Performance analysis of Islamic banking:

Some evidence from Saudi Arabian banking

sector

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Abstract

Saudi Arabian banking sector has the largest assets of both Islamic and conventional banks among GCCs and a better level among Arab countries. Conventional and Islamic banks are operating side by side in the market. However, the rapid growth of Islamic banking system in Saudi Arabia creates intensive competitions in the industry. Each bank tries to be more financially feasible than others by increasing activities and innovating some products to gain higher market share. Therefore, there is an urgent need to make comprehensive analysis of Saudi Arabian banks' performance. The objective of this paper is to provide performance analysis comparison of Saudi banks as well as to examine the impact of banks' internal characteristics indicators on financial performance. A total of eleven banks are financially analyzed between 2005 and 2009. The methodology is used including ratio analysis and panel data regression to test the research hypothesis. The results show that large banks performance has reached the mature growth unlike medium-size banks. They are growing to compete against large banks. Meanwhile, small-size banks are facing some difficulties to achieve a better growth. The results indicate all Saudi banks are doing well to maintain the stability of banking sector. In addition, regression results show that banks' size has a negative impact on financial performance, while asset utilization has a positive impact on Saudi banks profitability. Moreover, increasing banks operating expenses leads to increase the net special commission and decrease ROA and ROE.

Key word: Saudi banks, Islamic banking system, financial performance, and regression analysis

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Table of Contents

List of tables

List of graphs

List of Abbreviations

ALBI	Al-Bilad Bank
BJAZ	Jazira Bank
COTIN	Cost to Income
DTA	Deposits to Assets
EQTA	Equity to Total Assets
KSA	Kingdom of Saudi Arabia
LTA	Loan to Assets Ratio
LTD	Loan to Deposit Ratio
NCB	National Commercial Bank
NSC	Net Special Commissions
OPEXTA	Operating Expenses to Total Assets
OPINTA	Operating Income to Total Assets
OPEXTNSC	Operating Expenses to Net Special Commissions
PLS	Profit Loss Sharing System
RJHJ	Al-Rajhi Bank
RIBL	Riyad Bank
ROA	Return on Assets
ROE	Return on Equity
SAIB	Saudi Investment Bank
SAMA	Saudi Arabian Monetary Agency
Samba	Samba Financial Group
TA	Total Assets

Chapter1- Introduction

Background of the study

Islamic banking system has been expanding so rapidly over the past few years. In addition, it has been developing significantly around the world including Middle Eastern countries, Southeast Asian countries, European countries and even in North American countries. The existing of Islamic banks is to attract the customers who seek to avoid interest. Since interest is prohibited in Islam, Islamic banks have to avoid dealing with interest in any form. For that reason, Islamic banks came up with Profit-Loss Sharing System (PLS) and other sales contracts (will be explained later in this chapter). Above of that, Islamic banking system has to be operating with accordance to Islamic rules and principles.

On the other hand, counterparts are operating on the interest's basis. They receive interest from the borrowers, and pay interest to the lenders. The difference between them is profit earned by the bank. This is the mechanism used by conventional banks to finance most of businesses.

There is no doubt that banking sector generally is playing a major role in developing and enhancing the economic condition via funding most of companies, if it is not all. In Kingdom of Saudi Arabia (KSA) without exception, banking sector has a significant weight in the Middle East. Furthermore, Saudi Arabia has the largest assets of both Islamic and conventional banks among Gulf Cooperation Council Countries (GCCs) according to Alkassim (2005), and better level among Arab Countries. Conventional and Islamic banks are operating side by side in Saudi Arabian industry for the sake of profit maximization. Many studies show that the assessment of

Islamic banks' performance through a number of ratios produces satisfactory results. General speaking, Islamic banks are well chaptalized, stable and profitable (Iqbal and Molyneux, 2005). Besides, Saudi people – 99 per cent of population are Muslims- are concerned with Islamic rules and principles, and seek to avoid dealing with these banks of which provide interest. Thus, many conventional banks in the kingdom have adopted, if not converted to, Islamic banking system by providing Islamic windows to achieve higher market share. The common assumption, which emphasizes much of the financial performance research and discussions, is that increasing financial performance will lead to improved functions and activities of the organizations (Tarawneh, 2006). Consequently, consolidated competition, effective resources allocation, producing innovative products for saving money, and developing a new technology for evolving the quality have been focal points among banks in Saudi Arabian banking sector, not only locally, but also worldwide. Therefore, there is an urgent need to make comprehensive analysis of Saudi Arabian banks' performance.

This research will study and analyze the financial performance of selected Saudi banks by using a number of key ratios such as; profitability ratio, liquidity ratio, efficiency ratio, and capital structure /leverage ratio. In addition, the paper will examine the impact of financial ratios with respect to bank's size, operational efficiency, and assets management on the Saudi banks financial performance.

Problem statement

Due to Islamic banking expansion, an intensive competition among Saudi banks has arisen by providing innovative Islamic products, and efficient management in resources allocation and saving money. It is a well-known fact that is an effective and efficient banking system is important for long-term growth and crucial for economy development (Al Khathlan, Gaddam

and Malik, 2009). Thus, each bank tries to be unique than the others to achieve higher market share. However, this paper is conducted to answer several questions:

How does Saudi banking system work?

What are the strengths and weaknesses of each bank?

Which bank is   more financially feasible than the others?

Which are the unique characteristics of these banks?

What are the factors that influence or impact on Saudi bank's profitability?

What is the impact of internal indicators of banks on financial performance?

Objective

The objective is divided into two parts in this paper:

General objective

The paper aims to give stakeholders insight into how Saudi banks work by analyzing the financial performance of the selected banks through 2005 to 2009, and examining the impact of each bank's characteristics on financial performance, with respect to bank's size, operational efficiency, and assets management.

Specific objectives

1) To introduce Islamic banking system and its role in Saudi Arabian banking sector;

2) To classify Saudi bank's size based on total assets and total equity over the period (2005-2009)

3) To measure and analyze the financial performance of each bank between 2005 and 2009 by using two approaches of ratio analysis:

- By using trend analysis, this approach will examine the impact of each bank's growth over the sector, and how each bank improves and develops over the selected period. It will cover some key financial indicators such as; assets, equities, loans and advances, investments, net income, in addition to return on assets (ROA) and return on Equity (ROE).

- By using inter-firm analysis, this approach is aimed to compare each bank with competitors by measuring some ratios such as capital structure/ leverage ratio, profitability ratios, efficiency ratio and liquidity ratio.

4) To examine the influence of asset management on Saudi banks' financial performance by adopting some financial indicators, namely loan and advances to assets, equity to assets, deposits to assets, and operating income to total assets;

5) To examine the impact of operational efficiency on financial performance of Saudi banks by adopting some financial indicators, namely operating expenses to net special commission, operating expenses to operating income, and operating expenses to total assets;

6) To examine the impact size of bank, measured by total assets, on financial performance of Saudi banks.

Theoretical framework

The theory applied in this paper, to achieve the aforementioned objectives, is financial management theory. Specifically, financial statement analysis theory since it aids to financial analysis. Analysis of financial statements is a tool that widely used among interested parties such

as investors, creditors, and mangers to evaluate and assess the historical and current financial condition as well as to predict the financial performance of the bank in coming years. Khan and Jain (2007) define the analysis of financial statements as a process of evaluating the relationship between component parts of financial statements to obtain a better understanding of the firm's position and performance. Briefly, it could be said that financial analysis is the process or correlation and evaluation. Ratio analysis is a more practical tool for financial statements, it could link between risk and return regardless company's size in any industry. Bhatawdkar (2010) defines ratio analysis as the systematic use of ratio to interpret the financial statements so that the strength and weaknesses of a firm as well as historical performance and current financial condition can be determined. Furthermore, Ratio analysis makes related information comparable and it helps to identify the deficiencies and then take the actions to improve it. The importance of financial ratios underpins the truth that it illustrates the facts of a bank's performance on comparative basis and enables the drawing of inferences regarding the performance.

There are three types of comparison that are generally involved; 1) Trend analysis which involves comparison of the firm over the period. In other words, it compares current position of the firm with its past performance, usually from a year to five years. Second type is Inter-firm analysis that involves comparison of the firm with others in the same line of business or in the entire industry. Last but not least, comparison with standards or industry average (Khan and Jain, 2007).

By adopting financial ratios analysis, it enables us to answer research questions and achieve the objectives.

Conceptual framework

Conceptual framework will describe the relationship between the specific variables identified in this paper. Two types of diagram will be drawn in this section to smooth understanding of conceptual framework. In the first diagram below, it displays the first overall objective of this paper, which is about providing insight of Saudi banks performance for stakeholders. The dependent variable is analyzing the performance of Saudi banks. However, the analysis will rely heavily on financial performance (independent variables) by examining financial statements of each bank over the selected period (2005-2009). Thus, ratio analysis will be used to achieve the specific objective including identifying banks' strengths and weaknesses, examining the financial position of each bank and which bank does have more feasible financial position than the others. Financial performance will be measured by list of ratios:

1) Profitability Ratios including Return on Assets (ROA), Return on Equity (ROE), and Net Special Commissions (NSC)
2) Liquidity Ratio: Loans and advances To customer Deposit (LTD)
3) Capital Structure/ Leverage Ratio: Equity to Assets (EQTA)
4) Efficiency Ratio: Cost To Income ratio (COTIN)

Graph1- 1: Conceptual framework of comparative performance analysis:
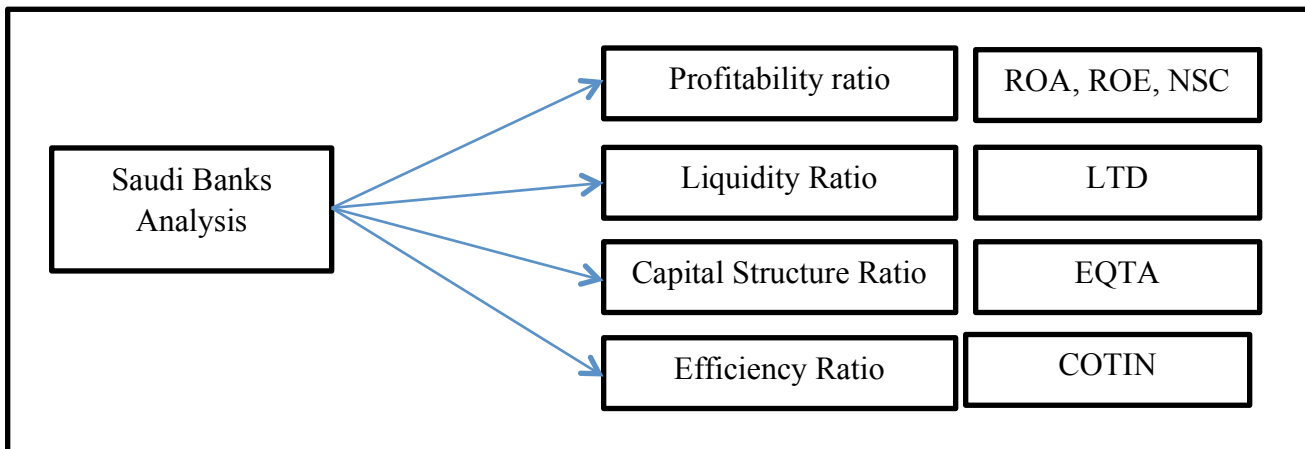
By contrast, the study will have another purpose including examination the relationship between financial performance and management or/and activity that is applied by Saudi banks through ratio analysis theory. Two different purposes will be studied via applying the same theory, but it serves to achieve the aforementioned objectives.

Graph (1-2) illustrates the variables including in this part. The dependent variable will be financial performance of Saudi banks. Since profit maximization is the ultimate goal that all businesses seek to attain, the financial performance therefore will be measured by profitability ratios, ROA, ROE, and NSC. On the other side, the independent variables will be subject to Saudi banks' asset management, operational efficiency, and banks' size. We need to examine the impact of Saudi banks management on its performance. Therefore, the activity and/or the ratio, that leads to profit maximization, will be determined. And then we can recognize which activity makes a bank unique from others. The ratios used for asset management are Loan To Asset ratio (LTA), Equity To Assets (EQTA), Customer Deposit To total Assets ratio (DTA), Operating Income to Total Asset Ratio (OPINTA). While the ratios used for efficiency, Cost to Income ratio (COTIN), Operating Expenses To Net Special Commissions ratio (OPEXTNSC), and Operating Expense To Assets ratio (OPEXTA). Last but not least, bank's size will be determined based on Total Assets (TA).

Graph 1- 2: Conceptual framework of determinants of bank's profitability:
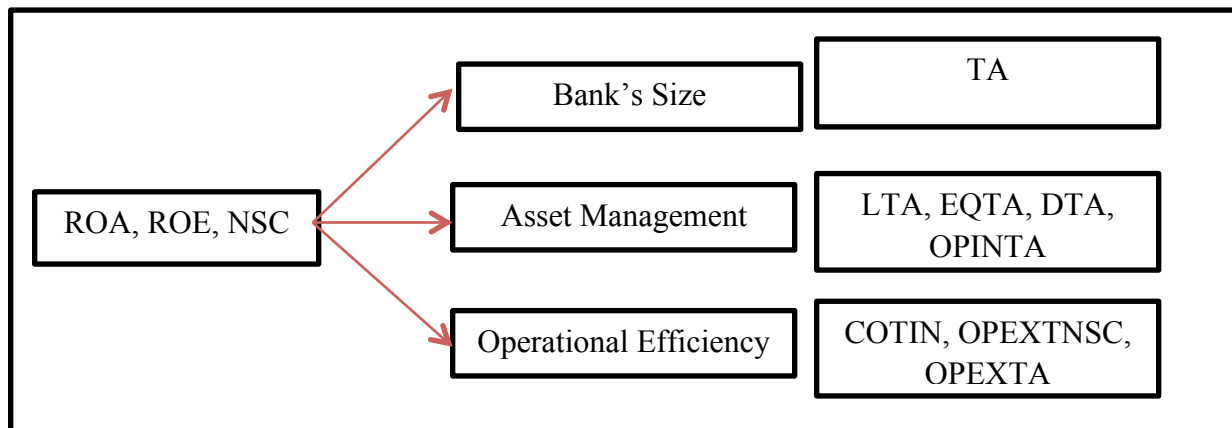
Operational framework

Operational framework introduces the calculation of selected variables of this research. However, the definition of these variables will be explained later on in this paper. The following lines describe variables' calculation:

Profitability ratios

1) Return on Equity (ROE) is calculated by dividing net income before tax and *zakat* to total equity

$$ROE = \frac{\text{Net income before Tax and } \textit{Zakat}}{\text{Total equity}} \times 100$$

2) Return on Assets (ROA) is divided by net income before tax and zakat to total assets.

$$ROA = \frac{\text{Net income before Tax and } \textit{Zakat}}{\text{Total Assets}} \times 100$$

3) Net Special Commissions (NSC) is calculated by subtracting special commission income from special commission expenses over total assets.

$$NSC = \frac{\text{Special Commission income} - \text{Special Commission Expenses}}{\text{Total Assets}} \times 100$$

The net income used in calculating ROA and ROE is net income before tax and *zakat*[1] since the Saudi government doesn't impose the residents and national businesses to pay taxes. Rather, paying *zakat* is a mandatory task, which is deducted from shareholders' dividends. Therefore, *zakat* is not charged to the consolidated financial statement of income but is deducted from the gross dividend paid to the shareholders or charged to retained earnings as an appropriation of net income if no dividend has been distributed (NCB financial Statements 2009). By contrast, joint ventures with foreign banks have to pay both *zakat* and taxes with unidentifiable tax expense (SABB special report, 2003). Therefore, to make precise comparison among Saudi banks, I consider the net income before *zakat* and tax.

Liquidity ratios

Liquidity ratio is measuring the ability of a firm to meet its short-term obligations and reflects the short- term financial strengths/solvency of a firm (Khan and Jain, 2008). The liquidity ratios used in this paper are;

1) Loan To Deposit Ratio (LTD) is calculating by dividing bank's total loans by total deposits. It the ratio is extremely high, it means the bank might not have sufficient liquidity to cover unpredicted requirements. However, if the ratio is sharply low, the bank is not generating as much as it could be.

$$LTD = \frac{\text{Loans and advances}}{\text{Customer Deposits}} \times 100$$

2) Loans to Assets Ratio (LTA) is calculating by dividing bank's total loans by assets.

The higher this ratio, the riskier the bank will be, and the liquidity will be low

$$LTA = \frac{\text{Loans and advances}}{\text{Total Assets}} \times 100$$

Leverage ratio/ Capital structure ratio

Leverage ratio is used to recognize the bank's ability to meet its long term obligations according

to Ahmed (2009).

1) Equity to Assets Ratio (EQTA) is total assets financed by shareholders' equity.

$$EQTA = \frac{\text{Shareholders' Equity}}{\text{Total Assets}} \times 100$$

2) Deposits to Assets ratio (DTA) is a result of dividing customer deposits by total

assets.

$$DTA = \frac{\text{Total Deposit}}{\text{Total Assets}} \times 100$$

Efficiency ratio

Efficiency ratios are to measure the efficiency in assets management; it is also called assets utilization or activity ratios (Khan and Jain, 2008). The following ratios are used in this paper:

1) Cost to Income Ratio (COTIN) is total operating expense divided by total operating income.

$$COTIN = \frac{\text{Total Operating Expenses}}{\text{Total Operating Income}} \times 100$$

2) Operating Expenses to Total Assets (OPEXTA)

$$OPEXTA = \frac{\text{Total Operating Expenses}}{\text{Total Assets}} \times 100$$

3) Operating expenses to NSC ratio (OPEXNSC) is calculating by dividing total operating expenses to NSC

$$OPEXTNSC = \frac{\text{Total Operating Expenses}}{\text{Net Special Commissions}} \times 100$$

4) Operating Income to assets ratio (OPINTA) is calculated by dividing total operating income to assets

$$OPINTA = \frac{\text{Total Operating Income}}{\text{Assets}} \times 100$$

Research Hypothesis

The hypothesis will examine the impact of operational efficiency, bank's size and assets management on bank's performance. The variable used to test the hypothesis were introduced earlier in the second graph (1-2).

H1: there's a positive and significant impact of operational efficiency, bank's size and assets management on return on assets (ROA).

H2: there's a positive and significant impact of operational efficiency, bank's size and assets management on return on equity (ROE).

H3: there's a positive and significant impact of operational efficiency, bank's size and assets management on net special commissions (NSC).

Limitations of this paper

The paper does not face any major obstacles. However, some banks have no financial reports prior to 2007. Thus, the source of collecting data varies between banks' official websites, Saudi Arabian Monetary Agency (SAMA) website, Saudi Arabian Stock Exchange (*Tadawul*) website, and Islamic Finance Information Service (IFIS) website. Moreover, Islamic banks, namely Al-rajhi Bank and Al-bilad Bank, adopt different accounting conventions than other banks. Consequently, loans and financing accounts are adjusted to comply with the others for comparison purpose. In panel data regression analysis, some variables have high p-value, which means they are not significant with dependent variables.

Another limitation is that some variables are not included to test bank's performance such as economic indicators. Some studies (introduced in chapter 2) included GDP and Inflation such

as Bashir and Hassan (2004). However, most of these researches study the financial performance over several countries not in a single country. Therefore, I exclude the economic indicators since all banks are operating under a unified system and economy.

Structure of the study

The thesis will be structured into six chapters including chapter one. Chapter one gives a briefs introduction about Islamic banking system and the nature of Saudi banking sector. Moreover, the chapter introduces the problem statements and the objectives of this paper. After that, it covers the theoretical, conceptual, and operational framework. Finally, the chapter concludes with the research hypothesis and limitations of this paper.

Second chapter (**Literature Review**) will provide literature review on Islamic banking including definition of Islamic banking system, history, rules and principles, and concluding with lending models. Then, literature review on Saudi banking sector will be introduced including introduction of Saudi Arabian economy, banking sector development, the role of Islamic banking in the kingdom as well as providing some papers regarding the performance of Saudi banks. Finally, the chapter reintroduces some papers that cover financial performance of Islamic banks as well as conventional banks in different countries.

Third chapter (**Data and Methodology**) will begin with the design of this paper. Then, it will present the data of Saudi banks chosen and how the sample is designed. After that, the selected variables will be defined more deeply. Finally, the instrument used in this paper will be also introduced.

Fourth chapter (**Data Presentation and Descriptive Analysis**) will give a brief introduction of selected Saudi banks with respect to its establishments, objectives, activities, and

financial highlights.   Then, comparative performance of Saudi banks will be analyzed in this chapter with respect to aforementioned ratios.

Fifth chapter (**Findings and Discussions**) will provide the outputs of regression test in entire sector, and then individually. The regression analysis will introduce the impact of selected variables on financial performance of Saudi banks.

Sixth chapter (**Conclusion**) will conclude with summary of this paper and results obtained. The chapter also will include the references and the appendix.

Chapter2: Literature Review

Literature review on Islamic banking:

Islamic banking system is thirty years old and is considered a part of banking industry. Islamic banking is also known as interest-free banking or profit-loss sharing (Alkassim 2005). Thus, it is a necessary to provide firstly a brief explanation of what Islamic banking is. Then, the section introduces history of Islamic banking and how it evolves, core concept and principles that Islamic banking should follow, and finally some examples of Islamic lending models.

What is Islamic banking system?

Islamic Banking System is defined as those banks that claim to follow *Shari'a* (Islamic law) in their business transactions*, Shari'a* requires these transactions to be in lawful (*Halal*) form and prohibits transactions that involving interest (*Riba*) (Maali, Casson, and Napier, 2006). In appendix A, a comparison between conventional and Islamic banking system is provided to highlight the major differences between them. There are fundamental rules that Islamic banks should apply; it will be explained in more details after introducing the development of Islamic finance.

History and growth of Islamic finance

Pre 1950s, Muslims were able to establish a system without interest for mobilizing resources to finance productive activities and consumer needs, but Islamic finance remained dormant

(Molyneux and Iqbal, 2005). When commercial banking emerged, very large majority of *Shari'a*[2] scholars objected banks mechanism due to reliance on interest rate.

From 1950s to 1960s, initial theoretical work in Islamic economics began. Islamic economists offered the first description of non-interest bank that is based on two-tire *Mudarabah* (profit-loss sharing contracts) or *Wakalah* (unrestricted investment account in which the Islamic bank earns a flat fee). Egypt and Malaysia took the initiatives to build non-interest financial institutions that really comply with Islamic economic principles (Greuning and Iqbal, 2008).

In 1970s, during oil revenues phase, Middle East saw a much rooming of small commercial banks competing for surplus funds. At the same time, the idea of non-interest theory grew to take a place. The first commercial bank was established in United Arab Emirates (UAE) in 1974 on private initiative, followed by Islamic Development Bank (IDB) establishment as an international financial institution in 1975 held in Jeddah, Saudi Arabia (Greuning and Iqbal, 2008).

In 1980s, this stage proved to be the beginning of rapid growth of Islamic finance industry. The major development was establishment of Islamic and Training Institute by IDB to continue research at the conceptual and theoretical level. Many countries such as Bahrain and Malaysia promote Islamic banking. In addition, banking systems were converted to be non-interest institutions in Iran, Pakistan, and Sudan. Above of that, western commercial banks helped Islamic banks to take a place by providing commodity and resell them at a markup amount. Consequently, these banks started offering Islamic Products through Islamic windows (Greuning and Iqbal, 2008).

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[2] *Shari'a* is Islamic religious law derived from the Holy Qur'an and the *Sunna*. While *Sunna* is a source of information concerning the practices of the Prophet Muhammad and his Companions, and is the second most authoritative source of Islamic law (Lewis and Hassan 2007)

The growth became steady in 1990s; the market attracted the attention of public lawmakers and institution interested in introducing innovative products. Accounting and Auditing Organization for Islamic Financial institution (AAOIFI) was established in Bahrain to highlight the special regulatory needs of Islamic financial institutions. Islamic insurance (*Takaful*) is introduced, Islamic equity Funds are also established (Greuning and Iqbal, 2008).

In the millennium, the Islamic financial services institution is formed to oversee corporate governance issues and make the regulations of the Islamic financial market. The banking industry has witnessed intensive competition in the market by offering innovative products and unique services. As a result, Islamic assets have grown between 15 per cent to 20 per cent annually for the past five years, which makes Islamic banking one of fastest- growing sector in the global financial services industry (Booz & Company 2008). The following graph illustrates the growth of Islamic banking industry, by the end of 2008, it is estimated the total assets could reach US$ 500 billion.

Graph 2-1: The Growth of Islamic Banking Industry:
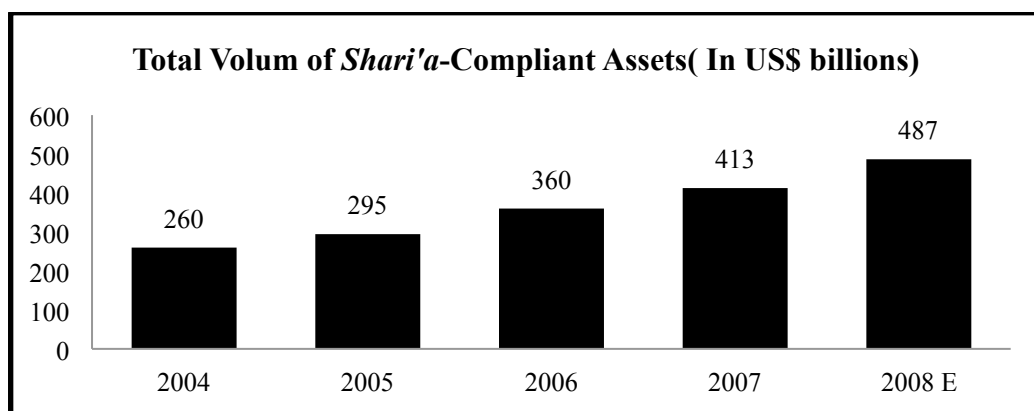
(Source: Booz & Company 2008)

Core concept of Islamic banking and its principles

The core concept of Islamic banking is to provide services to its customers free from interest, and the giving and taking of interest (*riba*) is prohibited in all transactions (Lewis and Algaoud, 2001). Prohibition of interest (*riba*) makes Islamic banking system differ from conventional banking system. In other words, the main difference between Islamic and conventional banks is the use of money. In conventional banks, money is used as a commodity that is bought and sold through the interest's usage according to Alkassim (2005).

Rejection of interest's usage raises the question of the alternatives of interest mechanism adopted in Islamic system. If dealing with interest rate is prohibited, how Islamic banking works? Here Profit-Loss Sharing System (PLS) takes the place as a method of resource allocation; it will be explained deeply in the following section. Beside the absence of interest in all financial transactions, there are religious rules or principles[3] should each Islamic financial institution applies in investment behavior to achieve Islamic norms. The following lines summarize these principles:

a. Interest (*Riba)* is prohibited in all transactions: free- interest is required in all investment as it is mentioned clearly in the Holy Qur'an. Accordingly, any predetermined payment above or over the actual amount of principle is prohibited legitimately. Therefore, the only loan that Islam accepts is *Qard al-hasan* (literally good loan) whereby the lender doesn't charge any interest or additional amount above the money lent (Kettell, 2007).

b. As it is mentioned earlier, money must be treated as a medium of exchange, a way of determining value of things, not making money from money. Accordingly,

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[3] These rules are derived from *Shari'a* (Islamic law)

Islamic finance will offer tangible physical assets that money will be granted. In Islam, money is considered to be potential capital not capital itself, meaning that money become capital only when it is invested in business (Ariff, 1988).

c. Risk sharing: since fixed interest is prohibited, suppliers of funds become investors instead of lenders; the provider of financial capital will share business risks in return for gaining profits.

d. Transparency in all transactions: a sale is invalid if the purchaser is not fully aware of products' quantity or quality. Thus, Islam has stressed that business transactions must be written to eliminate any ambiguity and reduce any potential might happen in future disagreement (Ismail, 2001).

e. *Maiser* (gambling) is also prohibited and transaction should be free of *Ghrar* (speculation or uncertainty) In business terms, *gharar* means to undertake a venture blindly without sufficient knowledge or to undertake an excessively risky transaction, although minor uncertainties can be permitted when there is some necessity (Lewis and Hassan, 2007).

f. All investments should be complied with legal products, meaning that all products should be useful not harmful as it is defined in Holy Qur'an (Lewis, 2001). For example, dealing with alcohol is not Islamically acceptable and should not be financed.

g. Levy (*Zakat*) should be paid by the banks to benefit society (Lewis and Hassan 2007).

Finally, if these rules are applied concisely, banking system will be totally Islamic.

Lending models of Islamic banking

As it is known, the objective of banking system is to finance the society. Thus, both Islamic and conventional banks have to fund people to generate profit and stay in business. However, interests forbidden in Islam as it is stated, by contrast, trade and profit motive is encouraged. In this respect, we need to distinguish between the two expressions "rate of interest" and "rate of return". We need to understand in trading there is always a risk of loss or low return. Therefore, people are able to earn money only by subjecting themselves to the risk involved in PLS. Thus, Islamic banks are expected to undertake operations only on the basis of PLS arrangements and other acceptable financing moods (Lewis and Hassan, 2007). According to Alkassim (2005), in Islamic banks, there have been sixteen different lending contracts or sales contracts, some of them will be explained in this section.

1. **Profit –Loss sharing system (PLS):**

- *Musharkah* (Joint Venture contract) is an equity participation contract, whereby two or more partners contribute with funds to carry out an investment according to Lewis and Hassan (2007). Returns as well as risks will be shared among investors. For example, if an investor has 50 per cent of capital for project X and he needs the remaining amount to continue, then the bank will provide the other 50 per cent with profit-loss sharing agreement at a predetermined return. Traditionally, this type of contract has been used for financing fixed assets and working capital of medium and long-term duration (Greuning and Iqbal, 2008).

- *Mudarabah* (A trustee financing contract) is profit- sharing agreement, where one party, the financier, entrusts funds to the other party, the entrepreneur, for undertaking an activity, the profit will be predetermined and risk will be liable only to the financier.

However, the entrepreneur is liable only to his efforts (Zaher and Hassan, 2001). It takes two forms: one tier and two-tier. The one tier *Mudarabah* is contract between the bank and the money borrower. On the other hand, the two-tier *Mudarabah* is operating as joint stock Company, whereby the bank, with shareholders, invests in the fund for the purpose of lending it out to the entrepreneurs (Alkassim, 2005).

2. **Other financing models:**

- *Murabaha* (Trade with markup or cost-plus sale) is one of the most widely used instruments for the short-term duration in Islamic banks. According to Iqbal (1997), 75per cent of Islamic financial transactions are *Murabaha* contracts. It is resale with a stated profit; for example the bank purchases a certain asset and sells it to the client, and markup will be predetermined. There are two contracts in *Murabaha:* the first one is between the client and the bank, while the second one is between the bank and the supplier. For example, if the customer needs to buy a car but no fund; in this case, the bank will buy it and resell it at higher cost. Then, the client can make monthly payment or lump sum payment to avoid interest (Alkassim 2005).

- *Tawarruq* (Monetization) is widely used in Islamic banks after *Murabaha*. It does also consider a type of *Murabaha's* contracts. It is defined as a contract between the bank and the client. The bank will buy goods and will resale it with a stated profit. Then, the clients will resale it to the market immediately to obtain liquid money (Alshalhoob).

- *Ijara* (Leasing) is a contract under which a bank buys and leases out an asset or equipment required by its client for a rental fee according to Iqbal and Abbas (2007). The client has the option to keep the asset or to give it back to the bank when the full payment

received. It is also a popular instrument counted around 10 per cent used in Islamic banks.

- Sales Contracts; one of sale contracts is Deferred payment sale (*Bay Mu'ajjal*), involves a credit sale of commodity in deferred payment basis according to Iqbal and Abbas (2007). Second sale contracts is advance purchase (*Bay' Salam*) where the full payment for a good is paid in advance but the delivery is made at a greed future date according to Alkassim (2005). Commissioned manufacture (*Bay' Istisna*) is a contract of manufacturing for a greed price and delivery date. It is comprised of two contracts; the first contract is between the bank and client, while the second one is between the bank and the manufacturer (Alkassim, 2005).

On the other side, each Islamic bank assigns *Shari'a* board to monitor and regulates internal operations with Islamic rules and principles. Finally the following chart shows these contracts that have been used in Middle East in a sample of 10 banks.

Graph 2-2: Proportions of Financial Contracts in Islamic Banks in Middle East:
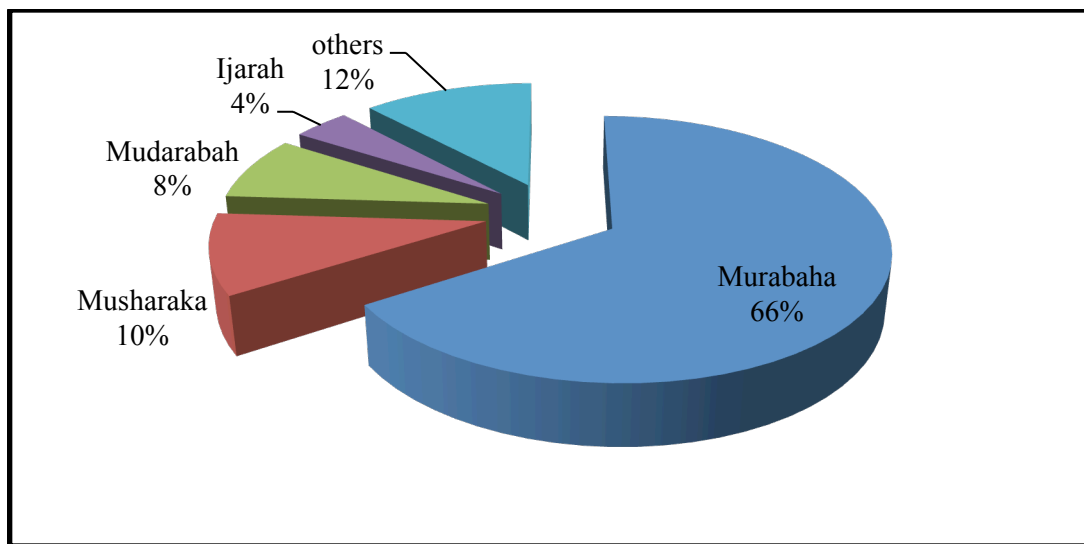
(Source: Alkassim's paper, 2005)

Literature review on Kingdom of Saudi Arabia (KSA)

Kingdom of Saudi Arabia (KSA) is the largest Arab country in the Middle East. Saudi Arabia has played a major role over centuries as an ancient trade center and as a birthplace of Islam. In 1932, civilization and modernization of KSA was established by King Abdulaziz Al-Saud. The population of Saudi Arabia is 27 million, including eight million foreign residents (2010 census), Islam is the main religion in Saudi Arabia. The kingdom is wealthy country in natural resources, oil, which is the important good around the world. Oil was discovered in 1939 in the aftermath of World War II. Saudi Arabia relies heavily on oil exports since it is considered the world's largest producers. The objective of this part is to give a glance on Saudi Arabian economy and development of Saudi banking sector.

Economic background

Petroleum is an essential part of Saudi Arabian economy. However, the government is trying to reduce the dependence on oil retailing by creating various economic structures through local investments such as agricultural and manufacturing. The private sector is playing an increasingly larger role in the Saudi economy – it now accounts for 48 percent of the gross domestic product (GDP). The sector is expected to continue growing, especially as Saudi Arabia opens its doors further to foreign investment. The following graph illustrates the growth of GDP over the period (1980-2009), and it shows a good improvement of Saudi economy.

Graph 2-3: GDP growth of Saudi Arabia:

GDP Growth %
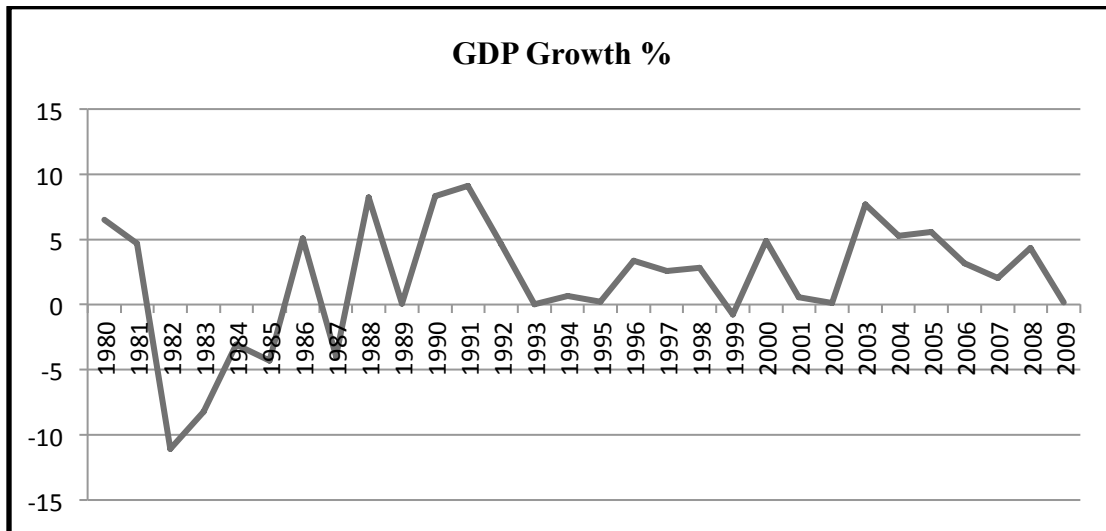
(Source: World Development Indicators)

Development of Saudi Arabian banking sector

Saudi banking system is governed by the Saudi Arabian Monetary Agency (SAMA), which is independent autonomous governmental agency. It is directly subject to the instructions of the Council of Ministers of whom the Ministry of Finance and National economy is in charge for all SAMA matters (Rolf, M. 1995). In brief, the Saudi central bank is laid down and governed by SAMA law. This part will address the development of banking sector in Saudi Arabia and Islamic banking system in the kingdom.

1) The Birth of banking system in 1960s:

Banking activities were limited to a few foreign trading houses in its early age. Their main business was to provide financial services to locals and pilgrims. No commercial banks existed at that time; the only more formal bank emerged after oil exploration was Dutch bank (now is Saudi Hollandi Bank SHB) in Jeddah. Saudi Arabian Monetary Agency (SAMA) was established in 1952 with primary responsibility for monetary stability. At that time, Saudi Arabia did not have a national currency; it was dealing with Silver Riyals and Sovereigns. In 1960,

SAMA could successfully introduce the Saudi national currency, called Riyal. SAMA was (and continues to be) responsible for issuing and preserving the value of Saudi Riyal, and for supervising and setting regulations governing the banking sector (Iqbal & Molyneux, 2005). By the creation of SAMA, the Saudi government used Al-Kaki and Bin Mahfouz Money Changer as its financial agent. This agent was allowed to transform into a formal bank known as the National Commercial Bank (NCB). It was the first Saudi bank established in 1953.

By 1960, the Saudi banking system witnessed opening of an additional three foreign banks and two domestic banks. However, the newly two established Saudi banks, namely the Riyadh Bank and Al-Watani Bank that started operating in 1957 and 1959 respectively, faced financial difficulties due to various liquidity problems. These were mainly caused by poor governance as board members of the two banks borrowed heavily, exposing the banks to various default problems. Being unable to meet depositors' claims, Al-Watani Bank became insolvent and was liquidated and merged with the Riyadh Bank (AlSuhaimi, 2001). In 1966, SAMA was provided by a banking law with broader supervisory powers that made banks subject to different liquidity, capital adequacy, lending, and reserve requirements (Iqbal & Molyneux, 2005).

2) Bank Industry Consolidation in 1970s:

The 1970s were the rapid expansion of the banking system in Saudi Arabia, several banks were attracted to access this sector due to economic booming, which was resulting from increasing of oil revenues. There were 12 commercial banks in operation and total number of bank branches had risen to 247 and covered almost the entire country (Al-Suhaimi, 2001). However, most of these banks were foreign banks, which encouraged the Saudi authorities to convert them into publicly traded companies with the participation of Saudi nationals. The ownership of foreign

banks was held up to 50 per cent in order to maintain the performance and stability of banking sector. Above of that, it was allowed to them to include the name of their origins in the bank title such as Saudi British Bank and Saudi American Bank. Saudi government had also established five major specialized lending institutions to fund specific sectors which were; Saudi Credit Bank, Saudi Agriculture Bank, Public Investment Funds, Saudi Industrial Development Fund, and the Real Estate Fund (Iqbal & Molyneux, 2005).

3) Problems and Incidents of 1980s:

The1980s were a testing period for Saudi banking system. The Saudi economy faced two major events. The first one was the sharp increasing of oil prices during 1979-1981 due to Iran-Iraq war, and the second event was the sever decline in oil prices1982-1986. These events made a negative impact on Saudi banking system due to lending extension. During oil prices decline, many banks faced difficulties in loans recovering that had been done without sufficient assessments and monitoring procedures. Consequently, Banks' profits suffered significantly and loan loss provisions and loan write-offs mounted. As a result, these incidents helped discipline banks' lending activities with average loan provisions increasing to more than 12 percent of total lending (Iqbal & Molyneux, 2005).

During 1980s, various other national banks were established, including Al-Rajhi Banking and Investment Corporation (the largest money exchanger licensed as a full commercial bank), Saudi Investment Bank (authorized as a full commercial bank with foreign ownership reduced to 25 per cent and remaining shares sold to the public), and the United Saudi Bank (formed after the take-over of three foreign banks). These banks contributed to the restructuring of the Saudi banking Sector. Meanwhile, SAMA encouraged banks to strengthen their capital positions so as to improve the soundness of the system (Iqbal & Molyneux, 2005). Another major improvement

at that time was government bond introduction that helped to support banks' investment portfolio. Moreover, automated teller machines (ATMs) and debit and credit card services became widely available to improve banks' services quality.

4) The growth of banking sector in 1990s:

Saudi banking system faced another troublesome due to Iraqi invasion of Kuwait. Deposit withdrawals increased by 11 per cent of banking total sector deposits and these were exchanged to foreign currencies. Therefore, SAMA provided liquidity in Saudi Riyal and foreign currencies helped those banks to maintain the stability of a healthy banking system during that time. In the other hand, Saudi banking system witnessed another evolution aspect was the merger between the United Bank and the Saudi American Bank (Iqbal & Molyneux, 2005).

Despite oil market fluctuation, Saudi banking system could overcome the turbulent successfully. Domestic loans and advances increased by 90 per cent, and profitability ratios continued to show constant improvement. Table one illustrates the growth of Saudi banking system in that time. Moreover, Saudi banking system continued to develop its operations by investing in such a new technology (i.e. electronic funds transfer system).

Table 2-1: Growth of Saudi banking system:

	1980	1990	1998
Assets (in US$ billion)	21	69	109
Number of banks	10	12	11
Concentration (share of top five banks)	80	76	75
Number of staff (in thousands)	11	25	22
Branches	247	1,011	1,236
Return on assets (%)	1.9	1.4	1.7
Simple capital ratio	6.1	7.2	10.4

(Source: Al-Suhaimi, J. 2001)

5) The New Millennium:

Due to long-term growth and development, Saudi banking system has been supported by a strong and comprehensive system of banking supervision. SAMA has been a regulator for licensing banks, approving their activities and take corrective actions when require. It has the authority to issue rules, regulations and guidelines of all banks, including capital adequacy, liquidity, lending limits, and credit and market risk. It has a dual role of providing central payment and settlement services to banks and controlling these systems. It also acts as a regulator of stock market. With these broad supervisory powers, SAMA has used them efficiently and effectively over the years to ensure that the Saudi banking system has a high reputation of stability and soundness in the international financial markets (Al-Suhaimi, 2001).

Islamic banking in Saudi Arabia

Saudi Arabian banking sector has the largest market of Islamic finance in terms of assets' size. The largest Islamic bank in the world, Al-Rajhi Banking and Investment Corporation, is based in Saudi Arabia (Melatybt, 2008).

Most of Saudi banks emerging conventional business with *Shari'a*-compliant business, which makes it hard to realize how much *Shari'a*-compliant business banks are doing. All Saudi banks reporting results at the end of 2009, four banks (namely Al-Rajhi Bank, Aljazira Bank, Al-bilad Bank and Alinma Bank) represent that all their operations are conducted with compliance of Islamic principles. Thus, loans and advances of these banks (termed to financing or investments) are based on Islamic principles. The other banks are including a note regarding the size of Islamic product provided as a part of loans and advances note on the balance sheet. Table two displays the portion of *Shari'a*-compliant products of total loans and advances at the end of

2009. Graph four shows the growth of Islamic products to total loans over the period (2005-2009).

Table2-2: Islamic products of Saudi banks at the end of 2009

	Loans & Advances (SR Million)	*Shari'a*-Compliant products (SR Million)	*Shari'a* -Compliant Facilities to Loans %
National Commercial Bank	112,158	64,172	57
Riyad Bank	106,515	44,672	42
Alrajhi Bank	145,819	145,819	100
Aljazira Bank	15,504	15,504	100
Saudi Investment Bank	29,785	9451	32
Saudi Hollandi Bank	36,023	11446	32
Banque Saudi Fransi	78,315	30,468	39
Saudi Arabian British Bank	76,382	38,568	50
Arab national Bank	66,811	33,500	50
Samba Financial Group	84,147	23,069	27
Al-bilad Bank	11,014	11,014	100
Al-Inma Bank	1,126	1,126	100
Total	762,473	427,683	56

Graph 2-4: The Growth of Islamic Instruments to Total Loans and Advances in Saudi Banking Sector
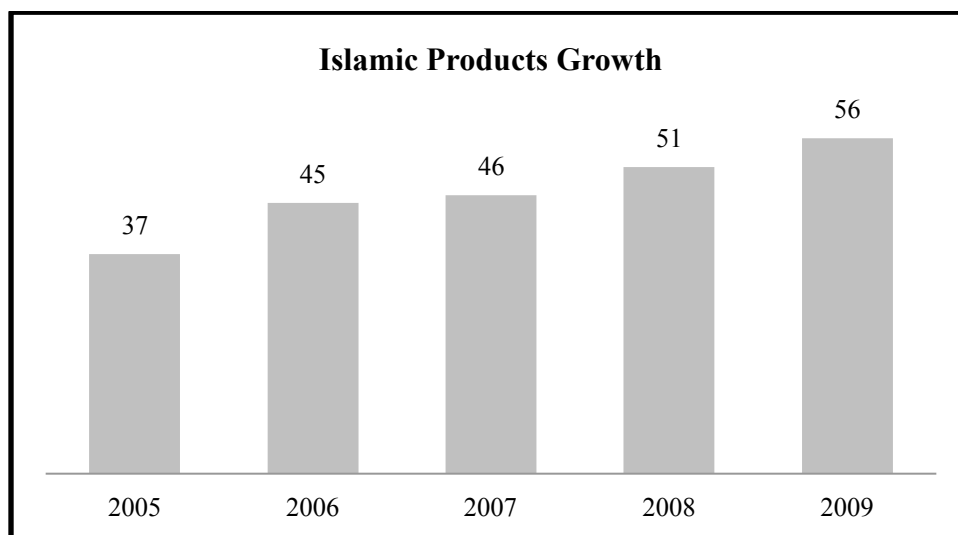
Furthermore, most of Saudi Banks disclose the type of Islamic moods as it's displayed in the table below. Natioanl Commercial Bank uses *Murabaha, Ijara, Tawarruq, and Musharaka* . Riyad Bank uses *Murabaha, Ijara, Tawarruq, and Istisna'a.* Al-Rajhi Bank uses *Murabaha, Trading, Installment, and Istisna'a* contracts. Jazira bank uses *Murabaha, Tawarruq, and Istisna'a* contracts. Saudi Investment bank uses *Murabaha, Ijara and Istisna'a* contracts, while Bnque Saudi Fransi uses *Murabaha, Ijara, Tawarruq* in addition to PLS (*Musharaka and Mudarabah)*. Samba uses *Murabaha, Ijara, Tawarruq, and Mudarabah* . Al-bilad bank uses most of these contracts; by contrast Alinma uses only one contract (*Murabaha)*. However, Saudi Hollandi Bank, Saudi Arabian British Bank, and Arab National Bank do not disclose which type of instruments are using.

Table 2-3: Islamic products used by Saudi banks

	Murabaha	Trading	Bei ajal	Installment	Istisna´a	Ijara	Tawarruq	Musharaka	Mudarabah
National Commercial Bank	x					x	x	x	
Riyad Bank	x				x	x	x		
Alrajhi Bank	x	x		x	x				
Aljazira Bank	x				x		x		
Saudi Investment Bank	x				x	x			
Saudi Hollandi Bank									
Banque Saudi Fransi	x					x	x	x	x
Saudi Arabian British Bank									
Arab national Bank									
Samba Financial Group	x					x	x		x
Al-bilad Bank	x		x	x		x		x	
Al-Inma Bank	x								

(Source: data obtained from financial statements 2009 for each bank)

Literature review on banks' profitability:

As it is known in accounting literature, there is a limitation of using financial ratios. In this paper, however, some ratios are used to measure the financial performance among Saudi banks. The study of bank's performance is a critical tool to assess banks' operations and determine management planning and strategic analysis (Alkassim, 2005). Many studies have examined bank's internal characteristics on financial performance in different countries. This section introduces literature review of commercial banks' profitability as well as profitability of Islamic banks in different countries. Then this part will conclude with some research on Saudi banks performance.

Profitability of conventional banks

Spathis, Kosmidou, and Doumpos (2002) studied the profitability determinants in Greek banking systems. The paper measures the effectiveness and efficiency based on banks' size (small and large banks) in Greece by using several ratios of profitability such as return on assets (ROA), return on equity (ROE), and Net Interest Margin (MARG). The study covered seven banks as large and sixteen banks as small banks over the period (1990-1999) by using panel data. The method used in their paper is Multicretieria decision based on UTilite's Additive DIScriminative (UTSDIS) to examine Greek banks' performance. Moreover, the study incudes ratios to assess banks' performance such as current asset to loans (CA/TL) to measure short-term investment, loans to deposits (L/D) to measure liquidity, and total assets to total equity (TA/TE) to measure capital adequacy. The evidence indicates that the large banks are more efficient than small banks. However, small banks are characterized by high capital yield (ROE), high interest rate yield (MARG), high financial leverage (TA/TE), and high capital adequacy (TE/TA). On the other

hand, large banks are characterized by high assets yield (ROA), and low capital and interest rate yield (Spathis, Kosmidou, and Doumpos 2002).

Ben Naceur (2003) examined the impacts of banks characteristics, financial structure, and macroeconomic indicators on banks' net interest margins and profitability of Tunisian banking industry through1980 to 2000 period. The study includes the main ten deposits banks in Tunisia. He used internal indicators including capital ratio, overhead, loan and liquidity ratios. Meanwhile, macro-economic measures such as GDP growth, Inflation and financial structures indicators are used as external indicators. Result indicates that net interest margin has a negative relationship with bank's size, which means that large banks tend to have lower interest margin. Moreover, high net interest margins tend to be associated with banks that hold large capital and have large overhead expenses. At the same time, macro-economic indicators do not have any influnce on banks profitability for Tunisian banks. On the other hand, financial structure such as concentration is less beneficial for banking industry, but stock market development has positive impacts on profitability (Ben Naceur 2003).

Tarawneh (2006) studied the financial performance of Omani commercial banks. He used a sample data total of five Omani banks with more than 260 branches through 1999-2003. First, The paper ranks these banks based on five variables, namely total deposits, total credits, total assets, shareholders' equity, return on equity (ROE), return on assets (ROA), and return on deposits (ROD). Further more, the paper also used simple regression to examine the impact of assets management, operation efficiency, and bank's size (total assets) on financial performance. The variable used to measure the assets management is assets utilization ratio (operational income divided by total assets), whilst operational efficiency measured by operating efficiency ratio (total operating expenses divided by net interest income). The results show that the

33

financial performance of the banks is strongly and positively influenced by the operational efficiency, assets management, and banks' size. However, the bank with higher total capital, deposits, credits, or total assets does not always mean that has better profitability performance (Tarawneh 2006).

Flamini, McDonald, and Schumacher (2009) studied the profitability determinants of commercial banks in Sub-Saharan Africa (SSA). The paper used a sample of 398 banks in 41 SSA counties. The study used ROA as a profitability measure. Meanwhile, internal indicators used in their paper are bank's size (total assets), capital, credit risk, cost management, activity mix, market power and ownership. By contrast, the external indicators used, regarding macroeconomic, are wealth (GDP), inflation, and regulation. Findings show that higher ROA are associated with large bank size, activity diversification, and private ownership. Low inflation and favorable economic condition will lead to high profitability (Flamini, McDonald, and Schumacher 2009)

Profitability of Islamic banking

Bashir (2003) studied the determinants of eighteen Islamic banks performance across eight Middle Eastern countries- namely Egypt, Bahrain, Jordan, Kuwait, Qatar, Sudan, Turkey and United Arab Emirates- from 1993 through 1998. The study used four measures of performance net non-interest margin (NIM), before tax profit to total assets (BTP/TA), ROE, and ROA. Meanwhile, seven bank's characteristics are used as internal determinants of performance which are equity to assets ratio, loan to assets ratio, non-interest earning assets to total assets ratio, short-term funding to total assets, overhead to total asset ratio, total liabilities to total assets, and ownership in addition to bank's size. Moreover, the study used external variables such as macroeconomic environment, regulation and financial markets. The regression analysis shows

that there is a positive relationship between Islamic banks performance and capital to assets and loan to assets ratios. The higher the ratio, the more profitable the bank will be. The results also indicate the foreign-owned banks are more profitable than their domestic counterparts. Taxes effect negatively on bank's performance, while favorable macroeconomic condition impact bank's profitability positively. Furthermore, the results also indicate that stock markets and banks are complementary to each other (Bashir 2003).

Brown (2003) studied the efficiency of Islamic banks across countries. He measures the performance of Islamic over the period 1998-2001. The methodology employed includes Data Envelopment Analysis (DEA) cost efficiency and ratio analysis. There are 19 countries analyzed descriptively from Asia, the Middle East and North Africa. Findings indicate that largest market based on assets size include Saudi Arabia, Iran, and Kuwait. Very high equity level is reported for Saudi Arabia, while the fully cost efficient market in Iran has the low equity levels. Profitability, which measured by ROAA and ROAE, vary among countries for each year. The most liquid market, measured by liquid assets divided by customer and sort term funding, is in the Bahamas. Finally, when the cost efficiency scores are compared with the standard ratio cost efficiency measurement, cost to income, the correlations are not significant (Brown 2003).

Hassan and Bashir (2004) studied the determinants of Islamic banking profitability for 21 countries over the period (1994-2000). The paper used internal as well as external banks characteristics to determine the profitability of banks, such as equity to total assets (EQTA), Loan to assets (LOANTA), equity to GDP, overhead, overhead to GDP, and others, in addition to economic measures (Inflation and GDP), financial structure variables and country variables (Tax, bank to GDP, total asset, and others). ROE, ROA, NIM, and Profit Before Tax to total assets are used as profitability measures. The paper took 43 Islamic banks as a sample. Results

were similar to Bashir (2000) results, indicate that high capital and loan to assets lead to higher profitability. The regression results show that implicit and explicit taxes affect the bank performance measures negatively. However, favorable macroeconomic situations affect the performance positively. Moreover, the result indicates that there is a positive correlation between profitability and overhead (Hassan and Bashir, 2004).

Alkassim (2005) studied the profitability of sixteen Islamic and eighteen conventional banks in GCCs over the period 1997-2004 by using multiple regression. The paper used nine variables; three of them are used as profitability measures return on equity (ROE), return on assets (ROA), and net interest margin (NIM), and six variables are used as bank's characteristics; bank's size, total equity to total assets (TE/TA), total loans to total assets (TL/TA), deposits to total assets, total expenses to total asset, and non-interest expense to total expense. Results show that, first, bank's size react negatively with conventional banks' profitability, but positively with Islamic banks. Second, total equity has a positive relationship with Islamic banks performance, but a negative relationship with conventional banks. Third, total loans have positive relationship with both banks. Forth, deposits have a positive relationship with conventional banks, but negative relationship with Islamic banks. Fifth, Total Expenses for conventional banks impact profitability negatively whereas Total Expenses for Islamic banks help profitability. Finally, Non-Interest Expense (overhead) assists both Islamic and conventional banking profitability (Alkassim 2005).

Performance of Saudi banking industry

Al-Khathlan (2010) studied the efficiency of Saudi banks by using Data Envelopment Analysis (DEA) models like; Charnes–Cooper–Rhodes (CCR) and Banker–Charnes–Cooper (BCR). The paper covered 10 out of 12 operating banks in Saudi industry from 2003 through 2008. The

empirical results show that most of Saudi banks do efficiently financial resources by 86.17 per cent and 93.97 per cent as per CCR and BCR approach respectively (AlKhathlan 2010).

Gaddam, AlKhathlan, and Abdul Malik (2009) studied the financial performance analysis of Saudi banks for the selected period (2003-2007) by using simple regression analysis. The sample of their study contains six commercial banks. Financial performance, measured by ROA and NIM, is considered to be the dependent variables. The independent variables used in their paper such as assets utilization, operational efficiency, and bank's size were measured to examine their impacts on financial performance. Results show that there are positive correlation between financial performance and asset size, asset utilization and operational efficiency. Further, the regression analysis also confirmed that the financial performance of the banks is greatly influenced by the operational efficiency, asset utilization and asset size (Gaddam, AlKhathlan, and Abdul Malik 2009). This study did not show the ratios used to calculate the assets utilization and operational efficiency. It is shown only the correlation between financial performance (ROA and NIM) and assets size, assets utilization, and operational efficiency.

Based on the above literature review revealed above, there is no much research done deeply and comprehensively about Saudi banking sector. Rather, most of Islamic banking literature review took only one Saudi bank (Al-Rajhi bank) as a representative of Islamic banking in Saudi Arabia. Thus, this paper is attempting to study the Saudi banking sector in more details by covering most of Saudi banks by examining the financial performance. Hint, most of ratio used in this paper are acquiring from previous studies of literature review.

Chapter 3 -Data and Methodology

This chapter will address financial ratios' definitions (all variables introduced in first chapter). The panel data regression is used to test the hypothesis, which is conducted on Saudi Arabian banks. The objective of this chapter is to introduce the design used for this paper. Then, it will introduce all banks operating in the kingdom and how the sample has been selected among other banks. Tools used to achieve the objective of this paper will be also introduced including the model. Finally, the chapter will conclude with methodology.

Research design

Every type of empirical research has implicit research design. In most elementary sense, the design is the logical sequence that connects the empirical data to a study's initial research questions and ultimately to its conclusion (Yin, 2009). Research design is critical to facilitate research operation and make it smooth.

This paper is a single case design that is concentrated on banks in the kingdom of Saudi Arabia. As it is mentioned earlier, the objective of this paper is to give stakeholders insight into how Saudi banks work by analyzing the financial performance of selected sample and examining the impact of each bank's characteristics on financial performance with respect to assets management, operational efficiency, and bank's size. Therefore, descriptive analysis is applies in this study since the major purpose of descriptive analysis is description of the state of affairs, as it exists at present. The emphasis is on describing rather than on judging. The descriptive approach is fast and practical in terms of financial aspects.

Population and respondents

At the end of 2009, there have been twelve domestic banks operating in Saudi Arabian banking sector. Eight out of twelve established as a Saudi bank, namely: National Commercial Bank (NCB), Samba Financial Group (Samba), Al-Rajhi Bank (RJHJ), Riyad Bank (RIBL), Saudi Investment Bank (SAIB), Jazira Bank (BJAZ), Al-Bilad Bank (ALBI), and Alinma Bank (ALINMA). Whereas the remaining four banks are joint venture with foreign banks, foreign shareholdings in Saudi banks range from a low of 5.8 per cent to a high of 40 per cent according to SABB report in 2003.

On the other hand, there have been eight banks operating as 100 per cent foreigners. Five out of eight are from Gulf Corporate Council Countries (GCCs), namely: Emirate Bank, Bank Muscat, National Bank of Kuwait, National Bank of Bahrain, and Gulf International Bank. The remaining banks are non-GCC banks as it is illustrated in the table one below. Moreover, there are more two foreign banks that have not been operating yet in the kingdom, but are licensed.

Domestic banks are limited in Saudi Arabia. The competition in banking sector is aggressive therefore. Each bank is attempting to offer innovative products, unique services, creative technology, and such like, only for the sake of increasing market share. Recently, there have emerged new banks that deal totally with *Shari'a* compliance such as Al-Bilad Bank and Alinma Bank. Thus, this paper will cover and analyze all Saudi banks to investigate and examine the nature of these banks and try to achieve the aforementioned objectives. However, as it is stated earlier, the study will go over the period (2005-2009). So Alinma Bank will not be included in this study.

Table 4-1: Saudi Banks, and network of branches and ATMs (2009):

		Bank's Name	Abbreviation	Date of Establishment	No. of Branches	No. of ATMs
Domestic Banks	Established as Saudi Banks	National Commercial Bank	NCB	1953	286	1485
		Samba Financial Group	Samba	1980	67	496
		Alrajhi Bank	RJHJ	1976	477	2460
		Riyad Bank	RIBL	1957	216	2433
		Saudi Investment Bank	SAIB	1976	43	293
		Aljazira Bank	BJAZ	1976	48	296
		Al-bilad Bank	ALBI	2004	67	450
		Alinma Bank	ALINMA	2008	13	82
	Joint Venture with Foreign Partners	Saudi Hollandi Bank	SHB	1976	42	221
		Banque Saudi Fransi	BSFR	1977	77	330
		Saudi Arabian British Bank	SABB	1978	72	474
		Arab national Bank	ANB	1979	139	899
Foreign Banks	GCC Banks	Emirate Bank			1	12
		Bank Muscat			1	4
		National Bank of Kuwait			1	2
		National Bank of Bahrain			1	1
		Gulf International Bank			2	12
	Non-GCC Banks	Deutsche Bank			1	12
		BNP Paribas			1	12
		J.P. Morgan Chase N.A.			1	12

(Source: NCBC Report 2010)

Eleven Saudi domestic Banks are publicity listed on Saudi Arabian stock exchange (*Tadawul*) and National Commercial Bank (NCB) is the only private bank, but it is expected to be listed soon. As it's shown in table, most of Saudi banks have experienced more than 30 years in banking sectors, while Al-Bilad Bank and Alinma Bank have been operating since 2004 and 2008 respectively. Since the research use the data from 2005 to 2009, the entire domestic banks will be taken in this study except ALINMA.

Sampling design

In previous section, I defined the sample data that will be studied which cover most of Saudi banks, excluding one bank, due to limited banks number. The sampling design used is convenience sampling wherein the respondents are selecting based on the researcher convenient.

Measurement and Instruments

According to the topic that I have selected, most of the instruments are directly linked to Financial Statements revealed by each bank. Thus, many aspects will be taken such as; Company profile forms, Company comparison forms, Financial Highlights and Analyzing accounting data, Internet past articles, Case studies. Moreover, Microsoft excel is also used to calculate the ratios and graphs.

On the other hand, panel data regression is used to test the hypothesis. It's known as time series analysis that permits the analysis of consistent set of variables with data collected units of analysis over multiple time periods (Campbell and Frei, 2006). Since the paper tend to analyze the performance of different banks over time, it's necessary to include indicator variables for each bank. In the analysis, we assume that there is no autocorrelation cross units.

Data Procedures

The model will be adopted is a normal regression equation. There are three dependent variables of profitability (ROA, ROE, and NSC), and the remaining are independent variables, the equation is demonstrated as follow;

$$\text{Profitability}_{bt} = \breve{\alpha} + \beta_1 \text{ TA}_{bt} + \beta_2 \text{ LTA}_{bt} + \beta_3 \text{ EQTA}_{bt} + \beta_4 \text{ DTA}_{bt} + \beta_5 \text{ OPINTA}_{bt} + \beta_6 \text{ COTIN}_{bt} + \beta_7 \text{ OPEXTA}_{bt} + \beta_8 \text{ OPEXTNSC}_{bt}$$

Wherein:

Profitability $_{bt}$:

ROA $_{bt}$ represents the return on assets for bank b in year t

ROE $_{bt}$ represents the return on equity for bank b in year t

NSC $_{bt}$ represents the net special commission for bank b in year t

ǎ alpha is constant, β_i are co-efficient where $i=1,2,3,4,5,6$

TA $_{bt}$ represents the total assets for bank b in year t

LTA $_{bt}$ represents the loan to assets for bank b in year t

EQTA $_{bt}$ represents equity to assets for bank b in year t

DTA $_{bt}$ represents the deposit to assets for bank b in year t

OPINTA $_{bt}$ represents operating income to assets for bank b in year t

COTIN $_{bt}$ represents cost to income ratio for bank b in year t

OPEXTA $_{bt}$ represents the operating expenses to assets for bank b in year t

OPEXTNSC $_{bt}$ represents the operating expenses to NSC for bank b in year t

Data analysis

In order to generate answers to the research questions, the study have been used various variables. In the following lines, definition of variables will be provided as well as some notes and expected results have been described:

1) Total Assets (TA)

Total assets are company valuables including tangible assets such as equipment and property as well as intangible assets such as goodwill and patent (Faisal, K. 2005). For banks, total assets include loans regardless weather it is interest-based or noninterest- based practices since it is the essence of bank's operating. By recognizing total asset of each bank, we can determine bank's size. The greater the number, the bigger the bank will be. Flamini, McDonald, and Schumacher (2009) included total assets in their study of the Sub-Saharan African banks' profitability, and they found a positive significant relationship between total assets and profitability. Therefore, I include total assets to be an indicator to bank's size for ranking Saudi banks and to be also independent variable for testing the hypothesis. Bigger banks will be more profitable, thus TA will have positive relationship with ROA, ROE and NSC.

2) Total Shareholders' Equity (TE)

Shareholders' equity represents the owners' claims on the assets of the business. It is equal to total assets minus total liabilities (Williams, Haka, and others 2008). In our study, total equity is used for bank's ranking beside total asset since it is used widely by financial institutions.

3) Profitability ratios

- Return On Assets (ROA):

According to Peter M. (2002), ROA reports the percentage of income earned for each dollar invested in an entity's resources. It is measured by dividing net income to total assets. Using ROA enables the bank or any firm to assess the managerial performance. Banks will use debt, deposits, and equity to acquire resources to maximize bank's wealth. So management's

ability to create this wealth is determined by how effectively the banks use its resources. In our study, ROA is used for two purposes (introduced in conceptual framework). ROA is used as a tool in descriptive analysis to evaluate the performance of Saudi banks. It is also used as dependent variable in the model to identify the effectiveness of bank's assets.

- Return On Equity (ROE):

ROE is also another useful indictor of bank profitability. It reports how much profit the bank can generate on money invested by shareholders. It is calculated by dividing net income to shareholders' equity. By Using ROE, it will show how efficient the bank' management uses the equity (Alkassim 2005). Similarly, ROE is used also in two different places for different purposes in this paper; ROE is used as a tool in descriptive analysis to evaluate the performance of Saudi banks, and it is used as a dependent variable in the model introduced for determining the efficient indicator of bank management.

- Net Special Commissions (NSC):

NSC is defined as the net income accruing to the banks from investment, non-interest activities, foreign exchange, and interest divided by total assets. Three out of eleven, namely Al-Rajhi Bank (RJHJ), Jazira Bank (BJAZ), Al-Bilad Bank (ALBI), the NSC is accruing only from non-interest activities including fees, service charges, foreign exchange, and direct investment (MELATY, 2008). The other banks, the NSC will be including both non-interest and interest activities. NSC reflects management's ability in generating positive revenues from depositors through providing successful non-interest activities. Higher sales and profitability are desirable since quality of assets is maintained. Thus, NSC is used also in two different places for different purposes in this paper; NSC is used as a tool in descriptive analysis to evaluate the performance

of Saudi banks, and it is used as a dependent variable in the model introduced since it measures management ability to reduce risk.

4) Leverage/ Capital Adequacy Ratios:

- Total Equity to Total Assets (EQTA):

Total equity to assets is an indicator of capital adequacy. In other words, it's shown how well the bank will be able to absorb losses and handle the risk exposure with shareholders. Many studies such as Ben Naceur (2003) and Alkassim (2005) show that there is a positive relationship between Equity-Assets ratio and profitability performance. In this paper, EQTA is used as an independent variable to examine its impact of bank's profitability. EQTA is expected to have positive relationship with performance because well-capitalized banks are less risky and more profitable (Alkassim 2005).

- Deposit to total Assets (DTA):

Deposit to total assets is another leverage indicator. Deposits are included in the study to examine the influnce of liability on profitability and how well the banks use it. Moreover, deposits are considered to be the main source of banks funding. Thus, deposits are included as independent variable, and can be compared to other ratios as long as it is divided by total assets. Alkassim (2005) included this in his study and found a positive relationship with profitability. It is therefore expected to have positive relationship with profitability.

5) Liquidity Ratios

- Total Loans to Total Assets (LTA):

Total loan over total assets is a liquidity indicator. The higher LTA, the less liquid the bank will be. Since banks' operations rely heavily on loan, LTA is included in the study. Previous studies show positive relationship with profitability. Therefore, it is expected to have also positive relationship with profitability measures.

- Loan To Deposits (LTD):

Loan to deposit ratio is another indicator of liquidity ratio. If the ratio is too high, it means the bank might not have sufficient liquidity to cover any unpredicted requirements. However, if the ratio is too low, that means the banks is not earning as much as they could be. This ratio is included in descriptive analysis for the first purpose (conceptual framework of comparative performance) to compare liquidity among Saudi banks.

6) Efficiency Ratios (asset utilization)

- Cost to Income Ratio (COTIN):

Cost to income ratio is one of the most ratio used to measures the efficiency of bank. The lower the ratio, the more efficient the bank will be. This ratio is included in the study in different purposes as well; to compare among Saudi banks and to examine its impacts on profitability. Some studies such as (MELATY 2008) show a positive relationship with profitability. Thus, it is expected to have also positive relationship with profitability measures.

- Total Expenses to Total Assets (OPEXTA):

Total expenses divided by total assets is included in the model as an independent variable in this paper. Logically, increasing of expenses is expected to affect negatively on profitability measures. However, other studies such as Ben Naceur (2003) found a positive relationship

between profitability and total expenses. So it is also expected to have positive impact on profitability measures.

- Operating Income to Total Asset (OPINTA):

Operating income to total assets is another indicator of efficiency. It shows how well the banks utilize the assets. It is included in the model as an independent variable to examine its impact on financial performance. It is estimated to have a positive relationship with profitability.

- Total Expenses to NSC (OPEXTNSC):

Total expenses divided by total assets is included in second direction as an independent variable of this paper. Some research includes such as Tarawneh (2006) this variable and it has a positive relationship with profitability measures. Therefore, It is expected to have positive relationship with profitability indicators.

Finally, the following graph summarizes the expected outputs of hypothesis. Dependent variables (ROA, ROE, NSC) have positive relationship and significant impact with independent variables (TA, OPEXTNSC, COTIN, OPEXTA, LTA, EQTA, DTA, OPINTA).

Graph 4-1: Expected Outputs of Research Hypothesis
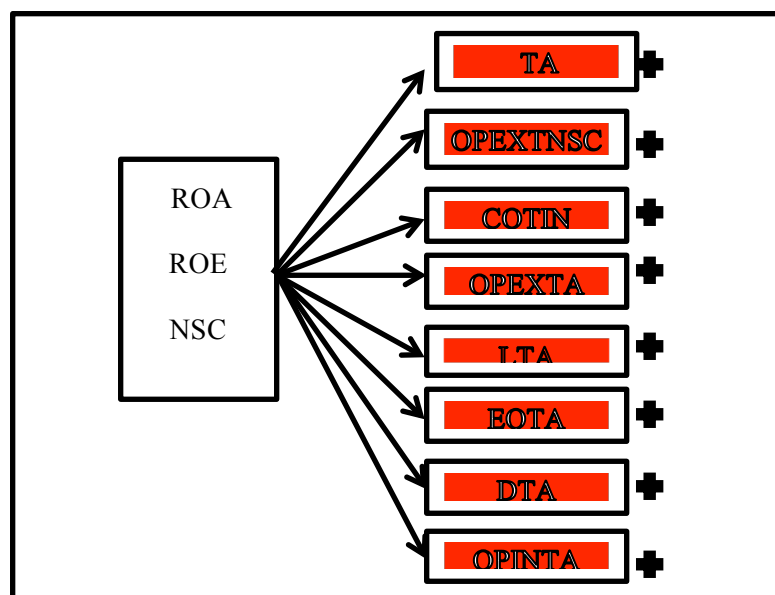
Methodology

In order to achieve aforementioned objectives, two types of methodology will be applied:

Qualitative study:

Through all chapters; an introductory analytical descriptive approach will be developed based on literature reviewed in books, journals, Arabic & foreign articles, related legislation, Saudi banks websites.

Quantitative study:

The selected Saudi banks will be assessed by using ratio analysis such as profitability ratios, liquidity ratios, leverage ratios, and efficiency ratios. In addition, panel data regression is used to test the hypothesis with five per cent level of confidence.

Chapter 4-Data presentation and descriptive analysis

This chapter will present the selected Saudi banks for this study. A brief introduction will be provided for each bank including bank's nature, activities, objectives, and financial highlights. Then, descriptive analysis will cover comparative performance analysis of Saudi banking industry in order to achieve the first purpose of conceptual framework (introduced in chapter 1),

Data presentation

1) National Commercial Bank (NCB)

The National Commercial Bank (NCB) is the largest bank in Saudi Arabian banking sector, not only in the kingdom, but also in the Arab world. The objective of NCB is to provide a full range of banking services in addition to non-interest based banking products in compliance with *Shari'a* rules. NCB was the first bank established in Saudi Arabia-Jeddah- under Saudi law in 1953. It had been founded as Jeddah-based money- changing operation in 1938. It has always a strong relationship with the royal family, and it remains the major banker to the government. In 1990s, NCB plagued in assets quality problems, which were related to owner/management situation. A major change had been occurred in 1997 with an ownership transfer resulted with a separation of ownership from management, as a first step towards Initial Public Offering (IPO). In 1999, the government through the ministry of Finance's Public Investment Fund (PIF) acquired the majority holding of this bank. The bank performs its activities through three divisions personal banking, business banking, and privet banking. At the end of year 2009, NCB has been operating 282 branches dedicating only in Islamic Banking Services and 1489 Automated Teller Machines (ATM) throughout the Kingdom. NCB operates not only locally, but also worldwide in Bahrain and Lebanon- Beirut-, in addition to 3 representative offices in

London, Singapore, and Seoul. The clients have reached out more than 2 million with 5,399 staff in total. NCB has received several awards from various financial institutions in 2009, such as: "Best Bank in the Kingdom" presented by the magazine "Emeafinance", Prince Mohammed Bin Fahad Award for Charity Contributions, Social Responsibility Award' at the 2009 Saudi Achievement Awards by ITP Group, The Best Asset Management Company by Tafaful International, and The Best European Islamic Equity Fund by Failakah International (Bank's Profile).

Financial highlights:

Table one summarizes the financial indicators for NCB through 2005 to 2009. The bank is continuing its growth over the years despite the turbulent global economic situation. Total assets at year-end 2009 totaled SR 257,452 million, it has increased to 16.1 per cent compares to 2008, and the growth of assets over the five years is 77 per cent. Loans and advances, including non-interest based products, has increased by four per cent and 49 per cent over the last five years. Investment is also increasing by four per cent at the end of 2009. Profit-Loss Sharing System (*Musharkah*) is included in Investment as well. Customer Deposit has reached SR 202,583, and the growth over the five years has increased by 93 per cent. Shareholders' equity has increased by 12 per cent at the end of 2009 after its falling in 2008. NCB is still generating profit despite the net income fluctuation over the five years. As a result, ROA and ROE vary over the period.

Table 4-1: Financial Highlight at National Commercial Bank NCB (2005-09):

SAR' Millions/ Financial Highlights	2005	2006	2007	2008	2009	5-Year Growth %
Total Assets	145,789	155,706	208,717	221,802	257,452	77
Growth %		6.8	34.0	6.3	16.1	
Loans & Advances, net	75,336	77,245	87,854	107,909	112,158	49
Growth %		3	14	23	4	
Investment, net	53,899	57,994	85,604	69,420	97,455	81
Growth %		8	48	-19	40	
Customer Deposit	104,959	117,499	142,825	171,822	202,583	93
Growth %		12	22	20	18	
Shareholders' Equity	124,007	23,999	29,610	27,536	30,860	-75
Growth %		-81	23	-7	12	
Net Income	5,011	6,273	6,037	2,107	4,121	-18
Growth %		25	-4	-65	96	
ROE %	23.16	26.1	20.4	7.7	13.4	
ROA %	3.44	4.03	2.89	0.95	1.6	

(Source: NCB financial statements 2005-2009)

2) RIYAD Bank (RIBL)

Riyad Bank is a Saudi Joint Stock Company; it was founded in 1957 as a full service commercial bank. The bank makes its activities through four divisions including personal banking, corporate banking, treasury banking and international banking. RIBL has been operating within 216 branches and 2,435 ATMs throughout Saudi Arabia. The objective of the banks is to provide a full range of banking and investment services. The bank also provide non-interest based banking products through Islamic banking which it is approved by independent *Shari'a* board established by the bank. The Islamic products provided by the bank are *Murabaha, Tawaraq, Istisna'a and Ijara*. In addition, the bank moves to serve the international banking needs of its clients by establishing a full-fledged branch in London, an agency office in Houston, Texas and a representative office in Singapore. Above of that, the bank continues mobilizing to serve the banking needs of high net worth clients by establishing Golden Service Centers within its

selected branch locations. It offers a complete range of investment products and services to its clients, including local and international brokerage. The bank has also received many awards such as award of best electronic bank in the Kingdom and Middle East, and Best Correspondent Bank - Middle East & Africa from Emerging Markets-Best Banks Awards-2004 (Bank's Profile).

Financial Highlights:

Riyad bank can maintain its growth as it is shown in the table below. By the end of 2009, total assets have increased by almost 11per cent compared to previous year 2008 due to exceptional increase of loans and advances by SR106,515 million. By contrast, investment decreases by 20 per cent in 2009 compared to 2008. In the liability side, customer deposit and shareholders 'equity have reached SR 125,278 million and SR 3,030 million respectively vis-à-vis 2008 (Financial Statements 2009). In 2009, the bank was able to generate higher net income totaled SR 28235million compared to previous year. As a result, ROA and ROE reflect this growth of assets, net income, and shareholders' equity (financial statements 2005-2009).

Table 4-2: Financial Highlight of Riyad Bank RIBL (2005-09):

SAR' Millions/ Financial Highlights	2005	2006	2007	2008	2009	5-Year Growth %
Total Assets	80,079	94,016	121,351	159,653	176,399	120
Growth %		17	29	32	10	
Loans & Advances, net	45,606	52,183	67,340	96,430	106,515	134
Growth %		14	29	43	10	
Investment, net	27,240	27,502	27,742	40,329	32,308	19
Growth %		1	1	45	-20	
Customer Deposit	52,730	69,192	84,331	105,056	125,278	138
Growth %		31	22	25	19	
Shareholders' Equity	10,960	11,992	13,187	25,690	28,235	158
Growth %		9	10	95	10	
Net Income	2,542	2,909	3,011	2,639	3,030	19
Growth %		14	4	-12	15	
ROE %	23.16	26.1	20.4	7.7	13.4	
ROA %	3.44	4.03	2.89	0.95	1.6	

(Source: Financial Statements 2005-2009)

3) AL-RAJHI Bank (RJHJ)

Al-Rajhi Bank is the largest Islamic banking not only in the kingdom, but also in the world. Al-Rajhi was established in 1957 as a Saudi fully paid capital standing at 100 per cent, which started by SR 750 million. The Bank has the largest branch network (more than 500 branches) distributed throughout the Kingdom and the largest (ATM) network (2000 machines) and over 17,000 (POS) installed with merchants all over the Kingdom with a total staff reached to 6,681 at the end of 2009. It is also operating outside Saudi Arabia in Malaysia, Kuwait, and Jordan. The bank has offered a variety of Islamic products such as trading, *Istisna'a, Ijara, Murabaha*, and others. Moreover, Al -Rajhi Bank continues to develop banking programs and projects with a focus on the latest electronic services and investment products in order to offer innovative banking and investment services, especially e-banking (Islamic Financial Information Service IFIS 2010). During 2009 the bank has received several awards from Euromoney, Arabian

Business, Global Finance and The Asian Banker for achievements in retail and corporate banking, including best finance deals based on Islamic structures for various projects in several fields (Bank's Profile).

Financial highlights:

In 2009, bank's assets have increased by almost four per cent due to increase of loans and advances (it is a 100 % Islamic products such as *Murabaha*, *Istisna'a* and others). However, investment decreases by nine per cent in 2009. In the liability side, customer deposits increased by three per cent compared to 2008, which reflects customer confidence in this bank. Shareholders' equity has increased to six per cent. In the same context, the bank realized net profit amounting to SR 6,767 compared to SR 6,525 Million in previous year, which making an increase to four per cent as it is appeared in the table below. In addition, return of assets and return on equity achieved four per cent and 24 per cent respectively (financial statements 2005-2009).

Table 4-3: Financial Highlight at Al-Rajhi Bank RJHJ (2005-09):

SAR' Millions/ Financial Highlights	2005	2006	2007	2008	2009	5-Year Growth %
Total Assets	95,038	105,209	124,886	164,930	170730	80
Growth %		10.7	18.7	32.1	3.5	
Loans & Advances, net	79,915	89,133	103,285	140,837	145,819	82
Growth %		12	16	36	4	
Investment, net	220	430	1,590	3,167	2,888	1213
Growth %		95	270	99	-9	
Customer Deposit	70,112	73,398	89,725	116,611	120,553	72
Growth %		5	22	30	3	
Shareholders' Equity	13,469	20,179	23,606	27,032	28,740	113
Growth %		50	17	15	6	
Net Income	5,633	7,302	6,450	6,525	6,767	20
Growth %		30	-12	1	4	
ROE %	47.6	43.4	29.5	25.8	23.6	
ROA %	5.93	6.94	5.16	3.99	3.96	

(Source: Financial Statements 2005-2009)

4) AL-JAZIRA Bank (BJAZ)

Al-Jazira Bank is a Saudi Joint Stock Company incorporated in the Kingdom, it was established in 1975. Al-Jazira Bank is recognized as one of leading *Shari'a* compliant fast growing financial institution in Saudi Arabia. The objective of the bank is to provide a full service that based on interest-free products by assigning *Shari'a* Advisory Board. The main areas of activity include corporate banking (mostly trading companies), high net worth individuals, and share brokerage services. The bank was the first banking institution in Saudi Arabia to introduce *Takaful Ta'awuni* (TT) in 2002 as a full-fledged *Shari'a*-compliant alternative solution for the traditional life insurance. In 2009, Al-Jazira bank has doubled its branches to be 48 throughout the kingdom, resulting in attracting new customers. As a result of Bank's success, the bank has received many awards, such as Euromoney Islamic Finance Award for Best *Takaful Ta'awuni* Provider in 2006, Middle East Electronic Banking Award in 2007, Policy Middle East Life Insurance Award for Best *Takaful Ta'awuni* Provider in 2008, and others (Bank's Profile).

Financial highlights:

Table four presents the financial indicators of BJAZ through 2005 to 2009. Due to bank's expansion through the kingdom in 2009, total assets and customer deposit have increased by almost nine per cent and six per cent respectively. Meanwhile, loans and advances increased by only two per cent. On the other hand, net profit has decreased by almost 88 per cent compared to last year due to high provisions booked for credit losses and impairment charges for its assets investment. At the same time, shareholders' equity decreased by three per cent (Financial Statements 2005-09).

Table 4-4: Financial Highlight at AL-JAZIRA Bank BJAZ (2005-09):

SAR' Millions/ Financial Highlights	2005	2006	2007	2008	2009	5-Year Growth %
Total Assets	14,169	15,713	21,564	27,520	29,977	112
Growth %		10.9	37.2	27.6	8.9	
Loans & Advances, net	6,911	6,271	9,879	15,133	15,504	124
Growth %		-9	58	53	2	
Investment, net	2343	1232	4,964	4,909	4,284	248
Growth %		0	303	-1	-13	
Customer Deposit	10,816	10,917	15,647	20,900	22,143	105
Growth %		1	43	34	6	
Shareholders' Equity	2,670	4,194	4,698	4,637	4,486	68
Growth %		57	12	-1	-3	
Net Income	878	1,972	805	222	28	-97
Growth %		125	-59	-72	-87	
ROE %	41.6	57.5	18.1	4.8	0.6	
ROA %	6.17	12.56	3.73	0.81	0.09	

(Source: Financial Statements 2005-2009)

5) Saudi Arabian Investment Bank (SAIB)

The Saudi Investment Bank (SAIB) was founded in 1976. The main areas of activity are to provide a full range of traditional wholesale, retail, and commercial banking products and services throughout the Kingdom of Saudi Arabia. In particular, it arranges financing for the quasi-government and private industrial sectors including trade finance products for both imports and exports. Furthermore, SAIB offers several *Shari'a*-compliant products and services via *AL-Asalah* Islamic Banking brand that are approved by independent *Shari'a* advisory board; it has been operating by 43 branches located in Saudi Arabia including 39 branches of *Al-Asalah* Bank (Bank's Profile).

Financial Highlights:

The following table illustrates SAIB financial highlights over the five years. In 2009, total assets decreased by almost six per cent due to decline in investment account by 16 per cent compared

to previous year. By contrast, loans and advances increased by only one per cent. On the liability side, customer deposit decreased by six per cent, while shareholders' equity increased by 12 per cent. Despite the regression of financial indicators for this year, the bank could gain net income higher than previous year (Financial Statements 2005-2009).

Table 4-5: Financial Highlight at Saudi Arabian Investment Bank SAIB (2005-09):

SAR' Millions/ Financial Highlights	2005	2006	2007	2008	2009	5-Year Growth %
Total Assets	39,581	40,845	46,542	53,596	50,148	27
Growth %		3.2	13.9	15.2	-6.4	
Loans & Advances, net	20,691	23129	23,129	29,556	29,785	44
Growth %		12	0	28	1	
Investment, net	8502	1232	4,964	12,731	10,737	772
Growth %		0	303	156	-16	
Customer Deposit	27,858	27,931	32,768	40,702	38,247	37
Growth %		0	17	24	-6	
Shareholders' Equity	5,307	6,001	6,770	6,609	7,428	40
Growth %		13	13	-2	12	
Net Income	1,064	2,006	822	530	539	-49
Growth %		89	-59	-36	2	
ROE %	24.1	35.5	12.2	8	7	
ROA %	2.69	4.91	1.77	0.99	1.07	

(Source: Financial Statements 2005-2009)

6) Saudi Hollandi Bank (SHB)

Saudi Hollandi Bank was the first bank operating in the kingdom in 1926. It was known as "The Netherlands Trading Society", the bank was operating out of one office in Jeddah. The main business of the bank is to provide financial services to pilgrims from Indonesia. In 1928, the bank was the only bank in Saudi Arabia. Thus, it acted as a central bank for Saudi government by keeping gold reserves and receiving oil revenues.   In 1969, ABN Bank was one of the first foreign banks to implement the Saudization initiatives set forth by the Saudi Arabian Monetary Agency (SAMA) and became the model for other foreign banks in the Kingdom. With more than

80 years' experience in Saudi Arabia, the bank could continue its expansion and growth by providing technical innovation such as automated Teller Cash Recycling machines (TCR). The main activity areas include corporate banking, treasury, and personal banking in addition to offering Islamic products. At the end of 2009, the bank could operate throughout 43 branches and 299 ATMs in the kingdom (Bank's profile).

Financial Highlights:

Table six presents the financial indicators of SHB over the selected period. 2009 was challenging year for Saudi Holland Bank due to financial crises. Investment accounts decreased sharply in 2009 by 34 per cent compared to 2008. Loans and advances also decreased by five per cent due to low business environment. Consequently, total assets decrease by almost four per cent at the end of 2009. On the liability side, customer deposit increased by four per cent, while shareholders' equity decreased by one per cent. Thus, Net income decreased sharply by 93 per cent compare to 2008. The reason behind that, high reserves are made to avoid credit risk. However, the bank could gain profit in 2009 regardless the economy condition (Financial Statements 2005-2009).

Table 4-6: Financial Highlight at Saudi Hollandi Bank SHB (2005-09):

SAR' Millions/ Financial Highlights	2005	2006	2007	2008	2009	5-Year Growth %
Total Assets	39,958	46,740	50,411	61,436	59,110	48
Growth %		17.0	7.9	21.9	-3.8	
Loans & Advances, net	23,777	26,480	27,555	38,017	36,023	52
Growth %		11	4	38	-5	
Investment, net	10,484	10,463	12,954	18,368	12,132	16
Growth %		0	24	42	-34	
Customer Deposit	28,565	32,414	34,605	43,012	44,827	57
Growth %		13	7	24	4	
Shareholders' Equity	3,672	4,258	4,547	5,715	5,633	53
Growth %		16	7	26	-1	
Net Income	1,052	953	439	1,224	86	-92
Growth %		-9	-54	179	-93	
ROE %	28.65	22.38	9.7	21.4	1.53	
ROA %	2.63	2.04	0.87	1.99	0.15	

(Source: Financial Statements 2005-2009)

7) Banque Saudi Fransi (BSFR)

Banque Saudi Fransi (BSFR) is a Saudi Arabian joint stock company established in 1977. The bank is affiliated with *Credit Agricole Corporate and Investment Bank* that hold 31per cent. Credit Agricole CIB is a fully-fledged member of the Crédit Agricole Group, the second largest bank in France, and seventh amongst banks of the Euroland by total equity. The main objective of this bank is to provide all types of commercial banks to both international and domestic customers in addition to the offer of Islamic products approved by an independent legal panel. The bank is organized in various business lines including corporate banking, commercial banking, treasury banking, retail banking, investment baking and brokerage. The bank is operating through 77 branches in Saudi Arabia and more 300 ATMs (bank's Profile).

Financial highlights:

2009 was a difficult year for BSFR. Total assets decreased by four per cent and this regression because of a significant drop in investment portfolio and a small reduction in loans and advances by 37 per cent and three per cent respectively (table 5-6). Due to low interest environment, lower demand for assets, and very slow brokerage activity in the market, the net income decreased by 12 per cent compared to previous year. On the liability side, customer deposit decreased by two per cent. By contrast, shareholders' equity increased by 12 per cent. However, in a context of low interest environment, the bank was able to manage its cost funding, so the bank could generate net income for 2009(financial statements 2009).

Table 4-7: Financial Highlight at Banque Saudi Fransi BSFR (2005-09):

SAR' Millions/ Financial Highlights	2005	2006	2007	2008	2009	5-Year Growth %
Total Assets	67,501	79,581	99,808	125,865	120,572	79
Growth %		17.9	25.4	26.1	-4.2	
Loans & Advances, net	42,988	51,130	59,850	80,866	78,315	82
Growth %		19	17	35	-3	
Investment, net	18,128	16,013	22,501	27,710	17,481	9
Growth %		0	41	23	-37	
Customer Deposit	51,093	61,998	74,007	92,791	91,237	79
Growth %		21	19	25	-2	
Shareholders' Equity	7,185	9,405	11,241	14,069	15,752	119
Growth %		31	20	25	12	
Net Income	2,216	3,007	2,711	2,806	2,471	12
Growth %		36	-10	4	-12	
ROE %	21.4	36.3	24.1	19.9	15.7	
ROA %	3.28	3.78	2.72	2.23	2.05	

 (Source: Financial Statements 2005-2009)

8) Saudi Arabian British Bank (SABB)

Saudi Arabian British Bank is a Saudi Joint Stock company established in 1978. SABB is an associated company with HSBC, ones of the world largest banking and financial services

organizations over10000 offices in 83 countries. HSBC hold 40 per cent ownership. The main objective of this bank is to provide a full financial service through its ranges of banking services including personal, commercial, corporate, private and Islamic banking, investment, treasury, and trade services.   SABB's achievements and contribution to the economy have earned numerous awards such as; Best Consumer Internet Bank and Best Online Consumer Credit Site in Saudi Arabia for 2009 and Best Online Consumer Credit Site for the year 2008 by Global Finance magazine and others. SABB operates through a network of 72 branches located in the kingdom (Bank's Profile).

Financial highlights:

2009 was a difficult year for the bank as other Saudi banks due to challenging global economic and business environment, which were reflected on financial sector in Saudi Arabia. The growth was limited yet profitable at the end of the year. Table seven illustrates the financial highlights of SABB over the five years. On the assets side, loans and advances as well as investment decreased by five per cent and 20 per cent respectively, which lead to the decline of total assets by almost four per cent. On the other hand, customer deposit decreased by three per cent, while shareholders' equity decreased by 10 per cent.

Table4-8: Financial Highlight at Saudi Arabian British Bank SABB (2005-09):

SAR' Millions/ Financial Highlights	2005	2006	2007	2008	2009	5-Year Growth %
Total Assets	65,928	77,189	98,213	131,661	126,838	92
Growth %		17.1	27.2	34.1	-3.7	
Loans & Advances, net	40,847	42,450	62,001	80,237	76,382	87
Growth %		4	46	29	-5	
Investment, net	16,373	21,702	14,859	29,604	23,818	10
Growth %		0	-32	99	-20	
Customer Deposit	48,534	59,258	76,074	98,522	95,084	96
Growth %		22	28	30	-3	
Shareholders' Equity	7,493	9,405	13,045	11,634	10,425	39
Growth %		26	39	-11	-10	
Net Income	2,504	3,040	2,607	2,920	2,032	-19
Growth %		21	-14	12	-30	
ROE %	33.4	32.3	25	25.1	15.6	
ROA %	3.8	3.94	2.65	2.22	1.6	

(Source: Financial Statements 2005-2009)

9) Arab National Bank (ANB)

Arab National Bank (ANB) is one of the top ten banks in the Middle East. The bank was established in 1979. ANB offers a full range of domestic and international commercial and Islamic products and services to the retail and corporate sectors. Moreover, the bank also provides a consultancy and investment, mutual funds and assets management, local and international equity trading, foreign exchange and treasury services. ANB operates through a network of 139 local branches and one international branch in London (Bank's Profile).

Financial highlights:

The bank encountered changes and difficulties in 2009 like other banks. However, ANB could deliver a satisfactory performance. Table nine presents the financial highlights of ANB through

2005 to 2009. On the assets side, loans and advances decreased by 11 per cent compared to 2008 as well as investment portfolio decreased by 18 per cent. As a result, total assets decreased by nine per cent compared to previous year. On the other side, customer deposit also declined by 11 per cent in 2009, whilst shareholders' equity increased by 13 per cent. However, the bank could generate a net income amounted SR 2,370 million despite the difficult international and regional business environment (Financial Statements 2005-2009).

Table 5-9: Financial Highlight at Arab National Bank ANB (2005-09):

SAR' Millions/ Financial Highlights	2005	2006	2007	2008	2009	5-Year Growth %
Total Assets	67,492	78,035	94,468	121,307	110,297	63
Growth %		15.6	21.1	28.4	-9.1	
Loans & Advances, net	38,779	49,747	61,122	74,662	66,811	72
Growth %		28	23	22	-11	
Investment, net	20,423	18,292	21,025	28,228	23,261	27
Growth %		0	15	34	-18	
Customer Deposit	48,832	61,773	73,692	92,743	82,680	69
Growth %		27	19	26	-11	
Shareholders' Equity	6,337	7,980	10,525	12,671	14,369	127
Growth %		26	32	20	13	
Net Income	1,828	2,505	2,461	2,486	2,370	30
Growth %		37	-2	1	-5	
ROE %	32.8	35	26.6	21.4	17.5	
ROA %	2.71	3.21	2.61	2.05	2.15	

 (Source: Financial Statements 2005-2009)

10) Samba Financial Group (SAMBA)

Samba Financial Group is a leading financial service in the kingdom of Saudi Arabia. It was known as Saudi American Bank. Samba was formed in 1980, when all foreign banks were required to sell majority equity to Saudi nationals. The objective of this bank is to provide a full range of banking and related services in addition to offering Islamic products approved by

Shari'a advisory board. Samba was the first bank to offer priority banking (Gold and diamond), phone banking, cash deposit through ATMs, speed cash remittance service and automated signature verification. The bank has received many awards due to its management uniqueness in 2009 such as; Euromoney QFC Award for Outstanding Contribution to the Development of Financial Services in the Middle East, Best Emerging Market Bank in Saudi Arabia for 2009 by Global Finance, Best Customer Call Center by The Banker Middle East Product Award (CPI Financial), and others. Samba operates through a network of 66 branches across Saudi Arabia, including 25banking centers for ladies, as well as its branches in London and Dubai, in addition to 28 branches across major cities in Pakistan (Bank's Profile).

Financial highlights:

The table below highlights the financial indicators of Samba group through 2005 to 2009. In 2009, the bank could deliver high performance compared to previous year, and it overcame the difficulties and challenging of global and local economic condition successfully. The evidence appears in the table below. Samba recorded net income amounted SR4,560 million for 2009, which increased by two per cent compared to 2008. On the assets side, total assets increased by almost four per cent as well as investment increased by one per cent, while loans and advances decreased by 14 per cent due to low demand. On the liabilities side, customer deposit increased by 10 per cent compared to previous year. Meanwhile, shareholders' equity increased by 12 per cent compared to 2008 (Financial Statements 2005-2009).

Table 4-10: Financial Highlight at Samba (2005-09):

SAR' Millions/ Financial Highlights	2005	2006	2007	2008	2009	5-Year Growth %
Total Assets	108,306	124,015	154,414	178,891	185,518	71
Growth %		14.5	24.5	15.9	3.7	
Loans & Advances, net	62,386	67,028	80,553	98,147	84,147	35
Growth %		7	20	22	-14	
Investment, net	36,357	37,682	53,584	54,218	54,975	46
Growth %		0	42	1	1	
Customer Deposit	85,240	94,856	115,811	134,228	147,129	73
Growth %		11	22	16	10	
Shareholders' Equity	12,906	15,200	17,976	20,062	22,502	74
Growth %		18	18	11.6	12	
Net Income	4,018	5,210	4,808	4,454	4,560	13
Growth %		30	-8	-7	2	
ROE %	19.4	34.1	26.9	22.4	20.4	
ROA %	3.71	4.2	3.13	2.49	2.46	

 (Source: Financial Statements 2005-2009)

11) Bank Al-Bilad (ALBI)

Bank Al-Bilad is a Saudi Joint stock company, which was formed in 2004. The objective of the bank is to provide a full range of services, financing and investing activities through various Islamic instruments. The bank does not deal with interest completely. ALBI provides its services through 67 banking branches, and 94 exchange and remittance centers in the kingdom of Saudi Arabia. The bank could deliver a good service and high reputation in the market during short-term period (Bank's Profile).

Financial highlights:

Over the five years, the bank has been growing rapidly and it is continuing to expand its business through the kingdom. Table 11 presents the rapid growth of financial indicators over the selected

period. On the assets side, total assets have been increasing over the period and it increased by almost nine per cent in 2009 compared to 2008. Loans and advances are also increasing by 107 per cent over the five years, while it increased by 33 per cent in 2009 compared to 2008. However, investments recorded a decrease in 2009 by 18 per cent compared to 2008. On the liability side, customer deposits increased over the five years by 250 per cent, while it increased by 25 per cent in 2009 compared to 2008. Shareholders' equity declined by seven per cent in 2009. Meanwhile, the bank recorded a net loss amounted SR 248 million in 2009 due to high operating expenses to achieve its ultimate goals.

Table 4-11: Financial Highlight at Bank Al-Bilad ALBI (2005-09):

SAR' Millions/ Financial Highlights	2005	2006	2007	2008	2009	5-Year Growth %
Total Assets	7,110	11281	16636	16,052	17,411	145
Growth %		58.7	47.5	-3.5	8.5	
Loans & Advances, net	5,316	9,669	13,321	8,276	11,014	107
Growth %		82	38	-38	33	
Investment, net	0	166	278	1,883	1,536	825
Growth %		0	67	577	-18	
Customer Deposit	3,915	7,858	12689	10,971	13,721	250
Growth %		101	61	-14	25	
Shareholders' Equity	2,899	3,024	3,104	3,212	3,002	4
Growth %		4	3	3	-7	
Net Income	-98	178	72	125	-248	153
Growth %		282	-60	74	-298	
ROE %	0	5.9	2.3	3.9	-8.3	
ROA %	-1.38	1.58	0.44	0.78	-1.43	

(Source: Financial Statements 2005-2009)

Descriptive analysis

The panel in table four in the appendix B provides a descriptive analysis of Saudi banks over the period 2005-2009. The following lines will analyze the financial performance of Saudi banks with respect to total assets, total equity, structure, profitability, efficiency and finally the liquidity.

Total Assets (TA)

Based on asset size, NCB has the highest assets during the five years, which represented almost 20 per cent of aggregate Saudi bank assets of SR 1304 billion in 2009. Samba ranks second after NCB, which maintain the same share market 15 per cent from 2005 to 2008 and 14 per cent in 2009. Meanwhile, RJHJ ranks third with almost 13 per cent of market share for four years and 12 per cent in 2007, followed by RIBL with around 11per cent of market share for the first three years, and with almost 13 per cent in 2008 and 2009. Competition among the last three banks is so intensive to gain higher market share with respect to assets size. On the other hand, BSFR, SABB, and ANB are close to each other; they have almost the same market share over the five years, and fifth, sixth and seventh ranking range among them (table 5-11 summarizes the ranking of each bank through 2005 to 2009). Likewise, ranking of SAIB and SHB varies over the period. Finally BJAZ and ALBI take the last position among Saudi banks' market share with almost two per cent and one per cent respectively.

Table 4-12: Ranking of Saudi Banks Based on Assets Size through 2005 to 2009:

	2005	2006	2007	2008	2009
NCB	1	1	1	1	1
RIBL	4	4	4	4	3
RJHJ	3	3	3	3	4
BJAZ	10	10	10	10	10
SAIB	9	9	9	9	9
SHB	8	8	8	8	8
BSFR	5	5	5	6	6
SABB	7	7	6	5	5
ANB	6	6	7	7	7
Samba	2	2	2	2	2
ALBI	11	11	11	11	11

Assets size of Saudi banks are growing rapidly from SR730 billion in 2005 to SR1,304 billion in 2009 based on the sample which reflects the rapid growth of the banking market (graph 5-1 clarifies assets growth of each bank over the period).

Graph 4-1: Assets' Growth of Saudi Banks through (2005-09):
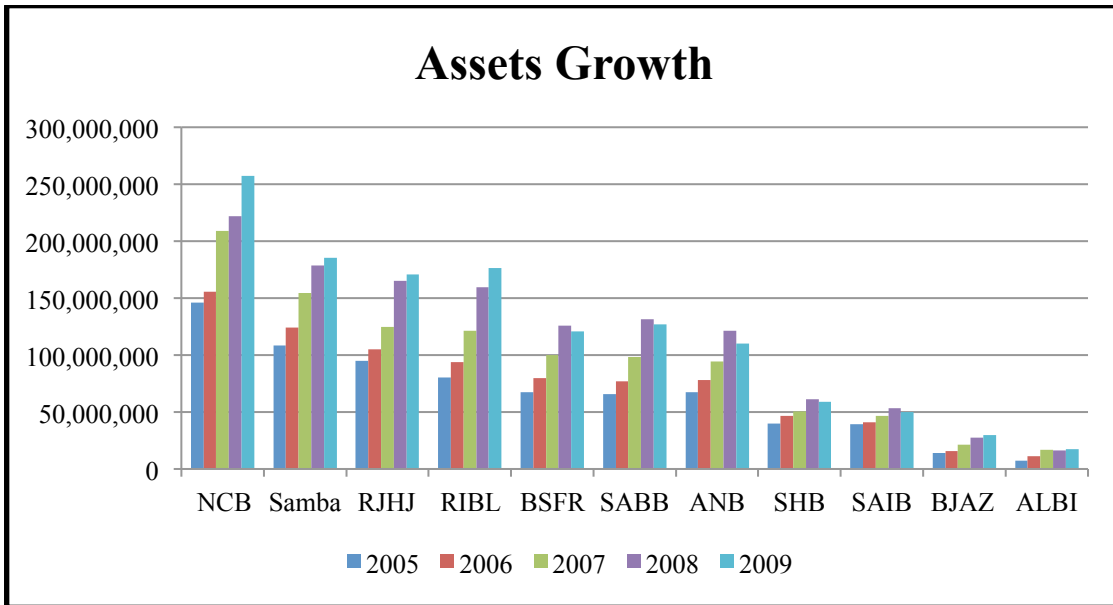
Total Shareholders' Equity (TE)

Equity levels are the best compared against the total assets providing an indication of the structure of the bank (Brown 2003). Based on equity size, table (4-13) presents the ranking of Saudi banks over the period. This criterion produces almost the same ranking for most of Saudi banks. NCB also has the highest market share through the five years, whilst RJHJ ranks the second with almost 14 per cent in 2004 and 17 per cent of market share for the remaining years. Then, Samba takes third place for the first three years and forth in 2008 and 2009 with 13 per cent of market share, whereas RIBL takes the forth position in the first three years and third place in 2008 and 2009 with almost 16 per cent of market share. In the same context of assets size, the three banks, namely BSFR, SABB, and ANB are competing so intensively. Thus, fifth, sixth, and seventh ranking are not fixed to one bank. SAIB ranks eighth from 2005 to 2009 with almost five per cent and four per cent of market share over the period. On the other hand, BJAZ and ALBI attain the same ranking of total assets.

Table 4-13: Ranking of Saudi Banks Based on Equity Size through 2005 to 2009

	2005	2006	2007	2008	2009
NCB	1	1	1	1	1
RIBL	4	4	4	3	3
RJHJ	2	2	2	2	2
BJAZ	10	10	10	10	10
SAIB	8	8	8	8	8
SHB	9	9	9	9	9
BSFR	7	5	6	5	7
SABB	5	6	5	7	5
ANB	6	7	7	6	6
Samba	3	3	3	4	4
ALBI	11	11	11	11	11

Based on panel data and ranking tables (12 & 13), Saudi banks could be divided into three categories;

1) Large- Size Banks: this category includes National Commercial Bank (NCB), Samba Financial Group (Samba), Al-rajhi Bank (RJHJ), and Riyad Bank (RIBL).

2) Medium-size Banks: this category includes Arab National Bank (ANB), Saudi Arabian British Bank (SABB), and Banque Saudi Fransi (BSFR).

3) Small-Size Banks: this category includes Saudi Investment Bank (SAIB), Saudi Hollandi Bank (SHB), Al-Jazira Bank (BJAZ), and Al-bilad Bank (ALBI)

Structure Ratio (EQTA)

The ratio of equity to total assets (EQTA) is considered to be one of basic ratios for capital strengths. Decline of this ratio might increase risk exposure and possibly capital adequacy problems. Thus, the higher the ratio of EQTA, the greater is the capacity for a bank to sustain the assets losses (Samad, 2004). The following graph illustrates equity to assets ratio (EQTA) for Saudi banks through 2005 to 2009. In 2005, ALBI has the highest leverage ratio with almost 41per cent, followed by BJAZ with almost 19 per cent. Leverage ratio of ALBI started to decline in 2006 and 2007, but the bank's structure ratio becomes close to other banks yet higher in 2009 with ratio of 17 per cent, while BJAZ has the highest ratio in 2007 with almost 22 per cent and started to decline after that. By contrast, SHB and SABB have the lowest ratio of capital structure with almost ten per cent and eight per cent respectively.

Graph 4-2: Capital Structure of Saudi Banks over the period (2005-09):

Equity to Asset Ratio
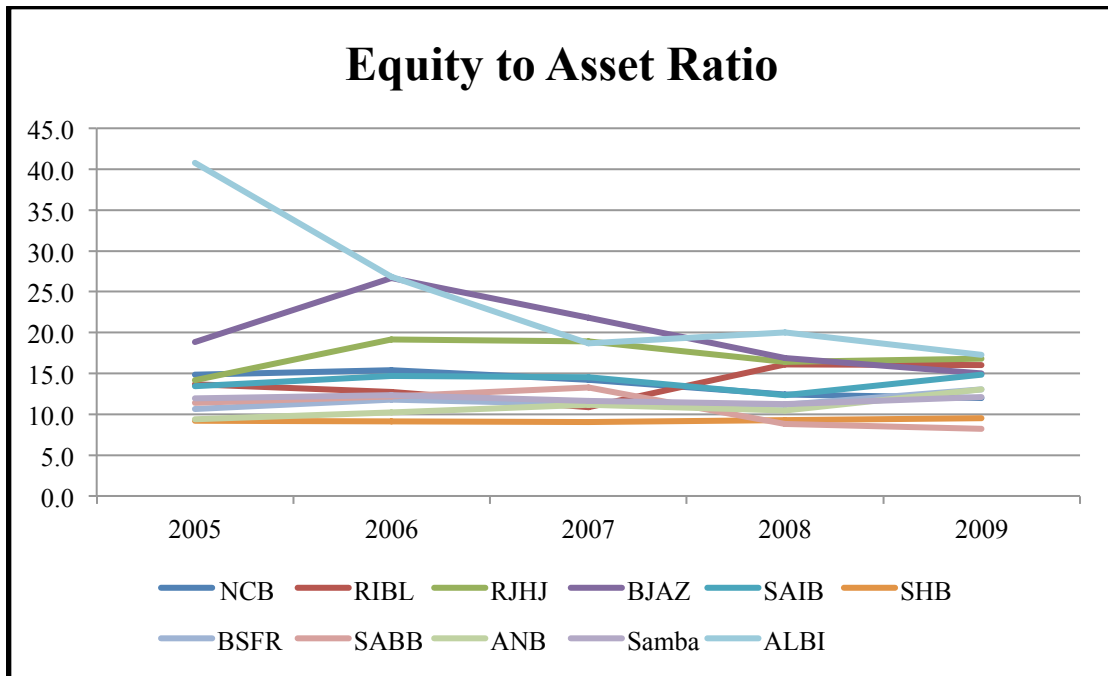
In general, Saudi banks don't rely heavily on shareholder's equity unlike other businesses. The main reliance here is on customer deposits or other banks deposits. This could be one major reason why banks do not favor capital increase. Statuary reserves of most Saudi banks have equaled their paid up capital; yet they did not increase their capitals. Board chairmen of few Saudi banks had publicly stated that increasing their bank's capital might jeopardize shareholders' interests (SABB report 2003).

Profitability ratios

There are several measures of financial performance for evaluating profitability of banks. In this paper, three ratios are used for assessment of Saudi Banks:

1) Net special Commissions (NSC): NSC is defined as the net income occurring from various activities including direct investments, foreign exchange, debt securities, deposits, and loans and advances divided by total assets. For those banks that deal deeply with *Shari'a* principles, namely Al-rajhi Bank (RJHJ), Jazira Bank (BJAZ), and Al-bilad

Bank (ALBI), net special commissions include direct investment, securities, and financing via loans model (explained in the second chapter). Net special commissions (NSC) reflect the management ability of bank to generate positive returns. So if the bank is able to engage in successful activities and over new services, net special commission (NSC) will increase over time. The higher the ratio, the more profitable the bank will be. Graph (5-3) represents NSC of Saudi banks through 2005 to 2009. RJHJ has the highest ratio of NSC among Saudi banks over the period. NCB has the largest assets yet not profitable as much as RJHJ does. Medium and small – size banks are close to large banks' ratios.

Graph 4-3: Net Special Commissions of Saudi Banks (2005-09):
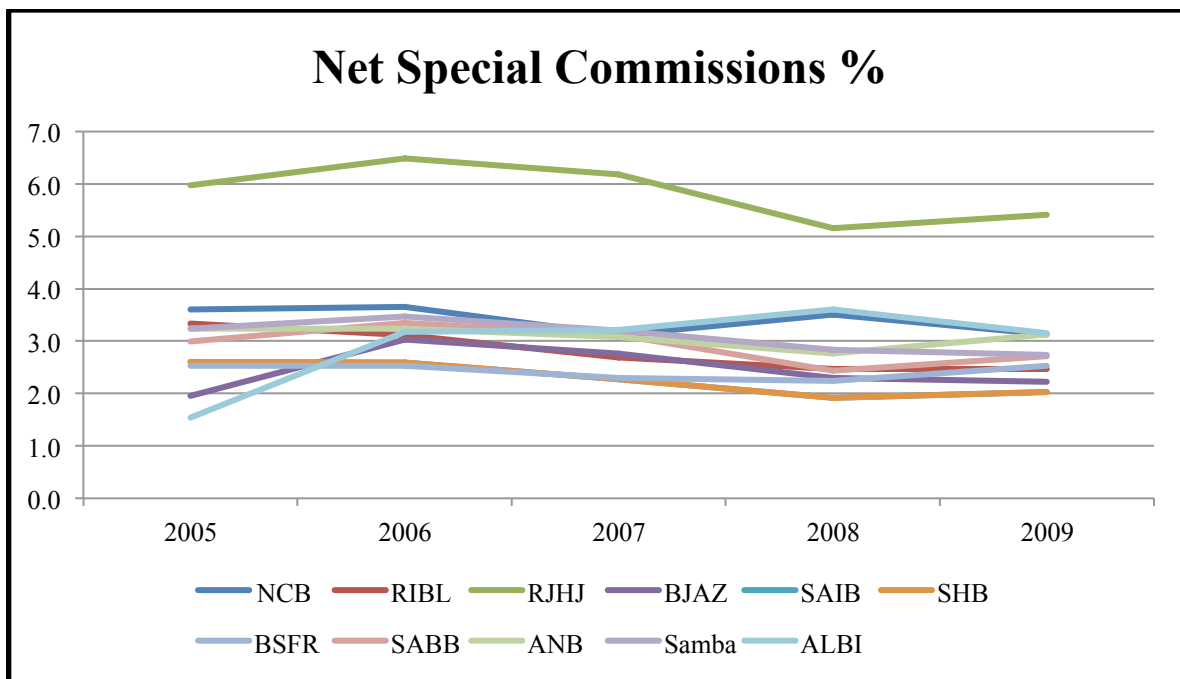
2) Return on Equity (ROE): according to Samad (1999) the return on equity is considered to be one of profitability performance ratio. It indicates how effectively the management of enterprise (bank) is able to turn shareholders' funds into net profit. It is the rate of return

following to the bank's shareholders (MELATY, 2008). The higher this ratio, the more managerial efficiency the bank will be and vice versa. Graph (5-4) represents comparison of Saudi banks' ROE, most of Saudi bank witnessed decline in ROE over the period due to increase in shareholders' equity and decrease in net income. For large banks, ROE of National Commercial Bank (NCB) increased by 13.4 per cent in 2009 compared to 2008 (7.7%), whilst ROE of Al-rajhi Bank (RJHJ) decreased in 2009 compared to previous years, yet the highest ratio among Saudi banks' ratios. ROE of Riyad Bank (RIBL) increased in 2009 (11%) compared to 2008 (10%), but ROE of Samba Financial Group (Samba) declined in the same period. For medium-size banks, ROE of Banque Saudi Fransi (BSFR), Saudi Arabian British Bank (SABB), and Arab National Bank (ANB) decline in 2009 (16%, 16%, and 18% respectively) compared to 2008 (20%, 25%, and 21% respectively). However, medium banks have higher ROE than large banks do (except RJHJ), which indicates they are more efficient unlike large banks remaining flat or declining. Regarding small-size banks, sever decline occurred to ROE of Saudi Holland Bank (SHB) in 2009 (from 21% to 2%) due to net income decline. Al-bilad Bank (ALBI) has a negative indicator due to its loss income in 2009, while Jazira Bank (BJAZ) recorded the highest ROE 58 per cent in 2006 as a result of sever increase of net income at that period, then it started to decline till become almost one per cent in 2009. Finally, Saudi Investment Bank (SAIB) has the highest ROE ratio among small- size banks in 2009.

Graph 4-4: Return on Equity (ROE) of Saudi Banks through 2005 to 2009:

ROE%
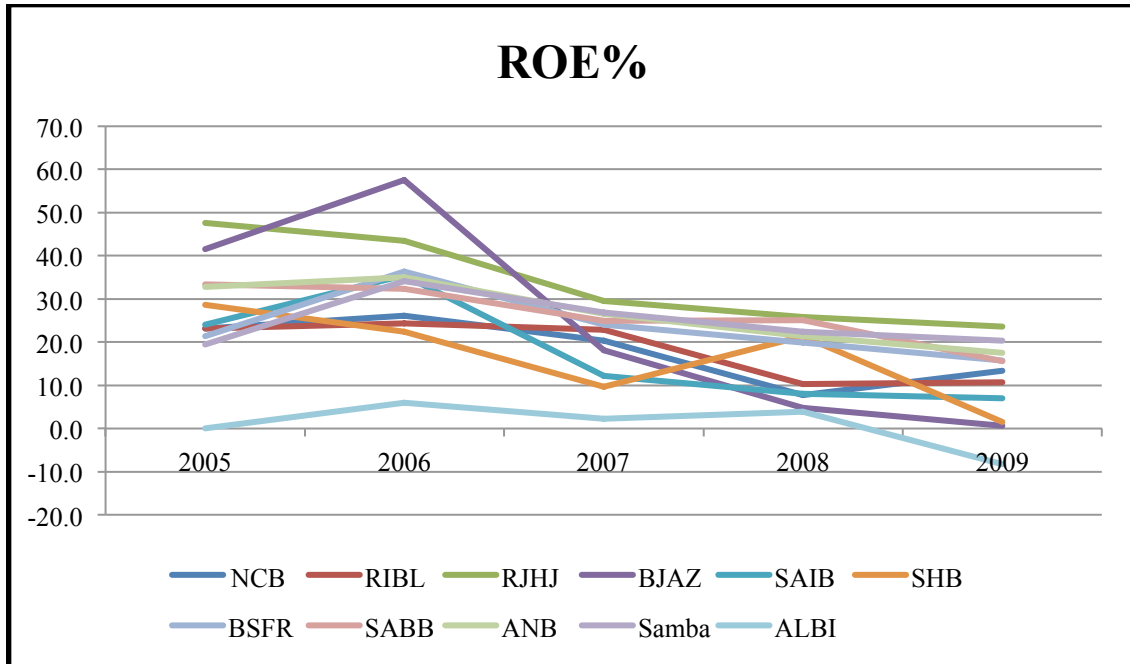
3) Return on Assets (ROA): the return on assets used to measure the relationship between profits or earnings and total assets (Melaty 2008). ROA is a good indicator of bank's financial performance and managerial efficiency. The higher this ratio, the higher the financial performance or profitability of the banks (Samad 2004). ROA is probably the most vital single ratio in comparing the efficiency and operating performance of Saudi banks since it indicates the return earned from the assets financed by the banks. Graph (5-5) shows the ROA ratio of Saudi bank through 2005 to 2009. Al-rajhi Bank (RJHJ) again has the highest ROE ratio (almost four per cent) among Saudi banks in 2009, followed by Samba Financial Group with almost three per cent. For medium- size banks, ROA of Banque Saudi Fransi (BSFR), and Saudi Arabian British Bank (SABB) decline in 2009 (2.05% and 1.6% respectively) compared to 2008 (2.23% and 2.23% respectively) whereas ROA of Arab National Bank (ANB) increased in 2009. However, medium banks have higher ROA than large banks do (except RJHJ and Samba), which indicates they are more efficient unlike large banks remaining flat or declining. On the other hand,

74

ROA of small banks decline in 2009 except ROA of Saudi Investment Bank (SAIB) which is the most efficient bank among small-size banks.

Graph 4-5: Return on Assets (ROA) of Saudi Banks through 2005 to 2009:
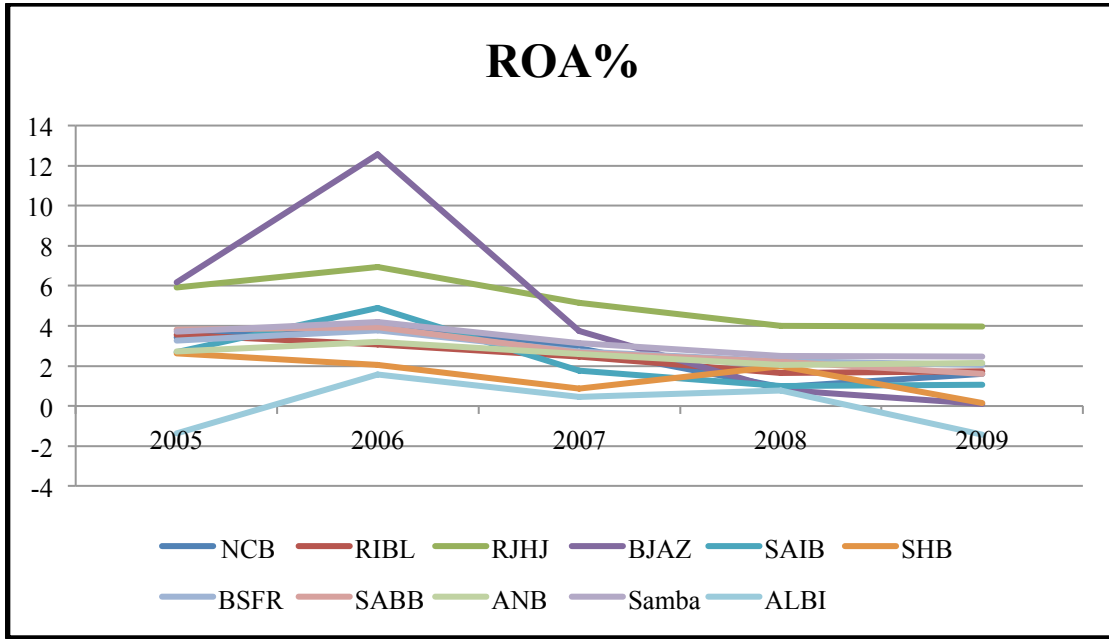
Efficiency ratio

Cost to income ratio is considered to be one of the best indices for measuring economic efficiency (Samad 2004). The lower this ratio, the more efficient the bank will be. The following graph shows cost to income ratio of Saudi banks through 2005 to 2009. Among large-size banks, Samba is the most efficient bank in entire sector for 2009. By contrast, Al-bilad Bank (ALBI) is less efficient bank due to a new entrance in the market; the bank is expanding so rapidly throughout the kingdom. Up till now ALBI has been operating through a network of more than 60 branches for five years. Thus, the operating expense is so high. In general, small-size banks are less efficient than others. However, medium-size banks are more efficient than large banks, which indicate those banks are expanding to catch up large banks in the coming years.

Graph 4-6: Cost to Income Ratio (COTIN) of Saudi banks through 2005 to 2009:

COTIN %
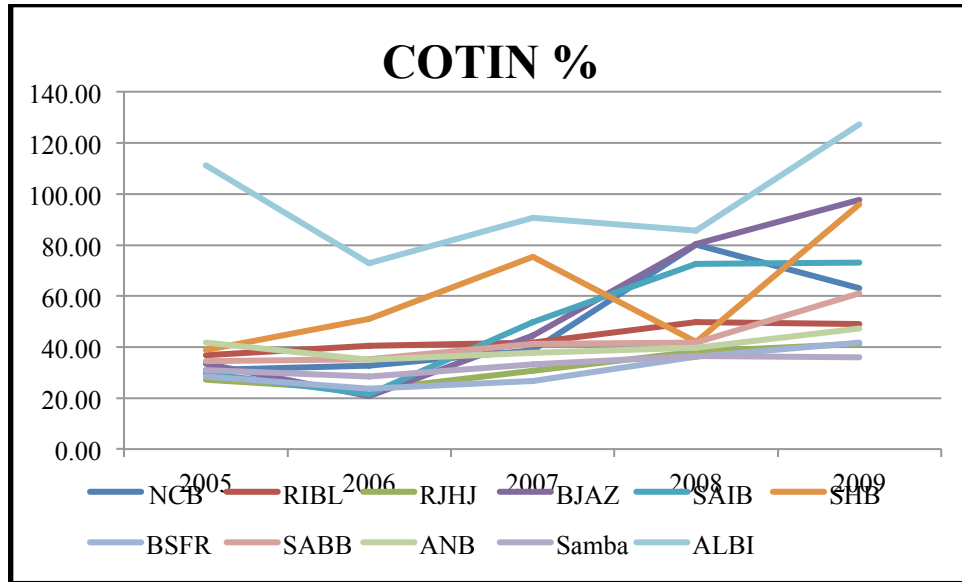
Liquidity ratio

Finally, the liquidity is the life of banks. Liquidity means availability; how quickly the bank converts its assets into cash at face value to meet the cash demands of the depositors and borrowers (Samad 2004). The higher the ratio, the greater the liquidity of the bank will be. The liquidity ratio among Saudi banks illustrated in graph (5-7). Al-rajhi Bank (RJHJ) again has the highest ratio, which indicates the most liquid bank in the sector in 2009. The reason behind this is the nature of bank's operation (100 % Islamic bank). According to Samad 2004, Islamic banks have higher liquidity than their counterparts. On the other hand, National Commercial Bank (NCB) has the lowest liquidity ratio 55 per cent among others in 2009, which means its exposure to risk will be higher than others, followed by Samba with 57 per cent. The liquidity ratio of small and medium –size banks are increasing over time unlike large banks which remaining flat or has a negative growth.

Graph 4-7: Liquidity Ratio of Saudi banks through 2005 to 2009:

Loan To Deposit %

A line chart titled "Loan To Deposit %" with the vertical axis ranging from 0.00 to 150.00 (in increments of 50.00) and the horizontal axis showing years 2005, 2006, 2007, 2008, 2009. The legend lists: NCB, RIBL, RJHJ, BJAZ, SAIB, SHB, BSFR, SABB, ANB, Samba, ALBI.
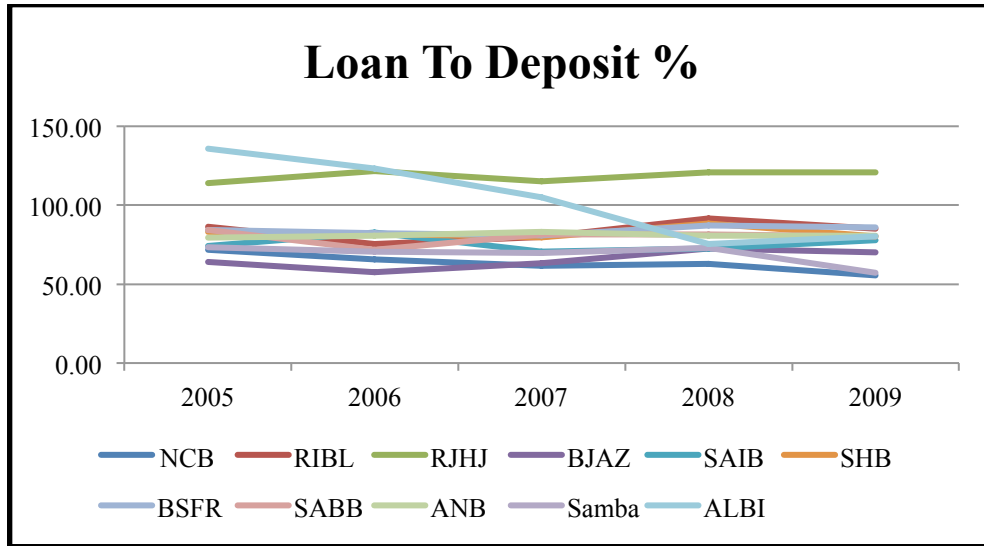
To conclude this part, Al-Rajhi Bank (RJHJ) is the best bank among others based on management performance resulted above. However, the management performance of other banks varies, it is difficult to tell which Saudi bank is the best after Al-rajhi Bank (RJHJ). In general, all Saudi banks are doing well in the sector. Large banks have reached the mature growth, while medium banks are growing to catch up with large banks. Finally, small banks are facing some difficulties to achieve higher growth rate.

Chapter 5 -Findings and Discussions

This chapter presents the empirical results of research hypothesis, the impact of bank's characteristics on financial performance (ROA, ROE, and NSC) between 2005 and 2009. The sample of this research is comprised of eleven Saudi banks. The technique used to test the hypothesis is panel data regression. The regression is fixed effect using Generalized Least Square (GLS). Tables (5-1,5-2, and 5-3) show the regression results with ROA, ROE, and NSC respectively for the whole sector. After that, the section presents profitability determinants of individual bank and introducing the characteristics that affect banks' performance. However, the regression outputs omitted firs bank naturally, National Commercial Bank (NCB), because the large size of bank's assets affects the dependent variables.

The first column of tables presents the coefficient for each independent variable, which indicates the strength of influences between the profitability measure and total assets, assets management, and operational efficiency. The second column illustrates p-value that shows the significance of the study (5%). Column number three is r-squared which tells us the percentage of the variance in the dependent variable that can be explained by all the independents variables taken together. Forth column presents the adjusted r-squared which is the version of r-squared that has been adjusted for the number of predictors in the model used. And last column presents variance inflation factor (VIF) which tells us how much larger the slandered error (less than 10 is acceptable).

Empirical results:

Result of Entire Saudi Banking Industry

The regression results in tables (5-1, 5-2,and 5-3) combine all Saudi banks in the sector.

According to the model, there are three different variables: ROA, ROE, and NSC.

Return on Assets (ROA)

Table (6-1) exhibits the regression model for return on assets (ROA). Four variables are found to be significant to ROA, namely TA, OPEXTNSC, COTIN, and OPINTA. Based on coefficient, ROA has a negative relationship with TA (-2.51E-08), OPEXTNSC (-0.0485), and COTIN (-0.089468) respectively, which means increasing of assets, operating expenses, and cost to income cause decrease in Saudi bank's profitability. By contrast, ROA has a positive relationship with assets utilization (OPINTA) (0.9822688), which indicates increasing of operating income causes increasing of Saudi banks' profitability. On the other hand, the remaining variables, namely OPEXTA, LTA, EQTA, and DTA, have no effect on profitability measure; the following two graphs display both estimated (introduced in chapter 4)   and empirical results of ROA.

Table 5-1: Determinants of ROA

Bank Characteristics	Coef	P-value	R-squared	Adj R-squared	VIF
TA	-2.51E-08	0.018	0.4838	0.3518	5.82
OPEXTNSC	-0.0485	0.000	0.4847	0.5897	4.08
COTIN	-0.089468	0.000	0.7934	0.7406	2.28
OPEXTA	-0.370182	0.478	0.4177	0.2687	4.94
LTA	-0.087286	0.118	0.4437	0.3014	5.52
EQTA	0.1585339	0.059	0.4581	0.3195	2.94
DTA	-0.099723	0.199	0.4331	0.2881	1.56
OPINTA	0.9822688	0.000	0.4331	0.2881	1.72

| Graph5-1a: Estimated determinants of ROA | Graph5-1b: Empirical determinants of ROA |
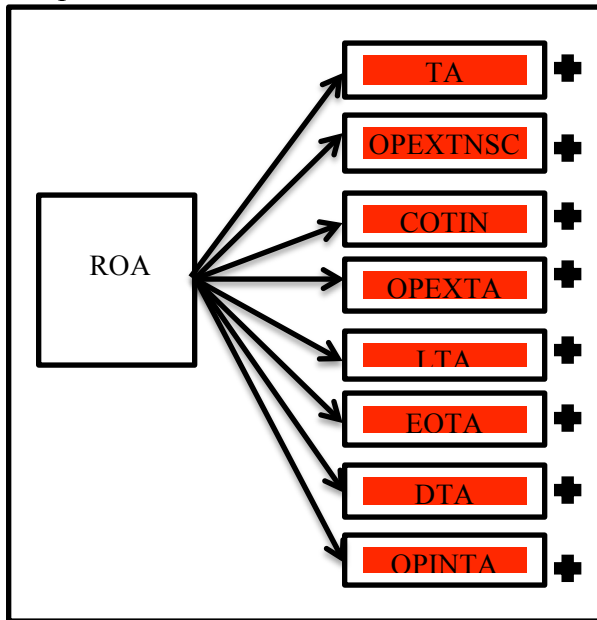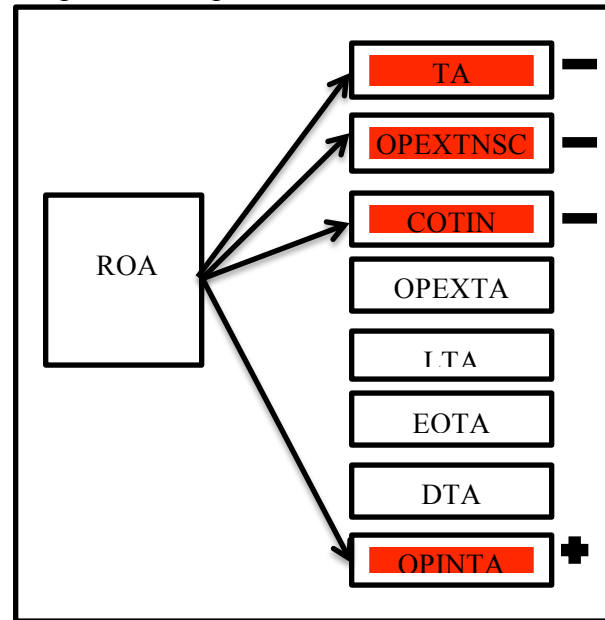
Return on Equity (ROE)

The second dependent variable in the regression model is ROE. Similarly, table (5-2) show that there are four variables are significant to ROE, namely TA, OPEXTNSC, COTIN, and OPINTA. Based on coefficient, ROE has a negative relationship with TA (-2.00E-07), OPEXTNSC (-0.286304), and COTIN (-0.527944) respectively, which means increasing of total assets, operating expenses, and cost to income cause decrease in Saudi bank's profitability. By contrast, ROE has a positive relationship with assets utilization (OPINTA) with coefficient 4.896004, which indicates increasing of operating income causes increasing of Saudi banks' profitability. On the other hand, the remaining variables, namely OPEXTA, LTA, EQTA, and DTA, have no effect on profitability measure; the following two graphs display both estimated and empirical results of ROE.

Table 5-2: Determinants of ROE

Bank Characteristics	Coef	P-value	R-squared	Adj R-squared	VIF
TA	-2.00E-07	0.000	0.5559	0.4423	5.82
OPEXTNSC	-0.286304	0.000	0.6067	0.5061	4.08
COTIN	-0.527944	0.000	0.8369	0.7951	2.28
OPEXTA	-2.765465	0.341	0.4169	0.2677	4.94
LTA	-0.350283	0.264	0.4215	0.2736	5.52
EQTA	0.7308344	0.122	0.437	0.2929	2.94
DTA	-0.634037	0.142	0.4337	0.2888	1.56
OPINTA	4.896004	0.000	0.7946	0.7421	1.72

Graph5-2a: Estimated determinants of ROE   Graph5-2b: Practical determinants of ROE
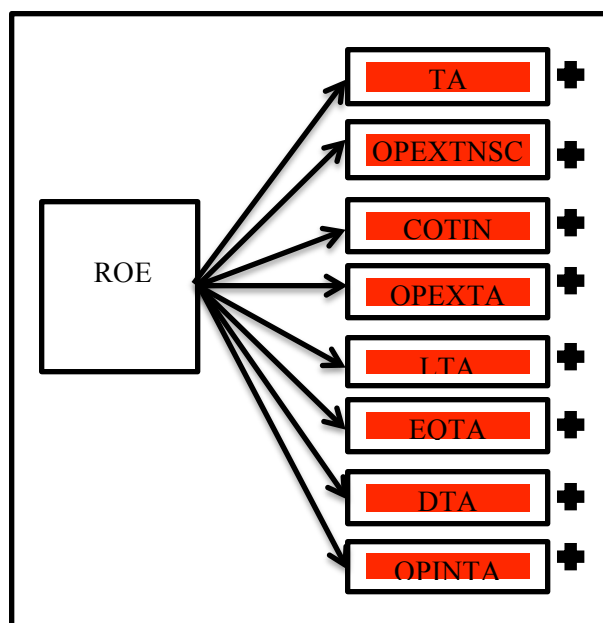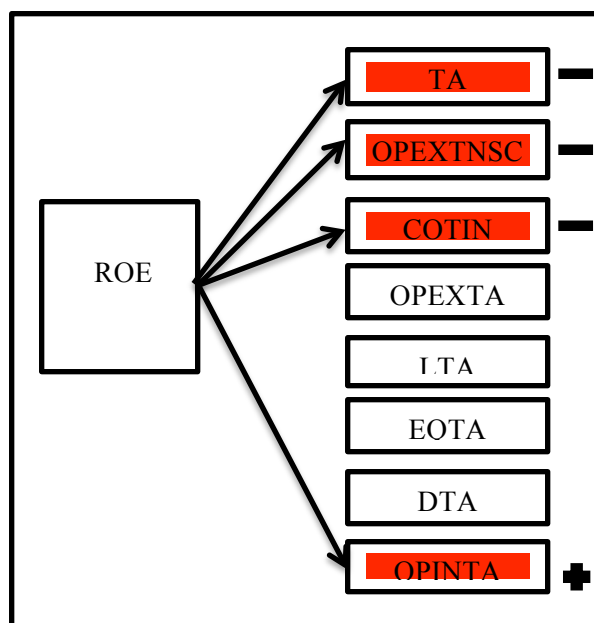
Net Special Commission (NSC)

The third regression model is NSC. Table (5-3) indicates that five variables are found to be significant to NSC, namely TA, OPEXTNSC, COTIN, OPEXTA and OPINTA. Based on coefficients, NSC has a negative relationship with TA (-7.63E-09), OPEXTNSC (-0.006722), and COTIN (-0.008579) respectively, which means increasing of total assets, operating expenses to NSC, and cost to income cause decrease in Saudi bank's profitability. In other words, small banks will generate high NSC. By contrast, NSC has a positive relationship with assets

utilization (OPINTA) with coefficient 0.123318, which indicates increasing of operating income causes increasing of Saudi banks' profitability. Moreover, NSC has also a positive relationship with operating expenses to total assets (OPEXTA) with coefficient 0.2862252. On the other hand, the remaining variables, namely LTA, EQTA, and DTA, have no effect on profitability measures, the following two graphs show comparison of both estimated and empirical results of NSC.

Table 5-3: Determinants of NSC

Bank Characteristics	Coef	P-value	R-squared	Adj R-squared	VIF
TA	-7.63E-09	0.000	0.9084	0.8849	5.82
OPEXTNSC	-0.006722	0.011	0.891	0.8631	4.08
COTIN	-0.008579	0.01	0.8914	0.8636	2.28
OPEXTA	0.2862252	0.005	0.8947	0.8677	4.94
LTA	-0.016936	0.136	0.8796	0.8487	5.52
EQTA	-0.031	0.07	0.8825	0.8525	2.94
DTA	0.02766	0.077	0.8821	0.8519	1.56
OPINTA	0.123318	0.000	0.9128	0.8905	1.72

Graph5-3a: Estimated determinants of NSC
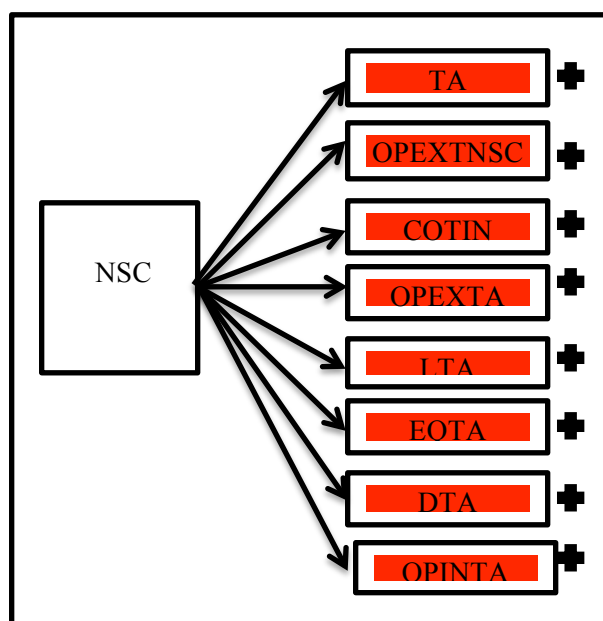
Graph5-3b: Practical determinants of NSC
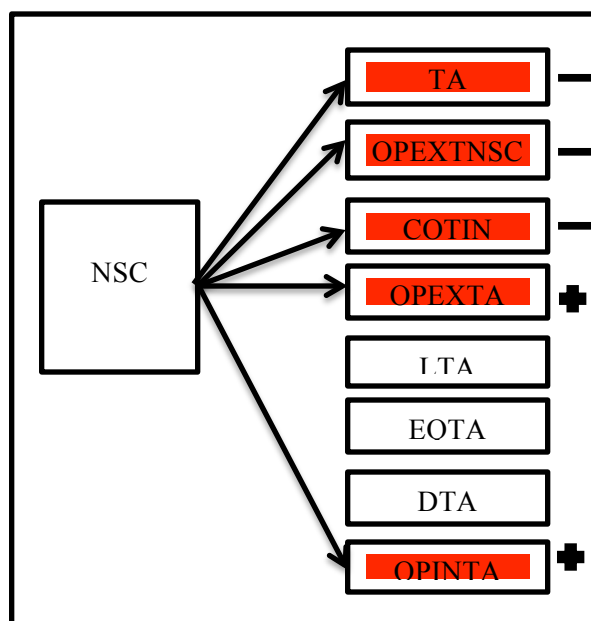
Results of individual Saudi banks:

1) Determinants of Riyad Bank's (RIBL) Profitability:

From table (5-4), first column presents the coefficient between ROA variable and Riyad Bank's internal characteristics variables, and the number between parentheses presents significance level. All variables are found to be insignificant to ROA. Total assets do not affect on RIBK's ROA unlike whole sector which effects negatively with ROA. Moreover, variables used for operational efficiency and assets management do not impact on ROA either.

Second column of table (5 - 4) presents the relation between ROE and other variables. The only variable that influences on ROE at Riyad Bank (RIBL) is total assets (TA) yet negatively as it's indicated in the table below. If total assets of the bank increase (decrease), the ROE will decrease (increase). The remaining variables, namely OPEXTNSC, COTIN, OPEXTA, LTA, EQTA, DTA, and OPINTA, do not have any impact on ROE of Riyad Bank. However, there must be other variables that are not covered in this paper have significant impact on ROA, it could be external factors such as economic condition, bank's reputation and so forth or internal factors such as employees' qualifications.

Last column is the relationship between NSC and the internal characteristics. The result of NSC is different unlike ROA and ROE. Five variables are found to be significant to NSC. Total assets (TA) has a negative impact on NSC with coefficient of -1.134448, while OPEXTNSC and COTIN impact on NSC negatively either, which indicate increasing in operating expenses for both ratios will cause a decline in NSC. Furthermore, increasing of equity (EQTA) will effect negatively on NSC as well as increasing in operating income (OPINTA).

Table 5-4: Determinants of Profitability at Riyad Bank (RIBL):

Bank Characteristics	ROA	ROE	NSC
TA	-1.75468	-14.2410	-1.13445
	(0.211)	(0.052)	(0.000)
OPEXTNSC	-0.2103572	-1.369899	-0.622698
	(0.842)	(0.811)	(0.012)
COTIN	-0.4569052	-2.824201	-0.635645
	(0.543)	(0.447)	(0.010)
OPEXTA	-0.2405982	-1.988223	-0.371041
	(0.855)	(0.786)	(0.136)
LTA	0.9674993	3.830108	-0.40804
	(0.478)	(0.619)	(0.146)
EQTA	0.02161	0.0232231	-0.584404
	(0.986)	(0.997)	(0.022)
DTA	-0.4841431	-3.224499	-0.442619
	(0.711)	(0.656)	(0.095)
OPINTA	0.7609851	3.701667	-0.497485
	(0.161)	(0.376)	(0.024)

2) Determinants of Al-Rajhi Bank's (RJHJ) Profitability:

Table (5-5) presents profitability determinant of Al-rajhi bank (RJHJ). Five variables (COTIN, OPEXTA, LTA, EQTA, and DTA) have a significant impact to ROA. Cost to income has a positive influence on return on assets (ROA) as well as operating expenses to total assets. If the bank increases its operational efficiency, the ROA will increase too. Meanwhile, fund used management, loan to assets (LTA), effects positively on ROA, while fund source management, equity to assets (EQTA) and deposit to assets (DTA) has a positive impact on ROA as well, which indicates the more fund source the bank will get (equity and deposits and how well the bank manage them), the better ROA the bank will generate.

On the other side, ROE are affected only by three variables, which are OPEXTA, LTA, and DTA. All three variables do have appositive impact on ROE. Increasing operating expenses,

it will increase bank's activities and thus will increase ROE. In addition, the more loans and deposits the bank gets, the more ROE the bank will generate.

Finally, all variables have a positive impact on NSC. NSC of Al-rajhi bank (RJHJ) will increase if assets size increase. Likewise, operational efficiency including OPEXTNSC, COTIN, and OPEXTA effects positively on NSC. The more efficient the bank will be, the more NSC will have. Leverage ratio indicators, namely LTA and EQTA, lead to higher NSC. Increasing also in deposits, it will increase banks activities and thus increasing NSC. Lastly, increasing in operating income leads to generate higher NSC.

Table 5-5: Determinants of Profitability at Al-Rajhi Bank (RJHJ):

Bank's Characteristics	ROA	ROE	NSC
TA	1.52220	2.65328	1.936272
	(0.266)	(0.705)	(0.000)
OPEXTNSC	1.725087	7.298445	2.237744
	(0.124)	(0.229)	(0.000)
COTIN	1.652265	6.871957	2.292474
	(0.036)	(0.075)	(0.000)
OPEXTA	3.161856	15.76716	2.444297
	(0.015)	(0.028)	(0.000)
LTA	6.429602	28.90897	3.070452
	(0.01)	(0.037)	(0.000)
EQTA	2.642716	13.39724	2.541107
	(0.038)	(0.062)	(0.000)
DTA	2.863651	13.88024	2.522971
	(0.027)	(0.052)	(0.000)
OPINTA	0.6612856	3.323605	2.123046
	(0.661)	(0.448)	(0.000)

3) Determinants of Jazira Bank's (BJAZ) Profitability:

Table (5-6) shows that total assets have a negative impact on both ROE and NSC, and no impact on ROA. Increasing in assets size leads to lower profit for Jazira bank. Operating expenses to Net special commission indicator (OPEXTNSC) effects positively on both ROA and ROE, but does not effect on NSC. Meanwhile, increasing of cost to income (COTIN) causes higher ROA and ROE, but makes NSC decline. Operating expenses to assets (OPEXTA) has a positive impact on ROA and a negative impact on NSC. The higher this ratio, the higher ROA and the lower NSC of the bank will be. Loan to assets ratio (LTA) has a positive impact on ROA and a negative impact on NSC, but no effect on ROE. Increasing loans lead to higher ROA and lower NSC. Equity to assets (EQTA) does have no influence on both ROA and ROE, yet have a negative impact on NSC, which means increasing of equity leads to lower NSC. Meanwhile, deposits to assets ratio (DTA) have a positive impact on ROA, but a negative impact on NSC. Increasing customer deposits leads to higher ROA and leads to lower NSC at the same time. Finally, operating income to assets ratio (OPINTA) impact negatively on both ROE and NSC, and does no effect on ROA. The bank will be less profitable if the ratio is high.

Table 5-6: Determinants of Profitability at Jazira Bank's (BJAZ):

Bank Characteristics	ROA	ROE	NSC
TA	-1.896507	-28.9274	-2.29414
	(0.381)	(0.012)	(0.000)
OPEXTNSC	5.846364	26.016	-0.48871
	(0.000)	(0.001)	(0.103)
COTIN	3.074849	9.654	-0.89661
	(0.000)	(0.012)	(0.000)
OPEXTA	2.866712	8.973068	-1.21962
	(0.038)	(0.235)	(0.000)
LTA	2.616109	6.761718	-0.93096
	(0.038)	(0.334)	(0.001)
EQTA	1.557919	1.942067	-0.76226
	(0.238)	(0.793)	(0.006)
DTA	2.441413	5.881059	-0.92876
	(0.054)	(0.395)	(0.000)
OPINTA	-0.558466	-8.966	-1.33623
	(0.336)	(0.050)	(0.000)

4) Determinants of Saudi Investment Bank's (SAIB) Profitability:

As it is indicated in table (5-7)**,** total assets (TA) have a significant relationship with profitability measure (ROA, ROE, and NSC) yet negative. Increasing bank's assets decline the profitability of the bank and vice versa. OPEXTNSC, COTIN, and OPEXTA have no impact on both ROA and ROE, but have a negative impact on NSC. Increasing operating expenses makes NSC decreases. Leverage ratio has no effect on both ROA and ROE, yet has a negative impact on NSC. Increasing loans and equity makes NSC decline. Furthermore, customer deposits and operating expenses does not impact on ROA and ROE. The reason behind this, it could be low interest environment in Saudi Banking sector. However, they have a negative impact on NSC. The higher these ratios, the lower the bank's NSC will be.

Table 5-7: Determinants of Profitability at Saudi Investment Bank's (SAIB):

Bank's Characteristics	ROA	ROE	NSC
TA	-4.004015	-31.2063	-2.28026
	(0.045)	(0.003)	(0.000)
OPEXTNSC	0.4286574	2.919	-1.03487
	(0.687)	(0.614)	(0.000)
COTIN	-0.1772752	-0.658	-1.11982
	(0.813)	(0.858)	(0.000)
OPEXTA	-0.7249186	-4.71343	-0.71613
	(0.619)	(0.561)	(0.011)
LTA	0.4553418	1.837925	-0.99485
	(0.725)	(0.802)	(0.000)
EQTA	-0.2301216	-0.93086	-1.11611
	(0.849)	(0.892)	(0.000)
DTA	-0.4126092	-2.14377	-1.06303
	(0.741)	(0.757)	(0.000)
OPINTA	0.7410132	3.898	-1.00386
	(0.173)	(0.353)	(0.000)

5) Determinants of Saudi Hollandi Bank's (SHB) Profitability:

Table (5-8) presents character enhances the profitability measure at SHB. Only one variable (TA) is found to be significant to return on assets (ROA) as well as return on equity (ROE) yet has a negative impact on profitability measure. That means increasing the total assets will decrease the profitability measures. Meanwhile, the impact of bank's characteristics on NSC is negative with all variables. However, there must be other factors that affect positively on bank's performance but are not covered in this paper, it could be bank's reputation or friendliness of staff, or others.

Table 5-8: Determinants of Profitability at Saudi Hollandi Bank's (SHB):

Bank's Characteristics	ROA	ROE	NSC
TA	-4.634931	-30.7543	-2.03313
	(0.019)	(0.003)	(0.000)
OPEXTNSC	0.0009938	4.288	-0.78198
	(0.999)	(0.465)	(0.002)
COTIN	0.0643133	4.660	-0.81721
	(0.932)	(0.216)	(0.001)
OPEXTA	-1.329519	-4.13569	-0.63493
	(0.329)	(0.584)	(0.015)
LTA	0.0472139	2.646086	-0.71941
	(0.973)	(0.736)	(0.014)
EQTA	-0.2465734	1.896526	-1.05668
	(0.846)	(0.792)	(0.000)
DTA	-1.299074	-3.53768	-0.82362
	(0.308)	(0.615)	(0.002)
OPINTA	0.2107578	4.445	-0.76827
	(0.697)	(0.292)	(0.001)

6) Determinants of Banque Saudi Fransi's (BSFR) Profitability:

From the table (5-9) below, total assets (TA) have a significant impact only on NSC, yet negatively. Increasing of bank's size makes a decrease on NSC. Similarly, operational efficiency indicator has also a negative impact on NSC. The higher the ratio, the less profit the bank will be. Loans to assets ratio (LTA) impacts negatively on NSC and has no impact on both ROA and ROE. Moreover, EQTA, DTA, and OPINTA have also a negative impact only on NSC. The higher the ratio is, the less profitable the bank will be. However, OPINTA has a positive affect on ROA as well as ROE.

Table 5-9: Determinants of Profitability at Banque Saudi Fransi (BSFR):

Bank's Characteristics	ROA	ROE	NSC
TA	-2.25739	-14.5595	-1.73337
	(0.152)	(0.075)	(0.000)
OPEXTNSC	-0.7235108	-0.301	-1.10815
	(0.503)	(0.959)	(0.000)
COTIN	-1.356804	-4.036	-1.12815
	(0.083)	(0.291)	(0.000)
OPEXTA	-0.2527178	1.721833	-0.60276
	(0.859)	(0.828)	(0.028)
LTA	1.652934	11.03831	-0.69991
	(0.28)	(0.204)	(0.028)
EQTA	0.5749696	6.918295	-1.04346
	(0.639)	(0.321)	(0.000)
DTA	0.3317173	5.974718	-1.00421
	(0.789)	(0.388)	(0.000)
OPINTA	1.16512	9.989	-0.8586
	(0.035)	(0.020)	(0.000)

7) Determinants of Saudi Arabian British Bank's Profitability (SABB):

Table (5-9) illustrates the profitability determinants of SABB. None of these variables effect on ROA as it appears in the table. Likewise, the only variable that impact on ROE is operating income to asset ratio (OPINTA). It affects positively on ROE, which indicates that the higher the ratio, the more efficient the bank will be. On the other side, six variables affect NSC negatively, namely TA, OPEXTNSC, COTIN, EQTA, DTA, and OPINTA, the higher the ratio, the lower NSC the bank's has.

Table 6-9: Determinants of Profitability at Saudi Arabian British Bank (SABB):

Bank's Characteristics	ROA	ROE	NSC
TA	-2.194796	-11.4989	-1.22944
	(0.161)	(0.154)	(0.000)
OPEXTNSC	0.185698	7.689	-0.4923
	(0.860)	(0.184)	(0.044)
COTIN	-0.3120583	4.752	-0.53685
	(0.678)	(0.204)	(0.029)
OPEXTA	-0.0287422	5.970938	-0.25874
	(0.983)	(0.417)	(0.296)
LTA	1.406063	12.72722	-0.25963
	(0.326)	(1.59)	(0.373)
EQTA	0.7340162	10.3132	-0.57469
	(0.553)	(0.145)	(0.027)
DTA	0.3716894	8.838122	-0.51298
	(0.765)	(0.204)	(0.044)
OPINTA	0.4269855	8.960	-0.46104
	(0.426)	(0.035)	(0.035)

8) Determinants of Arab National Bank's Profitability (ANB):

For ANB performance, none of these variables has a significant impact on ROA, whiles one variable has a positive impact on ROE, namely operating income to assets (OPINTA). The higher this ratio, the more efficient the bank will be. By contrast, two variables impact negatively on NSC of ANB, which are TA and OPEXTNSC. If the bank's assets increase, the NSC will decrease. Similarly, if operating expenses of the bank increases, the NSC will decrease too.

Table 5-10: Determinants of Profitability at Arab National Bank (ANB):

Bank's Characteristics	ROA	ROE	NSC
TA	-2.498324	-12.2505	-1.10454
	(0.121)	(0.139)	(0.000)
OPEXTNSC	-6.72E-01	3.963	-0.4207
	(0.531)	(0.496)	(0.087)
COTIN	-6.89E-01	3.861	-0.38951
	(0.362)	(0.302)	(0.109)
OPEXTA	-0.2033284	6.256911	-0.08101
	(0.878)	(0.397)	(0.743)
LTA	1.362597	13.5829	-0.06863
	(0.354)	(0.106)	(0.818)
EQTA	0.5609188	10.64204	-0.40452
	(0.65)	(0.133)	(0.114)
DTA	0.275307	9.635317	-0.36318
	(0.825)	(0.168)	(0.150)
OPINTA	0.8405949	12.209	-0.22077
	(0.122)	(0.005)	(0.305)

9) Determinants of Profitability of Samba Financial Group (Samba):

From the table (5-11) below, there are only two different variables TA and COTIN that impact negatively on NSC and ROA respectively. Increase of bank's assets makes NSC decreases, while Increase of operating expenses makes ROA decreases as well. On the other hand, there are no variables that have significant impact on ROE. However, there must be other variables (external or internal) effect positively on bank's performance.

Table 5-11: Determinants of Profitability at Samba Financial Group (Samba):

Bank's Characteristics	ROA	ROE	NSC
TA	-1.316826	-3.06501	-0.6718
	(0.306)	(0.642)	(0.006)
OPEXTNSC	-1.151656	0.410	-0.4507
	(0.290)	(0.944)	(0.070)
COTIN	-1.566371	-2.035	-0.44649
	(0.046)	(0.591)	(0.072)
OPEXTA	-0.5410465	3.357493	0.016007
	(0.697)	(0.663)	(0.951)
LTA	0.3746562	8.48111	-0.21164
	(0.768)	(0.241)	(0.414)
EQTA	0.1823849	7.891201	-0.36752
	(0.881)	(0.257)	(0.145)
DTA	0.1271072	8.071822	-0.37709
	(0.919)	(0.25)	(0.138)
OPINTA	0.6612856	7.859	-0.27347
	(0.244)	(0.063)	(0.204)

10) Determinants of Al-Bilad Bank's profitability (ALBI):

Total assets have a negative impact on bank's profitability, which means increasing of assets size makes bank's performance decreases. Meanwhile, operating expenses (OPEXTA) has a negative impact only on NSC. The higher the ratio is, the lower NSC the bank will generate. Bank's structure EQTA ratio effects negatively on ROA and ROE and no influence on NSC. Increasing of equity makes a decline of ROA and ROE at the bank. On the other hand, OPINTA effects also negatively on ROE as well as NSC, and has no influence on ROA. The higher the ratio is, the less ROE and NSC.

Table 5-12: Determinants of Profitability at Al-bilad Bank (ALBI):

Bank's Characteristics	ROA	ROE	NSC
TA	-7.201311	-54.3089	-1.87189
	(0.002)	(0.000)	(0.000)
OPEXTNSC	1.461	6.486	0.094611
	(0.304)	(0.400)	(0.767)
COTIN	1.746967	8.165	-0.05073
	(0.056)	(0.069)	(0.858)
OPEXTA	-1.810319	-11.6122	-1.06421
	(0.279)	(0.212)	(0.001)
LTA	-0.4929805	-9.00062	-0.06028
	(0.784)	(0.379)	(0.870)
EQTA	-4.317409	-25.3829	-0.12704
	(0.006)	(0.005)	(0.680)
DTA	-3.060276	-20.4202	-0.3339
	(0.022)	(0.006)	(0.201)
OPINTA	0.6612856	-15.913	-0.42876
	(0.244)	(0.000)	(0.049)

Finally, this chapter has introduced the output of regression analysis. Moreover, it has examined the different internal bank characteristics, which have either positive or negative relationship with profitability indicators (ROA, ROE, and NSC). The results was divided into two sections, the first one was an aggregate regression analysis of Saudi banking industry. The second part presented regression analysis of Saudi banks individually.

Chapter 6- Conclusion

This paper aimed to provide a comparative analysis of Saudi banks including both Islamic and conventional as well as to examine the impact of assets management, operational efficiency, and bank's size on financial performance of Saudi banking sector. The paper covered eleven Saudi banks between 2005 and 2009. The methodology used including panel data regression analysis as well as ratio analysis. These variables were introduced to each bank n addition to whole sector. Choosing internal bank characteristics to identify the profitability was based on previous studies (introduced in chapter 2).

The thesis began by giving background of Islamic banking since it's used widely in the kingdom. Then, the paper introduced the economic of Saudi Arabia, and highlighted the development of Saudi banking sector. Previous studies on banks profitability for both Islamic and conventional as well as on Saudi banks were summarized and reviewed. Furthermore, the variables selected in the study were introduced and explained. The paper presented Saudi banks and financial ratio comparison. Finally, regression analysis was presented, showing how bank's internal characteristics impact on financial performance.

The performance analysis of Saudi banking indicates that Al-rajhi bank is the best banks in Saudi Arabia by applying a key number of financial ratios: profitability, liquidity, capital structure, and efficiency. Moreover, large banks performance (except Al-rajhi bank) has reached the mature growth unlike medium-size banks. They are growing to compete against large banks. Meanwhile, small-size banks are encountering some challenges to achieve better growth. In general, all Saudi banks are doing well to maintain the stability of banking sector.

The performance indicators ROA, ROE, and NSC were taken as the dependent variables to test the hypothesis introduced in the first chapter. The variables in the regression analysis reacted differently to profitability indicators for entire Saudi banks. First, total assets, which measure the size of bank, impact negatively on Saudi banks, which mean that bigger banks are less profitable. Second, operating expenses, have a negative influence on bank's ROE and ROA, yet positive impact on NSC. Third, operating income has positive impact on bank's performance, which means increasing the activities of banks causes increase in banks performance. The following table reintroduces the hypothesis and compared to empirical results.

Table 6-1: results of hypothesis test

Variables	ROA	ROE	NSC
TA	Accept	Accept	Accept
OPEXTNSC	Accept	Accept	Accept
COTIN	Accept	Accept	Accept
OPEXTA	Reject	Reject	Accept
LTA	Reject	Reject	Reject
EQTA	Reject	Reject	Reject
DTA	Reject	Reject	Reject
OPINTA	Accept	Accept	Accept

Above of that, the study on Saudi banks gives a different image of financial intermediation. Even though there is some variation in Islamic and conventional banking activities, profitability terms are still similar.

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Appendix A

Table 2: Major differences between conventional and Islamic banking system:

Conventional System	Islamic System
Money is a product besides medium of exchange and store of value.	Real Asset is a product. Money is just a medium of exchange
Time value is the basis for charging interest on capital.	Profit on exchange of goods & services is the basis for earning profit.
Interest is charged even in case, the organization suffers losses. Thus no concept of sharing loss.	Loss is shared when the organization suffers loss.
While disbursing cash finance, running finance or working capital finance, no agreement for exchange of goods & services is made.	The execution of agreements for the exchange of goods & services is must, while disbursing funds under *Murabaha*, *Salam* & *Istisna* contracts.
Due to non existence of goods & services behind the money while disbursing funds, the expansion of money takes place, which creates inflation	Due to existence of goods & services no expansion of money takes place and thus no inflation is created.
Due to inflation the entrepreneur increases prices of his goods & services, due to incorporating inflationary effect into cost of product.	Due to control over inflation, no extra price is charged by the entrepreneur.
Bridge financing and long term loans lending is not made on the basis of existence of capital goods. Rather, they are disbursed on the basis of Windo Dressed project feasibility and credibility of the entrepreneur.	Musharakah & Diminishing Musharakah agreements are made after making sure the existence of capital good before disbursing funds for a capital project.
Government very easily obtains loans from Central Bank through Money Market	Government can not obtain loans from the Monetary Agency without making sure the

Operations without initiating capital development expenditure.	delivery of goods to National Investment fund.
The expanded money in the money market without backing the real assets, results deficit financing	Balance budget is the outcome of no expansion of money.
Real growth of wealth does not take place, as the money remains in few hands.	Real growth in the wealth of the people of the society takes place, due to multiplier effect and real wealth goes into the ownership of lot of hands.
Due to failure of the projects the loan is written off as it becomes non performing loan.	Due to failure of the project, the management of the organization can be taken over to hand over to a better management.
Debts financing gets the advantage of leverage for an enterprise, due to interest expense as deductible item form taxable profits. This causes huge burden of taxes on salaried persons. Thus the saving and disposable income of the people is effected badly. This results decrease in the real gross domestic product.	Sharing profits in case of Mudarabah and sharing in the organization of business venture in case of Musharakah, provides extra tax to Federal Government. This leads to minimize the tax burden over salaried persons. Due to which savings & disposable income of the people is increased, which results the increase in the real gross domestic product.
Due to decrease in the real GDP, the net exports amount becomes negative. This invites further foreign debts and the local-currency becomes weaker.	Due to increase in the real GDP, the net exports amount becomes positive, this reduces foreign debts burden and local- currency becomes stronger.

(Source: AIMS-UK Islamic Banking & Finance | Online Certifications | Training & Consultancy, *Mabid Ali Al-Jarhi and Munawar Iqbal,* www.kantakji.com/fiqh/Files/Markets/a%20(26).pdf)

Appendix B

Table 4 – a: Descriptive Analysis of Saudi Banks (2005)

Bank's name	Bank's size (SR,000)				Structure%	Profitability %			Efficiency %	Liquidity %
	TA	**Market Share%**	**TE**	**Market Share%**	**EQTA**	**NSC**	**ROE**	**ROA**	**COTIN**	**LTD**
NCB	145,788,877	19.9	21,636,358	22.9	14.84	3.61	23.2	3.44	30.99	71.78
RIBL	80,078,689	11.0	10,960,361	11.6	13.69	3.34	23.2	3.54	36.82	86.49
RJHJ	95,037,981	13.0	13,469,294	14.2	14.17	5.97	47.6	5.93	27.33	113.98
BJAZ	14,168,783	1.9	2,670,096	2.8	18.84	1.95	41.6	6.17	33.45	63.90
SAIB	39,580,724	5.4	5,306,711	5.6	13.41	2.60	24.1	2.69	29.80	74.27
SHB	39,958,300	5.5	3,671,631	3.9	9.19	2.52	28.7	2.63	38.84	83.24
BSFR	67,501,380	9.2	7,184,900	7.6	10.64	2.53	21.4	3.28	28.38	84.14
SABB	65,927,927	9.0	7,493,152	7.9	11.37	2.99	33.4	3.8	34.45	84.16
ANB	67,492,079	9.2	6,336,679	6.7	9.39	3.24	32.8	2.71	41.83	79.41
Samba	108,306,346	14.8	12,906,166	13.7	11.92	3.24	19.4	3.71	31.05	73.19
ALBI	7,110,053	1.0	2,899,323	3.1	40.78	1.54	0	-1.38	111.15	135.79
Total	730,951,139	100	94,534,671	100						

Table 4 – b: Descriptive Analysis of Saudi Banks (2006):

Bank's name	Bank size (SR,000)				Structure%	Profitability %			Efficiency %	Liquidity %
	TA	Market Share%	TE	Market Share%	EQTA	NSC	ROE	ROA	COTIN	LTD
NCB	155,706,160	18.8	23,999,353	20.7	15.41	3.65	26.1	4.03	32.76	65.74
RIBL	94,015,845	11.4	11,991,963	10.4	12.76	3.11	24.3	3.09	40.47	75.42
RJHJ	105,208,744	12.7	20,179,476	17.4	19.18	6.49	43.4	6.94	23.22	121.44
BJAZ	15,712,874	1.9	4,193,845	3.6	26.69	3.03	57.5	12.56	20.77	57.44
SAIB	40,844,623	4.9	6,001,317	5.2	14.69	2.59	35.5	4.91	21.52	82.81
SHB	46,740,064	5.6	4,257,743	3.7	9.11	2.52	22.4	2.04	51.05	81.69
BSFR	79,581,010	9.6	9,404,781	8.1	11.82	2.53	36.3	3.78	23.66	82.47
SABB	77,189,378	9.3	9,404,599	8.1	12.18	3.35	32.3	3.94	35.28	71.64
ANB	78,035,383	9.4	7,980,138	6.9	10.23	3.24	35.0	3.21	35.03	80.53
Samba	124,014,813	15.0	15,299,618	13.2	12.34	3.47	34.1	4.2	28.36	70.66
ALBI	11281364	1.4	3024345	2.6	26.81	3.18	5.9	1.58	72.80	123.05
Total	828,330,258	100	115,737,178	100						

Table 4 – c: Descriptive Analysis of Saudi Banks (2007):

Bank's name	Bank size (SR,000)				Structure%	Profitability %			Efficiency %	Liquidity %
	TA	Market Share%	TE	Market Share%	EQTA	NSC	ROE	ROA	COTIN	LTD
NCB	208717150	20.1	29609648	21.4	14.19	3.11	20.4	2.89	38.80	61.51
RIBL	121350825	11.7	13186795	9.5	10.87	2.69	22.8	2.48	41.73	79.85
RJHJ	124886482	12.0	23606112	17.1	18.90	6.18	29.5	5.16	30.81	115.11
BJAZ	21563900	2.1	4697600	3.4	21.78	2.76	18.1	3.73	44.46	63.14
SAIB	46541793	4.5	6769626	4.9	14.55	2.27	12.2	1.77	49.72	70.58
SHB	50411314	4.9	4546794	3.3	9.02	2.38	9.7	0.87	75.31	79.63
BSFR	99808110	9.6	11240635	8.1	11.26	2.30	24.1	2.72	26.75	80.87
SABB	98212910	9.5	13045289	9.4	13.28	3.11	25.0	2.65	41.16	81.50
ANB	94467561	9.1	10524597	7.6	11.14	3.07	26.6	2.61	37.79	82.94
Samba	154413974	14.9	17975563	13.0	11.64	3.20	26.9	3.13	33.19	69.56
ALBI	16635838	1.6	3104107	2.2	18.66	3.21	2.3	0.44	90.69	104.98
Total	1037009857	100	138306766	100						

Table 4 – d: Descriptive Analysis of Saudi Banks (2008):

Bank's name		Bank size (SR,000)			Structure%	Profitability %			Efficiency %	Liquidity %
	TA	Market Share%	TE	Market Share%	EQTA	NSC	ROE	ROA	COTIN	LTD
NCB	221801975	17.6	27535501	17.3	12.41	3.51	7.7	0.95	80.14	62.80
RIBL	159652525	12.6	25690451	16.2	16.09	2.47	10.3	1.65	49.72	91.79
RJHJ	164929801	13.1	27031799	17.0	16.39	5.15	25.8	3.99	38.30	120.78
BJAZ	27519705	2.2	4636800	2.9	16.85	2.29	4.8	0.81	80.45	72.41
SAIB	53596364	4.2	6608598	4.2	12.33	1.92	8.0	0.99	72.65	72.62
SHB	61436183	4.9	5715151	3.6	9.30	2.35	21.4	1.99	42.04	88.39
BSFR	125864761	10.0	14069136	8.9	11.18	2.24	19.9	2.23	36.32	87.15
SABB	131660693	10.4	11633831	7.3	8.84	2.44	25.1	2.22	41.83	81.44
ANB	121307142	9.6	12671298	8.0	10.45	2.76	21.4	2.05	39.71	80.50
Samba	178891190	14.2	20061865	12.6	11.21	2.83	22.4	2.49	36.48	73.12
ALBI	16051789	1.3	3212840	2.0	20.02	3.60	3.9	0.78	85.70	75.44
Total	1262712128	100	158867270	100						

Table 4 – e: Descriptive Analysis of Saudi Banks (2009):

Bank's name	Bank size (SR,000)				Structure%		Profitability %		Efficiency %	Liquidity %
	TA	Market Share%	TE	Market Share%	EQTA	NSC	ROE	ROA	COTIN	LTD
NCB	257,452,175	19.7	30,860,159	18.0	11.99	3.13	13.4	1.6	62.97	55.36
RIBL	176,399,258	13.5	28,235,444	16.5	16.01	2.46	10.7	1.72	49.15	85.02
RJHJ	170729729	13.1	28,740,884	16.8	16.83	5.41	23.6	3.96	41.18	120.98
BJAZ	29,976,604	2.3	4,485,900	2.6	14.96	2.23	0.6	0.09	97.65	70.02
SAIB	50,148,011	3.8	7,428,130	4.3	14.81	2.02	7	1.07	73.24	77.88
SHB	59,109,718	4.5	5,632,822	3.3	9.53	2.66	1.53	0.15	96.00	80.36
BSFR	120,572,438	9.2	15,751,780	9.2	13.06	2.53	15.7	2.05	41.87	85.84
SABB	126,837,962	9.7	10,424,933	6.1	8.22	2.71	15.6	1.6	60.97	80.33
ANB	110,297,320	8.5	14,368,767	8.4	13.03	3.13	17.5	2.15	47.29	80.81
Samba	185,518,269	14.2	22,501,647	13.1	12.13	2.73	20.4	2.46	35.86	57.19
ALBI	17,411,192	1.3	3,002,182	1.8	17.24	3.15	-8.3	-1.43	127.36	80.27
Total	1,304,452,676	100	171,432,648	100						