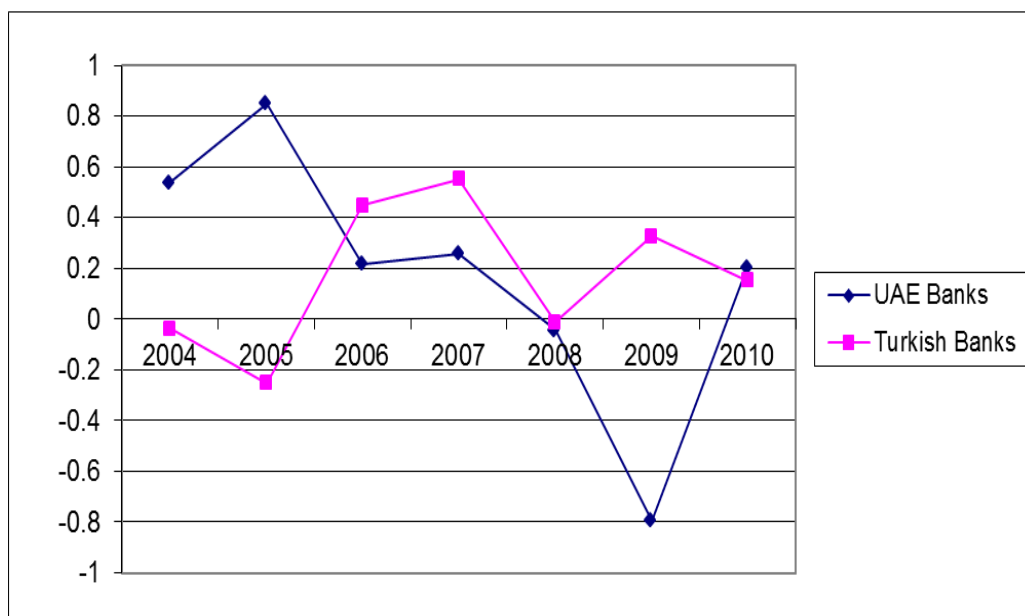
Figure 5.3: Profit Growth of Seven Commercial Banks which have the Biggest Size
of Asset in Turkey & Seven Commercial Banks which have the
Biggest Size of Asset in UAE (2004-2010)

Table 5.3. profit Growth of Seven Commercial Banks which have the Biggest Size
Assets in Turkey & Seven Commercial Banks which have the Biggest Size of Assets
in UAE (2004-2010)

Years	Turkish Banks								UAE Banks							
	TCZB	TVB	TGB	TIB	THB	TEB	YKB	Average	NBAD	ABCB	UNB	EIB	DIB	RAK	MASHRIQ	Average
2004	-0.08	-0.02	0.97	-0.56	0.32	-1.28	0.38	**-0.04**	0.88	0.66	0.01	0.45	1.38	0.15	0.25	**0.54**
2005	0.18	-0.06	-0.1	1.59	0.57	-4.16	0.21	**-0.25**	1.27	1.4	1.55	0.46	1.31	0.14	-0.18	**0.85**
2006	0.17	0.75	0.06	0.65	0.11	1.16	0.24	**0.449**	-0.18	0.12	-0.13	0.81	0.48	0.14	0.29	**0.219**
2007	0.12	0.26	0.32	1.12	0.53	0.29	1.22	**0.551**	0.19	-0.03	0.16	0.95	0.59	0.14	-0.19	**0.259**
2008	-0.09	0.07	-0.13	-0.21	-0.11	0.42	-0.04	**-0.01**	0.21	-0.35	0.2	0.2	-0.31	0.15	-0.39	**-0.04**
2009	0.65	-0.33	0.46	0.61	0.57	0.16	0.16	**0.326**	0	-4.76	-0.17	-0.28	-0.3	0.16	-0.21	**-0.79**
2010	0.06	0.32	-0.02	0.11	0.26	0.4	-0.07	**0.151**	0.22	1.77	0.17	-0.53	-0.33	0.15	-0.02	**0.204**

The profit growth for Turkish banks was quiet significant than UAE banks. UAE banks had a consistent decrease in their profit during the entire period except during 2009, when they faced almost a -0.79 loss. On the other hand, although Turkish banks had a negative ratio of profit in 2004 and 2005, they managed to rise in 2006 and reached more than 0.551 profit in 2007. 2008 again showed a -0.01 ratio for Turkish banks, but a manageable positive profit in 2009 and 2010. In all, UAE banks had a better profit margin during the whole period than Turkish banks, and this proves that UAE banks were more profitable than Turkish banks.

5.5 Correlation Analysis

Correlation analysis used to show the strength of linear association between the variables, generally the coefficient of the correlation analysis is in range between -1 to +1. Based on the above and according to the correlation analysis of the selected groups of banks' variables in tables 5.4 and 5.5 results we can say that both of the selected banks' groups of variables have no strong correlation between the variables. Further, the variables as showed by the correlation analysis doesn't have multicolinearity problem with the variables when the higher coefficient of the Turkish correlation analysis (-0.4279637) was between management quality and inflation and the correlation between them is inversely, The same is true for the UAE correlation results when the higher correlation coefficient was between size and capital adequacy which are inversely correlated at coefficient of (-0.67424).

Table 5.4. Correlation of Seven Commercial Banks which have the Biggest Size of asset in Turkey (2004-2010)

	ROA	ROE	CAPX	AQUA	MANQ	LIQUD	INF	LSIZE
ROA	1							
ROE	0.738015	1						
CAPX	0.13852	-0.40333	1					
AQUA	-0.12123	-0.2243	-0.09075	1				
MANQ	-0.07708	-0.06882	-0.051	0.081038	1			
LIQUD	0.147644	0.078398	0.216236	-0.31637	0.0271121	1		
INF	-0.00711	-0.06399	-0.09261	-0.22128	0.4279637	0.073036	1	
LSIZE	0.272206	0.387018	0.112599	-0.19424	-0.083729	-0.03551	-0.23728	1

Table 5.5. Correlation of Seven Commercial Banks which have the Biggest Size of asset in UAE (2004-2010)

	ROA	ROE	CAPX	AQUA	MANQ	LIQUD	INF	LSIZE
ROA	1							
ROE	0.844333	1						
CAPX	0.667253	0.306424	1					
AQUA	-0.63298	-0.62686	-0.42723	1				
MANQ	0.207944	0.056519	0.283044	-0.02389	1			
LIQUD	0.185996	0.314978	-0.16149	0.029116	0.258136	1		
INF	0.22299	0.171061	0.341147	-0.19899	-0.06164	0.005825	1	
LSIZE	-0.74885	-0.53928	-0.67424	0.371718	-0.19852	-0.06407	-0.1293	1

Chapter 6

CONCLUSION AND SUGGESTIONS

Banks as financial intermediaries are undeniably indispensable contributors to economic growth and development both locally and globally. This is practically manifested through providing short-term and long-term loans to finance industries, providing loans to individual consumers, providing risk management services, as well as providing cash remittance services. Banks channelize deposits into investments, thus having a role in domestic as well as global economic development.

As per the present study in which the researcher has analyzed the performance of a selection of seven commercial banks in the UAE and a selection of seven commercial banks in Turkey for the period of the economic crisis which hit and affected global economy from 2008-2010. Selected banks of both countries have done well in the financial and economic sector for the study period. In fact, both groups of banks had the biggest size of asset. However, Turkish banks when they were healing from the Turkish economic crisis (2001). The financial sector was doing well till the government decided to remove six zeros from the Turkish currency and print new Turkish currency in (2005), a decision which affected the Turkish banking sector because of the investors' expectations of the negative results of the decision.

And because the analysis and previous studies showed that the decision and the process of printing new Turkish currency had a positive effects on the financial and economic sectors of Turkey,. The Turkish financial sector was doing well after the 2001 Turkish economic crisis, after the 2005 problem and also after the 2008 global economic crisis. In fact the present study analysis showed the performance of the banks of Turkey was better than that of the UAE banks especially in 2009 and 2010.

The UAE witnessed its third oil boom in the period from 2005 to 2008 with huge amounts of foreign investments in that period. As indicated by the seven active commercial banks' profitability indicators, UAE banks performance was better than their Turkish counterparts in 2005 to 2008, however, the Turkish banks surpassed the UAE banks in 2009 and 2010.

Both countries selected bank's capital adequacy was positively related to ROA, negatively related to ROE different levels of significance and affection. Assets quality was negatively affected for just the Turkish banks ROE. Management quality was not significant to all models, while inflation was significant just for the UAE model ROA. Liquidity ratios, on the other hand, were positively related to ROA and ROE for both groups of banks. Further the size has significant negative relationships with both ROA models and insignificant negative relationships with both ROE models.

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APPENDICES

Appendix A. UAE (ROA) Regression Model

Cross-section random effects test equation:
Dependent Variable: ROA
Method: Panel Least Squares
Date: 06/26/15   Time: 14:48
Sample: 2004 2010
Periods included: 7
Cross-sections included: 7
Total panel (balanced) observations: 49

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.174606	0.068786	2.538384	0.0156
CAPX	0.180488	0.075187	2.400532	0.0217
AQUA	-0.023659	0.022497	-1.051622	0.3000
MANQ	-0.105311	0.139483	-0.755006	0.4552
LIQUD	0.138171	0.049858	2.771294	0.0088
INF	0.016054	0.023931	0.670847	0.5066
LSIZE	-0.010329	0.003805	-2.714957	0.0101

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.804671	Mean dependent var	0.029769
Adjusted R-squared	0.739562	S.D. dependent var	0.024800
S.E. of regression	0.012656	Akaike info criterion	-5.678987
Sum squared resid	0.005767	Schwarz criterion	-5.177075
Log likelihood	152.1352	Hannan-Quinn criter.	-5.488562
F-statistic	12.35873	Durbin-Watson stat	1.961436
Prob(F-statistic)	0.000000		

Appendix B. UAE (ROE) Regression Model

Cross-section random effects test equation:
Dependent Variable: ROE
Method: Panel Least Squares
Date: 06/10/15   Time: 18:04
Sample: 2004 2010
Periods included: 7
Cross-sections included: 7
Total panel (balanced) observations: 49
White cross-section standard errors & covariance (no d.f. correction)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.790590	0.237794	3.324693	0.0020
CAPX	-0.403859	0.375912	-1.074346	0.2898
AQUA	-0.182887	0.074881	-2.442361	0.0196
MANQ	-1.267215	0.725474	-1.746740	0.0892
LIQUD	0.142321	0.054241	2.623869	0.0127
INF	1.183471	0.109631	10.79506	0.0000
LOG(SIZE)	-0.031095	0.012924	-2.405940	0.1214

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.713022	Mean dependent var	0.222551
Adjusted R-squared	0.617363	S.D. dependent var	0.152322
S.E. of regression	0.094223	Akaike info criterion	-1.664000
Sum squared resid	0.319605	Schwarz criterion	-1.162089
Log likelihood	53.76800	Hannan-Quinn criter.	-1.473576
F-statistic	7.453764	Durbin-Watson stat	1.726428
Prob(F-statistic)	0.000001		

Appendix C. Turkey (ROA) Regression Model

Cross-section random effects test equation:
Dependent Variable: ROA
Method: Panel Least Squares
Date: 06/26/15   Time: 15:07
Sample: 2004 2010
Periods included: 7
Cross-sections included: 7
Total panel (balanced) observations: 49
White cross-section standard errors & covariance (d.f. corrected)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.523145	0.224971	-2.325389	0.0258
CAPX	0.333994	0.284862	1.172479	0.2487
AQUA	-0.016120	0.019591	-0.822821	0.4160
MANQ	-0.092984	0.068205	-1.363296	0.1813
LIQUD	0.008751	0.033044	0.264838	0.7926
INF	0.469481	0.310935	1.509902	0.1398
LSIZE	-0.027988	-0.010818	2.587162	0.0139

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.545661	Mean dependent var	0.016849
Adjusted R-squared	0.274215	S.D. dependent var	0.021009
S.E. of regression	0.017898	Akaike info criterion	-4.985965
Sum squared resid	0.011532	Schwarz criterion	-4.484054
Log likelihood	135.1561	Hannan-Quinn criter.	-4.795541
F-statistic	2.511275	Durbin-Watson stat	1.912458
Prob(F-statistic)	0.001635		

Appendix D. Turkey (ROE) Regression Mode

Dependent Variable: ROE
Method: Panel EGLS (Cross-section weights)
Date: 06/26/15   Time: 15:04
Sample: 2004 2010
Periods included: 7
Cross-sections included: 7
Total panel (balanced) observations: 49
Linear estimation after one-step weighting matrix
White cross-section standard errors & covariance (d.f. corrected)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0. 169235	0.357379	-0.473572	0.0387
CAPX	-0.086075	0.221719	-3.879575	0.0004
AQUA	-0.098970	0.060374	-1.639282	0.1099
MANQ	-0.139386	0.071063	-1.961444	0.0576
LIQUD	0.101718	0.050015	2.033775	0.0494
INF	0.368180	0.615645	0.598039	0.5536
LSIZE	-0.022215	0.016777	-1.324181	0.1938

Effects Specification

Cross-section fixed (dummy variables)

Weighted Statistics

R-squared	0.833798	Mean dependent var	0.290815
Adjusted R-squared	0.778398	S.D. dependent var	0.188985
S.E. of regression	0.056889	Sum squared resid	0.116510
F-statistic	15.05036	Durbin-Watson stat	1.968816
Prob(F-statistic)	0.000000		

Appendix E. UAE banks unit panel root test

variables	LLC	IPS	PP
ROA			
τ_T	-26.4246*	-2.54130*	60.7070*
τ_μ	-21.0892*	-6.17356*	62.0125*
τ	-8.51634*		57.4238*
ROE			
τ_T	-11.6045*	-1.04997	53.4836*
τ_μ	-13.4490*	-4.00951*	58.0777*
τ	-6.94160*		49.1948*
CAPX			
τ_T	-8.24602*	-0.30652	38.9449*
τ_μ	-12.2266*	-3.25587*	46.7144*
τ	-12.1230*		67.5610 *
AQUA			
τ_T	-4.85569*	-0.07814	26.9673*
τ_μ	-5.06274*	-1.58841*	36.4028*
τ	-4.46337*		42.3446*
MANQ			
τ_T	-7.94421*	-0.07927	36.0908*
τ_μ	-1.08041*	-3.23463*	42.7778*
τ	-3.48469*		33.6515*
LIQUD			
τ_T	-7.64082*	-0.11961	66.5437*
τ_μ	-11.5105*	-4.12306*	27.5933**
τ	-5.29809*		48.8453*
INF			
τ_T	-19.7013*	-2.32355*	84.5035*
τ_μ	-8.53637*	-2.76920*	36.1504*
τ	-9.93891*		72.1355*
SIZE			
τ_T	78.1663*	-9.10583*	59.4622*
τ_μ	-180.324*	-32.8384*	26.2005**
τ	-6.17938*		47.0713*

Note:

τ_T represents the most general model with a drift and trend; τ_μ is the model with a drift and without trend; τ is the most restricted model without a drift and trend. Optimum lag lengths are selected based on Schwartz Criterion. [*] denotes rejection of the null hypothesis at the 1% level. Tests for unit roots have been carried out in E-VIEWS 7

Appendix F. Turkish banks unit root panel test

variables	LLC	IPS	PP
ROA			
τ_T	-15.7178*	-1.47287**	66.5437*
τ_μ	-11.5105*	-4.12306*	64.7975*
τ	-11.3366*		92.1444*
ROE			
τ_T	-8.91527*	-0.7812	45.8212*
τ_μ	-9.39034*	-3.48892*	43.9428*
τ	-9.20189*		71.9715*
CAPX			
τ_T	-8.24602*	-0.30652	38.9449*
τ_μ	-12.2266*	-3.25587*	46.7144*
τ	-12.1230*		67.5610*
AQUA			
τ_T	-5.56786*	0.04779**	29.9415*
τ_μ	-3.79346*	-0.45643	31.0237*
τ	-4.46337*		42.3446*
MANQ			
τ_T	-7.94421*	-0.07927	36.0908*
τ_μ	-6.28275*	-1.77508**	28.9832*
τ	-3.48469*		33.6515*
LIQUD			
τ_T	-7.64082*	-0.11961	27.5933*
τ_μ	-6.47790*	-1.48184**	34.7665*
τ	-5.29809*		48.8453*
INF			
τ_T	-19.7013*	-2.32355**	84.5035*
τ_μ	-8.53637*	-2.76920*	36.1504*
τ	-9.93891*		72.1355*
SIZE			
τ_T	-17.8324*	-1.71026**	64.3474*
τ_μ	-20.8707*	-6.35441*	67.3363*
τ	-12.7327*		62.8286*

Note:

τ_T represents the most general model with a drift and trend; τ_μ is the model with a drift and without trend; τ is the most restricted model without a drift and trend. Optimum lag lengths are selected based on Schwartz Criterion. [*] denotes rejection of the null hypothesis at the 1% level. Tests for unit roots have been carried out in E-VIEWS 7