

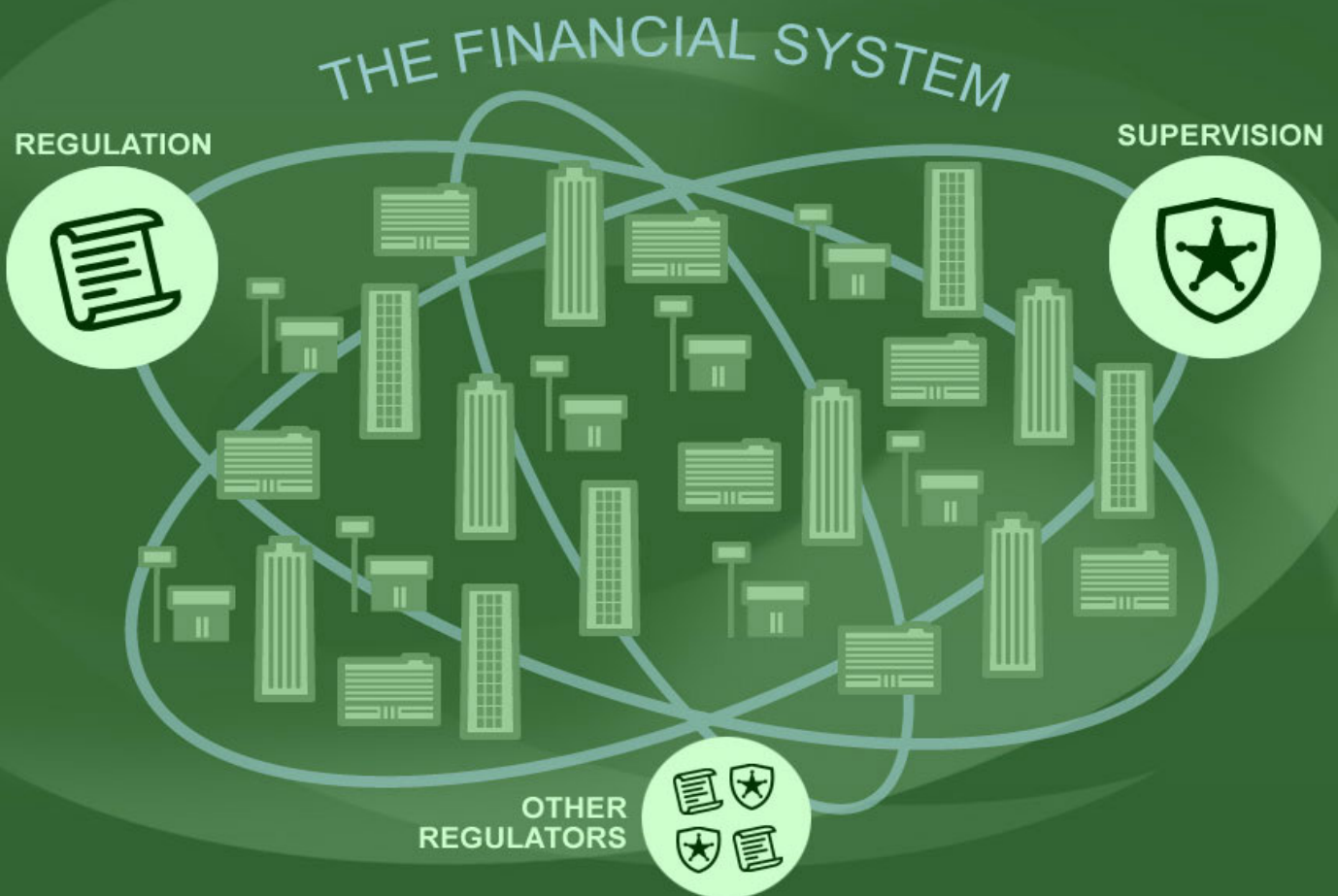


Standing Committee
for Economic and Commercial Cooperation
of the Organization of Islamic Cooperation (COMCEC)

Improving Banking Supervisory Mechanisms In the OIC Member Countries

ROLES & RESPONSIBILITIES

SUPERVISION & REGULATION



COMCEC COORDINATION OFFICE
March 2015



**Standing Committee
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Abbreviation List

AFS: Available for Sale

AMA: Advanced Measurement Approaches

BCBS: Basel Committee on Banking Supervision

BHC: Bank Holding Company

BRSA: Banking Supervisory Authority

CAR: Capital Adequacy Ratio

CET 1: Common Equity Tier 1

DFSA: Dubai Financial Services Authority

DSIB: Domestic Systemically Important Banks

EBA: European Banking Authority

ECB: European Central Bank

EIOPA: European Insurance and Occupational Pensions Authority

EL: Expected Loss

ESMA: European Securities and Markets Authorities

ESRB: European Systemic Risk Board

EU: European Union

ES: Expected Shortfall

FDIC: Federal Deposit Insurance Corporation

FED: Federal Reserve

GSIB: Globally Systemically Important Financial Institutions

GSIFI: Global Systemically Important Financial Institutions

HQLA: High Quality Liquid Assets

ICAAP: International Capital Adequacy Assessment Process

IFSB: Islamic Financial Services Board

IFSI: Islamic Financial Services Industry

IIFS: Institutions Offering Islamic Financial Services

IIRA: Islamic International Rating Agency B.S.C.

IRC: Incremental Risk Charge

KFHR: Kuwait Finance House Research

LCR: Liquidity Coverage Ratio

NPL: Non-Performing Loans

NSFR: Net Stable Funding Ratio

OBS: Off-Balance Sheet
OCC: Office of the Comptroller of the Currency
OIC: Organization of Islamic Cooperation
QIS: Quantitative Impact Study
ROA: Return on Asset
ROE: Return on Equity
RWA: Risk Weighted Assets
SFT: Securities Financial Transaction
VaR: Value at Risk
UAE: United Arab Emirates
UL: Unexpected Loss
US: United States

Executive Summary

This report investigates how OIC member countries can adopt future changes emanating from banking sector reforms, particularly Basel III. Furthermore, the current state of the supervisory practices in OIC countries is evaluated and most critically, possible effects of these new changes in regulations on supervisory mechanisms are discussed. Policy recommendations are proposed to tackle the more challenging regulatory environment for the OIC countries. Our main findings are summarized below:

➤ **Future of Banking Regulation**

Banking Regulation after Basel III reform is going to be challenging in the near future. More intensive capital and liquidity levels will be required in the banking business across the globe. Thus, a better and more technical banking supervision is necessary to comply with the future global banking environment.

➤ **Quality and Adequacy of Capital in the Banking Sector**

In all but a few countries, bank capital is quite satisfactory. It seems that OIC member countries will experience a smooth transition to Basel III regulations. However, until the end of 2018, the Capital Adequacy Ratio in global banking will be 10.5%. A rigorous and coordinated Quantitative Impact Study (QIS) among member countries will be useful to see how countries would fare under Basel III future requirements.

➤ **Improving Deposit Insurance**

By referring to the World Bank Regulation and Supervision Survey, which covers 180 countries, it has been found that OIC member countries need to improve their deposit insurance systems. Improving and coordinating the deposit insurance system is an important aspect of supervision for the member states.

➤ **Complying with the Liquidity Requirements**

Basel III imposes extra liquidity provisions measured by the new liquidity coverage ratio (LCR), which requires banks to allocate additional liquidity by 2015. By looking at the standard liquidity measures in OIC countries, some member states might need to add more liquidity provisions in their banking systems. On average, liquidity side would constitute the most demanding side of regulations for OIC countries as discussed in the Islamic Financial Stability Board's most recent meeting. Countries should be ready for necessary balance sheet allocations to comply with these new changes. With exceptions such as Turkey and a few more countries, the average liquidity ratios may require some additional liquidity provisioning in the member states. The Turkish Banking Regulatory Authority was one of the first supervisory authorities, which required a liquidity provision before the credit crisis of 2008. This may also pose a problem for Islamic banking, since liquidity of the short-term funding market is very tight.

➤ **Coordinating Home/Host Supervisory Activities**

Supervisory mechanisms of OIC countries should also consider the coordination between home and host supervisory activities, since implementation of many of the future and present regulations requires different mechanisms for home and host countries. The Bank for International Settlement puts an important weight on minimizing the complications between home and host supervisory authorities.

➤ **Tackling with financial stability, pro-cyclicality and macro-prudential regulations**

Even though every OIC country may have a different economic structure, financial stability is a common problem for all member states. Financial stability issues require correct diagnosis of potential instabilities and finding right financial and monetary tools to tackle them. Fast credit growth and vulnerability against sudden capital movements are the main financial stability problems faced by OIC countries. Various countries such as Kazakhstan and Nigeria have faced sharp volatility in their economies, causing abrupt changes in their banking systems. The Turkish Banking Supervisory authority together with the Turkish Central Bank have conducted some innovative and successful preemptive measures to deal with financial stability issues. This and other experiences conducted by other member states can be communicated effectively among members hence collaboration among member countries, is necessary to handle financial stability issues. However, rapid credit growth and potential credit risk may lead to future financial instability for OIC member states. As stated by the IFSB summit, developing a macroeconomic stress testing procedure for OIC member states would be very beneficial.

➤ **Financial Stability, Monetary Policy and Banking Supervision**

Recently, the role of monetary policy and banking supervision began to create some conflicting results. Some countries such as the UK chose to combine monetary policy and banking supervision under the Bank of England. Coordination of banking supervision and monetary policy is critical and OIC member states should discuss how monetary policy and banking supervision can be coordinated towards a more effective regulation and supervision scheme.

➤ **Supervisory and Regulatory Needs of Islamic Banking**

Islamic banking has been growing quite rapidly in recent years. Although it has some advantages over conventional banking, Islamic banking in OIC countries faces some challenges. The minimal use of complex derivatives is the major advantage of Islamic banking over conventional banking. However, relatively less liquid Islamic banking products may pose problems in complying with some of the criteria imposed by new financial regulations. In addition, since there are relatively few parties trading Islamic banking products, counterparty risk may cause some additional challenges for Islamic banking.

➤ **Conclusion**

The banking sector in OIC member states has a strong growth potential in comparison with developed economies. However, potential financial stability issues and getting prepared for future capital and liquidity requirements are important challenges faced by member states. Member countries do have varying experience and expertise on banking supervision therefore, collaboration and cooperation on banking supervision activities among member states would be beneficial to improve banking practices. Since countries have similar risk factors, a common supervisory framework including a common stress testing methodology would be advantageous for member countries.

➤ **How should the supervisory mechanism adopt the recent global changes in banking supervision?**

The new financial regulation requires various important changes for banking supervision. Accordingly, following steps should be taken:

Supervisors' knowledge and expertise on derivative and hedge accounting should be enhanced. The leverage ratio requires accurate derivative asset calculations in particular. Hence, banks' financial disclosure for derivatives is a critical step for banking supervision for the next period.

Concentration of deposit and loan portfolios needs to be monitored more closely. Since many of the new regulations on liquidity (LCR) and credit risk calculations crucially depend on these concentration measures, extra supervisory effort needs to be exerted.

Banks' internal risk measurement strategies need to be supervised more effectively under Basel III regulations.

Static bank capital assessments need to change with the philosophy of ICAAP. In the ICAAP, a bank defines and makes an assessment of the significant risks to which it is or could be exposed. Therefore, supervisors should investigate the macro and banking scenarios and corporate governance in the banks.

Dividend policy for the banks will become a more important area after Basel III. Capital conservation buffers, especially, will be directly related to the retained earnings and dividend policies of banks. Therefore, supervisory activities should be directly focusing on banks' dividend policies.

Under Basel III, the form of capital plays a very important role. More supervisory effort should be devoted to deciding what can constitute Tier 1 capital.

As a conclusion, even though Basel III and other new regulations are very important developments for the future of banking, a successful implementation of these contemporary reforms should be supported with more technical supervision. OIC countries may have to enhance their technical supervision capacity parallel to these reforms. Since full implementation of Basel III will take time, countries have a relatively long period to set up their supervisory mechanisms to adopt the future changes in regulations.



Improving Banking Supervisory Mechanisms In the OIC Member Countries

1. Introduction

It is well-established in the economics and finance literature that financial development is closely related to the growth prospects of countries. An efficient financial system is key to achieving sustainable economic growth. On the other hand, the recent financial crisis in 2008 showed that problems in the financial system might be contagious and they can be detrimental to economic growth. In this regard, a sound and stable financial system should be one of the major concerns of policy makers.

The banking sector is an important part of the financial system, and turmoil in the banking sector affects overall financial stability. The lessons learned from the 2008 crisis pave the way for the construction of new approaches for the supervision of the banking system to enhance the resilience of banks during times of volatile macroeconomic conditions. The suitability and effectiveness of financial regulation and supervision have been a focal point of discussion among policy makers and experts, which sheds light on the lack of coherence in the regulatory framework of countries despite the significant efforts at the global scale, especially by the Basel Committee of Banking Supervision. It is now well-understood that financial globalization and the highly interconnected financial system requires enhanced coordination of countries in their efforts to achieve an efficient regulatory framework.

In this report, the implications of these new regulatory approaches in the global banking system in the aftermath of the crisis are investigated, and their implications in the context of OIC countries are discussed. We aim to provide policy recommendations to enhance the strength of the supervisory mechanisms and coordination for the member countries by laying out similarities and differences in banking sectors.

1.1 Banking Sector: The Rationale for Regulation and Supervision

The recent financial crisis with widespread effects in the world has underlined once again the importance of regulation in financial markets and initiated an intense discussion of regulatory reforms to avoid repetition of financial market meltdowns coupled with deep recessions and huge burdens imposed on taxpayers. In this section, the rationale and challenges of banking regulation are discussed from both micro- and macro-prudential perspectives.

Designing optimal regulations for the banking industry has been an important challenge for academics and policy makers for decades. Banks are vital for the economy with their function of financial intermediation, i.e. channeling idle resources toward productive investments and providing means of risk-sharing. However they might induce important risks on the functioning of the economy in the case of their failures, as has been seen several times in history.¹

The banking sector serves a unique function in the economy through its role in the payment and deposit system and generation of credit to households and firms. The starting point of banking regulation is the deposit insurance aimed at the protection of customers, preventing bank runs which trigger fire sale of assets and lead to further withdrawals. This issue is modeled in the seminal paper by Diamond and Dybvig (1983), and mainly stems from the maturity transformation of the banking system, i.e. banks borrow from depositors for the short term and extend credit with longer maturity. A loss of confidence of depositors in the banks induces a self-fulfilling panic and collapse of the banking system. Therefore, monitoring the liquidity and maturity structure of assets and liabilities of banks remains one of the important

¹See Freixas and Rochet (2008).

concerns of regulators because of this inherited instability of banks. However, instabilities of individual banks and their failures cannot be separated from the banking system; they cannot be dealt with in isolation, because of their interconnections and contagious effects. Therefore, deposit insurance should be combined with capital requirements, since the collapse of a bank actually hurts other banks; this is the fact that separates banks from other firms, as they mostly benefit from the exit of competitors by expanding their market share. Prudential regulation, in a broad sense, should target the protection of the banking industry as a whole and ensure the smooth functioning of the economy.

The banking sector exhibits a large degree of asymmetric information, as depositors usually are not able to fully monitor banks' activities. The main rationale behind deposit insurance is the inability to monitor or lack of monitoring on the side of customers. Deposit insurance can be seen as one of the commitment devices by authorities to enhance the confidence of customers in the banking system. However, this commitment by authorities to support banks in the case of their failures, as the well-known terminology "too big to fail" or "too interconnected to fail" suggests,² leads to potential excessive risk-taking by banks, which is known as a moral hazard problem,³ as the market price of risk will be driven to zero. This phenomenon imposes a challenge for policy makers as they design optimal regulatory policies to achieve a socially desirable outcome. One important observation is that financial crises usually originate from the problems accumulated in periods of economic expansions,⁴ as banks and other financial institutions increase their risk profile to exploit enhanced profit opportunities. They usually do so by increasing their leverage, which leads to a fragile environment and raises concerns about systemic build-up of risks.⁵

Therefore, new regulation schemes are leaning towards a more integrated approach, a combination of micro- and macro-prudential regulation. The combined approach to supervision and regulation targets financial stability and aims at aligning private and social incentives to improve the welfare of citizens. As discussed above, the accumulation of risks in good times may lead to a point where bailouts are unavoidable and will impose significant cost on taxpayers and erode benefits of the financial system. Therefore, prudential approaches designed with the correct incentive structures lead to improvement of public welfare, an ultimate target for any public policy.

Macro-prudential regulation emerged as a necessity as micro-prudential regulation by itself is not sufficient to prevent the accumulation of systemic risk for it does not take into account the interdependency among institutions. Consequently, they complement micro-prudential regulations, as they explicitly take into account externalities arising from the actions of individual institutions. The main purposes of macro-prudential policies are firstly to mitigate ex-ante externalities, i.e. prevention of systemic build-up of risks, and secondly to mitigate ex-post externalities, i.e. failure of an institution with a sound financial position.

Ex-ante externalities are often related to strategic complementarities, a term that refers to the incentives of institutions to perform actions in line with aggregate movements in the market. Institutions in the pursuit of higher profits tend to invest in similar assets or raise credits to similar industries, which leads to correlated risk-taking in financial markets. Therefore, they

²See Brunnermeier et.al (2009).

³ See Chari and Phelan (2013) for a discussion of social value of banks integrated to the moral hazard problem created by commitment for bailouts. For the literature on strategic complementarities, see Morris and Shin (1998)-(2001) , Schneider and Tornell (2004) Chari and Kehoe (2013)

⁴Known as pro-cyclicality. See Pro-cyclicality Working Group (2014).

⁵For the implications of systemic risk on banking regulation, see Acharya (2009).

pave the way for the build-up of system-level vulnerabilities and simultaneous failures. Expectations of possible bailouts provide further incentives to take these actions.⁶ Similarly, financial institution should keep up with their competitors for performance and market reputation motives. When other institutions increase their leverage and expand their balance sheets, it is optimal to expand one's balance sheet as well, which leads to inefficient credit booms and systemic risk.⁷

Ex-post externalities, on the other hand, refer to the contagious effects of the failure of a financial institution. As discussed above, a stressed institution with insufficiency of capital engages in deleveraging through a fire sale of assets, which puts a downward pressure on asset prices: a phenomenon known as asset downturn spirals. Ex-ante commonality in risk exposures leads to a deterioration of asset prices of other institutions, which exacerbates the effect of the failure.

It is now well-understood that micro-prudential regulation should be complemented with macro-prudential policies to achieve an effective regulation and supervision scheme. Regulatory authorities should closely monitor development in the financial system and act in a flexible manner in the application of individual regulations. For example, imposing higher capital or liquidity ratios during times of stress, alongside a policy that loosens these ratios to avoid fire-sales and mitigate the systemic impacts of the financial stress, may be optimal.

An important lesson learned from the 2008 financial crisis is that extensive credit growth may reach to unsustainable level, which is usually seen concurrently with increased leverage levels and expanded balance sheets. Individual institutions do not internalize the systemic impacts of their actions⁸, as they abide to capital requirements. This leads to the possibility of aligned deleveraging in the case of financial stress, driving down asset prices and collateral values and drying up liquidity in the system.⁹ Macro-prudential policy might be effective during credit booms by increasing the required capital ratios to sustain resilience in the system or by limiting the expansion of credit through a direct reduction in the amount of lending.

In this regard, Basel III, representing the new framework of financial regulation, introduces elements that reflect concerns about systemic risk along with strengthened regulations on capital requirements¹⁰. The ingredients of Basel III related to the systemic risk concerns are the countercyclical capital buffer and capital surcharge for systemically important financial institutions, as will be discussed extensively in the next section.

⁶See Acharya and Yorulmazer (2007), Farhi and Tirole (2011).

⁷See Aikman, Haldane and Tanaka (2012).

⁸Known as the coordination failures. See Morris and Shin (1998).

⁹See Lorenzoni (2008) and Bianchi (2011)

¹⁰See Basel documents, Bank of England (2011) discusses potential application of macro-prudential policy in detail. Also see Morris and Shin (2008) on the financial regulation aiming at mitigating systemic risk.

2. Recent Global Trends in Banking Regulation and Supervision

In this section, we lay out details of the new regulatory and supervisory framework imposed by Basel III and its modifications and improvements compared to Basel II.

The latest global financial crisis, which began in 2007 and intensified with the collapse of Lehman Brothers in 2008, questioned the usefulness of the international architecture developed to safeguard the stability of the global financial system. Most banks in the US and Europe lost an enormous amount of their capital, which almost collapsed the banking system.

Figure 1: Major Banks' Market Capitalization



Source: Bloomberg

As shown in Figure 1, major banks' market capitalization is still around 2000 levels. Such a level of banking crisis led many researchers and regulators to admit that the financial architecture largely failed.

Some analysts emphasized the weaknesses in policy-making. Others blamed the trend toward deregulation. Some other researchers stated that the problems with incentives in the financial markets and the regulatory and supervisory framework caused the recent banking crises. However, almost all researchers agreed on the fact that there were major shortcomings in the regulatory and supervisory framework of the banking sector.

These failures were related both to the micro and macro aspects of prudential regulations. For instance, before the crisis some micro-prudential regulations were poorly designed. The Basel capital adequacy measures, particularly risk weights, underestimated the riskiness of assets such as mortgages and sovereign debts. Related to this issue, the different treatment under the Basel rules of assets held in banking books and those held in trading books, as well as the definition of capital, caused many problems in banking.

In a nutshell, the main changes in banking regulation proposed by Basel III in comparison to Basel II are:

- Improving the quality of bank capital
- Dealing with pro-cyclicality: Capital Buffers
- More capital penalty for complex derivatives and securitizations
- Introduction of a new constraint on the leverage ratio
- Introduction of new measures for liquidity: Liquidity Coverage Ratio (LCR) and Net Stable Funds Ratio (NSFR)
- Dealing with systemic risk: A new concept, Globally Systemically Important Banks, or GSIB
- Changing the supervisory mechanisms to adopt these global changes

Quality of Capital

Basel III redefines capital which is used to measure the capital adequacy of banks, as a response to the insufficiency of the requirements on the quality of capital used to calculate ratios under Basel II. As it surfaced after the financial crisis in 2008, banks with strong solvency ratios exhibit limited tangible common equity during the time of stress which led to the renewed own fund definition to improve quality, consistency and transparency of capital, which are:

- Common equity (common shares and retained earnings) must be the dominant form Tier 1 capital.
- Tier 2 capital is simplified and reduced, and includes assets with loss-absorbent capacity.
- Elimination of Tier 3 capital and imposition of a more stringent criteria for each instrument.

The own funds requirements as a percentage of risk-weighted assets are also modified by Basel III. Total capital ratio remains at 8% of the risk-weighted assets. However, Common Equity Tier 1 ratio is raised from 2% to 4.5%, and with the additional Tier 1 ratio of 1.5%, the ratio of Tier 1 capital is increased to 6%. The weight of Tier 2 capital is reduced under Basel III to 2% of total risk-weighted assets.

Timeline: By 2018, the majority of banks' capital should be based on common equity and Tier 1 capital (4.5% and 6% respectively)¹¹.

Pro-cyclicality and Capital Buffers

Another important measure introduced by Basel III is the countercyclical buffer of capital and leverage ratio, which are significantly different from Basel II. During episodes with low inflation and low returns, investors seeking high returns incur more risk and increase their leverage, which drives up asset prices. However, during times of stress, losses incurred by banks are amplified as a result of deleveraging. This puts a downward pressure on asset prices which reduces the quality of capital further. Capital regulations imposed by Basel II were pro-cyclical and exacerbated the risk of asset downturn spirals by allowing banks to increase their leverage during relatively stable economic conditions. The countercyclical buffer requirement of Basel III aims to mitigate such risks by requiring an additional capital buffer to counterbalance pro-cyclical lending. The additional capital buffer will be linked to the size of the business cycle and will range between 0 and 2.5% additional Common Equity Tier 1 (CET 1) ratio.

¹¹See time table for Basel III.

Timeline: Consequently, all banks are required to have additional capital tackling for pro-cyclicality. A capital buffer will be added on capital in 2016. By the year 2019, an additional capital adequacy ratio of 2.5% will be required as a capital buffer¹².

Liquidity Provisioning

Basel III imposes two internationally consistent regulatory standards for liquidity risk supervision. These are Liquidity Coverage Ratio and Net Stable Funding Ratio.

Liquidity Coverage Ratio

Basel Committee has developed the Liquidity Coverage Ratio (LCR) to promote the short-term resilience of the liquidity risk profile of banks by ensuring that they have sufficient High Quality Liquid Assets (HQLA) to survive a significant stress scenario lasting 30 calendar days.

Liquidity coverage ratio (LCR) measures the amount of high-quality liquid assets that can be used to match short-term (30-day period) net cash outflows and requires the ratio of stock of high-quality assets to the net cash outflows to be greater than a minimum. The time table for LCR is presented below.

Basel III uses a gradual increase in its minimum LCR ratio, so banks need to adjust to this new scheme in the next 5 years. Hence, as of 2015, at least 60% of a bank's liabilities should be covered by cash or cashable assets. This ratio will increase and reach 100% by 2019. Regulators aim to ensure that a bank has enough high-quality liquid assets with to meet its liabilities for a 30 calendar under a stress scenario. For emerging market countries there are in fact two LCR ratios, one for local and one for foreign exchange positions.

Table 1: Minimum LCR Ratios Applicable Each Years

Year	2015	2016	2017	2018	2019
Minimum LCR	60%	70%	80%	90%	100%

Source: www.bis.org

Net Stable Funding Ratio (NSFR)

On the other hand, Net Stable Funding Ratio measures the amount of long-term and stable sources of funds relative to the liquidity of assets. This measure requires a minimum amount of funding to be stable over a time horizon of one year. In this regard, retail deposits and savings account will be more critical for banks. Even though this requirement will take place later than LCR, banks should get ready for these changes.

Leverage Ratio

Even though risk based capital has certain advantages, over the recent crisis, regulators have witnessed some negative implications of this calculation method. Therefore, a plain and non-risk based approach was also planned to be used as a complementary tool to risk based capital. As the Basel Committee states in 2014 "An underlying feature of the financial crisis was the build-up of excessive on- and off-balance sheet leverage in the banking system. In many cases, banks built up excessive leverage while maintaining strong risk-based capital ratios. At the height of the crisis, the market forced the banking sector to reduce its leverage in a manner that amplified downward pressure on asset prices. This deleveraging process exacerbated the feedback loop between losses, falling bank capital, and shrinking credit availability."

¹²See time table for Basel III.

The leverage ratio aims to:

- Restrict the build-up of excess leverage in the banking sector to avoid destabilizing the financial system and the economy;
- To simplify the risk-based requirements by switching to a simple, non-risk-based “backstop” measure
- This new ratio ensures both the on- and off-balance sheet assets to be included in the capital assessment.
- Leverage ratio = Capital measure/Exposure measure, where the capital measure for the leverage ratio is the Tier 1 capital of the risk-based capital framework
- A bank’s total exposure measure is the sum of the following exposures: (a) on-balance sheet exposures; (b) derivative exposures; (c) securities financing transaction (SFT) exposures; and (d) off-balance sheet (OBS) items.

Consequently, BASEL III, imposes a constraint of 3% on the leverage of banks, i.e. the ratio of Tier 1 capital to the total exposure of banks to supplement the risk-based capital framework of BASEL II. The new leverage ratio will be much easier to calculate and will have a simpler logic than that of right weight calculations.

Timeline: According to BASEL Committee, leverage ratio will be disclosed by 2015.

Below is the summary of the new BASEL III requirements and their time table.

Table 2: Time-table for new BASEL III Requirements

Phases		2013	2014	2015	2016	2017	2018	2019	
Capital	Leverage Ratio	Parallel run 1 Jan 2013 - 1 Jan 2017 Disclosure starts 1 Jan 2015					Migration to Pillar 1		
	Minimum Common Equity Capital Ratio	3.50%	4.00%	4.50%				4.50%	
	Capital Conservation Buffer				0.625%	1.250%	1.875%	2.500%	
	Minimum common equity plus capital conservation buffer	3.50%	4.00%	4.50%	5.125%	5.75%	6.375%	7.00%	
	Phase-in of deductions from CET1*		20%	40%	60%	80%	100%	100%	
	Minimum Tier 1 Capital	4.50%	5.50%	6.00%				6.00%	
	Minimum Total Capital					8.00%			8.00%
	Minimum Total Capital plus conservation buffer	8.00%			8.625%	9.25%	9.875%	10.50%	
	Capital instruments that no	Phased out over 10 year horizon beginning 2013							

Phases		2013	2014	2015	2016	2017	2018	2019
	longer qualify as non-core Tier 1 capital or Tier 2 capital							
Liquidity	Liquidity coverage ratio - minimum requirement			60%	70%	80%	90%	100%
	Net stable funding ratio						Introduce Minimum Standard	

Source: www.bis.org

* Including amounts exceeding the limit for deferred tax assets (DTAs), mortgage servicing rights (MSRs) and financials.

- - Transition periods

As can be seen from above, the new financial regulation framework will be much more different and complex compared to previous regulation.

Systemic Risk Charges:

An additional requirement will be put on banks through their interconnectivity and asset size. Depending on the size and contagious risks, banks might need to put aside additional capital. In order to avoid the Lehman Brothers, AIG type big institutions to go bankrupt, BASEL III requires very big institutions to hold surcharges. The amounts of these additional charges are summarized below. Systemically important banks are required to hold up to 3.5% additional capital. Financial Stability Board has determined 29 banks to be qualified as GSIB's. Even though only 29 banks are considered as GSIB's, domestically big banks will also be required to hold a stronger capital base. The alternative definition of GSIB is Domestic Systemically Important Banks (D-SIBs) which is a term used for banks active in less developed countries. Charging an extra capital for D-SIB's is under discussions in various countries.

Table 3: Systemic Risk Charge under BASEL III

Bucketing Approach

Bucket	Score range*	Minimum additional loss absorbency (common equity as a percentage of risk-weighted assets)
5 (empty)	D -	3.50%
4	C - D	2.50%
3	B - C	2.00%
2	A - B	1.50%
1	Cut-off Point - A	1.00%

*Scores equal to one of the boundaries are assigned to the higher bucket

Source: BIS (www.bis.org)

Summary of reforms

- **Increased overall capital requirement:** Between 2013 and 2019, the common equity component of capital (core Tier 1) will increase from 2% of a bank's risk-weighted assets before certain regulatory deductions to 4.5% after such deductions.

- A new 2.5% capital conservation buffer will be introduced, as well as a zero to 2.5% countercyclical capital buffer. The overall capital requirement (Tier 1 and Tier 2) will increase from 8% to 10.5% over the same period.
- More liquidity needed to be hold in the form of cash or High Quality Liquid Assets.
- Trading and use of derivative instruments will be restricted.
- More capital will be required against counterparty risk.

In general, banking activity will be more challenging and demanding after 2015 and onwards. First, we focus on how USA and EU are tackling for this new financial challenge and second, we analyze banking sector in the OIC member countries. In addition, more technical and forward looking banking supervision will be necessary to handle the future state of banking supervision. Enhanced cooperation within similar countries will be beneficial for a better banking supervision. Exchange of ideas among OIC banking supervisory authorities will definitely improve the quality of banking supervision. We will discuss various regulatory issues on the selected OIC members compared to US and European banking system.

2.1 Recent Developments in the Banking Sectors in US and Europe

After the crisis in 2008, banking sector in EU area and US showed signals for a recovery, however exhibited asymmetric responses during this phase, which mainly stems from the structural differences. The asymmetric recovery of the banking sector mainly stems from the structural differences between US and Euro area. Total size of the banking sector as a percentage of GDP is 270% in the Euro area, whereas this ratio is 72% in US, which suggests relatively more important role of the banking sector in financial intermediation in the Euro area compared to the capital market based intermediation in US. Therefore, the regulatory framework for the Euro area and implications of the new regulatory standards are expected to induce asymmetric effects. The effects of the global crisis on the banking sector led to a deterioration in asset quality and deleveraging which has put downward pressure in profitability, followed by a decline in the return on equity ratios together with an increase in capital ratios reflecting the efforts towards re-capitalization. During the recovery period, return on equity started to improve, and at the end of 2013, average return on equity were 9% and 2% in US and Euro area, respectively. Furthermore, the share to book ratio in US increased to approximately 1 whereas it remained at 0.6 at the Euro area.

2.1.1 Recent Regulatory and Supervisory Changes in EU and US

After the financial crisis many regulatory and supervisory changes took place in EU and US. A brief account of these changes is presented to give some insights for the future state of the OIC member states.

Deposit Insurance in US

By Dodd Frank financial law, the federal government has permanently increased bank deposit insurance to 250,000\$, which was only 100,000 USD before the 2008 financial crisis in US. This is an important policy change towards a stable banking system.

Selection of G-SIFI's

Financial Stability Board in 2014 has chosen various financial institutions as Global Systemically Important Financial Institutions (G-SIFI's). As we discussed in the previous section there were 5 buckets for each class of GSIFI's. There was no institution selected as a bucket five institution. HSBC and JP Morgan Chase appeared as bucket 4 institutions, which are



required to have 2.5% surcharge, Barclays, BNP Paribas, Citigroup and Deutsche Bank have been selected as 3rd highest SIFI category causing an additional 2% capital charge to be paid.

Leverage Ratio

On September 2014, a combined effort of US regulators made an obligation on leverage ratio for relatively larger US banks. The Office of the Comptroller of the Currency (OCC), the Board of Governors of the Federal Reserve System (Board), and the Federal Deposit Insurance Corporation (FDIC) proposed to impose the agencies' leverage ratio standards for large, interconnected US banking organizations. According to this recent regulation, the proposal would apply to any US top-tier bank holding company (BHC) with at least \$250 billion in total consolidated assets. On the basis of these new regulations, these institutions will have a supplementary leverage ratio. This additional ratio will be an additional 3% leverage on top of BASEL III. The US Federal Reserve Board is proposing a minimum leverage ratio of 5% for systemically important banks and 6% for retail banks owned by a systemically important bank to be applied from 2018 BASEL III requirements as we discussed in the previous section.

Changes in Europe

European banking sector has faced a serious challenge after the Euro crisis. Problems within Europe and coordination in deposit insurance caused serious changes in the European banking.

Establishment of the European Banking Authority (EBA)

Recently, in 2014, an independent banking authority has been established after the Euro crisis. EBA is an independent EU authority, which works to ensure effective and consistent prudential regulation and supervision across the European banking sector. Its overall objectives are to maintain financial stability in the EU and to safeguard the integrity, efficiency and orderly functioning of the banking sector. The main task of the EBA is to contribute to the creation of the European Single Rulebook in banking whose objective is to provide a single set of harmonized prudential rules for financial institutions throughout the EU. The Authority also plays an important role in promoting convergence of supervisory practices and is mandated to assess risks and vulnerabilities in the EU banking sector.

The European system set up for the supervision of the financial sector is made of three supervisory authorities: the European Securities and Markets Authorities (ESMA), the European Banking Authority (EBA) and the European Insurance and Occupational Pensions Authority (EIOPA). The system also comprises the European Systemic Risk Board (ESRB) as well as the Joint Committee of the European Supervisory Authorities and the national supervisory authorities.

Leverage Ratio

EBA is currently developing a draft on its supervisory reporting requirements for the leverage ratio, which aims at providing national authorities with harmonized information on the leverage ratio using uniform reporting formats. Other European countries do have additional requirements on the use of leverage ratio. In Switzerland the largest banks will be required to meet a minimum leverage ratio against total capital of around 4.3 percent by 2019. In the UK the authorities are reviewing the case for using the leverage ratio as a macro-prudential tool and have already imposed stress tests that use CET1 capital rather than total tier 1 capital as the capital measure for the leverage ratio.

Market Risk

The EBA, through the publication of its guidelines intend to increase convergence in the implementation of some of these new capital requirements, namely the Stressed Value at Risk (stressed VaR) and the Incremental Risk Charge (IRC). In addition, Expected Shortfall, rather than Value at Risk seemed to be the right measure to be used in regulatory purposes.

Stress Testing

Between February and June/July 2014, the ECB has examined the asset side of the balance sheets of the 124 banks, which was based on harmonized definitions of non-performing exposures and forbearance. The potential coverage of this review is very wide, including all risk types and exposures, both on- and off-balance sheet.

As a conclusion, after the crisis both US and European banking supervisors are extremely active for implementing various new measures. OIC countries need to watch these new changes, as some of these changes can be market standard in the near future.

3. A Snapshot of the Banking Sector in the Selected OIC Member Countries

In this section, we evaluate the macroeconomic developments, performance of the banking sector and discuss recent regulation practices. A general comparative analysis of the selected member countries is followed by a country-specific comprehensive analysis.

3.1 Banking Sector and Macroeconomic Developments in OIC Member Countries

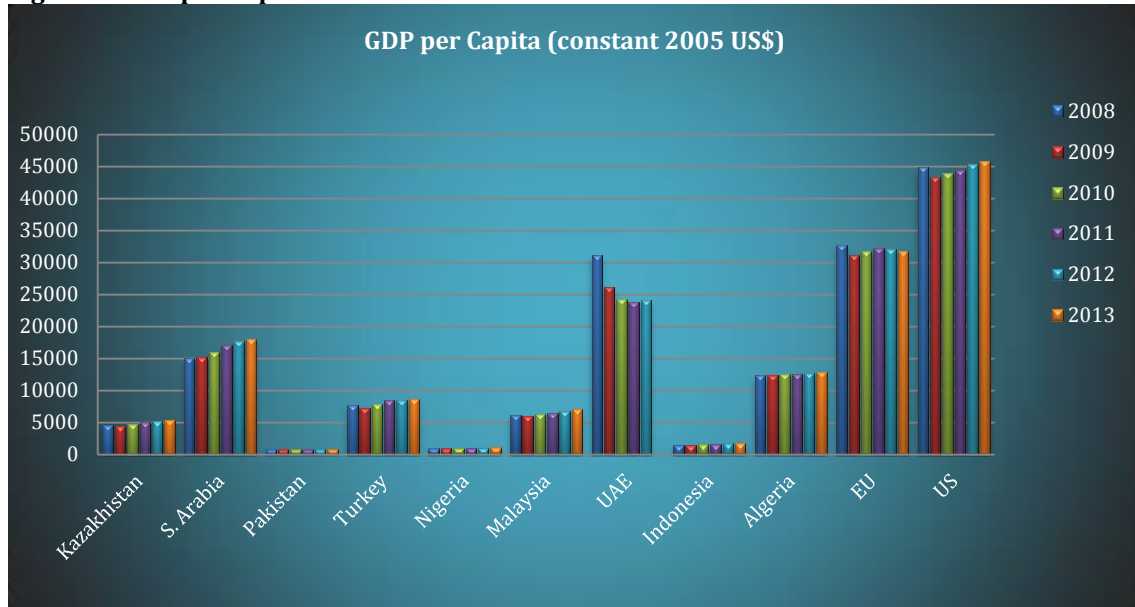
In this section, we present recent macroeconomic and banking sector developments in the selected OIC member countries, specifically focusing on the aftermath of the financial crisis in 2008. Analysis covers Malaysia, Kazakhstan, Nigeria, United Arab Emirates, Saudi Arabia, Turkey, Pakistan, Algeria and Indonesia. The set of selected countries have different economic environments and structures, which are reflected in the composition and organization of the banking sector.

3.1.1 Macroeconomic Developments in OIC Member Countries: A Comparative Analysis

First, we compare selected member countries to US and Euro area in terms of their GDP per capita, a commonly used measure of economic development. Figure 2 shows that most member countries fall behind the Euro area and US with an exception of the United Arab Emirates. As of year 2013, average GDP per capita among OIC countries was around 7,600 USD (see Figure 2). This level of income is almost three times higher than that of middle-income groups. But also US and Europe average GDP is five to six times higher than that of the OIC countries. More importantly, some of the OIC countries did suffer from the global financial imbalances created by the 2008 crisis. As presented in Figure 2, global credit crunch had a particular negative impact on UAE. But except for UAE, OIC countries did not encounter a big income shock because of 2008 crisis. It is also important to note that, neither the US crisis and nor the Euro crisis have enabled OIC countries to achieve convergence to the developed economies.

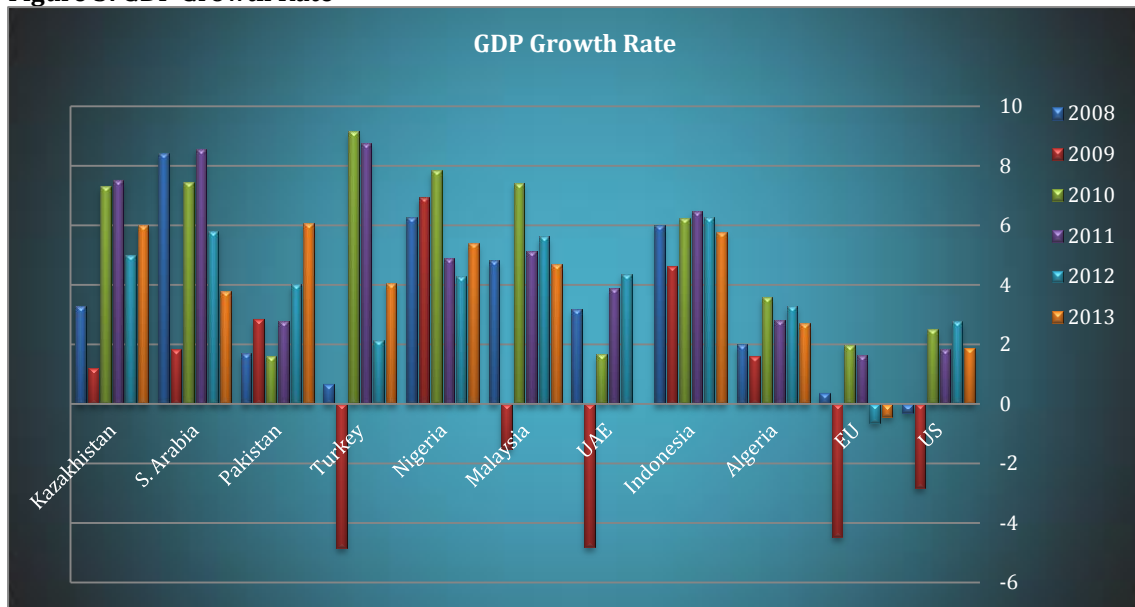
In Figure 3, economic growth rates in OIC member countries are presented. Growth rates of economies in member countries are significantly higher than US and Europe, where Euro area is barely recovering from the effects of 2008 crisis with almost no economic growth and US moving slightly towards positive growth rates. Most member countries seem to have been immune to the 2008 crisis by sustaining high growth rates with the exception of Turkey, Malaysia, UAE and Kazakhstan, which are the countries exhibit highest exposures given their dependence on foreign capital flows. Average growth rate in OIC area also tends to show less variability, which is indicated by low standard deviations. In this period developed economies, particularly Europe, have shown significant volatilities in its growth path.

Figure 2: GDP per Capita



Source: World Bank

Figure 3: GDP Growth Rate



Source: World Bank

3.1.2 Linkage between Real and the Financial Sector in the OIC Countries

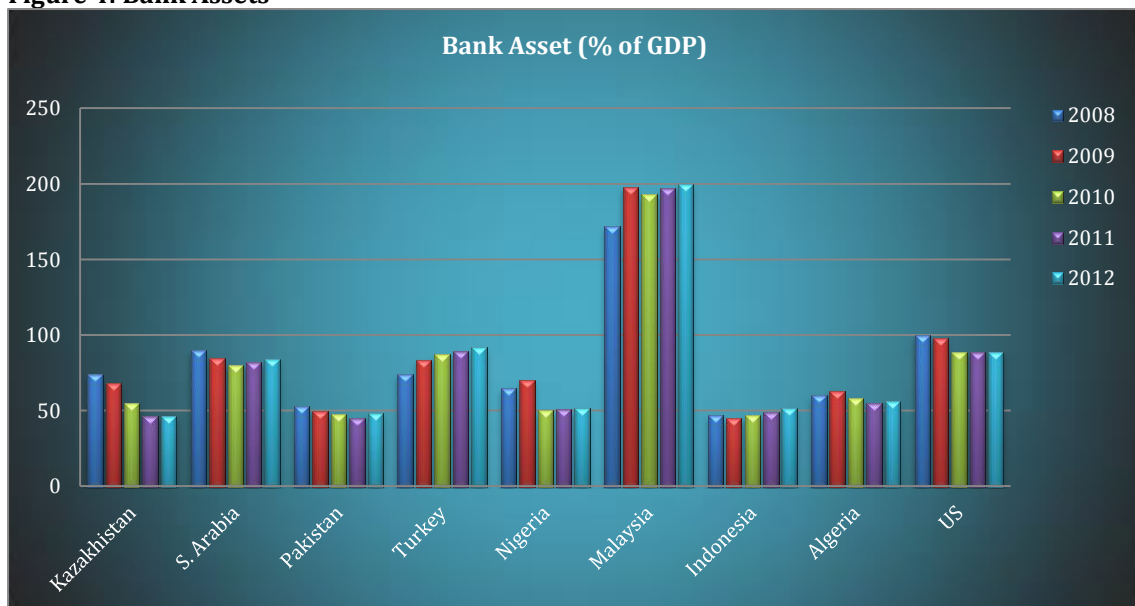
In this section, the linkage between real sector and banking sector is investigated. Banking sector plays an intermediation role by matching between lenders and borrowers, which is crucial for channelling savings to investment. Therefore, ideally, banking sector growth should work in tandem with the production side of the economy. As well established in the economic development literature, an underdeveloped

banking sector tend to hinder the long term growth potential of an economy, therefore a larger bank asset size with respect to the size of the economy is usually seen as a positive indicator.

3.1.2.1 Banking Sector Growth and Economic Development

The relationship between financial development and economic development has been an important issue in economics. Walter Bagehot (1873) and Sir John Hicks (1969) argue that financial development played a critical role in stimulating industrialization in England by facilitating the mobilization of capital. Joseph Schumpeter (1912) stated that well-functioning banks stimulate technological innovations by identifying and funding the successful production processes. Recent studies in the field of development and finance also support these initial ideas. Levine (1997, 2005), suggest that a growing body of empirical analyses, demonstrate a strong positive link between the functioning of the financial system and long-run. While this framework is very supportive in theory, the recent crisis hit the developed countries has questioned the validity of the above assertion. Especially highly levered and fragile financial system can also be detrimental for the real economies. So, we will investigate the performance of the selected OIC member states from this framework. Comparing its banking sector asset size with respect it's GDP, banking penetration with that of developed countries. At the same time, we compare and contrast the selected OIC member states banking potential risks with that of developed economies.

Figure 4: Bank Assets



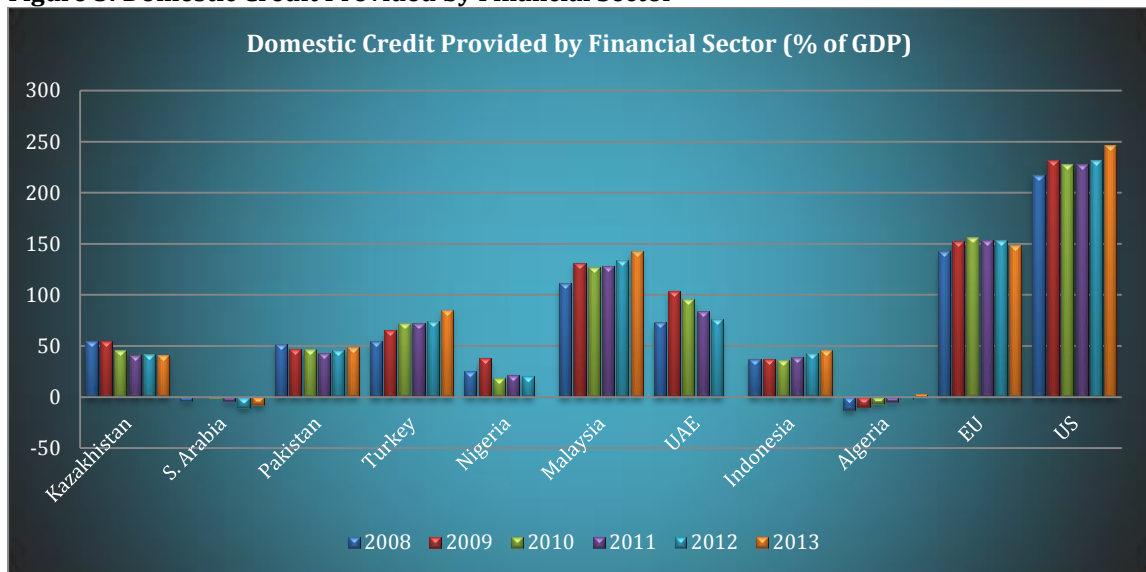
Source: World Bank

The selected OIC member states' bank asset sizes relative to their GDP is presented in Figure 4. Generally, a country with a Total Asset/GDP ratio higher 100% can be considered to have a relatively well-developed banking sector. Majority of the countries, with exception of Malaysia, do have ratios smaller than 100%. Apart from Nigeria and Kazakhstan, mainly the asset/GDP ratio is stable and exhibits an upward trend. In terms of the size of this ratio, Malaysia constitutes a big exception. Malaysia's asset size is twice as big as its GDP. As discussed before, under normal conditions, having a larger banking sector could be beneficial for the economic growth. However, even the bank asset size in Malaysia is relatively small considering European

banking size. Therefore, there is still a room for a growth in banking sector for OIC countries. However, in order to make this growth to be sustainable, an important regulatory and supervisory effort should be paid.

Figure 5 presents domestic credit provided by the financial sector in OIC member countries. The average is way below 100%, which can be considered as a benchmark. Domestic credit levels, which show a significant increase in most member states, indicate a credit boom.¹³ which should be monitored closely by regulatory agencies. On the other hand, the comparison to Euro area and US shows that there is still room for potential credit expansion as the level of credit still fall significantly behind of the developed economies. Malaysian banking sector seems to be most active one in terms of its lending activity.

Figure 5: Domestic Credit Provided by Financial Sector

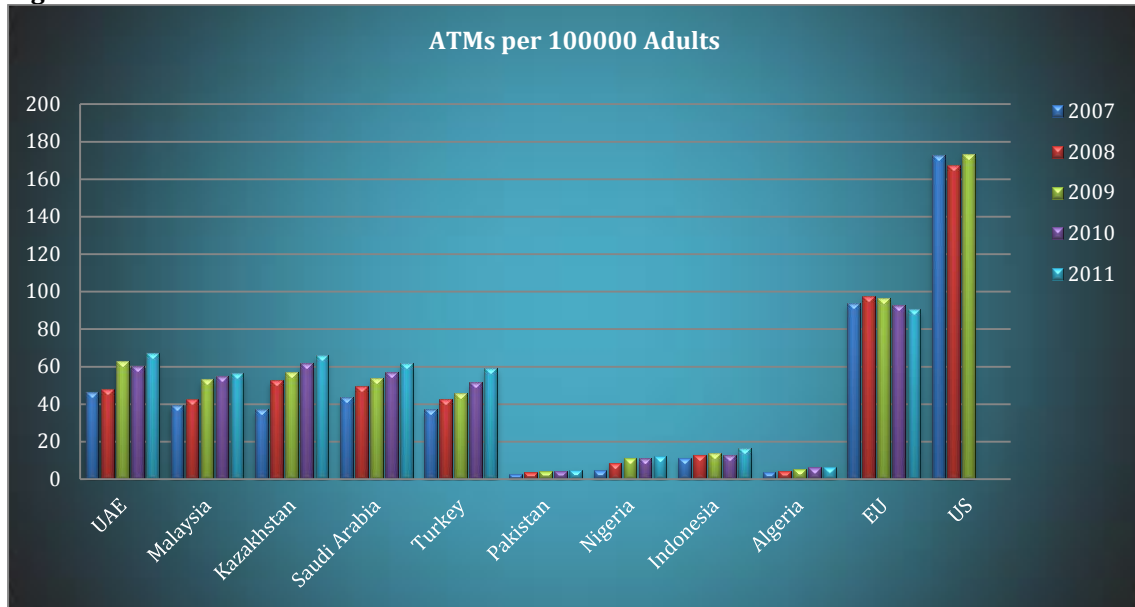


Source: World Bank

Banking sector penetration can be measured the number of individuals using banking services. Number of ATM can be a proxy for measuring banking penetration. In the selected OIC countries we observe a relatively small banking penetration compared to US and EU countries. This implies that relatively fewer households in the OIC member states have bank accounts or do make financial transactions through banking system. As can be seen from the below figures, the number of ATM's per 100,000 adults in OIC member states are three times lesser than that of US and EU members.

¹³Dell' Ariccia et al (IMF, 2012) classified an episode of credit boom if either of the following two conditions is satisfied: (i) the deviation from trend is greater than 1.5 times its standard deviation and the annual growth rate of the credit-to-GDP ratio >10%; or (ii) the annual growth rate of the credit-to-GDP ratio exceeds 20%. The second condition is introduced to capture episodes in which aggregate credit accelerates very gradually but credit growth reaches levels that are well above those previously observed in the country.

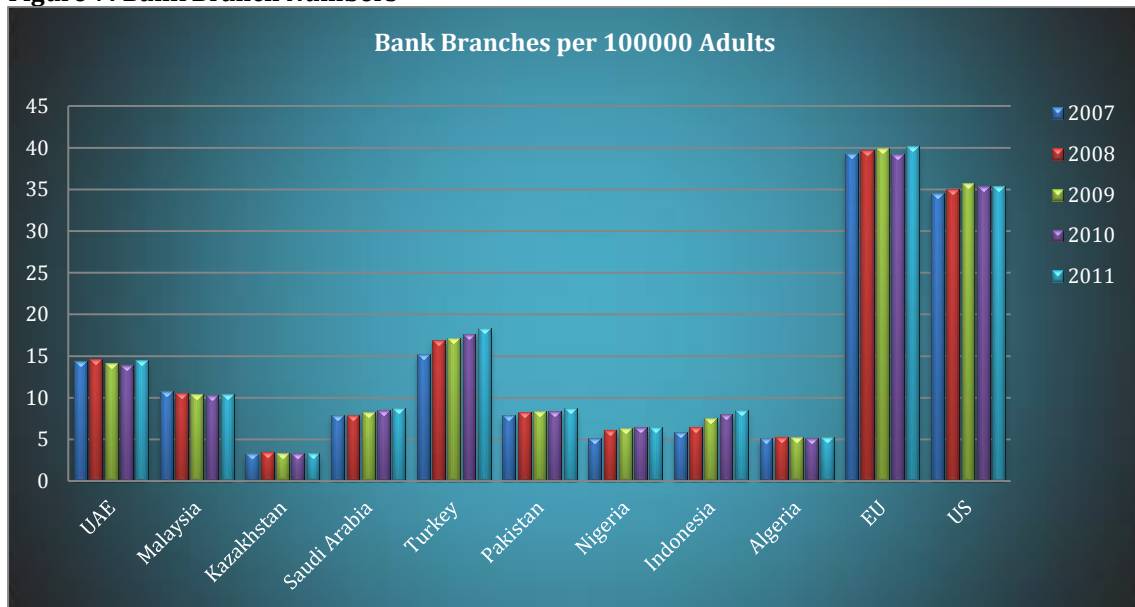
Figure 6: ATM Numbers



Source: World Bank

The recent crisis has indicated that rapid loan growth might be a source of systemic risk. Credit risk cannot be properly managed under a rapid credit growth regime, which might cause a problem. Generally, credit growth of OIC countries seems to be under control except Turkey with some high growth episodes. However, Turkish central bank together with Banking Supervisory Authority (BRSA) has implemented macro prudential policies to slow down the credit growth.

Figure 7: Bank Branch Numbers



Source: World Bank

In addition, the numbers of banking branches in OIC member states are much lesser than that of developed countries which indicates a relatively lower banking population in OIC member states compared to US and Europe. However, this may also imply that there is a room for banking sector development and financial inclusion in the OIC member states.

3.1.2.2 Banking Sector Asset and Deposit Concentration

Figure 8: Bank Concentration (percentage)



Source: Bankscope

Table 4: Asset Concentration for the selected OIC countries (Herfindahl Index)

	2007	2008	2009	2010	2011	2012	2013
Algeria	0.25	0.23	0.19	0.19	0.19	0.17	N/A
Saudi Arabia	0.12	0.12	0.12	0.12	0.12	0.12	0.12
United Arab Emirates	0.11	0.10	0.11	0.10	0.11	0.11	0.11
Indonesia	0.16	0.13	0.12	0.12	0.12	0.11	N/A
Turkey	0.11	0.10	0.11	0.10	0.10	0.10	0.09
Kazakhstan	0.14	0.12	0.11	0.11	0.10	0.09	N/A
Pakistan	0.08	0.08	0.07	0.08	0.07	0.08	0.08
Malaysia	0.07	0.07	0.07	0.06	0.09	0.07	0.09
Nigeria	0.06	0.06	0.07	0.07	0.06	0.06	N/A

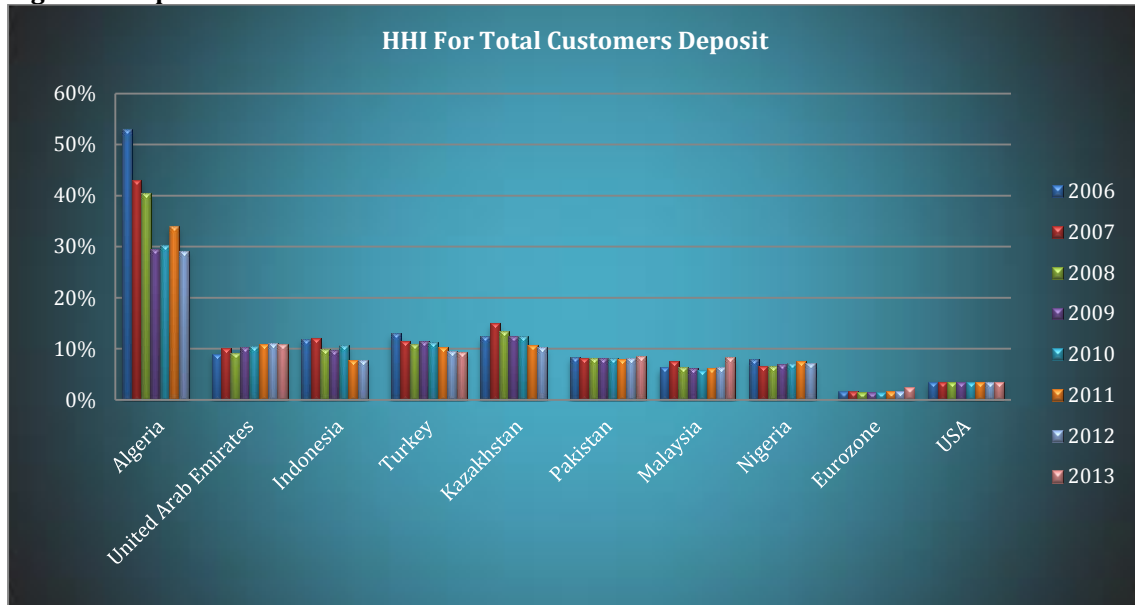
Source: Bankscope

We investigate banks' asset concentration using the Herfindahl-Hirschman index. This ratio lies between 0 and 1 and an index closer to 1 indicates a higher concentration. 25% is usually used as a cut-off value for medium level of concentration. As of 2013, none of the OIC member countries seem to have a banking system with relatively high asset concentration.

The effect of banking concentration on financial stability is not a fully resolved issue. As stated in a recent World Bank Study (Global Financial Development Report, 2013), some researchers believe that government support of the largest banks increased banking concentration,

reducing competition and access to finance, and potentially contributing to future instability as a result of moral hazard problems associated with too-big-to-fail institutions. However, Thorsten Beck states (2013), "Risks and dangers in banking arise primarily from a regulatory framework that is not adapted to the market structure. Large financial institutions turn too-big-to-fail because the regulator does not have any means to properly discipline and resolve them. Therefore banking concentration is not an impediment for the OIC member states. However, adapting the supervision mechanism for this market structure is important.

Figure 9: Deposit Concentration: Herfindahl-Hirschman Index



Source: Bankscope

Distribution of banking deposits across banks plays a critical role for a banking system as concentration among few banks could hinder financial stability. However, concentration among the selected OIC countries seems to be evenly distributed with Hirschman-Herfindahl index values lesser than 25% of critical value except Algeria for some years.

3.1.2.3 Banking versus Non-Banking Sector in the Selected OIC Member States

Recent studies on banking and financial development emphasize that the relative size of banking in the whole financial sector is also important in assisting economic development. Equity market, mutual fund industry, leasing and factoring industries is critical for a well-functioning financial system. Furthermore, the use of derivative products and other financial instruments can be operational in expanding the financial sector. While banking sector is crucial in supporting for indirect intermediation role in the economy, equity financing and debt financing are also important for sustainable investment and growth in the real sector. In a developed financial system, usually there is a balance between the non-banking financial sector and banking sector.

Table 5: Banking versus Non-banking financial sector size in the selected OIC Countries (percentage)

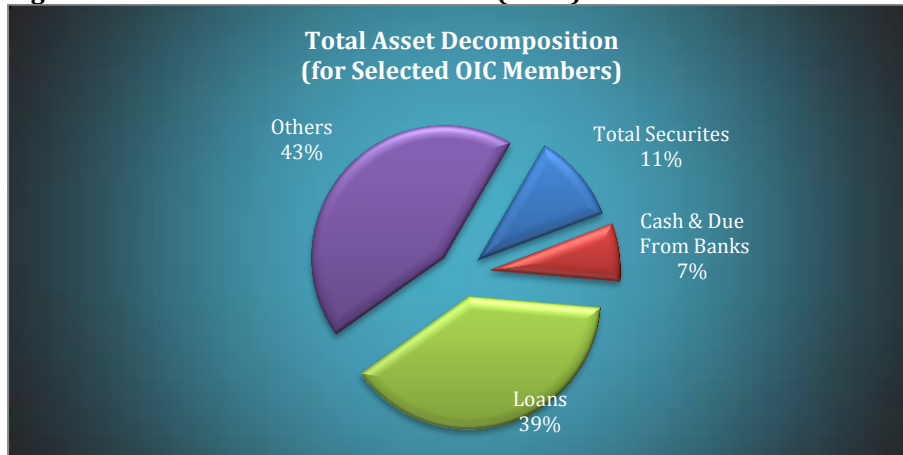
	2007	2008	2009	2010	2011	2012	2013
Turkey	79	76	75	74	72	69	71
Algeria	97	97	93	92	91	92	N/A
Indonesia	49	47	44	40	40	39	45
Kazakhstan	85	85	82	81	82	81	95
Malaysia	74	71	71	69	73	68	68
Nigeria	42	85	71	32	44	53	83
Pakistan	71	70	70	70	74	76	81
Saudi Arabia	58	65	64	62	59	56	57
UAE	65	72	71	68	69	67	67
Eurozone	24	22	23	26	24	25	N/A
USA	19	11	13	13	13	14	14

Source: Bankscope

As can be seen from Table 5, except for Indonesia, banking sector dominates non-banking financial sector in the selected OIC member states. For most of the member countries, total banking sector constitutes around 65% of their respective financial sector (2013 average for the selected OIC member countries). This finding in the selected OIC member states conflicts with what we observe in the US and Europe. For instance, US has a very big non-bank financial sector compared to its banking sector, where US banking sector asset size is less than 20% of the total asset size of its financial sector because of a relatively large stock market brokerage industry, financial derivative industry, asset management and insurance industry in the US economy. In addition, there is a significant mortgage related financial industry in the US economy. A similar observation holds true for the European economy. However, in the selected OIC countries (which can be generalized for the whole OIC states), non-banking sector including asset management companies, insurance industry, leasing industry are in a development stage. Financial development literature supports an even distribution among banking and non-banking industries; therefore there is an important room for improvement for the non-financial sector in OIC member states.

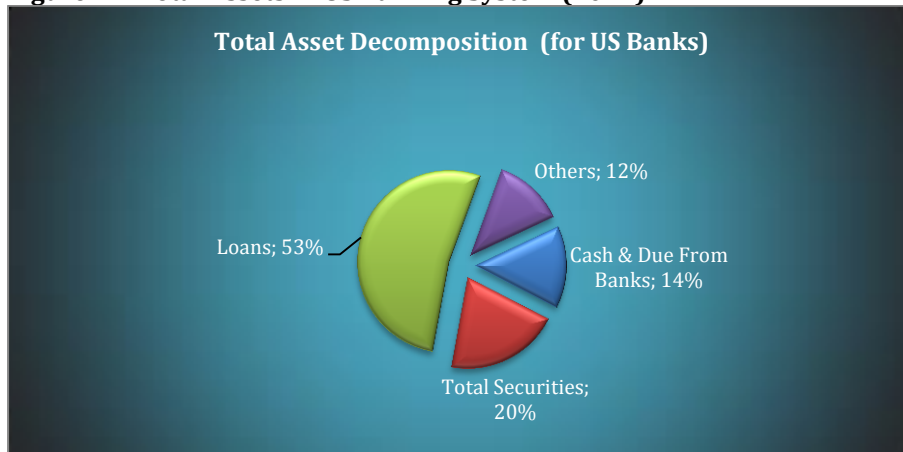
In Figure 10, we present the total asset decomposition in the OIC members. For the selected countries, the dominant asset class seems to be the loans as banks from the selected OIC member countries do hold 39% of their assets in the form of a loan portfolio. This ratio is lower than that of both US and EU. However, the securities portfolio of the member countries is lower than that of both US and EU banking system. Banks in the selected member OIC states hold only 11% of their assets in their security portfolio. This ratio in EU and US is two to three times higher. The majority of OIC member states hold a significant amount of other assets, as specified in Bankscope database, which surfaces as an important issue to be investigated in the following sections. As can be seen in EU banking system, the amount of loans and securities in EU banking system is higher than that of US banking system. However, general conclusion, which can be withdrawn from the analysis, is that securities portfolio of selected OIC member states is relatively small compared to European banking sector, which might be related to the fact that trading activities in OIC member countries are relatively limited.

Figure 10: Total Assets in OIC Countries (2014)



Source: *Bankscope*

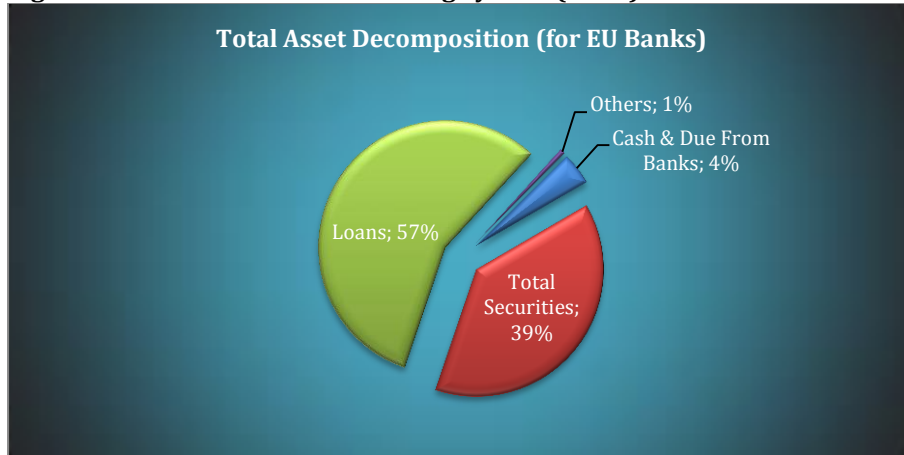
Figure 11: Total Assets in US Banking System (2014)



Source: *Bankscope*

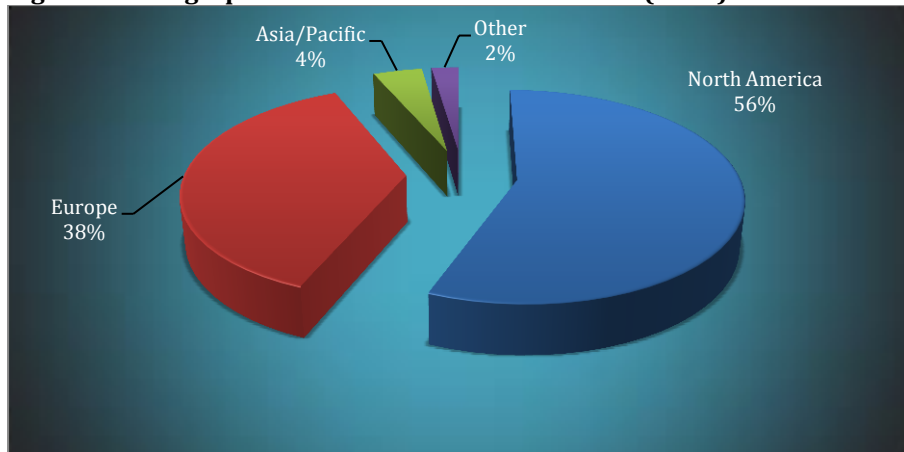
Additionally, the size of the derivative markets in OIC member states is smaller than that of US and European banks and financial institutions. There are no direct statistics on the total derivative contracts traded in the OIC member states, however, in Figure 13, we present the total number of derivative contracts made in Asian/Pacific countries, which shows that only 4% of the total derivatives used in the world belong to Asia/Pacific countries. Banks and financial institutions in Europe and US own 94% of the total derivative contracts. Therefore, OIC member states in general, have a very marginal share in the global derivative products market. This can be a positive aspect of the banking sector for OIC member states, as derivative products may pose complex and hidden financial risks for the banking sector. As discussed before, this limited use of derivative products also cause the level of leverage in the OIC member countries remains relatively low, which might be considered as a positive aspect for the banking sector OIC member states. This issue will be discussed in the following sections.

Figure 12 Total Assets in EU Banking System (2014)



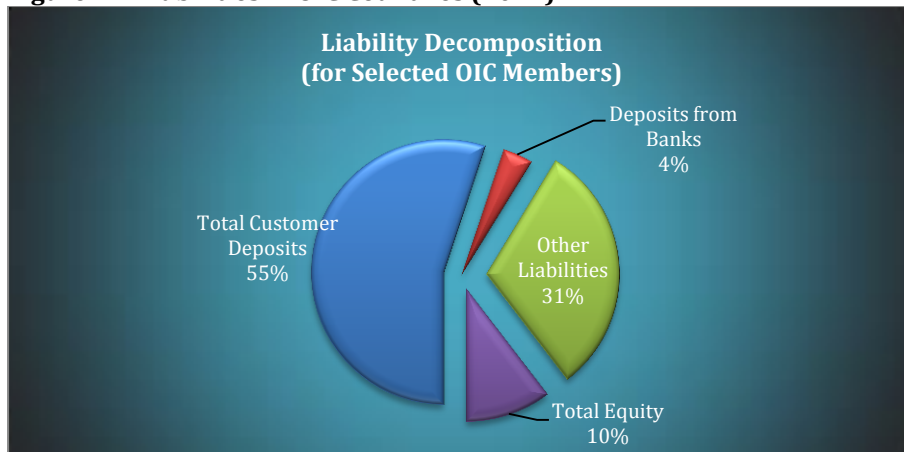
Source: BIS

Figure 13: Geographical Use of Derivative Contracts (2014)



Source: Bankscope

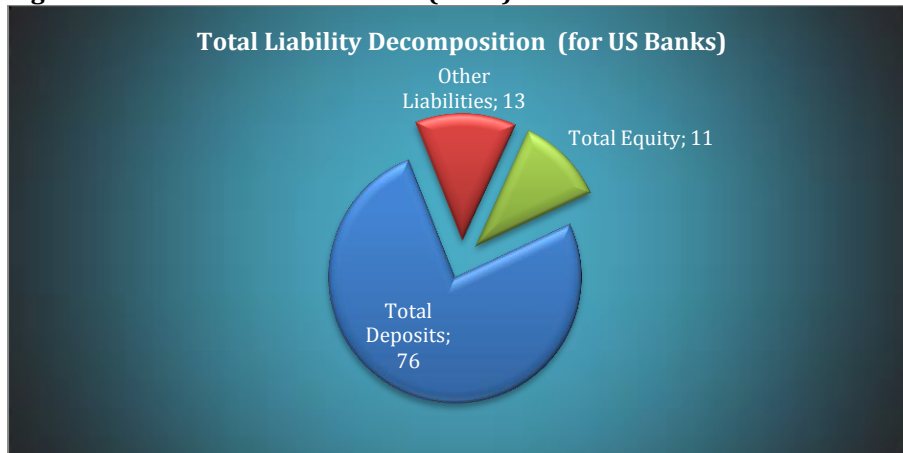
Figure 14: Liabilities in OIC Countries (2014)



Source: Bankscope

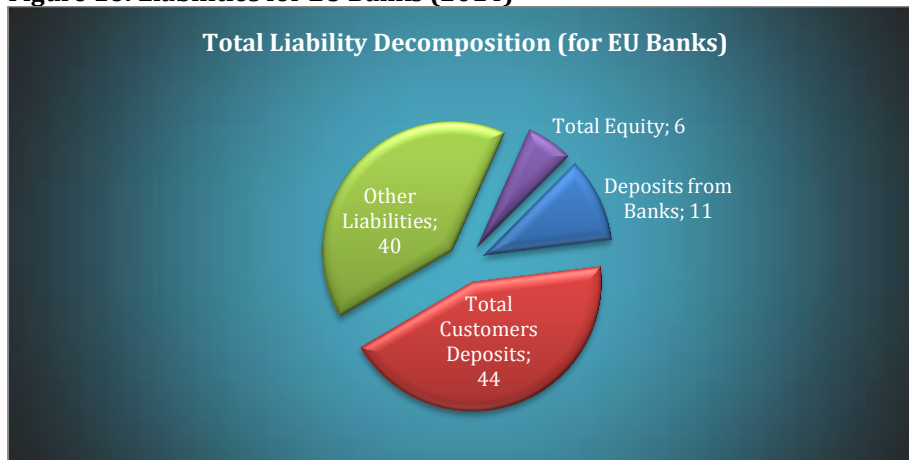
The other important aspect of banking sector's asset side in OIC member states is their relatively less concentrated loan portfolio compared to Europe and US. The average loan size relative to total assets is less than 40% in selected OIC member states.

Figure 15: Liabilities for US Banks (2014)



Source: Bankscope

Figure 16: Liabilities for EU Banks (2014)



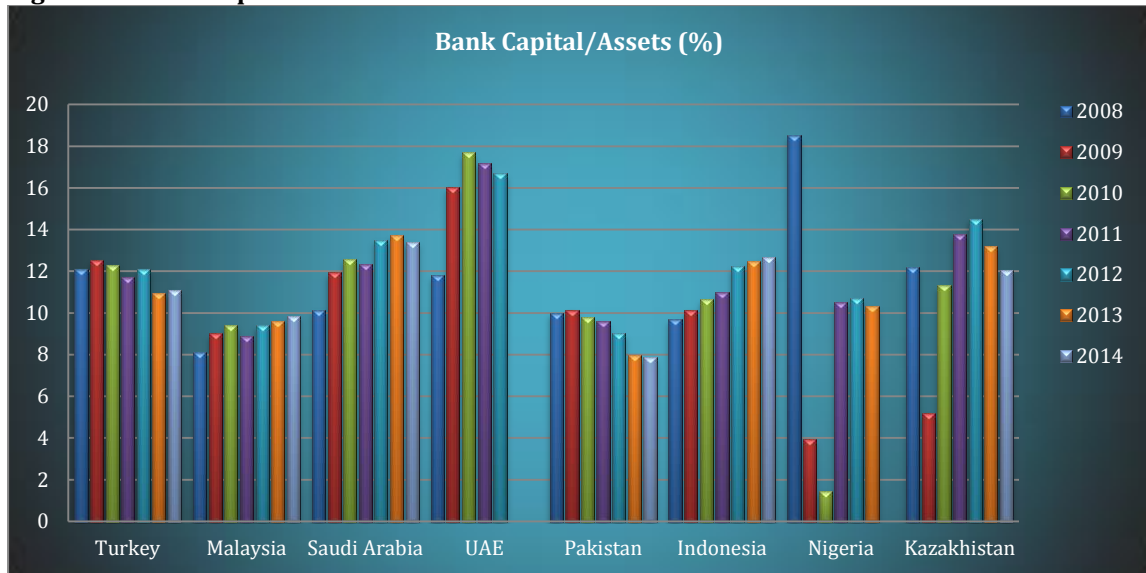
Source: Bankscope

3.1.2 Banking Capital in Selected OIC Countries

Capital is the most important soundness criteria for banking as the ratio of capital to total assets is an important health measure for banks. The higher this ratio, the stronger the banking sector is. Capital/asset ratio appears to be around 10% in OIC members, in general. However, some countries have a serious difficulty in attaining a stable capital/asset ratio. Particularly, Nigeria and Kazakhstan has shown a decreasing trend in their ratio in 2009 amid to the negative impact of the global credit crunch in 2009. Regulatory framework requires the calculation of this ratio based on a risk-based evaluation of assets; hence BASEL II and III framework put a significant importance on finding risk weighted assets rather than total assets, since different assets have different risk weights. Therefore, capital adequacy ratio formula is crucial factor for assessing the quality of bank capital with respect to risk-weighted assets. Figure 17 presents the corresponding ratio, which complies with the regulatory

standards imposed by BASEL III. The observation is still valid, where banks in the member countries have capital adequacy ratios, which, on average, satisfy the regulatory requirements. Some members have CAR's lesser than regulatory minimum of 8%. Some OIC countries may not attain the minimum of 8% CAR in 2009, since BASEL III eventually will require a higher CAR than 8%, some OIC members should be ready for further capital injections.

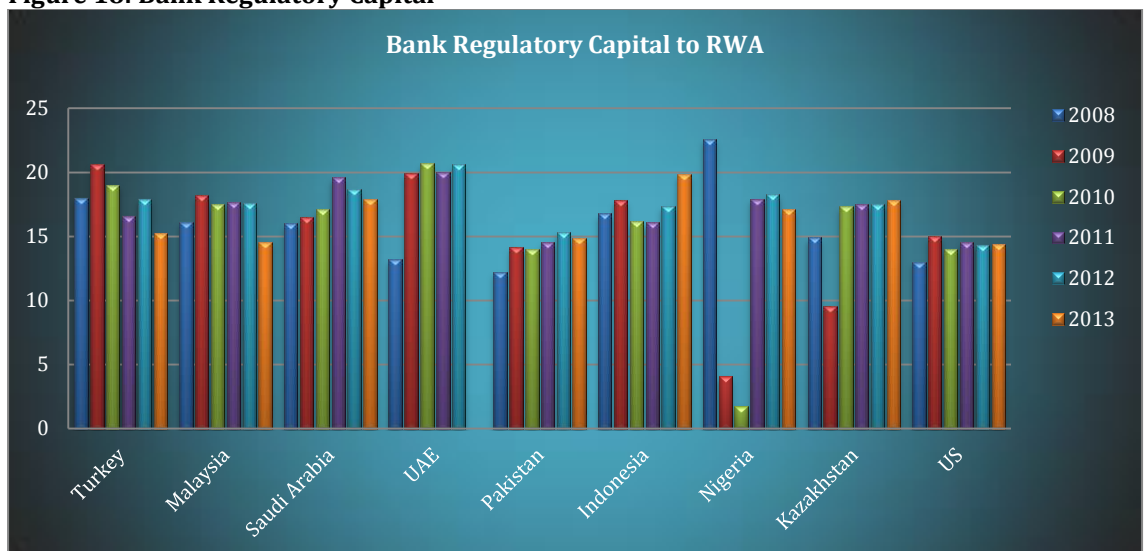
Figure 17: Bank Capital-Asset Ratio



Source: Bankscope

As a conclusion, even though the capital level in OIC members seems to be sufficient for the regulatory environment for BASEL II, in order to assess for whether OIC countries are ready for BASEL III by 2018, further impact studies are required. In this regard, even a coordinated Quantitative Impact Study (QIS) among OIC countries can be made.

Figure 18: Bank Regulatory Capital



Source: Bankscope

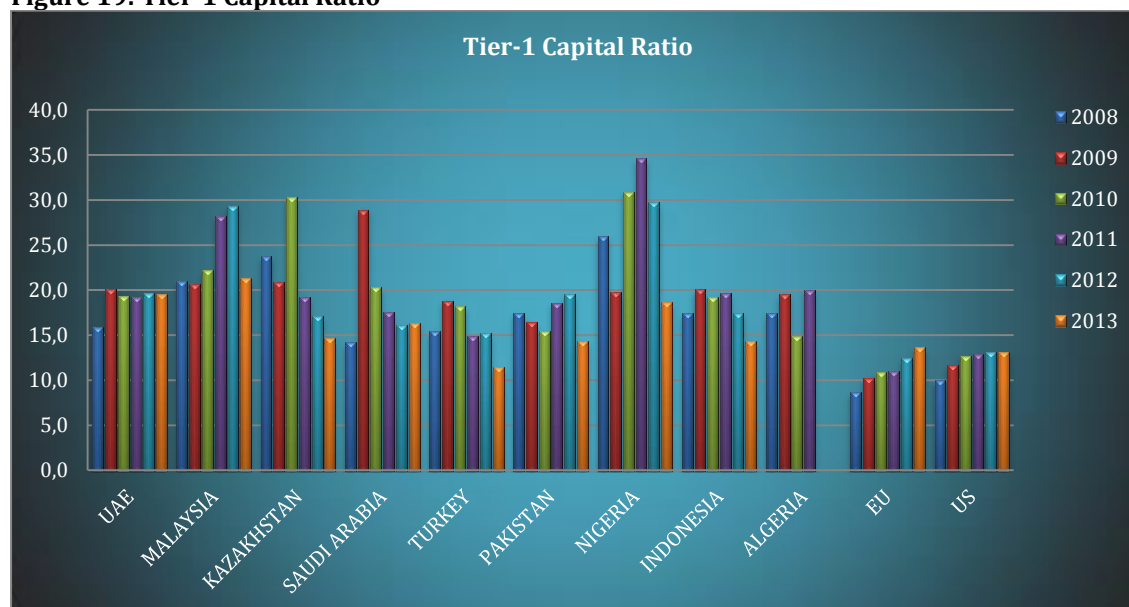
Table 6: Distribution of CAR in Selected OIC Member States (2013)

	Turkey	Indonesia	Kazakhstan	Malaysia	Nigeria	Pakistan	S. Arabia	U.A.E
Mean	14.23	14.35	15.06	12.16	21.89	12.00	16.35	19.17
St Deviation	2.99	3.18	5.51	1.84	5.02	3.47	4.18	5.28
Range	11.51	12.98	19.80	8.11	17.46	12.72	16.06	16.77
Minimum	9.07	9.15	8.00	9.50	12.60	8.23	11.76	13.90
Maximum	20.58	22.13	27.80	17.61	30.06	20.95	27.82	30.67

Source: Bankscope

In Table 6, we present the statistical distribution Capital Adequacy Ratios (CAR) for the selected OIC member states. Even though the average CAR is a standard statistics for measuring the bank capital, the distribution of CAR among banks is also important. For instance, if one of the banks in the system has a problem in attaining the minimum capital requirement, then this may cause a systemic effect in the banking system. For this reason we presented the standard deviation and min-max range of CAR in each country's banking system. Average CARs for almost all countries were around 12%. Both the standard deviation and range of CAR is relatively small among the OIC member states. There are moderate differences among banks owning minimum and maximum CAR levels. We can see that there is only one bank in the whole banking that has a CAR close to 8%. Standard deviation for each OIC member states is around 3% which is quite tolerable considering the averages are around 12%. As a conclusion, selected member states not only obtain a high average CAR but also the capital adequacy distribution among banks is also very tight. This is a positive aspect for the supervision since a weakly capitalized institution might cause a systemic banking risk.

Figure 19: Tier-1 Capital Ratio



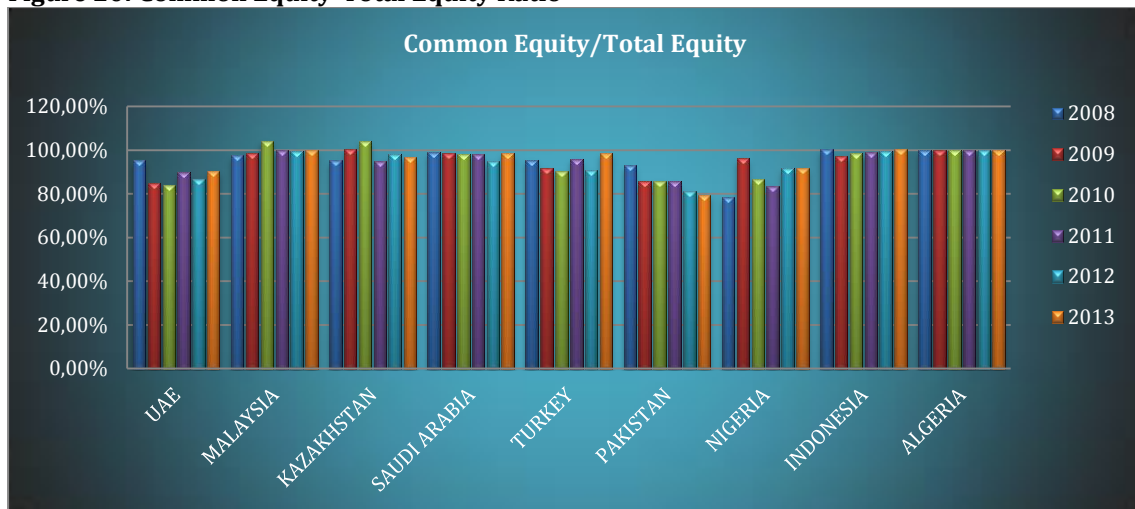
Source: Bankscope

Tier 1 capital is also another critical indicator for the quality of bank capital, which is the core measure of a bank's financial strength for the regulators. New BASEL III requirements are very demanding for banks to hold an important part of their capital in the form of Tier 1 capital. In Figure 19, we observe that almost all OIC countries do hold an important portion of their capital in the form of Tier 1 capital. This is a positive condition for the OIC member countries

for getting ready for the BASEL III rules where most OIC countries seem to be prepared for the more demanding nature for the quality of bank capital.

Figure 20 compares the common equity versus total bank capital for the selected OIC members. Banks on average have more common equity, which is a positive condition for the quality of capital.

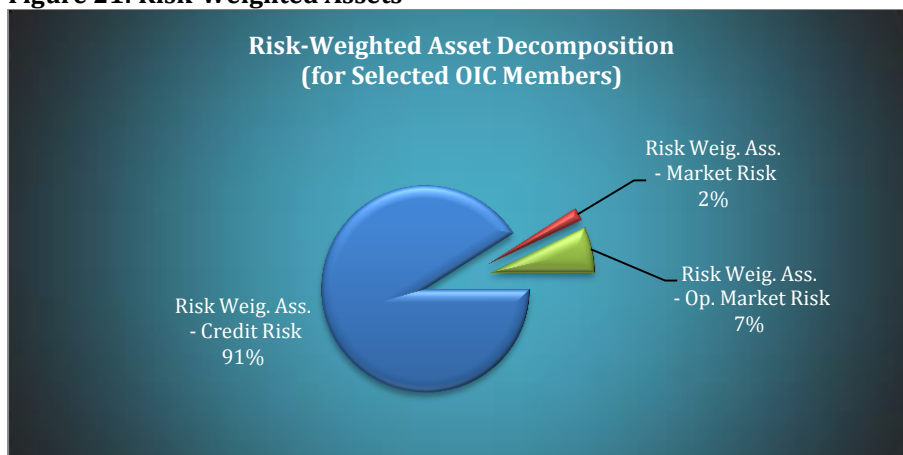
Figure 20: Common Equity-Total Equity Ratio



Source: Bankscope

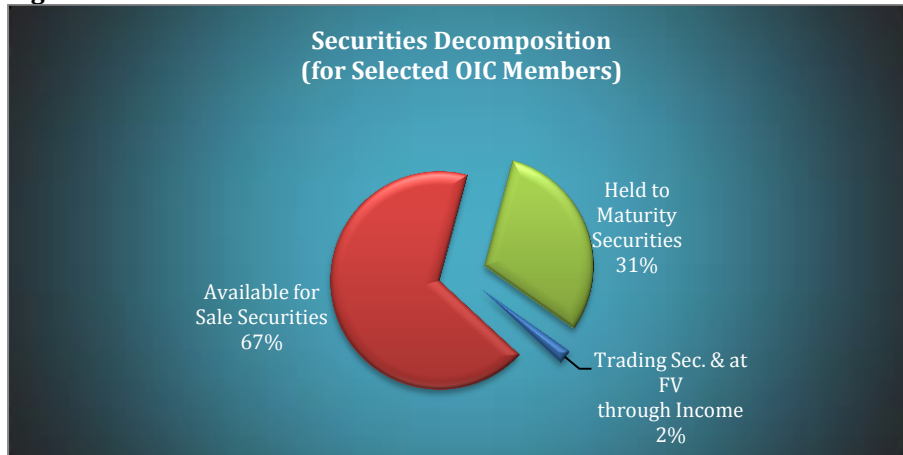
Decomposition of risk weights with respect various risks is also extremely critical from the supervisory point of view. Around 90% of the capital is hold against credit risk in OIC member states, which means that loan portfolio is the main source of banking risk for the OIC members. This means, loan portfolio is the main source of banking risk for the OIC members. Market and operational risks have far less weights than that of credit risk. This may be related to the fact that the relative weight of securities portfolio is small. In addition, standard risk weight calculations under BASEL II is not risk sensitive and can underestimate the actual market risks. This is relevant for all OIC members. Operational risk is the second biggest risk, which is calculated on the basis on banking sector profitability.

Figure 21: Risk-Weighted Assets



Source: Bankscope

Figure 22: Securities



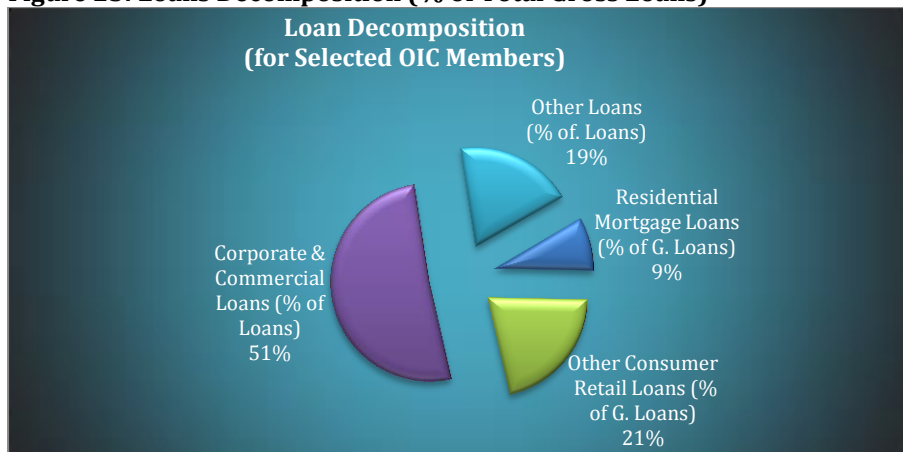
Source: *Bankscope*

Majority of securities portfolio is hold under the available for sale (AFS) classification. Trading portfolio is a very small portion for the selected member states. Market risk is calculated on the basis of AFS and trading portfolio. One third of the securities portfolio is hold as held to maturity positions. So banks trading activity can be said to be very limited.

3.1.3 Credit Risk in Selected OIC Countries

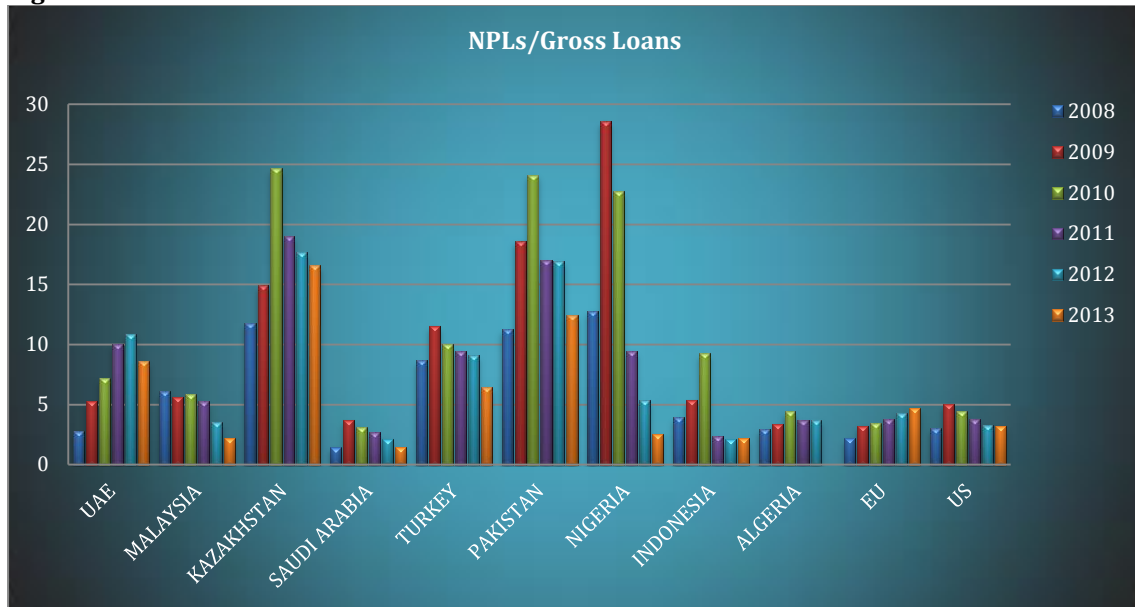
In Figure 23, the average decomposition of loan portfolio is provided. The majority of loan portfolio is distributed in the form of corporate and commercial loans, which is followed by consumer loans. This decomposition justifies the relatively higher values of credit risk assets since risk weights for corporate and commercial credits are higher than that of consumer credits. On the other hand around 10 % of the loan portfolio is distributed for mortgages. This is not too big compared to US case where much higher portions of credits are given in the form mortgages.

Figure 23: Loans Decomposition (% of Total Gross Loans)



Source: *Bankscope*

Figure 24: NPL Ratio



Source: Bankscope

Another important measure for the evaluation of the banking sector is the ratio of non-performing loans. (NPL). For most of the member states, the ratio of NPL's to total loans remains below 10% with notable exceptions of Kazakhstan, Nigeria and Pakistan (see Figure 24). In those countries both the level and the volatility of NPL seems to be high. NPL is an important indicator where high ratios depresses bank profitability and usually lead to further deteriorations in credit quality. Therefore, high NPL ratio limits the financial intermediation role of the banks and their ability to raise capital to meet the capital requirements imposed by the regulatory framework. It is also important to note that NPL ratios increase sharply during recessions. NPL is in a way a historical measure. More forward-looking measures should be studied to predict what might happen to the NPL's in the future. Particularly, stronger collaterals and avoiding concentration risk in lending would be helpful.

The average NPL in OIC member states is around 7%. This is a moderate figure. But it is important to note that, in 2009 after the financial crisis in US, the NPL figure average was around 9%. What is critical in this context is to get ready for these types of global or local shocks. Capital buffers are needed to defend bank runs in these dates. Because of this, a well-defined stress testing methodology can be applied in OIC member countries.

Loan to deposit ratio is another critical measure for banking deepening and soundness. Normally, a higher loan to deposit ratio is a good thing for the banking sector development. However, a very high deposit to loan ratio can be detrimental during a financial crisis. But majority of the selected OIC member states has a loan to deposit ratio below 100%. This level does not imply a high level of risk.

Figure 25: Loan-Deposit Ratio



Source: Bankscope

3.1.4 Profitability of the Banking Sector in Selected OIC Countries

Profitability of the banking sector in member countries remain at moderate levels for most of the member states despite the heightened volatility in global markets. The relevant measures for the banking profitability are return on asset and return on equity ratio together with net interest margin.

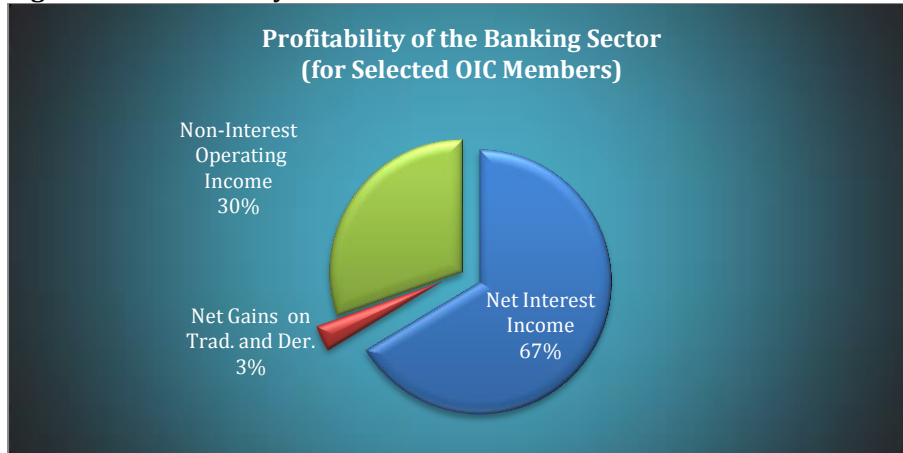
Figure 26: Return on Assets



Source: IMF-FSI

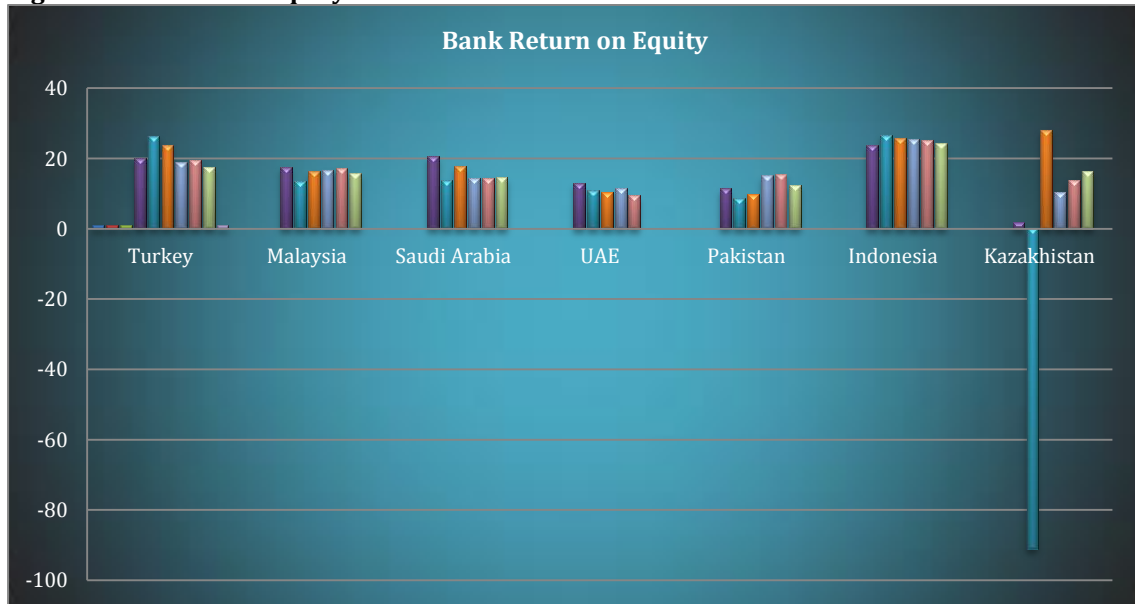
In order to evaluate the performance of the banking sector, it is important to analyze the source of banking profitability. As can be seen in Figure 27, around 70% of the banking profits are made from interest rates both from credits and securities. One third of the profit comes from non-interest income such as commissions and other banking services. Gains from trading are a very minor source of profitability in the OIC member states. This decomposition implies that, majority of profits rely on interest bearing assets. Increasing the non-interest income in the selected OIC member states can constitute a risk-diversifying strategy for the members.

Figure 27: Profitability



Source: *Bankscope*

Figure 28: Return on Equity



Source: *IMF-FSI*

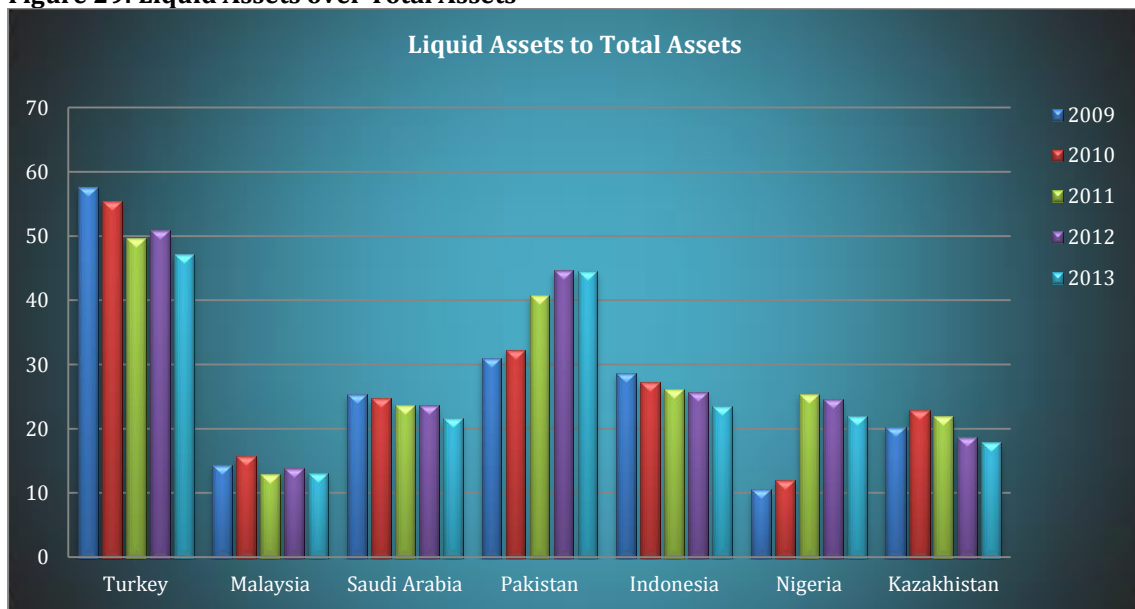
In terms of bank profitability and equity return in OIC member states. Kazakhstan shows a significant volatility in bank profitability and return on equity. Overall, ROE and ROA measures are rather satisfactory compared to US and European banking industries.

3.1.5 Liquidity Risk and Basel III in Selected OIC Countries

In terms of the ability of liquid funds to cover short-term needs of banks, we focus on the ratio of liquid assets to the short-term liabilities. For this measure, Turkey and Pakistan reach a level above 80%, which is in line with the ratio in US. For other member states used in the analysis, we observe ratios ranging between 25%-60%.

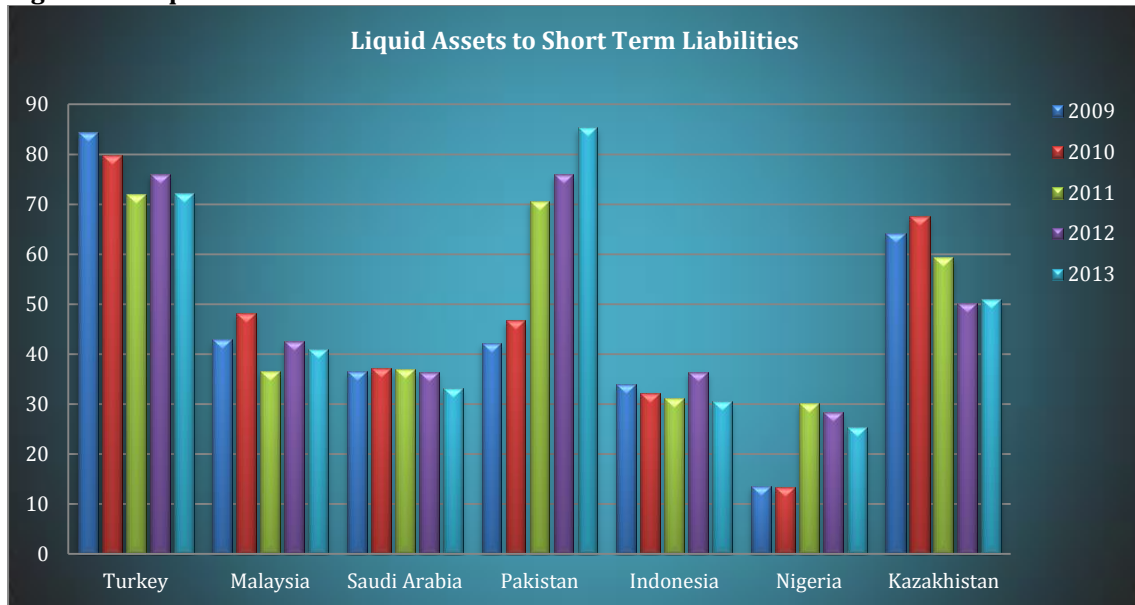
Liquidity conditions in the financial markets are crucial for a well-functioning banking system because during the times of financial stress, we observe quick and severe evaporation of liquidity putting banks into difficulties. In this regard, BASEL III imposes new constraints on the amount of liquid assets banks need to hold to match both short and long-term cash outflows. Figure 29 and Figure 30 present the ratio of liquid assets to total assets and to short-term liabilities of the banking system in the member states for which data are available, in a comparison to the Euro area and US for the period 2008-2014. These measures do not directly comply with LCR or NSFR however; they still provide a clear picture of liquidity conditions from a comparative perspective. The fraction of liquid assets to total assets vary between 15-30% for Malaysia, Kazakhstan, Nigeria, Indonesia and Saudi Arabia which are mostly above the corresponding ratio in US. Turkey and Pakistan are positively separated in this measure with a ratio above 40%.

Figure 29: Liquid Assets over Total Assets



Source: IMF-FSI

Figure 30: Liquid Assets over Short Term Liabilities

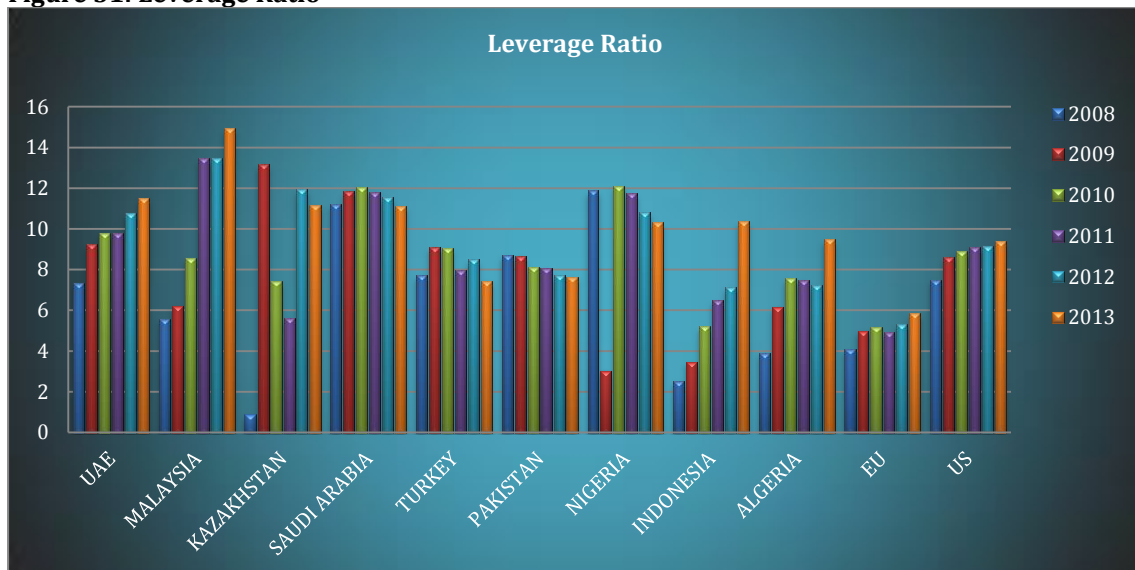


Source: IMF-FSI

3.1.6 Leverage Ratios in Selected OIC Countries

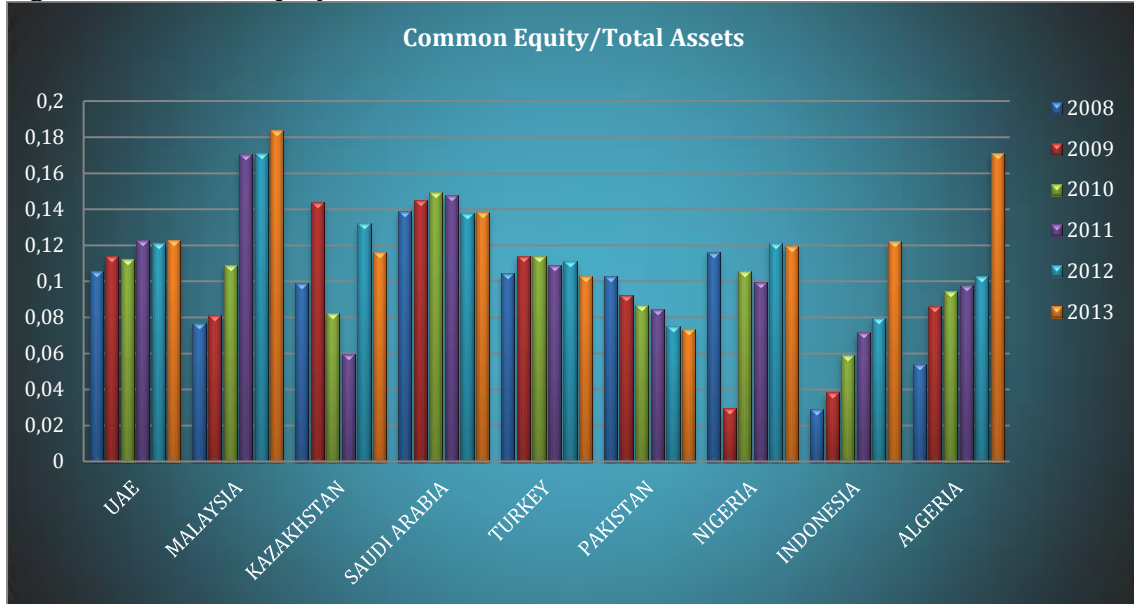
Another critical criterion in BASEL III is the leverage ratio. A simple ratio known as leverage ratio is capital divided by assets of on- and off balance sheet. According to BASEL III banks should hold at least 3% of leverage ratio. The higher the ratio the lesser the risk is. In below, we have documented the leverage ratio in selected OIC member states in a comparison to US and EU. As many of the countries do have limited off balance sheet items, this ratio tended to be higher than 3%. Therefore one could say that leverage ratio will not put a restriction against OIC member states.

Figure 31: Leverage Ratio



Source: IMF-FSI

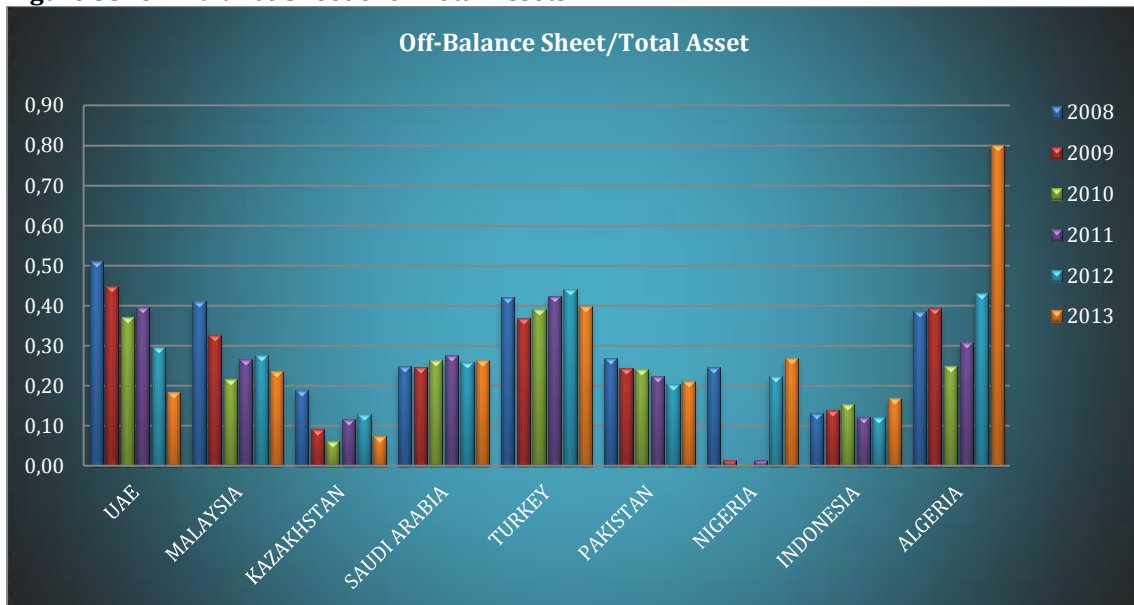
Figure 32: Common Equity over Total Assets



Source: Bankscope

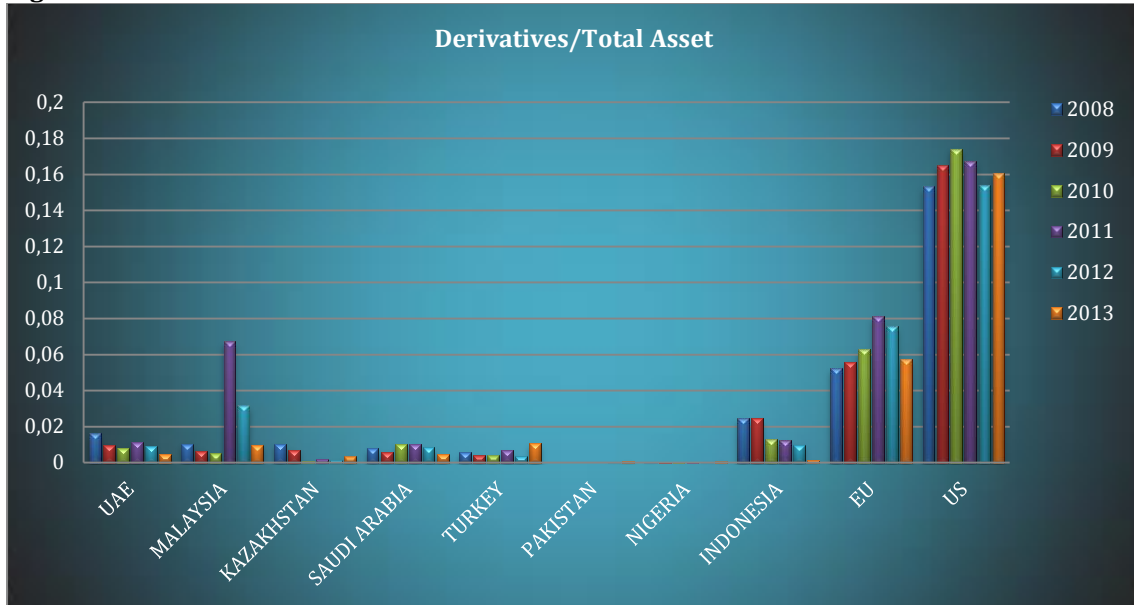
Use of derivative products and the size of off balance sheet assets in the OIC member states are relatively small compared to US and Europe. Since the leverage and complex derivative products could create big potential risks for banks, limited use of these products for the OIC member states is positive from the regulatory point of view.

Figure 33: Off-Balance Sheet over Total Assets



Source: Bankscope

Figure 34: Derivatives over Total Assets



Source: Bankscope

4. Banking Sector Supervision in Selected OIC Countries

In this section, supervisory mechanism of the banking sector in selected OIC member countries is analyzed in a comparative perspective. In the first section, we will describe the core principles developed by the BIS which basically constitute a benchmark for the ideal supervisory mechanisms in the world. Finally, we provide a comparison of the current stance of OIC member countries on the basis of these principles using World Bank Regulation and Supervision Survey.

4.1 Core Principles

Banking sector regulation remains to be crucial in the aftermath of the financial crisis of 2008. Towards the construction of a well-functioning and stable banking system, Basel Committee of Banking Supervision aims at laying the ground for the most effective regulation and supervision scheme. In 1997, Basel Committee issued a universal set of core principles, which are used by countries as a benchmark for assessing the quality of their supervisory systems and identifying the roadmap to achieve sound supervisory practices. In the light of the changing landscape of global financial markets and regulations after the 2008 crisis, the Committee has updated its core principles in 2012. The main tradeoff in designing the best regulation scheme is to set the bar for supervision high enough while maintaining globally applicable and flexible standards for the banking system. Core principles for banking sector supervision has been updated to achieve applicability to a wide range of banking systems around the world and construct a common ground for the assessment of the quality of the supervisory practices.

The set of Core Principles are divided into two broad categories:

- 1) Supervisory powers, responsibilities and functions
- 2) Prudential regulations and requirements

Supervisory powers, responsibilities and functions

- Responsibilities, objectives and powers
- Independence, accountability, resourcing and legal protection for supervisors
- Cooperation and collaboration
- Permissible activities
- Licensing criteria
- Transfer of significant ownership
- Major acquisitions
- Supervisory approach
- Supervisory techniques and tools
- Supervisory reporting
- Corrective and sanctioning powers of supervisors
- Consolidated supervision
- Home-host relationships

Prudential regulations and requirements

- Corporate governance
- Risk management process
- Capital adequacy

- Credit risk
- Problem assets, provisions and reserves
- Concentration risk and large exposure limits
- Transactions with related parties
- Country and transfer risks
- Market risks
- Interest rate risk in the banking book
- Liquidity risk
- Operational risk
- Internal control and audit
- Financial reporting and external audit
- Disclosure and transparency
- Abuse of financial services

The set of Core Principles constitutes a universal set of requirements to achieve an effective system of banking sector supervision which relies on the ability of supervisory authorities to implement, monitor and enforce supervisory policies under regular and stressed financial situations. The first category of principles involves necessary conditions for an effective supervision with a particular focus on the roles of the supervisory authority. The second category is mostly related to the management of the risk factors for the banking system.

4.2 Analyzing the Supervisory Mechanism for the Selected OIC Member States

Despite the importance of banking regulation and supervision, a comprehensive assessment of these principles for a large set of countries, which allows for an in-depth comparison of supervisory practices, is not readily available. The best source of information in this regard, is the Bank Regulation and Supervision Survey conducted by the World Bank. In this section, the evolution of the regulation and supervision structure in selected OIC member countries is investigated using survey data constructed by the World Bank¹⁴, which is available in four waves, in 2000, 2003, 2007 and 2011 and include a wide range of questions on banks' regulatory and supervisory practices. Questions exhibit different characteristics in each survey and constructing coherent measures is a difficult task. Barth, Caprio and Levine (2013) design indices in order to obtain coherent and comprehensive comparison for 180 countries and provide a parsimonious way to compare individual countries along all dimensions of the surveys. These indices are related to the set of Core Principles of the Basel Committee and suitable to assess compliance in countries with these principles. Questions cover entry into commercial banking, ownership of bank restrictions, capital standards, allowable activities for banks, external auditing requirements, governance of banks, liquidity and diversification requirements, deposit protection schemes, asset classification and provisioning practices, accounting and information disclosure requirements, supervisory powers associated for dealing with banks in financial duress, and the structure, mandate, staffing, and procedures of supervisory agencies¹⁵. In this report, we focus on the evolution of banking regulation and supervision in selected OIC countries, namely Algeria, Malaysia, Indonesia, Saudi Arabia, Turkey, Nigeria, Pakistan, Kazakhstan and United Arab Emirates. We also provide a comparison to the set of all OIC countries as a whole and as divided into four World Bank

¹⁴See Barth, Caprio and Levine (2013) for an extensive analysis covering 180 countries and the construction of index measures for the survey questions.

¹⁵Details can be found at http://www.faculty.haas.berkeley.edu/ross_levine/Regulation.htm.

income categories, high-income, upper-middle income, lower-middle income and low-income OIC countries. As a viable benchmark, we present index values for EU-27 countries and United States. In conducting our comparisons, we follow the methodology by Barth, Caprio and Levine (2013) and present the evolution of banking regulation and supervision practices in 7 categories together with their association to the Basel core principles:

- Scope of Bank Activities and Financial Conglomerate Variables
- Capital Regulations
- Official Supervisory Power
- Private Monitoring and External Governance
- Deposit Insurance Schemes
- Restrictions on Entry into Banking Sector
- Additional Information from individual survey questions

4.2.1 Scope of Bank Activities and Financial Conglomerate Variables

Barth, Caprio and Levine (2013) have constructed indices from the survey questions, which allow quantifying the degree and effectiveness of regulations. Variables regarding bank activity aims at capturing the range of activities banks can undertake, i.e. securities activities, insurance activities and real estate activities. Specifically, securities activities refer to securities underwriting, brokering, dealing, and all aspects of the mutual fund industry. Insurance activities are insurance underwriting and selling and real estate activities refer to real estate investment. The index values for securities, insurance, and real estate range from 1 to 4, where larger values indicate more restrictions on banks performing each activity. In particular, 4 signifies prohibited, 3 indicates that there are tight restrictions on the provision of the activity, 2 means that the activity is permitted but with some limits, and 1 signals that the activity is permitted. Finally, the another variable is constructed as the sum of these three which represents the overall restrictiveness of the regulations on bank activity, which ranges from 3-12, where higher values indicates a more stringent regulation.

Survey data cover the time period between 2000 and 2011, even though it lacks the information on the current stance of the regulations, it provide valuable information on the evolution of regulatory policies in selected member countries. For some waves of the survey and for some questions, data for OIC countries are not available. As discussed above, higher values indicate that activity is prohibited and small values signal that activity is permitted.

Table 7: Banking Activity Regulations (Selected OIC Countries)

Bank Activity Regulations	Survey	Indonesia	Kazakhstan	Malaysia	Nigeria	Pakistan	Turkey	UAE	Saudi Arabia	Algeria	Selected OIC Average
Security Activities Range 1-4	2000	2	1	2	2	N/A.	3	1	2	N/A.	1,9
	2003	N/A.	3	2	3	2	2	1	1	2	2,0
	2007	4	2	2	N/A.	3	N/A.	1	2	1	2,1
	2011	2	N/A.	2	2	2	2	1	N/A.	N/A.	1,8
Insurance Activities Range 1-4	2000	4	1	2	2	3	2	N/A.	2	N/A.	2,3
	2003	N/A.	3	3	3	3	2	3	3	2	2,8
	2007	4	3	3	N/A.	3	N/A.	N/A.	3	4	3,3
	2011	2	N/A.	2	2	3	3	4	N/A.	N/A.	2,7
Real Estate Activities Range 1-4	2000	4	1	3	2	N/A.	4	N/A.	4	1	2,7
	2003	N/A.	4	3	3	4	2	1	4	1	2,8
	2007	4	4	3	3	4	N/A.	N/A.	4	1	3,3
	2011	3	N/A.	N/A.	3	3	4	4	N/A.	N/A.	3,4
Overall Restrictions on Banking Activity Range-3-12	2000	10	3	7	6	N/A.	9	N/A.	8	N/A.	7,2
	2003	N/A.	10	8	9	9	6	5	8	5	7,5
	2007	12	9	8	N/A.	10	N/A.	N/A.	9	6	9,0
	2011	7	N/A.	6	7	8	9	9	N/A.	N/A.	7,7

Source: World Bank, Bank Regulation and Supervision Survey

These indices are directly related to the core principle on permissible activities for banks in the system. This issue is particularly important in order to compare different institutions as they are classified as banks however in some countries engaging in non-banking activities are allowed. The preferred practice is to restrict institutions which are classified as banks to pure banking activities to achieve a more effective regulation and supervision scheme.

In terms of permissible activities in the banking sector, OIC countries are as restrictive as US on average, and regulations are more stringent than EU-27 countries. We do not observe significant differences when comparing different income categories among the OIC countries. However, most countries in our sample of OIC countries lean towards the more restrictive side of regulations with an overall average of 7.9 where the average of our selected sample of OIC countries is 7.7. After the crisis in 2008, we note a decrease in the stringency of regulations on the permissible activities for banks, where the selected OIC drops from 9 to 7.7 and OIC average decreases from 8.7 to 7.9. In terms of individual countries, we observe a similar trend where countries move to a less restrictive regulatory scheme on banking activities. Based on the available data for the selected OIC countries, Malaysia is the least restrictive one with an average index value of 6 and Turkey along with UAE are the most restrictive countries with average values of 9. For UAE, the least restrictive activity areas is securities activities. And most restrictive ones are real estate and insurance activities. We observe a similar structure in the banking sector where regulations are more stringent on real estate activities. This is an important point regarding the increased size of the construction sector in these countries.

Table 8: Bank Activity Regulations

Bank Activity Regulations	Survey	OIC Average	OIC-High Income Average	OIC-Upper-Middle Income Average	OIC-Lower-Middle Income Average	OIC-Low Income Average	EU-27 Average
Security Activities Range 1-4	2000	1,6	1,88	1,91	1,84	1,72	1,4
	2003	1,8	1,63	1,84	1,71	1,62	1,5
	2007	1,9	1,62	1,84	1,76	1,66	1,4
	2011	2,0	1,71	1,82	1,84	1,70	1,1
Insurance Activities Range 1-4	2000	3,2	2,37	2,36	2,44	2,44	2,4
	2003	3,1	2,63	2,74	2,70	2,73	2,5
	2007	3,4	3,43	3,30	3,41	3,41	2,9
	2011	2,7	3,10	2,81	2,82	3,02	2,5
Real Estate Activities Range 1-4	2000	3,3	3,00	2,88	2,81	2,81	2,2
	2003	2,5	2,21	2,55	2,51	2,32	2,3
	2007	3,3	2,89	3,05	2,92	2,92	2,6
	2011	3,2	3,64	3,46	3,42	3,51	2,4
Overall Restrictions on Banking Activity Range-3-12	2000	8,0	8,05	7,61	7,77	7,77	5,9
	2003	7,4	6,48	7,14	6,92	6,68	6,3
	2007	8,7	8,18	8,41	8,22	8,22	6,8
	2011	7,9	8,40	7,88	7,97	8,14	6,0

Source: World Bank, Bank Regulation and Supervision Survey

Another important area on the permissible activities is the ownership structure of banks. National regulators may restrict or allow banks owning non-financial firms or non-financial firms owning banks. In this regard, we compare ownership restrictions across countries which exhibit significant differences which is an important issue from the perspective of the regulator. In the light of the core principle on the consolidated supervision, a complex ownership structure makes it necessary for the regulator to impose group-wise supervision of institutions.

We focus on the degree of regulations which restricts banks own non-financial firms, non-financial firms own banks and non-bank financial firms own banks. Furthermore, the average degree of regulations on the ownership structure is evaluated. Similar to the activity regulations, individual variables vary in 1-4 where higher values indicate more stringent regulation. Overall degree of regulations is the sum of these three variables with a range of 3-12.

With regard to the ownership structure, OIC countries possess more stringent regulations compared to EU- 27 and less strict regulation scheme in a comparison to US. The most stringent regulation on the ownership structure is in Indonesia and UAE and the least is in Turkey which is below the selected OIC average of 8.2.

Table 9: Ownership Restrictions (Selected OIC Countries)

Ownership Restrictions	Survey	Indonesia	Kazakhstan	Malaysia	Nigeria	Pakistan	Turkey	UAE	Saudi Arabia	Algeria	Selected OIC Average
Bank Owning Non-financial Firms Range 1-4	2000	4	3	3	3	3	3	N/A.	3	N/A.	3,1
	2003	4	3	3	3	3	2	3	3	3	3,0
	2007	4	3	3	3	3	N/A.	N/A.	3	4	3,3
	2011	4	N/A.	N/A.	3	3	2	4	N/A.	N/A.	3,2
Non-financial Firms Owning Banks Range 1-4	2000	1	2	3	1	N/A.	1	N/A.	1	N/A.	1,5
	2003	N/A.	3	3	2	2	2	1	1	1	1,9
	2007	2	2	3	2	3	N/A.	N/A.	2	4	2,6
	2011	3	N/A.	3	2	2	2	3	N/A.	N/A.	2,5
Non-bank financial Firms Owning Banks Range 1-4	2000	N/A.	N/A.	3	1	N/A.	1	N/A.	1	N/A.	1,5
	2003	N/A.	3	3	2	2	2	1	2	2	2,1
	2007	2	2	3	2	3	N/A.	N/A.	2	4	2,6
	2011	3	N/A.	3	2	2	2	3	N/A.	N/A.	2,5
Overall Degree of Restrictions Range 3-12	2000	7,5	7,5	9	5	N/A.	5	N/A.	5	N/A.	6,5
	2003	N/A.	9	9	7	7	6	5	6	6	6,9
	2007	8	7	9	7	9	N/A.	N/A.	7	12	8,4
	2011	10	N/A.	9	7	7	6	10	N/A.	N/A.	8,2

Source: World Bank, Bank Regulation and Supervision Survey

Table 10: Ownership Restrictions

Ownership Restrictions	Survey	Selected OIC Average	OIC Average	OIC-High Income Average	OIC-Upper-Middle Income Average	OIC-Lower-Middle Income Average	OIC-Low Income Average	EU-27 Average	United States
Bank Owning Non-financial Firms Range 1-4	2000	3,1	2,7	2,97	2,98	2,96	2,96	2,2	3
	2003	3,0	2,8	2,79	2,85	2,90	2,91	2,2	3
	2007	3,3	2,8	3,28	3,18	3,26	3,26	2,1	3
	2011	3,2	3,0	3,05	3,04	3,07	3,23	2,4	4
Non-financial Firms Owning Banks Range 1-4	2000	1,5	2,0	1,38	1,56	1,50	1,50	1,7	3
	2003	1,9	2,1	1,49	1,74	1,53	1,47	1,9	3
	2007	2,6	2,5	2,78	2,74	2,77	2,77	2,0	2
	2011	2,5	2,5	2,50	2,44	2,48	2,57	2,0	3
Non-bank financial Firms Owning Banks Range 1-4	2000	1,5	1,8	1,32	1,51	1,42	1,42	1,4	N/A.
	2003	2,1	2,1	1,87	2,01	2,02	1,89	1,9	2
	2007	2,6	2,2	2,70	2,68	2,69	2,69	2,0	2
	2011	2,5	2,4	2,48	2,42	2,46	2,55	2,0	3
Overall Degree of Restrictions Range 3-12	2000	6,5	6,6	5,77	6,12	5,99	5,99	5,4	9
	2003	6,9	6,9	6,13	6,59	6,41	6,24	6,0	8
	2007	8,4	7,6	8,76	8,60	8,73	8,73	6,1	7
	2011	8,2	7,9	8,01	7,88	7,98	8,31	6,3	10

Source: World Bank, Bank Regulation and Supervision Survey

4.2.2 Capital Regulations

The second category of core principles focuses on the risk management for the banking system which is mainly reflected in capital requirements and risk weighted measures of assets. Our focus in this section is on the evolution of the capital regulations for OIC countries, especially in the aftermath of the financial crisis of 2008. Index for the stringency of capital regulations is constructed based on the survey questions (1) Is the capital-asset ratio risk weighted in line with the Basle I guidelines? (2) Does the minimum capital-asset ratio vary as a function of an individual bank's credit risk? (3) Does the minimum capital-asset ratio vary as a function of market risk? (4) Before minimum capital adequacy is determined, which of the following are deducted from the book value of capital? Market value of loan losses not realized in accounting books? Unrealized losses in securities portfolios? Or unrealized foreign exchange losses? (5) What fraction of revaluation gains is allowed as part of capital? (6) Are the sources of funds to be used as capital verified by the regulatory/supervisory authorities? (7) Can the initial disbursement or subsequent injections of capital be done with assets other than cash or government securities? (8) Can initial disbursement of capital be done with borrowed funds? Larger values of this index of bank capital regulation indicate more stringent capital regulation. Capital regulatory index ranges between 0 and 10, where higher values indicate stricter capital regulations.

Table 11: Capital Regulations (Selected OIC Countries)

Capital Regulations	Survey	Indonesia	Kazakhstan	Malaysia	Nigeria	Pakistan	Turkey	UAE	Saudi Arabia	Algeria	Selected OIC Average
Overall Capital Stringency Range 0-7	2000	2	1	1	4	N/A.	3	N/A.	2	N/A.	2,2
	2003	N/A.	4	1	4	4	3	4	3	2,4	3,2
	2007	5	5	3	3	7	3,6	N/A.	3	5	4,3
	2011	7	N/A.	2	3	6	7	5	N/A.	N/A.	5,0
Initial Capital Stringency Range 0-3	2000	3	2	2	3	N/A	1	3	2	N/A	2,3
	2003	3	3	2	3	2	3	3	1	1	2,3
	2007	3	2	2	3	3	N/A	3	2	3	2,6
	2011	3	N/A	2	3	2	3	3	N/A	N/A	2,7
Capital Regulatory Range 0-10	2000	5	3	3	7	N/A.	4	N/A.	4	N/A.	4,3
	2003	N/A.	7	3	7	6	6	7	4	3,4	5,4
	2007	8	7	5	6	10	N/A.	N/A.	5	8	7,0
	2011	10	N/A.	4	6	8	10	8	N/A.	N/A.	7,7

Source: World Bank, Bank Regulation and Supervision Survey

We observe that capital regulations in OIC countries are stricter than EU-27 average and less strict than US and there is an increasing trend for the stringency of capital regulations. In 2000, capital regulatory index for OIC countries was lower than EU-27, reach their average in 2008. US, however, as the country most seriously hit by the 2008 crisis, started to impose stronger regulations for capital as of 2011.

Table 12: Capital Regulations

Capital Regulations	Survey	Selected OIC Average	OIC Average	OIC-High Income Average	OIC-Upper-Middle Income Average	OIC-Lower-Middle Income Average	OIC-Low Income Average	EU-27 Average	United States
Overall Capital Range 0-7	2000	2,2	3,1	2,57	2,55	2,48	2,48	4,0	4
	2003	3,2	3,5	3,18	3,13	3,07	3,18	4,1	3
	2007	4,3	3,6	3,90	4,05	3,98	3,98	3,6	5
	2011	5,0	5,2	5,55	4,85	5,15	5,13	5,0	7
Initial Capital Stringency Range 0-3	2000	2,3	2,4	2,15	2,23	2,22	2,33	2,0	2
	2003	2,3	2,4	2,12	2,18	1,84	1,98	2,1	2
	2007	2,6	2,3	2,58	2,61	2,52	2,58	2,0	2
	2011	2,7	2,7	2,83	2,65	2,70	2,75	1,9	1
Capital Regulatory Index Range 0-10	2000	4,3	5,7	4,51	4,65	4,64	4,64	6,0	6
	2003	5,4	5,9	5,28	5,30	4,88	5,14	6,1	5
	2007	7,0	5,8	6,45	6,66	6,48	6,48	5,7	7
	2011	7,7	7,9	8,39	7,49	7,86	7,88	6,9	8

Source: World Bank, Bank Regulation and Supervision Survey

Figure 35: Hybrid Capital Debt in Tier-1 Capital



Source: World Bank, Bank Regulation and Supervision Survey

Hybrid capital instruments are widely allowed in EU-27 and US however the fraction of OIC countries which allow the use of such instruments is significantly lower, i.e. lead to a more reliable source of capital. On the other hand, Tier 3 capital is counted as a part of almost 80%

of OIC countries which is higher than the EU-27 average of 69%. Basel III will remove Tier 3 capital and countries with a composition of capital relying on Tier 3 may need to adjust their capital regulations which will probably be the case for OIC countries.

Figure 36: Legally Allowed Regulatory Capital



Source: World Bank, Bank Regulation and Supervision Survey

4.2.3 Official Supervisory Power

The power of the supervisory authority in implementing and monitoring the regulations is one of the most important criteria for an effective supervision scheme. These issues are consolidated in the first category of the core principles. Supervisory power of the regulatory authority is measured as the ability to gather information from banks and the ability to induce banks to pursue certain actions.

The index variable measuring the supervisory power is constructed based on the answers of the following questions: (1) Does the supervisory agency have the right to meet with external auditors about banks? (2) Are auditors required to communicate directly to the supervisory agency about illicit activities, fraud, or insider abuse? (3) Can supervisors take legal action against external auditors for negligence? (4) Can the supervisory authority force a bank to change its internal organizational structure? (5) Are off-balance sheet items disclosed to supervisors? (6) Can the supervisory agency order the bank's directors or management to constitute provisions to cover actual or potential losses? (7) Can the supervisory agency suspend the directors' decision to distribute (a) dividends, (b) bonuses, and (c) management fees? (8) Can the supervisory agency supersede the rights of bank shareholders and declare a bank insolvent? (9) Can the supervisory agency suspend some or all ownership rights? (10) Can the supervisory agency (a) supersede shareholder rights, (b) remove and replace management, and (c) remove and replace directors? Index values range between 0 and 14 where higher values indicate greater power of the supervisory authority.

Table 13: Supervisory Power Index (Selected OIC Countries)

Supervisory Power Index	Survey	Indonesia	Kazakhstan	Malaysia	Nigeria	Pakistan	Turkey	UAE	Saudi Arabia	Algeria	Selected OIC Average
	2000	12,00	14,00	12,92	11,00	14,00	11,00	14,00	14,00	14,00	12,99
	2003	16,00	13,00	13,50	13,00	14,00	15,50	14,00	14,00	14,50	14,17
	2007	16,00	9,00	15,50	13,50	14,00	15,50	N/A.	13,00	11,50	13,50
	2011	13,00	6,46	11,00	10,77	13,00	12,00	9,00	N/A	N/A	10,75

Source: World Bank, Bank Regulation and Supervision Survey

OIC average for the measure of the supervisory power exhibits a decline after the crisis period in a comparison to the previous surveys, which holds for different income groups. The average degree of the power of the supervisory authorities in selected member countries is close to the EU-27 average and slightly below the corresponding average for US. Indonesia, Pakistan, Turkey, Malaysia and Nigeria have values above 10 which indicate relatively powerful supervisory authorities, whereas Kazakhstan and UAE exhibit a declining trend in regulatory power of the supervisory authorities especially in the period after the 2008 crisis.

Table 14: Supervisory Power Index

Supervisory Power Index	Survey	Selected OIC Average	OIC Average	OIC-High Income Average	OIC-Upper-Middle Income Average	OIC-Lower-Middle Income Average	OIC-Low Income Average	EU-27 Average	United States
	2000	12,99	11,43	12,90	12,82	13,02	13,15	10,49	13,00
	2003	14,17	11,91	14,01	13,86	13,74	13,77	10,45	13,00
	2007	13,50	11,61	13,02	13,46	12,68	12,68	10,88	14,50
	2011	10,75	10,32	10,52	10,92	10,63	10,35	11,00	13,00

Source: World Bank, Bank Regulation and Supervision Survey

An equally important aspect for the supervision is the independence and experience of the supervisory authority. In some countries, there are multiple authorities which might lead to conflicts in the implementation of the regulations. In order to assess these differences we use structural variables on the supervision together with a measure of autonomy of the supervisory authority.

The information on the structure of the supervision in the selected OIC member countries in a comparison to EU-27 and US and OIC averages is provided in Table 15. The first row indicates the tenure of the supervisor for the four surveys conducted by the World Bank. Tenure of the supervisor is an important measure for the success of the supervision as it represents the accumulated experience in the regulation and supervision. In this regard, selected OIC member

countries possess an average tenure level which is higher than the EU-27 average with 10.1 years, however below US which has an average tenure level of 15 years. Indonesia with 20 years tenure level in the last survey, exhibit the highest experience, followed by Turkey and Nigeria with tenure levels of 15 and 10 years respectively.

Table 15 Supervisory Tenure (Selected Power Index)

	Survey	Indonesia	Kazakhstan	Malaysia	Nigeria	Pakistan	Turkey	UAE	Saudi Arabia	Algeria	Selected OIC Average
Supervisor Tenure (years)	2000	5	N/A.	N/A.	N/A.	N/A.	N/A.	N/A.	7,5	N/A.	6,3
	2003	N/A.	7,5	7,5	5	11	8	12,5	6,5	3	7,6
	2007	N/A.	N/A.	N/A.	N/A.	9,5	N/A.	N/A.	8	3	6,8
	2011	20	5	9	10	3,7	15	8	N/A.	N/A.	10,1
Independence of Supervisory Authority-Political (Higher values more independence)	2000	1	0	0	0	1	0	0	0	N/A.	0,3
	2003	1	0	N/A.	1	1	0	0	0	N/A.	0,4
	2007	1	0	1	0	1	N/A.	0	0	N/A.	0,4
	2011	1	N/A.	1	0	1	1	0	N/A.	N/A.	0,7
Independence of Supervisory Authority-Bank (Higher values more independence)	2000	0	1	1	1	1	1	1	0	0	0,7
	2003	N/A.	1	1	1	1	0	1	0	0	0,6
	2007	1	1	1	1	1	N/A.	1	1	0	0,9
	2011	1	1	1	1	1	1	1	N/A.	N/A.	1,0
Independence of Supervisory Authority-Fixed Term (Higher values more independence)	2000	N/A.	N/A.	1	1	1	1	1	1	N/A.	1,0
	2003	N/A.	1	1	1	0	1	0	0	1	0,6
	2007	0	0	1	1	0	1	1	0	0	0,4
	2011	1	1	1	1	0	1	0	N/A.	N/A.	0,7
Independence of Supervisory Authority-Overall	2000	N/A.	N/A.	2	2	3	2	N/A.	1	N/A.	2,0
	2003	N/A.	2	N/A.	3	2	2	N/A.	0	N/A.	1,8
	2007	2	1	3	2	2	2	3	1	N/A.	2,0
	2011	3	N/A.	3	2	2	3	1	N/A.	N/A.	2,3
Multiple Supervisor (Yes=1 and No=0)	2000	0	0	0	0	0	1	0	0	0	0,1
	2003	0	1	0	1	0	0	0	0	0	0,2
	2007	0	0	1	1	0	N/A.	0	1	0	0,4
	2011	0	0	0	1	0	0	0	N/A.	N/A.	0,1
Single vs Multiple Supervisor (Yes=1 and No=0)	2000	0	N/A.	N/A.	0	N/A.	N/A.	0	0	1	0,2
	2003	0	1	0	0	0	0	0	0	1	0,2
	2007	0	0	0	0	1	N/A.	0	0	1	0,3
	2011	0	0	0	0	0	1	0	N/A.	N/A.	0,1

Source: World Bank, Bank Regulation and Supervision Survey

Second question measures the degree to which the supervisory authority is independent within the government from political influence, which takes the values 0 and 1 where high value indicates greater independence from political authority, which is critical for autonomy of the supervision. We observe that the selected OIC member countries perform really well under this criterion with an average of 0.7, which is equal to EU-27 average and much higher than US with a value of 0. Indonesia, Malaysia, Pakistan and Turkey have a value of 1, which suggests

independence from political authority and significant autonomy from political influence. Nigeria and UAE, in this regard have supervision authorities, which are not directly independent from political authority, which may be improved to achieve an autonomous supervision mechanism.

Table 16: Supervisory Tenure

	Survey	OIC Average	OIC-High Income Average	OIC-Upper-Middle Income Average	OIC-Lower-Middle Income Average	OIC-Low Income Average	EU-27 Average	United States
Supervisor Tenure (years)	2000	6,2	6,6	6,6	6,6	6,6	7,4	7,0
	2003	7,5	7,5	7,6	6,6	7,4	7,5	11,7
	2007	7,7	6,4	6,9	6,5	6,5	8,7	12,0
	2011	9,5	10,6	9,5	9,9	9,6	9,7	15,0
Independence of Supervisory Authority-Political (Higher values more independence)	2000	0,1	0,1	0,2	0,1	0,1	0,3	0,0
	2003	0,3	0,1	0,4	0,2	0,2	0,7	0,0
	2007	0,3	0,2	0,4	0,2	0,2	0,5	1,0
	2011	0,4	0,5	0,6	0,5	0,4	0,7	0,0
Independence of Supervisory Authority-Bank (Higher values more independence)	2000	0,7	0,6	0,7	0,4	0,5	0,5	1,0
	2003	0,7	0,4	0,6	0,4	0,5	0,7	1,0
	2007	0,8	0,7	0,8	0,7	0,7	0,9	1,0
	2011	0,9	1,0	1,0	1,0	1,0	0,8	1,0
Independence of Supervisory Authority-Fixed Term (Higher values more independence)	2000	1,0	1,0	1,0	1,0	1,0	0,9	1,0
	2003	0,7	0,6	0,6	0,6	0,5	0,8	1,0
	2007	0,5	0,5	0,5	0,3	0,4	0,9	1,0
	2011	0,8	0,6	0,6	0,7	0,6	0,8	1,0
Independence of Supervisory Authority-Overall	2000	1,8	1,7	1,9	1,7	1,7	1,8	2,0
	2003	1,6	1,4	1,7	1,3	1,3	2,0	1,0
	2007	1,6	1,9	2,1	1,7	1,9	2,1	2,0
	2011	2,1	2,1	2,2	2,2	2,0	2,4	2,0
Multiple Supervisor (Yes=1 and No=0)	2000	0,0	0,2	0,1	0,1	0,1	0,2	1,0
	2003	0,1	0,0	0,1	0,1	0,1	0,2	1,0
	2007	0,1	0,3	0,4	0,4	0,3	0,0	1,0
	2011	0,1	0,0	0,2	0,1	0,1	0,0	1,0
Single vs Multiple Supervisor (Yes=1 and No=0)	2000	0,1	0,3	0,2	0,3	0,3	0,3	0,0
	2003	0,1	0,2	0,2	0,3	0,3	0,3	0,0
	2007	0,4	0,3	0,3	0,4	0,3	0,5	0,0
	2011	0,2	0,3	0,2	0,2	0,1	0,4	0,0

Source: World Bank, Bank Regulation and Supervision Survey

Supervision authorities should also have a certain level of independence from the banks operating in the banking sector. Third question aims at evaluating supervision authorities according to this criterion. The selected OIC member countries possess a perfect independence of supervisory authorities from the banks, with an average value of 1 which is equal to US and higher than EU-27. It mainly measures the degree to which the supervisory authority is independent within the government from political influence and important for an effective supervision.

Fourth question measures the ability of the supervisory authority to make decisions independent of political considerations. For this measure, Indonesia, Turkey, Kazakhstan, Malaysia and Nigeria obtain the highest score indicating significant independence from political influence whereas for Pakistan and UAE there is a room for improvement regarding this measure. The average value of the selected OIC member countries is slightly lower than EU-27 average and the value for US.

Finally, the survey evaluates the general independence of the supervisory authority by combining three measures described above, by summing the respective scores and obtaining an index value ranging between 0-3. Indonesia, Malaysia and Turkey obtained a score of 3, which indicates perfect autonomy of supervisory authorities followed by Nigeria and Pakistan with values above average. UAE in this regard, has some points to improve to achieve an independent supervisory framework. The average value for the selected OIC member countries is higher than US, and almost equal to the EU-27 average, which suggests a level of independence close to the developed economies.

For the banking supervision, the number of authorities, which are responsible from the regulation activities as multiple institutions, may result in conflicts and reduces the effectiveness of supervision. All selected OIC member countries with the exception of Nigeria have a single authority for banking supervision, which is responsible from banking supervision, which is the case for all EU-27 countries but not for US. For the financial sector as a whole, however mostly there is more than one authority in the selected member countries with the exception of Turkey.

4.2.4 Private Monitoring and External Governance

The index variable “private monitoring” measures the degree to which supervisory agencies require banks to obtain certified audits and/or ratings from international-rating agencies. Private monitoring increases transparency and credibility of financial institutions therefore is usually encouraged by supervisory authorities. The private monitoring index is constructed based on the questions (1) whether bank directors and officials are legally liable for the accuracy of information disclosed to the public, (2) whether banks must publish consolidated accounts, (3) whether banks must be audited by certified international auditors, (4) whether 100 percent of the largest 10 banks are rated by international rating agencies, (5) whether off-balance sheet items are disclosed to the public, (6) whether banks must disclose their risk management procedures to the public, (7) whether accrued, though unpaid interest/principal, enter the income statement while the loan is still non-performing, (8) whether subordinated debt is allowable as part of capital, and (9) whether there is no explicit deposit insurance system and no insurance was paid the last time a bank failed. Thus, the maximum value of the private monitoring index is 12 and the minimum value is 0, where larger values indicate greater regulatory empowerment of the monitoring of banks by private investors.

Table 17: Private Monitoring Index (Selected OIC Countries)

Private Monitoring Index	Survey	Indonesia	Kazakhstan	Malaysia	Nigeria	Pakistan	Turkey	UAE	Saudi Arabia	Algeria	Selected OIC Average
	2000	8	6	9	7	N/A.	7	N/A.	11	N/A.	8,0
	2003	N/A.	6	10	9	8	8	11	10	8	8,8
	2007	9	8	9	N/A.	9	N/A.	N/A.	11	6	8,7
	2011	10	N/A.	7	N/A.	10	8	N/A.	N/A.	N/A.	8,8

Source: World Bank, Bank Regulation and Supervision Survey

Table 18: Private Monitoring Index

Private Monitoring Index	Survey	OIC Average	OIC-High Income Average	OIC-Upper-Middle Income Average	OIC-Lower-Middle Income Average	OIC-Low Income Average	EU-27 Average	United States
	2000	8,0	8,50	8,36	8,77	8,77	7,4	8
	2003	7,9	8,95	8,96	8,77	9,05	7,9	10
	2007	7,8	8,37	8,55	8,40	8,40	8,2	10
	2011	8,0	8,24	8,33	8,32	8,32	8,1	11

Source: World Bank, Bank Regulation and Supervision Survey

External governance is an important part of corporate governance and include aspects of regulations such as efficiency and conduct of external auditors, information disclosure to public and supervisory authorities, implementation of international standards of accounting and external rating agencies. The specific questions in the survey regarding these aspects are: (1) Is an audit by a professional external auditor required for all commercial banks in your jurisdiction? (2) Are specific requirements for the extent or nature of the audit spelled out? (3) Are auditors licensed or certified? (4) Do supervisors get a copy of the auditor's report? (5) Does the supervisory agency have the right to meet with external auditors to discuss their report without the approval of the bank? (6) Are auditors required by law to communicate directly to the supervisory agency any presumed involvement of bank directors or senior managers in illicit activities, fraud, or insider abuse? (7) Can supervisors take legal action against external auditors for negligence? (8) Does accrued, though unpaid, interest/principal enter the income statement while the loan is still performing? (9) Are financial institutions required to produce consolidated accounts covering all bank and any non-bank financial subsidiaries? (10) Are off-balance sheet items disclosed to the public? (11) Must banks disclose their risk management procedures to the public? (12) Are bank directors legally liable if information disclosed is erroneous or misleading? (13) Does accrued, though unpaid, interest/principal enter the income statement while the loan is still nonperforming? (14) Are accounting practices for banks in accordance with International Accounting Standards (IAS)? (15) Are accounting practices for banks in accordance with US Generally Accepted Accounting Standards (GAAS)? (16) Is subordinated debt allowable as part of capital? (17) Is subordinated debt required as part of capital? (18) Do regulations require credit ratings for commercial

banks? (19) What percentage of the top ten banks is rated by international credit rating agencies (e.g., Moody's, Standard and Poor's)? (20) How many of the top ten banks are rated by domestic credit rating agencies?

Table 19: External Governance Index (Selected OIC Countries)

	Survey	Indonesia	Kazakhstan	Malaysia	Nigeria	Pakistan	Turkey	UAE	Saudi Arabia	Algeria	Selected OIC Average
Strength of External Audit	2000	5	7	7	4	7	7	7	7	7	6,4
Range 0-7	2003	7	7	6	6	7	7	7	7	7	6,8
	2007	7	5	7	5,83	7	7	7	6	7	6,5
	2011	7	N/A.	5	5,6	7	7	7	N/A.	N/A.	6,4
Financial Statement Transparency	2000	4	3	5	5	6	4	6	6	4,5	4,8
Range 0-6	2003	6	3	6	5	5	6	6	6	4	5,2
	2007	5	4	6	5	6	6	6	6	4	5,3
	2011	6	2	5	6	6	5	6	N/A.	N/A.	5,1
Accounting Practices	2000	1	0	1	1	1	1	1	1	1	0,9
Range 0-1	2003	1	0	1	1	1	1	1	1	1	0,9
	2007	1	0	1	1	1	1	1	1	1	0,9
	2011	1	N/A.	1	1	1	1	1	N/A.	N/A.	1,0
External Ratings and Creditor Monitoring	2000	2,5	1,25	2	1	2	1,25	N/A.	2,5	N/A.	1,8
Range 0-5	2003	N/A.	2	3	3	N/A.	N/A.	N/A.	N/A.	N/A.	2,7
	2007	3	N/A.	3	0	3	N/A.	N/A.	3	N/A.	2,4
	2011	3	N/A.	3	3	4	3	N/A.	N/A.	N/A.	3,2
External Governance Index	2000	N/A.	N/A.	15	11	N/A.	N/A.	13	N/A.	N/A.	13,0
Range 0-19	2003	N/A.	12	16	15	N/A.	14	N/A.	N/A.	N/A.	14,3
	2007	16	N/A.	17	N/A.	17	N/A.	16	16	N/A.	16,4
	2011	17	N/A.	14	N/A.	18	N/A.	14	N/A.	N/A.	15,8

Source: World Bank, Bank Regulation and Supervision Survey

With respect to external governance, OIC countries perform equally well as the EU-27 countries and US with an average degree of 15.9 out of 19, where higher values indicate more effective governance. We observe an increasing trend with respect to this measure in OIC countries, which suggest OIC countries are improving to a point which is higher than EU-27 average. Based on the available data, the countries which are performing best according to these criteria are Indonesia and Pakistan with average 17 and 18 out of 19, respectively.

Table 20: External Governance Index

	Survey	OIC Average	OIC-High Income Average	OIC- Upper- Middle Income Average	OIC- Lower- Middle Income Average	OIC-Low Income Average	EU-27 Average	United States
Strength of External Audit	2000	6,3	6,79	6,55	6,68	6,72	5,8	6
Range 0-7	2003	6,4	6,86	6,70	6,78	6,81	6,3	6
	2007	6,5	6,68	6,66	6,57	6,62	6,3	5
	2011	6,7	6,78	6,44	6,58	6,65	6,3	7
Financial Statement Transparency	2000	4,8	5,03	5,12	5,05	5,17	4,6	5
Range 0-6	2003	4,9	5,35	5,35	5,14	5,24	5,1	5
	2007	4,7	5,34	5,44	5,14	5,25	5,3	5
	2011	5,1	5,32	5,45	5,26	5,39	5,4	6
Accounting Practices	2000	0,7	0,93	0,95	0,92	0,93	0,4	1
Range 0-1	2003	0,9	0,97	0,98	0,96	0,97	0,5	1
	2007	0,9	0,96	0,97	0,95	0,95	0,9	1
	2011	0,6	0,91	0,94	0,87	0,89	0,6	1
External Ratings and Creditor Monitoring	2000	1,5	1,77	1,73	1,87	1,87	1,3	2
Range 0-5	2003	2,6	2,63	2,78	2,67	2,67	2,0	4
	2007	2,4	2,60	2,34	2,55	2,55	2,5	4
	2011	2,5	2,90	3,09	2,92	2,92	2,5	4
External Governance Index	2000	13,3	13,08	13,06	13,10	13,08	11,9	N/A.
Range 0-19	2003	14,6	14,28	14,69	14,46	14,46	14,3	N/A.
	2007	15,9	16,08	16,34	16,15	16,12	15,0	N/A.
	2011	15,6	15,11	15,41	15,46	15,22	15,1	N/A.

Source: World Bank, Bank Regulation and Supervision Survey

4.2.5 Restrictions on Entry into Banking Sector

The regulations on foreign bank entry to the domestic market is also an important measure for the supervisory practices as it is primarily related to the home-host core principle of the Basel Committee, since it is usually hard to impose cross-border regulations. In this measure, almost all OIC countries perform at perfect level obtaining a score 7.94 out of 8 which suggest that OIC countries impose entry and licensing standards in the banking sector which are in line with the universal regulations.

Table 21: Restrictions on Entry into Banking Sector (Selected OIC Countries)

	Survey	Indonesia	Kazakhstan	Malaysia	Nigeria	Pakistan	Turkey	UAE	Saudi Arabia	Algeria	Selected OIC Average
Limitations on Foreign Bank Entry/Ownership	2000	4	2	3	3	4	4	4	4	4	3,56
	Range 0-4	4	2,67	3	3	4	4	4	4	4	3,63
	2007	4	3	3	3	4	4	4	4	4	3,67
	2011	4	N/A.	3	3	4	4	3	N/A.	N/A.	3,50
Entry into Banking Requirements	2000	7	8	7	8	7	7	8	8	8	7,56
	Range 0-8	8	8	7	8	7	7	8	8	7	7,56
	2007	8	7	8	8	8	8	8	8	8	7,89
	2011	8	8	8	8	8	8	8	N/A.	N/A.	8,00
Fraction of Entry Applications Denied (Percentage)	2000	N/A.	N/A.	N/A.	0	N/A.	N/A.	N/A.	N/A.	N/A.	0,00
	2003	N/A.	N/A.	N/A.	N/A.	N/A.	1	N/A.	N/A.	0	0,29
	2007	N/A.	0	N/A.	N/A.	N/A.	N/A.	N/A.	N/A.	N/A.	0,00
	2011	0,08	N/A.	0	N/A.	0	0,11	0	N/A.	N/A.	0,04
Domestic Denials (Fraction)	2000	N/A.	N/A.	N/A.	0	N/A.	N/A.	N/A.	N/A.	N/A.	0,00
	2003	N/A.	N/A.	N/A.	N/A.	0,92	0,71	N/A.	N/A.	0,00	0,54
	2007	N/A.	0,00	N/A.	N/A.	N/A.	N/A.	N/A.	N/A.	N/A.	0,00
	2011	0,14	0,67	N/A	N/A.	0,00	0,00	N/A	N/A.	N/A.	N/A
Foreign Denials (Fraction)	2000	0,60	N/A.	N/A.	0	N/A.	N/A.	N/A.	0	N/A.	0,20
	2003	N/A.	N/A.	N/A.	N/A.	N/A.	0,42	N/A.	N/A.	0	0,21
	2007	0,00	N/A	N/A.	N/A.	0,00	N/A.	N/A.	N/A.	N/A.	N/A
	2011	0	N/A.	0	N/A.	0	0,13	0	N/A.	N/A.	0,03

Source: World Bank, Bank Regulation and Supervision Survey

Table 22: Restrictions on Entry into Banking Sector

	Survey	OIC Average	OIC-High Income Average	OIC-Upper-Middle Income Average	OIC-Lower-Middle Income Average	OIC-Low Income Average	EU-27 Average	United States
Limitations on Foreign Bank Entry/Ownership								
Range 0-4	2000	3,86	3,90	3,73	3,84	3,86	4,00	4,00
	2003	3,86	3,91	3,74	3,86	3,88	4,00	4,00
	2007	3,67	3,89	3,72	3,82	3,85	4,00	4,00
	2011	3,50	3,50	3,44	3,48	3,40	4,00	4,00
Entry into Banking Requirements								
Range 0-8	2000	7,65	7,70	7,59	7,75	7,78	7,39	7,00
	2003	7,57	7,52	7,46	7,52	7,58	7,28	8,00
	2007	7,90	7,96	7,98	7,95	7,96	7,61	8,00
	2011	7,94	7,98	7,99	7,98	7,98	7,69	8,00
Fraction of Entry Applications Denied (Percentage)								
	2000	0,27	0,13	0,10	0,12	0,12	0,12	0,00
	2003	0,25	0,28	0,28	0,22	0,22	0,07	0,01
	2007	0,21	0,11	0,11	0,11	0,11	0,01	N/A.
	2011	0,21	0,09	0,06	0,10	0,08	0,08	N/A.
Domestic Denials (Fraction)								
	2000	0,20	0,10	0,07	0,09	0,09	N/A	0,00
	2003	0,34	0,40	0,49	0,36	0,36	N/A	0,02
	2007	0,31	0,15	0,15	0,15	0,15	N/A	N/A.
	2011	0,23	N/A	N/A	N/A	N/A	N/A	N/A.
Foreign Denials (Fraction)								
	2000	0,33	0,18	0,14	0,17	0,17	N/A	0,00
	2003	0,37	0,25	0,25	0,21	0,21	0,11	0,00
	2007	0,26	N/A	N/A	N/A	N/A	N/A	0,00
	2011	0,20	0,09	0,06	0,10	0,08	N/A	N/A.

Source: World Bank, Bank Regulation and Supervision Survey

4.2.6 Deposit Insurance Schemes

Deposit insurance is an important aspect of banking system supervision as it prevents bank runs which triggers system level banking crises, especially when the banking sector's overall liquidity is low. On the other hand, it is argued that explicit deposit insurance pave the way for excessive risk-taking due to moral hazard problem. Despite the importance of deposit insurance schemes, the fraction of countries with an explicit deposit insurance is 70%, given the corresponding ratios of 100% in EU-27 countries.

Table 23: Deposit Insurance

Percentage of Yes	OIC Countries	Selected OIC Countries	OIC-High Income Countries	OIC-Upper-Middle Income Countries	OIC-Lower-Middle Income Countries	OIC-Low Income Countries	EU-27	United States
Is there an explicit deposit insurance protection system for commercial banks?	70%	80%	67%	100%	67%	67%	100%	Yes

Source: World Bank, Bank Regulation and Supervision Survey

Besides the existence of a deposit insurance scheme, power of the insurer in taking legal actions and controlling banks to mitigate moral hazard problem is crucial for an effective

implementation. In order to measure power of the deposit insurer, World Bank aggregated responses from the surveys towards a universal measure, deposit insurer power index. The deposit insurance index is composed of the following individual questions from the surveys: (1) Does the deposit insurance agency/fund administrator have the bank intervention authority as part of its mandate? (2) Does the deposit insurance authority by itself have the legal power to cancel or revoke deposit insurance for any participating bank? (3) Can the deposit insurance agency/fund take legal action for violations against laws, regulations, and bylaws (of the deposit insurance agency) against bank directors or other bank officials? (4) Has the deposit insurance agency/fund ever taken legal action for violations against laws, regulations, and bylaws (of the deposit insurance agency) against bank directors or other bank officials? The values of the deposit insurance index range from 0 to 4, with higher values indicating more power. Furthermore, we also present the fraction of funding through insured deposit. Finally, a composed measure for moral hazard is introduced for the selected set of countries, which is an index including the survey questions: (1) Is deposit insurance funded by the government, the banks, or both? (2) Do deposit insurance fees charged to banks vary based on some assessment of risk? (3) Is there formal co-insurance, that is, are depositors only insured for some percentage of their deposits, either absolutely or above some floor and/or up to some limit?

Table 24: Deposit Insurance (Selected OIC Countries)

	Survey	Indonesia	Kazakhstan	Malaysia	Nigeria	Pakistan	Turkey	UAE	Saudi Arabia	Algeria	Selected OIC Average
Deposit Insurer Power	2000	4,00	0,00	2,67	3,00	N/A.	0,00	N/A.	N/A.	N/A.	1,9
Range 0-4	2003	4,00	2,00	2,67	3,00	N/A.	2,00	N/A.	N/A.	1,00	2,4
	2007	2,00	1,00	2,00	3,00	N/A.	0,00	N/A.	N/A.	2,00	1,7
	2011	3,00	N/A.	3,00	2,67	N/A.	1,33	N/A.	N/A.	N/A.	2,5
Funding with Insured Deposit (percentage)	2000	N/A.	N/A.	N/A.	N/A.	N/A.	N/A.	N/A.	N/A.	N/A.	N/A.
	2003	N/A.	N/A.	N/A.	N/A.	N/A.	37,00	N/A.	N/A.	N/A.	37,0
	2007	64,73	N/A.	18,90	100,00	0,00	N/A.	N/A.	N/A.	N/A.	45,9
	2011	51,00	N/A.	20,00	N/A.	N/A.	25,00	N/A.	N/A.	N/A.	32,0
Degree of Moral Hazard	2000	0,00	N/A.	N/A.	1,50	N/A.	1,00	N/A.	N/A.	3,00	1,4
	2003	0,00	2,00	N/A.	1,00	N/A.	1,00	N/A.	N/A.	2,00	1,2
	2007	1,00	1,00	2,00	1,00	N/A.	1,50	N/A.	N/A.	3,00	1,6
	2011	0,00	N/A.	1,00	2,00	N/A.	2,00	N/A.	N/A.	N/A.	1,3

Source: World Bank, Bank Regulation and Supervision Survey

Table 25: Deposit Insurer Power Index

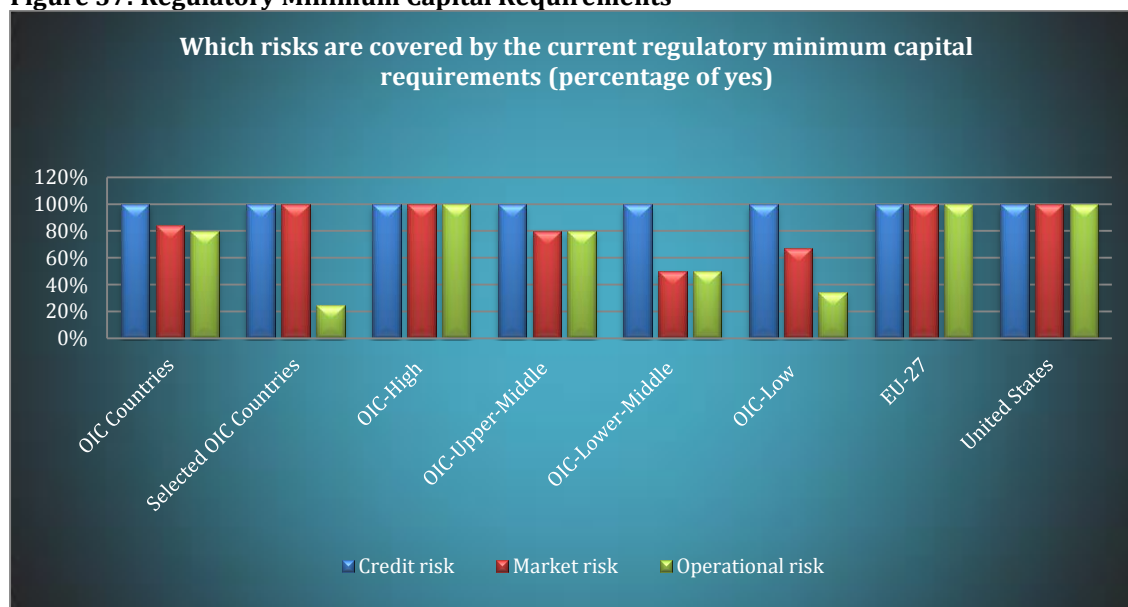
	Survey	OIC Average	OIC-High Income Average	OIC-Upper-Middle Income Average	OIC-Lower-Middle Income Average	OIC-Low Income Average	EU-27 Average	United States
Deposit Insurer Power	2000	1,3	1,08	1,67	1,50	1,50	0,7	4
Range 0-4	2003	1,4	1,70	2,03	1,71	1,71	1,1	4
	2007	1,5	1,29	1,64	1,62	1,62	1,0	4
	2011	1,3	1,72	2,09	1,91	1,91	0,9	4
Funding with Insured Deposit (percentage)	2000	N/A.	N/A.	N/A.	N/A.	N/A.	N/A.	N/A.
	2003	13,0	28,99	28,99	26,99	26,99	44,4	38,5
	2007	17,7	31,79	35,71	32,77	32,77	36,3	35,1
	2011	36,8	31,28	29,02	32,28	32,28	58,0	79
Degree of Moral Hazard	2000	1,1	1,62	1,60	1,74	1,74	1,5	2
Range 0-3	2003	1,2	1,35	1,29	1,41	1,41	1,8	1
	2007	1,6	1,91	1,79	1,97	1,97	1,6	2
	2011	1,3	1,50	1,50	1,38	1,38	1,2	2

Source: World Bank, Bank Regulation and Supervision Survey

4.2.7 Selected Responses from 2011 Survey: Comparison of OIC Countries, EU-27 and US

In this section, we present responses to a selected set of questions regarding different aspects of regulation which might have important implications for regulation and supervision. First question investigates the types of risks covered as a part of minimum regulatory capital requirement. The analysis is conducted for three types of risk, credit risk, market risk and operational risk. In most of OIC countries, credit risk and market risk are covered by the regulatory minimum capital, however operational risks are covered in relatively lower fraction of OIC countries, compared to 100% coverage in EU-27 and US. Operational risks will be an ingredient of Basel III and OIC countries might include them in the definition of minimum capital to achieve a more sound capital regime.

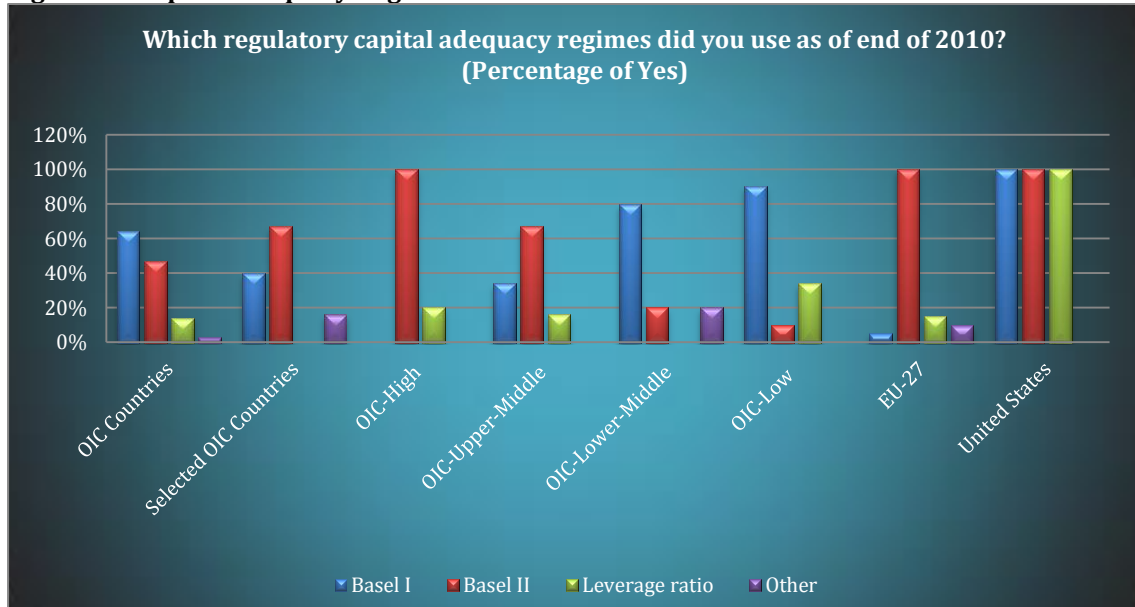
Figure 37: Regulatory Minimum Capital Requirements



Source: World Bank, Bank Regulation and Supervision Survey

As of 2011, most OIC countries use either Basel I or Basel II as the capital adequacy regime where most of EU-27 countries use Basel II and US use both Basel I and II. Leverage ratio is the least used regime among OIC countries at a similar fraction compared to EU-27. Leverage ratio will be an important element of Basel III and OIC countries might impose the requirement as a part of their capital adequacy regime to reach a more effective regulation of capital.

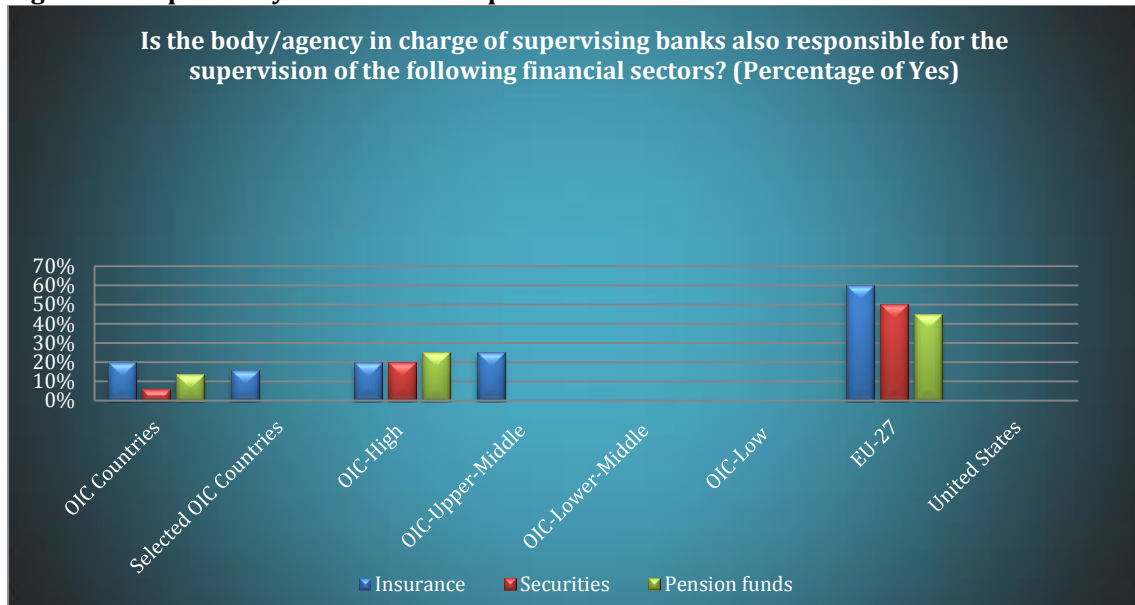
Figure 38: Capital Adequacy Regimes



Source: World Bank, Bank Regulation and Supervision Survey

Another important point regarding the OIC countries is the autonomy of the supervisory authority and the scope of supervision. In almost all OIC countries, there is a single supervisory authority for the banking system which creates an environment immune to conflict among institutions. However, an important point to note is that in most OIC countries supervisory authority responsible for the banking supervision also regulates the financial sector. Based on the available data, fraction of these OIC countries is still lower than EU-27 average.

Figure 39: Supervisory Authorities' Responsibilities



Source: World Bank, Bank Regulation and Supervision Survey

4.2.8 Concluding Remarks

- OIC countries have strong capital regulation regimes in a comparison to EU-27 and US. This observation holds for all OIC countries in different income categories. Capital regulations exhibit an increasing trend suggesting that all OIC countries move to even stronger capital regulation regimes in the aftermath of the 2008 crisis. OIC countries should be able to make a smooth transition to the new Basel III requirements, however this will be relatively easy for OIC banks with strong common equity component in the capital structure of banks.
- Banks engaging in activities outside of banking and ownership structure of banks are critical aspects of regulation. Banking sector in OIC countries impose relatively stronger regulations in a comparison to EU-27 and US, hence already achieved the level of international benchmarks according to this criteria.
- The power of the supervision authority which is measured composing important aspects of regulatory effectiveness, is in line with EU-27 and US, however there is a slight decline after the 2008 crisis. OIC countries should preserve their strong supervision practices, and recently, especially in the transition period towards Basel III, they are refining banking supervision. Malaysia and Turkey are good examples in this regard.
- Most OIC countries have autonomous supervision authorities, where a single authority is responsible for the banking system regulation which eliminates possible conflict of interests.
- External auditing and in a broader sense external governance in OIC countries are well established and in line with our international benchmarks EU-27 and US. Furthermore, private monitoring performs well in most OIC countries.

- A significant fraction of OIC countries does not have an explicit deposit insurance scheme, which should be improved to achieve a banking system which is immune to bank panics and systemic banking crisis.
- Most OIC countries do not engage in derivative trading activities and work with relatively low leverage levels. Expansion of the banking sector towards these areas might create problems, thus regulations of Basel III should be applied and monitored closely.

Table 26: SWOT Analysis – OIC Countries

Strengths, Weaknesses and Threats Analysis			
Supervision Criteria	Strengths	Weaknesses	Threats
Scope of Banking Activities	Strong restrictions on permissible activities.	No major weaknesses	Financial deepening may change the current structure.
Ownership Restrictions	Strong restrictions on ownership structure for banks.	No major weaknesses	
Capital Regulations	Stong capital regulations beyond the levels of EU-27 and US.	Limited coverage of capital requirements on market and operational risk.	Changes in BASEL III.
Supervisory Power	Most OIC countries have autonomous supervisory authority for banking regulation.	In most OIC countries supervisory authority also regulates financial sector. Supervisory power decline in the aftermath of the 2008 crisis.	
Structure of Supervision	Supervisory experience is equal to EU-27 level slightly lower than US. Independence index equal to EU-27 and US. Internaitonal standards	In most OIC countries supervisory authority also regulates financial sector.	
Private Monitoring	Stronger than EU-27 and US. Most OIC supervision authorities use certified external auditors.	No major weaknesses	
External Governance	Equally strong to EU-27 and US.	No major weaknesses	
Restrictions on Entry into Banking Sector	Strong entry restrictions and licencing criteria.	No major weaknesses	
Deposit Insurance		Fraction of OIC countries with explicit deposit insurance schemes is still low.	

Source: World Bank, Bank Regulation and Supervision Survey

Table 27: SWOT Analysis – Indonesia

Strengths, Weaknesses and Threats Analysis		
Supervision Criteria	Strengths	Weaknesses
Scope of Banking Activities	Stronger than EU-27 Average	Weaker than both US and Selected OIC Average
Ownership Restrictions	Stronger than EU-27 Average and Selected OIC Average. Same as US	
Capital Regulations	Stronger than US, EU-27 Average and Selected OIC Average	
Supervisory Power	Stronger than EU-27 and Selected OIC Average. Same as US	
Structure of Supervision	Stronger than US, EU-27 Average and Selected OIC Average in Independence of Supervisory Authority. Stronger than US, EU-27 Average and Selected OIC Average in Supervisory Tenure.	
Private Monitoring	Stronger than EU-27 and Selected OIC Average.	Weaker than US.
External Governance	Stronger than EU-27 and Selected OIC Average.	
Restrictions on Entry into Banking Sector	Stronger than EU-27 Average. Same as US and Selected OIC Average	
Deposit Insurance	Stronger than EU-27 and Selected OIC Average	Weaker than US.

Source: World Bank, Bank Regulation and Supervision Survey

Table 28: SWOT Analysis – Kazakhstan

Strengths, Weaknesses and Threats Analysis		
Supervision Criteria	Strengths	Weaknesses
Scope of Banking Activities	Stronger than US, EU-27 Average and Selected OIC Average	
Ownership Restrictions	Stronger than EU-27 Average. Same as US.	Weaker than Selected OIC Average
Capital Regulations	Stronger than EU-27 Average. Same as US and Selected OIC Average.	
Supervisory Power		Weaker than US, EU-27 Average and Selected OIC Average
Structure of Supervision		Weaker than US, EU-27 Average and Selected OIC Average in Independence of Supervisory Authority. Weaker than US, EU-27 Average and Selected OIC Average in Supervisory Tenure
Private Monitoring		Weaker than US, EU-27 Average and Selected OIC Average
External Governance		Weaker than EU-27 and Selected OIC Average
Restrictions on Entry into Banking Sector	Stronger than EU-27 Average. Same as US and Selected OIC Average	
Deposit Insurance		Weaker than US, EU-27 Average and Selected OIC Average

Source: World Bank, Bank Regulation and Supervision Survey

Table 29: SWOT Analysis – Malaysia

Strengths, Weaknesses and Threats Analysis		
Supervision Criteria	Strengths	Weaknesses
Scope of Banking Activities	Same as EU-27 Average	Weaker than US and Selected OIC Average
Ownership Restrictions	Stronger than EU-27 and Selected OIC Average	Weaker than US
Capital Regulations		Weaker than US, EU-27 Average and Selected OIC Average.
Supervisory Power	Stronger than Selected OIC Average. Same as EU-27 Average	Weaker Than US.
Structure of Supervision	Stronger than US, EU-27 Average and Selected OIC Average in Independence of Supervisory Authority.	Weaker than US, EU-27 Average and Selected OIC Average in Supervisory Tenure
Private Monitoring		Weaker than US, EU-27 Average and Selected OIC Average
External Governance		Weaker than EU-27 and Selected OIC Average
Restrictions on Entry into Banking Sector	Stronger than EU-27 Average. Same as US and Selected OIC Average	
Deposit Insurance	Stronger than EU-27 and Selected OIC Average	Weaker than US.

Source: World Bank, Bank Regulation and Supervision Survey

Table 30: SWOT Analysis – Nigeria

Strengths, Weaknesses and Threats Analysis		
Supervision Criteria	Strengths	Weaknesses
Scope of Banking Activities	Stronger than EU-27 Average	Weaker than US and Selected OIC Average
Ownership Restrictions	Stronger than EU-27 Average	Weaker than US and Selected OIC Average
Capital Regulations		Weaker than US, EU-27 Average and Selected OIC Average.
Supervisory Power	Stronger than Selected OIC Average	Weaker than US and EU-27 Average
Structure of Supervision	Same as US in Independence of Supervisory Authority. Stronger than EU-27 Average in Supervisory Tenure	Weaker than EU-27 Average and Selected OIC Average in Independence of Supervisory Authority. Weaker than US and Selected OIC Average in Supervisory Tenure
Private Monitoring	Stronger than EU-27 and Selected OIC Average.	Weaker than US.
External Governance	Stronger than EU-27 and Selected OIC Average.	
Restrictions on Entry into Banking Sector	Stronger than EU-27 Average. Same as US and Selected OIC Average	
Deposit Insurance	Stronger than EU-27 and Selected OIC Average	Weaker than US.

Source: World Bank, Bank Regulation and Supervision Survey

Table 31: SWOT Analysis – Pakistan

Strengths, Weaknesses and Threats Analysis		
Supervision Criteria	Strengths	Weaknesses
Scope of Banking Activities	Stronger than EU-27 and Selected OIC Average	Weaker than US
Ownership Restrictions	Stronger than EU-27 Average	Weaker than US and Selected OIC Average
Capital Regulations	Stronger than EU-27 and Selected OIC Average. Same as US	
Supervisory Power	Stronger than EU-27 and Selected OIC Average. Same as US	
Structure of Supervision	Same as US in Independence of Supervisory Authority.	Weaker than EU-27 Average and Selected OIC Average in Independence of Supervisory Authority. Weaker than US, EU-27 Average and Selected OIC Average in Supervisory Tenure
Private Monitoring	Stronger than EU-27 and Selected OIC Average.	Weaker than US.
External Governance	Stronger than EU-27 and Selected OIC Average.	
Restrictions on Entry into Banking Sector	Stronger than EU-27 Average. Same as US and Selected OIC Average	
Deposit Insurance	No information given	

Source: World Bank, Bank Regulation and Supervision Survey

Table 32: SWOT Analysis – Turkey

Strengths, Weaknesses and Threats Analysis		
Supervision Criteria	Strengths	Weaknesses
Scope of Banking Activities	Stronger than EU-27 and Selected OIC Average. Same as US	
Ownership Restrictions		Weaker than US, EU-27 and Selected OIC Average.
Capital Regulations	Stronger than US, EU-27 Average and Selected OIC Average.	
Supervisory Power	Stronger than EU-27 and Selected OIC Average.	Weaker than US
Structure of Supervision	Stronger than US, EU-27 Average and Selected OIC Average in Independence of Supervisory Authority. Stronger than EU-27 and Selected OIC Average, same as US in Supervisory Tenure.	
Private Monitoring		Weaker than US, EU-27 Average and Selected OIC Average
External Governance		Weaker than EU-27 and Selected OIC Average
Restrictions on Entry into Banking Sector	Stronger than EU-27 Average. Same as US and Selected OIC Average	
Deposit Insurance	Stronger than EU-27 Average.	Weaker than US and Selected OIC Average

Source: World Bank, Bank Regulation and Supervision Survey

Table 33: SWOT Analysis – UAE

Strengths, Weaknesses and Threats Analysis		
Supervision Criteria	Strengths	Weaknesses
Scope of Banking Activities	Stronger than EU-27 and Selected OIC Average. Same as US	
Ownership Restrictions	Stronger than EU-27 and Selected OIC Average. Same as US	
Capital Regulations	Stronger than EU-27 and Selected OIC Average. Same as US	
Supervisory Power		Weaker than US, EU-27 Average and Selected OIC Average
Structure of Supervision		Weaker than US, EU-27 Average and Selected OIC Average in Independence of Supervisory Authority. Weaker than US, EU-27 Average and Selected OIC Average in Supervisory Tenure.
Private Monitoring	Stronger than US, EU-27 and Selected OIC Average.	
External Governance		Weaker than EU-27 and Selected OIC Average
Restrictions on Entry into Banking Sector	Stronger than EU-27 Average. Same as US and Selected OIC Average	
Deposit Insurance	No information given	

Source: World Bank, Bank Regulation and Supervision Survey

Table 34: SWOT Analysis – Saudi Arabia

Strengths, Weaknesses and Threats Analysis		
Supervision Criteria	Strengths	Weaknesses
Scope of Banking Activities	Same as Selected OIC Average. Stronger Than US and EU-27 Average	
Ownership Restrictions	Stronger than EU-27 Average. Same as US.	Weaker than Selected OIC Average
Capital Regulations		Weaker than US, EU-27 Average and Selected OIC Average
Supervisory Power	Stronger than EU-27 Average.	Weaker than US and Selected OIC Average
Structure of Supervision	Stronger than Selected OIC Average in Supervisory Tenure	Weaker than US, EU-27 Average and Selected OIC Average in Independence of Supervisory Authority. Weaker than US and EU-27 Average in Supervisory Tenure.
Private Monitoring	Stronger than US, EU-27 and Selected OIC Average.	
External Governance	Stronger than EU-27 Average	Weaker than Selected OIC Average
Restrictions on Entry into Banking Sector	Stronger than EU-27 Average. Same as US and Selected OIC Average	
Deposit Insurance	No information given	

Source: World Bank, Bank Regulation and Supervision Survey

Table 35: SWOT Analysis – Algeria

Strengths, Weaknesses and Threats Analysis		
Supervision Criteria	Strengths	Weaknesses
Scope of Banking Activities		Weaker than US, EU-27 Average and Selected OIC Average
Ownership Restrictions	Stronger than US, EU-27 Average and Selected OIC Average.	
Capital Regulations	Stronger than US, EU-27 Average and Selected OIC Average.	
Supervisory Power	Stronger than EU-27 Average	Weaker than US and Selected OIC Average
Structure of Supervision		No information given about Independence of Supervisory Authority Index. Weaker than US, EU-27 Average and Selected OIC Average in Supervisory Tenure.
Private Monitoring		Weaker than US, EU-27 Average and Selected OIC Average
External Governance	No information given	
Restrictions on Entry into Banking Sector	Stronger than EU-27 Average. Same as US and Selected OIC Average	
Deposit Insurance	Stronger than EU-27 and Selected OIC Average	Weaker than US.

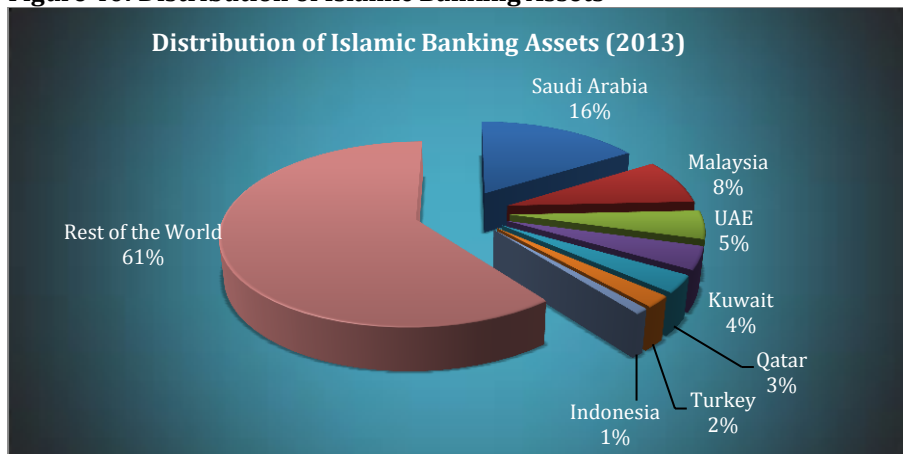
Source: World Bank, Bank Regulation and Supervision Survey

5. Regulatory and Supervisory Challenges of Islamic Banking after Basel III

According to the World Islamic Banking Competitiveness Report by the EY in 2014, Islamic banking asset size is expected to grow to 1.6 trillion USD. Considering that the total asset size of Islamic banking in 2012 was around 600 billion USD, this will be a remarkable growth episode. Estimates of the EY show that there are 38 million customers globally who use Islamic banking products. Particularly, Qatar, Indonesia, Saudi Arabia, Malaysia, UAE and Turkey are classified as the country group expected to exhibit most significant growth in Islamic banking. We compare the total asset size of Islamic banking with that of conventional banking in the selected OIC member states and observe a similar pattern. Saudi Arabia and the UAE, especially, have the highest Islamic banking to conventional banking ratio in terms of their asset sizes. Turkey and Indonesia are the next two countries on this list.

Distribution of Islamic banking assets is presented in Figure 40, which shows that many of the selected OIC member countries possess significant amounts of Islamic assets.

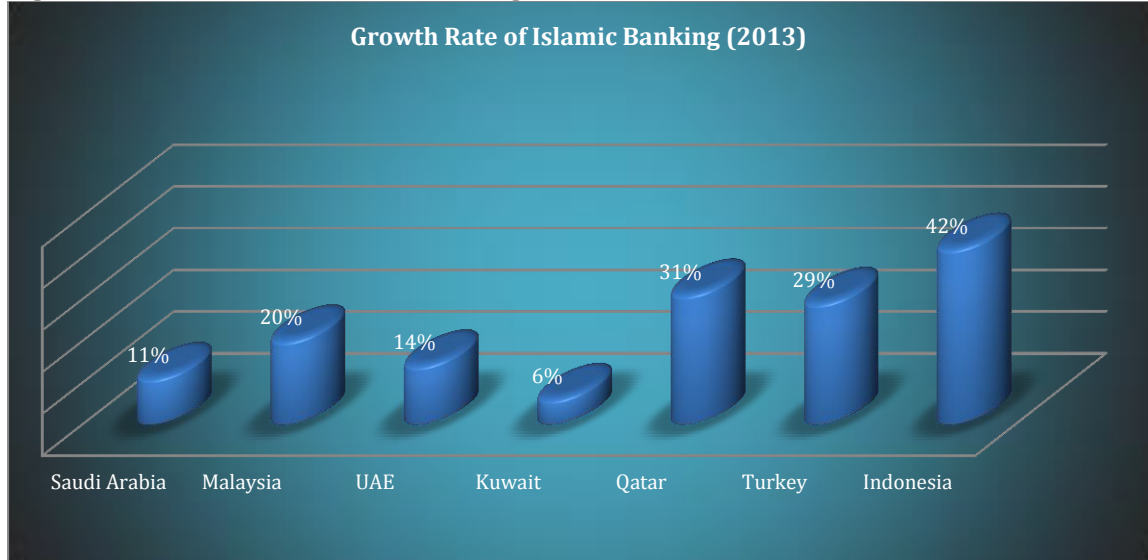
Figure 40: Distribution of Islamic Banking Assets



Source: IFSB

Figure 41 provides a comparison of the growth rates of Islamic banking among the selected OIC member countries; it shows a significant increase in Islamic banking in most of the countries. Turkey, Indonesia and Qatar attain the fastest growth rates of Islamic banking compared to other selected OIC member countries.

Figure 41: Growth Rate of Islamic Banking

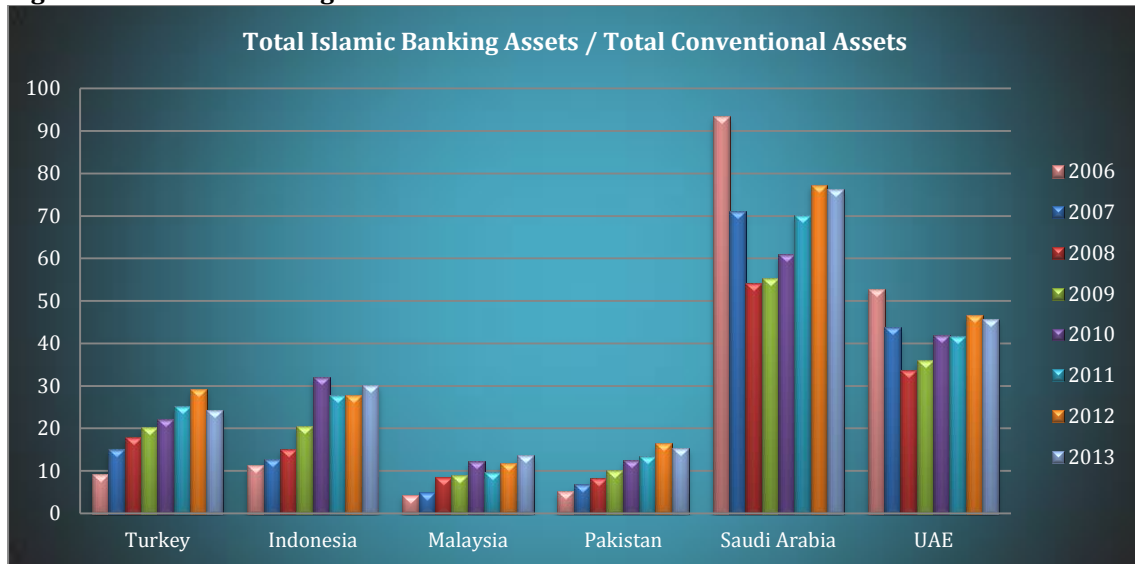


Source: EY, World Islamic Banking Competitiveness

- **What are the major differences of Islamic Banking?**

Recently, there has also been growing interest from regulators and researchers about the working mechanism of Islamic banking. Thorsten et al. (2013) compared conventional and Islamic banking and stated, "The current global financial crisis has not only shed doubts on the proper functioning of conventional 'Western' banking, but has also increased the attention on Islamic banking." Academics and policy-makers observe the advantages of Shariah-compliant financial products, as the mismatch of short-term, on-sight demandable deposits contracts with long-term uncertain loan contracts is mitigated through equity elements.

Figure 42: Islamic Banking Assets to Total Conventional Assets



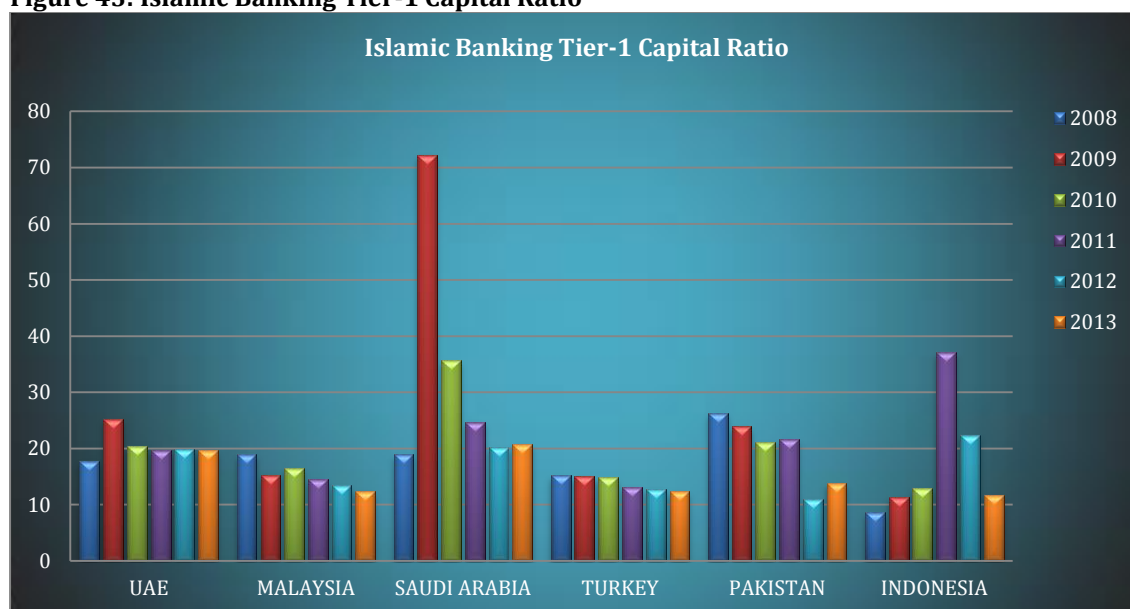
Source: KFHR

Sharia-compliant finance does not allow charging of interest payments (riba), as only goods and services are allowed to carry a price. In addition, Islamic banking does not have room for speculation, and prohibits financing of specific illicit activities. Another important characteristic of Islamic banks is that trading in financial risk products, such as derivative products, is not used. In addition, diversifying debt instruments with Islamic financial products could be beneficial for OIC members' treasuries. Therefore, it will be more challenging to find the impact of recent financial regulations for the banking sector, which are under Shariah-compliant regimes. In this section, we will discuss Basel III rules and regulations and how they will change regulatory and supervisory aspects of Islamic banking compared to conventional banking. Our analysis is based on the following categories: Common equity changes, Credit Risk, Liquidity Regulations, Leverage and Derivative Use and Capital Conservation Buffer and Countercyclical Buffer.

5.1 Capital in Islamic Banking

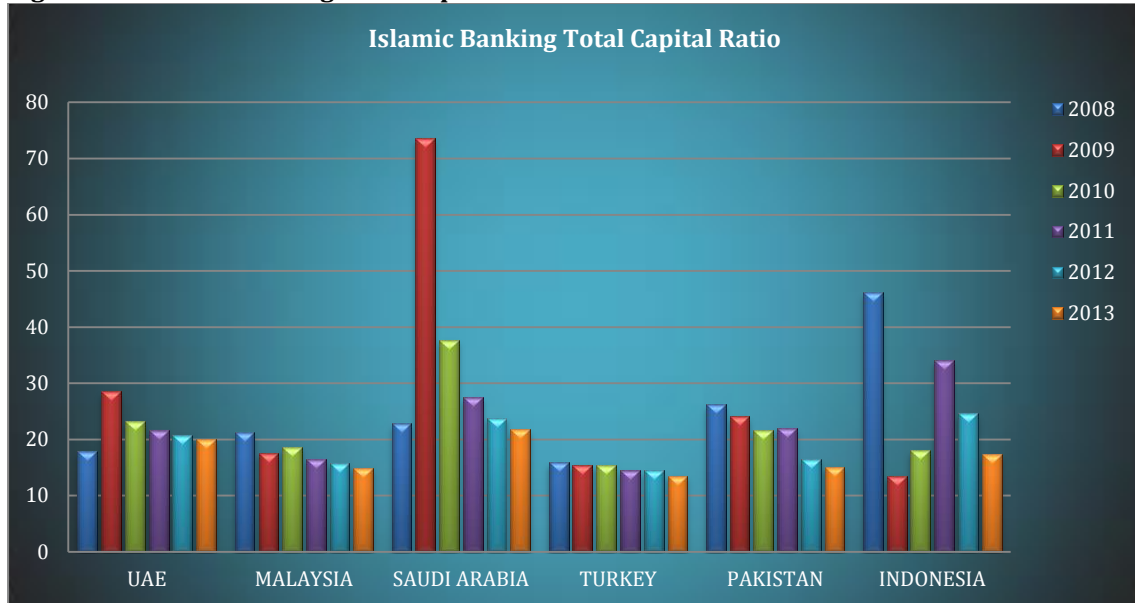
We compare capital adequacy ratios (CAR) for Islamic banks with those of the conventional banking sector. In Malaysia, CAR ratios of Islamic banks are similar to conventional banks; therefore, regulation of Islamic banking does not require any additional measures. In Saudi Arabia, CARs of Islamic banks were relatively lower than the CARs of conventional banks in 2008; however, over the last few years, Islamic and conventional banks have exhibited similar CAR ratios. The general observation of similar CAR ratios for the Islamic conventional banking sector also holds true for the Turkish banking sector.

Figure 43: Islamic Banking Tier-1 Capital Ratio



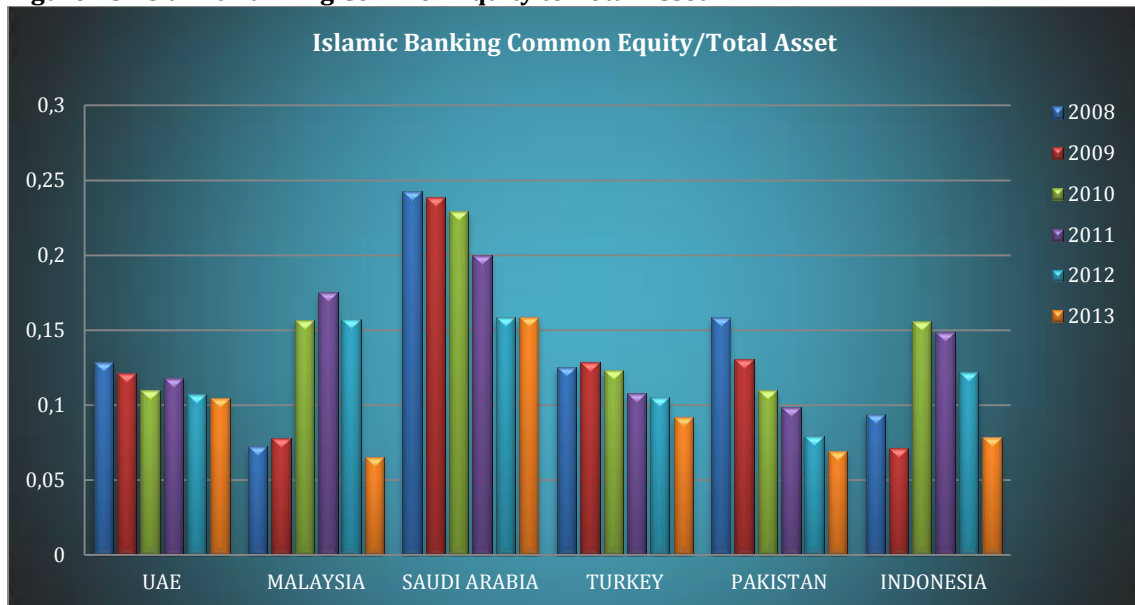
Source: KFHR

Figure 44: Islamic Banking Total Capital Ratio



Source: KFHR

Figure 45: Islamic Banking Common Equity to Total Asset



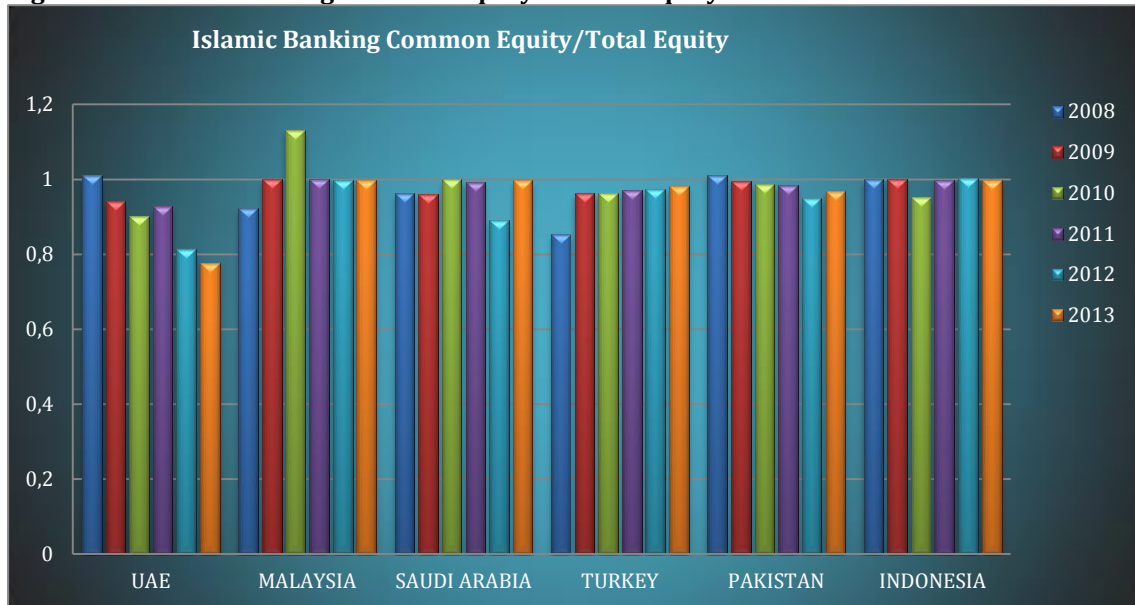
Source: KFHR

- Capital Definition under Islamic Banking and Basel III

The definition of capital under Islamic banking is rather different than it is under conventional banking. In Islamic banking, capital is essentially compounded of common equity (and rarely of Tier 2 products). On this point, Basel III clearly has a positive impact in terms of competitiveness for Islamic banks. Our analysis also supports this assertion, since many of the selected OIC member states have almost all of their capital in the form of common equity, which is presented in Figure 46. Almost all countries hold 100% of their capital in the form of

common equity; however, this is not true for conventional banking, since on average, these banks hold more Tier 2 capital than Islamic banks. Therefore, conventional banks are expected to incur higher costs of capital under Basel III (*ceteris paribus*).

Figure 46: Islamic Banking Common Equity to Total Equity

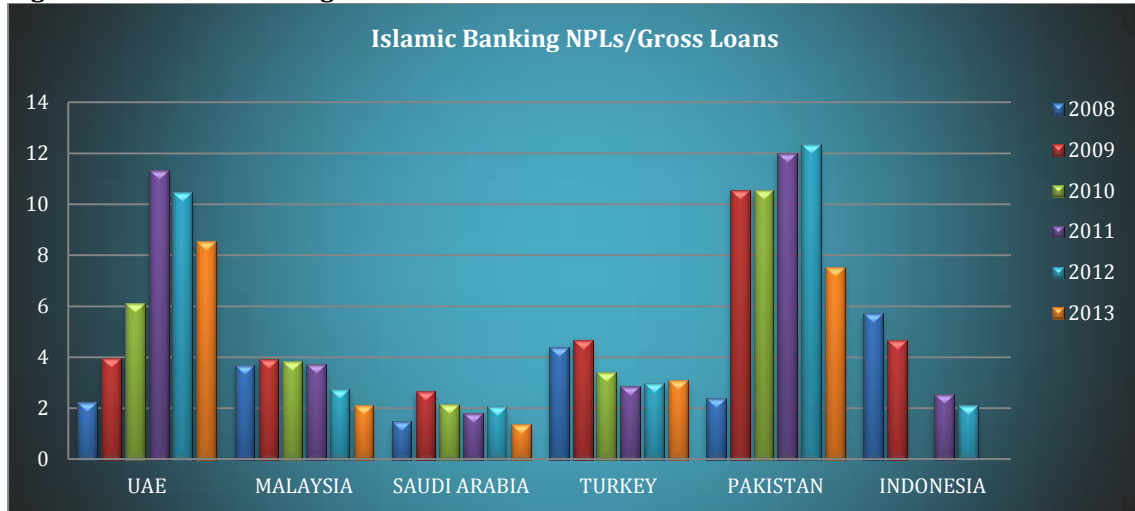


Source: KFHR

5.2 Credit Risk in Islamic Banking

In the selected OIC member countries, credit risk in Islamic banking does not seem to be higher than that of their conventional peers. In fact, if we compare with the previous figures on non-performing loan (NPL) statistics of conventional OIC member countries, Islamic banking performs well in keeping the NPL ratios at a lower level. However, credit-based products have a significant predominance in the Islamic banking portfolio. Since Basel III will introduce some measures to limit the credit risk due to counterparty credit exposures, Islamic banking in general should be prepared for additional regulatory and supervisory requirements. Particularly, counterparty risk will be required to be monitored more closely since Risk Weighted Assets due to counterparty risk is inevitable under Basel III. As a conclusion, credit risk in the selected OIC member countries seem to be managed quite well. However, future regulatory and supervisory requirements, particularly due to counterparty risk, needs to be watched out for.

Figure 47: Islamic Banking NPLs to Gross Loans

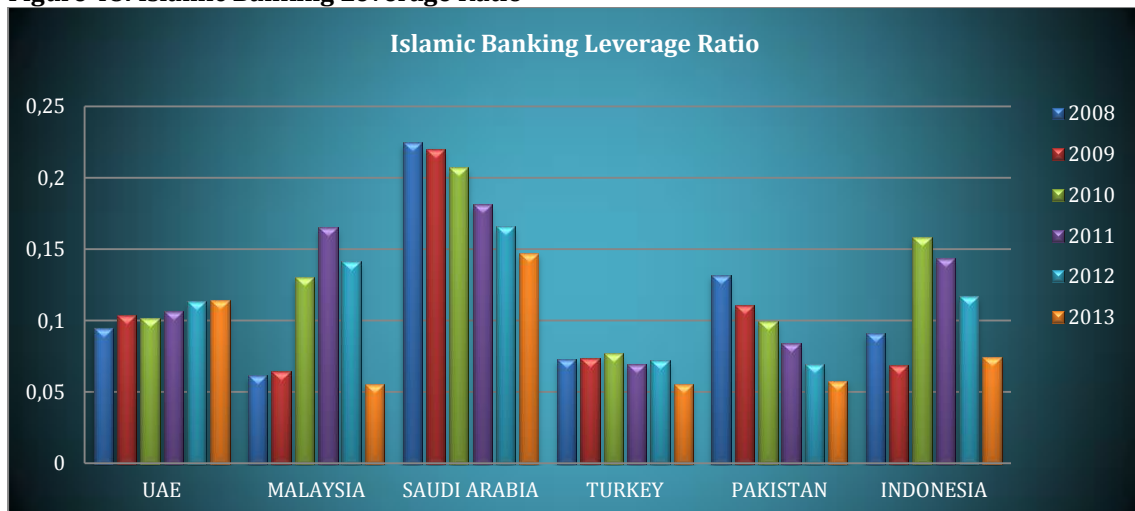


Source: KFHR

5.3 Leverage Ratio Requirement in Islamic Banking

Basel III regulations formalize a simple, transparent, non-risk-based leverage ratio which is calculated as capital / (on+off balance sheet assets). The advantage of this measure is to avoid the complicated calculations stemming from Risk Weighted Assets (RWA). Since the ratio is inversely proportional to on-balance-sheet and off-balance-sheet items, high levels of financial leverage will be avoided. The exact formula for the denominator in the leverage ratio is not clearly specified; however, banks are required to maintain a ratio higher than 3%. Leverage ratio will directly affect most investment banks as their reliance on off-balance-sheet transactions are more significant than in conventional banking. Furthermore, banks with higher deposit/loan ratio will have an additional advantage to meet the requirements. Islamic banking in this context is more akin to conventional banking as derivative exposure is kept to a minimum.

Figure 48: Islamic Banking Leverage Ratio



Source: KFHR

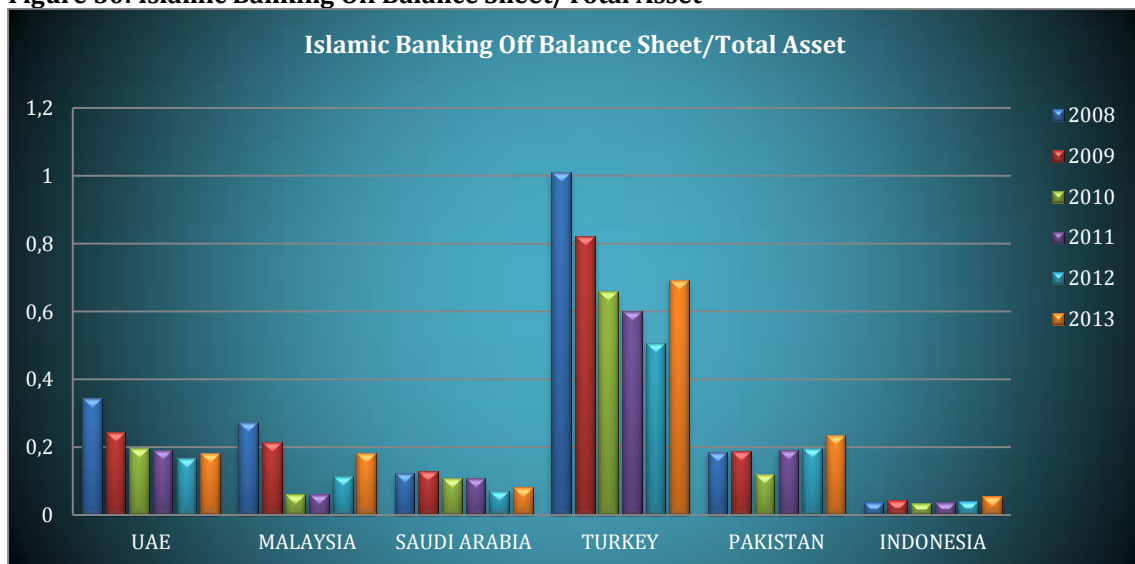
In Figure 49, we present the current leverage ratios of the selected OIC member countries. We observe that almost all countries have a leverage ratio higher than 5%, which is clearly higher than the 3% minimum and indicates that Islamic banking in the selected OIC countries will not have significant difficulty in adopting the leverage ratio requirement of Basel III. Additionally, Figure 50 shows the loan-to-deposit ratio for the selected OIC member countries, where almost all of the Islamic banks have a high loan to deposit ratio. This can be seen as a positive aspect for this group of banks since they can obtain the most reliable liability source, which is generally not the case for conventional or investment banks.

Figure 49: Islamic Banking Loan to Deposit



Source: KFHR

Figure 50: Islamic Banking Off Balance Sheet/Total Asset



Source: KFHR

5.4 Profitability in Islamic Banking

Table 36: ROA, Islamic Banking

	2007	2008	2009	2010	2011	2012	2013
Turkey	2,78	3,05	2,25	1,91	1,57	1,40	1,27
Indonesia	3,83	2,26	0,68	0,83	1,23	1,38	0,96
Malaysia	0,23	0,51	0,62	0,64	0,06	0,78	0,95
Pakistan	0,96	0,95	0,19	0,72	1,57	1,40	3,57
S.Arabia	3,07	3,20	1,63	1,45	2,12	2,71	2,22
UAE	3,44	1,42	-0,57	0,02	0,59	0,91	1,10

Source: KFHR

Banking profitability is one of the most important indicators for banking soundness. Comparing the profitability of the Islamic banks with conventional banks in OIC member countries, we observe a similar pattern. Even though conventional banks on average have a relatively higher return on assets, return on assets (ROA) of Islamic banking is also satisfactory.

Table 37: ROE, Islamic Banking

	2007	2008	2009	2010	2011	2012	2013
Turkey	22	23	17	15	14	14	14
Indonesia	16	18	9	11	9	12	14
Malaysia	13	7	9	10	6	11	13
Pakistan	5	3	-1	1	8	8	7
S.Arabia	16	11	6	9	12	17	14
UAE	18	10	-4	0	4	6	8

Source: KFHR

Return on equity figures in Islamic banking for the selected OIC member countries appear to be, generally, double-digit numbers. These figures are comparable with conventional banking in the same countries and better than many of the European and US banks. Therefore, one can conclude that Islamic banking in OIC countries currently produces a sustainable profit. This observation confirms the findings of Thornbeck et al (2013).

5.5 Liquidity Risk in Islamic Banking

Basel III liquidity risk requirements may negatively affect Islamic banks, since Islamic money market instruments are traded in relatively illiquid markets. Therefore, Islamic banks may find it difficult to attain the Liquidity Coverage Ratio, which requires a large portion of assets to be held in the form of short-term maturity. Liquidity levels of the banks in the selected OIC member countries are provided in Table 38, which shows that liquidity ratios of almost all countries seem to be better than conventional banks. Despite current statistics, Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) of the new Basel III may be a problem for Islamic banking.

Table 38: Islamic Banking Average Liquidity Ratio

	2005	2006	2007	2008	2009	2010	2011	2012
Turkey	82	90	91	84	86	79	86	85
Malaysia	60	91	90	60	55	56	58	57
Saudi Arabia	58	91	100	90	93	89	77	75
UAE	74	72	65	63	61	67	66	69
Pakistan	95	120	103	90	93	148	123	95

Source: IFSB

- **Coordination and Cooperation in Islamic Banking**

Even though the current liquidity level of the selected member countries is satisfactory, in the future, relatively more liquid Islamic money market instruments will be needed. In this context, one welcome development was the establishment of the Islamic Financial Services Board (IFSB) in 2003. Since its establishment, the IFSB has issued 22 standards and guiding principles. The last principle is related to Shariah-compliant money market instruments with primary objective to issue Shariah-compliant financial instruments in order to facilitate more efficient and effective liquidity management solutions for Islamic financial institutions, as well as to facilitate greater investment flows of Sharia-compliant instruments across borders.

To conclude, by referring to the Islamic Financial Services Industry Stability Report (2014), the liquidity side, the challenge is to give Sukūk the features of high-quality liquid assets (HQLA) to meet Basel III requirements regarding the Liquidity Coverage Ratio (LCR). This necessitates a deep and liquid secondary market and fixed-income paper with no price risk. On the capitalization side, the challenge is to give Sukūk the features of loss-absorbing capital to meet the Basel III requirements for additional Tier 1 and Tier 2 capital.

The Dubai Financial Services Authority (DFSA), for example, while appreciating the prompt work on the part of the IFSB in issuing the revised capital adequacy standard for IIFS (IFSB-15), believes that Islamic banks are not likely to find it overly challenging to comply with the enhanced capital requirements coming out of Basel III, though they might find meeting the enhanced liquidity requirements relatively more challenging.

- **Regulatory Challenges**

➤ **Legal and Regulatory Challenges in Islamic Finance**

There are certain specific and unique challenges facing the Islamic finance industry. These challenges include Shariah compliance and governance, and form versus substance in Islamic financial transactions.

The IFSB (2014) report on the results of a Quantitative Impact Study (QIS) states, "Overall, the QIS findings also highlighted a number of major problems for the IIFS, such as: insufficient Shari`ah-compliant High Quality Liquid Assets (HSLA) in the Islamic finance jurisdictions, and lack of a deep and active secondary market for Shari`ah-compliant HQLA for IIFS to manage their liquidity.

Table 39: Islamic Banking Asset Classification

Classification of Assets	Overall (%)	Classification of Assets	Overall (%)
Level 1 Assets	96.83	Cash Outflow	
Coins and banknotes	9.01	Total retail deposits run-off	46.42
Total central bank reserves	30.73	Total unsecured wholesale funding run-off	38.78
Securities with a 0% risk weight	21.45	Total secured wholesale funding run-off	0.00
For non-0% risk-weighted sovereigns	35.64	Total Additional Requirements and Other Contingent Funding Obligations	14.79
Level 2A Assets	2.97	Cash Inflow	
Guaranteed by sovereigns	0.39	Total inflows on reverse repo and securities borrowing transactions	0.00
Non-financial corporate bonds, rated AA- or better	2.58	Total of other inflows by counterparty	80.84
Covered bonds, not self-issued, rated AA- or better	0.00	Total of other cash inflows	19.16
Level 2B Assets	0.19		
Total stock of Level 2B RMBS assets	0.06		
Total stock of Level 2B non-RMBS assets	0.13		

Source: IFSB, 2014

A QIS made on Islamic banking on LCR is presented above. The majority of Islamic banks can comply the LCR requirements, but mainly with cash or central bank reserves. This is satisfactory, but might lead these banks to lose their liquidity flexibility.

5.6 Market Risk and Derivative Use in Islamic Banking

Market risk measurement and management has always been at the core of banking regulation and supervision. Historically, market risk sourcing from trading book businesses is less important in Islamic banks than they are in conventional banks. This is because a non-negligible part of the derivatives instruments used are not Shariah-compliant and short selling is not allowed. As a consequence, Islamic banks will not see their market risk affected by the changes in Basel III regulation. This is also true for the use of derivative and structured products. As we discussed before, only 4% of the global derivative use can be related to Asia-Pacific countries. These new changes will have a much more severe effects on the European and the US banking sectors.

However, as Harzi (2012) points out, the products in the quasi trading books (as Salam and istisna contracts) may be affected mainly due to the fact that it is commodity structured products with a price that depend on the volatility of the markets. He further claims that the volatility will have a major impact on the stress-test scenarios and will increase the capital requirements due to the price fluctuations of the assets. In addition, Islamic banking would not experience a negative effect of Basel III on the extra charges stemming from the counter party risk or stress VaR, since Islamic banks do not hold CDO, CDS, repos or interest rates swaps in their portfolios. However, a major quantitative impact study will be needed to see the gap between the current state and the future needs of Basel III.

5.7 Capital Conservation Buffer and Countercyclical Buffer in Islamic Banks

There are also two additional buffers set up by the Basel committee: a countercyclical buffer and a capital conservation buffer in order to prevent a financial collapse.

- Capital Conservation Buffer

An important part of the capital conservation buffer should be composed of common equity (Tier 1) assets. If the banks have not enough capital for this buffer, Basel 3 restricts the distribution of dividends, share buybacks or bonus payments until the ratio of 7% is respected (4.5% + 2.5%). Constraints on a bank's discretionary distributions will be imposed when banks fall into the buffer range.

- Countercyclical buffer

When banking authorities judge that credit growth is resulting in an unacceptable buildup of systematic risk, an additional capital buffer will be required.

In these two requirements, Islamic banks neither have a competitive advantage nor disadvantage against conventional banks. Therefore, the impact of capital conservation and countercyclical buffer is neutral on Islamic banking.

5.8 What are the Core Principles Effective in Banking Supervision in Islamic Banking?

As we discussed before, there are 29 core principles for effective banking supervision for conventional banking. The adaptation of the revisions of Pillar 3 on market discipline with respect to disclosure requirements (for securitization exposures, sponsorship of off-balance sheet vehicles, and the components of regulatory capital) should not be a significant problem in Islamic finance. However, a more fundamental systemic issue related to market behavior became apparent during recent months when emerging markets experienced substantial capital outflows and exchange-rate pressures – namely, a vulnerability of Islamic finance that emanates from volatile Sukuk markets with the potential to “infect” Islamic banks and thus spread throughout the whole IFSI.

A particular stability concern results from the quantitative asymmetry between the global conventional industry and the Islamic finance industry: movements that are minor on the global conventional finance scale can have major destabilizing effects for the much smaller Islamic finance industry. Recent market turbulence that resulted in capital outflows and pressures on the exchange rates of some IFSB member countries are powerful reminders of the importance of macro-prudential oversight for the timely identification and assessment of systemic risks and for appropriate policy measures whenever necessary. The quantitative asymmetry suggests that macro-prudential supervision is of greater importance for the Islamic segment of the financial system.

Along with the most important micro-prudential regulations issued for the banking sector, the market turbulence of 2013 suggests the need to intensify or initiate more work on cross-sector regulations and macro-surveillance. With the BCBS as the main strategic partner of the IFSB for micro-prudential issues, the cooperation between the IFSB and the IMF could help to link the latter's macro-prudential initiatives with the work of the IFSB, hence contributing to the IFSI's greater stability and resilience.

5.9 Is there a need for a separate Islamic Banking Regulator?

In fact, IFSB plays an important role in coordinating regulation and supervision in Islamic economies. Given the number of regulatory institutions both in the EU and the US, a separate body is also necessary for Islamic banking. Since the growth prospect in Islamic banking is very high, better coordination and supervision among the OIC member states is crucial. International bodies such as the Financial Stability Board and European Banking Association are recent and good examples of financial service authorities. IFSB and other supportive institutions will be beneficial for Islamic banking.

6. Policy Recommendations

We have investigated various macro and micro measures regarding the economy and banking in various OIC countries. We have concluded that many of the selected OIC countries own sufficient capital and conducted relatively healthy banking practice during the credit crisis in 2008. We have reached the following conclusions:

6.1 General Findings on OIC Banking

- Capital Requirements

Under new regulations, the quality of capital will be better than what is required under Basel II. Banks need to put better quality of capital to comply with Basel III. Thus, supervisors should ask banks how to comply with these new changes. Basically, the minimum capital adequacy ratio will become 10.5% in 2019, which is 2.5% higher than the previous levels.

There are negative and positive aspects of these new capital requirements for the OIC countries' supervisors. In general, similar to many countries in the world, OIC countries need to inject more capital to comply with Basel III. Supervisory authorities should make a coordinated effort to find out what is the total capital requirement for the sector and for each bank. Our analysis shows us that, on average, an apparent deficiency in capital is not observed for the selected OIC countries. However, there are various subtle points under Basel III capital requirements. Accordingly, OIC supervisors may prepare a quantitative impact studies (QIS) for capital requirements.

One positive aspect of the OIC countries' capital is that, on average, the quality of bank capital in these countries is better than that of Europe and the US. Tier 1 capital in OIC member states is around 100%. This implies that, even though new capital injection may be necessary for some countries, at least the form of the capital in these countries will be satisfactory. However, OIC banking supervisors should pay more attention on the form of the future capital injections. Under Basel III, common equity will be the major form of new capital. Capital adequacy planning for adopting Basel III, especially when FED begins hiking the dollar interest rates, will be a new challenge for the Banking supervisors in many OIC countries.

- Liquidity

Liquidity provisioning is also in the agenda of Basel III. Basel III calculations are difficult and complicated, but supervisors can conduct a gap analysis to see whether the OIC banking sector needs additional liquidity. By the macro data, we can see that some countries may need to change their liquidity planning since average liquidity levels might be somewhat lacking in their compliance with Basel III requirements. It is better to give a road map for international investors and rating agencies as to how ready OIC countries are for Basel III requirements.

- Financial Stability, Macro prudential Regulations

In modern banking supervision, supervisors must be proactive and look for potential macro risks. If they see any macro risk evolving, they should act to mitigate that risk before it is too late. A general name for these activities is macro-prudential regulations. This concept is new and different. OIC countries also face various macroeconomic challenges which may turn into banking problems in the future.

There are two challenges for OIC countries. First, countries need to decide how to coordinate the actions of central banks and banking supervisors. Countries need to decide how to avoid conflict of interest if it arises. The UK has a different model than that of the US. Europe

established the European Banking Association in 2014. OIC countries need to decide on a model for coordinating the banking and macro risks.

The other challenge of the recent regulation practice is to adopt a different human resource policy. Modern banking supervision has become not only very demanding but also more complex and technical. Banking supervisors need to have a better understanding of macro and financial risks simultaneously. This even requires changing the human resource policies of banking supervisors. A better understanding of financial markets, systemic risk, and financial stability require a different background for the new generation of supervisors.

Establishing a Financial Stability Board for Islamic countries can be beneficial for members. Since the size of the economies and the banking sectors in Islamic countries differ widely, more experienced countries can take leading roles in monitoring and managing systemic risks.

- **Banking Regulation:**

- Credit risk is the biggest risk faced by the selected OIC member countries we studied. This was a general tendency for the other OIC countries too. OIC countries in general reserved a significant amount of their capital against potential credit risk. In other words, in these countries credit risk attains the highest weights in terms of required capital adequacy. However, most of the OIC member states use standard credit risk weights, which are not very risk-sensitive measures. The major deficiency of standard risk weights is that these weights may understate the actual credit risks during economic turbulence. One suggestion is to develop a systematic credit rating methodology particularly designed for the OIC countries. Credit rating methodologies developed and implemented in Europe and in the US may not be suitable for OIC countries because of the informality and other peculiar aspects of these countries. Balance sheet and other firm characteristics in these countries should be treated differently. Hence, creating a local bad debt database would be a good starting point. Once the collection of the past bad debt data is complete, international or local rating companies can process the data to assess companies in the OIC countries. This is also in line with COMCEC's strategy document published in 2012. In this strategy document, it is stated that "COMCEC will help to improve the quality of regulation supervision and cooperation among regulatory and supervisory bodies" After the recent changing regulatory environment, COMCEC's vision and mission will become more critical.
- Coordination among OIC countries will be very beneficial. US or European rating companies studying Islamic products might be credible but have data deficiency. One example is the Turkish banking authority, which is initializing a national rating company by using a large company's default database. A coordination in local rating methodology in OIC countries could be an important step to better supervise credit risk in OIC countries.
- The need for credit rating methodology for Islamic banking products is another important issue for OIC member states. Rating for Islamic financial products requires a separate credit risk assessment institution. There are various companies in OIC member states that undertake rating. For instance, Islamic International Rating Agency B.S.C. (IIRA), which started its operations in 2005, is one of those companies. The importance of rating for Islamic financial products is discussed by IFSB(2014) as follows: "The Sukuk market needs appropriate rating agencies to be available in various jurisdictions to

ensure that Sukuk instruments are rated appropriately depending upon their unique Shari`ah compliant structures. Malaysia has two rating agencies that rate locally issued papers. The importance of rating agencies has been highlighted following the default of Sukuk instruments in the past few years. The defaults were largely an outcome of poor credit quality of the issuer as opposed to fundamental problems in the Sukuk design and structure."

- The most crucial ingredient of a successful rating system is good and relevant large historical bad loan or customer data. For this purpose, a joint effort to collect and share historical data for the OIC member states would be very beneficial. Also, supervisors may incentivize banks to use Internal Risk models. Supervisors can help the banking sector to calculate loss given default (LGD) calculations for the banking sector. These calculations are useful for calculating expected loss (EL) and unexpected loss and important input for loss provisions. As stated by COMCEC (2012), credit information and credit registry system, risk measurement and management systems should be strengthened.
- Market risk seemed to be less of a concern compared to credit risk. However, standard Basel II-based risk weights may not be sufficient to assess the true risks in OIC countries. Therefore, Value at Risk (VaR) or Expected Shortfall (ES)-based risk measures should accompany the standard risk measures used for measuring market risk. In addition, Basel III has an additional market risk requirement, which is the calculation of Stress VaR. Choosing a relevant sample period for Stress VaR may require a coordinating effort from the OIC member states. In addition, financial and accounting treatment of trading portfolios, available for sale (AFS) portfolio, and derivative assets during market turbulences is also very critical. Under liquidity shortages, valuations and risk measurement becomes very difficult. Regulators should have contingency plans to treat the different segments of securities portfolios.
- Improving operational risk issues would be useful for supervision in OIC countries. Setting an operational loss database is critical to accurately assess the potential operational risk issues in OIC countries. Banks that want to adopt Advanced Measurement Approaches (AMA) in their capital adequacy calculations will be faced with a shortage of sector-wide historical loss data. In this context, historical data on operational risk is one of the most important inputs to measure and manage operational risk. Therefore, supervisors may help to set up a central operational loss data center. Historical databases on operational risk can be particularly important for Islamic banking. Since the operations of Islamic banking are somewhat different than those of conventional banking, different operational risks might arise for these activities. As a result, collection of data for the past operational risk episodes will be useful for OIC countries. Therefore, banks in OIC countries might need to collect past operational risk data from their local banks. Coordination and guidance in this context is extremely critical and helpful. Institution such as IFSB can play a role for coordinating the local authorities in the OIC member states.
- Recent banking regulations and particularly Basel III put more weight on macro-prudential regulation and supervision. ECB and FED produce financial stability reports for their banking sectors. The recent trend in banking is to set up a strong coordination between monetary policy and banking supervision. IFSB will play the intermediation role between international financial stability institutes and member states. This way,

member states would better understand and assess the systemic risk that OIC countries may encounter. Since, there are some common risk factors, such as increase in global interest rates which may negatively affect the risks of all OIC banking system, a common scenario analysis applicable for all of the OIC member states might be useful. IFSB or SESRIC can study these types of market risk scenarios which can be applicable for other countries. In addition, many economies in the OIC member states depend on the sale of crude oil. If the recent decrease in oil prices becomes more sustainable, many of the OIC member states can be adversely affected. The impact of such scenarios should also be studied. As a conclusion, regulators need to use these global and local market risk scenarios to enhance risk-management practice in the banking sector. Controlling loan growth and monitoring the potentials to avoid asset bubbles are important challenges for local supervisors; a coordinating effort could be useful.

- Supervisors in OIC countries should also study how to choose banks to be qualified as Domestic Systemically Important Banks (DSIBs). According to global regulators, there are various criteria for a bank to be qualified as DSIB. Even though none of the banks in the OIC member countries was qualified as a Global Systemically Important Bank (GSIB), domestically important banks in OIC member states should be chosen by the regulators in the OIC member states. OIC supervisors should develop and announce the selection criteria for choosing DSIB banks in the OIC member states. Various regulators in emerging markets (e.g. Bank of India) have declared their rules for choosing their DSIBs. OIC member states should lay out a framework for selecting DSIBs in each member state. Therefore, regulators of each member state in the OIC countries need to develop a criteria set for choosing DSIBs.

- **Banking Supervision:**

- The structure of banking supervision in OIC member countries is investigated in detail in Section 5, using the World Bank Regulation and Supervision Survey. Supervision mechanism is compared to EU-27 and US, which are considered as benchmarks since these are the countries mostly affected by the 2008 crisis and passed through a renovation stage in banking supervision. Thus, a comparative analysis of supervision in OIC member countries will be informative.
- By comparing banking supervision along the dimensions proposed by the World Bank, we observe that OIC member countries, on average, have achieved the supervision standards of the benchmark countries with worldwide leading banking and financial sectors. However, we should also note that over the last three years European banks have been improving their supervisory power. Therefore, supervisors in OIC member states should continue their improvement phase over the coming years to keep up with the recent advances in developed countries.
- One of the most important aspects of banking supervision is the stringency of capital regulations. OIC member countries are relatively stronger than the EU-27 and the US in imposing and implementing strict capital requirements for the banking sector; this allowed them to pass the 2008 crisis with relatively minor economic damages. However, most OIC member countries are emerging markets and vulnerable to external economic conditions. Well-functioning supervision practices in member countries should continue with a broader perspective to include possible volatilities in global financial markets.

Therefore, requirements of international standards of banking supervision should be combined with country-specific measures to achieve a more stable banking system. Most OIC countries have started to construct these macro-prudential standards for banking supervision. Malaysia and Turkey provide good examples, having adopted international standards together with measures specific to the structures of their banking systems. We should note that each country has a banking system with unique characteristics; therefore, supervision must be designed to achieve global standards accompanied with country-specific regulatory measures.

- According to the World Bank survey we studied, deposit insurance mechanisms seems to be the weakest point of the OIC banking system compared to the US and European banking systems. We have observed that an explicit deposit insurance scheme is not available in all OIC countries. Deposit insurance should be seen as a necessity for a sound banking system, as it will improve trust to the system and prevent bank-runs in the times of stress as well as the amplification of shocks. OIC countries with a deposit insurance scheme seem to be able to build a system, which mitigates moral hazard issues.
- Deposit decomposition and deposit insurance: The recent US and European banking crisis has shown the importance of deposit insurance. The US banking sector has taken radical action and increased its deposit insurance a great deal. Clearly, for OIC member states, a coordinating mechanism on deposit insurance seems to be crucial step to be taken. In the US, the FDIC plays the major role in determining and monitoring deposit insurance. In Europe, it is less clear how EBA will eventually set up a European deposit insurance mechanism. In any case, OIC member states should improve the deposit insurance mechanisms applied in their banking systems. Each member state should take necessary actions to enhance depositors' confidence in the member states. In addition, there are several variants of deposit insurance schemes that can improve the banking system. For instance, deposit insurance requirements can be differentiated among various banks depending on the riskiness of banks. Banks with higher risk may need to contribute more to the deposit insurance premium pool of the country. In other words, a "risk-based deposit insurance premium" can be implemented in OIC member states. One example of this deposit insurance scheme was implemented by the Turkish deposit insurance authority (SDIF). Turkish banks pay different deposit insurance premiums on the basis of their banking risks. The higher the bank's risk, the higher the deposit insurance charged for a specific bank. Turkish authorities can share their experience on the deposit insurance mechanism.
- Most OIC countries have established an autonomous supervision mechanism for their banking sectors. In terms of independence from political authority and from the pressures of the actors in the banking sector, OIC countries, on average, are in a relatively good position compared to the EU-27 and the US. Autonomy and independence of the supervisory authority should be maintained for a sound banking system. Experience and tenure of the employees of the supervisory authority are on the same level as the US and the EU-27. OIC countries with relatively low experience in supervision will gain expertise as they continue their efforts to adopt international standards of banking regulation. The establishment of the EBA in 2014 may induce European Banking to be more autonomous.

- OIC countries seem to have relatively stronger restrictions on permissible banking activities. This issue is particularly important because banks engaging in insurance, securities and real estate activities will create hardship in regulatory practices. Supervisory authorities in member states should continue their efforts in this regard and avoid banking sector pressures which stem from profitability considerations.
- Although explicitly analyzed in the previous sections, systemically important financial institutions and their regulation is not covered by the World Bank Regulation and Supervision Survey. Most OIC countries are adopting international measures and taking steps to define systemically important institutions. Regulations regarding macro-stability and systemic risk should be implemented according to the guidelines laid out by Basel III.
- OIC countries, on average, perform well with respect to private monitoring and external governance. Most OIC countries accommodate external auditors to the supervision structure and have kept up with international standards, according to the World Bank Survey.
- Derivative trading is not common in the OIC banking system; however, as their strong financial development continues, we expect a deepening in the product structure of banks, which will certainly complicate regulatory practices. Supervisory authorities should be prepared for newly engineered products and timely intervention to regulate them.
- Most OIC countries possess an Islamic banking sector as well as the conventional banking sector, and Islamic banking is growing at an increasing rate. Currently, Islamic banking is regulated under the law designed for the conventional banking system. In most OIC countries, there is no separate law for Islamic banking. It is apparent that the mechanisms of conventional and Islamic banking are different, and significant growth in Islamic banking calls for a different supervisory mechanism. OIC countries should take the necessary steps to make supervision practices comply with the development in Islamic banking.

6.2 Changing Role of Supervision in OIC Countries after Basel III?

New regulatory frameworks will give rise to a more critical and demanding bank supervision. Below, we summarize the changing roles of supervision in OIC Countries.

(1) Financial Disclosure and Banking Supervision

Accounting for off-balance-sheet items will become extremely critical with Basel III, for many reasons. First of all, the new leverage ratio will be calculated on the basis of on-balance-sheet and off-balance-sheet items. The use of accounting and correct disclosure of off-balance-sheet items will be much more important than before. Therefore, more supervisory effort should be paid to the financial disclosures of banks. For better banking supervision, better knowledge of derivative pricing and derivative accounting will be necessary.

(2) Bank Loan and Loss Provisioning

Especially after Basel III, the relationship between non-performing loans and loan loss provisioning will become more important. So bank regulators need to better supervise banks to see the actual and potential credit losses reported properly.

(3) Dividend Decisions of Banks

Since capital conservatory buffers will be key in the new regulations, keeping capital in the bank via retained earnings will be important. Therefore, supervisors will monitor banks' profitability and dividend distribution policies. So, depending on the state of the economy and the bank's profitability, supervisors should coordinate the dividend policies.

(4) Disclosing the risk management procedures with the public

For the new regulatory environment, risk management rules of banks should be better understood and supervised. Banks should better define and classify their risks. The risk limits should be determined by bank management. More importantly, bank management should define the action plan to take if risk limits are exceeded. Supervisors should be involved with all these procedures and try to share these rules with the public.

(5) Supervising the quality of capital

With Basel III, the quality of capital will be another critical parameter. Banking supervisors should monitor whether subordinated debt or similar source of funds is allowable as part of capital. This is extremely critical since Tier 1 Capital will be the main source of bank capital in the new regulatory framework.

(6) Supervising non-risk-based measures: Leverage ratio

As mentioned before, the efficiency of risk-based capital measures has been criticized during the recent credit crisis. Therefore, regulators developed a simple non-risk-based measure called the leverage ratio. For OIC member states, monitoring the leverage ratio in the banking sector will be the new norm in banking. The volume of off-balance-sheet assets and the use of derivative products are relatively limited in OIC member states. As a consequence, the new requirement of the leverage ratio can be satisfied by OIC countries. However, to value some of the off-balance-sheet items might require some challenges. Particularly, the accounting practice of derivative products and marking-to-market of various financial assets can be complicated for some members. A further collaboration within members would be extremely helpful for all angles.

(7) Systemically important banks

New supervisory activity after Basel III will require an additional task, which is to choose the Domestic Systemically Important Banks (DSIBS). This will be a newer task for the banking supervisors of OIC member states.

As a conclusion, banking supervision after Basel III will be quite different. We have discussed the SWOT analysis of the banking supervision practice in OIC countries. However, Basel III and other new global banking regulations will further change the supervisory mechanism after 2015. Supervisory mechanisms should follow these new changes and adopt these changes for the OIC member countries.

(8). Conclusion

Banks in OIC countries did not feel the big repercussions of the recent financial crisis. This may be related to various factors, including the relatively smaller size of the banking sector in these countries relative to US and Europe. However, the banking sectors of these countries are growing rapidly, and the global environment is becoming more challenging. Therefore, countries in this region need to be ready for a different banking practice. Basel III requirements will change banking practices both quantitatively and qualitatively. Loan portfolios of almost all OIC countries have grown since the global credit crisis. This requires an additional supervisory effort on credit risk measurement and management. Local credit rating and loss given default calculations will become important for OIC countries. Since the properties of each of these countries differ from Europe and the US, a different credit rating data and methodology might be necessary. One suggestion would be to establish national rating companies similar to the Turkish experience. In addition, until 2018 more capital and liquidity is required in global banking. Until this period, capital adequacy ratios and liquidity provisions will be calculated differently. These changes require a collaborated effort among member states. Since these changes require different experience and expertise, a know-how transfer among member states will be extremely beneficial for the whole OIC community. To deal with financial stability issues in OIC countries, the establishment of an Islamic Financial Stability Board could be an alternative to discuss. Since banking and financial problems in OIC countries are different, exchanging available know-how within the Islamic countries can enhance banking supervision. In addition, COMCEC's strategy document in 2012, clearly states that member countries need to improve quality of regulation, supervision and cooperation among its supervisory bodies.

Table 40: Summary: What are the weak and strong points of banking supervision in OIC Countries

	Current level	Remarks	What can supervisors do to measure the true risk?
Credit Risk	Relatively high	There is high capital buffer	Standard measures can understate the actual risks Credit Rating methodology is necessary. Informality and lack of good quality data is a challenge.
Market Risk	Relatively less	Accounting treatment of securities is critical. Trading book is very small. So MR can be underestimated.	Risk sensitive measures such as VaR, ES should be accompanied with standard risk measures. Stress VaR needs to be estimated
Operational Risk	Higher than market risk	As banking sectors are growing Op. Risk could grow	Op.Risk Data should be collected for advanced measurement
Interest Rate Risk	Potentially high but data on maturity of assets and liabilities is hard to find.	As balance sheets are growing it should be watched	Asset and liability durations of each banks can be calculated
Liquidity Risk	Relatively better than EU and US banking	Could be important as a supplementary tool for stress testing	Useful to make a QIS on LCR and NFSR



	Current level	Remarks	What can supervisors do to measure the true risk?
Systemic Risk and Macroeconomic Stability	It needs to be watched because of high loan growth	Useful to assess D-SIB's.	A metric is necessary to assess systemic risk
Longer Term Risk and Capital Planning	Needs to be assessed	BASEL III has a static nature. How much capital is needed for the next 3 years?	The Internal Capital Adequacy Assessment Process (ICAAP) is a must for better supervision. Growth, PD and FX scenarios should be prepared for stress testing
Deposit Insurance: Bank run and deposit withdrawal risk	A generally important risk factor	To avoid bank run it is useful	FDIC rates can vary among based. Risk based FDIC rates can be implemented
Macro Prudential Regulations	A common stress testing for OIC member will be useful	There are some attempts	A common stress testing method under common shocks on Islamic financial Products could be useful.

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APPENDIX: Banking Sector In Selected OIC Countries

In this section, we focus on selected member countries and evaluate developments in their banking in various dimensions. Particularly, we look at some performance and risk measures of the banking sector in the OIC member countries. We will

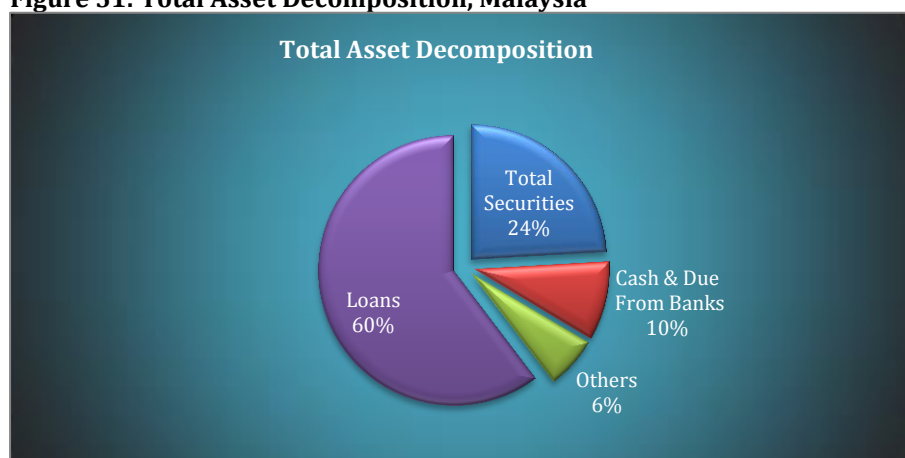
○ Malaysia

Banking Sector

In this section, we evaluate the current stance of the banking sector in Malaysia. For the analysis, we compiled a dataset covering all banks operating in Malaysia using the Bankscope database.

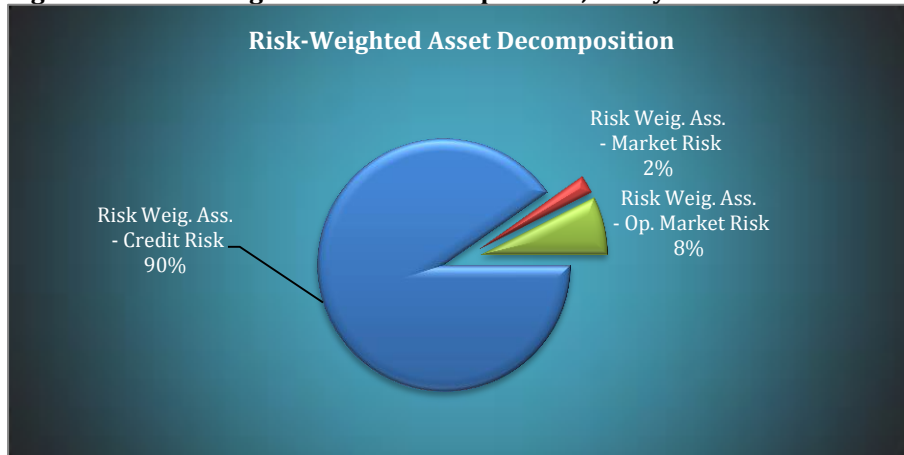
Loan portfolio of Malaysian banking system is larger than the average of the selected OIC member states. This implies the real sector activity and the banking sector is closely interrelated. As a result of this, credit risk of Malaysian banking system is 90% of its total banking risks. Malaysian banking system has a moderate securities portfolio which consists 24% of its total assets. Market risks resulting from its security portfolio is only 2% of its total risks. This is relatively small which indicates that security portfolios in Malaysian bank consists of low risk weighted instruments.

Figure 51: Total Asset Decomposition, Malaysia



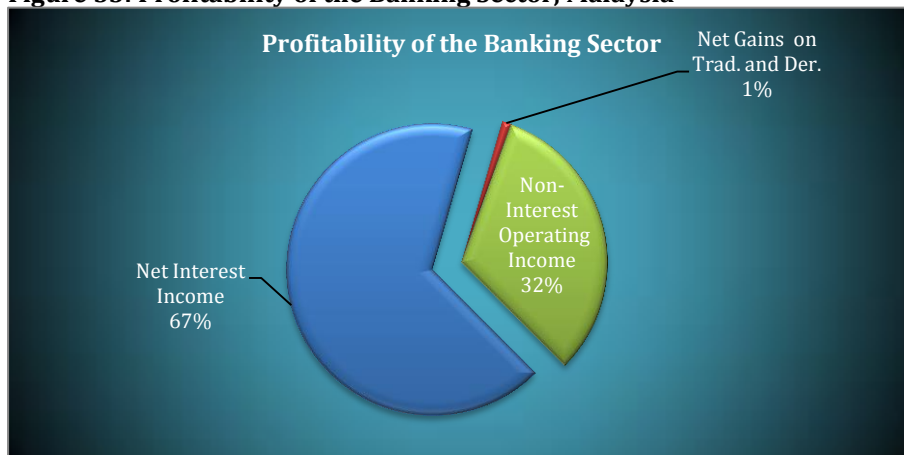
Source: Bankscope

Figure 52: Risk-Weighted Asset Decomposition, Malaysia



Source: *Bankscope*

Figure 53: Profitability of the Banking Sector, Malaysia



Source: *Bankscope*

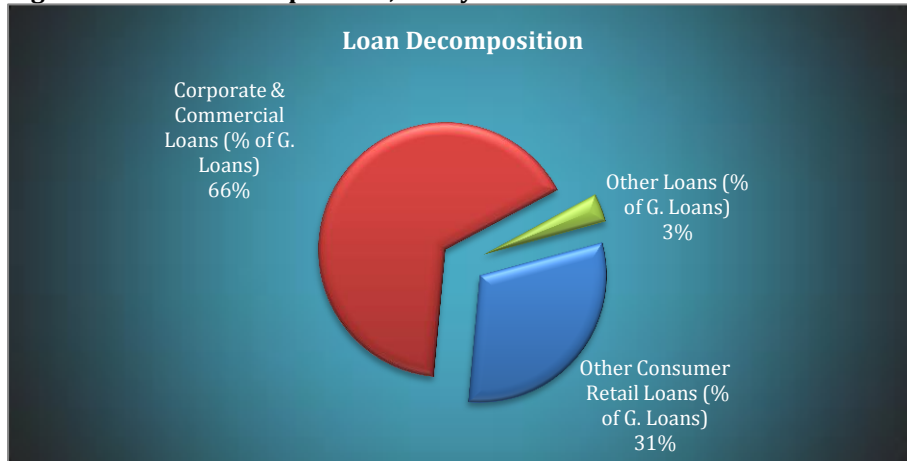
Profitability of the Malaysian banking sector mostly relies on interest bearing assets. On the other hand, one third of banking profit comes from non-interest income based on commissions and other banking services. Net gains on trading and derivatives constitutes a marginal fraction of total profits. Trading activity in the Malaysian banking system is rather small as only 2% of the securities portfolio of the Malaysian banking system is held for trading securities. Relatively small fraction of trading securities further supports minor role of market risk in the banking system.

Figure 54: Securities Decomposition, Malaysia



Source: Bankscope

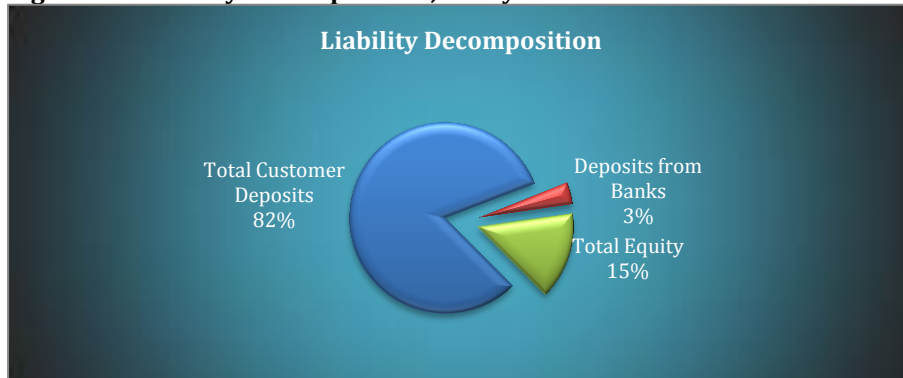
Figure 55: Loan Decomposition, Malaysia



Source: Bankscope

Malaysian banks are more inclined to distribute commercial and corporate loans rather than consumer credits. From the efficiency point of view for the banking sector, banking sector is close to the financial intermediation role as it uses most of the assets to finance real sector and mobilizes resources to productive investments. Only one-third of credits extended by Malaysian banks are in the form of consumer loans.

Figure 56: Liability Decomposition, Malaysia



Source: Bankscope

More than 80% of the liability in the Malaysian banking sector consist of customer deposits.

This is a very healthy statistics since this would imply the core liabilities in Malaysian banking sector is in the form of deposits. This implies that loan/deposit ratio is around 75% as of 2013. In terms of banking risk this number is rather tolerable. Many researchers claim that loan/deposit ratio is one of important financial stability criteria. There is no clear benchmark for this statistics but a ratio more than 120% to 150% may indicate some macro risk in that economy.

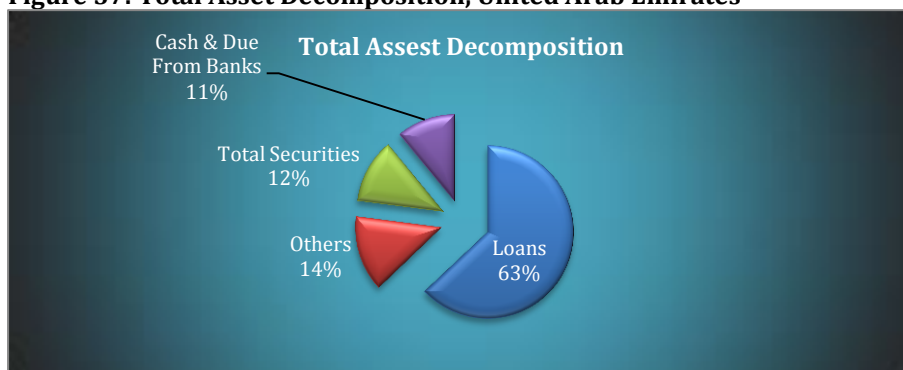
As a conclusion, from the analysis and data above, Malaysian banking sector in general does indicate a banking risk under normal economic conditions. However, a macro shock through FED's interest rate hike and decrease in the global liquidity might have negative impact on the Malaysian economy and banking sector. Therefore, macroprudential regulations might be useful to tackle such episodes.

○ **United Arab Emirates**

In terms of asset decomposition of UAE we see similar picture to Malaysian banking sector. Majority of UAE's assets are in the form of loans (63%).

Banking Sector

Figure 57: Total Asset Decomposition, United Arab Emirates

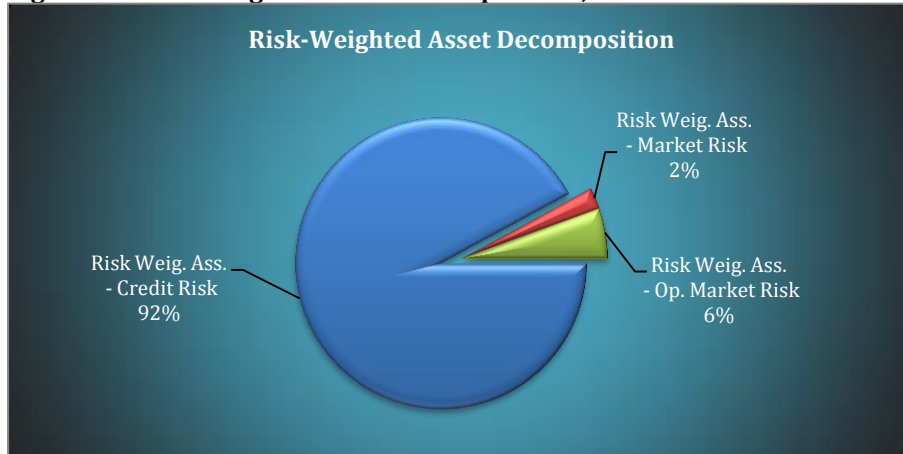


Source: Bankscope

Similar to the most OIC member countries, majority of the banking risk originates from credit risk (92%), while operational risk is slightly lower than OIC average which is mainly due to the

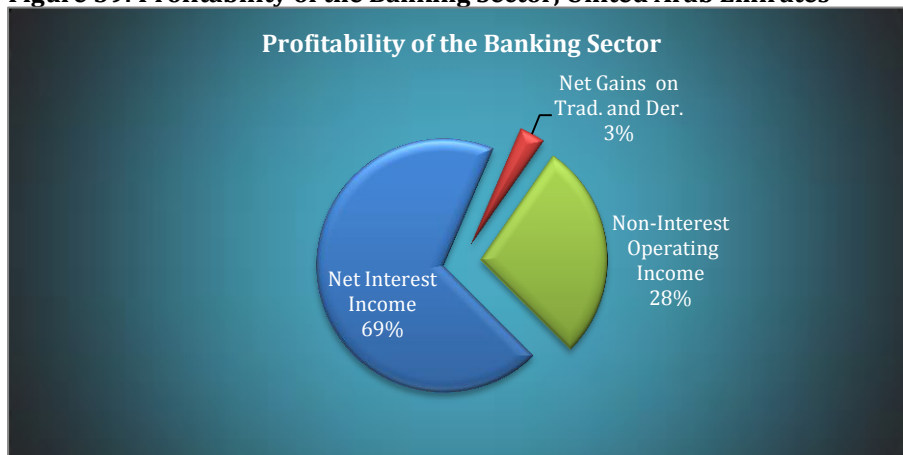
low-profitability episode. Since operational risk is directly related to gross income of banks, a relatively smaller operational risk is an indication of lower profitability in the banking sector.

Figure 58: Risk-Weighted Asset Decomposition, United Arab Emirates



Source: Bankscope

Figure 59: Profitability of the Banking Sector, United Arab Emirates



Source: Bankscope

UAE's banking profit mostly relies on interest income and operating income which is similar to the structure in Malaysia. Trading activity and derivative transactions are limited.

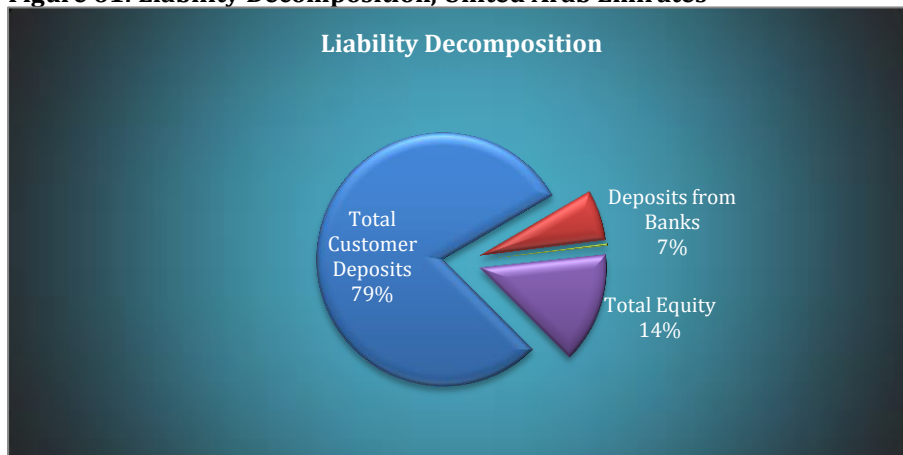
Figure 60: Securities Decomposition, United Arab Emirates



Source: *Bankscope*

UAE's securities are also mainly in the form of “available for sale (AFS)” rather than held to maturity. Trading book of this security portfolio is relatively small which also justifies why marginal level of market risk. Loan to deposit ratio by the Central Bank of the UAE is around 80% in 2013. This ratio is not extremely high compared to many banking sector which have experienced significant banking crisis.

Figure 61: Liability Decomposition, United Arab Emirates

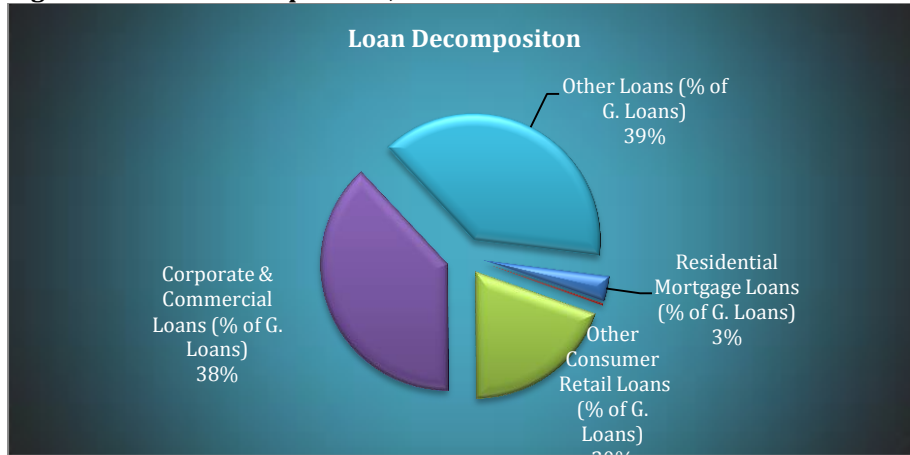


Source: *Bankscope*

UAE loan distribution also exhibits a similar pattern to other selected OIC member states. Bank scope data classifies 39% of its loans as other loans.

As a conclusion, our analysis indicates that there is no major banking risk observed from macro-level banking data. However, as an oil exporting economy, UAE may face some macro risks due to decreasing oil prices. Besides, decreasing global liquidity or increasing in the global interest rates can also create some difficulties for the functioning of the banking system.

Figure 62: Loan Decomposition, United Arab Emirates



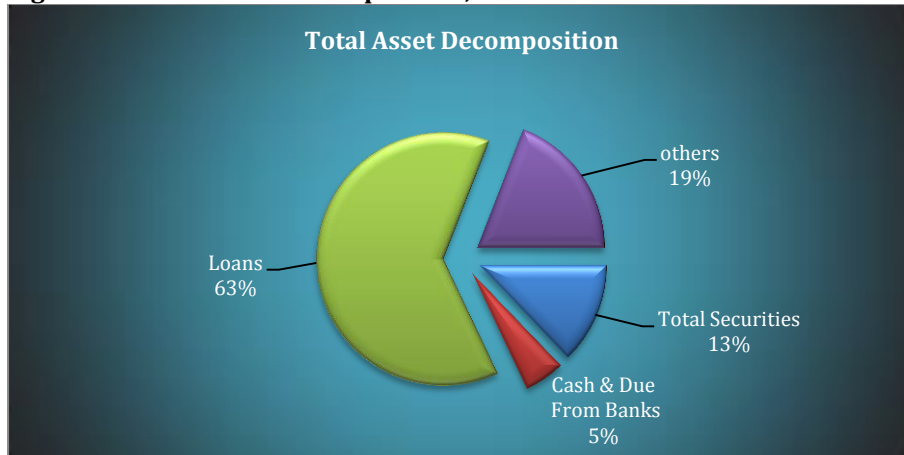
Source: Bankscope

○ **Indonesia**

Indonesian banking sector has some important similarities with the rest of the selected OIC member countries as most of assets are predominantly held in the form of loans with a rather small fraction of securities in total assets.

Banking Sector

Figure 63: Total Asset Decomposition, Indonesia



Source: Bankscope

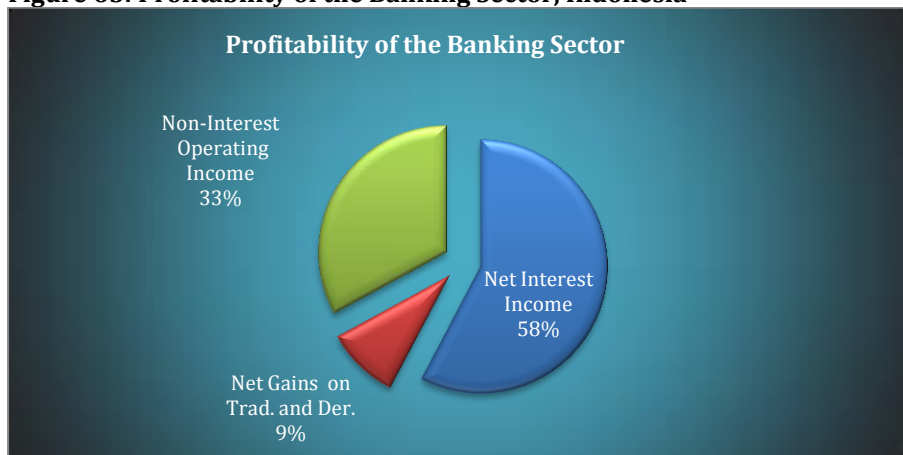
Figure 64: Risk-Weighted Asset Decomposition, Indonesia



Source: *Bankscope*

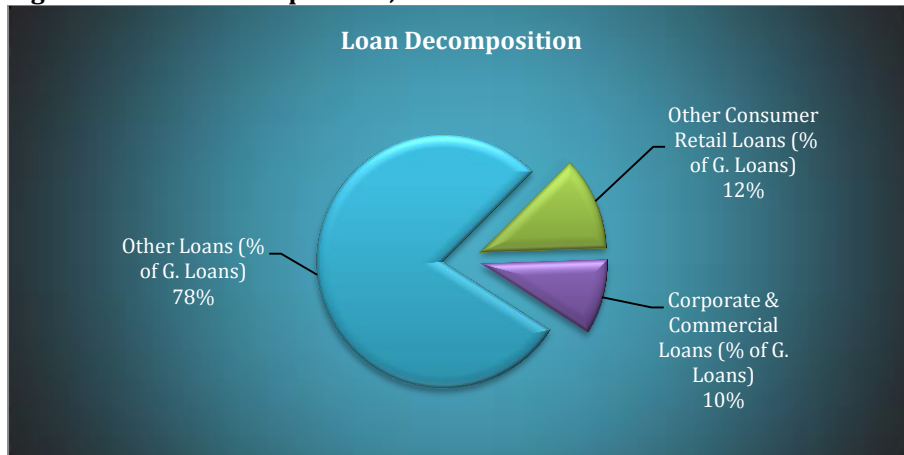
Majority of Indonesian's Risk Weights stems from credit risk due to higher fraction loans in total assets. Operational risk weights are also high indicating a relatively high banking profit over the last couple of years. Slightly different characteristic of Indonesian banking system originates from its trading profit where almost 10% of total profits made by this banking system comes from trading.

Figure 65: Profitability of the Banking Sector, Indonesia



Source: *Bankscope*

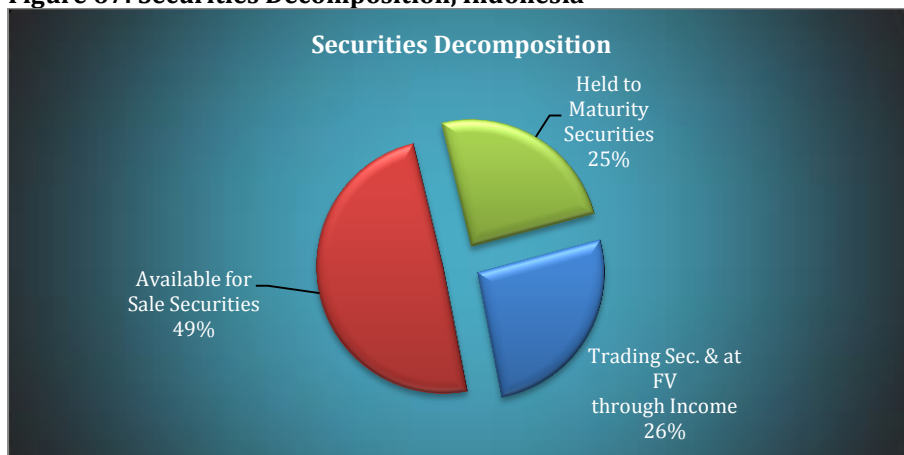
Figure 66: Loan Decomposition, Indonesia



Source: Bankscope

Bank scope database cannot classify an important portion of Indonesian credit portfolio. Banking sector has a relatively small corporate and commercial loans which may be related to the classification of the loan portfolio.

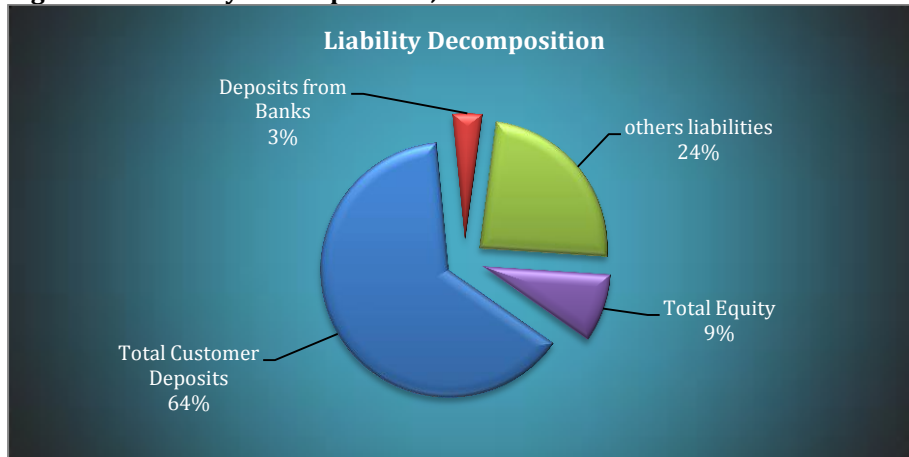
Figure 67: Securities Decomposition, Indonesia



Source: Bankscope

Another different feature of Indonesian banking sector is its security portfolio decomposition as 26% of the security portfolio is held as a trading portfolio. This observation indicates that market risk component of risk weights tend to be more volatile than others. A very small portion of this security portfolio is held at for long term investment purposes which may be related to the accounting regulation in Indonesia.

Figure 68: Liability Decomposition, Indonesia



Source: Bankscope

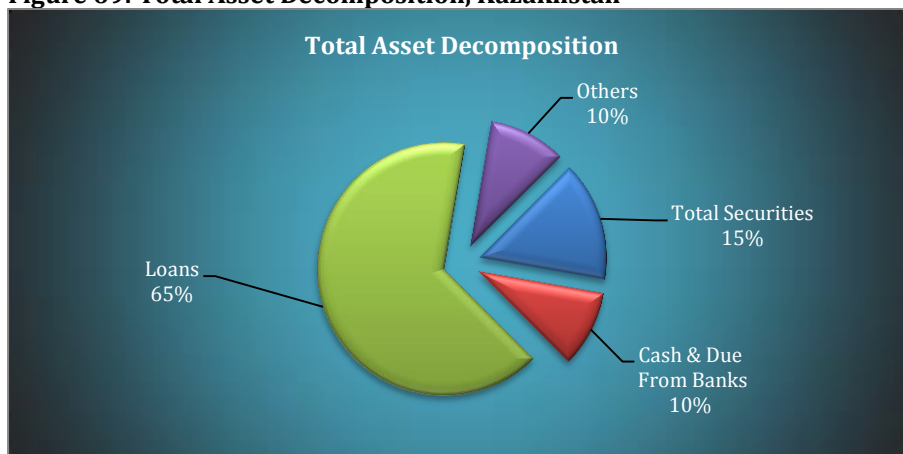
Majority of the liability is in the form of deposits which is seen as a healthy and stable source of financing. This observation is common to most OIC member countries and regarded as a very important advantage for OIC bank as many European banks rely on other sources than deposits since relying on non-core liabilities enhances financial instability a relatively high deposit ratio is a positive aspect of this banking system.

○ **Kazakhstan**

Kazakhstan's banking sector total asset decomposition is also similar to other OIC countries as the largest fraction of assets composed of loans therefore majority of the risk capital is allocated for credit risk. More than 90% of the capital is allocated against credit losses which is slightly higher than OIC average. Importance of credit risk comply with the common observation for the selected OIC member countries.

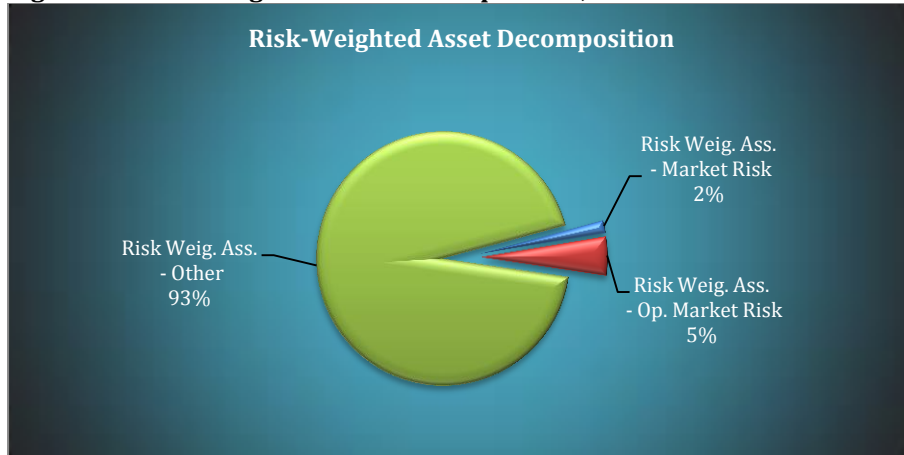
Banking Sector

Figure 69: Total Asset Decomposition, Kazakhstan



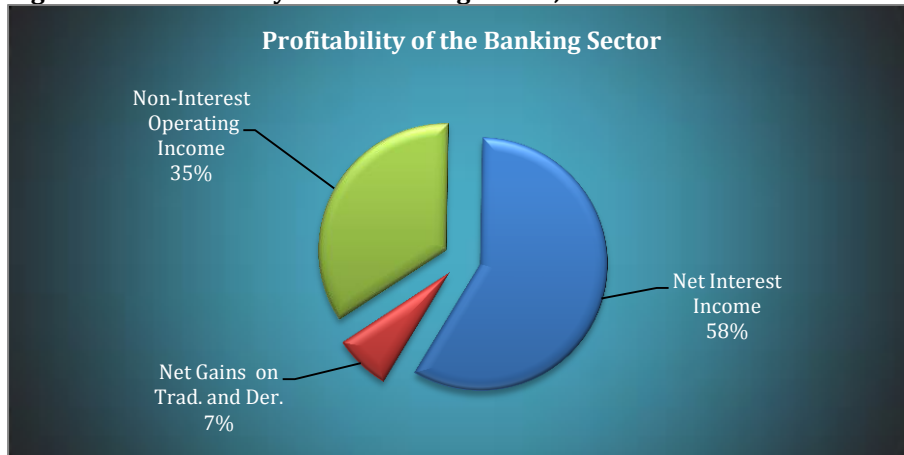
Source: Bankscope

Figure 70: Risk-Weighted Asset Decomposition, Kazakhstan



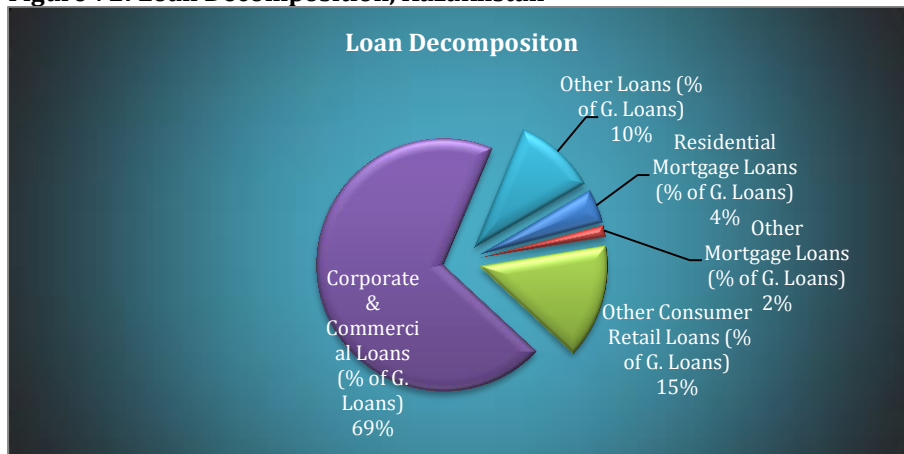
Source: Bankscope

Figure 71: Profitability of the Banking Sector, Kazakhstan



Source: Bankscope

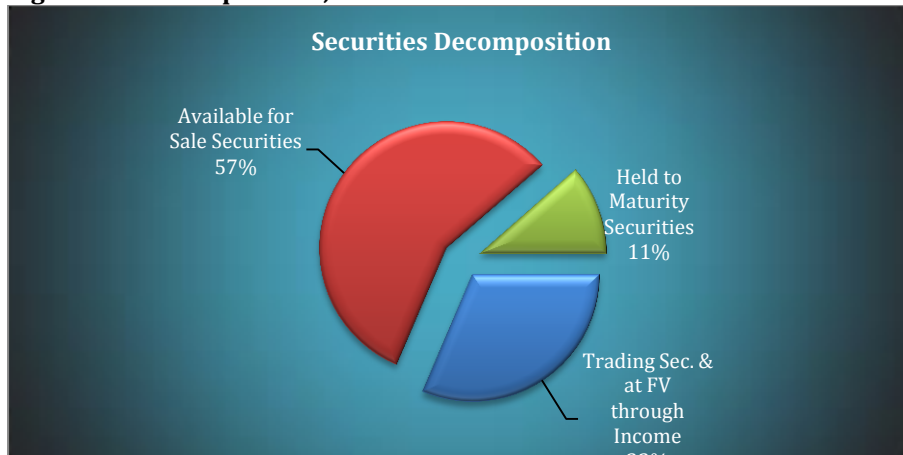
Figure 72: Loan Decomposition, Kazakhstan



Source: Bankscope

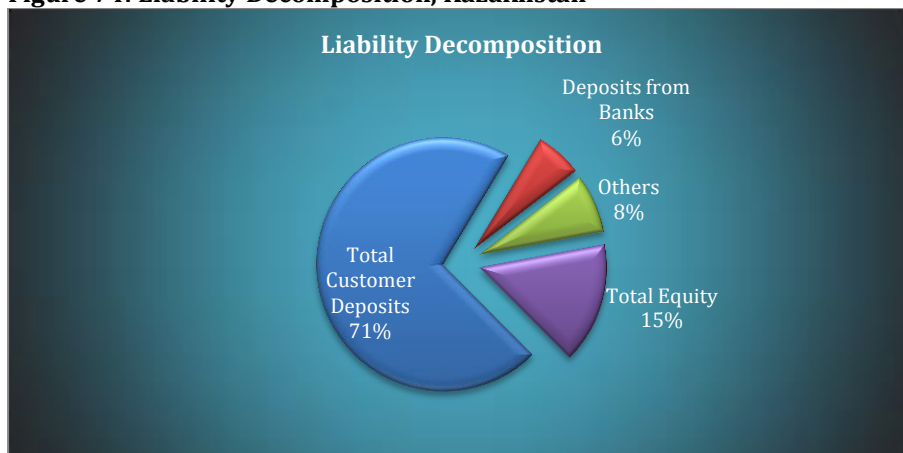
In Kazakhstan majority of the credit is distributed as a corporate and commercial credit. Compared to other OIC countries, Kazakhstan has the lowest consumer credits. Banking sector has mostly distributed its credit to corporate and commercial sector.

Figure 73: Decomposition, Kazakhstan



Source: Bankscope

Figure 74: Liability Decomposition, Kazakhstan



Source: Bankscope

○ **Turkey**

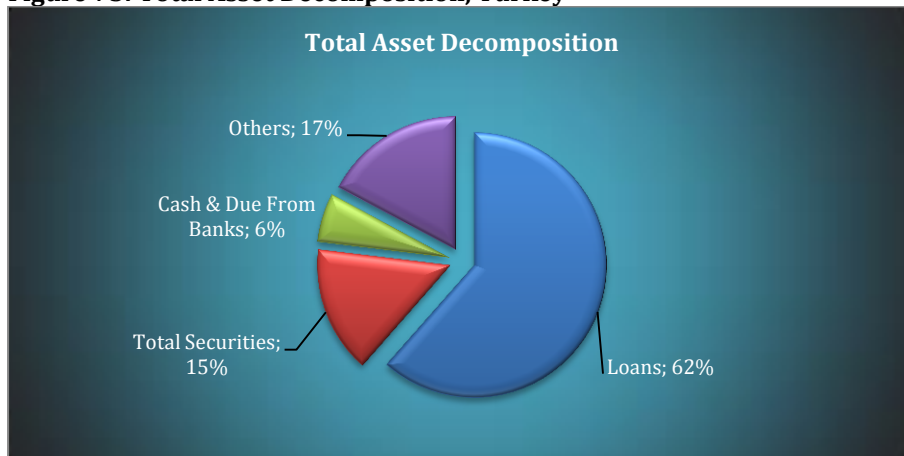
In terms of total asset decomposition, Turkey is slightly different than other selected OIC member countries with a relatively lower fraction of loans in total assets. However, Bankscope classifies most of the assets as “others” and it can be argued that this classification also corresponds to credit related activities since 90% of risk weight is given to the credit risk which is similar to the common pattern in selected OIC members.

Most of the securities are in the form of “available for sale” which indicates a high level of liquidity of total securities. Majority of liabilities of the Turkish banking sector is in the form of customer deposits and as indicated for other OIC countries, this provides a stable source of funding. Furthermore, most of the profits of banks originate from interest-bearing activities with 67% followed by operational profits which constitutes approximately 30% of total profits.

More than half of total loans are extended to corporate sector which suggests a relatively efficient intermediation of funds to productive investments.

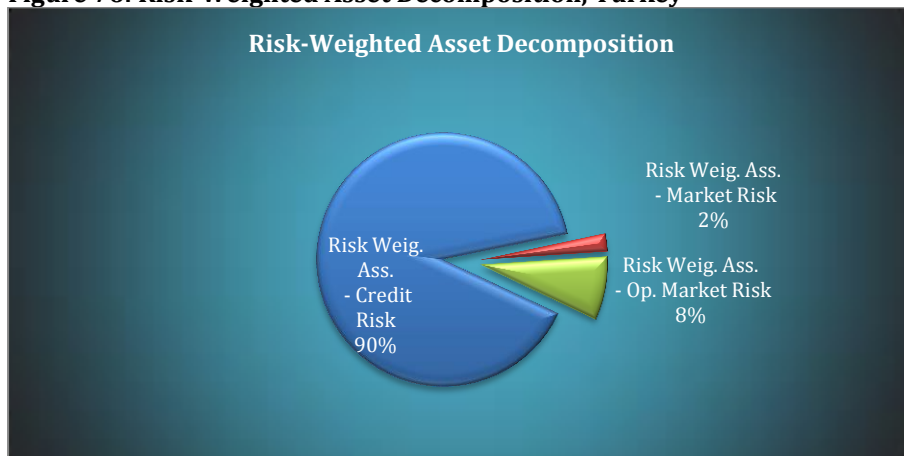
Banking Sector

Figure 75: Total Asset Decomposition, Turkey



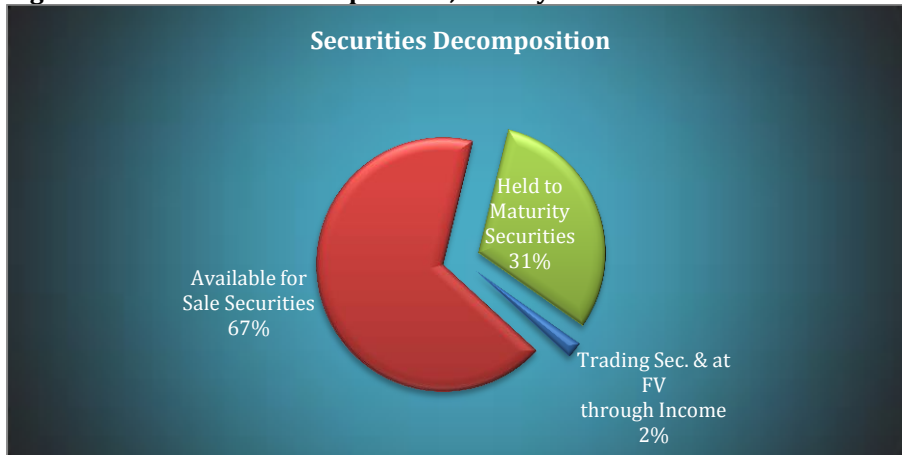
Source: Bankscope

Figure 76: Risk-Weighted Asset Decomposition, Turkey



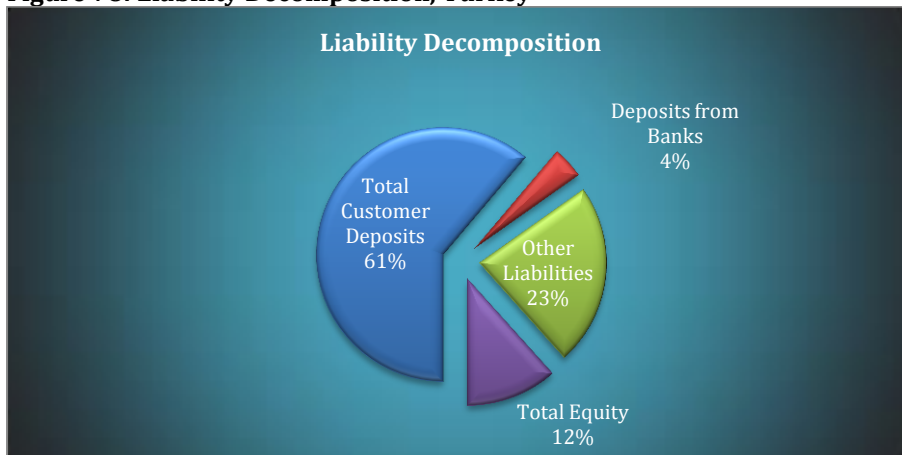
Source: Bankscope

Figure 77: Securities Decomposition, Turkey



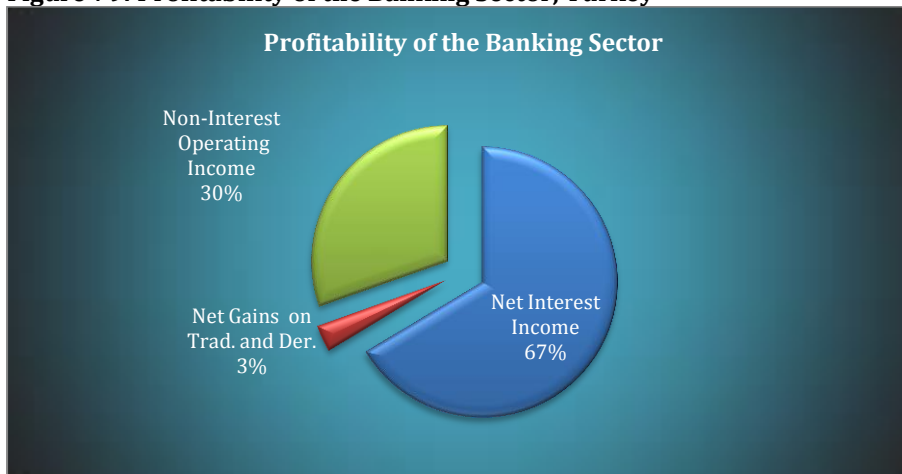
Source: Bankscope

Figure 78: Liability Decomposition, Turkey



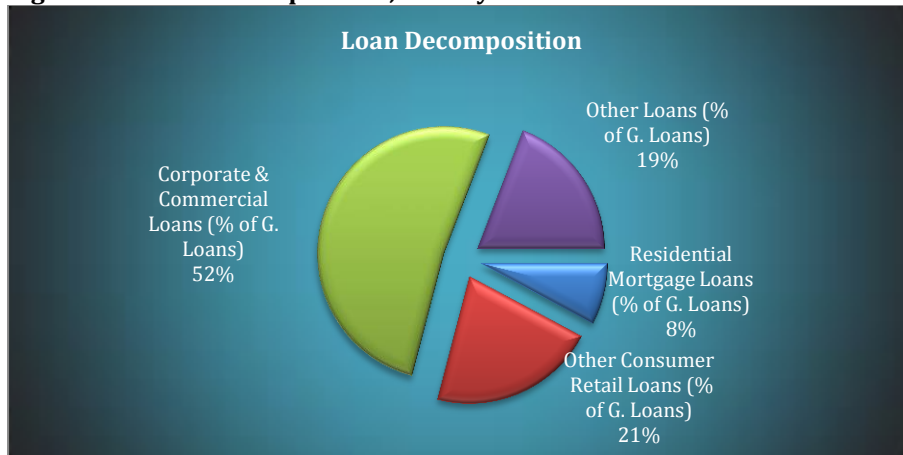
Source: Bankscope

Figure 79: Profitability of the Banking Sector, Turkey



Source: Bankscope

Figure 80: Loan Decomposition, Turkey



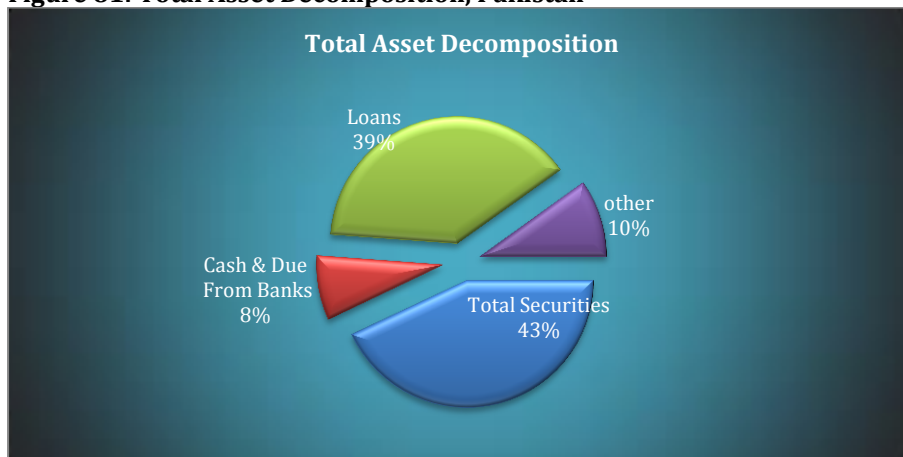
Source: Bankscope

○ **Pakistan**

In Pakistan, we also observe a relatively higher weight of loans in total assets however, it is coupled with a relatively higher share of securities which is significantly higher than OIC average. Given the relatively lower fraction of loans in total assets, majority of banking sector risks stem from credit risk, which is almost uniformly observed for the selected OIC countries.

Banking Sector

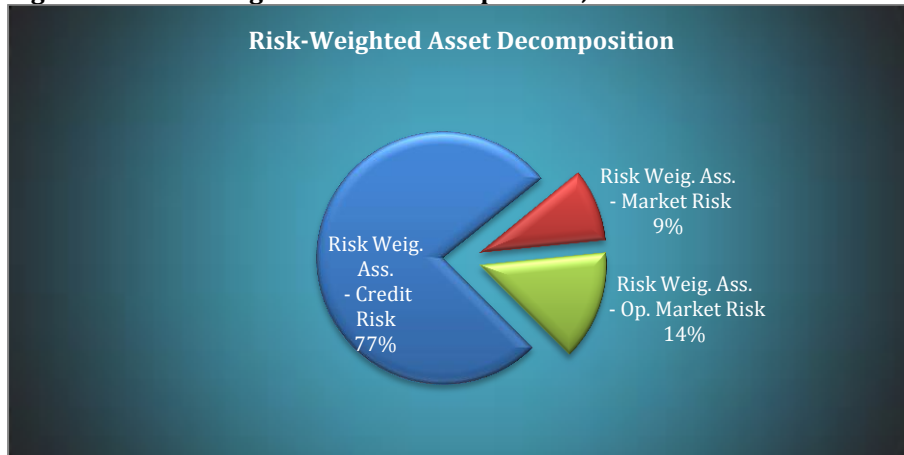
Figure 81: Total Asset Decomposition, Pakistan



Source: Bankscope

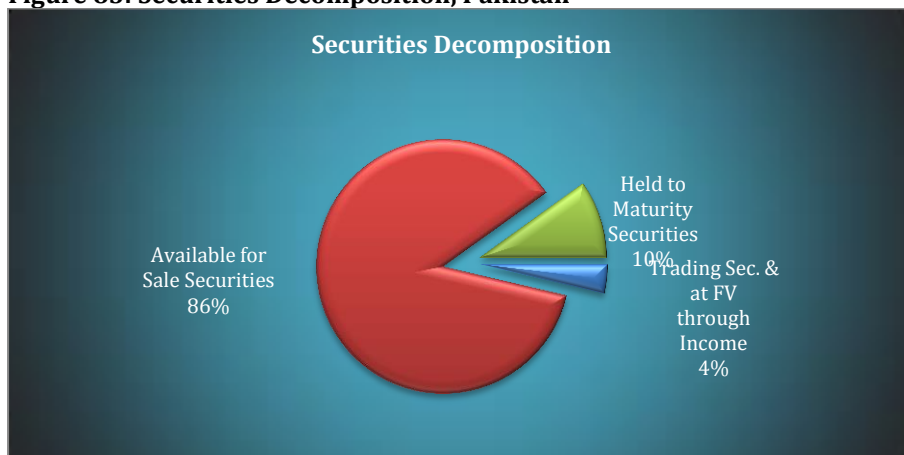
Similar to other OIC countries, most of the securities are “available for sale” thus contributes to the overall liquidity of the banking system. Net interest income is the major source of profits and a very high fraction of liabilities is composed of customer deposits. One important point to observe is that most of the loans are given as retail which suggests that funds are not channeled to the real sector in an effective manner and imposes some long-term sustainability risks for the economy. Loan to deposit ratio is around 60% as of 2013, thus currently does not impose a significant risk on the economy, even though the loan structure should be closely monitored.

Figure 82: Risk-Weighted Asset Decomposition, Pakistan



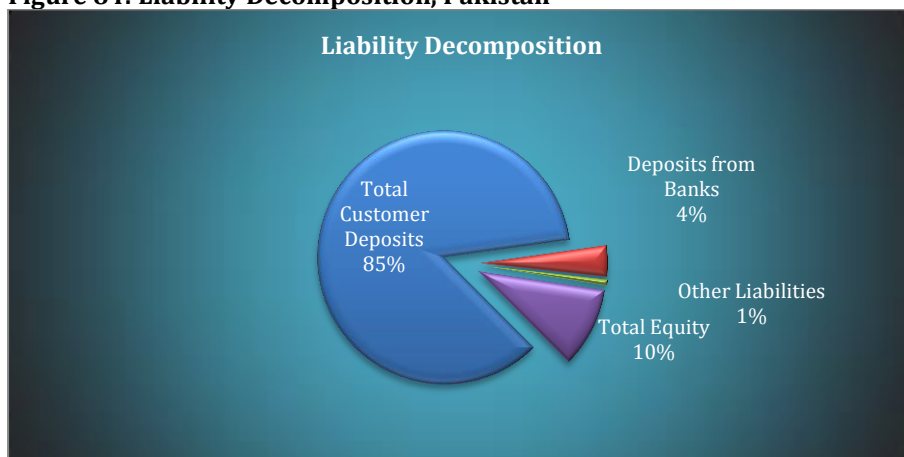
Source: Bankscope

Figure 83: Securities Decomposition, Pakistan



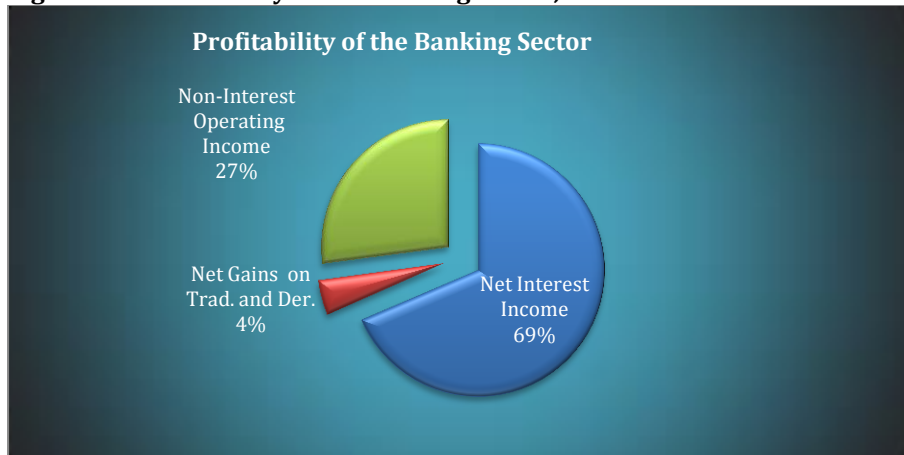
Source: Bankscope

Figure 84: Liability Decomposition, Pakistan



Source: Bankscope

Figure 85: Profitability of the Banking Sector, Pakistan



Source: Bankscope

Figure 86: Loan Decomposition, Pakistan



Source: Bankscope

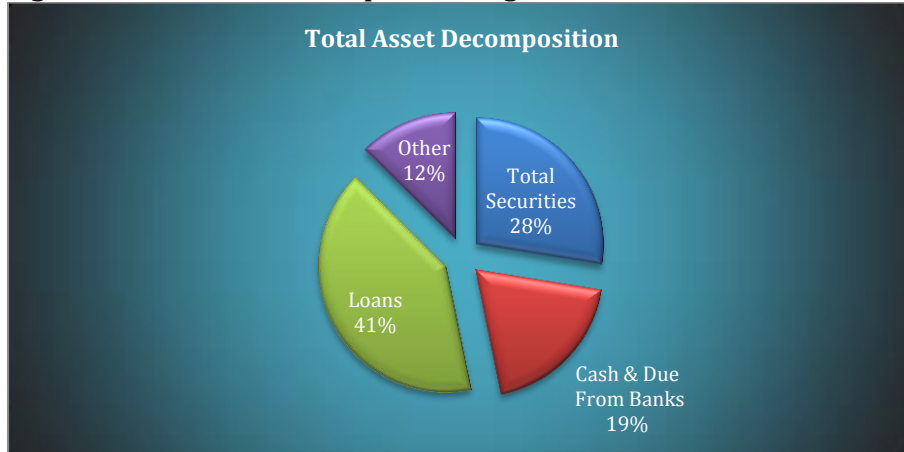
○ **Nigeria**

The banking sector in Nigeria exhibit a similar pattern to OIC countries in terms of asset composition as most of assets are in the form of loans which is followed by securities. Risk-weights are not available from Bankscope, however we infer a higher weight of credit risk given the high fraction of loans. Securities are again in mostly “available for sale” form and most of the liabilities are customer deposit, hence not deviating from the general pattern in selected OIC countries.

Bank profit mostly originates from interest income. Loans are extended to the corporate sector at a higher proportion compared to retail loans hence banks are mainly financing real sector rather than consumer expenditures.

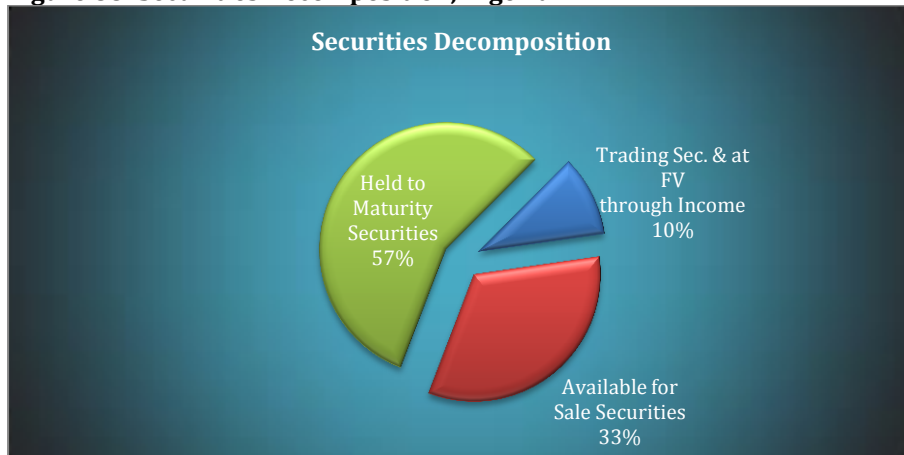
Banking Sector

Figure 87: Total Asset Decomposition, Nigeria



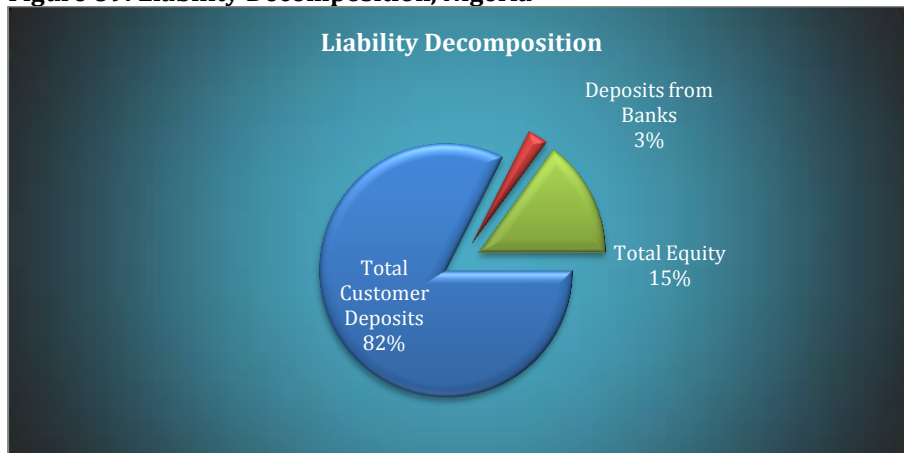
Source: Bankscope

Figure 88: Securities Decomposition, Nigeria



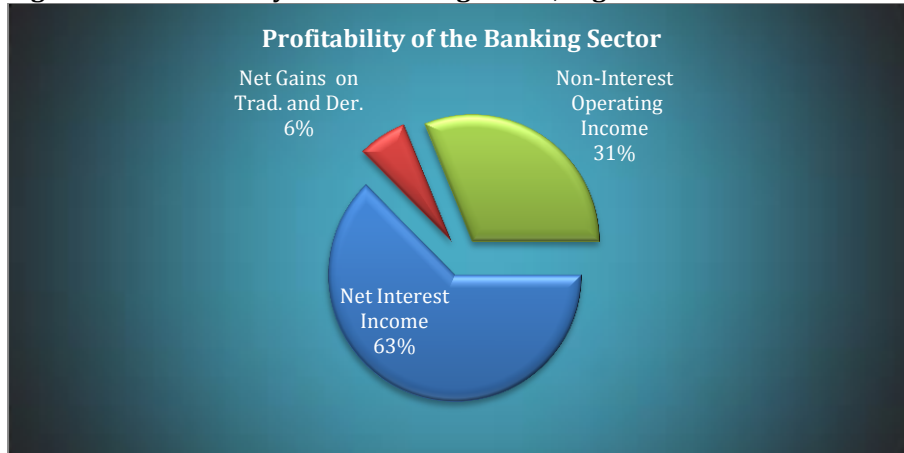
Source: Bankscope

Figure 89: Liability Decomposition, Nigeria



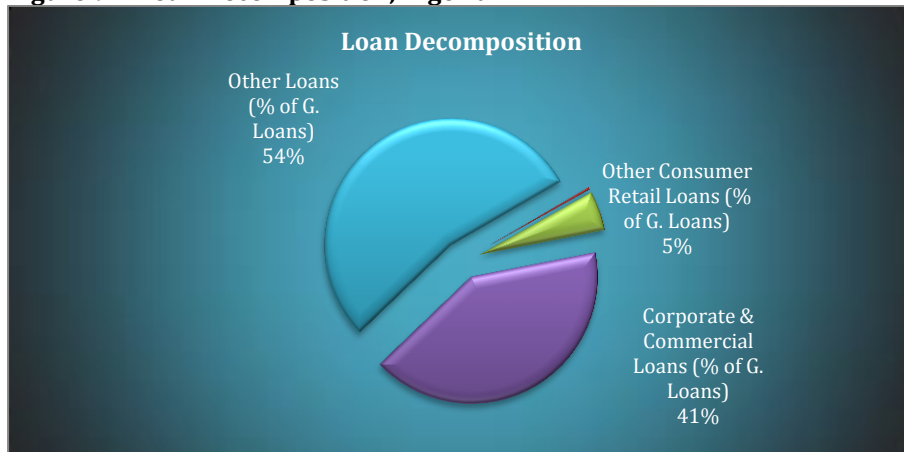
Source: Bankscope

Figure 90: Profitability of the Banking Sector, Nigeria



Source: Bankscope

Figure 91: Loan Decomposition, Nigeria



Source: Bankscope

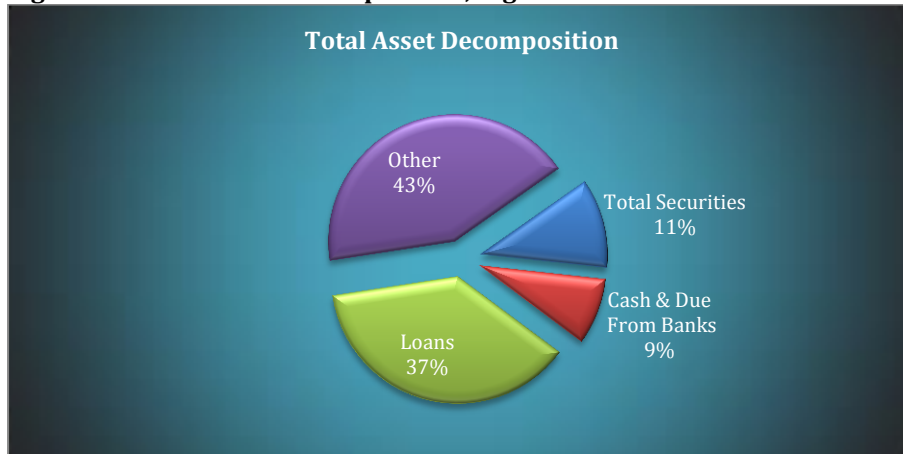
○ **Algeria**

Algeria, similar to Turkey, has a relatively lower fraction of loans in total assets with the majority of assets held in other forms which are not directly identified in the Bankscope database. Risk-weights are not provided in the database for Algeria, however we do not see a significant deviation from other selected OIC member countries.

Securities are again predominantly in the form of “available for sale” which suggest a healthy liquidity position. Loans are mostly extended, higher than OIC average, to the corporate sector, which is the preferred distribution of loans. Liabilities are dominated by customer deposits and profits mainly rely on interest income, therefore there is no significant deviation from the general pattern observed in selected OIC member countries.

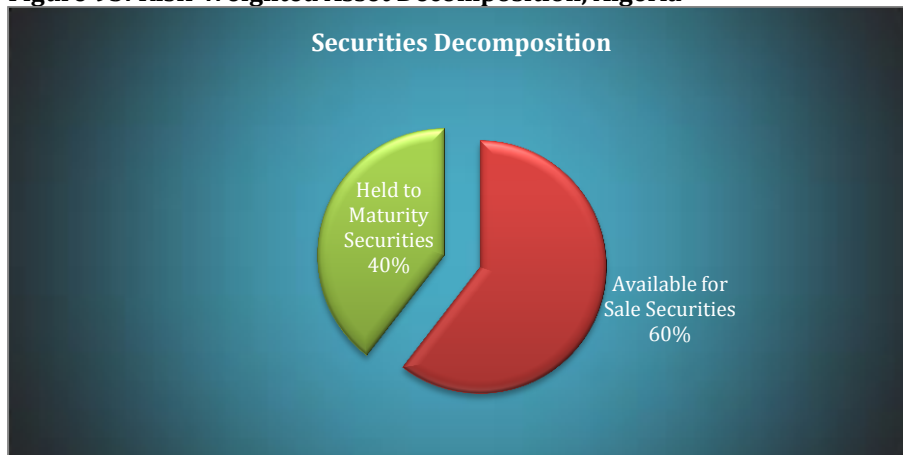
Banking Sector

Figure 92: Total Asset Decomposition, Algeria



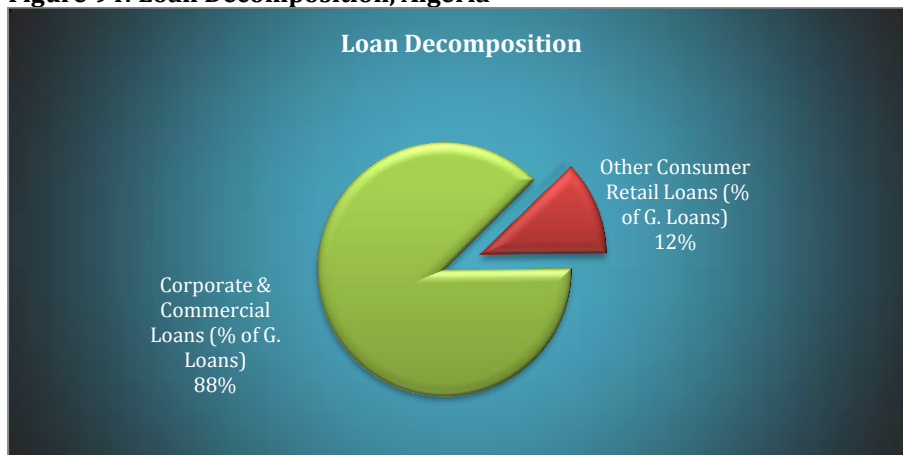
Source: Bankscope

Figure 93: Risk-Weighted Asset Decomposition, Algeria



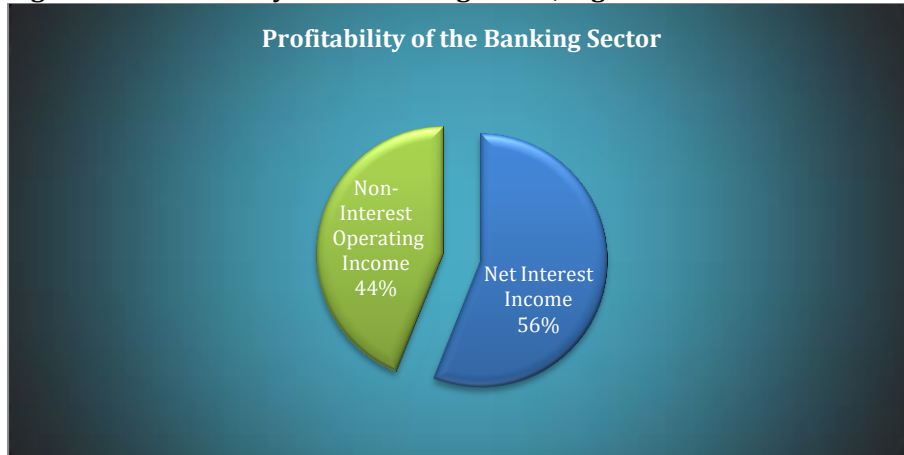
Source: Bankscope

Figure 94: Loan Decomposition, Algeria



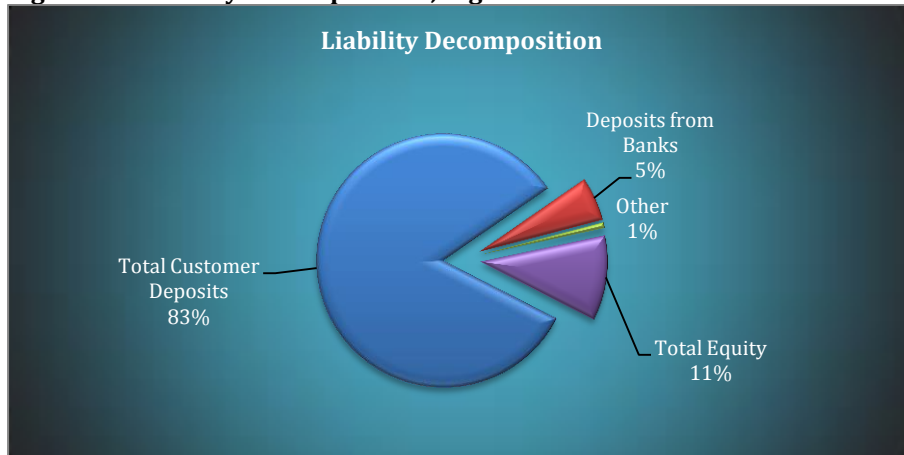
Source: Bankscope

Figure 95: Profitability of the Banking Sector, Algeria



Source: Bankscope

Figure 96: Liability Decomposition, Algeria



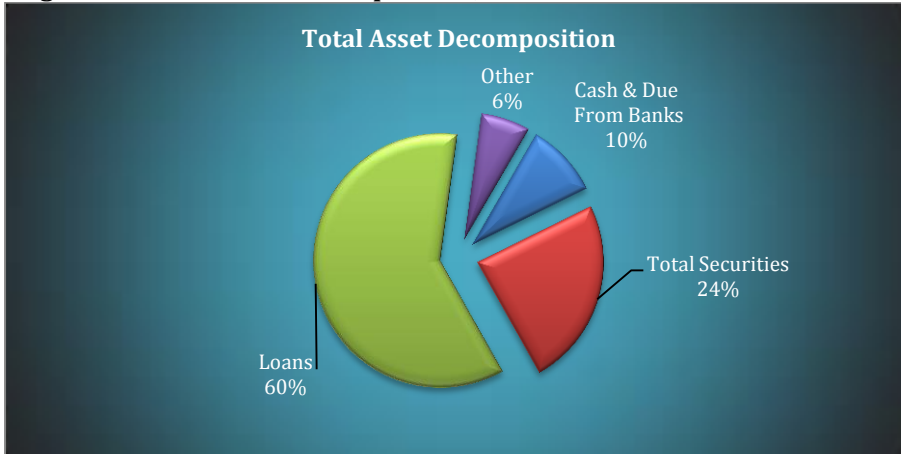
Source: Bankscope

○ **Saudi Arabia**

Saudi Arabia banking sector asset composition is dominated by loans following the common observation for the selected OIC member countries hence the majority of risk stems from the credit risk. Loans decomposition suggests a relatively higher fraction of credits to the corporate sector, again confirming an efficient intermediation of funds.

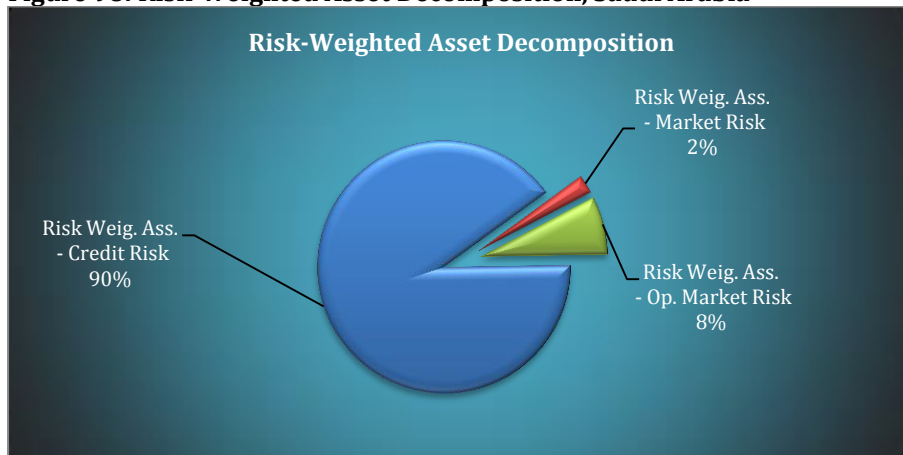
Banking Sector

Figure 97: Total Asset Decomposition, Saudi Arabia



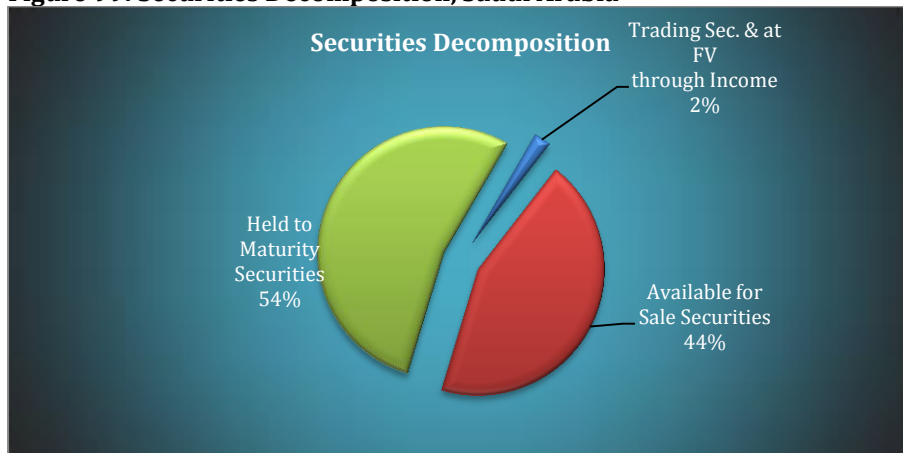
Source: Bankscope

Figure 98: Risk-Weighted Asset Decomposition, Saudi Arabia



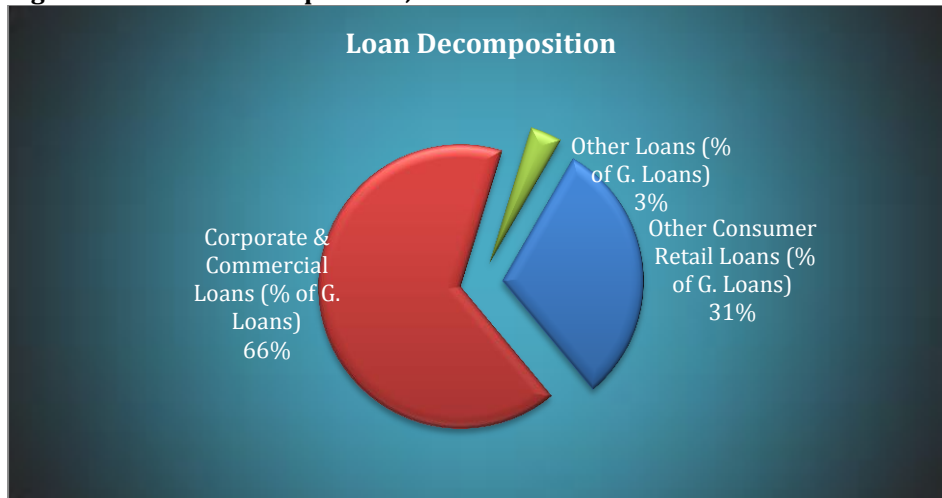
Source: Bankscope

Figure 99: Securities Decomposition, Saudi Arabia



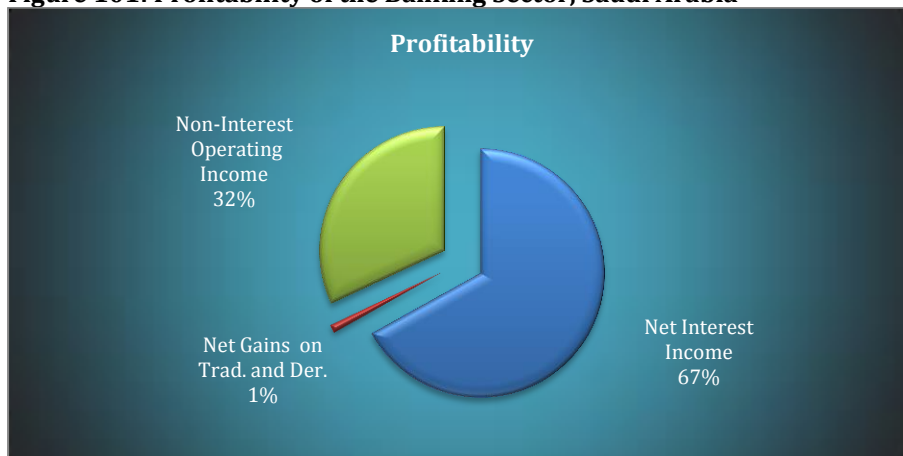
Source: Bankscope

Figure 100: Loan Decomposition, Saudi Arabia



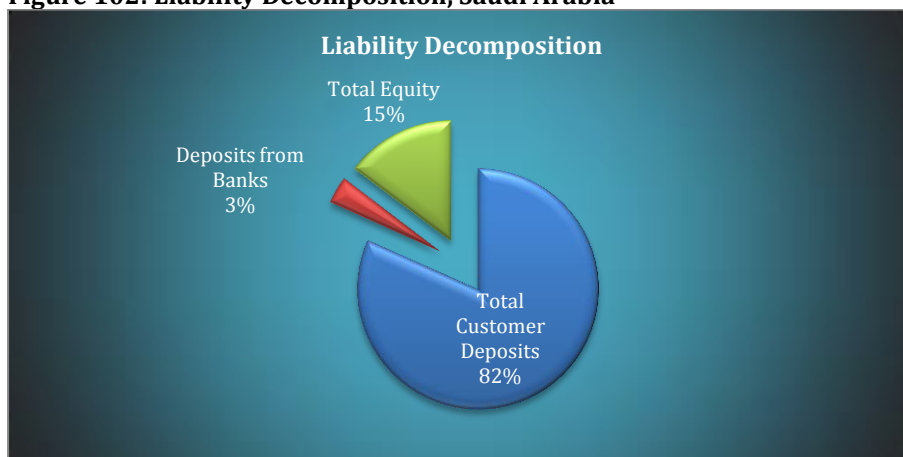
Source: Bankscope

Figure 101: Profitability of the Banking Sector, Saudi Arabia



Source: Bankscope

Figure 102: Liability Decomposition, Saudi Arabia



Source: Bankscope



Additional Tables

Table 41: OIC Banks Preparations for BASEL II, III

	2005-2013
Basel I- Basel II	Basel I regulatory framework was used until 2006. Basel II started to be implemented in 2007, in many cases with a one-year transitional period.
United States	Basel I
Turkey	Basel I for regulatory capital and Basel I/Basel II for RWAs through 2011, all based on Basel II from 2012
Kazakhstan	Basel I and Basel II being applied simultaneously.
Indonesia	Basel I (Basel II was implemented for calculating CAR in 2009.)
Malaysia	Basel I until 2009. Basel I and Basel II applied simultaneously in 2010.
Pakistan	Basel II from 2007. Basel III in 2013
Saudi Arabia	Basel II from 2008. Basel III since 2011
UAE	Basel II 2009. Basel III 2012`
Nigeria	Basel II in 2014

Source: IMF-FSI

Table 42: Final Consumption

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Kazakhstan	60.21	55.43	57.78	52.39	62.36	59.88	56.09	59.49	61.88
Saudi Arabia	47.68	48.07	48.52	44.58	58.97	52.62	46.59	50.05	51.62
Pakistan	84.79	88.08	87.77	91.62	89.73	90.03	90.89	93.01	91.85
Turkey	83.51	82.86	84.09	82.65	86.17	86.03	85.11	85.03	85.99
Nigeria	81.97	70.11	87.75	76.88	88.17	74.83	73.92	66.59	80.22
Malaysia	55.66	55.50	56.72	56.21	61.89	59.73	60.30	62.37	64.55
UAE	65.14	64.01	67.67	67.09	64.11	67.50	59.01	56.66	
Indonesia	70.77	69.19	71.04	71.13	66.21	66.01	65.69	66.82	68.35
Euro Area									
US	82.25	82.17	82.55	84.06	85.21	85.06	85.22	84.32	

Source: World Bank

Table 43: Domestic Credit Provided by Financial Sector

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Kazakhstan	24.74	32.46	40.96	54.16	54.59	45.41	40.29	41.14	40.38
Saudi Arabia	28.82	21.30	16.10	-3.65	0.52	-0.13	-4.11	-10.18	-7.88
Pakistan	46.48	42.20	45.46	51.23	46.70	46.19	42.69	45.76	48.08
Turkey	45.63	45.77	49.26	54.63	64.70	71.84	71.62	74.39	84.49
Nigeria	8.60	4.91	16.58	24.89	37.77	18.66	21.36	20.20	
Malaysia	117.66	114.58	109.43	110.85	131.05	127.02	128.25	133.99	142.94
UAE	42.69	48.97	60.20	73.05	103.48	95.58	84.11	76.45	
Indonesia	46.20	41.66	40.58	36.77	36.97	36.39	38.58	42.68	45.63
Euro Area	127.25	131.16	138.21	142.65	152.46	155.88	153.29	153.37	148.05
US	216.30	226.29	235.67	216.74	231.37	228.11	227.61	231.88	246.16
Middle Income	75.08	76.51	77.82	78.03	91.27	91.54	95.84	102.78	111.82
Low Income	32.32	31.99	30.14	32.10	34.15	37.21	39.41	38.45	38.91

Source: World Bank

Table 44: Domestic Credit Provided by Private Sector

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Kazakhstan	35.69	47.78	58.94	49.65	50.27	39.30	36.00	36.68	36.77
Saudi Arabia	35.42	33.72	37.07	37.68	45.63	39.27	34.19	36.44	40.29
Pakistan	28.65	26.85	27.84	28.73	22.72	21.41	18.12	16.90	15.75
Turkey	22.25	25.94	29.50	35.21	39.18	47.14	53.11	57.86	70.36
Nigeria	13.24	13.18	25.25	33.75	38.49	15.45	12.50	11.83	
Malaysia	106.52	103.66	101.58	96.75	111.61	110.36	111.77	117.76	124.28
UAE	43.77	47.30	56.04	67.08	84.05	75.04	63.99	59.07	
Indonesia	26.43	24.61	25.46	26.55	27.66	29.02	31.75	35.00	37.88
Euro Area	109.28	114.79	121.41	126.92	133.77	133.77	131.62	128.53	122.96
US	187.82	197.68	206.26	188.00	196.54	191.66	182.71	185.61	198.01
Middle Income	55.66	57.65	60.51	61.69	72.36	73.11	74.96	80.42	88.61
Low Income	19.79	21.28	21.05	23.28	25.55	28.07	29.20	29.91	30.65

Source: World Bank

Table 45: Bank Provisions to NPL

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Turkey	88.70	89.70	86.80	79.80	83.60	83.80	79.40	75.20	
Malaysia	30.00	33.80	38.60	43.30	45.10	32.00	32.00	33.10	
Saudi Arabia	202.80	182.30	142.90	153.30	89.80	115.70	133.20	145.10	
UAE	95.70	98.20	100.00	77.70	64.37	68.02	67.77	64.90	
Pakistan	76.70	77.80	86.10	69.60	71.03	66.73	66.78	71.80	
Indonesia	38.10	49.10	59.80	58.50	62.00	57.10	60.70	52.00	50.11
Nigeria					80.40	70.60	55.50	67.90	
Kazakhstan				215.30	178.00	130.10	51.60	57.00	65.40

Source: IMF-FSI

Table 46: Interest Margin to Gross Income

	2009	2010	2011	2012	2013	2014
Turkey	69.25	62.49	65.18	64.37	65.37	62.55
Malaysia	57.69	59.82	53.48	54.78	59.60	60.49
Pakistan	72.29	74.64	75.76	71.15	70.33	70.50
Indonesia	62.54	60.48	59.77	64.97	68.84	68.04
Nigeria	59.15	53.57	31.04	61.95	63.94	
Kazakhstan	90.81	38.02	69.68	63.81	59.12	68.18

Source: IMF-FSI

Table 47: Liquid Assets to Total Assets

	2009	2010	2011	2012	2013	2014
Turkey	57.66	55.44	49.72	50.93	47.14	47.94
Malaysia	14.34	15.71	12.93	13.82	13.16	13.25
Saudi Arabia	25.31	24.75	23.70	23.66	21.56	20.56
Pakistan	31.00	32.30	40.80	44.66	44.56	41.78
Indonesia	28.67	27.22	26.18	25.66	23.50	23.57
Nigeria	10.49	11.98	25.42	24.56	22.03	
Kazakhstan	20.22	22.93	22.01	18.61	17.85	21.39

Source: IMF-FSI

Table 48: Non-interest Expenses to Gross Income

	2009	2010	2011	2012	2013	2014
Turkey	41.60	46.35	46.51	41.66	51.58	47.25
Malaysia	45.24	41.52	45.25	45.02	42.57	42.20
Saudi Arabia	55.44	52.73	46.89	47.01	47.75	44.10
Pakistan	51.76	53.02	50.84	53.95	57.40	54.62
Indonesia	47.11	49.15	49.00	48.75	49.19	48.60
Nigeria	137.38	50.20	24.37	64.79	68.11	
Kazakhstan	42.58	31.21	50.88	45.18	37.24	44.29

Source: IMF-FSI

Table 49: Liquid Assets to Short term Liabilities

	2009	2010	2011	2012	2013	2014
Turkey	84.42	79.74	72.02	76.03	72.08	71.84
Malaysia	42.95	48.13	36.58	42.53	40.95	41.38
Saudi Arabia	36.48	37.20	37.00	36.38	33.19	31.86
Pakistan	42.24	46.65	70.66	75.93	85.42	84.12
Indonesia	33.87	32.09	31.21	36.44	30.54	34.27
Nigeria	13.62	13.30	30.12	28.41	25.24	
Kazakhstan	64.10	67.52	59.39	50.28	51.05	55.77

Source: IMF-FSI

Table 50: Islamic Banking Average Total Financing to Deposits

	2005	2006	2007	2008	2009	2010	2011	2012
Turkey	80.00	90.00	95.00	100.00	91.00	92.00	101.00	104.00
Malaysia	38.00	50.00	65.00	75.00	84.00	82.00	81.00	82.00
Saudi Arabia	110.00	120.00	75.00	90.00	80.00	105.00	82.00	80.00
UAE	82.00	81.00	77.00	93.00	115.00	93.00	92.00	90.00
Pakistan	88.00	69.00	59.00	70.00	50.00	55.00	45.00	40.00

Source: KFHR

Table 51: Islamic Banking Average Return on Assets

	2005	2006	2007	2008	2009	2010	2011	2012
Turkey	3.0	3.1	2.8	2.5	2.0	1.8	1.5	1.7
Malaysia	-0.8	0.3	0.4	0.4	0.5	0.5	0.2	0.6
Saudi Arabia	6.0	4.3	3.0	2.3	2.0	1.5	2.0	2.4
UAE	2.0	1.8	2.1	1.6	1.0	1.2	0.8	1.4
Pakistan	1.0	-0.8	0.1	-0.4	-0.9	-0.1	0.8	0.2

Source: KFHR

Table 52: Islamic Banking Average Gross Nonperforming Financing to Total Financing

	2005	2006	2007	2008	2009	2010	2011	2012
Turkey	3.9	3.4	3.5	4.1	4.5	3.5	2.7	2.8
Malaysia	5.6	3.4	4.1	2.9	4.0	3.9	4.3	3.5
Saudi Arabia	1.8	1.9	2.0	1.5	3.9	3.8	2.0	2.2
UAE	0.2	0.3	1.5	1.7	2.1	4.5	7.8	9.0
Pakistan	0.6	0.5	0.7	2.3	9.1	7.9	8.3	10.0

Source: KFHR

Table 53: Islamic Banking Average Liquidity Ratio

	2005	2006	2007	2008	2009	2010	2011	2012
Turkey	82.0	90.0	91.0	84.0	86.0	79.0	86.0	85.0
Malaysia	60.0	91.0	90.0	60.0	55.0	56.0	58.0	57.0
Saudi Arabia	58.0	91.0	100.0	90.0	93.0	89.0	77.0	75.0
UAE	74.0	72.0	65.0	63.0	61.0	67.0	66.0	69.0
Pakistan	95.0	120.0	103.0	90.0	93.0	148.0	123.0	95.0

Source: KFHR

Table 54: Islamic Banking Average CAR

	2005	2006	2007	2008	2009	2010	2011	2012
Turkey		22.0	19.0	15.0	17.0	18.0	16.0	14.0
Malaysia	48.0	15.0	26.0	22.0	17.0	19.0	17.0	15.0
Saudi Arabia	21.0	55.0	32.0	25.0	60.0	30.0	27.0	22.0
UAE			19.0	19.0	44.0	26.0	24.0	22.0
Pakistan	10.0	37.0	33.0	28.0	21.0	17.0	17.0	14.0

Source: KFHR

Table 55: Islamic Banking Average Tier-1 CAR

	2005	2006	2007	2008	2009	2010	2011	2012
Turkey			15.0	17.0	16.0	18.5	13.0	14.0
Malaysia	48.0	15.0	20.0	22.0	16.0	19.0	16.0	14.0
Saudi Arabia	18.0	53.0	30.0	20.0	59.0	32.0	23.0	18.0
UAE			17.0	18.0	40.0	25.0	22.0	20.0
Pakistan	10.0	37.0	33.0	27.0	20.0	16.0	15.0	12.0

Source: KFHR

Table 56: Islamic Banking Average Leverage Ratio

	2005	2006	2007	2008	2009	2010	2011	2012
Turkey	10.0	11.5	12.0	14.0	13.0	12.6	10.9	10.5
Malaysia	21.0	6.0	19.0	8.9	9.0	9.0	8.5	8.4
Saudi Arabia	13.9	23.0	12.0	17.0	34.0	26.0	21.0	16.5
UAE	19.0	14.5	13.0	30.2	22.0	18.0	16.0	14.9
Pakistan	10.0	36.0	25.0	19.0	13.0	9.3	8.7	7.3

Source: KFHR

Table 57: Bank Activity Regulations

Bank Activity Regulations	Security Activities Range 1-4				Insurance Activities Range 1-4				Real Estate Activities Range 1-4				Overall Restrictions on Banking Activity Range 3-12			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>Surveys</i>	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>Albania</i>	1	1	1	N/A	4	4	4	N/A	3	1	N/A	N/A	8	6	7.5	N/A
<i>Algeria</i>	N/A	2	1	N/A	N/A	2	4	N/A	1	1	1	N/A	N/A	5	6	N/A
<i>Azerbaijan</i>	1	3	N/A	N/A	4	4	4	N/A	3	3	3	N/A	8	10	10.5	N/A
<i>Bahrain</i>	1	1	1	1	3	3	3	4	4	4	4	1	8	8	8	6
<i>Bangladesh</i>	1	N/A	1	2	4	4	4	4	4	4	4	4	9	12	9	10
<i>Benin</i>	N/A	2	3	2	N/A	3	3	2	N/A	2	2	3	N/A	7	8	7
<i>Burkina Faso</i>	N/A	2	3	2	N/A	3	3	2	N/A	2	2	3	N/A	7	8	7
<i>Cameroon</i>	1	1	1	N/A	4	4	4	N/A	N/A	1	4	N/A	7.5	6	9	N/A
<i>Chad</i>	1	1	1	N/A	4	4	4	N/A	N/A	1	4	N/A	7.5	6	9	N/A
<i>Egypt</i>	2	2	2	2	4	2	2	3	4	3	3	3	10	7	7	8
<i>Gabon</i>	1	1	1	N/A	4	4	4	N/A	N/A	1	4	N/A	7.5	6	9	N/A
<i>Gambia</i>	2	4	N/A	1	4	4	4	4	4	4	4	4	10	12	12	9
<i>Guinea</i>	N/A	1	N/A	N/A	N/A	1	N/A	N/A	N/A	1	N/A	N/A	N/A	3	N/A	N/A
<i>Guyana</i>	1	3	4	4	3	4	4	4	3	4	4	4	7	11	12	12
<i>Indonesia</i>	2	N/A	4	2	4	N/A	4	2	4	N/A	4	3	10	N/A	12	7
<i>Iraq</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4	N/A	N/A	N/A	4	N/A	N/A	N/A	12
<i>Jordan</i>	1	1	1	3	4	2	3	3	3	3	4	4	8	6	8	10
<i>Kazakhstan</i>	1	3	2	N/A	1	3	3	N/A	1	4	4	N/A	3	10	9	N/A
<i>Kuwait</i>	1	1	1	1	2	2	3	2	4	2	4	1	7	5	8	4
<i>Kyrgyz Republic</i>	1	1	1	N/A	1	4	4	N/A	3	1	1	1	5	6	6	N/A
<i>Lebanon</i>	1	1	1	1	4	4	4	2	4	3	4	4	9	8	9	7
<i>Malaysia</i>	2	2	2	2	2	3	3	2	3	3	3	N/A	7	8	8	6

Bank Activity Regulations	Security Activities Range 1-4				Insurance Activities Range 1-4				Real Estate Activities Range 1-4				Overall Restrictions on Banking Activity Range 3-12			
Maldives	3	N/A	1	4	2	N/A	4	3	4	N/A	4	1	9	N/A	9	8
Mali	N/A	2	3	2	N/A	3	3	2	N/A	2	2	3	N/A	7	8	7
Mauritius	3	3	2	2	4	4	2	4	4	3	4	4	11	10	8	10
Morocco	2	2	2	1	4	2	3	3	4	3	4	4	10	7	9	8
Mozambique	1	1	1	1	N/A	N/A	3	1	4	4	4	4	7.5	7.5	8	6
Niger	N/A	2	3	2	N/A	3	3	2	N/A	2	2	3	N/A	7	8	7
Nigeria	2	3	N/A	2	2	3	N/A	2	2	3	3	3	6	9	N/A	7
Oman	2	1	1	1	4	4	3	3	4	4	4	4	10	9	8	8
Pakistan	N/A	2	3	2	3	3	3	3	N/A	4	4	3	N/A	9	10	8
Qatar	1	1	N/A	2	4	1	N/A	2	3	1	N/A	4	8	3	N/A	8
Romania	2	2	1	1	4	3	3	2	4	4	4	1	10	9	8	4
Saudi Arabia	2	1	2	N/A	2	3	3	N/A	4	4	4	N/A	8	8	9	N/A
Senegal	N/A	2	3	2	N/A	3	3	2	N/A	2	2	3	N/A	7	8	7
Tajikistan	1	3	4	1	1	4	4	3	1	3	2	N/A	3	10	10	6
Togo	N/A	2	3	2	N/A	3	3	2	N/A	2	2	3	N/A	7	8	7
Tunisia	N/A	2	N/A	3	3	3	3	3	N/A	3	N/A	N/A	N/A	8	N/A	9
Turkey	3	2	N/A	2	2	2	N/A	3	4	2	N/A	4	9	6	N/A	9
Turkmenistan	3	1	N/A	N/A	4	1	N/A	N/A	3	1	N/A	N/A	10	3	N/A	N/A
Uganda	N/A	N/A	3	4	4	4	4	4	N/A	N/A	3	4	N/A	N/A	10	12
United Arab Emirates	1	1	1	1	N/A	3	N/A	4	N/A	1	N/A	4	N/A	5	N/A	9
Yemen	N/A	N/A	N/A	4	N/A	N/A	N/A	1	N/A	N/A	N/A	4	N/A	N/A	N/A	9

Source: World Bank, Bank Regulation and Supervision Survey

Table 58: Ownership Restrictions

<i>Ownership Restrictions</i>	<i>Bank Owning Non-financial Firms Range 1-4</i>				<i>Non-financial Firms Owning Banks Range 1-4</i>				<i>Non-bank financial Firms Owning Banks Range 1-4</i>				<i>Overall Degree of Restrictions Range 3-12</i>			
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<i>Surveys</i>																
<i>Albania</i>	3	3	3	N/A	2	3	N/A	N/A	N/A	1	N/A	N/A	7.5	7	N/A	N/A
<i>Algeria</i>	N/A	3	4	N/A	N/A	1	4	N/A	N/A	2	4	N/A	N/A	6	12	N/A
<i>Azerbaijan</i>	2	2	2	N/A	2	3	N/A	N/A	2	1	N/A	N/A	6	6	N/A	N/A
<i>Bahrain</i>	1	2	2	1	2	2	2	3	2	2	2	3	5	6	6	7
<i>Bangladesh</i>	3	N/A	4	4	3	3	3	N/A	N/A	N/A	4	N/A	9	N/A	11	N/A
<i>Benin</i>	3	3	3	3	N/A	2	2	3	N/A	2	2	3	N/A	7	7	9
<i>Burkina Faso</i>	3	3	3	3	N/A	2	2	3	N/A	2	2	3	N/A	7	7	9
<i>Cameroon</i>	2	2	2	N/A	N/A	1	4	N/A	1	1	1	N/A	4.5	4	7	N/A
<i>Chad</i>	2	2	2	N/A	N/A	1	4	N/A	1	1	1	N/A	4.5	4	7	N/A
<i>Egypt</i>	3	3	3	3	2	2	2	2	2	2	2	2	7	7	7	7
<i>Gabon</i>	2	2	2	N/A	N/A	1	4	N/A	1	1	1	N/A	4.5	4	7	N/A
<i>Gambia</i>	4	4	4	4	2	2	2	2	3	2	2	2	9	8	8	8
<i>Guinea</i>	N/A	3	N/A	N/A	N/A	3	N/A	N/A	N/A	3	N/A	N/A	N/A	9	N/A	N/A
<i>Guyana</i>	2	3	3	2	3	2	2	2	2	2	2	2	7	7	7	6
<i>Indonesia</i>	4	4	4	4	1	N/A	2	3	N/A	N/A	2	3	7.5	N/A	8	10
<i>Iraq</i>	N/A	N/A	N/A	4	N/A	N/A	N/A	3	N/A	N/A	N/A	3	N/A	N/A	N/A	10
<i>Jordan</i>	3	3	3	4	1	2	2	N/A	1	2	2	2	5	7	7	9
<i>Kazakhstan</i>	3	3	3	N/A	2	3	2	N/A	N/A	3	2	N/A	7.5	9	7	N/A
<i>Kuwait</i>	3	2	2	2	2	2	3	2	2	1	3	2	7	5	8	6
<i>Kyrgyz Republic</i>	2	2	3	N/A	3	3	3	3	3	3	2	2	8	8	8	7.5
<i>Lebanon</i>	2	2	2	4	1	2	2	2	1	2	2	2	4	6	6	8
<i>Malaysia</i>	3	3	3	N/A	3	3	3	3	3	3	3	3	9	9	9	9

Ownership Restrictions	Bank Owning Non-financial Firms Range 1-4				Non-financial Firms Owning Banks Range 1-4				Non-bank financial Firms Owning Banks Range 1-4				Overall Degree of Restrictions Range 3-12			
Maldives	1	N/A	4	4	4	N/A	2	2	N/A	N/A	1	2	7.5	N/A	7	8
Mali	3	3	3	3	N/A	2	2	3	N/A	2	2	3	N/A	7	7	9
Mauritius	2	2	2	2	3	3	3	3	3	3	3	3	8	8	8	8
Morocco	3	3	3	3	1	2	1	3	1	2	1	2	5	7	5	8
Mozambique	N/A	N/A	2	1	N/A	N/A	4	1	N/A	N/A	4	1	N/A	N/A	10	3
Niger	3	3	3	3	N/A	2	2	3	N/A	2	2	3	N/A	7	7	9
Nigeria	3	3	3	3	1	2	2	2	1	2	2	2	5	7	7	7
Oman	3	3	3	4	3	3	3	3	3	3	3	3	9	9	9	10
Pakistan	3	3	3	3	N/A	2	3	2	N/A	2	3	2	N/A	7	9	7
Qatar	3	3	N/A	4	3	3	3	N/A	1	3	N/A	N/A	7	9	N/A	N/A
Romania	3	3	3	1	1	2	2	2	1	2	2	2	5	7	7	5
Saudi Arabia	3	3	3	N/A	1	1	2	N/A	1	2	2	N/A	5	6	7	N/A
Senegal	3	3	3	3	N/A	2	2	3	N/A	2	2	3	N/A	7	7	9
Tajikistan	3	2	2	1	1	2	3	2	N/A	4	N/A	2	6	8	7.5	5
Togo	3	3	3	3	N/A	2	2	3	N/A	2	2	3	N/A	7	7	9
Tunisia	3	3	3	3	2	2	2	2	2	2	2	2	7	7	7	7
Turkey	3	2	N/A	2	1	2	N/A	2	1	2	N/A	2	5	6	N/A	6
Turkmenistan	3	3	3	N/A	3	1	N/A	N/A	3	4	N/A	N/A	9	8	N/A	N/A
Uganda	N/A	N/A	2	4	N/A	N/A	3	2	N/A	N/A	3	2	N/A	N/A	8	8
United Arab Emirates	N/A	3	N/A	4	N/A	1	N/A	3	N/A	1	N/A	3	N/A	5	N/A	10
Yemen	N/A	N/A	N/A	4	N/A	N/A	N/A	3	N/A	N/A	N/A	3	N/A	N/A	N/A	10

Source: World Bank, Bank Regulation and Supervision Survey

Table 59: Capital Regulations

<i>Capital Regulations</i>	<i>Overall Capital Stringency Range 0-7</i>				<i>Initial Capital Stringency Range 0-3</i>				<i>Capital Regulatory Index Range 0-10</i>			
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<i>Surveys</i>												
<i>Albania</i>	1	1	1	N/A	3	3	3	N/A	4	4	4	N/A
<i>Algeria</i>	N/A	2.4	5	N/A	N/A	1	3	N/A	N/A	3.4	8	N/A
<i>Azerbaijan</i>	4	3	3.6	N/A	2	2	2	N/A	6	5	5.6	N/A
<i>Bahrain</i>	0	3	4	6	3	3	3	2	3	6	7	8
<i>Bangladesh</i>	1	N/A	1	6	2	3	3	3	3	N/A	4	9
<i>Benin</i>	4.8	5	5	4	3	2	2	3	7.8	7	7	7
<i>Burkina Faso</i>	4.8	5	5	4	3	2	2	3	7.8	7	7	7
<i>Cameroon</i>	1.2	2	1	N/A	N/A	2	0	N/A	N/A	4	1	N/A
<i>Chad</i>	1.2	2	1	N/A	N/A	2	0	N/A	N/A	4	1	N/A
<i>Egypt</i>	3	2	2	7	2	3	3	3	5	5	5	10
<i>Gabon</i>	1.2	2	1	N/A	N/A	2	0	N/A	N/A	4	1	N/A
<i>Gambia</i>	3	5	N/A	4	2	2	3	3	5	7	N/A	7
<i>Guinea</i>	N/A	6	N/A	N/A	N/A	2	N/A	N/A	N/A	8	N/A	N/A
<i>Guyana</i>	4	3	3	7	1	2	2	2	5	5	5	9
<i>Indonesia</i>	2	N/A	5	7	3	3	3	3	5	N/A	8	10
<i>Iraq</i>	N/A	N/A	N/A	6	N/A	N/A	N/A	2	N/A	N/A	N/A	8
<i>Jordan</i>	5	5	4	6	3	3	3	3	8	8	7	9
<i>Kazakhstan</i>	1	4	5	N/A	2	3	2	N/A	3	7	7	N/A
<i>Kuwait</i>	4	4	5	6	2	3	3	3	6	7	8	9
<i>Kyrgyz Republic</i>	4	3	5	6	3	3	2	3	7	6	7	9
<i>Lebanon</i>	5	5	5	5	2	3	3	3	7	8	8	8
<i>Malaysia</i>	1	1	3	2	2	2	2	2	3	3	5	4

Capital Regulations	Overall Capital Stringency Range 0-7				Initial Capital Stringency Range 0-3				Capital Regulatory Index Range 0-10			
Maldives	3	N/A	N/A	4	2	N/A	2	3	5	N/A	N/A	7
Mali	4.8	5	4	4	3	2	2	3	7.8	7	6	7
Mauritius	4	4	4	5	3	3	3	2	7	7	7	7
Morocco	5	4	3	5	2	2	1	3	7	6	4	8
Mozambique	N/A	N/A	2	3	1.5	1.5	1	2	N/A	N/A	3	5
Niger	4.8	5	5	4	3	2	2	3	7.8	7	7	7
Nigeria	4	4	3	3	3	3	3	3	7	7	6	6
Oman	4	4	4	6	2	2	2	2	6	6	6	8
Pakistan	N/A	4	7	6	N/A	2	3	2	N/A	6	10	8
Qatar	6	1	N/A	6	2	3	3	3	8	4	N/A	9
Romania	1	1	3	6	3	3	3	2	4	4	6	8
Saudi Arabia	2	3	3	N/A	2	1	2	N/A	4	4	5	N/A
Senegal	4.8	5	5	4	3	2	2	3	7.8	7	7	7
Tajikistan	1	3	2.4	3	2	2	2	2	3	5	4.4	5
Togo	4.8	5	5	4	3	2	2	3	7.8	7	7	7
Tunisia	N/A	5	N/A	7	3	3	3	3	N/A	8	N/A	10
Turkey	3	3	3.6	7	1	3	N/A	3	4	6	N/A	10
Turkmenistan	2	3	2.2	N/A	3	2	3	N/A	5	5	5.2	N/A
Uganda	N/A	N/A	5	7	3	3	3	2	N/A	N/A	8	9
United Arab Emirates	N/A	4	N/A	5	3	3	3	3	N/A	7	N/A	8
Yemen	N/A	N/A	N/A	7	N/A	N/A	N/A	3	N/A	N/A	N/A	10

Source: World Bank, Bank Regulation and Supervision Survey

Table 60: Supervisory Power Index

<i>Supervisory Power Index</i>	<i>Supervisory Power Index</i>			
<i>Surveys</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<i>Albania</i>	10	12	N/A	N/A
<i>Algeria</i>	14	14.5	11.5	N/A
<i>Azerbaijan</i>	10	8.62	9.8	N/A
<i>Bahrain</i>	14	14.5	12.5	11
<i>Bangladesh</i>	11	11.85	12	11
<i>Benin</i>	9.8	8	10	7
<i>Burkina Faso</i>	9.8	8.5	10	7
<i>Cameroon</i>	14	14	11.77	N/A
<i>Chad</i>	14	14	11.77	N/A
<i>Egypt</i>	12	15	14	11
<i>Gabon</i>	14	14	11.77	N/A
<i>Gambia</i>	10.77	11	11.67	13
<i>Guinea</i>	N/A	14	N/A	N/A
<i>Guyana</i>	9	10.77	11	13
<i>Indonesia</i>	12	16	16	13
<i>Iraq</i>	N/A	N/A	N/A	11
<i>Jordan</i>	8	14	9.69	14
<i>Kazakhstan</i>	14	13	9	6.46
<i>Kuwait</i>	11	10	10	11
<i>Kyrgyz Republic</i>	8	6	8	11
<i>Lebanon</i>	12	10	10	7

Supervisory Power Index	Supervisory Power Index			
<i>Malaysia</i>	12.92	13.5	15.5	11
<i>Maldives</i>	12	14	12	12
<i>Mali</i>	9.8	8.5	10.5	7
<i>Mauritius</i>	8	10	14	14
<i>Morocco</i>	12	13.42	13	7.64
<i>Mozambique</i>	12.44	14	11	11
<i>Niger</i>	9.8	8.5	10	7
<i>Nigeria</i>	11	13	13.5	10.77
<i>Oman</i>	13	14.5	12	13
<i>Pakistan</i>	14	14	14	13
<i>Qatar</i>	13	N/A	N/A	9
<i>Romania</i>	9	9	11.67	12
<i>Saudi Arabia</i>	14	14	13	N/A
<i>Senegal</i>	8.91	8.5	10	7
<i>Tajikistan</i>	11	9.69	10.77	7
<i>Togo</i>	8.91	8.5	10	7
<i>Tunisia</i>	14	13	N/A	9
<i>Turkey</i>	11	15.5	15.5	12
<i>Turkmenistan</i>	7	6	6.22	N/A
<i>Uganda</i>	14	15	15	14
<i>United Arab Emirates</i>	14	14	N/A	9
<i>Yemen</i>	N/A	N/A	N/A	12

Source: World Bank, Bank Regulation and Supervision Survey

Table 61: Private Monitoring Index

<i>Private Monitoring Index</i>	<i>Private Monitoring Index</i>			
<i>Surveys</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<i>Albania</i>	6	N/A	N/A	N/A
<i>Algeria</i>	N/A	8	6	N/A
<i>Azerbaijan</i>	N/A	8	N/A	N/A
<i>Bahrain</i>	10	8	9	10
<i>Bangladesh</i>	6	N/A	9	9
<i>Benin</i>	N/A	8	8	N/A
<i>Burkina Faso</i>	N/A	8	8	N/A
<i>Cameroon</i>	8	7	7	N/A
<i>Chad</i>	8	7	7	N/A
<i>Egypt</i>	9	9	9	8
<i>Gabon</i>	8	7	7	N/A
<i>Gambia</i>	7	6	N/A	7
<i>Guinea</i>	N/A	10	N/A	N/A
<i>Guyana</i>	9	7	8	9
<i>Indonesia</i>	8	N/A	9	10
<i>Iraq</i>	N/A	N/A	N/A	9
<i>Jordan</i>	8	6	7	8
<i>Kazakhstan</i>	6	6	8	N/A
<i>Kuwait</i>	11	11	10	N/A
<i>Kyrgyz Republic</i>	8	9	9	7
<i>Lebanon</i>	10	7	7	9
<i>Malaysia</i>	9	10	9	7

<i>Private Monitoring Index</i>	<i>Private Monitoring Index</i>			
<i>Maldives</i>	6	N/A	8	8
<i>Mali</i>	N/A	8	8	N/A
<i>Mauritius</i>	9	8	9	8
<i>Morocco</i>	8	8	8	8
<i>Mozambique</i>	N/A	N/A	6	8
<i>Niger</i>	N/A	8	8	N/A
<i>Nigeria</i>	7	9	N/A	N/A
<i>Oman</i>	9	9	6	7
<i>Pakistan</i>	N/A	8	9	10
<i>Qatar</i>	10	N/A	N/A	9
<i>Romania</i>	6	6	6	7
<i>Saudi Arabia</i>	11	10	11	N/A
<i>Senegal</i>	N/A	8	8	N/A
<i>Tajikistan</i>	7	6	N/A	4.33
<i>Togo</i>	N/A	8	8	N/A
<i>Tunisia</i>	N/A	7	N/A	5
<i>Turkey</i>	7	8	N/A	8
<i>Turkmenistan</i>	5	6	5.67	N/A
<i>Uganda</i>	N/A	N/A	4	8
<i>United Arab Emirates</i>	N/A	11	N/A	N/A
<i>Yemen</i>	N/A	N/A	N/A	N/A

Source: World Bank, Bank Regulation and Supervision Survey

Table 62: Supervisor

Supervisor	Supervisor Tenure (years)				Independence of Supervisory Authority-Political (Higher values more independence)				Independence of Supervisory Authority-Bank (Higher values more independence)				Independence of Supervisory Authority-Fixed Term (Higher values more independence)				Independence of Supervisory Authority-Overall				Multiple Supervisor (Yes=1 and No=0)				Single vs Multiple Supervisor (Yes=1 and No=0)			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>Surveys</i>																												
<i>Albania</i>	3.5	4	-	-	1	1	1	-	1	1	1	-	-	1	-	-	-	3	-	-	-	-	-	-	-	0	-	-
<i>Algeria</i>	-	3	3	-	-	-	-	-	0	0	0	-	-	1	0	-	-	-	-	-	0	0	0	-	1	1	1	-
<i>Azerbaijan</i>	7.7	5	-	-	0	0	0	-	1	0	-	-	-	1	-	-	-	1	-	-	0	0	0	-	-	0	-	-
<i>Bahrain</i>	6	6	4.5	7	0	0	1	1	1	1	1	1	-	0	0	1	-	1	2	3	0	0	0	0	-	1	0	0
<i>Bangladesh</i>	5	-	-	-	0	-	1	0	1	-	0	1	1	1	0	0	2	-	1	1	0	0	0	0	0	0	0	0
<i>Benin</i>	-	-	-	-	0	0	0	0	1	1	1	1	1	1	0	1	2	2	1	2	0	0	0	0	-	0	1	0
<i>Burkina Faso</i>	-	-	-	-	0	0	0	0	1	1	1	1	1	1	0	1	2	2	1	2	0	0	0	0	-	0	1	0
<i>Cameroon</i>	-	-	-	-	0	0	0	-	1	1	1	-	1	1	1	-	2	2	2	-	0	0	0	-	-	0	1	-
<i>Chad</i>	-	-	-	-	0	0	0	-	1	1	1	-	1	1	1	-	2	2	2	-	0	0	0	-	-	0	1	-
<i>Egypt</i>	22.5	-	15	16	0	1	0	0	1	1	1	1	1	0	0	0	2	2	1	1	0	0	0	0	0	0	0	0
<i>Gabon</i>	-	-	-	-	0	0	0	-	1	1	1	-	1	1	1	-	2	2	2	-	0	0	0	-	-	0	1	-
<i>Gambia</i>	8	5	-	5	-	-	-	0	0	1	-	1	-	0	-	0	-	-	-	1	0	0	0	0	-	1	-	0
<i>Guinea</i>	-	8	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	0	-	-	-	1	-	-
<i>Guyana</i>	5	6	6	6	0	0	0	0	0	1	1	1	1	1	1	1	1	2	2	2	0	0	0	0	0	0	0	0
<i>Indonesia</i>	5	-	-	20	1	1	1	1	0	-	1	1	-	-	0	1	-	-	2	3	0	0	0	0	0	0	0	0
<i>Iraq</i>	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	0	-	-	-	2	-	-	-	0	-	-	-	0
<i>Jordan</i>	0	15	-	9	1	1	0	0	1	1	0	1	1	1	1	1	3	3	1	2	0	0	0	0	0	0	0	0
<i>Kazakhstan</i>	-	7.5	-	5	0	0	0	-	1	1	1	1	-	1	0	1	-	2	1	-	0	1	0	0	-	1	0	0
<i>Kuwait</i>	7	7	15	3	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	3	0	0	0	0	0	0	0	0

<i>Supervisor</i>	<i>Supervisor Tenure (years)</i>				<i>Independence of Supervisory Authority-Political (Higher values more independence)</i>				<i>Independence of Supervisory Authority-Bank (Higher values more independence)</i>				<i>Independence of Supervisory Authority-Fixed Term (Higher values more independence)</i>				<i>Independence of Supervisory Authority-Overall</i>				<i>Multiple Supervisor (Yes=1 and No=0)</i>				<i>Single vs Multiple Supervisor (Yes=1 and No=0)</i>			
					-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	0	0	0	0
<i>Uganda</i>	-	-	7	15	-	-	1	0	1	1	1	1	1	1	1	1	-	-	-	2	0	0	0	0	-	-	1	0
<i>United Arab Emirates</i>	-	12.5	-	8	0	0	0	0	1	1	1	1	1	0	1	0	-	-	3	1	0	0	0	0	0	0	0	0
<i>Yemen</i>	-	-	-	8	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	3	-	-	-	0	-	-	-	0

Source: World Bank, Bank Regulation and Supervision Survey

Table 63: Entry Regulations

Entry Regulations	Limitations on Foreign Bank Entry/Ownership Range 0-4				Entry into Banking Requirements Range 0-8				Fraction of Entry Applications Denied (Percentage)				Domestic Denials (Fraction)				Foreign Denials (Fraction)			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>Surveys</i>																				
<i>Albania</i>	N/A	N/A	N/A	N/A	8	8	8	N/A	0	0	N/A	N/A	0	0	N/A	N/A	0	0	N/A	N/A
<i>Algeria</i>	4	4	4	N/A	8	7	8	N/A	N/A	0	N/A	N/A	N/A	0	N/A	N/A	N/A	0	N/A	N/A
<i>Azerbaijan</i>	N/A	4	N/A	N/A	8	6	8	N/A	N/A	0.25	N/A	N/A	N/A	0	N/A	N/A	N/A	0.33	N/A	N/A
<i>Bahrain</i>	4	4	4	4	8	8	8	8	0.33	0.08	0.24	0.2	0.5	0	0.25	0	0	0.1	0.24	0.22
<i>Bangladesh</i>	4	4	4	4	6	6	6	7	0.79	N/A	N/A	1	0.83	N/A	N/A	N/A	0.43	N/A	N/A	1
<i>Benin</i>	4	4	3	3	8	8	8	8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Burkina Faso</i>	4	4	3	3	8	8	8	8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Cameroon</i>	4	4	4	N/A	8	8	8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Chad</i>	4	4	4	N/A	8	8	8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Egypt</i>	4	4	4	4	6	8	8	8	1	1	0.33	0.83	N/A	1	0.5	1	1	1	0.32	0.8
<i>Gabon</i>	4	4	4	N/A	8	8	8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Gambia</i>	4	4	4	4	7	8	8	8	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0
<i>Guinea</i>	N/A	4	N/A	N/A	N/A	8	N/A	N/A	N/A	0.33	N/A	N/A	N/A	1	N/A	N/A	N/A	0	N/A	N/A
<i>Guyana</i>	4	4	4	4	7	8	8	8	0.25	N/A	N/A	0	0.33	N/A	N/A	N/A	0	1	0.33	N/A
<i>Indonesia</i>	4	4	4	4	7	8	8	8	N/A	N/A	N/A	0.08	N/A	N/A	N/A	0.14	0.6	N/A	0	0
<i>Iraq</i>	N/A	N/A	N/A	4	N/A	N/A	N/A	8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.25	N/A	N/A	N/A	N/A
<i>Jordan</i>	4	4	4	3	8	7	8	8	N/A	N/A	N/A	0.7	N/A	N/A	N/A	0.83	N/A	0.8	N/A	0.5
<i>Kazakhstan</i>	2	2.67	3	N/A	8	8	7	8	N/A	N/A	0	N/A	N/A	N/A	0	0.67	N/A	N/A	N/A	N/A
<i>Kuwait</i>	4	4	4	2	5	6	8	8	N/A	N/A	N/A	0.41	N/A	N/A	N/A	0	N/A	N/A	0.71	0.4375
<i>Kyrgyz Republic</i>	4	4	3	4	8	8	8	8	0	N/A	0	0.33	0	N/A	0	0	0	N/A	N/A	0.375
<i>Lebanon</i>	4	4	3	4	8	8	8	8	0	N/A	0	0	N/A	N/A	0	N/A	0	N/A	0	0
<i>Malaysia</i>	3	3	3	3	7	7	8	8	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0

Entry Regulations	Limitations on Foreign Bank Entry/Ownership Range 0-4				Entry into Banking Requirements Range 0-8				Fraction of Entry Applications Denied (Percentage)				Domestic Denials (Fraction)				Foreign Denials (Fraction)				
Maldives	4	4	4	4	7	6.4	8	8	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	1	N/A	0.8	0	
Mali	4	4	3	3	8	8	8	8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mauritius	4	4	4	4	8	7	8	8	N/A	N/A	0	N/A	N/A	N/A	0	0	N/A	N/A	0	N/A	
Morocco	4	4	4	4	8	8	8	8	N/A	0	0.33	0	0	0	0	0	N/A	N/A	0.5	0	
Mozambique	4	4	4	4	8	8	8	8	N/A	N/A	N/A	0	N/A	N/A	N/A	0	N/A	N/A	0	0	
Niger	4	4	3	3	8	8	8	8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Nigeria	3	3	3	3	8	8	8	8	0	N/A	N/A	N/A	0	N/A	N/A	N/A	0	N/A	N/A	N/A	
Oman	N/A	4	4	1	8	8	8	8	N/A	N/A	0.8	0	0	N/A	1	0	N/A	N/A	0.75	0	
Pakistan	4	4	4	4	7	7	8	8	N/A	N/A	N/A	0	N/A	0.92	N/A	0	N/A	N/A	0	0	
Qatar	N/A	4	N/A	N/A	8	4	8	6.86	0	N/A	N/A	N/A	0	N/A	N/A	0	N/A	N/A	N/A	N/A	
Romania	4	4	4	4	8	8	8	8	0.35	N/A	N/A	0.14	0.375	0.5	N/A	0.67	0.25	N/A	0	0.06	
Saudi Arabia	4	4	4	N/A	8	8	8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	
Senegal	4	4	3	3	8	8	8	8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Tajikistan	4	4	4	4	8	8	7	8	0.2	N/A	0.2	0	0.14	0	1	0	1	N/A	0	0	
Togo	4	4	3	3	8	8	8	8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Tunisia	4	4	4	4	8	8	8	8	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	
Turkey	4	4	4	4	7	7	8	8	N/A	0.58	N/A	0.11	N/A	0.71	N/A	0	N/A	0.42	N/A	0.13	
Turkmenistan	N/A	2.67	N/A	N/A	8	8	8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Uganda	3	3	3	3	8	8	8	8	N/A	N/A	N/A	0.17	N/A	N/A	N/A	0	N/A	N/A	0.25	0.22	
United Arab Emirates	4	4	4	3	8	8	8	8	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	
Yemen	N/A	N/A	N/A	4	N/A	N/A	N/A	8	N/A	N/A	N/A	0.8	N/A	N/A	N/A	1	N/A	N/A	N/A	0.67	

Source: World Bank, Bank Regulation and Supervision Survey

Table 64: External Governance Variables

External Governance Variables	Strength of External Audit Range 0-7				Financial Statement Transparency Range 0-6				Accounting Practices Range 0-1				External Ratings and Creditor Monitoring Range 0-5				External Governance Index Range 0-19			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>Surveys</i>																				
<i>Albania</i>	6	5.8	5.8	N/A	3	4	3.6	N/A	N/A	1	N/A	N/A	1.25	2	N/A	N/A	N/A	N/A	N/A	N/A
<i>Algeria</i>	7	7	7	N/A	4.5	4	4	N/A	1	1	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Azerbaijan</i>	5	6	5.8	N/A	4	4	4.5	N/A	N/A	1	N/A	N/A	2.5	2	N/A	N/A	N/A	13	N/A	N/A
<i>Bahrain</i>	7	6	7	7	6	6	6	6	1	1	1	1	1	N/A	3	N/A	15	N/A	17	N/A
<i>Bangladesh</i>	7	7	7	6	4	4.8	5	5	1	1	1	1	1.25	N/A	N/A	4	N/A	N/A	N/A	16
<i>Benin</i>	7	7	7	7	6	5	5	5	0	1	1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Burkina Faso</i>	7	7	7	7	6	5	5	5	0	1	1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Cameroon</i>	7	7	6	N/A	4.5	4	4	N/A	N/A	1	0	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Chad</i>	7	7	6	N/A	4.5	4	4	N/A	N/A	1	0	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Egypt</i>	7	7	7	7	5	6	6	6	1	1	1	1	1	3	3	2	14	17	17	16
<i>Gabon</i>	7	7	6	N/A	4.5	4	4	N/A	N/A	1	0	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Gambia</i>	3	3	5.25	6	4	3	3.6	3.6	N/A	1	N/A	0	0	N/A	N/A	2	N/A	N/A	N/A	N/A
<i>Guinea</i>	N/A	7	N/A	N/A	N/A	6	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Guyana</i>	5	6	7	7	5	4	5	6	1	1	1	1	1	2	N/A	2	12	13	N/A	16
<i>Indonesia</i>	5	7	7	7	4	6	5	6	1	1	1	1	2.5	N/A	3	3	N/A	N/A	16	17
<i>Iraq</i>	N/A	N/A	N/A	7	N/A	N/A	N/A	5	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Jordan</i>	7	6	6	7	5	5	5	6	1	1	1	1	1.25	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Kazakhstan</i>	7	7	5	N/A	3	3	4	2	0	0	0	N/A	1.25	2	N/A	N/A	N/A	12	N/A	N/A
<i>Kuwait</i>	6	6	7	6	6	6	6	6	1	1	1	1	3	4	N/A	N/A	N/A	17	N/A	N/A
<i>Kyrgyz Republic</i>	5	4	N/A	5	4	5	5	4	1	1	1	1	1.25	N/A	2	N/A	N/A	N/A	14	N/A
<i>Lebanon</i>	7	7	7	7	6	5	5	6	1	1	1	1	2	N/A	2	N/A	16	N/A	15	N/A
<i>Malaysia</i>	7	6	7	5	5	6	6	5	1	1	1	1	2	3	3	3	15	16	17	14

External Governance Variables	Strength of External Audit Range 0-7				Financial Statement Transparency Range 0-6				Accounting Practices Range 0-1				External Ratings and Creditor Monitoring Range 0-5				External Governance Index Range 0-19			
<i>Maldives</i>	6	7	6	7	3	N/A	4	6	1	1	1	1	0	N/A	N/A	2	N/A	N/A	N/A	16
<i>Mali</i>	7	7	7	7	6	5	5	5	0	1	1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Mauritius</i>	6	6	7	7	5	5	6	5	1	1	1	1	1.25	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Morocco</i>	4	6	6	7	5	6	5	5	0	0	1	0	1	2	2	N/A	10	14	14	N/A
<i>Mozambique</i>	7	7	7	5	6	6	3	6	1	1	1	1	N/A	N/A	N/A	0	N/A	N/A	N/A	12
<i>Niger</i>	7	7	7	7	6	5	5	5	0	1	1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Nigeria</i>	4	6	5.8	5.6	5	5	5	6	1	1	1	1	1	3	0	3	11	15	N/A	N/A
<i>Oman</i>	6	7	7	7	5	6	3	5	1	1	1	1	2.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Pakistan</i>	7	7	7	7	6	5	6	6	1	1	1	1	2	N/A	3	4	N/A	N/A	17	18
<i>Qatar</i>	6	6	N/A	7	6	6	6	6	1	1	1	1	1.67	N/A	N/A	2.5	N/A	N/A	N/A	N/A
<i>Romania</i>	6	5	6	7	3	4	4	5	0	1	0	0	2.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Saudi Arabia</i>	7	7	6	N/A	6	6	6	N/A	1	1	1	N/A	2.5	N/A	3	N/A	N/A	N/A	16	N/A
<i>Senegal</i>	7	7	7	7	6	5	5	5	0	1	1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Tajikistan</i>	6	5	7	7	4	3	4.5	2.4	1	1	1	0	2.5	N/A	N/A	N/A	N/A	15	N/A	15
<i>Togo</i>	7	7	7	7	6	5	5	5	0	1	1	0	N/A	N/A	N/A	N/A	N/A	N/A	16	17
<i>Tunisia</i>	7	7	7	7	3.6	3	3.6	4	N/A	1	N/A	1	N/A	3	N/A	N/A	N/A	N/A	N/A	N/A
<i>Turkey</i>	7	7	7	7	4	6	6	5	1	1	1	1	1.25	N/A	N/A	3	N/A	14	N/A	N/A
<i>Turkmenistan</i>	5	3	4.2	N/A	2	3	2.4	N/A	N/A	0	N/A	N/A	2.5	N/A	N/A	N/A	N/A	N/A	N/A	16
<i>Uganda</i>	7	7	7	7	6	6	3	6	1	1	1	1	N/A	N/A	N/A	2	N/A	N/A	N/A	N/A
<i>United Arab Emirates</i>	7	7	7	7	6	6	6	6	1	1	1	1	N/A	N/A	N/A	N/A	13	N/A	16	14
<i>Yemen</i>	N/A	N/A	N/A	7	N/A	N/A	N/A	4.8	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Source: World Bank, Bank Regulation and Supervision Survey

Table 65: External Governance Variables

External Governance Variables	Strength of External Audit Range 0-7				Financial Statement Transparency Range 0-6				Accounting Practices Range 0-1				External Ratings and Creditor Monitoring Range 0-5				External Governance Index Range 0-19			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>Surveys</i>																				
<i>Albania</i>	6	5.8	5.8	N/A	3	4	3.6	N/A	N/A	1	N/A	N/A	1.25	2	N/A	N/A	N/A	N/A	N/A	N/A
<i>Algeria</i>	7	7	7	N/A	4.5	4	4	N/A	1	1	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Azerbaijan</i>	5	6	5.8	N/A	4	4	4.5	N/A	N/A	1	N/A	N/A	2.5	2	N/A	N/A	N/A	13	N/A	N/A
<i>Bahrain</i>	7	6	7	7	6	6	6	6	1	1	1	1	1	N/A	3	N/A	15	N/A	17	N/A
<i>Bangladesh</i>	7	7	7	6	4	4.8	5	5	1	1	1	1	1.25	N/A	N/A	4	N/A	N/A	N/A	16
<i>Benin</i>	7	7	7	7	6	5	5	5	0	1	1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Burkina Faso</i>	7	7	7	7	6	5	5	5	0	1	1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Cameroon</i>	7	7	6	N/A	4.5	4	4	N/A	N/A	1	0	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Chad</i>	7	7	6	N/A	4.5	4	4	N/A	N/A	1	0	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Egypt</i>	7	7	7	7	5	6	6	6	1	1	1	1	1	3	3	2	14	17	17	16
<i>Gabon</i>	7	7	6	N/A	4.5	4	4	N/A	N/A	1	0	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Gambia</i>	3	3	5.25	6	4	3	3.6	3.6	N/A	1	N/A	0	0	N/A	N/A	2	N/A	N/A	N/A	N/A
<i>Guinea</i>	N/A	7	N/A	N/A	N/A	6	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Guyana</i>	5	6	7	7	5	4	5	6	1	1	1	1	1	2	N/A	2	12	13	N/A	16
<i>Indonesia</i>	5	7	7	7	4	6	5	6	1	1	1	1	2.5	N/A	3	3	N/A	N/A	16	17
<i>Iraq</i>	N/A	N/A	N/A	7	N/A	N/A	N/A	5	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Jordan</i>	7	6	6	7	5	5	5	6	1	1	1	1	1.25	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Kazakhstan</i>	7	7	5	N/A	3	3	4	2	0	0	0	N/A	1.25	2	N/A	N/A	N/A	12	N/A	N/A
<i>Kuwait</i>	6	6	7	6	6	6	6	6	1	1	1	1	3	4	N/A	N/A	N/A	17	N/A	N/A
<i>Kyrgyz Republic</i>	5	4	N/A	5	4	5	5	4	1	1	1	1	1.25	N/A	2	N/A	N/A	N/A	14	N/A
<i>Lebanon</i>	7	7	7	7	6	5	5	6	1	1	1	1	2	N/A	2	N/A	16	N/A	15	N/A
<i>Malaysia</i>	7	6	7	5	5	6	6	5	1	1	1	1	2	3	3	3	15	16	17	14

External Governance Variables	Strength of External Audit Range 0-7				Financial Statement Transparency Range 0-6				Accounting Practices Range 0-1				External Ratings and Creditor Monitoring Range 0-5				External Governance Index Range 0-19			
<i>Maldives</i>	6	7	6	7	3	N/A	4	6	1	1	1	1	0	N/A	N/A	2	N/A	N/A	N/A	16
<i>Mali</i>	7	7	7	7	6	5	5	5	0	1	1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Mauritius</i>	6	6	7	7	5	5	6	5	1	1	1	1	1.25	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Morocco</i>	4	6	6	7	5	6	5	5	0	0	1	0	1	2	2	N/A	10	14	14	N/A
<i>Mozambique</i>	7	7	7	5	6	6	3	6	1	1	1	1	N/A	N/A	N/A	0	N/A	N/A	N/A	12
<i>Niger</i>	7	7	7	7	6	5	5	5	0	1	1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Nigeria</i>	4	6	5.8	5.6	5	5	5	6	1	1	1	1	1	3	0	3	11	15	N/A	N/A
<i>Oman</i>	6	7	7	7	5	6	3	5	1	1	1	1	2.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Pakistan</i>	7	7	7	7	6	5	6	6	1	1	1	1	2	N/A	3	4	N/A	N/A	17	18
<i>Qatar</i>	6	6	N/A	7	6	6	6	6	1	1	1	1	1.67	N/A	N/A	2.5	N/A	N/A	N/A	N/A
<i>Romania</i>	6	5	6	7	3	4	4	5	0	1	0	0	2.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Saudi Arabia</i>	7	7	6	N/A	6	6	6	N/A	1	1	1	N/A	2.5	N/A	3	N/A	N/A	N/A	16	N/A
<i>Senegal</i>	7	7	7	7	6	5	5	5	0	1	1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Tajikistan</i>	6	5	7	7	4	3	4.5	2.4	1	1	1	0	2.5	N/A	N/A	N/A	N/A	15	N/A	15
<i>Togo</i>	7	7	7	7	6	5	5	5	0	1	1	0	N/A	N/A	N/A	N/A	N/A	N/A	16	17
<i>Tunisia</i>	7	7	7	7	3.6	3	3.6	4	N/A	1	N/A	1	N/A	3	N/A	N/A	N/A	N/A	N/A	N/A
<i>Turkey</i>	7	7	7	7	4	6	6	5	1	1	1	1	1.25	N/A	N/A	3	N/A	14	N/A	N/A
<i>Turkmenistan</i>	5	3	4.2	N/A	2	3	2.4	N/A	N/A	0	N/A	N/A	2.5	N/A	N/A	N/A	N/A	N/A	N/A	16
<i>Uganda</i>	7	7	7	7	6	6	3	6	1	1	1	1	N/A	N/A	N/A	2	N/A	N/A	N/A	N/A
<i>United Arab Emirates</i>	7	7	7	7	6	6	6	6	1	1	1	1	N/A	N/A	N/A	N/A	13	N/A	16	14
<i>Yemen</i>	N/A	N/A	N/A	7	N/A	N/A	N/A	4.8	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Source: World Bank, Bank Regulation and Supervision Survey

Table 66: Market Structure Indicators

<i>Market Structure Indicators</i>	<i>Bank Concentration (Deposits) (percentage)</i>				<i>Bank Concentration (Assets) (percentage)</i>				<i>Foreign-Owned Banks (percentage)</i>				<i>Government-Owned Banks (percentage)</i>			
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<i>Surveys</i>																
<i>Albania</i>	N/A	88	N/A	N/A	0	86.7	N/A	N/A	38.6	46	N/A	N/A	61.4	54	N/A	N/A
<i>Algeria</i>	N/A	94	90	N/A	N/A	95	91	N/A	N/A	3.94	10	N/A	N/A	95.78	90	N/A
<i>Azerbaijan</i>	N/A	87	N/A	N/A	82.1	N/A	N/A	N/A	16.3	4.6	N/A	N/A	4.4	58.3	N/A	N/A
<i>Bahrain</i>	N/A	83	32.2	N/A	70.53	81	37.4	N/A	28.04	72	85	N/A	3.7	0	1	N/A
<i>Bangladesh</i>	N/A	N/A	45.91	39.59	64.8	N/A	46.46	38.19	6.43	N/A	9.29	6.59	69.86	N/A	46.84	34.07
<i>Benin</i>	N/A	N/A	N/A	N/A	N/A	99	N/A	N/A	N/A	91	N/A	N/A	N/A	0	N/A	N/A
<i>Burkina Faso</i>	N/A	N/A	N/A	N/A	N/A	84	N/A	N/A	N/A	56	N/A	N/A	N/A	0	N/A	N/A
<i>Cameroon</i>	N/A	0	N/A	N/A	N/A	0	N/A	N/A	N/A	0	N/A	N/A	N/A	0	N/A	N/A
<i>Chad</i>	N/A	0	N/A	N/A	N/A	0	N/A	N/A	N/A	0	N/A	N/A	N/A	0	N/A	N/A
<i>Egypt</i>	N/A	63.1	63	N/A	N/A	61.8	61.4	N/A	4.2	13.3	21.7	N/A	66.6	64.7	66.7	N/A
<i>Gabon</i>	N/A	0	N/A	N/A	N/A	0	N/A	N/A	N/A	0	N/A	N/A	N/A	0	N/A	N/A
<i>Gambia</i>	N/A	98.75	N/A	75.8	100	98.31	N/A	72.1	76.41	95.81	N/A	79.5	0	N/A	N/A	0
<i>Guinea</i>	N/A	93.4	N/A	N/A	N/A	93.8	N/A	N/A	N/A	90	N/A	N/A	N/A	0	N/A	N/A
<i>Guyana</i>	N/A	90	97	97	13.6	90	97	97	16	19	58	56	19	15	0	0
<i>Indonesia</i>	N/A	N/A	51.94	53.28	N/A	N/A	50.79	50.3	7	N/A	39.7	34.18	44	N/A	38.48	38.41
<i>Iraq</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Jordan</i>	N/A	67.3	54.4	N/A	68.1	61.9	52.1	N/A	68	64.3	9.3	N/A	0	0	0	N/A
<i>Kazakhstan</i>	N/A	71.94	75.95	69.66	70	70.21	74.07	71.83	13	17.9	4.9	17.37	1.1	0.5	0.18	23.12
<i>Kuwait</i>	N/A	98.4	87.65	N/A	N/A	88.3	87.5	N/A	0	N/A	N/A	N/A	0	0	N/A	N/A
<i>Kyrgyz Republic</i>	N/A	65.5	35.5	65	45.3	51.4	63.6	55.3	24.8	24.7	44.9	45.6	14.4	16	4.8	20.3
<i>Lebanon</i>	N/A	41.4	48.3	N/A	39.7	40.4	48.1	N/A	27.2	15.86	60.4	N/A	0	2	N/A	N/A

Market Structure Indicators	Bank Concentration (Deposits) (percentage)				Bank Concentration (Assets) (percentage)				Foreign-Owned Banks (percentage)				Government-Owned Banks (percentage)			
Malaysia	N/A	57.1	56.9	58.89	30	55.7	56.1	59.29	18	19	21.4	21.55	0	0	0	0
Maldives	N/A	N/A	100	98.2	N/A	N/A	100	97.8	25	N/A	51.3	61.3	75	N/A	48.7	38.7
Mali	N/A	N/A	N/A	N/A	N/A	85.8	N/A	N/A	N/A	67	N/A	N/A	N/A	21.8	N/A	N/A
Mauritius	N/A	90.1	79.59	71	90.7	90.8	70.75	65	25.8	24.5	66.28	68	0	0	2.4	1
Morocco	N/A	75	82	N/A	75	66.48	79.6	N/A	18.78	20.8	21.5	N/A	23.9	35	29	N/A
Mozambique	N/A	N/A	93.92	91.61	N/A	N/A	91.2	91.61	N/A	N/A	94.54	91.61	N/A	N/A	N/A	0
Niger	N/A	N/A	N/A	N/A	N/A	96.8	N/A	N/A	N/A	73.4	N/A	N/A	N/A	0	N/A	N/A
Nigeria	N/A	42.99	46.15	46.66	51.18	41.1	41.41	47.62	0	0	3.37	5.58	13	4.65	4.02	0
Oman	N/A	85	86	N/A	76.7	86	86.9	N/A	11.1	11.9	0	N/A	0	0	0	N/A
Pakistan	N/A	69.01	57	53.3	N/A	64.71	54	51	N/A	20.07	47.9	58.5	N/A	53.79	19.8	21
Qatar	N/A	81.6	N/A	74.58	76.4	81.5	N/A	73.68	14.9	N/A	N/A	0	43.4	46	N/A	N/A
Romania	N/A	65.8	57	61.3	59	65.2	58.7	56.8	8	47.3	N/A	84.1	70	41.8	N/A	7.9
Saudi Arabia	N/A	74	68	N/A	69.3	73	67	N/A	0	20.7	N/A	N/A	0	21.4	19.8	N/A
Senegal	N/A	N/A	N/A	N/A	N/A	76.2	N/A	N/A	N/A	78.7	N/A	N/A	N/A	0	N/A	N/A
Tajikistan	N/A	93.68	51	87	N/A	87.27	79	84	6.2	50	4.7	6.4	7.4	4.6	9.7	14
Togo	N/A	N/A	N/A	N/A	N/A	93.2	N/A	N/A	N/A	17.5	N/A	N/A	N/A	51	N/A	N/A
Tunisia	N/A	64.5	N/A	N/A	N/A	64.8	N/A	N/A	N/A	15.7	N/A	N/A	N/A	42.7	N/A	N/A
Turkey	N/A	57	N/A	63.09	50	55.64	N/A	60.14	6.6	3.47	N/A	16.56	35	31.82	N/A	31.6
Turkmenistan	N/A	93.3	N/A	N/A	92.2	96	N/A	N/A	1.07	N/A	N/A	N/A	97.1	96	N/A	N/A
Uganda	N/A	N/A	73.44	60.41	N/A	N/A	71.21	60.73	N/A	N/A	75.69	75.16	N/A	N/A	0	3.21
United Arab Emirates	N/A	50	N/A	N/A	N/A	50	N/A	N/A	N/A	27	N/A	N/A	N/A	35	N/A	N/A
Yemen	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Source: World Bank, Bank Regulation and Supervision Survey



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